Reporting Limit Outliers

Lab Reporting Batch ID: DX126 | Laboratory: LL

EDD Filename: DX126_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA6-SB-080911	1,2,3,4,6,7,8-HPCDD	JB	4.38	9.59	PQL	pg/L	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.650	9.59	PQL	pg/L	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.550	9.59	PQL	pg/L	
	1,2,3,4,7,8-HXCDF	JBQ	0.216	9.59	PQL	pg/L	
	1,2,3,6,7,8-HXCDD	JBQ	0.366	9.59	PQL	pg/L	
	1,2,3,6,7,8-HXCDF	JBQ	0.223	9.59	PQL	pg/L	
	1,2,3,7,8,9-HXCDD	JBQ	0.452	9.59	PQL	pg/L	
	1,2,3,7,8-PECDD	JBQ	0.238	9.59	PQL	pg/L	
	1,2,3,7,8-PECDF	JBQ	0.163	9.59	PQL	pg/L	
	2,3,4,6,7,8-HXCDF	JBQ	0.162	9.59	PQL	pg/L	
	2,3,4,7,8-PECDF	JBQ	0.292	9.59	PQL	pg/L	
	2,3,7,8-TCDD	JBQ	0.344	1.92	PQL	pg/L	
	OCDD	JBQ	7.99	19.2	PQL	pg/L	
	OCDF	JB	1.02	19.2	PQL	pg/L	

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP24-SA5DN-QC-080911	1,2,3,4,6,7,8-HPCDD	JB	0.699	5.51	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.122	5.51	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0441	5.51	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0520	5.51	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0763	5.51	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0589	5.51	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0357	5.51	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0440	5.51	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.0396	5.51	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.140	5.51	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.0543	5.51	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0279	5.51	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JQ	0.121	5.51	PQL	ng/Kg	
	OCDD	JB	4.76	11.0	PQL	ng/Kg	
	OCDF	JQ	0.273	11.0	PQL	ng/Kg	
SL-009-SA5DN-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.555	5.51	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.0752	5.51	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0715	5.51	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0813	5.51	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	J	0.0413	5.51	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.125	5.51	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0278	5.51	PQL	ng/Kg	
	2,3,4,7,8-PECDF	J	0.100	5.51	PQL	ng/Kg	
	OCDD	JB	4.04	11.0	PQL	ng/Kg	
	OCDF	JQ	0.140	11.0	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX126 **Laboratory: LL**

EDD Filename: DX126_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-009-SA5DN-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JBQ	1.08	5.56	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.187	5.56	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.127	5.56	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.135	5.56	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.194	5.56	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.129	5.56	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.0954	5.56	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JB	0.277	5.56	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.221	5.56	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.142	5.56	PQL	ng/Kg	
	2,3,4,7,8-PECDF	J	0.186	5.56	PQL	ng/Kg	
	OCDD	JB	9.81	11.1	PQL	ng/Kg	
	OCDF	J	0.381	11.1	PQL	ng/Kg	
SL-011-SA5DN-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.429	5.60	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0885	5.60	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0521	5.60	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0755	5.60	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0752	5.60	PQL	ng/Kg	J (all detects)
	2,3,4,6,7,8-HXCDF	JBQ	0.0395	5.60	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JQ	0.0642	5.60	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.105	1.12	PQL	ng/Kg	
	OCDD	JB	3.03	11.2	PQL	ng/Kg	
	OCDF	JQ	0.225	11.2	PQL	ng/Kg	
SL-012-SA5DN-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	1.13	5.04	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.148	5.04	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.102	5.04	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.108	5.04	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.104	5.04	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.0749	5.04	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.0624	5.04	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JQ	0.0374	5.04	PQL	ng/Kg	
	OCDD	JB	8.10	10.1	PQL	ng/Kg	
	OCDF	J	0.534	10.1	PQL	ng/Kg	
SL-012-SA5DN-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	0.913	5.80	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.110	5.80	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0600	5.80	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0380	5.80	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0236	5.80	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0566	5.80	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JQ	0.0363	5.80	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.0404	5.80	PQL	ng/Kg	
	OCDD	JB	6.21	11.6	PQL	ng/Kg	
	OCDF	JQ	0.182	11.6	PQL	ng/Kg	
SL-031-SA6-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.459	5.28	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.209	5.28	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0388	5.28	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0585	5.28	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.106	5.28	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.197	5.28	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.101	5.28	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.316	5.28	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	J	0.232	5.28	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.155	5.28	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.273	5.28	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0634	5.28	PQL	ng/Kg	
	2,3,4,7,8-PECDF	J	0.216	5.28	PQL	ng/Kg	
	OCDD	JB	2.31	10.6	PQL	ng/Kg	
	OCDF	JQ	0.448	10.6	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX126 **Laboratory: LL**

EDD Filename: DX126_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-031-SA6-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.321	5.44	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0700	5.44	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0586	5.44	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.189	5.44	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.227	5.44	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.190	5.44	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.282	5.44	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	J	0.224	5.44	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JB	0.333	5.44	PQL	ng/Kg	
	1,2,3,7,8-PECDF	J	0.300	5.44	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0811	5.44	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JQ	0.280	5.44	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0974	1.09	PQL	ng/Kg	
	OCDD	JB	1.45	10.9	PQL	ng/Kg	
	OCDF	J	0.145	10.9	PQL	ng/Kg	
SL-042-SA6-SB-2.5-3.5	1,2,3,4,6,7,8-HPCDD	JBQ	0.451	5.28	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0336	5.28	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.305	5.28	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0525	5.28	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.938	5.28	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	J	0.231	5.28	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JB	0.134	5.28	PQL	ng/Kg	
	1,2,3,7,8-PECDF	J	0.117	5.28	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0338	5.28	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JQ	0.0695	5.28	PQL	ng/Kg	
	OCDD	JBQ	1.71	10.6	PQL	ng/Kg	
	OCDF	J	0.152	10.6	PQL	ng/Kg	
SL-044-SA6-SB-2.5-3.5	1,2,3,4,6,7,8-HPCDF	JB	1.73	5.93	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0642	5.93	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.221	5.93	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.626	5.93	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.160	5.93	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.420	5.93	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.122	5.93	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.0862	5.93	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.177	5.93	PQL	ng/Kg	
	2,3,4,7,8-PECDF	J	0.0891	5.93	PQL	ng/Kg	
	OCDF	J	2.00	11.9	PQL	ng/Kg	
SL-049-SA6-SB-2.5-3.5	1,2,3,4,6,7,8-HPCDD	JBQ	0.596	5.34	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.0463	5.34	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.153	5.34	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0324	5.34	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.318	5.34	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.0880	5.34	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.0684	5.34	PQL	ng/Kg	
	1,2,3,7,8-PECDF	J	0.0455	5.34	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JQ	0.0657	5.34	PQL	ng/Kg	
	OCDD	JBQ	1.49	10.7	PQL	ng/Kg	
	OCDF	J	0.126	10.7	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX126 **Laboratory: LL**

EDD Filename: DX126_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-083-SA5DN-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	2.91	5.56	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.190	5.56	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JQ	0.0449	5.56	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0584	5.56	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0504	5.56	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.191	5.56	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.231	5.56	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0701	5.56	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.111	5.56	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0369	5.56	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0869	5.56	PQL	ng/Kg	
	OCDF	J	0.751	11.1	PQL	ng/Kg	
SL-153-SA5DN-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.195	5.67	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0366	5.67	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.271	5.67	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.383	5.67	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	J	0.849	5.67	PQL	ng/Kg	
	1,2,3,7,8-PECDF	J	0.109	5.67	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0387	5.67	PQL	ng/Kg	
	OCDD	JB	0.939	11.3	PQL	ng/Kg	
SL-153-SA5DN-SB-7.0-8.0	1,2,3,4,6,7,8-HPCDD	JB	0.344	5.55	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0684	5.55	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0970	5.55	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0418	5.55	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0802	5.55	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.149	5.55	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.0512	5.55	PQL	ng/Kg	
	2,3,4,7,8-PECDF	J	0.0619	5.55	PQL	ng/Kg	
	OCDD	JB	0.999	11.1	PQL	ng/Kg	
	OCDF	JQ	0.141	11.1	PQL	ng/Kg	
SL-273-SA6-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.402	5.25	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.0392	5.25	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0470	5.25	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0695	5.25	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0470	5.25	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.0550	5.25	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JQ	0.0845	5.25	PQL	ng/Kg	
	OCDD	JBQ	0.616	10.5	PQL	ng/Kg	
	OCDF	JQ	0.183	10.5	PQL	ng/Kg	
SL-273-SA6-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	0.478	5.65	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.131	5.65	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0495	5.65	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.109	5.65	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0856	5.65	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.226	5.65	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	J	0.129	5.65	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.0992	5.65	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0332	5.65	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JQ	0.0772	5.65	PQL	ng/Kg	
	OCDD	JBQ	1.09	11.3	PQL	ng/Kg	
	OCDF	JQ	0.228	11.3	PQL	ng/Kg	

Enclosure II

Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: August 8 through August 9, 2011

LDC Report Date: December 28, 2011

Matrix: Soil/Water

Parameters: Dioxins/Dibenzofurans

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DX126

Sample Identification

SL-083-SA5DN-SB-4.0-5.0
SL-153-SA5DN-SB-4.0-5.0
SL-153-SA5DN-SB-7.0-8.0
SL-273-SA6-SB-4.0-5.0
SL-273-SA6-SB-9.0-10.0
SL-031-SA6-SB-4.0-5.0
SL-031-SA6-SB-9.0-10.0
SL-042-SA6-SB-2.5-3.5
SL-044-SA6-SB-2.5-3.5
SL-049-SA6-SB-2.5-3.5
EB-SA6-SB-080911
SL-011-SA5DN-SB-4.0-5.0
SL-012-SA5DN-SB-4.0-5.0
SL-012-SA5DN-SB-9.0-10.0
SL-009-SA5DN-SB-4.0-5.0
SL-009-SA5DN-SB-9.0-10.0
DUP24-SA5DN-QC-080911
SL-009-SA5DN-SB-4.0-5.0MS
SL-009-SA5DN-SB-4.0-5.0MSD

Introduction

This data review covers 18 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 1613B for Polychlorinated Dioxins/Dibenzofurans.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and the USEPA Contract Laboratory Program National Functional Guidelines for Polychlorinated Dioxins/Dibenzofurans Data Review (September 2005).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. HRGC/HRMS Instrument Performance Check

Instrument performance was checked at the required daily frequency.

The chromatographic resolution between 2,3,7,8-TCDD and the peaks representing any other unlabeled TCDD isomers was resolved with a valley of less than or equal to 25%.

PFK and static resolving power were within validation criteria.

III. Initial Calibration

A five point initial calibration was performed as required by the method.

Percent relative standard deviations (%RSD) were less than or equal to 20.0% for unlabeled compounds and less than or equal to 35.0% for labeled compounds.

The ion abundance ratios for all PCDDs and PCDFs were within validation criteria.

The minimum S/N ratio was greater than or equal to 10 for each unlabeled compound and labeled compound.

IV. Routine Calibration (Continuing)

Routine calibration was performed at the required frequencies.

All of the routine calibration percent differences (%D) between the initial calibration RRF and the routine calibration RRF were within QC limits.

The ion abundance ratios for all PCDDs and PCDFs were within validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated dioxin/dibenzofuran contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Extraction Date	Compound	Concentration	Associated Samples
BLK224001	8/12/11	2,3,7,8-TCDF 2,3,7,8-TCDD 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD OCDF	0.139 pg/L 0.457 pg/L 0.280 pg/L 0.450 pg/L 0.437 pg/L 0.405 pg/L 0.218 pg/L 0.268 pg/L 0.200 pg/L 0.373 pg/L 0.458 pg/L 0.595 pg/L 0.817 pg/L 3.99 pg/L 0.551 pg/L 8.97 pg/L 1.57 pg/L	All water samples in SDG DX126
BLK231004	8/19/11	1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD	0.0911 ng/Kg 0.0624 ng/Kg 0.0816 ng/Kg 0.0440 ng/Kg 0.0497 ng/Kg 0.0511 ng/Kg 0.0461 ng/Kg 0.206 ng/Kg 0.0425 ng/Kg 0.280 ng/Kg	SL-153-SA5DN-SB-4.0-5.0 SL-153-SA5DN-SB-7.0-8.0 SL-273-SA6-SB-4.0-5.0 SL-273-SA6-SB-9.0-10.0 SL-031-SA6-SB-4.0-5.0 SL-031-SA6-SB-9.0-10.0 SL-042-SA6-SB-2.5-3.5 SL-044-SA6-SB-2.5-3.5 SL-049-SA6-SB-2.5-3.5 SL-011-SA5DN-SB-4.0-5.0 SL-012-SA5DN-SB-4.0-5.0 SL-012-SA5DN-SB-9.0-10.0 SL-009-SA5DN-SB-4.0-5.0 SL-009-SA5DN-SB-9.0-10.0 DUP24-SA5DN-QC-080911
BLK238001	8/19/11	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD OCDD	0.0365 ng/Kg 0.0544 ng/Kg 0.0682 ng/Kg 0.0519 ng/Kg 0.0537 ng/Kg 0.0234 ng/Kg 0.0513 ng/Kg 0.0428 ng/Kg 0.0356 ng/Kg 0.0494 ng/Kg 0.236 ng/Kg 0.426 ng/Kg	SL-083-SA5DN-SB-4.0-5.0

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound	Reported Concentration	Modified Final Concentration
EB-SA6-SB-080911	2,3,7,8-TCDD	0.344 pg/L	0.344U pg/L
	1,2,3,7,8-PeCDF	0.163 pg/L	0.163U pg/L
	2,3,4,7,8-PeCDF	0.292 pg/L	0.292U pg/L
	1,2,3,7,8-PeCDD	0.238 pg/L	0.238U pg/L
	1,2,3,4,7,8-HxCDF	0.216 pg/L	0.216U pg/L
	1,2,3,6,7,8-HxCDF	0.223 pg/L	0.223U pg/L
	2,3,4,6,7,8-HxCDF	0.162 pg/L	0.162U pg/L
	1,2,3,6,7,8-HxCDD	0.366 pg/L	0.366U pg/L
	1,2,3,7,8,9-HxCDD	0.452 pg/L	0.452U pg/L
	1,2,3,4,6,7,8-HpCDF	0.650 pg/L	0.650U pg/L
	1,2,3,4,6,7,8-HpCDD	4.38 pg/L	4.38U pg/L
	1,2,3,4,7,8,9-HpCDF	0.550 pg/L	0.550U pg/L
	OCDD	7.99 pg/L	7.99U pg/L
	OCDF	1.02 pg/L	1.02U pg/L
SL-153-SA5DN-SB-4.0-5.0	2,3,4,6,7,8-HxCDF	0.0387 ng/Kg	0.0387U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.0366 ng/Kg	0.0366U ng/Kg
	1,2,3,4,6,7,8-HpCDD	0.195 ng/Kg	0.195U ng/Kg
	OCDD	0.939 ng/Kg	0.939U ng/Kg
SL-153-SA5DN-SB-7.0-8.0	1,2,3,4,7,8-HxCDF	0.0418 ng/Kg	0.0418U ng/Kg
	1,2,3,6,7,8-HxCDD	0.0802 ng/Kg	0.0802U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.0684 ng/Kg	0.0684U ng/Kg
	1,2,3,4,6,7,8-HpCDD	0.344 ng/Kg	0.344U ng/Kg
	OCDD	0.999 ng/Kg	0.999U ng/Kg
SL-273-SA6-SB-4.0-5.0	1,2,3,4,7,8-HxCDF	0.0470 ng/Kg	0.0470U ng/Kg
	1,2,3,6,7,8-HxCDF	0.0470 ng/Kg	0.0470U ng/Kg
	1,2,3,6,7,8-HxCDD	0.0695 ng/Kg	0.0695U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.0392 ng/Kg	0.0392U ng/Kg
	1,2,3,4,6,7,8-HpCDD	0.402 ng/Kg	0.402U ng/Kg
	OCDD	0.616 ng/Kg	0.616U ng/Kg
SL-273-SA6-SB-9.0-10.0	1,2,3,6,7,8-HxCDF	0.0856 ng/Kg	0.0856U ng/Kg
	2,3,4,6,7,8-HxCDF	0.0332 ng/Kg	0.0332U ng/Kg
	1,2,3,6,7,8-HxCDD	0.109 ng/Kg	0.109U ng/Kg
	1,2,3,7,8,9-HxCDD	0.226 ng/Kg	0.226U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.131 ng/Kg	0.131U ng/Kg
	1,2,3,4,6,7,8-HpCDD	0.478 ng/Kg	0.478U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0495 ng/Kg	0.0495U ng/Kg
	OCDD	1.09 ng/Kg	1.09U ng/Kg
SL-031-SA6-SB-4.0-5.0	1,2,3,7,8-PeCDD	0.155 ng/Kg	0.155U ng/Kg
	1,2,3,4,7,8-HxCDF	0.106 ng/Kg	0.106U ng/Kg
	1,2,3,6,7,8-HxCDF	0.101 ng/Kg	0.101U ng/Kg
	2,3,4,6,7,8-HxCDF	0.0634 ng/Kg	0.0634U ng/Kg
	1,2,3,6,7,8-HxCDD	0.197 ng/Kg	0.197U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.209 ng/Kg	0.209U ng/Kg
	1,2,3,4,6,7,8-HpCDD	0.459 ng/Kg	0.459U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0388 ng/Kg	0.0388U ng/Kg
SL-031-SA6-SB-9.0-10.0	1,2,3,7,8-PeCDD	0.333 ng/Kg	0.333U ng/Kg
	1,2,3,4,7,8-HxCDF	0.189 ng/Kg	0.189U ng/Kg
	1,2,3,6,7,8-HxCDF	0.190 ng/Kg	0.190U ng/Kg
	2,3,4,6,7,8-HxCDF	0.0811 ng/Kg	0.0811U ng/Kg
	1,2,3,6,7,8-HxCDD	0.227 ng/Kg	0.227U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.0700 ng/Kg	0.0700U ng/Kg
	1,2,3,4,6,7,8-HpCDD	0.321 ng/Kg	0.321U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0586 ng/Kg	0.0586U ng/Kg

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-042-SA6-SB-2.5-3.5	1,2,3,7,8-PeCDD 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD	0.134 ng/Kg 0.0525 ng/Kg 0.0338 ng/Kg 0.0336 ng/Kg 0.451 ng/Kg	0.134U ng/Kg 0.0525U ng/Kg 0.0338U ng/Kg 0.0336U ng/Kg 0.451U ng/Kg
SL-044-SA6-SB-2.5-3.5	1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8,9-HpCDF	0.122 ng/Kg 0.221 ng/Kg 0.160 ng/Kg 0.177 ng/Kg 0.0642 ng/Kg	0.122U ng/Kg 0.221U ng/Kg 0.160U ng/Kg 0.177U ng/Kg 0.0642U ng/Kg
SL-049-SA6-SB-2.5-3.5	1,2,3,7,8-PeCDD 1,2,3,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD	0.0684 ng/Kg 0.0324 ng/Kg 0.153 ng/Kg 0.0463 ng/Kg 0.596 ng/Kg	0.0684U ng/Kg 0.0324U ng/Kg 0.153U ng/Kg 0.0463U ng/Kg 0.596U ng/Kg
SL-011-SA5DN-SB-4.0-5.0	2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDD 1,2,3,4,6,7,8-HpCDF	0.0395 ng/Kg 0.0755 ng/Kg 0.0752 ng/Kg 0.429 ng/Kg 0.0885 ng/Kg	0.0395U ng/Kg 0.0755U ng/Kg 0.0752U ng/Kg 0.429U ng/Kg 0.0885U ng/Kg
SL-012-SA5DN-SB-4.0-5.0	1,2,3,7,8-PeCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF	0.0749 ng/Kg 0.102 ng/Kg 0.108 ng/Kg 0.148 ng/Kg	0.0749U ng/Kg 0.102U ng/Kg 0.108U ng/Kg 0.148U ng/Kg
SL-012-SA5DN-SB-9.0-10.0	1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF	0.0380 ng/Kg 0.0236 ng/Kg 0.0566 ng/Kg 0.110 ng/Kg 0.913 ng/Kg 0.0600 ng/Kg	0.0380U ng/Kg 0.0236U ng/Kg 0.0566U ng/Kg 0.110U ng/Kg 0.913U ng/Kg 0.0600U ng/Kg
SL-009-SA5DN-SB-4.0-5.0	2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD	0.0278 ng/Kg 0.0715 ng/Kg 0.0813 ng/Kg 0.0752 ng/Kg 0.555 ng/Kg	0.0278U ng/Kg 0.0715U ng/Kg 0.0813U ng/Kg 0.0752U ng/Kg 0.555U ng/Kg
SL-009-SA5DN-SB-9.0-10.0	1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF	0.277 ng/Kg 0.135 ng/Kg 0.142 ng/Kg 0.194 ng/Kg 0.129 ng/Kg 0.187 ng/Kg	0.277U ng/Kg 0.135U ng/Kg 0.142U ng/Kg 0.194U ng/Kg 0.129U ng/Kg 0.187U ng/Kg
DUP24-SA5DN-QC-080911	1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF	0.140 ng/Kg 0.0763 ng/Kg 0.0357 ng/Kg 0.0279 ng/Kg 0.0589 ng/Kg 0.0440 ng/Kg 0.122 ng/Kg 0.699 ng/Kg 0.0441 ng/Kg	0.140U ng/Kg 0.0763U ng/Kg 0.0357U ng/Kg 0.0279U ng/Kg 0.0589U ng/Kg 0.0440U ng/Kg 0.122U ng/Kg 0.699U ng/Kg 0.0441U ng/Kg

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-083-SA5DN-SB-4.0-5.0	1,2,3,7,8-PeCDF	0.111 ng/Kg	0.111U ng/Kg
	2,3,4,7,8-PeCDF	0.0869 ng/Kg	0.0869U ng/Kg
	1,2,3,4,7,8-HxCDF	0.0504 ng/Kg	0.0504U ng/Kg
	2,3,4,6,7,8-HxCDF	0.0369 ng/Kg	0.0369U ng/Kg
	1,2,3,6,7,8-HxCDD	0.191 ng/Kg	0.191U ng/Kg
	1,2,3,7,8,9-HxCDF	0.0701 ng/Kg	0.0701U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.190 ng/Kg	0.190U ng/Kg

Sample EB-SA6-SB-080911 was identified as an equipment blank. No polychlorinated dioxin/dibenzofuran contaminants were found with the following exceptions:

Equipment Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB-SA6-SB-080911	8/9/11	2,3,7,8-TCDD	0.344 pg/L	SL-042-SA6-SB-2.5-3.5
		1,2,3,7,8-PeCDF	0.163 pg/L	SL-044-SA6-SB-2.5-3.5
		2,3,4,7,8-PeCDF	0.292 pg/L	SL-049-SA6-SB-2.5-3.5
		1,2,3,7,8-PeCDD	0.238 pg/L	
		1,2,3,4,7,8-HxCDF	0.216 pg/L	
		1,2,3,6,7,8-HxCDF	0.223 pg/L	
		2,3,4,6,7,8-HxCDF	0.162 pg/L	
		1,2,3,6,7,8-HxCDD	0.366 pg/L	
		1,2,3,7,8,9-HxCDD	0.452 pg/L	
		1,2,3,4,6,7,8-HpCDF	0.650 pg/L	
		1,2,3,4,6,7,8-HpCDD	4.38 pg/L	
		1,2,3,4,7,8,9-HpCDF	0.550 pg/L	
		OCDD	7.99 pg/L	
		OCDF	1.02 pg/L	

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X for other contaminants) than the concentrations found in the associated field blanks.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. The percent recoveries (%R) were within the QC limits.

VIII. Regional Quality Assurance and Quality Control

Not applicable.

IX. Internal Standards

All internal standard recoveries were within QC limits.

X. Target Compound Identifications

All target compound identifications were within validation criteria.

XI. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DX126	All compounds reported below the RL.	J (all detects)	A

XII. System Performance

The system performance was acceptable.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

Samples SL-009-SA5DN-SB-4.0-5.0 and DUP24-SA5DN-QC-080911 were identified as field duplicates. No polychlorinated dioxins/dibenzofurans were detected in any of the samples with the following exceptions:

Compound	Concentration (ng/Kg)		RPD (Limits)	Flags	A or P
	SL-009-SA5DN-SB-4.0-5.0	DUP24-SA5DN-QC-080911			
1,2,3,7,8-PeCDF	0.125	0.0543	79 (≤50)	J (all detects)	A
2,3,4,7,8-PeCDF	0.100	0.121	19 (≤50)	-	-
1,2,3,7,8-PeCDD	5.51U	0.140	200 (≤50)	J (all detects) UJ (all non-detects)	A
1,2,3,4,7,8-HxCDF	5.51U	0.0763	200 (≤50)	J (all detects) UJ (all non-detects)	A

Compound	Concentration (ng/Kg)		RPD (Limits)	Flags	A or P
	SL-009-SA5DN-SB-4.0-5.0	DUP24-SA5DN-QC-080911			
1,2,3,6,7,8-HxCDF	5.51U	0.0357	200 (≤50)	J (all detects) UJ (all non-detects)	A
2,3,4,6,7,8-HxCDF	0.0278	0.0279	0 (≤50)	-	-
1,2,3,4,7,8-HxCDD	5.51U	0.0520	200 (≤50)	J (all detects) UJ (all non-detects)	A
1,2,3,6,7,8-HxCDD	0.0715	0.0589	19 (≤50)	-	-
1,2,3,7,8,9-HxCDD	0.0813	0.0440	60 (≤50)	J (all detects)	A
1,2,3,7,8,9-HxCDF	0.0413	0.0396	4 (≤50)	-	-
1,2,3,4,6,7,8-HpCDF	0.0752	0.122	47 (≤50)	-	-
1,2,3,4,6,7,8-HpCDD	0.555	0.699	23 (≤50)	-	-
1,2,3,4,7,8,9-HpCDF	5.51U	0.0441	200 (≤50)	J (all detects) UJ (all non-detects)	A
OCDD	4.04	4.76	16 (≤50)	-	-
OCDF	0.140	0.273	64 (≤50)	J (all detects)	A

Santa Susana Field Laboratory
Dioxins/Dibenzofurans - Data Qualification Summary - SDG DX126

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DX126	SL-083-SA5DN-SB-4.0-5.0 SL-153-SA5DN-SB-4.0-5.0 SL-153-SA5DN-SB-7.0-8.0 SL-273-SA6-SB-4.0-5.0 SL-273-SA6-SB-9.0-10.0 SL-031-SA6-SB-4.0-5.0 SL-031-SA6-SB-9.0-10.0 SL-042-SA6-SB-2.5-3.5 SL-044-SA6-SB-2.5-3.5 SL-049-SA6-SB-2.5-3.5 EB-SA6-SB-080911 SL-011-SA5DN-SB-4.0-5.0 SL-012-SA5DN-SB-4.0-5.0 SL-012-SA5DN-SB-9.0-10.0 SL-009-SA5DN-SB-4.0-5.0 SL-009-SA5DN-SB-9.0-10.0 DUP24-SA5DN-QC-080911	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
DX126	SL-009-SA5DN-SB-4.0-5.0 DUP24-SA5DN-QC-080911	1,2,3,7,8-PeCDF 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF	J (all detects) J (all detects) J (all detects)	A	Field duplicates (RPD) (FD)
DX126	SL-009-SA5DN-SB-4.0-5.0 DUP24-SA5DN-QC-080911	1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,4,7,8,9-HpCDF	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Dioxins/Dibenzofurans - Laboratory Blank Data Qualification Summary - SDG DX126

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
DX126	EB-SA6-SB-080911	2,3,7,8-TCDD 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD OCDF	0.344U pg/L 0.163U pg/L 0.292U pg/L 0.238U pg/L 0.216U pg/L 0.223U pg/L 0.162U pg/L 0.366U pg/L 0.452U pg/L 0.650U pg/L 4.38U pg/L 0.550U pg/L 7.99U pg/L 1.02U pg/L	A	B
DX126	SL-153-SA5DN-SB-4.0-5.0	2,3,4,6,7,8-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD OCDD	0.0387U ng/Kg 0.0366U ng/Kg 0.195U ng/Kg 0.939U ng/Kg	A	B

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
DX126	SL-153-SA5DN-SB-7.0-8.0	1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD OCDD	0.0418U ng/Kg 0.0802U ng/Kg 0.0684U ng/Kg 0.344U ng/Kg 0.999U ng/Kg	A	B
DX126	SL-273-SA6-SB-4.0-5.0	1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD OCDD	0.0470U ng/Kg 0.0470U ng/Kg 0.0695U ng/Kg 0.0392U ng/Kg 0.402U ng/Kg 0.616U ng/Kg	A	B
DX126	SL-273-SA6-SB-9.0-10.0	1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD	0.0856U ng/Kg 0.0332U ng/Kg 0.109U ng/Kg 0.226U ng/Kg 0.131U ng/Kg 0.478U ng/Kg 0.0495U ng/Kg 1.09U ng/Kg	A	B
DX126	SL-031-SA6-SB-4.0-5.0	1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF	0.155U ng/Kg 0.106U ng/Kg 0.101U ng/Kg 0.0634U ng/Kg 0.197U ng/Kg 0.209U ng/Kg 0.459U ng/Kg 0.0388U ng/Kg	A	B
DX126	SL-031-SA6-SB-9.0-10.0	1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF	0.333U ng/Kg 0.189U ng/Kg 0.190U ng/Kg 0.0811U ng/Kg 0.227U ng/Kg 0.0700U ng/Kg 0.321U ng/Kg 0.0586U ng/Kg	A	B
DX126	SL-042-SA6-SB-2.5-3.5	1,2,3,7,8-PeCDD 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD	0.134U ng/Kg 0.0525U ng/Kg 0.0338U ng/Kg 0.0336U ng/Kg 0.451U ng/Kg	A	B
DX126	SL-044-SA6-SB-2.5-3.5	1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8,9-HpCDF	0.122U ng/Kg 0.221U ng/Kg 0.160U ng/Kg 0.177U ng/Kg 0.0642U ng/Kg	A	B
DX126	SL-049-SA6-SB-2.5-3.5	1,2,3,7,8-PeCDD 1,2,3,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD	0.0684U ng/Kg 0.0324U ng/Kg 0.153U ng/Kg 0.0463U ng/Kg 0.596U ng/Kg	A	B

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
DX126	SL-011-SA5DN-SB-4.0-5.0	2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDD 1,2,3,4,6,7,8-HpCDF	0.0395U ng/Kg 0.0755U ng/Kg 0.0752U ng/Kg 0.429U ng/Kg 0.0885U ng/Kg	A	B
DX126	SL-012-SA5DN-SB-4.0-5.0	1,2,3,7,8-PeCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF	0.0749U ng/Kg 0.102U ng/Kg 0.108U ng/Kg 0.148U ng/Kg	A	B
DX126	SL-012-SA5DN-SB-9.0-10.0	1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF	0.0380U ng/Kg 0.0236U ng/Kg 0.0566U ng/Kg 0.110U ng/Kg 0.913U ng/Kg 0.0600U ng/Kg	A	B
DX126	SL-009-SA5DN-SB-4.0-5.0	2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD	0.0278U ng/Kg 0.0715U ng/Kg 0.0813U ng/Kg 0.0752U ng/Kg 0.555U ng/Kg	A	B
DX126	SL-009-SA5DN-SB-9.0-10.0	1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF	0.277U ng/Kg 0.135U ng/Kg 0.142U ng/Kg 0.194U ng/Kg 0.129U ng/Kg 0.187U ng/Kg	A	B
DX126	DUP24-SA5DN-QC-080911	1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF	0.140U ng/Kg 0.0763U ng/Kg 0.0357U ng/Kg 0.0279U ng/Kg 0.0589U ng/Kg 0.0440U ng/Kg 0.122U ng/Kg 0.699U ng/Kg 0.0441U ng/Kg	A	B
DX126	SL-083-SA5DN-SB-4.0-5.0	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF	0.111U ng/Kg 0.0869U ng/Kg 0.0504U ng/Kg 0.0369U ng/Kg 0.191U ng/Kg 0.0701U ng/Kg 0.190U ng/Kg	A	B

Santa Susana Field Laboratory
Dioxins/Dibenzofurans - Field Blank Data Qualification Summary - SDG DX126

No Sample Data Qualified in this SDG

LDC #: 26850C21 **VALIDATION COMPLETENESS WORKSHEET** Date: 12/27/11
SDG #: DX126 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: FO
2nd Reviewer: A

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 8/8 – 8/9/11
II.	HRGC/HRMS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 20/35
IV.	Routine calibration/ICV	A	CCV = QC limit
V.	Blanks	SW	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	OPR
VIII.	Regional quality assurance and quality control	N	
IX.	Internal standards	A	QC limit
X.	Target compound identifications	A	
XI.	Compound quantitation and CRQLs	A	
XII.	System performance	A	
XIII.	Overall assessment of data	A	
XIV.	Field duplicates	SW	D = 15, 17
XV.	Field blanks	SW	EB = 11

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: soil + water

1 3	SL-083-SA5DN-SB-4.0-5.0	11 1	EB-SA6-SB-080911 W	21 1	Blank 224001	31	
2 2	SL-153-SA5DN-SB-4.0-5.0	12 2	SL-011-SA5DN-SB-4.0-5.0	22 2	Blank 231004	32	
3 2	SL-153-SA5DN-SB-7.0-8.0	13 2	SL-012-SA5DN-SB-4.0-5.0	23 3	Blank 238001	33	
4 2	SL-273-SA6-SB-4.0-5.0	14 2	SL-012-SA5DN-SB-9.0-10.0	24		34	
5 2	SL-273-SA6-SB-9.0-10.0	15 2	SL-009-SA5DN-SB-4.0-5.0 D	25		35	
6 2	SL-031-SA6-SB-4.0-5.0	16 2	SL-009-SA5DN-SB-9.0-10.0	26		36	
7 2	SL-031-SA6-SB-9.0-10.0	17 2	DUP24-SA5DN-QC-080911 D	27		37	
8 2	SL-042-SA6-SB-2.5-3.5	18 2	SL-009-SA5DN-SB-4.0-5.0MS	28		38	
9 2	SL-044-SA6-SB-2.5-3.5	19 2	SL-009-SA5DN-SB-4.0-5.0MSD	29		39	
10 2	SL-049-SA6-SB-2.5-3.5	20		30		40	

Notes:

LDC #: 26800C21

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer:

Method: Dioxins/Dibenzofurans (EPA SW 846 Method 1613B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Was PFK exact mass 380.9760 verified?	✓			
Were the retention time windows established for all homologues?	✓			
Was the chromatographic resolution between 2,3,7,8-TCDD and peaks representing any other unlabeled TCDD isomers ≤ 25% ?	✓			
Is the static resolving power at least 10,000 (10% valley definition)?	✓			
Was the mass resolution adequately check with PFK?	✓			
Was the presence of 1,2,8,9-TCDD and 1,3,4,6,8-PeCDF verified?	✓			
III. Initial calibration				
Was the initial calibration performed at 5 concentration levels?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20% for unlabeled compounds and ≤ 35% for labeled compounds ?	✓			
Did all calibration standards meet the Ion Abundance Ratio criteria?	✓			
Was the signal to noise ratio for each target compound ≥ 2.5 and for each recovery and internal standard ≥ 10?	✓			
IV. Continuing calibration				
Was a routine calibration performed at the beginning and end of each 12 hour period?	✓			
Were all the concentrations for the unlabeled compounds and labeled compounds within the QC limits (Method 1613B, Table 6)?	✓			
Did all routine calibration standards meet the Ion Abundance Ratio criteria?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank performed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet?	✓			
VI. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			

Validation Area	Yes	No	NA	Findings/Comments
VIII. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
IX. Internal standards				
Were internal standard recoveries within the 25-150% criteria?	✓			
Was the minimum S/N ratio of all internal standard peaks > 10?	✓			
X. Target compound identification				
For 2,3,7,8 substituted congeners with associated labeled standards, were the retention times of the two quantitation peaks within -1 to 3 sec. of the RT of the labeled standard?	✓			
For 2,3,7,8 substituted congeners without associated labeled standards, were the relative retention times of the two quantitation peaks within 0.005 time units of the RRT measured in the routine calibration?	✓			
For non-2,3,7,8 substituted congeners, were the retention times of the two quantitation peaks within RT established in the performance check solution?	✓			
Did compound spectra contain all characteristic ions listed in the table attached?	✓			
Was the Ion Abundance Ratio for the two quantitation ions within criteria?	✓			
Was the signal to noise ratio for each target compound and labeled standard ≥ 2.5?	✓			
Does the maximum intensity of each specified characteristic ion coincide within ± 2 seconds (includes labeled standards)?	✓			
For PCDF identification, was any signal (S/N ≥ 2.5, at ± seconds RT) detected in the corresponding PCDPE channel?		✓		
Was an acceptable lock mass recorded and monitored?	✓			
XI. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.	✓			
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.	✓			

VALIDATION FINDINGS WORKSHEET

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

A. 2,3,7,8-TCDD	F. 1,2,3,4,6,7,8-HpCDD	K. 1,2,3,4,7,8-HxCDF	P. 1,2,3,4,7,8,9-HpCDF	U. Total HpCDD
B. 1,2,3,7,8-PeCDD	G. OCDD	L. 1,2,3,6,7,8-HxCDF	Q. OCDF	V. Total TCDF
C. 1,2,3,4,7,8-HxCDD	H. 2,3,7,8-TCDF	M. 2,3,4,6,7,8-HxCDF	R. Total TCDD	W. Total PeCDF
D. 1,2,3,6,7,8-HxCDD	I. 1,2,3,7,8-PeCDF	N. 1,2,3,7,8,9-HxCDF	S. Total PeCDD	X. Total HxCDF
E. 1,2,3,7,8,9-HxCDD	J. 2,3,4,7,8-PeCDF	O. 1,2,3,4,6,7,8-HpCDF	T. Total HxCDD	Y. Total HpCDF

Notes:

LDC #: 26850C21

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: [illegible]
2nd Reviewer: [illegible]

(B)

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were all samples associated with a method blank?
Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed? *EMPC
Y N N/A Was the method blank contaminated?

Blank extraction date: 8/12/11 **Blank analysis date:** 8/16/11 **Associated samples:** ALL WATER
Conc. units: pg/L

Compound	Blank ID	Sample Identification								
	BLK224001	5X	11							
H	0.139	0.695								
A	0.457*	2.285	0.344*U							
I	0.280*	1.4	0.163*U							
J	0.450*	2.25	0.292*U							
B	0.437*	2.185	0.238*U							
K	0.405	2.025	0.216*U							
L	0.218*	1.09	0.223*U							
M	0.268	1.34	0.162*U							
C	0.200*	1								
D	0.373*	1.865	0.366*U							
E	0.458	2.29	0.452*U							
N	0.595*	2.975								
O	0.817*	4.085	0.650U							
F	3.99	19.95	4.38U							
P	0.551*	2.755	0.550*U							
G	8.97	44.85	7.99*U							
Q	1.57*	7.85	1.02U							

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the method blank concentration were qualified as not detected, "U".

LDC #: 26850C21

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: [illegible]
2nd Reviewer: [illegible]

(B7)

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were all samples associated with a method blank?
Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed? *EMPC
Y N N/A Was the method blank contaminated?

Blank extraction date: 8/19/11 **Blank analysis date:** 8/22/11 **Associated samples:** 2-10, 12-17
Conc. units: ng/kg

Compound	Blank ID	Sample Identification								
	BLK231004	5X	2	3	4	5	6	7	8	9
B	0.0911*	0.4555					0.155*U	0.333U	0.134U	0.122*U
K	0.0624*	0.312		0.0418*U	0.0470*U		0.106*U	0.189*U		0.221*U
L	0.0816*	0.408			0.0470*U	0.0856*U	0.101*U	0.190*U	0.0525*U	0.160*U
M	0.0440*	0.22	0.0387*U			0.0332*U	0.0634U	0.0811*U	0.0338*U	0.177*U
D	0.0497*	0.2485		0.0802*U	0.0695*U	0.109*U	0.197*U	0.227U		
E	0.0511*	0.2555				0.226*U				
O	0.0461*	0.2305	0.0366*U	0.0684*U	0.0392U	0.131*U	0.209*U	0.0700*U	0.0336*U	
F	0.206	1.03	0.195U	0.344U	0.402U	0.478U	0.459*U	0.321*U	0.451*U	
P	0.0425*	0.2125				0.0495U	0.0388U	0.0586U		0.0642*U
G	0.280	1.4	0.939U	0.999U	0.616*U	1.09*U				

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the method blank concentration were qualified as not detected, "U".

LDC #: 26850C21

VALIDATION FINDINGS WORKSHEET
Blanks

(B)

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were all samples associated with a method blank?

Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed? *EMPC

Y N N/A Was the method blank contaminated?

Blank extraction date: 8/19/11 **Blank analysis date:** 8/22/11 **Associated samples:** 2-10, 12-17

Conc. units: ng/kg

Compound	Blank ID	Sample Identification								
	BLK231004	5X	10	12	13	14	15	16	17	
B	0.0911*	0.4555	0.0684*U		0.0749*U			0.277U	0.140*U	
K	0.0624*	0.312				0.0380*U		0.135U	0.0763*U	
L	0.0816*	0.408	0.0324*U			0.0236*U			0.0357*U	
M	0.0440*	0.22		0.0395*U			0.0278*U	0.142*U	0.0279*U	
D	0.0497*	0.2485	0.153*U	0.0755*U	0.102U		0.0715*U	0.194*U	0.0589*U	
E	0.0511*	0.2555		0.0752*U	0.108*U	0.0566*U	0.0813U	0.129U	0.0440U	
O	0.0461*	0.2305	0.0463U	0.0885*U	0.148U	0.110U	0.0752U	0.187*U	0.122U	
F	0.206	1.03	0.596*U	0.429U ~~0.0885*U~~		0.913U	0.555*U		0.699U	
P	0.0425*	0.2125				0.0600*U			0.0441*U	
G	0.280	1.4								

0.225*

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:

All contaminants within five times the method blank concentration were qualified as not detected, "U".

LDC #: 26850C21

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: [illegible]
2nd Reviewer: A

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were all samples associated with a method blank?

Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed? *EMPC

Y N N/A Was the method blank contaminated?

(B)

Blank extraction date: 8/19/11 **Blank analysis date:** 8/22/11 **Associated samples:** 1

Conc. units: ng/kg

Compound	Blank ID	Sample Identification								
	BLK238001	5X	1							
I	0.0365*	0.1825	0.111*U							
J	0.0544*	0.272	0.0869*U							
B	0.0682*	0.341								
K	0.0519*	0.2595	0.0504*U							
L	0.0537*	0.2685								
M	0.0234*	0.117	0.0369*U							
D	0.0513*	0.2565	0.191*U							
E	0.0428*	0.214								
N	0.0356*	0.178	0.0701*U							
O	0.0494*	0.247	0.190U							
F	0.236*	1.18								
G	0.426*	2.13								

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the method blank concentration were qualified as not detected, "U".

LDC #: 26850C21

VALIDATION FINDINGS WORKSHEET
Field Blank

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were field blank identified in this SDG?

Y N N/A Were target compounds detected in the field blank?

Blank unit: pg/L **Associated sample unit:** ng/Kg **Associated samples:** 8-10, 12-17 >5x

(F)

Sampling date : 8/9/11

Compound	Blank ID	Sample Identification								
	11	5X								
~~H~~		~~0~~								
A	0.344*	1.72								
I	0.163*	0.815								
J	0.292*	1.46								
B	0.238*	1.19								
K	0.216*	1.08								
L	0.223*	1.115								
M	0.162*	0.81								
~~G~~		~~0~~								
D	0.366*	1.83								
E	0.452*	2.26								
~~N~~		~~0~~								
O	0.650	3.25								
F	4.38	21.9								
P	0.550*	2.75								
G	7.99*	39.95								
~~O~~	1.02	5.1								

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the method blank concentration were qualified as not detected, "U".

LDC#: 26850C21

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ~~GC/MS Volatiles (EPA SW-846 Method 8260B).~~ 1613B

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

* enpc (fd)

Compound	Concentration (ng/kg)		≤50 RPD	
	15	17		
I	0.125*	0.0543*	79	J/A dit
J	0.100	0.121*	19	
B	~~0.0639U~~ 5.51U	0.140*	200	J/W/Δ
K	~~0.0284U~~ 5.51U	0.0763*	200	↓
L	~~0.0234U~~ 5.51U	0.0357*	200	
M	0.0278*	0.0279*	0	
C	~~0.0410U~~ 5.51U	0.0520*	200	J/W/Δ
D	0.0715*	0.0589*	19	
E	0.0813	0.0440	60	J/A dit
N	0.0413	0.0396*	4	
O	0.0752	0.122	47	
F	0.555*	0.699	23	
P	~~0.0374U~~ 5.51U	0.0441*	200	J/W/Δ
G	4.04	4.76	16	
Q	0.140*	0.273*	64	J/A dit

V:\FIELD DUPLICATES\templates\26850C21.wpd

LDC #: 26885C2/

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer: E

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

RRF = $(A_x)(C_{is})/(A_{is})(C_x)$ — A_x = Area of compound, A_{is} = Area of associated internal standard
average RRF = sum of the RRFs/number of standards — C_x = Concentration of compound, C_{is} = Concentration of internal standard
%RSD = 100 * (S/X) — S = Standard deviation of the RRFs, X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported RRF (CS3 std)	Recalculated RRF (CS3 std)	Reported %RSD	Recalculated %RSD
1	ICAL	6/3/11	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)	1.017	1.017	1.033	1.033	4.59	4.59
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)	1.186	1.186	1.186	1.186	5.56	5.56
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)	0.995	0.995	1.001	1.001	3.43	3.43
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)	1.077	1.077	1.101	1.101	4.02	4.02
			OCDF (^{13}C-OCDF)	0.945	0945	0.974	0.974	3.54	3.54
2	ICAL	6/24/11	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)	1.022	1.022	1.028	1.028	7.77	7.77
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)	1.133	1.133	1.142	1.142	3.52	3.52
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)	0.971	0.971	1.018	1.018	4.32	4.32
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)	1.053	1.053	1.087	1.087	4.49	4.49
			OCDF (^{13}C-OCDF)	0.950	0.950	1.001	1.001	5.01	5.01
3			2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)						
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)						
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)						
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)						
			OCDF (^{13}C-OCDF)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26850C2/

VALIDATION FINDINGS WORKSHEET
Routine Calibration Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	conc. ~~Average RRF~~ (initial)	Reported conc. ~~RRF~~ (CC)	Recalculated conc. RRF (CC)	Reported %R	Recalculated %R
1	CCV 10:16	8/16/11	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)	10.0	9.740	9.740	97	97
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)	10.0	9.180	9.180	92	92
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)	50.0	50.360	50.360	101	101
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)	50.0	50.180	50.180	100	100
			OCDF (^{13}C-OCDF)	100.00	107.420	107.420	107	107
2	CCV 13:04	8/22/11	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)		9.970	9.970	100	100
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)		10.640	10.640	106	106
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)		52.00	52.00	104	104
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)		52.430	52.430	105	105
			OCDF (^{13}C-OCDF)		104.880	104.880	105	105
3	CCV 0133	8/23/11	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)		10.330	10.330	103	103
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)		10.720	10.720	107	107
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)		51.920	51.920	104	104
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)		51.370	51.370	103	103
			OCDF (^{13}C-OCDF)		106.120	106.120	106	106

Comments: Refer to Routine Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26850C21

VALIDATION FINDINGS WORKSHEET
Routine Calibration Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA SW 846 Method ~~8290~~) 1613B

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	conc. ~~Average RRF~~ (initial)	Reported conc ~~RRF~~ (CC)	Recalculated conc ~~RRF~~ (CC)	Reported %D	Recalculated %D
1	CCV 0016	8/30/11	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)	10.0	10.3	10.3	103	103
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)	10.0	10.44	10.44	104	104
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)	50.0	51.120	51.120	102	102
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)	50.0	50.940	50.940	102	102
			OCDF (^{13}C-OCDD)	100.00	100.00	100.0	100	100
2			2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)					
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)					
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)					
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)					
			OCDF (^{13}C-OCDD)					
3			2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)					
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)					
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)					
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)					
			OCDF (^{13}C-OCDD)					

Comments: Refer to Routine Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26850C21

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA SW 846 Method 1613B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSR - SR)/SA Where: SSR = Spiked sample result, SR = Sample result; SA = Spike added

RPD = | MSR - MSDR | * 2/(MSR + MSDR) MSR = Matrix spike percent recovery MSDR = Matrix spike duplicate percent recovery

MS/MSD samples: 18 & 19

Compound	Spike Added (ng/kg)		Sample Concentration (ng/kg)	Spiked Sample Concentration (ng/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		Reported RPD	Recalculated RPD
	MS	MSD	-----	MS	MSD	Reported	Recalc	Reported	Recalc	----	----
2,3,7,8-TCDD	21.8	21.8	ND	22.9	21.9	105	105	100	100	5	5
1,2,3,7,8-PeCDD	109	109	ND	115	113	105	105	104	104	1	1
1,2,3,4,7,8-HxCDD	109	109	ND	114	115	105	↓	105	105	0	0
1,2,3,4,7,8,9-HpCDF	109	109	ND	114	110	105	↓	101	101	4	4
OCDF	218	218	0.140	227	223	104	104	102	102	2	2

Comments: Refer to Matrix Spike/Matrix Spike Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26830C21

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS Dioxins/Dibenzofurans (EPA SW 846 Method 1613B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration
SA = Spike added

RPD = | LCS - LCSD | * 2/(LCS + LCSD) LCS = Laboraotry control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS ID: OPR 231004

Compound	Spike Added (ng/kg)		Spiked Sample Concentration (ng/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
2,3,7,8-TCDD	20.0	NA	21.1	NA	105	105				
1,2,3,7,8-PeCDD	100.0		108		108	108				
1,2,3,4,7,8-HxCDD	100.0		108		108	108				
1,2,3,4,7,8,9-HpCDF	100.0		105		105	105				
OCDF	200.0		210		105	105	NA			

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26850 C2/

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: F7
2nd reviewer: A

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

RRF = Relative Response Factor (average) from the initial calibration

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

Example:

Sample I.D. #1 , OCDD:

Conc. = $\frac{(111189 + 123440)(4000)(\quad)}{(993551 + 885853)(1.041)(10.2)(0.878)}$ =

53.47 ng/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

SAMPLE DELIVERY GROUP

DX127

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
10-Aug-2011	SL-185-SA6-SB-4.0-5.0	6372859	N	METHOD	1613B	III
10-Aug-2011	SL-185-SA6-SB-9.0-10.0	6372860	N	METHOD	1613B	III
10-Aug-2011	SL-151-SA6-SB-4.0-5.0	6372853	N	METHOD	1613B	III
10-Aug-2011	SL-151-SA6-SB-9.0-10.0	6372854	N	METHOD	1613B	III
10-Aug-2011	SL-007-SA5DN-SB-4.0-5.0	6372849	N	METHOD	1613B	III
10-Aug-2011	SL-183-SA6-SB-4.0-5.0	6372857	N	METHOD	1613B	III
10-Aug-2011	SL-183-SA6-SB-9.0-10.0	6372858	N	METHOD	1613B	III
10-Aug-2011	SL-071-SA5DN-SB-4.0-5.0	6372850	N	METHOD	1613B	III
10-Aug-2011	SL-071-SA5DN-SB-9.0-10.0	6372851	N	METHOD	1613B	III
10-Aug-2011	SL-182-SA6-SB-4.0-5.0	6372855	N	METHOD	1613B	III
10-Aug-2011	SL-182-SA6-SB-9.0-10.0	6372856	N	METHOD	1613B	III
10-Aug-2011	SL-072-SA5DN-SB-4.0-5.0	6372852	N	METHOD	1613B	III
11-Aug-2011	SL-006-SA5DN-SB-4.0-5.0	6374029	N	METHOD	1613B	III
11-Aug-2011	SL-006-SA5DN-SB-9.0-10.0	6374030	N	METHOD	1613B	III
11-Aug-2011	SL-155-SA6-SB-4.0-5.0	6374032	N	METHOD	1613B	III
11-Aug-2011	SL-155-SA6-SB-4.0-5.0MS	6374033	MS	METHOD	1613B	III
11-Aug-2011	SL-155-SA6-SB-4.0-5.0MSD	6374034	MSD	METHOD	1613B	III
11-Aug-2011	DUP24-SA6-QC-081111	6374037	FD	METHOD	1613B	III
11-Aug-2011	SL-207-SA5DN-SB-4.0-5.0	6374031	N	METHOD	1613B	III
11-Aug-2011	EB-SA5DN-SB-081111	6374038	EB	METHOD	1613B	III
11-Aug-2011	SL-033-SA6-SB-2.5-3.5	6374036	N	METHOD	1613B	III
11-Aug-2011	SL-174-SA6-SB-2.0-3.0	6374035	N	METHOD	1613B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DX127 Laboratory: LL

EDD Filename: DX127_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 1613B **Matrix:** AQ

Sample ID: EB-SA5DN-SB-081111 *Collected:* 8/11/2011 12:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.76	JB	0.144	MDL	10.6	PQL	pg/L	U	B
1,2,3,4,6,7,8-HPCDF	0.446	JBQ	0.0483	MDL	10.6	PQL	pg/L	U	B
1,2,3,4,7,8,9-HPCDF	0.161	JB	0.0600	MDL	10.6	PQL	pg/L	U	B
1,2,3,4,7,8-HXCDF	0.217	JBQ	0.0554	MDL	10.6	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDD	0.274	JBQ	0.0995	MDL	10.6	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDF	0.164	JB	0.0551	MDL	10.6	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDD	0.193	JBQ	0.0992	MDL	10.6	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDF	0.200	JBQ	0.0589	MDL	10.6	PQL	pg/L	U	B
1,2,3,7,8-PECDD	0.136	JB	0.110	MDL	10.6	PQL	pg/L	U	B
1,2,3,7,8-PECDF	0.0761	JBQ	0.0581	MDL	10.6	PQL	pg/L	U	B
2,3,4,6,7,8-HXCDF	0.126	JBQ	0.0538	MDL	10.6	PQL	pg/L	U	B
2,3,4,7,8-PECDF	0.273	JB	0.0507	MDL	10.6	PQL	pg/L	U	B
2,3,7,8-TCDD	0.152	JBQ	0.118	MDL	2.11	PQL	pg/L	U	B
OCDD	4.40	JB	0.106	MDL	21.1	PQL	pg/L	U	B
OCDF	0.433	JB	0.143	MDL	21.1	PQL	pg/L	U	B

Method Category: GENCHEM

Method: 1613B **Matrix:** SO

Sample ID: DUP24-SA6-QC-081111 *Collected:* 8/11/2011 10:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.232	JB	0.0769	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0533	JBQ	0.0281	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0533	U	0.0533	MDL	5.18	PQL	ng/Kg	UJ	FD
1,2,3,4,7,8-HXCDF	0.0326	U	0.0326	MDL	5.18	PQL	ng/Kg	UJ	FD
1,2,3,6,7,8-HXCDD	0.0529	U	0.0529	MDL	5.18	PQL	ng/Kg	UJ	FD
1,2,3,6,7,8-HXCDF	0.0558	JB	0.0288	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0534	JBQ	0.0513	MDL	5.18	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8,9-HXCDF	0.0562	JBQ	0.0296	MDL	5.18	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8-PECDD	0.0893	JQ	0.0781	MDL	5.18	PQL	ng/Kg	J	Z, FD
1,2,3,7,8-PECDF	0.0374	U	0.0374	MDL	5.18	PQL	ng/Kg	UJ	FD
2,3,4,6,7,8-HXCDF	0.0298	U	0.0298	MDL	5.18	PQL	ng/Kg	UJ	FD
2,3,4,7,8-PECDF	0.0707	JBQ	0.0386	MDL	5.18	PQL	ng/Kg	UJ	B, FD

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX127 **Laboratory:** LL

EDD Filename: DX127_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 1613B **Matrix:** SO

Sample ID: DUP24-SA6-QC-081111 *Collected:* 8/11/2011 10:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
OCDD	0.660	JB	0.0502	MDL	10.4	PQL	ng/Kg	U	B
OCDF	0.226	JBQ	0.0869	MDL	10.4	PQL	ng/Kg	UJ	B, FD

Sample ID: SL-006-SA5DN-SB-4.0-5.0 *Collected:* 8/11/2011 8:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	1.55	JB	0.0904	MDL	5.66	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.319	JB	0.0264	MDL	5.66	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.0768	JBQ	0.0486	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0663	JB	0.0400	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.105	J	0.0477	MDL	5.66	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0327	JBQ	0.0326	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.135	JB	0.0499	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0986	JBQ	0.0453	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0828	JQ	0.0740	MDL	5.66	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0468	JQ	0.0374	MDL	5.66	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0584	JQ	0.0364	MDL	5.66	PQL	ng/Kg	J	Z
OCDF	0.827	JBQ	0.112	MDL	11.3	PQL	ng/Kg	J	Z

Sample ID: SL-006-SA5DN-SB-9.0-10.0 *Collected:* 8/11/2011 9:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.361	JB	0.0641	MDL	5.57	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0869	JBQ	0.0273	MDL	5.57	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0536	JB	0.0442	MDL	5.57	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0477	JB	0.0449	MDL	5.57	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.106	JB	0.0332	MDL	5.57	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0590	JQ	0.0452	MDL	5.57	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0769	JB	0.0296	MDL	5.57	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0945	JBQ	0.0454	MDL	5.57	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0605	JBQ	0.0370	MDL	5.57	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.116	JQ	0.0753	MDL	5.57	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0939	JQ	0.0329	MDL	5.57	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0503	J	0.0314	MDL	5.57	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.112	JBQ	0.0317	MDL	5.57	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX127 Laboratory: LL

EDD Filename: DX127_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 1613B **Matrix:** SO

Sample ID: SL-006-SA5DN-SB-9.0-10.0 *Collected:* 8/11/2011 9:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
OCDD	2.44	JB	0.0552	MDL	11.1	PQL	ng/Kg	U	B
OCDF	0.263	JB	0.0831	MDL	11.1	PQL	ng/Kg	U	B

Sample ID: SL-007-SA5DN-SB-4.0-5.0 *Collected:* 8/10/2011 9:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.367	JB	0.0950	MDL	5.82	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0691	JB	0.0298	MDL	5.82	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0606	JBQ	0.0557	MDL	5.82	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0813	JBQ	0.0449	MDL	5.82	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.219	JQ	0.0641	MDL	5.82	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0976	JBQ	0.0398	MDL	5.82	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.375	JBQ	0.0591	MDL	5.82	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0843	JQ	0.0497	MDL	5.82	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0768	JQ	0.0411	MDL	5.82	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.0923	JBQ	0.0501	MDL	5.82	PQL	ng/Kg	U	B
OCDD	1.40	JBQ	0.0568	MDL	11.6	PQL	ng/Kg	U	B
OCDF	0.210	JBQ	0.112	MDL	11.6	PQL	ng/Kg	U	B

Sample ID: SL-033-SA6-SB-2.5-3.5 *Collected:* 8/11/2011 2:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	4.60	JB	0.107	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.947	JB	0.0318	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0637	JB	0.0589	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0799	JB	0.0480	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.196	JQ	0.0750	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.114	JB	0.0418	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.237	JBQ	0.0731	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.135	JBQ	0.0474	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0952	J	0.0833	MDL	5.18	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.134	JQ	0.0451	MDL	5.18	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.248	JBQ	0.0470	MDL	5.18	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.112	JQ	0.102	MDL	1.04	PQL	ng/Kg	J	Z
OCDF	2.48	JB	0.0999	MDL	10.4	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX127 **Laboratory:** LL

EDD Filename: DX127_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 1613B **Matrix:** SO

Sample ID: SL-071-SA5DN-SB-4.0-5.0 *Collected:* 8/10/2011 11:19:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	1.32	JBQ	0.121	MDL	5.71	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0633	JBQ	0.0627	MDL	5.71	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0419	JB	0.0410	MDL	5.71	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0705	J	0.0656	MDL	5.71	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.0720	JBQ	0.0479	MDL	5.71	PQL	ng/Kg	U	B
OCDF	0.189	JB	0.143	MDL	11.4	PQL	ng/Kg	U	B

Sample ID: SL-071-SA5DN-SB-9.0-10.0 *Collected:* 8/10/2011 11:57:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.729	JB	0.0812	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0563	JBQ	0.0527	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0310	JB	0.0308	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0528	JQ	0.0399	MDL	5.53	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0557	JQ	0.0327	MDL	5.53	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.0430	JB	0.0395	MDL	5.53	PQL	ng/Kg	U	B
OCDD	2.98	JB	0.0491	MDL	11.1	PQL	ng/Kg	J	Z
OCDF	0.163	JB	0.104	MDL	11.1	PQL	ng/Kg	U	B

Sample ID: SL-072-SA5DN-SB-4.0-5.0 *Collected:* 8/10/2011 2:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	2.30	JB	0.0612	MDL	5.93	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.287	JBQ	0.128	MDL	5.93	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.950	J	0.120	MDL	5.93	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0878	JBQ	0.0577	MDL	5.93	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.477	JBQ	0.110	MDL	5.93	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.120	JB	0.0794	MDL	5.93	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0947	JQ	0.0571	MDL	5.93	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.220	JQ	0.0628	MDL	5.93	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.0802	JBQ	0.0589	MDL	5.93	PQL	ng/Kg	U	B
OCDF	5.56	JB	0.153	MDL	11.9	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX127 **Laboratory: LL**

EDD Filename: DX127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 1613B **Matrix: SO**

Sample ID: SL-151-SA6-SB-4.0-5.0 *Collected:* 8/10/2011 8:59:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.281	JB	0.0739	MDL	5.20	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0582	JBQ	0.0186	MDL	5.20	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0441	JBQ	0.0351	MDL	5.20	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0504	JQ	0.0477	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0497	JBQ	0.0303	MDL	5.20	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.126	JBQ	0.0479	MDL	5.20	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0458	JQ	0.0357	MDL	5.20	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0398	J	0.0320	MDL	5.20	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.0481	JBQ	0.0345	MDL	5.20	PQL	ng/Kg	U	B
OCDD	1.13	JB	0.0440	MDL	10.4	PQL	ng/Kg	U	B
OCDF	0.181	JB	0.103	MDL	10.4	PQL	ng/Kg	U	B

Sample ID: SL-151-SA6-SB-9.0-10.0 *Collected:* 8/10/2011 9:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.313	JBQ	0.0778	MDL	5.59	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0921	JB	0.0232	MDL	5.59	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0649	JB	0.0509	MDL	5.59	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0891	JBQ	0.0517	MDL	5.59	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.114	JBQ	0.0336	MDL	5.59	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0887	JQ	0.0513	MDL	5.59	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0958	JB	0.0287	MDL	5.59	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.102	JB	0.0517	MDL	5.59	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.127	JBQ	0.0413	MDL	5.59	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.274	JQ	0.0780	MDL	5.59	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.213	JQ	0.0371	MDL	5.59	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0772	JQ	0.0317	MDL	5.59	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.218	JB	0.0390	MDL	5.59	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.128	J	0.0854	MDL	1.12	PQL	ng/Kg	J	Z
OCDD	0.891	JBQ	0.0406	MDL	11.2	PQL	ng/Kg	U	B
OCDF	0.181	JB	0.104	MDL	11.2	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX127 **Laboratory:** LL

EDD Filename: DX127_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 1613B **Matrix:** SO

Sample ID: SL-155-SA6-SB-4.0-5.0 *Collected:* 8/11/2011 10:09:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.232	JB	0.0702	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0664	JBQ	0.0227	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0694	JB	0.0469	MDL	5.28	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8-HXCDF	0.0905	JBQ	0.0324	MDL	5.28	PQL	ng/Kg	UJ	B, FD
1,2,3,6,7,8-HXCDD	0.0909	J	0.0480	MDL	5.28	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HXCDF	0.0916	JB	0.0302	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.150	JB	0.0485	MDL	5.28	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8,9-HXCDF	0.110	JBQ	0.0367	MDL	5.28	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8-PECDD	0.185	JQ	0.0706	MDL	5.28	PQL	ng/Kg	J	Z, FD
1,2,3,7,8-PECDF	0.164	JQ	0.0357	MDL	5.28	PQL	ng/Kg	J	Z, FD
2,3,4,6,7,8-HXCDF	0.0675	J	0.0319	MDL	5.28	PQL	ng/Kg	J	Z, FD
2,3,4,7,8-PECDF	0.139	JBQ	0.0352	MDL	5.28	PQL	ng/Kg	UJ	B, FD
OCDD	0.725	JB	0.0449	MDL	10.6	PQL	ng/Kg	U	B
OCDF	0.112	JBQ	0.0857	MDL	10.6	PQL	ng/Kg	UJ	B, FD

Sample ID: SL-174-SA6-SB-2.0-3.0 *Collected:* 8/11/2011 2:46:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.395	JB	0.0706	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.102	JBQ	0.0260	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0881	JBQ	0.0409	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.128	JBQ	0.0373	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.154	JQ	0.0547	MDL	5.21	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.117	JBQ	0.0329	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.144	JB	0.0520	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.119	J	0.0846	MDL	5.21	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.103	J	0.0463	MDL	5.21	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.113	J	0.0332	MDL	5.21	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.163	JB	0.0447	MDL	5.21	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.101	JQ	0.0967	MDL	1.04	PQL	ng/Kg	J	Z
OCDD	1.06	JB	0.0507	MDL	10.4	PQL	ng/Kg	U	B
OCDF	0.147	JBQ	0.0860	MDL	10.4	PQL	ng/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX127 Laboratory: LL

EDD Filename: DX127_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 1613B **Matrix:** SO

Sample ID: SL-182-SA6-SB-4.0-5.0 *Collected:* 8/10/2011 12:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.362	JB	0.0707	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0898	JBQ	0.0202	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0699	JBQ	0.0481	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.201	JBQ	0.0549	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.202	JBQ	0.0350	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.131	J	0.0527	MDL	5.25	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.151	JB	0.0278	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.170	JBQ	0.0508	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.163	JB	0.0398	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.146	J	0.0746	MDL	5.25	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.325	JQ	0.0355	MDL	5.25	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.126	JQ	0.0314	MDL	5.25	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.244	JBQ	0.0382	MDL	5.25	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.128	JQ	0.0834	MDL	1.05	PQL	ng/Kg	J	Z
OCDD	3.62	JB	0.0402	MDL	10.5	PQL	ng/Kg	J	Z
OCDF	0.232	JB	0.104	MDL	10.5	PQL	ng/Kg	U	B

Sample ID: SL-182-SA6-SB-9.0-10.0 *Collected:* 8/10/2011 12:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.205	JB	0.0814	MDL	5.60	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0749	JB	0.0446	MDL	5.60	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.108	JBQ	0.0606	MDL	5.60	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.154	JB	0.111	MDL	5.60	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0984	JQ	0.0737	MDL	5.60	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.197	JB	0.0914	MDL	5.60	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.121	JB	0.0661	MDL	5.60	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.183	JBQ	0.0595	MDL	5.60	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.287	JQ	0.0894	MDL	5.60	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.159	JQ	0.0490	MDL	5.60	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0407	J	0.0401	MDL	5.60	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.242	JBQ	0.0506	MDL	5.60	PQL	ng/Kg	U	B
OCDD	0.713	JBQ	0.0653	MDL	11.2	PQL	ng/Kg	U	B
OCDF	0.214	JBQ	0.163	MDL	11.2	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX127 **Laboratory:** LL

EDD Filename: DX127_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 1613B **Matrix:** SO

Sample ID: SL-183-SA6-SB-4.0-5.0 *Collected:* 8/10/2011 10:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.505	JB	0.0667	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.143	JB	0.0254	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0969	JBQ	0.0487	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.131	JB	0.0295	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.136	JQ	0.0497	MDL	5.48	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0731	JBQ	0.0268	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.123	JB	0.0504	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0788	JBQ	0.0334	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.203	JQ	0.0744	MDL	5.48	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.233	JQ	0.0382	MDL	5.48	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0800	JQ	0.0285	MDL	5.48	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.142	JB	0.0375	MDL	5.48	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.136	J	0.0861	MDL	1.10	PQL	ng/Kg	J	Z
OCDD	3.53	JB	0.0552	MDL	11.0	PQL	ng/Kg	J	Z
OCDF	0.172	JB	0.0978	MDL	11.0	PQL	ng/Kg	U	B

Sample ID: SL-183-SA6-SB-9.0-10.0 *Collected:* 8/10/2011 10:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.319	JBQ	0.0646	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0403	JBQ	0.0185	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0560	JBQ	0.0466	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0561	JBQ	0.0447	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0576	JBQ	0.0396	MDL	5.53	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0399	J	0.0309	MDL	5.53	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.0471	JBQ	0.0391	MDL	5.53	PQL	ng/Kg	U	B
OCDD	0.572	JB	0.0390	MDL	11.1	PQL	ng/Kg	U	B
OCDF	0.307	JB	0.119	MDL	11.1	PQL	ng/Kg	U	B

Sample ID: SL-185-SA6-SB-4.0-5.0 *Collected:* 8/10/2011 7:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.512	JBQ	0.0700	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0569	JBQ	0.0200	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0581	JBQ	0.0374	MDL	5.52	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX127 **Laboratory: LL**

EDD Filename: DX127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 1613B **Matrix: SO**

Sample ID: SL-185-SA6-SB-4.0-5.0 *Collected:* 8/10/2011 7:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HxCDD	0.475	JB	0.0468	MDL	5.52	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0631	JQ	0.0604	MDL	5.52	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0752	JQ	0.0292	MDL	5.52	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.0495	JBQ	0.0307	MDL	5.52	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0786	J	0.0646	MDL	1.10	PQL	ng/Kg	J	Z
OCDD	3.90	JB	0.0459	MDL	11.0	PQL	ng/Kg	J	Z
OCDF	0.133	JBQ	0.0849	MDL	11.0	PQL	ng/Kg	U	B

Sample ID: SL-185-SA6-SB-9.0-10.0 *Collected:* 8/10/2011 7:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.159	JB	0.0658	MDL	5.57	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0381	JBQ	0.0193	MDL	5.57	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0597	JB	0.0437	MDL	5.57	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0760	JQ	0.0503	MDL	5.57	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.0768	JBQ	0.0491	MDL	5.57	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.120	JBQ	0.0338	MDL	5.57	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0961	J	0.0935	MDL	1.11	PQL	ng/Kg	J	Z
OCDD	1.04	JB	0.0438	MDL	11.1	PQL	ng/Kg	U	B
OCDF	0.214	JBQ	0.109	MDL	11.1	PQL	ng/Kg	U	B

Sample ID: SL-207-SA5DN-SB-4.0-5.0 *Collected:* 8/11/2011 10:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.287	JB	0.0704	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0816	JB	0.0224	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0557	JB	0.0392	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0579	JB	0.0518	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0791	JB	0.0324	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.106	J	0.0531	MDL	5.66	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0982	JBQ	0.0290	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0769	JB	0.0555	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0923	JBQ	0.0372	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.180	J	0.0676	MDL	5.66	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.218	JQ	0.0426	MDL	5.66	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX127 **Laboratory: LL**

EDD Filename: DX127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **GENCHEM**

Method: **1613B** ***Matrix:*** **SO**

Sample ID: SL-207-SA5DN-SB-4.0-5.0 ***Collected:*** 8/11/2011 10:55:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
2,3,4,6,7,8-HXCDF	0.0740	JQ	0.0317	MDL	5.66	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.163	JB	0.0405	MDL	5.66	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.105	J	0.0756	MDL	1.13	PQL	ng/Kg	J	Z
OCDD	1.21	JB	0.0434	MDL	11.3	PQL	ng/Kg	U	B
OCDF	0.162	JB	0.0808	MDL	11.3	PQL	ng/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX127 **Laboratory: LL**

EDD Filename: DX127_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Laboratory Triplicate Precision
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX127 **Laboratory: LL**

EDD Filename: DX127_v1 **eQAPP Name: CDM_SSFL_110509**

F	Equipment Blank Contamination
F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX127 **Laboratory: LL**

EDD Filename: DX127_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Estimation
R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DX127

Method Blank Outlier Report

Lab Reporting Batch ID: DX127 **Laboratory: LL**

EDD Filename: DX127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK2290B371851	8/18/2011 6:51:00 PM	1,2,3,4,6,7,8-HPCDD	3.13 pg/L	EB-SA5DN-SB-081111
		1,2,3,4,6,7,8-HPCDF	1.11 pg/L	
		1,2,3,4,7,8,9-HPCDF	0.553 pg/L	
		1,2,3,4,7,8-HxCDD	0.326 pg/L	
		1,2,3,4,7,8-HXCDF	0.414 pg/L	
		1,2,3,6,7,8-HXCDD	0.546 pg/L	
		1,2,3,6,7,8-HXCDF	0.547 pg/L	
		1,2,3,7,8,9-HXCDD	0.754 pg/L	
		1,2,3,7,8,9-HXCDF	0.516 pg/L	
		1,2,3,7,8-PECDD	0.400 pg/L	
		1,2,3,7,8-PECDF	0.348 pg/L	
		2,3,4,6,7,8-HXCDF	0.411 pg/L	
		2,3,4,7,8-PECDF	0.680 pg/L	
		2,3,7,8-TCDD	0.247 pg/L	
		OCDD	5.33 pg/L	
		OCDF	0.962 pg/L	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA5DN-SB-081111(RES)	1,2,3,4,6,7,8-HPCDD	2.76 pg/L	2.76U pg/L
EB-SA5DN-SB-081111(RES)	1,2,3,4,6,7,8-HPCDF	0.446 pg/L	0.446U pg/L
EB-SA5DN-SB-081111(RES)	1,2,3,4,7,8,9-HPCDF	0.161 pg/L	0.161U pg/L
EB-SA5DN-SB-081111(RES)	1,2,3,4,7,8-HXCDF	0.217 pg/L	0.217U pg/L
EB-SA5DN-SB-081111(RES)	1,2,3,6,7,8-HXCDD	0.274 pg/L	0.274U pg/L
EB-SA5DN-SB-081111(RES)	1,2,3,6,7,8-HXCDF	0.164 pg/L	0.164U pg/L
EB-SA5DN-SB-081111(RES)	1,2,3,7,8,9-HXCDD	0.193 pg/L	0.193U pg/L
EB-SA5DN-SB-081111(RES)	1,2,3,7,8,9-HXCDF	0.200 pg/L	0.200U pg/L
EB-SA5DN-SB-081111(RES)	1,2,3,7,8-PECDD	0.136 pg/L	0.136U pg/L
EB-SA5DN-SB-081111(RES)	1,2,3,7,8-PECDF	0.0761 pg/L	0.0761U pg/L
EB-SA5DN-SB-081111(RES)	2,3,4,6,7,8-HXCDF	0.126 pg/L	0.126U pg/L
EB-SA5DN-SB-081111(RES)	2,3,4,7,8-PECDF	0.273 pg/L	0.273U pg/L
EB-SA5DN-SB-081111(RES)	2,3,7,8-TCDD	0.152 pg/L	0.152U pg/L
EB-SA5DN-SB-081111(RES)	OCDD	4.40 pg/L	4.40U pg/L
EB-SA5DN-SB-081111(RES)	OCDF	0.433 pg/L	0.433U pg/L

Method Blank Outlier Report

Lab Reporting Batch ID: DX127 **Laboratory: LL**

EDD Filename: DX127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK2340B371616	8/24/2011 4:16:00 PM	1,2,3,4,6,7,8-HPCDD	0.259 ng/Kg	DUP24-SA6-QC-081111
		1,2,3,4,6,7,8-HPCDF	0.0585 ng/Kg	SL-006-SA5DN-SB-4.0-5.0
		1,2,3,4,7,8,9-HPCDF	0.0765 ng/Kg	SL-006-SA5DN-SB-9.0-10.0
		1,2,3,4,7,8-HxCDD	0.0560 ng/Kg	SL-007-SA5DN-SB-4.0-5.0
		1,2,3,4,7,8-HXCDF	0.0487 ng/Kg	SL-033-SA6-SB-2.5-3.5
		1,2,3,6,7,8-HXCDF	0.0380 ng/Kg	SL-071-SA5DN-SB-4.0-5.0
		1,2,3,7,8,9-HXCDD	0.0465 ng/Kg	SL-071-SA5DN-SB-9.0-10.0
		1,2,3,7,8,9-HXCDF	0.0390 ng/Kg	SL-072-SA5DN-SB-4.0-5.0
		2,3,4,7,8-PECDF	0.0865 ng/Kg	SL-151-SA6-SB-4.0-5.0
		OCDD	0.515 ng/Kg	SL-151-SA6-SB-9.0-10.0
		OCDF	0.109 ng/Kg	SL-155-SA6-SB-4.0-5.0
				SL-174-SA6-SB-2.0-3.0
				SL-182-SA6-SB-4.0-5.0
				SL-182-SA6-SB-9.0-10.0
				SL-183-SA6-SB-4.0-5.0
				SL-183-SA6-SB-9.0-10.0
				SL-185-SA6-SB-4.0-5.0
				SL-185-SA6-SB-9.0-10.0
				SL-207-SA5DN-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP24-SA6-QC-081111(RES)	1,2,3,4,6,7,8-HPCDD	0.232 ng/Kg	0.232U ng/Kg
DUP24-SA6-QC-081111(RES)	1,2,3,4,6,7,8-HPCDF	0.0533 ng/Kg	0.0533U ng/Kg
DUP24-SA6-QC-081111(RES)	1,2,3,6,7,8-HXCDF	0.0558 ng/Kg	0.0558U ng/Kg
DUP24-SA6-QC-081111(RES)	1,2,3,7,8,9-HXCDD	0.0534 ng/Kg	0.0534U ng/Kg
DUP24-SA6-QC-081111(RES)	1,2,3,7,8,9-HXCDF	0.0562 ng/Kg	0.0562U ng/Kg
DUP24-SA6-QC-081111(RES)	2,3,4,7,8-PECDF	0.0707 ng/Kg	0.0707U ng/Kg
DUP24-SA6-QC-081111(RES)	OCDD	0.660 ng/Kg	0.660U ng/Kg
DUP24-SA6-QC-081111(RES)	OCDF	0.226 ng/Kg	0.226U ng/Kg
SL-006-SA5DN-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0768 ng/Kg	0.0768U ng/Kg
SL-006-SA5DN-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0663 ng/Kg	0.0663U ng/Kg
SL-006-SA5DN-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0327 ng/Kg	0.0327U ng/Kg
SL-006-SA5DN-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.135 ng/Kg	0.135U ng/Kg
SL-006-SA5DN-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0986 ng/Kg	0.0986U ng/Kg
SL-006-SA5DN-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDD	0.361 ng/Kg	0.361U ng/Kg
SL-006-SA5DN-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0869 ng/Kg	0.0869U ng/Kg
SL-006-SA5DN-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0536 ng/Kg	0.0536U ng/Kg
SL-006-SA5DN-SB-9.0-10.0(RES)	1,2,3,4,7,8-HxCDD	0.0477 ng/Kg	0.0477U ng/Kg
SL-006-SA5DN-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.106 ng/Kg	0.106U ng/Kg
SL-006-SA5DN-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.0769 ng/Kg	0.0769U ng/Kg
SL-006-SA5DN-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDD	0.0945 ng/Kg	0.0945U ng/Kg
SL-006-SA5DN-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDF	0.0605 ng/Kg	0.0605U ng/Kg
SL-006-SA5DN-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.112 ng/Kg	0.112U ng/Kg
SL-006-SA5DN-SB-9.0-10.0(RES)	OCDD	2.44 ng/Kg	2.44U ng/Kg
SL-006-SA5DN-SB-9.0-10.0(RES)	OCDF	0.263 ng/Kg	0.263U ng/Kg
SL-007-SA5DN-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.367 ng/Kg	0.367U ng/Kg
SL-007-SA5DN-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0691 ng/Kg	0.0691U ng/Kg
SL-007-SA5DN-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0606 ng/Kg	0.0606U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX127 **Laboratory: LL**

EDD Filename: DX127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-007-SA5DN-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0813 ng/Kg	0.0813U ng/Kg
SL-007-SA5DN-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0976 ng/Kg	0.0976U ng/Kg
SL-007-SA5DN-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0923 ng/Kg	0.0923U ng/Kg
SL-007-SA5DN-SB-4.0-5.0(RES)	OCDD	1.40 ng/Kg	1.40U ng/Kg
SL-007-SA5DN-SB-4.0-5.0(RES)	OCDF	0.210 ng/Kg	0.210U ng/Kg
SL-033-SA6-SB-2.5-3.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0637 ng/Kg	0.0637U ng/Kg
SL-033-SA6-SB-2.5-3.5(RES)	1,2,3,4,7,8-HXCDF	0.0799 ng/Kg	0.0799U ng/Kg
SL-033-SA6-SB-2.5-3.5(RES)	1,2,3,6,7,8-HXCDF	0.114 ng/Kg	0.114U ng/Kg
SL-033-SA6-SB-2.5-3.5(RES)	1,2,3,7,8,9-HXCDF	0.135 ng/Kg	0.135U ng/Kg
SL-033-SA6-SB-2.5-3.5(RES)	2,3,4,7,8-PECDF	0.248 ng/Kg	0.248U ng/Kg
SL-071-SA5DN-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0633 ng/Kg	0.0633U ng/Kg
SL-071-SA5DN-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0419 ng/Kg	0.0419U ng/Kg
SL-071-SA5DN-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0720 ng/Kg	0.0720U ng/Kg
SL-071-SA5DN-SB-4.0-5.0(RES)	OCDF	0.189 ng/Kg	0.189U ng/Kg
SL-071-SA5DN-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDD	0.729 ng/Kg	0.729U ng/Kg
SL-071-SA5DN-SB-9.0-10.0(RES)	1,2,3,4,7,8-HxCDD	0.0563 ng/Kg	0.0563U ng/Kg
SL-071-SA5DN-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.0310 ng/Kg	0.0310U ng/Kg
SL-071-SA5DN-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.0430 ng/Kg	0.0430U ng/Kg
SL-071-SA5DN-SB-9.0-10.0(RES)	OCDF	0.163 ng/Kg	0.163U ng/Kg
SL-072-SA5DN-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.287 ng/Kg	0.287U ng/Kg
SL-072-SA5DN-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0878 ng/Kg	0.0878U ng/Kg
SL-072-SA5DN-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.120 ng/Kg	0.120U ng/Kg
SL-072-SA5DN-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0802 ng/Kg	0.0802U ng/Kg
SL-151-SA6-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.281 ng/Kg	0.281U ng/Kg
SL-151-SA6-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0582 ng/Kg	0.0582U ng/Kg
SL-151-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0441 ng/Kg	0.0441U ng/Kg
SL-151-SA6-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0497 ng/Kg	0.0497U ng/Kg
SL-151-SA6-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.126 ng/Kg	0.126U ng/Kg
SL-151-SA6-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0481 ng/Kg	0.0481U ng/Kg
SL-151-SA6-SB-4.0-5.0(RES)	OCDD	1.13 ng/Kg	1.13U ng/Kg
SL-151-SA6-SB-4.0-5.0(RES)	OCDF	0.181 ng/Kg	0.181U ng/Kg
SL-151-SA6-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDD	0.313 ng/Kg	0.313U ng/Kg
SL-151-SA6-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0921 ng/Kg	0.0921U ng/Kg
SL-151-SA6-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0649 ng/Kg	0.0649U ng/Kg
SL-151-SA6-SB-9.0-10.0(RES)	1,2,3,4,7,8-HxCDD	0.0891 ng/Kg	0.0891U ng/Kg
SL-151-SA6-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.114 ng/Kg	0.114U ng/Kg
SL-151-SA6-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.0958 ng/Kg	0.0958U ng/Kg
SL-151-SA6-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDD	0.102 ng/Kg	0.102U ng/Kg
SL-151-SA6-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDF	0.127 ng/Kg	0.127U ng/Kg
SL-151-SA6-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.218 ng/Kg	0.218U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX127 **Laboratory: LL**

EDD Filename: DX127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-151-SA6-SB-9.0-10.0(RES)	OCDD	0.891 ng/Kg	0.891U ng/Kg
SL-151-SA6-SB-9.0-10.0(RES)	OCDF	0.181 ng/Kg	0.181U ng/Kg
SL-155-SA6-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.232 ng/Kg	0.232U ng/Kg
SL-155-SA6-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0664 ng/Kg	0.0664U ng/Kg
SL-155-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0694 ng/Kg	0.0694U ng/Kg
SL-155-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0905 ng/Kg	0.0905U ng/Kg
SL-155-SA6-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0916 ng/Kg	0.0916U ng/Kg
SL-155-SA6-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.150 ng/Kg	0.150U ng/Kg
SL-155-SA6-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.110 ng/Kg	0.110U ng/Kg
SL-155-SA6-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.139 ng/Kg	0.139U ng/Kg
SL-155-SA6-SB-4.0-5.0(RES)	OCDD	0.725 ng/Kg	0.725U ng/Kg
SL-155-SA6-SB-4.0-5.0(RES)	OCDF	0.112 ng/Kg	0.112U ng/Kg
SL-174-SA6-SB-2.0-3.0(RES)	1,2,3,4,6,7,8-HPCDD	0.395 ng/Kg	0.395U ng/Kg
SL-174-SA6-SB-2.0-3.0(RES)	1,2,3,4,6,7,8-HPCDF	0.102 ng/Kg	0.102U ng/Kg
SL-174-SA6-SB-2.0-3.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0881 ng/Kg	0.0881U ng/Kg
SL-174-SA6-SB-2.0-3.0(RES)	1,2,3,4,7,8-HXCDF	0.128 ng/Kg	0.128U ng/Kg
SL-174-SA6-SB-2.0-3.0(RES)	1,2,3,6,7,8-HXCDF	0.117 ng/Kg	0.117U ng/Kg
SL-174-SA6-SB-2.0-3.0(RES)	1,2,3,7,8,9-HXCDD	0.144 ng/Kg	0.144U ng/Kg
SL-174-SA6-SB-2.0-3.0(RES)	2,3,4,7,8-PECDF	0.163 ng/Kg	0.163U ng/Kg
SL-174-SA6-SB-2.0-3.0(RES)	OCDD	1.06 ng/Kg	1.06U ng/Kg
SL-174-SA6-SB-2.0-3.0(RES)	OCDF	0.147 ng/Kg	0.147U ng/Kg
SL-182-SA6-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.362 ng/Kg	0.362U ng/Kg
SL-182-SA6-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0898 ng/Kg	0.0898U ng/Kg
SL-182-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0699 ng/Kg	0.0699U ng/Kg
SL-182-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.201 ng/Kg	0.201U ng/Kg
SL-182-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.202 ng/Kg	0.202U ng/Kg
SL-182-SA6-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.151 ng/Kg	0.151U ng/Kg
SL-182-SA6-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.170 ng/Kg	0.170U ng/Kg
SL-182-SA6-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.163 ng/Kg	0.163U ng/Kg
SL-182-SA6-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.244 ng/Kg	0.244U ng/Kg
SL-182-SA6-SB-4.0-5.0(RES)	OCDF	0.232 ng/Kg	0.232U ng/Kg
SL-182-SA6-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDD	0.205 ng/Kg	0.205U ng/Kg
SL-182-SA6-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0749 ng/Kg	0.0749U ng/Kg
SL-182-SA6-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.108 ng/Kg	0.108U ng/Kg
SL-182-SA6-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.154 ng/Kg	0.154U ng/Kg
SL-182-SA6-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDD	0.121 ng/Kg	0.121U ng/Kg
SL-182-SA6-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDF	0.183 ng/Kg	0.183U ng/Kg
SL-182-SA6-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.242 ng/Kg	0.242U ng/Kg
SL-182-SA6-SB-9.0-10.0(RES)	OCDD	0.713 ng/Kg	0.713U ng/Kg
SL-182-SA6-SB-9.0-10.0(RES)	OCDF	0.214 ng/Kg	0.214U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX127 **Laboratory: LL**

EDD Filename: DX127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-183-SA6-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.505 ng/Kg	0.505U ng/Kg
SL-183-SA6-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.143 ng/Kg	0.143U ng/Kg
SL-183-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0969 ng/Kg	0.0969U ng/Kg
SL-183-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.131 ng/Kg	0.131U ng/Kg
SL-183-SA6-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0731 ng/Kg	0.0731U ng/Kg
SL-183-SA6-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.123 ng/Kg	0.123U ng/Kg
SL-183-SA6-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0788 ng/Kg	0.0788U ng/Kg
SL-183-SA6-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.142 ng/Kg	0.142U ng/Kg
SL-183-SA6-SB-4.0-5.0(RES)	OCDF	0.172 ng/Kg	0.172U ng/Kg
SL-183-SA6-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDD	0.319 ng/Kg	0.319U ng/Kg
SL-183-SA6-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0403 ng/Kg	0.0403U ng/Kg
SL-183-SA6-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0560 ng/Kg	0.0560U ng/Kg
SL-183-SA6-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDD	0.0561 ng/Kg	0.0561U ng/Kg
SL-183-SA6-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDF	0.0576 ng/Kg	0.0576U ng/Kg
SL-183-SA6-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.0471 ng/Kg	0.0471U ng/Kg
SL-183-SA6-SB-9.0-10.0(RES)	OCDD	0.572 ng/Kg	0.572U ng/Kg
SL-183-SA6-SB-9.0-10.0(RES)	OCDF	0.307 ng/Kg	0.307U ng/Kg
SL-185-SA6-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.512 ng/Kg	0.512U ng/Kg
SL-185-SA6-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0569 ng/Kg	0.0569U ng/Kg
SL-185-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0581 ng/Kg	0.0581U ng/Kg
SL-185-SA6-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0495 ng/Kg	0.0495U ng/Kg
SL-185-SA6-SB-4.0-5.0(RES)	OCDF	0.133 ng/Kg	0.133U ng/Kg
SL-185-SA6-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDD	0.159 ng/Kg	0.159U ng/Kg
SL-185-SA6-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0381 ng/Kg	0.0381U ng/Kg
SL-185-SA6-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0597 ng/Kg	0.0597U ng/Kg
SL-185-SA6-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDD	0.0768 ng/Kg	0.0768U ng/Kg
SL-185-SA6-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.120 ng/Kg	0.120U ng/Kg
SL-185-SA6-SB-9.0-10.0(RES)	OCDD	1.04 ng/Kg	1.04U ng/Kg
SL-185-SA6-SB-9.0-10.0(RES)	OCDF	0.214 ng/Kg	0.214U ng/Kg
SL-207-SA5DN-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.287 ng/Kg	0.287U ng/Kg
SL-207-SA5DN-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0816 ng/Kg	0.0816U ng/Kg
SL-207-SA5DN-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0557 ng/Kg	0.0557U ng/Kg
SL-207-SA5DN-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0579 ng/Kg	0.0579U ng/Kg
SL-207-SA5DN-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0791 ng/Kg	0.0791U ng/Kg
SL-207-SA5DN-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0982 ng/Kg	0.0982U ng/Kg
SL-207-SA5DN-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.0769 ng/Kg	0.0769U ng/Kg
SL-207-SA5DN-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0923 ng/Kg	0.0923U ng/Kg
SL-207-SA5DN-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.163 ng/Kg	0.163U ng/Kg
SL-207-SA5DN-SB-4.0-5.0(RES)	OCDD	1.21 ng/Kg	1.21U ng/Kg
SL-207-SA5DN-SB-4.0-5.0(RES)	OCDF	0.162 ng/Kg	0.162U ng/Kg

Field Duplicate RPD Report

Lab Reporting Batch ID: DX127 **Laboratory: LL**

EDD Filename: DX127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-155-SA6-SB-4.0-5.0	DUP24-SA6-QC-081111			
MOISTURE	5.6	5.0	11		No Qualifiers Applied

Method: 1613B
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-155-SA6-SB-4.0-5.0	DUP24-SA6-QC-081111			
1,2,3,4,6,7,8-HPCDD	0.232	0.232	0	50.00	No Qualifiers Applied
1,2,3,4,6,7,8-HPCDF	0.0664	0.0533	22	50.00	
1,2,3,6,7,8-HXCDF	0.0916	0.0558	49	50.00	
OCDD	0.725	0.660	9	50.00	
1,2,3,4,7,8-HxCDD	0.0694	5.18 U	200	50.00	J(all detects) UJ(all non-detects)
1,2,3,4,7,8-HXCDF	0.0905	5.18 U	200	50.00	
1,2,3,6,7,8-HXCDD	0.0909	5.18 U	200	50.00	
1,2,3,7,8,9-HXCDD	0.150	0.0534	95	50.00	
1,2,3,7,8,9-HXCDF	0.110	0.0562	65	50.00	
1,2,3,7,8-PECDD	0.185	0.0893	70	50.00	
1,2,3,7,8-PECDF	0.164	5.18 U	200	50.00	
2,3,4,6,7,8-HXCDF	0.0675	5.18 U	200	50.00	
2,3,4,7,8-PECDF	0.139	0.0707	65	50.00	
OCDF	0.112	0.226	67	50.00	

Reporting Limit Outliers

Lab Reporting Batch ID: DX127 | Laboratory: LL

EDD Filename: DX127_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA5DN-SB-081111	1,2,3,4,6,7,8-HPCDD	JB	2.76	10.6	PQL	pg/L	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.446	10.6	PQL	pg/L	
	1,2,3,4,7,8,9-HPCDF	JB	0.161	10.6	PQL	pg/L	
	1,2,3,4,7,8-HXCDF	JBQ	0.217	10.6	PQL	pg/L	
	1,2,3,6,7,8-HXCDD	JBQ	0.274	10.6	PQL	pg/L	
	1,2,3,6,7,8-HXCDF	JB	0.164	10.6	PQL	pg/L	
	1,2,3,7,8,9-HXCDD	JBQ	0.193	10.6	PQL	pg/L	
	1,2,3,7,8,9-HXCDF	JBQ	0.200	10.6	PQL	pg/L	J (all detects)
	1,2,3,7,8-PECDD	JB	0.136	10.6	PQL	pg/L	
	1,2,3,7,8-PECDF	JBQ	0.0761	10.6	PQL	pg/L	
	2,3,4,6,7,8-HXCDF	JBQ	0.126	10.6	PQL	pg/L	
	2,3,4,7,8-PECDF	JB	0.273	10.6	PQL	pg/L	
	2,3,7,8-TCDD	JBQ	0.152	2.11	PQL	pg/L	
	OCDD	JB	4.40	21.1	PQL	pg/L	
	OCDF	JB	0.433	21.1	PQL	pg/L	

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP24-SA6-QC-081111	1,2,3,4,6,7,8-HPCDD	JB	0.232	5.18	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0533	5.18	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0558	5.18	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0534	5.18	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0562	5.18	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JQ	0.0893	5.18	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0707	5.18	PQL	ng/Kg	
	OCDD	JB	0.660	10.4	PQL	ng/Kg	
	OCDF	JBQ	0.226	10.4	PQL	ng/Kg	
SL-006-SA5DN-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	1.55	5.66	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.319	5.66	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0768	5.66	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0663	5.66	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.105	5.66	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0327	5.66	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.135	5.66	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0986	5.66	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0828	5.66	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.0468	5.66	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.0584	5.66	PQL	ng/Kg	
	OCDF	JBQ	0.827	11.3	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX127 **Laboratory: LL**

EDD Filename: DX127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-006-SA5DN-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	0.361	5.57	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0869	5.57	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0536	5.57	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0477	5.57	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.106	5.57	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.0590	5.57	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0769	5.57	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0945	5.57	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0605	5.57	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.116	5.57	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.0939	5.57	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	J	0.0503	5.57	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.112	5.57	PQL	ng/Kg	
	OCDD	JB	2.44	11.1	PQL	ng/Kg	
	OCDF	JB	0.263	11.1	PQL	ng/Kg	
SL-007-SA5DN-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.367	5.82	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.0691	5.82	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0606	5.82	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0813	5.82	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.219	5.82	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0976	5.82	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDD	JBQ	0.375	5.82	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.0843	5.82	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.0768	5.82	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0923	5.82	PQL	ng/Kg	
	OCDD	JBQ	1.40	11.6	PQL	ng/Kg	
	OCDF	JBQ	0.210	11.6	PQL	ng/Kg	
SL-033-SA6-SB-2.5-3.5	1,2,3,4,6,7,8-HPCDD	JB	4.60	5.18	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.947	5.18	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0637	5.18	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0799	5.18	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.196	5.18	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.114	5.18	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.237	5.18	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.135	5.18	PQL	ng/Kg	
	1,2,3,7,8-PECDD	J	0.0952	5.18	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.134	5.18	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.248	5.18	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.112	1.04	PQL	ng/Kg	
	OCDF	JB	2.48	10.4	PQL	ng/Kg	
SL-071-SA5DN-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	1.32	5.71	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0633	5.71	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0419	5.71	PQL	ng/Kg	J (all detects)
	1,2,3,6,7,8-HXCDD	J	0.0705	5.71	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0720	5.71	PQL	ng/Kg	
	OCDF	JB	0.189	11.4	PQL	ng/Kg	
SL-071-SA5DN-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	0.729	5.53	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0563	5.53	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0310	5.53	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.0528	5.53	PQL	ng/Kg	J (all detects)
	2,3,4,6,7,8-HXCDF	JQ	0.0557	5.53	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0430	5.53	PQL	ng/Kg	
	OCDD	JB	2.98	11.1	PQL	ng/Kg	
	OCDF	JB	0.163	11.1	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX127 **Laboratory: LL**

EDD Filename: DX127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-072-SA5DN-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDF	JB	2.30	5.93	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	JBQ	0.287	5.93	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.950	5.93	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0878	5.93	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.477	5.93	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.120	5.93	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.0947	5.93	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.220	5.93	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0802	5.93	PQL	ng/Kg	
	OCDF	JB	5.56	11.9	PQL	ng/Kg	
SL-151-SA6-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.281	5.20	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0582	5.20	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0441	5.20	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.0504	5.20	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0497	5.20	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.126	5.20	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.0458	5.20	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	J	0.0398	5.20	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0481	5.20	PQL	ng/Kg	
	OCDD	JB	1.13	10.4	PQL	ng/Kg	
	OCDF	JB	0.181	10.4	PQL	ng/Kg	
SL-151-SA6-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.313	5.59	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.0921	5.59	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0649	5.59	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0891	5.59	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.114	5.59	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.0887	5.59	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0958	5.59	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.102	5.59	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.127	5.59	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.274	5.59	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.213	5.59	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.0772	5.59	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.218	5.59	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.128	1.12	PQL	ng/Kg	
	OCDD	JBQ	0.891	11.2	PQL	ng/Kg	
	OCDF	JB	0.181	11.2	PQL	ng/Kg	
SL-155-SA6-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.232	5.28	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0664	5.28	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0694	5.28	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0905	5.28	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.0909	5.28	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0916	5.28	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.150	5.28	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.110	5.28	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.185	5.28	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.164	5.28	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	J	0.0675	5.28	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.139	5.28	PQL	ng/Kg	
	OCDD	JB	0.725	10.6	PQL	ng/Kg	
	OCDF	JBQ	0.112	10.6	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX127 | Laboratory: LL

EDD Filename: DX127_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-174-SA6-SB-2.0-3.0	1,2,3,4,6,7,8-HPCDD	JB	0.395	5.21	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.102	5.21	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0881	5.21	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.128	5.21	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.154	5.21	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.117	5.21	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.144	5.21	PQL	ng/Kg	
	1,2,3,7,8-PECDD	J	0.119	5.21	PQL	ng/Kg	
	1,2,3,7,8-PECDF	J	0.103	5.21	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	J	0.113	5.21	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.163	5.21	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.101	1.04	PQL	ng/Kg	
	OCDD	JB	1.06	10.4	PQL	ng/Kg	
	OCDF	JBQ	0.147	10.4	PQL	ng/Kg	
SL-182-SA6-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.362	5.25	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0898	5.25	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0699	5.25	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.201	5.25	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.202	5.25	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.131	5.25	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.151	5.25	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.170	5.25	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.163	5.25	PQL	ng/Kg	
	1,2,3,7,8-PECDD	J	0.146	5.25	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.325	5.25	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.126	5.25	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.244	5.25	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.128	1.05	PQL	ng/Kg	
	OCDD	JB	3.62	10.5	PQL	ng/Kg	
	OCDF	JB	0.232	10.5	PQL	ng/Kg	
SL-182-SA6-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	0.205	5.60	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.0749	5.60	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.108	5.60	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.154	5.60	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.0984	5.60	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.197	5.60	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.121	5.60	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.183	5.60	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.287	5.60	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.159	5.60	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	J	0.0407	5.60	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.242	5.60	PQL	ng/Kg	
	OCDD	JBQ	0.713	11.2	PQL	ng/Kg	
	OCDF	JBQ	0.214	11.2	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX127 **Laboratory: LL**

EDD Filename: DX127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-183-SA6-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.505	5.48	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.143	5.48	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0969	5.48	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.131	5.48	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.136	5.48	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0731	5.48	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.123	5.48	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0788	5.48	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JQ	0.203	5.48	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.233	5.48	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.0800	5.48	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.142	5.48	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.136	1.10	PQL	ng/Kg	
	OCDD	JB	3.53	11.0	PQL	ng/Kg	
	OCDF	JB	0.172	11.0	PQL	ng/Kg	
SL-183-SA6-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.319	5.53	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0403	5.53	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0560	5.53	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0561	5.53	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0576	5.53	PQL	ng/Kg	J (all detects)
	2,3,4,6,7,8-HXCDF	J	0.0399	5.53	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0471	5.53	PQL	ng/Kg	
	OCDD	JB	0.572	11.1	PQL	ng/Kg	
	OCDF	JB	0.307	11.1	PQL	ng/Kg	
SL-185-SA6-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.512	5.52	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0569	5.52	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0581	5.52	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.475	5.52	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0631	5.52	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDF	JQ	0.0752	5.52	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0495	5.52	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0786	1.10	PQL	ng/Kg	
	OCDD	JB	3.90	11.0	PQL	ng/Kg	
	OCDF	JBQ	0.133	11.0	PQL	ng/Kg	
SL-185-SA6-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	0.159	5.57	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0381	5.57	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0597	5.57	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.0760	5.57	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0768	5.57	PQL	ng/Kg	J (all detects)
	2,3,4,7,8-PECDF	JBQ	0.120	5.57	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0961	1.11	PQL	ng/Kg	
	OCDD	JB	1.04	11.1	PQL	ng/Kg	
	OCDF	JBQ	0.214	11.1	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX127 **Laboratory: LL**

EDD Filename: DX127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
SL-207-SA5DN-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.287	5.66	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.0816	5.66	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0557	5.66	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0579	5.66	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0791	5.66	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.106	5.66	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0982	5.66	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0769	5.66	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0923	5.66	PQL	ng/Kg	
	1,2,3,7,8-PECDD	J	0.180	5.66	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JQ	0.218	5.66	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.0740	5.66	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.163	5.66	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.105	1.13	PQL	ng/Kg	
	OCDD	JB	1.21	11.3	PQL	ng/Kg	
	OCDF	JB	0.162	11.3	PQL	ng/Kg	

SAMPLE DELIVERY GROUP

DX129

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Aug-2011	SL-154-SA6-SB-3.0-4.0	6380503	N	METHOD	1613B	III
17-Aug-2011	SL-224-SA6-SB-3.0-4.0	6380506	N	METHOD	1613B	III
17-Aug-2011	SL-224-SA6-SB-3.0-4.0MS	6380507	MS	METHOD	1613B	III
17-Aug-2011	SL-224-SA6-SB-3.0-4.0MSD	6380508	MSD	METHOD	1613B	III
17-Aug-2011	DUP12-SA6-QC-081711	6380510	FD	METHOD	1613B	III
17-Aug-2011	SL-221-SA6-SB-1.0-2.0	6380504	N	METHOD	1613B	III
17-Aug-2011	SL-223-SA6-SB-2.5-3.5	6380505	N	METHOD	1613B	III
17-Aug-2011	EB-SA6-SB-081711	6380511	EB	METHOD	1613B	III
17-Aug-2011	SL-226-SA6-SB-3.5-4.5	6380509	N	METHOD	1613B	III
19-Aug-2011	SL-315-SA6-SB-3.0-4.0	6382932	N	METHOD	1613B	III
19-Aug-2011	SL-214-SA6-SB-1.0-2.0	6382933	N	METHOD	1613B	III
22-Aug-2011	SL-007-SA5DN-SS-0.0-0.5	6384486	N	METHOD	1613B	III
22-Aug-2011	SL-215-SA6-SB-4.0-5.0	6384477	N	METHOD	1613B	III
22-Aug-2011	SL-310-SA6-SB-4.0-5.0	6384485	N	METHOD	1613B	III
22-Aug-2011	SL-279-SA6-SB-1.0-2.0	6384482	N	METHOD	1613B	III
22-Aug-2011	SL-279-SA6-SB-4.0-5.0	6384483	N	METHOD	1613B	III
22-Aug-2011	SL-242-SA6-SB-9.0-10.0	6384481	N	METHOD	1613B	III
22-Aug-2011	SL-242-SA6-SB-4.0-5.0	6384480	N	METHOD	1613B	III
22-Aug-2011	SL-279-SA6-SB-9.0-10.0	6384484	N	METHOD	1613B	III
22-Aug-2011	SL-241-SA6-SB-4.0-5.0	6384478	N	METHOD	1613B	III
22-Aug-2011	SL-241-SA6-SB-9.0-10.0	6384479	N	METHOD	1613B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DX129 Laboratory: LL

EDD Filename: DX129_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM
Method: 1613B **Matrix:** AQ

Sample ID: EB-SA6-SB-081711 *Collected:* 8/17/2011 1:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.81	JBQ	0.554	MDL	9.56	PQL	pg/L	U	B
1,2,3,4,6,7,8-HPCDF	0.562	JBQ	0.236	MDL	9.56	PQL	pg/L	U	B
1,2,3,4,7,8,9-HPCDF	0.367	JBQ	0.274	MDL	9.56	PQL	pg/L	U	B
1,2,3,4,7,8-HxCDD	0.405	JBQ	0.372	MDL	9.56	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDF	0.277	JBQ	0.185	MDL	9.56	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDD	0.522	JBQ	0.373	MDL	9.56	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDF	0.316	JBQ	0.186	MDL	9.56	PQL	pg/L	U	B
1,2,3,7,8-PECDD	0.710	JBQ	0.490	MDL	9.56	PQL	pg/L	U	B
2,3,4,6,7,8-HXCDF	0.303	JBQ	0.172	MDL	9.56	PQL	pg/L	U	B
2,3,4,7,8-PECDF	0.740	JB	0.233	MDL	9.56	PQL	pg/L	U	B
OCDD	4.18	JBQ	0.374	MDL	19.1	PQL	pg/L	U	B
OCDF	0.569	JBQ	0.553	MDL	19.1	PQL	pg/L	U	B

Method Category: GENCHEM
Method: 1613B **Matrix:** SO

Sample ID: DUP12-SA6-QC-081711 *Collected:* 8/17/2011 10:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.310	JBQ	0.0390	MDL	5.30	PQL	ng/Kg	UJ	B, FD
1,2,3,4,6,7,8-HPCDF	0.156	JB	0.0139	MDL	5.30	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8-HxCDD	0.230	J	0.0482	MDL	5.30	PQL	ng/Kg	J	Z, FD
1,2,3,4,7,8-HXCDF	0.339	JB	0.0299	MDL	5.30	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HXCDD	0.244	JBQ	0.0475	MDL	5.30	PQL	ng/Kg	UJ	B, FD
1,2,3,6,7,8-HXCDF	0.344	JB	0.0276	MDL	5.30	PQL	ng/Kg	J	Z, FD
1,2,3,7,8,9-HXCDD	0.230	JB	0.0452	MDL	5.30	PQL	ng/Kg	J	Z, FD
1,2,3,7,8,9-HXCDF	0.229	JB	0.0307	MDL	5.30	PQL	ng/Kg	J	Z, FD
1,2,3,7,8-PECDD	0.483	JBQ	0.0624	MDL	5.30	PQL	ng/Kg	J	Z, FD
1,2,3,7,8-PECDF	0.585	JB	0.0344	MDL	5.30	PQL	ng/Kg	J	Z, FD
2,3,4,6,7,8-HXCDF	0.190	JBQ	0.0277	MDL	5.30	PQL	ng/Kg	J	Z, FD
2,3,4,7,8-PECDF	0.442	JB	0.0332	MDL	5.30	PQL	ng/Kg	J	Z, FD
2,3,7,8-TCDD	0.0807	JQ	0.0802	MDL	1.06	PQL	ng/Kg	J	Z, FD
2,3,7,8-TCDF	0.110	JQ	0.0573	MDL	1.06	PQL	ng/Kg	J	Z, FD
OCDD	0.299	JBQ	0.0365	MDL	10.6	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX129 **Laboratory:** LL

EDD Filename: DX129_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 1613B **Matrix:** SO

Sample ID: DUP12-SA6-QC-081711 *Collected:* 8/17/2011 10:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
OCDF	0.208	J	0.0569	MDL	10.6	PQL	ng/Kg	J	Z

Sample ID: SL-007-SA5DN-SS-0.0-0.5 *Collected:* 8/22/2011 8:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	3.19	JB	0.0378	MDL	5.55	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	1.57	J	0.0433	MDL	5.55	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.304	JQ	0.0642	MDL	5.55	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.739	JB	0.0634	MDL	5.55	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	3.15	JB	0.0751	MDL	5.55	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.621	JB	0.0629	MDL	5.55	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	2.04	JB	0.0807	MDL	5.55	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	1.94	JB	0.0746	MDL	5.55	PQL	ng/Kg	J	Z
OCDF	4.88	J	0.0558	MDL	11.1	PQL	ng/Kg	J	Z

Sample ID: SL-154-SA6-SB-3.0-4.0 *Collected:* 8/17/2011 7:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.382	JB	0.0461	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0307	JBQ	0.0121	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0300	JQ	0.0263	MDL	5.24	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0301	JB	0.0197	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0292	JBQ	0.0169	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0723	JBQ	0.0342	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0295	JBQ	0.0233	MDL	5.24	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0293	JBQ	0.0186	MDL	5.24	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0537	JBQ	0.0241	MDL	5.24	PQL	ng/Kg	U	B
OCDD	4.14	JB	0.0432	MDL	10.5	PQL	ng/Kg	J	Z
OCDF	0.0760	JQ	0.0708	MDL	10.5	PQL	ng/Kg	J	Z

Sample ID: SL-214-SA6-SB-1.0-2.0 *Collected:* 8/19/2011 11:32:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.443	JB	0.0448	MDL	5.34	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.133	JBQ	0.0139	MDL	5.34	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX129 **Laboratory:** LL

EDD Filename: DX129_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 1613B **Matrix:** SO

Sample ID: SL-214-SA6-SB-1.0-2.0 *Collected:* 8/19/2011 11:32:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.0450	JQ	0.0232	MDL	5.34	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.159	JQ	0.0446	MDL	5.34	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.210	JB	0.0271	MDL	5.34	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.142	JBQ	0.0432	MDL	5.34	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.186	JB	0.0248	MDL	5.34	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.229	JB	0.0432	MDL	5.34	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.137	JB	0.0278	MDL	5.34	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.212	JB	0.0727	MDL	5.34	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0933	JBQ	0.0248	MDL	5.34	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.313	JBQ	0.0288	MDL	5.34	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0910	JQ	0.0841	MDL	1.07	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0765	JQ	0.0530	MDL	1.07	PQL	ng/Kg	J	Z
OCDD	1.07	JB	0.0335	MDL	10.7	PQL	ng/Kg	U	B

Sample ID: SL-215-SA6-SB-4.0-5.0 *Collected:* 8/22/2011 8:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.27	JB	0.0609	MDL	5.53	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.539	JB	0.0189	MDL	5.53	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0675	JQ	0.0287	MDL	5.53	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.119	J	0.0444	MDL	5.53	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0803	JBQ	0.0287	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.193	JB	0.0450	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0649	JBQ	0.0257	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.212	JB	0.0434	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0339	JBQ	0.0322	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0891	JB	0.0608	MDL	5.53	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0542	JB	0.0263	MDL	5.53	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0727	JBQ	0.0292	MDL	5.53	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0689	JQ	0.0617	MDL	1.11	PQL	ng/Kg	J	Z
OCDF	1.81	JQ	0.0649	MDL	11.1	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX129 **Laboratory:** LL

EDD Filename: DX129_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 1613B **Matrix:** SO

Sample ID: SL-221-SA6-SB-1.0-2.0 *Collected:* 8/17/2011 10:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.06	JBQ	0.0597	MDL	5.29	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.170	JB	0.0163	MDL	5.29	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0420	JBQ	0.0230	MDL	5.29	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.102	JBQ	0.0381	MDL	5.29	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0361	JBQ	0.0209	MDL	5.29	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0801	JBQ	0.0409	MDL	5.29	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0409	JBQ	0.0278	MDL	5.29	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0302	JBQ	0.0221	MDL	5.29	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0437	JBQ	0.0256	MDL	5.29	PQL	ng/Kg	U	B
OCDF	0.512	JQ	0.0683	MDL	10.6	PQL	ng/Kg	J	Z

Sample ID: SL-223-SA6-SB-2.5-3.5 *Collected:* 8/17/2011 11:56:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.358	JB	0.0611	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0574	JBQ	0.0180	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0303	JB	0.0270	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0970	JBQ	0.0389	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0868	JBQ	0.0279	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0875	JBQ	0.0742	MDL	5.00	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0888	JB	0.0347	MDL	5.00	PQL	ng/Kg	U	B
OCDD	2.16	JB	0.0413	MDL	10.0	PQL	ng/Kg	J	Z
OCDF	0.367	JQ	0.0953	MDL	10.0	PQL	ng/Kg	J	Z

Sample ID: SL-224-SA6-SB-3.0-4.0 *Collected:* 8/17/2011 10:06:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.131	JBQ	0.0533	MDL	5.26	PQL	ng/Kg	UJ	B, FD
1,2,3,4,6,7,8-HPCDF	0.0332	JB	0.0182	MDL	5.26	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8-HxCDD	0.0433	U	0.0433	MDL	5.26	PQL	ng/Kg	UJ	FD
1,2,3,4,7,8-HXCDF	0.0268	U	0.0268	MDL	5.26	PQL	ng/Kg	UJ	FD
1,2,3,6,7,8-HXCDD	0.0414	U	0.0414	MDL	5.26	PQL	ng/Kg	UJ	FD
1,2,3,6,7,8-HXCDF	0.0232	U	0.0232	MDL	5.26	PQL	ng/Kg	UJ	FD
1,2,3,7,8,9-HXCDD	0.0949	JBQ	0.0389	MDL	5.26	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8,9-HXCDF	0.0239	U	0.0239	MDL	5.26	PQL	ng/Kg	UJ	FD

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX129 **Laboratory:** LL

EDD Filename: DX129_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 1613B **Matrix:** SO

Sample ID: SL-224-SA6-SB-3.0-4.0 *Collected:* 8/17/2011 10:06:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8-PECDD	0.0659	U	0.0659	MDL	5.26	PQL	ng/Kg	UJ	FD
1,2,3,7,8-PECDF	0.0312	JB	0.0292	MDL	5.26	PQL	ng/Kg	UJ	B, FD
2,3,4,6,7,8-HXCDF	0.0209	U	0.0209	MDL	5.26	PQL	ng/Kg	UJ	FD
2,3,4,7,8-PECDF	0.0298	JBQ	0.0287	MDL	5.26	PQL	ng/Kg	UJ	B, FD
2,3,7,8-TCDD	0.0769	U	0.0769	MDL	1.05	PQL	ng/Kg	UJ	FD
2,3,7,8-TCDF	0.0635	U	0.0635	MDL	1.05	PQL	ng/Kg	UJ	FD
OCDD	0.263	JBQ	0.0435	MDL	10.5	PQL	ng/Kg	U	B
OCDF	0.133	JQ	0.0823	MDL	10.5	PQL	ng/Kg	J	Z

Sample ID: SL-226-SA6-SB-3.5-4.5 *Collected:* 8/17/2011 2:53:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.946	JB	0.0518	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.219	JB	0.0157	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0948	J	0.0255	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.165	J	0.0376	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.196	JB	0.0298	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.230	JB	0.0376	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.189	JBQ	0.0272	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.233	JBQ	0.0357	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.225	JB	0.0307	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.229	JB	0.0620	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.344	JB	0.0310	MDL	5.18	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.128	JBQ	0.0275	MDL	5.18	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.314	JB	0.0289	MDL	5.18	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.170	JQ	0.0763	MDL	1.04	PQL	ng/Kg	J	Z
OCDF	0.539	J	0.0608	MDL	10.4	PQL	ng/Kg	J	Z

Sample ID: SL-241-SA6-SB-4.0-5.0 *Collected:* 8/22/2011 12:12:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.282	JBQ	0.0363	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0463	JBQ	0.0109	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0399	J	0.0165	MDL	5.21	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0506	JB	0.0187	MDL	5.21	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX129 **Laboratory:** LL

EDD Filename: DX129_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 1613B **Matrix:** SO

Sample ID: SL-241-SA6-SB-4.0-5.0 *Collected:* 8/22/2011 12:12:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,6,7,8-HXCDD	0.0570	JB	0.0255	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0240	JB	0.0168	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0388	JBQ	0.0248	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0320	JBQ	0.0194	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0225	JBQ	0.0218	MDL	5.21	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0267	JBQ	0.0162	MDL	5.21	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0522	JB	0.0206	MDL	5.21	PQL	ng/Kg	U	B
OCDD	1.56	JB	0.0329	MDL	10.4	PQL	ng/Kg	U	B
OCDF	0.107	J	0.0465	MDL	10.4	PQL	ng/Kg	J	Z

Sample ID: SL-241-SA6-SB-9.0-10.0 *Collected:* 8/22/2011 12:13:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.283	JB	0.0420	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0462	JB	0.0103	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0313	JQ	0.0155	MDL	5.37	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0239	JBQ	0.0190	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0483	JB	0.0293	MDL	5.37	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0221	JBQ	0.0172	MDL	5.37	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0861	JBQ	0.0221	MDL	5.37	PQL	ng/Kg	U	B
OCDD	0.480	JB	0.0321	MDL	10.7	PQL	ng/Kg	U	B
OCDF	0.147	JQ	0.0565	MDL	10.7	PQL	ng/Kg	J	Z

Sample ID: SL-242-SA6-SB-4.0-5.0 *Collected:* 8/22/2011 11:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.315	JB	0.0422	MDL	5.29	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0498	JB	0.0109	MDL	5.29	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0427	JQ	0.0183	MDL	5.29	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0257	JB	0.0196	MDL	5.29	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.114	JBQ	0.0288	MDL	5.29	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0239	JBQ	0.0175	MDL	5.29	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.218	JB	0.0276	MDL	5.29	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.216	JB	0.0206	MDL	5.29	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0640	JBQ	0.0218	MDL	5.29	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX129 **Laboratory: LL**

EDD Filename: DX129_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 1613B **Matrix: SO**

Sample ID: SL-242-SA6-SB-4.0-5.0 *Collected:* 8/22/2011 11:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,4,6,7,8-HXCDF	0.0301	JBQ	0.0179	MDL	5.29	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0342	JB	0.0213	MDL	5.29	PQL	ng/Kg	U	B
OCDD	2.25	JB	0.0320	MDL	10.6	PQL	ng/Kg	J	Z
OCDF	0.100	JQ	0.0536	MDL	10.6	PQL	ng/Kg	J	Z

Sample ID: SL-242-SA6-SB-9.0-10.0 *Collected:* 8/22/2011 11:04:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.365	JB	0.0421	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.122	JBQ	0.0137	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0507	JQ	0.0223	MDL	5.25	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.0342	JQ	0.0341	MDL	5.25	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0763	JBQ	0.0253	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0837	JBQ	0.0348	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0473	JBQ	0.0232	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0946	JBQ	0.0344	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0529	JBQ	0.0264	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0885	JBQ	0.0537	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.195	JBQ	0.0292	MDL	5.25	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0765	JBQ	0.0232	MDL	5.25	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.170	JB	0.0264	MDL	5.25	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0834	J	0.0686	MDL	1.05	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0563	JQ	0.0512	MDL	1.05	PQL	ng/Kg	J	Z
OCDD	1.41	JB	0.0368	MDL	10.5	PQL	ng/Kg	U	B
OCDF	0.166	JQ	0.0489	MDL	10.5	PQL	ng/Kg	J	Z

Sample ID: SL-279-SA6-SB-1.0-2.0 *Collected:* 8/22/2011 10:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.969	JB	0.0452	MDL	5.08	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.166	JB	0.0120	MDL	5.08	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0667	J	0.0254	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.0900	J	0.0345	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.196	JB	0.0269	MDL	5.08	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.156	JB	0.0362	MDL	5.08	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX129 **Laboratory:** LL

EDD Filename: DX129_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 1613B **Matrix:** SO

Sample ID: SL-279-SA6-SB-1.0-2.0 *Collected:* 8/22/2011 10:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,6,7,8-HXCDF	0.169	JBQ	0.0233	MDL	5.08	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.151	JB	0.0351	MDL	5.08	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.162	JB	0.0289	MDL	5.08	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.222	JB	0.0450	MDL	5.08	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.324	JB	0.0250	MDL	5.08	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.111	JBQ	0.0240	MDL	5.08	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.301	JB	0.0249	MDL	5.08	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0657	J	0.0533	MDL	1.02	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0889	J	0.0408	MDL	1.02	PQL	ng/Kg	J	Z
OCDD	9.19	JB	0.0400	MDL	10.2	PQL	ng/Kg	J	Z
OCDF	0.372	JQ	0.0524	MDL	10.2	PQL	ng/Kg	J	Z

Sample ID: SL-279-SA6-SB-4.0-5.0 *Collected:* 8/22/2011 11:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.389	JBQ	0.0458	MDL	5.13	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.157	JB	0.0144	MDL	5.13	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0531	JQ	0.0258	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.138	JQ	0.0376	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.178	JB	0.0270	MDL	5.13	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.150	JBQ	0.0383	MDL	5.13	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.142	JBQ	0.0234	MDL	5.13	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.131	JBQ	0.0382	MDL	5.13	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.153	JBQ	0.0259	MDL	5.13	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.315	JBQ	0.0619	MDL	5.13	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.334	JB	0.0293	MDL	5.13	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.119	JBQ	0.0243	MDL	5.13	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.320	JB	0.0278	MDL	5.13	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.121	J	0.0741	MDL	1.03	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0977	JQ	0.0489	MDL	1.03	PQL	ng/Kg	J	Z
OCDD	1.95	JB	0.0362	MDL	10.3	PQL	ng/Kg	U	B
OCDF	0.161	JQ	0.0628	MDL	10.3	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX129 **Laboratory: LL**

EDD Filename: DX129_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 1613B **Matrix: SO**

Sample ID: SL-279-SA6-SB-9.0-10.0 *Collected:* 8/22/2011 11:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	1.57	JB	0.0484	MDL	5.39	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.271	JBQ	0.0158	MDL	5.39	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0889	J	0.0316	MDL	5.39	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.116	JQ	0.0368	MDL	5.39	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.211	JB	0.0243	MDL	5.39	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.146	JB	0.0368	MDL	5.39	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.145	JBQ	0.0213	MDL	5.39	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.125	JBQ	0.0370	MDL	5.39	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.124	JB	0.0274	MDL	5.39	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.126	JBQ	0.0511	MDL	5.39	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.230	JB	0.0270	MDL	5.39	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0814	JB	0.0232	MDL	5.39	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.224	JBQ	0.0258	MDL	5.39	PQL	ng/Kg	U	B
OCDF	0.654	JQ	0.0621	MDL	10.8	PQL	ng/Kg	J	Z

Sample ID: SL-310-SA6-SB-4.0-5.0 *Collected:* 8/22/2011 9:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.28	JB	0.0348	MDL	5.48	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.301	JB	0.0139	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0415	JB	0.0205	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0491	JB	0.0154	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.170	JBQ	0.0246	MDL	5.48	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0273	JB	0.0135	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.210	JBQ	0.0230	MDL	5.48	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.113	JBQ	0.0163	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0304	JBQ	0.0181	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0750	JBQ	0.0135	MDL	5.48	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0322	JBQ	0.0138	MDL	5.48	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0637	JBQ	0.0138	MDL	5.48	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0246	J	0.0218	MDL	1.10	PQL	ng/Kg	J	Z
OCDF	0.781	JB	0.0285	MDL	11.0	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX129 **Laboratory: LL**

EDD Filename: DX129_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **GENCHEM**

Method: **1613B** ***Matrix:*** **SO**

Sample ID: SL-315-SA6-SB-3.0-4.0 ***Collected:*** 8/19/2011 8:14:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	2.46	JB	0.0315	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.491	J	0.0494	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.458	JQ	0.0561	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.353	JB	0.0351	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.537	JBQ	0.0545	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.280	JB	0.0316	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.370	JB	0.0523	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.226	JBQ	0.0343	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.615	JB	0.0524	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.516	JBQ	0.0277	MDL	5.18	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.264	JB	0.0306	MDL	5.18	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.464	JB	0.0256	MDL	5.18	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.163	JQ	0.0548	MDL	1.04	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0808	J	0.0416	MDL	1.04	PQL	ng/Kg	J	Z
OCDF	4.83	J	0.0503	MDL	10.4	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX129 **Laboratory: LL**

EDD Filename: DX129_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Laboratory Triplicate Precision
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX129 **Laboratory: LL**

EDD Filename: DX129_v1 **eQAPP Name: CDM_SSFL_110509**

F	Equipment Blank Contamination
F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX129 **Laboratory: LL**

EDD Filename: DX129_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Estimation
R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DX129

Method Blank Outlier Report

Lab Reporting Batch ID: DX129 **Laboratory: LL**

EDD Filename: DX129_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK2340B371734	8/23/2011 5:34:00 PM	1,2,3,4,6,7,8-HPCDD	2.80 pg/L	EB-SA6-SB-081711
		1,2,3,4,6,7,8-HPCDF	0.632 pg/L	
		1,2,3,4,7,8,9-HPCDF	0.512 pg/L	
		1,2,3,4,7,8-HxCDD	0.765 pg/L	
		1,2,3,4,7,8-HXCDF	0.547 pg/L	
		1,2,3,6,7,8-HXCDD	0.856 pg/L	
		1,2,3,6,7,8-HXCDF	0.489 pg/L	
		1,2,3,7,8,9-HXCDD	0.876 pg/L	
		1,2,3,7,8,9-HXCDF	0.588 pg/L	
		1,2,3,7,8-PECDD	0.858 pg/L	
		2,3,4,6,7,8-HXCDF	0.562 pg/L	
		2,3,4,7,8-PECDF	1.02 pg/L	
		OCDD	6.56 pg/L	
		OCDF	2.84 pg/L	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA6-SB-081711(RES)	1,2,3,4,6,7,8-HPCDD	2.81 pg/L	2.81U pg/L
EB-SA6-SB-081711(RES)	1,2,3,4,6,7,8-HPCDF	0.562 pg/L	0.562U pg/L
EB-SA6-SB-081711(RES)	1,2,3,4,7,8,9-HPCDF	0.367 pg/L	0.367U pg/L
EB-SA6-SB-081711(RES)	1,2,3,4,7,8-HxCDD	0.405 pg/L	0.405U pg/L
EB-SA6-SB-081711(RES)	1,2,3,6,7,8-HXCDF	0.277 pg/L	0.277U pg/L
EB-SA6-SB-081711(RES)	1,2,3,7,8,9-HXCDD	0.522 pg/L	0.522U pg/L
EB-SA6-SB-081711(RES)	1,2,3,7,8,9-HXCDF	0.316 pg/L	0.316U pg/L
EB-SA6-SB-081711(RES)	1,2,3,7,8-PECDD	0.710 pg/L	0.710U pg/L
EB-SA6-SB-081711(RES)	2,3,4,6,7,8-HXCDF	0.303 pg/L	0.303U pg/L
EB-SA6-SB-081711(RES)	2,3,4,7,8-PECDF	0.740 pg/L	0.740U pg/L
EB-SA6-SB-081711(RES)	OCDD	4.18 pg/L	4.18U pg/L
EB-SA6-SB-081711(RES)	OCDF	0.569 pg/L	0.569U pg/L

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK2380B370305	8/30/2011 3:05:00 AM	1,2,3,4,6,7,8-HPCDD	0.236 ng/Kg	DUP12-SA6-QC-081711
		1,2,3,4,6,7,8-HPCDF	0.0494 ng/Kg	SL-007-SA5DN-SS-0.0-0.5
		1,2,3,4,7,8-HXCDF	0.0519 ng/Kg	SL-154-SA6-SB-3.0-4.0
		1,2,3,6,7,8-HXCDD	0.0513 ng/Kg	SL-214-SA6-SB-1.0-2.0
		1,2,3,6,7,8-HXCDF	0.0537 ng/Kg	SL-215-SA6-SB-4.0-5.0
		1,2,3,7,8,9-HXCDD	0.0428 ng/Kg	SL-221-SA6-SB-1.0-2.0
		1,2,3,7,8,9-HXCDF	0.0356 ng/Kg	SL-223-SA6-SB-2.5-3.5
		1,2,3,7,8-PECDD	0.0682 ng/Kg	SL-224-SA6-SB-3.0-4.0
		1,2,3,7,8-PECDF	0.0365 ng/Kg	SL-226-SA6-SB-3.5-4.5
		2,3,4,6,7,8-HXCDF	0.0234 ng/Kg	SL-241-SA6-SB-4.0-5.0
		2,3,4,7,8-PECDF	0.0544 ng/Kg	SL-241-SA6-SB-9.0-10.0
		OCDD	0.426 ng/Kg	SL-242-SA6-SB-4.0-5.0
				SL-242-SA6-SB-9.0-10.0
				SL-279-SA6-SB-1.0-2.0
				SL-279-SA6-SB-4.0-5.0
				SL-279-SA6-SB-9.0-10.0
				SL-315-SA6-SB-3.0-4.0

Method Blank Outlier Report

Lab Reporting Batch ID: DX129 **Laboratory: LL**

EDD Filename: DX129_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK2410B372134	8/30/2011 9:34:00 PM	1,2,3,4,6,7,8-HPCDD	0.173 ng/Kg	SL-310-SA6-SB-4.0-5.0
		1,2,3,4,6,7,8-HPCDF	0.0734 ng/Kg	
		1,2,3,4,7,8,9-HPCDF	0.0294 ng/Kg	
		1,2,3,4,7,8-HxCDD	0.0282 ng/Kg	
		1,2,3,4,7,8-HXCDF	0.0284 ng/Kg	
		1,2,3,6,7,8-HXCDD	0.0221 ng/Kg	
		1,2,3,6,7,8-HXCDF	0.0303 ng/Kg	
		1,2,3,7,8,9-HXCDD	0.0198 ng/Kg	
		1,2,3,7,8,9-HXCDF	0.0230 ng/Kg	
		1,2,3,7,8-PECDD	0.0366 ng/Kg	
		1,2,3,7,8-PECDF	0.0276 ng/Kg	
		2,3,4,6,7,8-HXCDF	0.0245 ng/Kg	
		2,3,4,7,8-PECDF	0.0636 ng/Kg	
		OCDD	0.349 ng/Kg	
		OCDF	0.0879 ng/Kg	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP12-SA6-QC-081711(RES)	1,2,3,4,6,7,8-HPCDD	0.310 ng/Kg	0.310U ng/Kg
DUP12-SA6-QC-081711(RES)	1,2,3,4,6,7,8-HPCDF	0.156 ng/Kg	0.156U ng/Kg
DUP12-SA6-QC-081711(RES)	1,2,3,6,7,8-HXCDD	0.244 ng/Kg	0.244U ng/Kg
DUP12-SA6-QC-081711(RES)	OCDD	0.299 ng/Kg	0.299U ng/Kg
SL-154-SA6-SB-3.0-4.0(RES)	1,2,3,4,6,7,8-HPCDD	0.382 ng/Kg	0.382U ng/Kg
SL-154-SA6-SB-3.0-4.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0307 ng/Kg	0.0307U ng/Kg
SL-154-SA6-SB-3.0-4.0(RES)	1,2,3,4,7,8-HXCDF	0.0301 ng/Kg	0.0301U ng/Kg
SL-154-SA6-SB-3.0-4.0(RES)	1,2,3,6,7,8-HXCDF	0.0292 ng/Kg	0.0292U ng/Kg
SL-154-SA6-SB-3.0-4.0(RES)	1,2,3,7,8,9-HXCDD	0.0723 ng/Kg	0.0723U ng/Kg
SL-154-SA6-SB-3.0-4.0(RES)	1,2,3,7,8,9-HXCDF	0.0295 ng/Kg	0.0295U ng/Kg
SL-154-SA6-SB-3.0-4.0(RES)	2,3,4,6,7,8-HXCDF	0.0293 ng/Kg	0.0293U ng/Kg
SL-154-SA6-SB-3.0-4.0(RES)	2,3,4,7,8-PECDF	0.0537 ng/Kg	0.0537U ng/Kg
SL-214-SA6-SB-1.0-2.0(RES)	1,2,3,4,6,7,8-HPCDD	0.443 ng/Kg	0.443U ng/Kg
SL-214-SA6-SB-1.0-2.0(RES)	1,2,3,4,6,7,8-HPCDF	0.133 ng/Kg	0.133U ng/Kg
SL-214-SA6-SB-1.0-2.0(RES)	1,2,3,4,7,8-HXCDF	0.210 ng/Kg	0.210U ng/Kg
SL-214-SA6-SB-1.0-2.0(RES)	1,2,3,6,7,8-HXCDD	0.142 ng/Kg	0.142U ng/Kg
SL-214-SA6-SB-1.0-2.0(RES)	1,2,3,6,7,8-HXCDF	0.186 ng/Kg	0.186U ng/Kg
SL-214-SA6-SB-1.0-2.0(RES)	1,2,3,7,8,9-HXCDF	0.137 ng/Kg	0.137U ng/Kg
SL-214-SA6-SB-1.0-2.0(RES)	1,2,3,7,8-PECDD	0.212 ng/Kg	0.212U ng/Kg
SL-214-SA6-SB-1.0-2.0(RES)	2,3,4,6,7,8-HXCDF	0.0933 ng/Kg	0.0933U ng/Kg
SL-214-SA6-SB-1.0-2.0(RES)	OCDD	1.07 ng/Kg	1.07U ng/Kg
SL-215-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0803 ng/Kg	0.0803U ng/Kg
SL-215-SA6-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.193 ng/Kg	0.193U ng/Kg
SL-215-SA6-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0649 ng/Kg	0.0649U ng/Kg
SL-215-SA6-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.212 ng/Kg	0.212U ng/Kg
SL-215-SA6-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0339 ng/Kg	0.0339U ng/Kg
SL-215-SA6-SB-4.0-5.0(RES)	1,2,3,7,8-PECDD	0.0891 ng/Kg	0.0891U ng/Kg
SL-215-SA6-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0542 ng/Kg	0.0542U ng/Kg
SL-215-SA6-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0727 ng/Kg	0.0727U ng/Kg
SL-221-SA6-SB-1.0-2.0(RES)	1,2,3,4,6,7,8-HPCDF	0.170 ng/Kg	0.170U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX129 **Laboratory: LL**

EDD Filename: DX129_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-221-SA6-SB-1.0-2.0(RES)	1,2,3,4,7,8-HXCDF	0.0420 ng/Kg	0.0420U ng/Kg
SL-221-SA6-SB-1.0-2.0(RES)	1,2,3,6,7,8-HXCDD	0.102 ng/Kg	0.102U ng/Kg
SL-221-SA6-SB-1.0-2.0(RES)	1,2,3,6,7,8-HXCDF	0.0361 ng/Kg	0.0361U ng/Kg
SL-221-SA6-SB-1.0-2.0(RES)	1,2,3,7,8,9-HXCDD	0.0801 ng/Kg	0.0801U ng/Kg
SL-221-SA6-SB-1.0-2.0(RES)	1,2,3,7,8,9-HXCDF	0.0409 ng/Kg	0.0409U ng/Kg
SL-221-SA6-SB-1.0-2.0(RES)	2,3,4,6,7,8-HXCDF	0.0302 ng/Kg	0.0302U ng/Kg
SL-221-SA6-SB-1.0-2.0(RES)	2,3,4,7,8-PECDF	0.0437 ng/Kg	0.0437U ng/Kg
SL-223-SA6-SB-2.5-3.5(RES)	1,2,3,4,6,7,8-HPCDD	0.358 ng/Kg	0.358U ng/Kg
SL-223-SA6-SB-2.5-3.5(RES)	1,2,3,4,6,7,8-HPCDF	0.0574 ng/Kg	0.0574U ng/Kg
SL-223-SA6-SB-2.5-3.5(RES)	1,2,3,4,7,8-HXCDF	0.0303 ng/Kg	0.0303U ng/Kg
SL-223-SA6-SB-2.5-3.5(RES)	1,2,3,7,8,9-HXCDD	0.0970 ng/Kg	0.0970U ng/Kg
SL-223-SA6-SB-2.5-3.5(RES)	1,2,3,7,8,9-HXCDF	0.0868 ng/Kg	0.0868U ng/Kg
SL-223-SA6-SB-2.5-3.5(RES)	1,2,3,7,8-PECDD	0.0875 ng/Kg	0.0875U ng/Kg
SL-223-SA6-SB-2.5-3.5(RES)	2,3,4,7,8-PECDF	0.0888 ng/Kg	0.0888U ng/Kg
SL-224-SA6-SB-3.0-4.0(RES)	1,2,3,4,6,7,8-HPCDD	0.131 ng/Kg	0.131U ng/Kg
SL-224-SA6-SB-3.0-4.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0332 ng/Kg	0.0332U ng/Kg
SL-224-SA6-SB-3.0-4.0(RES)	1,2,3,7,8,9-HXCDD	0.0949 ng/Kg	0.0949U ng/Kg
SL-224-SA6-SB-3.0-4.0(RES)	1,2,3,7,8-PECDF	0.0312 ng/Kg	0.0312U ng/Kg
SL-224-SA6-SB-3.0-4.0(RES)	2,3,4,7,8-PECDF	0.0298 ng/Kg	0.0298U ng/Kg
SL-224-SA6-SB-3.0-4.0(RES)	OCDD	0.263 ng/Kg	0.263U ng/Kg
SL-226-SA6-SB-3.5-4.5(RES)	1,2,3,4,6,7,8-HPCDD	0.946 ng/Kg	0.946U ng/Kg
SL-226-SA6-SB-3.5-4.5(RES)	1,2,3,4,6,7,8-HPCDF	0.219 ng/Kg	0.219U ng/Kg
SL-226-SA6-SB-3.5-4.5(RES)	1,2,3,4,7,8-HXCDF	0.196 ng/Kg	0.196U ng/Kg
SL-226-SA6-SB-3.5-4.5(RES)	1,2,3,6,7,8-HXCDD	0.230 ng/Kg	0.230U ng/Kg
SL-226-SA6-SB-3.5-4.5(RES)	1,2,3,6,7,8-HXCDF	0.189 ng/Kg	0.189U ng/Kg
SL-226-SA6-SB-3.5-4.5(RES)	1,2,3,7,8-PECDD	0.229 ng/Kg	0.229U ng/Kg
SL-241-SA6-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.282 ng/Kg	0.282U ng/Kg
SL-241-SA6-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0463 ng/Kg	0.0463U ng/Kg
SL-241-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0506 ng/Kg	0.0506U ng/Kg
SL-241-SA6-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.0570 ng/Kg	0.0570U ng/Kg
SL-241-SA6-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0240 ng/Kg	0.0240U ng/Kg
SL-241-SA6-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.0388 ng/Kg	0.0388U ng/Kg
SL-241-SA6-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0320 ng/Kg	0.0320U ng/Kg
SL-241-SA6-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0225 ng/Kg	0.0225U ng/Kg
SL-241-SA6-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0267 ng/Kg	0.0267U ng/Kg
SL-241-SA6-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0522 ng/Kg	0.0522U ng/Kg
SL-241-SA6-SB-4.0-5.0(RES)	OCDD	1.56 ng/Kg	1.56U ng/Kg
SL-241-SA6-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDD	0.283 ng/Kg	0.283U ng/Kg
SL-241-SA6-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0462 ng/Kg	0.0462U ng/Kg
SL-241-SA6-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.0239 ng/Kg	0.0239U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX129 **Laboratory: LL**

EDD Filename: DX129_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-241-SA6-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDD	0.0483 ng/Kg	0.0483U ng/Kg
SL-241-SA6-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.0221 ng/Kg	0.0221U ng/Kg
SL-241-SA6-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.0861 ng/Kg	0.0861U ng/Kg
SL-241-SA6-SB-9.0-10.0(RES)	OCDD	0.480 ng/Kg	0.480U ng/Kg
SL-242-SA6-SB-4.0-5.0(RES)	1,2,3,4,8,7,8-HPCDD	0.315 ng/Kg	0.315U ng/Kg
SL-242-SA6-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0498 ng/Kg	0.0498U ng/Kg
SL-242-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0257 ng/Kg	0.0257U ng/Kg
SL-242-SA6-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.114 ng/Kg	0.114U ng/Kg
SL-242-SA6-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0239 ng/Kg	0.0239U ng/Kg
SL-242-SA6-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0640 ng/Kg	0.0640U ng/Kg
SL-242-SA6-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0301 ng/Kg	0.0301U ng/Kg
SL-242-SA6-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0342 ng/Kg	0.0342U ng/Kg
SL-242-SA6-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDD	0.365 ng/Kg	0.365U ng/Kg
SL-242-SA6-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.122 ng/Kg	0.122U ng/Kg
SL-242-SA6-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.0763 ng/Kg	0.0763U ng/Kg
SL-242-SA6-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDD	0.0837 ng/Kg	0.0837U ng/Kg
SL-242-SA6-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.0473 ng/Kg	0.0473U ng/Kg
SL-242-SA6-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDD	0.0946 ng/Kg	0.0946U ng/Kg
SL-242-SA6-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDF	0.0529 ng/Kg	0.0529U ng/Kg
SL-242-SA6-SB-9.0-10.0(RES)	1,2,3,7,8-PECDD	0.0885 ng/Kg	0.0885U ng/Kg
SL-242-SA6-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.0765 ng/Kg	0.0765U ng/Kg
SL-242-SA6-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.170 ng/Kg	0.170U ng/Kg
SL-242-SA6-SB-9.0-10.0(RES)	OCDD	1.41 ng/Kg	1.41U ng/Kg
SL-279-SA6-SB-1.0-2.0(RES)	1,2,3,4,6,7,8-HPCDD	0.969 ng/Kg	0.969U ng/Kg
SL-279-SA6-SB-1.0-2.0(RES)	1,2,3,4,6,7,8-HPCDF	0.168 ng/Kg	0.168U ng/Kg
SL-279-SA6-SB-1.0-2.0(RES)	1,2,3,4,7,8-HXCDF	0.196 ng/Kg	0.196U ng/Kg
SL-279-SA6-SB-1.0-2.0(RES)	1,2,3,6,7,8-HXCDD	0.156 ng/Kg	0.156U ng/Kg
SL-279-SA6-SB-1.0-2.0(RES)	1,2,3,6,7,8-HXCDF	0.169 ng/Kg	0.169U ng/Kg
SL-279-SA6-SB-1.0-2.0(RES)	1,2,3,7,8,9-HXCDD	0.151 ng/Kg	0.151U ng/Kg
SL-279-SA6-SB-1.0-2.0(RES)	1,2,3,7,8,9-HXCDF	0.162 ng/Kg	0.162U ng/Kg
SL-279-SA6-SB-1.0-2.0(RES)	1,2,3,7,8-PECDD	0.222 ng/Kg	0.222U ng/Kg
SL-279-SA6-SB-1.0-2.0(RES)	2,3,4,6,7,8-HXCDF	0.111 ng/Kg	0.111U ng/Kg
SL-279-SA6-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.389 ng/Kg	0.389U ng/Kg
SL-279-SA6-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.157 ng/Kg	0.157U ng/Kg
SL-279-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.178 ng/Kg	0.178U ng/Kg
SL-279-SA6-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.150 ng/Kg	0.150U ng/Kg
SL-279-SA6-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.142 ng/Kg	0.142U ng/Kg
SL-279-SA6-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.131 ng/Kg	0.131U ng/Kg
SL-279-SA6-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.153 ng/Kg	0.153U ng/Kg
SL-279-SA6-SB-4.0-5.0(RES)	1,2,3,7,8-PECDD	0.315 ng/Kg	0.315U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX129 **Laboratory: LL**

EDD Filename: DX129_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-279-SA6-SB-4.0-5.0(RES)	OCDD	1.95 ng/Kg	1.95U ng/Kg
SL-279-SA6-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.211 ng/Kg	0.211U ng/Kg
SL-279-SA6-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDD	0.146 ng/Kg	0.146U ng/Kg
SL-279-SA6-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.145 ng/Kg	0.145U ng/Kg
SL-279-SA6-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDD	0.125 ng/Kg	0.125U ng/Kg
SL-279-SA6-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDF	0.124 ng/Kg	0.124U ng/Kg
SL-279-SA6-SB-9.0-10.0(RES)	1,2,3,7,8-PECDD	0.126 ng/Kg	0.126U ng/Kg
SL-279-SA6-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.0814 ng/Kg	0.0814U ng/Kg
SL-279-SA6-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.224 ng/Kg	0.224U ng/Kg
SL-310-SA6-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.301 ng/Kg	0.301U ng/Kg
SL-310-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0415 ng/Kg	0.0415U ng/Kg
SL-310-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0491 ng/Kg	0.0491U ng/Kg
SL-310-SA6-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0273 ng/Kg	0.0273U ng/Kg
SL-310-SA6-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.113 ng/Kg	0.113U ng/Kg
SL-310-SA6-SB-4.0-5.0(RES)	1,2,3,7,8-PECDD	0.0304 ng/Kg	0.0304U ng/Kg
SL-310-SA6-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0750 ng/Kg	0.0750U ng/Kg
SL-310-SA6-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0322 ng/Kg	0.0322U ng/Kg
SL-310-SA6-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0637 ng/Kg	0.0637U ng/Kg

Field Duplicate RPD Report

Lab Reporting Batch ID: DX129 **Laboratory: LL**

EDD Filename: DX129_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-224-SA6-SB-3.0-4.0	DUP12-SA6-QC-081711			
MOISTURE	9.2	6.4	36		No Qualifiers Applied

Method: 1613B
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-224-SA6-SB-3.0-4.0	DUP12-SA6-QC-081711			
OCDD	0.263	0.299	13	50.00	No Qualifiers Applied
OCDF	0.133	0.208	44	50.00	
1,2,3,4,6,7,8-HPCDD	0.131	0.310	81	50.00	J(all detects) UJ(all non-detects)
1,2,3,4,6,7,8-HPCDF	0.0332	0.156	130	50.00	
1,2,3,4,7,8-HxCDD	5.26 U	0.230	200	50.00	
1,2,3,4,7,8-HXCDF	5.26 U	0.339	200	50.00	
1,2,3,6,7,8-HXCDD	5.26 U	0.244	200	50.00	
1,2,3,6,7,8-HXCDF	5.26 U	0.344	200	50.00	
1,2,3,7,8,9-HXCDD	0.0949	0.230	83	50.00	
1,2,3,7,8,9-HXCDF	5.26 U	0.229	200	50.00	
1,2,3,7,8-PECDD	5.26 U	0.483	200	50.00	
1,2,3,7,8-PECDF	0.0312	0.585	180	50.00	
2,3,4,6,7,8-HXCDF	5.26 U	0.190	200	50.00	
2,3,4,7,8-PECDF	0.0298	0.442	175	50.00	
2,3,7,8-TCDD	1.05 U	0.0807	200	50.00	
2,3,7,8-TCDF	1.05 U	0.110	200	50.00	

Reporting Limit Outliers

Lab Reporting Batch ID: DX129 Laboratory: LL

EDD Filename: DX129_v1 eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA6-SB-081711	1,2,3,4,6,7,8-HPCDD	JBQ	2.81	9.56	PQL	pg/L	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.562	9.56	PQL	pg/L	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.367	9.56	PQL	pg/L	
	1,2,3,4,7,8-HxCDD	JBQ	0.405	9.56	PQL	pg/L	
	1,2,3,6,7,8-HXCDF	JBQ	0.277	9.56	PQL	pg/L	
	1,2,3,7,8,9-HXCDD	JBQ	0.522	9.56	PQL	pg/L	
	1,2,3,7,8,9-HXCDF	JBQ	0.316	9.56	PQL	pg/L	
	1,2,3,7,8-PECDD	JBQ	0.710	9.56	PQL	pg/L	
	2,3,4,6,7,8-HXCDF	JBQ	0.303	9.56	PQL	pg/L	
	2,3,4,7,8-PECDF	JB	0.740	9.56	PQL	pg/L	
	OCDD	JBQ	4.18	19.1	PQL	pg/L	
	OCDF	JBQ	0.569	19.1	PQL	pg/L	

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP12-SA6-QC-081711	1,2,3,4,6,7,8-HPCDD	JBQ	0.310	5.30	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.156	5.30	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.230	5.30	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.339	5.30	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.244	5.30	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.344	5.30	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.230	5.30	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.229	5.30	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.483	5.30	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.585	5.30	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.190	5.30	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.442	5.30	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0807	1.06	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.110	1.06	PQL	ng/Kg	
	OCDD	JBQ	0.299	10.6	PQL	ng/Kg	
	OCDF	J	0.208	10.6	PQL	ng/Kg	
SL-007-SA5DN-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	3.19	5.55	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	J	1.57	5.55	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.304	5.55	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.739	5.55	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	3.15	5.55	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.621	5.55	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	2.04	5.55	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	1.94	5.55	PQL	ng/Kg	
	OCDF	J	4.88	11.1	PQL	ng/Kg	
SL-154-SA6-SB-3.0-4.0	1,2,3,4,6,7,8-HPCDD	JB	0.382	5.24	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0307	5.24	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JQ	0.0300	5.24	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0301	5.24	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0292	5.24	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0723	5.24	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0295	5.24	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0293	5.24	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0537	5.24	PQL	ng/Kg	
	OCDD	JB	4.14	10.5	PQL	ng/Kg	
	OCDF	JQ	0.0760	10.5	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX129 **Laboratory: LL**

EDD Filename: DX129_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-214-SA6-SB-1.0-2.0	1,2,3,4,6,7,8-HPCDD	JB	0.443	5.34	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.133	5.34	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JQ	0.0450	5.34	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.159	5.34	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.210	5.34	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.142	5.34	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.186	5.34	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.229	5.34	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.137	5.34	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.212	5.34	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0933	5.34	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.313	5.34	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0910	1.07	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0765	1.07	PQL	ng/Kg	
	OCDD	JB	1.07	10.7	PQL	ng/Kg	
SL-215-SA6-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	3.27	5.53	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.539	5.53	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JQ	0.0675	5.53	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.119	5.53	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0803	5.53	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.193	5.53	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0649	5.53	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDD	JB	0.212	5.53	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0339	5.53	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.0891	5.53	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0542	5.53	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0727	5.53	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0689	1.11	PQL	ng/Kg	
	OCDF	JQ	1.81	11.1	PQL	ng/Kg	
SL-221-SA6-SB-1.0-2.0	1,2,3,4,6,7,8-HPCDD	JBQ	2.06	5.29	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.170	5.29	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0420	5.29	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.102	5.29	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0361	5.29	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDD	JBQ	0.0801	5.29	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0409	5.29	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0302	5.29	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0437	5.29	PQL	ng/Kg	
	OCDF	JQ	0.512	10.6	PQL	ng/Kg	
SL-223-SA6-SB-2.5-3.5	1,2,3,4,6,7,8-HPCDD	JB	0.358	5.00	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0574	5.00	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0303	5.00	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0970	5.00	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0868	5.00	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.0875	5.00	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0888	5.00	PQL	ng/Kg	
	OCDD	JB	2.16	10.0	PQL	ng/Kg	
	OCDF	JQ	0.367	10.0	PQL	ng/Kg	
SL-224-SA6-SB-3.0-4.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.131	5.26	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.0332	5.26	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0949	5.26	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0312	5.26	PQL	ng/Kg	J (all detects)
	2,3,4,7,8-PECDF	JBQ	0.0298	5.26	PQL	ng/Kg	
	OCDD	JBQ	0.263	10.5	PQL	ng/Kg	
	OCDF	JQ	0.133	10.5	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX129 **Laboratory: LL**

EDD Filename: DX129_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-226-SA6-SB-3.5-4.5	1,2,3,4,6,7,8-HPCDD	JB	0.946	5.18	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.219	5.18	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	J	0.0948	5.18	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.165	5.18	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.196	5.18	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.230	5.18	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.189	5.18	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.233	5.18	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.225	5.18	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.229	5.18	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.344	5.18	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.128	5.18	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.314	5.18	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.170	1.04	PQL	ng/Kg	
	OCDF	J	0.539	10.4	PQL	ng/Kg	
SL-241-SA6-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.282	5.21	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0463	5.21	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	J	0.0399	5.21	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0506	5.21	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0570	5.21	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0240	5.21	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0388	5.21	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0320	5.21	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0225	5.21	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0267	5.21	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0522	5.21	PQL	ng/Kg	
	OCDD	JB	1.56	10.4	PQL	ng/Kg	
	OCDF	J	0.107	10.4	PQL	ng/Kg	
SL-241-SA6-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	0.283	5.37	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.0462	5.37	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JQ	0.0313	5.37	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0239	5.37	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0483	5.37	PQL	ng/Kg	J (all detects)
	2,3,4,6,7,8-HXCDF	JBQ	0.0221	5.37	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0861	5.37	PQL	ng/Kg	
	OCDD	JB	0.480	10.7	PQL	ng/Kg	
	OCDF	JQ	0.147	10.7	PQL	ng/Kg	
SL-242-SA6-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.315	5.29	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.0498	5.29	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JQ	0.0427	5.29	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0257	5.29	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.114	5.29	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0239	5.29	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.218	5.29	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.216	5.29	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0640	5.29	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0301	5.29	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0342	5.29	PQL	ng/Kg	
	OCDD	JB	2.25	10.6	PQL	ng/Kg	
	OCDF	JQ	0.100	10.6	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX129 **Laboratory: LL**

EDD Filename: DX129_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-242-SA6-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	0.365	5.25	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.122	5.25	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JQ	0.0507	5.25	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0342	5.25	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0763	5.25	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0837	5.25	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0473	5.25	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0946	5.25	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0529	5.25	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.0885	5.25	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.195	5.25	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0765	5.25	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.170	5.25	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0834	1.05	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0563	1.05	PQL	ng/Kg	
	OCDD	JB	1.41	10.5	PQL	ng/Kg	
	OCDF	JQ	0.166	10.5	PQL	ng/Kg	
SL-279-SA6-SB-1.0-2.0	1,2,3,4,6,7,8-HPCDD	JB	0.969	5.08	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.166	5.08	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	J	0.0667	5.08	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.0900	5.08	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.196	5.08	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.156	5.08	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.169	5.08	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.151	5.08	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.162	5.08	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JB	0.222	5.08	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.324	5.08	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.111	5.08	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.301	5.08	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0657	1.02	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0889	1.02	PQL	ng/Kg	
	OCDD	JB	9.19	10.2	PQL	ng/Kg	
	OCDF	JQ	0.372	10.2	PQL	ng/Kg	
SL-279-SA6-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.389	5.13	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.157	5.13	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JQ	0.0531	5.13	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.138	5.13	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.178	5.13	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.150	5.13	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.142	5.13	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.131	5.13	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.153	5.13	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.315	5.13	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.334	5.13	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.119	5.13	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.320	5.13	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.121	1.03	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0977	1.03	PQL	ng/Kg	
	OCDD	JB	1.95	10.3	PQL	ng/Kg	
	OCDF	JQ	0.161	10.3	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX129 **Laboratory: LL**

EDD Filename: DX129_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-279-SA6-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	1.57	5.39	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.271	5.39	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	J	0.0889	5.39	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.116	5.39	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.211	5.39	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.146	5.39	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.145	5.39	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDD	JBQ	0.125	5.39	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.124	5.39	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.126	5.39	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.230	5.39	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0814	5.39	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.224	5.39	PQL	ng/Kg	
	OCDF	JQ	0.654	10.8	PQL	ng/Kg	
SL-310-SA6-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	2.28	5.48	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.301	5.48	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0415	5.48	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0491	5.48	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.170	5.48	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0273	5.48	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.210	5.48	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.113	5.48	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0304	5.48	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0750	5.48	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0322	5.48	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0637	5.48	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0246	1.10	PQL	ng/Kg	
	OCDF	JB	0.781	11.0	PQL	ng/Kg	
SL-315-SA6-SB-3.0-4.0	1,2,3,4,6,7,8-HPCDF	JB	2.46	5.18	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	J	0.491	5.18	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.458	5.18	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.353	5.18	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.537	5.18	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.280	5.18	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.370	5.18	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.226	5.18	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JB	0.615	5.18	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.516	5.18	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.264	5.18	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.464	5.18	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.163	1.04	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0808	1.04	PQL	ng/Kg	
	OCDF	J	4.83	10.4	PQL	ng/Kg	

SAMPLE DELIVERY GROUP

DE253

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Sep-2011	SL-028-SA7-SB-8.0-9.0	6418471	N	3050B	6010B	III
23-Sep-2011	SL-028-SA7-SB-8.0-9.0	6418471	N	3050B	6020	III
23-Sep-2011	SL-028-SA7-SB-8.0-9.0	6418471	N	3060A	7199	III
23-Sep-2011	SL-028-SA7-SB-8.0-9.0	6418471	N	3550B	8082	III
23-Sep-2011	SL-028-SA7-SB-8.0-9.0	6418471	N	3550B	8270C	III
23-Sep-2011	SL-028-SA7-SB-8.0-9.0	6418471	N	3550B	8270C SIM	III
23-Sep-2011	SL-028-SA7-SB-8.0-9.0	6418471	N	METHOD	300.0	III
23-Sep-2011	SL-028-SA7-SB-8.0-9.0	6418471	N	METHOD	314.0	III
23-Sep-2011	SL-028-SA7-SB-8.0-9.0	6418471	N	METHOD	7471A	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	3050B	6010B	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	3050B	6020	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	3060A	7199	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	3550B	8081A	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	3550B	8082	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	3550B	8151A	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	3550B	8270C	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	3550B	8270C SIM	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	METHOD	300.0	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	METHOD	314.0	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	METHOD	7471A	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	3050B	6010B	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	3050B	6020	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	3060A	7199	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	3550B	8081A	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	3550B	8082	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	3550B	8151A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	3550B	8270C	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	3550B	8270C SIM	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	METHOD	300.0	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	METHOD	314.0	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	METHOD	7471A	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	3050B	6010B	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	3050B	6020	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	3060A	7199	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	3550B	8081A	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	3550B	8082	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	3550B	8151A	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	3550B	8270C	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	3550B	8270C SIM	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	METHOD	300.0	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	METHOD	314.0	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	METHOD	7471A	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	3050B	6010B	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	3050B	6020	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	3060A	7199	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	3550B	8081A	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	3550B	8082	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	3550B	8151A	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	3550B	8270C	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	3550B	8270C SIM	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	METHOD	300.0	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	METHOD	314.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	METHOD	7471A	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	3050B	6010B	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	3050B	6020	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	3060A	7199	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	3550B	8081A	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	3550B	8082	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	3550B	8151A	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	3550B	8270C	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	3550B	8270C SIM	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	METHOD	300.0	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	METHOD	314.0	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	METHOD	7471A	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	3050B	6010B	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	3050B	6020	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	3060A	7199	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	3550B	8081A	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	3550B	8082	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	3550B	8151A	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	3550B	8270C	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	3550B	8270C SIM	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	METHOD	300.0	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	METHOD	314.0	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	METHOD	7471A	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	3050B	6010B	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	3050B	6020	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	3060A	7199	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	3550B	8081A	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	3550B	8082	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	3550B	8151A	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	3550B	8270C	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	3550B	8270C SIM	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	METHOD	300.0	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	METHOD	314.0	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	METHOD	7471A	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	3050B	6010B	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	3050B	6020	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	3060A	7199	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	3550B	8081A	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	3550B	8082	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	3550B	8151A	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	3550B	8270C	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	3550B	8270C SIM	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	METHOD	300.0	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	METHOD	314.0	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	METHOD	7471A	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	3050B	6010B	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	3050B	6020	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	3060A	7199	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	3550B	8081A	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	3550B	8082	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	3550B	8151A	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	3550B	8270C	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	3550B	8270C SIM	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	METHOD	300.0	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	METHOD	314.0	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	METHOD	7471A	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5DU	P419503D271501B	DUP	METHOD	300.0	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5MS	P419503R271514B	MS	METHOD	300.0	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	3050B	6010B	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	3050B	6020	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	3060A	7199	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	3550B	8081A	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	3550B	8082	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	3550B	8151A	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	3550B	8270C	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	3550B	8270C SIM	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	METHOD	300.0	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	METHOD	314.0	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	METHOD	7471A	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	3050B	6010B	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	3050B	6020	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	3060A	7199	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	3550B	8081A	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	3550B	8082	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	3550B	8151A	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	3550B	8270C	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	3550B	8270C SIM	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	METHOD	300.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	METHOD	314.0	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	METHOD	7471A	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	3050B	6010B	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	3050B	6020	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	3060A	7199	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	3550B	8081A	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	3550B	8082	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	3550B	8151A	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	3550B	8270C	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	3550B	8270C SIM	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	METHOD	300.0	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	METHOD	314.0	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	METHOD	7471A	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 D	6419494	DUP	3050B	6010B	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 D	6419494	DUP	3050B	6020	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 D	6419494	DUP	3060A	7199	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 D	6419494	DUP	METHOD	300.0	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 D	6419494	DUP	METHOD	314.0	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 D	6419494	DUP	METHOD	7471A	III
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	3050B	6010B	III
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	3050B	6020	III
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	3060A	7199	III
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	3550B	8081A	III
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	3550B	8082	III
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	3550B	8151A	III
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	3550B	8270C	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	3550B	8270C SIM	III
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	METHOD	300.0	III
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	METHOD	314.0	III
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	METHOD	7471A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: DUP01-SA5DS-QC-092611 *Collected:* 9/26/2011 3:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.9		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-001-SA3-SS-0.0-0.5 *Collected:* 9/26/2011 7:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.80	U	0.80	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-001-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 3:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.6		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-002-SA3-SS-0.0-0.5 *Collected:* 9/26/2011 8:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.4		0.79	MDL	0.99	PQL	mg/Kg	J	Q

Sample ID: SL-002-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 2:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.4		0.83	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-026-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 10:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.83	U	0.83	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-027-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 9:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.5		0.80	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-028-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 10:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.79	U	0.79	MDL	0.99	PQL	mg/Kg	UJ	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-029-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.6		0.81	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-030-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.83	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-031-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-032-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 12:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.83	MDL	1.0	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: DUP01-SA5DS-QC-092611 *Collected:* 9/26/2011 3:10:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.90	J	0.316	MDL	9.88	PQL	mg/Kg	U	B

Sample ID: SL-001-SA3-SS-0.0-0.5 *Collected:* 9/26/2011 7:50:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	87.8	J	5.83	MDL	98.0	PQL	mg/Kg	J	Z
TIN	3.17	J	0.314	MDL	9.80	PQL	mg/Kg	U	B
Zirconium	2.95	J	0.451	MDL	4.90	PQL	mg/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: PrepDE253_v2 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-001-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 3:05:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.00	J	0.322	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: SL-002-SA3-SS-0.0-0.5 *Collected:* 9/26/2011 8:15:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	74.5	J	5.78	MDL	97.1	PQL	mg/Kg	J	Z
TIN	2.78	J	0.311	MDL	9.71	PQL	mg/Kg	U	B
Zirconium	2.40	J	0.447	MDL	4.85	PQL	mg/Kg	U	B

Sample ID: SL-002-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 2:35:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.06	J	0.320	MDL	10.0	PQL	mg/Kg	U	B

Sample ID: SL-026-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 10:35:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.20	J	0.315	MDL	9.85	PQL	mg/Kg	U	B
Zirconium	2.89	J	0.453	MDL	4.92	PQL	mg/Kg	U	B

Sample ID: SL-027-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 9:25:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.63	J	0.314	MDL	9.83	PQL	mg/Kg	U	B

Sample ID: SL-028-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 10:50:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.05	J	0.312	MDL	9.76	PQL	mg/Kg	U	B

Sample ID: SL-028-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 10:50:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	2.42	J	0.449	MDL	4.88	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory:** LL

EDD Filename: DE253_v2. **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-028-SA7-SB-8.0-9.0 ***Collected:*** 9/23/2011 2:14:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.53	J	0.339	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	0.771	J	0.488	MDL	5.30	PQL	mg/Kg	U	B

Sample ID: SL-029-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 11:10:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.12	J	0.328	MDL	10.2	PQL	mg/Kg	U	B

Sample ID: SL-029-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 11:10:00 ***Analysis Type:*** REA4 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	4.39	J	0.471	MDL	5.12	PQL	mg/Kg	J	Z

Sample ID: SL-030-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 11:25:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.08	J	0.324	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: SL-030-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 11:25:00 ***Analysis Type:*** REA4 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	3.54	J	0.466	MDL	5.06	PQL	mg/Kg	J	Z

Sample ID: SL-031-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 11:50:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.21	J	0.331	MDL	10.4	PQL	mg/Kg	U	B

Sample ID: SL-031-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 11:50:00 ***Analysis Type:*** REA4 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	5.13	J	0.476	MDL	5.18	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-032-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 12:10:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.07	J	0.327	MDL	10.2	PQL	mg/Kg	U	B

Sample ID: SL-032-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 12:10:00 *Analysis Type:* REA4 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	2.88	J	0.470	MDL	5.11	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: DUP01-SA5DS-QC-092611 *Collected:* 9/26/2011 3:10:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.430		0.0745	MDL	0.201	PQL	mg/Kg	J	Q
ARSENIC	8.99		0.0806	MDL	0.403	PQL	mg/Kg	J	Q
CADMIUM	0.351		0.0443	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	63.1		0.121	MDL	0.403	PQL	mg/Kg	J	A
COPPER	8.84		0.0806	MDL	0.403	PQL	mg/Kg	J	Q
LEAD	48.0		0.0103	MDL	0.201	PQL	mg/Kg	J	A
NICKEL	19.4		0.101	MDL	0.403	PQL	mg/Kg	J	Q, A
SILVER	0.0541	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.197		0.0302	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	118		0.0222	MDL	0.101	PQL	mg/Kg	J	A
ZINC	82.3		0.564	MDL	3.02	PQL	mg/Kg	J	A

Sample ID: DUP01-SA5DS-QC-092611 *Collected:* 9/26/2011 3:10:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.275	J	0.0584	MDL	0.403	PQL	mg/Kg	J	Z, Q

Sample ID: DUP01-SA5DS-QC-092611 *Collected:* 9/26/2011 3:10:00 *Analysis Type:* REA8 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.906		0.0504	MDL	0.101	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory:** LL

EDD Filename: DE253_v2. **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: DUP01-SA5DS-QC-092611 ***Collected:*** 9/26/2011 3:10:00 ***Analysis Type:*** REA9 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	98.1		0.107	MDL	0.403	PQL	mg/Kg	J	A

Sample ID: SL-001-SA3-SS-0.0-0.5 ***Collected:*** 9/26/2011 7:50:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.122	J	0.0725	MDL	0.196	PQL	mg/Kg	J	Z, Q
ARSENIC	3.15		0.0784	MDL	0.392	PQL	mg/Kg	J	Q
CADMIUM	0.170		0.0431	MDL	0.0980	PQL	mg/Kg	J	Q
CHROMIUM	12.0		0.118	MDL	0.392	PQL	mg/Kg	J	A
COPPER	6.59		0.0784	MDL	0.392	PQL	mg/Kg	J	Q
LEAD	15.0		0.0100	MDL	0.196	PQL	mg/Kg	J	A
NICKEL	8.35		0.0980	MDL	0.392	PQL	mg/Kg	J	Q, A
SILVER	0.0759	J	0.0139	MDL	0.0980	PQL	mg/Kg	J	Z, Q
THALLIUM	0.251		0.0294	MDL	0.0980	PQL	mg/Kg	J	Q
VANADIUM	24.5		0.0216	MDL	0.0980	PQL	mg/Kg	J	A
ZINC	86.9		0.549	MDL	2.94	PQL	mg/Kg	J	A

Sample ID: SL-001-SA3-SS-0.0-0.5 ***Collected:*** 9/26/2011 7:50:00 ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.145	J	0.0569	MDL	0.392	PQL	mg/Kg	J	Z, Q

Sample ID: SL-001-SA3-SS-0.0-0.5 ***Collected:*** 9/26/2011 7:50:00 ***Analysis Type:*** REA8 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.473		0.0490	MDL	0.0980	PQL	mg/Kg	J	Q

Sample ID: SL-001-SA3-SS-0.0-0.5 ***Collected:*** 9/26/2011 7:50:00 ***Analysis Type:*** REA9 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	84.7		0.104	MDL	0.392	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-001-SA5DS-SS-0.0-0.5** ***Collected:*** **9/26/2011 3:05:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.436		0.0730	MDL	0.197	PQL	mg/Kg	J	Q
ARSENIC	7.36		0.0790	MDL	0.395	PQL	mg/Kg	J	Q
CADMIUM	0.294		0.0434	MDL	0.0987	PQL	mg/Kg	J	Q
CHROMIUM	54.1		0.118	MDL	0.395	PQL	mg/Kg	J	A
COPPER	7.37		0.0790	MDL	0.395	PQL	mg/Kg	J	Q
LEAD	40.1		0.0101	MDL	0.197	PQL	mg/Kg	J	A
NICKEL	14.0		0.0987	MDL	0.395	PQL	mg/Kg	J	Q, A
SILVER	0.0372	J	0.0140	MDL	0.0987	PQL	mg/Kg	J	Z, Q
THALLIUM	0.172		0.0296	MDL	0.0987	PQL	mg/Kg	J	Q
VANADIUM	98.1		0.0217	MDL	0.0987	PQL	mg/Kg	J	A
ZINC	72.7		0.553	MDL	2.96	PQL	mg/Kg	J	A

Sample ID: **SL-001-SA5DS-SS-0.0-0.5** ***Collected:*** **9/26/2011 3:05:00** ***Analysis Type:*** **REA7** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.257	J	0.0572	MDL	0.395	PQL	mg/Kg	J	Z, Q

Sample ID: **SL-001-SA5DS-SS-0.0-0.5** ***Collected:*** **9/26/2011 3:05:00** ***Analysis Type:*** **REA8** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.757		0.0494	MDL	0.0987	PQL	mg/Kg	J	Q

Sample ID: **SL-001-SA5DS-SS-0.0-0.5** ***Collected:*** **9/26/2011 3:05:00** ***Analysis Type:*** **REA9** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	69.4		0.105	MDL	0.395	PQL	mg/Kg	J	A

Sample ID: **SL-002-SA3-SS-0.0-0.5** ***Collected:*** **9/26/2011 8:15:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.141	J	0.0733	MDL	0.198	PQL	mg/Kg	J	Z, Q
ARSENIC	2.97		0.0792	MDL	0.396	PQL	mg/Kg	J	Q
CADMIUM	0.217		0.0436	MDL	0.0990	PQL	mg/Kg	J	Q
CHROMIUM	14.7		0.119	MDL	0.396	PQL	mg/Kg	J	A
COPPER	7.24		0.0792	MDL	0.396	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-002-SA3-SS-0.0-0.5** ***Collected:*** **9/26/2011 8:15:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	15.5		0.0101	MDL	0.198	PQL	mg/Kg	J	A
NICKEL	9.40		0.0990	MDL	0.396	PQL	mg/Kg	J	Q, A
SILVER	0.0809	J	0.0141	MDL	0.0990	PQL	mg/Kg	J	Z, Q
THALLIUM	0.237		0.0297	MDL	0.0990	PQL	mg/Kg	J	Q
VANADIUM	31.0		0.0218	MDL	0.0990	PQL	mg/Kg	J	A
ZINC	106		0.554	MDL	2.97	PQL	mg/Kg	J	A

Sample ID: **SL-002-SA3-SS-0.0-0.5** ***Collected:*** **9/26/2011 8:15:00** ***Analysis Type:*** **REA7** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.132	J	0.0574	MDL	0.396	PQL	mg/Kg	J	Z, Q

Sample ID: **SL-002-SA3-SS-0.0-0.5** ***Collected:*** **9/26/2011 8:15:00** ***Analysis Type:*** **REA8** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.429		0.0495	MDL	0.0990	PQL	mg/Kg	J	Q

Sample ID: **SL-002-SA3-SS-0.0-0.5** ***Collected:*** **9/26/2011 8:15:00** ***Analysis Type:*** **REA9** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	86.7		0.105	MDL	0.396	PQL	mg/Kg	J	A

Sample ID: **SL-002-SA5DS-SS-0.0-0.5** ***Collected:*** **9/26/2011 2:35:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.309		0.0748	MDL	0.202	PQL	mg/Kg	J	Q
ARSENIC	6.53		0.0809	MDL	0.405	PQL	mg/Kg	J	Q
CADMIUM	0.345		0.0445	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	48.8		0.121	MDL	0.405	PQL	mg/Kg	J	A
COPPER	11.0		0.0809	MDL	0.405	PQL	mg/Kg	J	Q
LEAD	24.2		0.0103	MDL	0.202	PQL	mg/Kg	J	A
NICKEL	15.8		0.101	MDL	0.405	PQL	mg/Kg	J	Q, A
SILVER	0.0472	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.219		0.0303	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	84.4		0.0222	MDL	0.101	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory:** LL

EDD Filename: DE253_v2. **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-002-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 2:35:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	75.9		0.566	MDL	3.03	PQL	mg/Kg	J	A

Sample ID: SL-002-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 2:35:00 ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.294	J	0.0587	MDL	0.405	PQL	mg/Kg	J	Z, Q

Sample ID: SL-002-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 2:35:00 ***Analysis Type:*** REA8 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.747		0.0506	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-002-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 2:35:00 ***Analysis Type:*** REA9 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	105		0.107	MDL	0.405	PQL	mg/Kg	J	A

Sample ID: SL-026-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 10:35:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.102	J	0.0736	MDL	0.199	PQL	mg/Kg	J	Z, Q
ARSENIC	3.27		0.0795	MDL	0.398	PQL	mg/Kg	J	Q
CADMIUM	0.152		0.0437	MDL	0.0994	PQL	mg/Kg	J	Q
CHROMIUM	24.8		0.119	MDL	0.398	PQL	mg/Kg	J	A
COPPER	11.9		0.0795	MDL	0.398	PQL	mg/Kg	J	Q
LEAD	12.1		0.0101	MDL	0.199	PQL	mg/Kg	J	A
NICKEL	20.0		0.0994	MDL	0.398	PQL	mg/Kg	J	Q, A
SILVER	0.0205	J	0.0141	MDL	0.0994	PQL	mg/Kg	J	Z, Q
THALLIUM	0.186		0.0298	MDL	0.0994	PQL	mg/Kg	J	Q
VANADIUM	63.9		0.0219	MDL	0.0994	PQL	mg/Kg	J	A
ZINC	58.8		0.557	MDL	2.98	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory:** LL

EDD Filename: DE253_v2. **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-026-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 10:35:00 ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.154	J	0.0577	MDL	0.398	PQL	mg/Kg	J	Z, Q

Sample ID: SL-026-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 10:35:00 ***Analysis Type:*** REA8 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.404		0.0497	MDL	0.0994	PQL	mg/Kg	J	Q

Sample ID: SL-026-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 10:35:00 ***Analysis Type:*** REA9 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	101		0.105	MDL	0.398	PQL	mg/Kg	J	A

Sample ID: SL-027-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 9:25:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.194	J	0.0734	MDL	0.198	PQL	mg/Kg	J	Z, Q
ARSENIC	5.79		0.0794	MDL	0.397	PQL	mg/Kg	J	Q
CADMIUM	0.354		0.0437	MDL	0.0992	PQL	mg/Kg	J	Q
CHROMIUM	44.5		0.119	MDL	0.397	PQL	mg/Kg	J	A
COPPER	14.1		0.0794	MDL	0.397	PQL	mg/Kg	J	Q
LEAD	10.1		0.0101	MDL	0.198	PQL	mg/Kg	J	A
NICKEL	20.6		0.0992	MDL	0.397	PQL	mg/Kg	J	Q, A
SILVER	0.161		0.0141	MDL	0.0992	PQL	mg/Kg	J	Q
THALLIUM	0.367		0.0298	MDL	0.0992	PQL	mg/Kg	J	Q
VANADIUM	95.0		0.0218	MDL	0.0992	PQL	mg/Kg	J	A
ZINC	104		0.556	MDL	2.98	PQL	mg/Kg	J	A

Sample ID: SL-027-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 9:25:00 ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.282	J	0.0576	MDL	0.397	PQL	mg/Kg	J	Z, Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory:** LL

EDD Filename: DE253_v2. **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-027-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 9:25:00 ***Analysis Type:*** REA8 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.413		0.0496	MDL	0.0992	PQL	mg/Kg	J	Q

Sample ID: SL-027-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 9:25:00 ***Analysis Type:*** REA9 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	128		0.105	MDL	0.397	PQL	mg/Kg	J	A

Sample ID: SL-028-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 10:50:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.145	J	0.0722	MDL	0.195	PQL	mg/Kg	J	Z, Q
ARSENIC	2.80		0.0781	MDL	0.391	PQL	mg/Kg	J	Q
CADMIUM	0.362		0.0430	MDL	0.0976	PQL	mg/Kg	J	Q
CHROMIUM	22.5		0.117	MDL	0.391	PQL	mg/Kg	J	A
COPPER	16.5		0.0781	MDL	0.391	PQL	mg/Kg	J	Q
LEAD	28.1		0.010	MDL	0.195	PQL	mg/Kg	J	A
NICKEL	17.3		0.0976	MDL	0.391	PQL	mg/Kg	J	Q, A
SILVER	0.351		0.0139	MDL	0.0976	PQL	mg/Kg	J	Q
THALLIUM	0.244		0.0293	MDL	0.0976	PQL	mg/Kg	J	Q
VANADIUM	62.6		0.0215	MDL	0.0976	PQL	mg/Kg	J	A
ZINC	109		0.547	MDL	2.93	PQL	mg/Kg	J	A

Sample ID: SL-028-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 10:50:00 ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.144	J	0.0566	MDL	0.391	PQL	mg/Kg	J	Z, Q

Sample ID: SL-028-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 10:50:00 ***Analysis Type:*** REA8 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.384		0.0488	MDL	0.0976	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory:** LL

EDD Filename: DE253_v2. **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-028-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 10:50:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	140		0.103	MDL	0.391	PQL	mg/Kg	J	A

Sample ID: SL-028-SA7-SB-8.0-9.0 *Collected:* 9/23/2011 2:14:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0969	J	0.0597	MDL	0.412	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA7-SB-8.0-9.0 *Collected:* 9/23/2011 2:14:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0762	U	0.0762	MDL	0.206	PQL	mg/Kg	UJ	Q
ARSENIC	4.27		0.0824	MDL	0.412	PQL	mg/Kg	J	Q
CADMIUM	0.0722	J	0.0453	MDL	0.103	PQL	mg/Kg	J	Z
CHROMIUM	20.1		0.124	MDL	0.412	PQL	mg/Kg	J	Q
COPPER	8.13		0.0824	MDL	0.412	PQL	mg/Kg	J	Q
LEAD	4.25		0.0105	MDL	0.206	PQL	mg/Kg	J	Q
NICKEL	11.7		0.103	MDL	0.412	PQL	mg/Kg	J	Q
SILVER	0.0176	J	0.0146	MDL	0.103	PQL	mg/Kg	J	Z
VANADIUM	38.8		0.0227	MDL	0.103	PQL	mg/Kg	J	Q

Sample ID: SL-029-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:10:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.343		0.0744	MDL	0.201	PQL	mg/Kg	J	Q
ARSENIC	8.36		0.0804	MDL	0.402	PQL	mg/Kg	J	Q
CADMIUM	0.252		0.0442	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	58.8		0.121	MDL	0.402	PQL	mg/Kg	J	A
COPPER	22.4		0.0804	MDL	0.402	PQL	mg/Kg	J	Q
LEAD	15.7		0.0103	MDL	0.201	PQL	mg/Kg	J	A
NICKEL	29.2		0.101	MDL	0.402	PQL	mg/Kg	J	Q, A
SILVER	0.0472	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.539		0.0302	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	118		0.0221	MDL	0.101	PQL	mg/Kg	J	A
ZINC	116		0.563	MDL	3.02	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-029-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:10:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.412		0.0583	MDL	0.402	PQL	mg/Kg	J	Q

Sample ID: SL-029-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:10:00 *Analysis Type:* REA8 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.514		0.0503	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-029-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:10:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	143		0.107	MDL	0.402	PQL	mg/Kg	J	A

Sample ID: SL-030-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:25:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	9.83		0.0810	MDL	0.405	PQL	mg/Kg	J	Q
CADMIUM	0.283		0.0445	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	68.5		0.121	MDL	0.405	PQL	mg/Kg	J	A
COPPER	25.6		0.0810	MDL	0.405	PQL	mg/Kg	J	Q
LEAD	17.8		0.0103	MDL	0.202	PQL	mg/Kg	J	A
NICKEL	34.2		0.101	MDL	0.405	PQL	mg/Kg	J	Q, A
SILVER	0.0488	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.616		0.0304	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	136		0.0223	MDL	0.101	PQL	mg/Kg	J	A
ZINC	138		0.567	MDL	3.04	PQL	mg/Kg	J	A

Sample ID: SL-030-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:25:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.182	J	0.0749	MDL	0.202	PQL	mg/Kg	J	Z, Q

Sample ID: SL-030-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:25:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.483		0.0587	MDL	0.405	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-030-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:25:00 *Analysis Type:* REA8 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.651		0.0506	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-030-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:25:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	180		0.107	MDL	0.405	PQL	mg/Kg	J	A

Sample ID: SL-031-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:50:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.341		0.0751	MDL	0.203	PQL	mg/Kg	J	Q
ARSENIC	8.83		0.0812	MDL	0.406	PQL	mg/Kg	J	Q
CADMIUM	0.268		0.0447	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	55.5		0.122	MDL	0.406	PQL	mg/Kg	J	A
COPPER	24.8		0.0812	MDL	0.406	PQL	mg/Kg	J	Q
LEAD	32.3		0.0104	MDL	0.203	PQL	mg/Kg	J	A
NICKEL	28.6		0.101	MDL	0.406	PQL	mg/Kg	J	Q, A
SILVER	0.0554	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.526		0.0304	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	111		0.0223	MDL	0.101	PQL	mg/Kg	J	A
ZINC	138		0.568	MDL	3.04	PQL	mg/Kg	J	A

Sample ID: SL-031-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:50:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.510		0.0589	MDL	0.406	PQL	mg/Kg	J	Q

Sample ID: SL-031-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:50:00 *Analysis Type:* REA8 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.664		0.0507	MDL	0.101	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory:** LL

EDD Filename: DE253_v2. **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-031-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 11:50:00 ***Analysis Type:*** REA9 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	151		0.108	MDL	0.406	PQL	mg/Kg	J	A

Sample ID: SL-032-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 12:10:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.317		0.0749	MDL	0.202	PQL	mg/Kg	J	Q
ARSENIC	8.40		0.0810	MDL	0.405	PQL	mg/Kg	J	Q
CADMIUM	0.282		0.0445	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	47.7		0.121	MDL	0.405	PQL	mg/Kg	J	A
COPPER	20.1		0.0810	MDL	0.405	PQL	mg/Kg	J	Q
LEAD	15.3		0.0103	MDL	0.202	PQL	mg/Kg	J	A
NICKEL	26.2		0.101	MDL	0.405	PQL	mg/Kg	J	Q, A
SILVER	0.0435	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.474		0.0304	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	97.5		0.0223	MDL	0.101	PQL	mg/Kg	J	A
ZINC	101		0.567	MDL	3.04	PQL	mg/Kg	J	A

Sample ID: SL-032-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 12:10:00 ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.515		0.0587	MDL	0.405	PQL	mg/Kg	J	Q

Sample ID: SL-032-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 12:10:00 ***Analysis Type:*** REA8 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.794		0.0506	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-032-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 12:10:00 ***Analysis Type:*** REA9 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	146		0.107	MDL	0.405	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory:** LL

EDD Filename: DE253_v2. **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: SL-026-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 10:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.34	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 10:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.38	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA7-SB-8.0-9.0 *Collected:* 9/23/2011 2:14:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.32	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-031-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.38	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-032-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 12:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.37	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix:** SO

Sample ID: DUP01-SA5DS-QC-092611 *Collected:* 9/26/2011 3:10:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0115	J	0.0066	MDL	0.0943	PQL	mg/Kg	J	Z

Sample ID: SL-001-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 3:05:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0133	J	0.0070	MDL	0.0997	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory:** LL

EDD Filename: DE253_v2. **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 7471A **Matrix:** SO

Sample ID: SL-002-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 2:35:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0222	J	0.0069	MDL	0.0979	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 10:50:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0095	J	0.0070	MDL	0.0996	PQL	mg/Kg	J	Z

Sample ID: SL-029-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:10:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0076	J	0.0068	MDL	0.0964	PQL	mg/Kg	J	Z

Sample ID: SL-030-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:25:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0145	J	0.0070	MDL	0.100	PQL	mg/Kg	J	Z

Sample ID: SL-031-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:50:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0130	J	0.0070	MDL	0.100	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: DUP01-SA5DS-QC-092611 *Collected:* 9/26/2011 3:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	5.3		0.81	MDL	3.4	PQL	ug/Kg	J	FD
DELTA-BHC	0.48		0.036	MDL	0.17	PQL	ug/Kg	J	FD

Sample ID: SL-001-SA3-SS-0.0-0.5 *Collected:* 9/26/2011 7:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.70		0.066	MDL	0.34	PQL	ug/Kg	J	S

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: SL-001-SA3-SS-0.0-0.5 ***Collected:*** 9/26/2011 7:50:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	0.91		0.066	MDL	0.34	PQL	ug/Kg	J	S
Chlordane	2.4	J	0.80	MDL	3.4	PQL	ug/Kg	J	Z, S

Sample ID: SL-001-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 3:05:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.066	U	0.066	MDL	0.34	PQL	ug/Kg	R	Q
Chlordane	2.0	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z, FD
DELTA-BHC	0.039	U	0.039	MDL	0.17	PQL	ug/Kg	UJ	FD
ENDRIN ALDEHYDE	0.43		0.066	MDL	0.34	PQL	ug/Kg	J	Q

Sample ID: SL-002-SA3-SS-0.0-0.5 ***Collected:*** 9/26/2011 8:15:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	1.7	J	0.80	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-002-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 2:35:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BETA-BHC	0.14	J	0.061	MDL	0.17	PQL	ug/Kg	J	Z
DELTA-BHC	0.052	J	0.037	MDL	0.17	PQL	ug/Kg	J	Z
gamma-BHC (Lindane)	0.040	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z

Sample ID: SL-027-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 9:25:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	1.1	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
4,4'-DDT	1.3	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-028-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 10:50:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	10	J	4.0	MDL	17	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory:** LL

EDD Filename: DE253_v2. **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: SL-029-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	3.3	J	0.83	MDL	3.5	PQL	ug/Kg	J	Z

Sample ID: SL-030-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALPHA-BHC	0.090	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z
Chlordane	3.4	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z
ENDOSULFAN I	0.089	J	0.045	MDL	0.17	PQL	ug/Kg	J	Z

Sample ID: SL-032-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 12:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	2.6	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z
gamma-BHC (Lindane)	0.057	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z
METHOXYCHLOR	0.81	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: DUP01-SA5DS-QC-092611 *Collected:* 9/26/2011 3:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	7.4		1.0	MDL	3.3	PQL	ug/Kg	J	FD

Sample ID: SL-001-SA3-SS-0.0-0.5 *Collected:* 9/26/2011 7:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.53	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
AROCLOR 1260	1.3	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	3.0	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: SL-001-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 3:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	2.4	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z, FD

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-002-SA3-SS-0.0-0.5 *Collected:* 9/26/2011 8:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.3	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-002-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 2:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	3.3	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-028-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 10:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.98	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-030-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.3	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8151A **Matrix: SO**

Sample ID: DUP01-SA5DS-QC-092611 *Collected:* 9/26/2011 3:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-001-SA3-SS-0.0-0.5 *Collected:* 9/26/2011 7:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICHLOROPROP	1.6	J	0.80	MDL	1.7	PQL	ug/Kg	J	Z
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-001-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 3:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-TP (Silvex)	0.076	U	0.076	MDL	0.17	PQL	ug/Kg	R	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory:** LL

EDD Filename: DE253_v2. **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8151A **Matrix:** SO

Sample ID: SL-001-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 3:05:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DB	2.0	U	2.0	MDL	2.0	PQL	ug/Kg	R	Q
DALAPON	4.4	U	4.4	MDL	9.1	PQL	ug/Kg	R	Q
DICAMBA	0.40	U	0.40	MDL	1.2	PQL	ug/Kg	R	Q
DICHLOROPROP	0.81	U	0.81	MDL	1.7	PQL	ug/Kg	R	Q
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	Q, L
MCPA	77	U	77	MDL	250	PQL	ug/Kg	R	Q
MCPP	76	U	76	MDL	250	PQL	ug/Kg	R	Q

Sample ID: SL-002-SA3-SS-0.0-0.5 ***Collected:*** 9/26/2011 8:15:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-D	2.5	J	1.2	MDL	3.6	PQL	ug/Kg	J	Z
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-002-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 2:35:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-026-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 10:35:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.86	J	0.81	MDL	2.4	PQL	ug/Kg	J	Z, L

Sample ID: SL-027-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 9:25:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-028-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 10:50:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L
MCPA	120	J	76	MDL	250	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory:** LL

EDD Filename: DE253_v2. **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8151A **Matrix:** SO

Sample ID: SL-029-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DB	1.7	J	0.64	MDL	1.8	PQL	ug/Kg	J	Z
DINOSEB	0.83	U	0.83	MDL	2.5	PQL	ug/Kg	R	L

Sample ID: SL-030-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.82	U	0.82	MDL	2.5	PQL	ug/Kg	R	L

Sample ID: SL-031-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.83	U	0.83	MDL	2.5	PQL	ug/Kg	R	L

Sample ID: SL-032-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 12:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.15	J	0.084	MDL	0.17	PQL	ug/Kg	J	Z
DINOSEB	0.82	U	0.82	MDL	2.5	PQL	ug/Kg	R	L

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: DUP01-SA5DS-QC-092611 *Collected:* 9/26/2011 3:10:00 *Analysis Type:* RES-ACID *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	500	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	51	J	17	MDL	330	PQL	ug/Kg	J	Z
PHENOL	18	J	17	MDL	170	PQL	ug/Kg	J	Z, FD

Sample ID: SL-001-SA3-SS-0.0-0.5 *Collected:* 9/26/2011 7:50:00 *Analysis Type:* RES-ACID *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	500	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory:** LL

EDD Filename: DE253_v2. **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-001-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 3:05:00 ***Analysis Type:*** RES-ACID ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	500	PQL	ug/Kg	UJ	L
BENZIDINE	1200	U	1200	MDL	3300	PQL	ug/Kg	R	Q
FLUORANTHENE	36	J	17	MDL	170	PQL	ug/Kg	J	Z
PHENANTHRENE	35	J	17	MDL	170	PQL	ug/Kg	J	Z
PHENOL	17	U	17	MDL	170	PQL	ug/Kg	UJ	FD
PYRENE	24	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-002-SA3-SS-0.0-0.5 ***Collected:*** 9/26/2011 8:15:00 ***Analysis Type:*** RES-ACID ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	500	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	83	J	17	MDL	330	PQL	ug/Kg	J	Z

Sample ID: SL-002-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 2:35:00 ***Analysis Type:*** RES-ACID ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	510	PQL	ug/Kg	UJ	L

Sample ID: SL-026-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 10:35:00 ***Analysis Type:*** RES-ACID ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	8300	U	8300	MDL	25000	PQL	ug/Kg	UJ	L
BENZO(A)PYRENE	1400	J	830	MDL	8300	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1400	J	830	MDL	8300	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1100	J	830	MDL	8300	PQL	ug/Kg	J	Z
CHRYSENE	1500	J	830	MDL	8300	PQL	ug/Kg	J	Z
FLUORANTHENE	1100	J	830	MDL	8300	PQL	ug/Kg	J	Z
PYRENE	1300	J	830	MDL	8300	PQL	ug/Kg	J	Z

Sample ID: SL-027-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 9:25:00 ***Analysis Type:*** RES-ACID ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	840	U	840	MDL	2500	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory:** LL

EDD Filename: DE253_v2. **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-028-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 10:50:00 ***Analysis Type:*** RES-ACID ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	500	PQL	ug/Kg	UJ	L
PHENOL	18	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-028-SA7-SB-8.0-9.0 ***Collected:*** 9/23/2011 2:14:00 ***Analysis Type:*** RES-ACID ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	180	U	180	MDL	540	PQL	ug/Kg	UJ	L

Sample ID: SL-029-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 11:10:00 ***Analysis Type:*** RES-ACID ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	510	PQL	ug/Kg	UJ	L
PHENOL	18	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-030-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 11:25:00 ***Analysis Type:*** RES-ACID ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	510	PQL	ug/Kg	UJ	L

Sample ID: SL-031-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 11:50:00 ***Analysis Type:*** RES-ACID ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	520	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	18	J	17	MDL	340	PQL	ug/Kg	J	Z
PHENOL	20	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-032-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 12:10:00 ***Analysis Type:*** RES-ACID ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	510	PQL	ug/Kg	UJ	L
PHENOL	18	J	17	MDL	170	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory:** LL

EDD Filename: DE253_v2. **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: DUP01-SA5DS-QC-092611 ***Collected:*** 9/26/2011 3:10:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z, FD
CHRYSENE	0.75	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
Di-n-octylphthalate	6.0	U	6.0	MDL	18	PQL	ug/Kg	UJ	FD

Sample ID: SL-001-SA3-SS-0.0-0.5 ***Collected:*** 9/26/2011 7:50:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	5.9	J	5.9	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	0.97	J	0.33	MDL	1.6	PQL	ug/Kg	J	Z
FLUORANTHENE	1.2	J	0.66	MDL	1.6	PQL	ug/Kg	J	Z
PYRENE	1.1	J	0.66	MDL	1.6	PQL	ug/Kg	J	Z

Sample ID: SL-001-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 3:05:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	3.2		0.67	MDL	1.7	PQL	ug/Kg	J	FD
BIS(2-ETHYLHEXYL)PHTHALATE	13	J	6.0	MDL	18	PQL	ug/Kg	J	Z, Q
CHRYSENE	0.49	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
Di-n-octylphthalate	6.9	J	6.0	MDL	18	PQL	ug/Kg	J	Z, FD

Sample ID: SL-002-SA3-SS-0.0-0.5 ***Collected:*** 9/26/2011 8:15:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.66	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.36	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.1	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.0	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.1	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.80	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	1.2	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-002-SA5DS-SS-0.0-0.5 ***Collected:*** 9/26/2011 2:35:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.70	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: **SL-002-SA5DS-SS-0.0-0.5** ***Collected:*** **9/26/2011 2:35:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	0.96	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.2	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
Butylbenzylphthalate	7.1	J	6.0	MDL	18	PQL	ug/Kg	J	Z
Di-n-octylphthalate	11	J	6.0	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.88	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	1.3	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-026-SA5DS-SS-0.0-0.5** ***Collected:*** **9/26/2011 10:35:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.48	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	9.0	J	6.0	MDL	18	PQL	ug/Kg	J	Z
NAPHTHALENE	0.99	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-027-SA5DS-SS-0.0-0.5** ***Collected:*** **9/26/2011 9:25:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **5**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	3.9	J	3.3	MDL	8.4	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	33	J	30	MDL	90	PQL	ug/Kg	J	Z
PHENANTHRENE	4.5	J	3.3	MDL	8.4	PQL	ug/Kg	J	Z
PYRENE	7.4	J	3.3	MDL	8.4	PQL	ug/Kg	J	Z

Sample ID: **SL-028-SA5DS-SS-0.0-0.5** ***Collected:*** **9/26/2011 10:50:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	0.80	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.1	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.72	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.1	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	0.86	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	0.82	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory:** LL

EDD Filename: DE253_v2. **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: **SL-029-SA5DS-SS-0.0-0.5** ***Collected:*** **9/26/2011 11:10:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.3	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.2	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.2	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	10	J	6.2	MDL	19	PQL	ug/Kg	J	Z
Di-n-octylphthalate	7.5	J	6.2	MDL	19	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.76	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-030-SA5DS-SS-0.0-0.5** ***Collected:*** **9/26/2011 11:25:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	13	J	6.1	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.94	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.99	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-032-SA5DS-SS-0.0-0.5** ***Collected:*** **9/26/2011 12:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.84	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.81	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.57	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.3	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
Di-n-octylphthalate	9.6	J	6.1	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Laboratory Triplicate Precision
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

F	Equipment Blank Contamination
F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Estimation
R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE253

Method Blank Outlier Report

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P26908EB220703	10/3/2011 7:03:00 AM	CALCIUM IRON PHOSPHORUS TIN	3.28 mg/Kg 3.68 mg/Kg 1.15 mg/Kg 1.39 mg/Kg	SL-028-SA7-SB-8.0-9.0
P27108AB220719	10/7/2011 7:19:00 AM	BORON MANGANESE PHOSPHORUS STRONTIUM TIN	0.527 mg/Kg 0.0430 mg/Kg 1.09 mg/Kg 0.0680 mg/Kg 1.38 mg/Kg	DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5
P27108AB221351	10/10/2011 1:51:00 PM	ALUMINUM	8.80 mg/Kg	DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5
P27108AB221731	10/7/2011 5:31:00 PM	CALCIUM IRON MAGNESIUM	7.97 mg/Kg 12.9 mg/Kg 1.96 mg/Kg	DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5
P27708BB220741	10/5/2011 7:41:00 AM	TITANIUM	0.0840 mg/Kg	SL-028-SA7-SB-8.0-9.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP01-SA5DS-QC-092611(REA)	TIN	2.90 mg/Kg	2.90U mg/Kg
SL-001-SA3-SS-0.0-0.5(REA)	TIN	3.17 mg/Kg	3.17U mg/Kg
SL-001-SA5DS-SS-0.0-0.5(REA)	TIN	3.00 mg/Kg	3.00U mg/Kg
SL-002-SA3-SS-0.0-0.5(REA)	TIN	2.78 mg/Kg	2.78U mg/Kg
SL-002-SA5DS-SS-0.0-0.5(REA)	TIN	3.06 mg/Kg	3.06U mg/Kg
SL-026-SA5DS-SS-0.0-0.5(REA)	TIN	2.20 mg/Kg	2.20U mg/Kg
SL-027-SA5DS-SS-0.0-0.5(REA)	TIN	2.63 mg/Kg	2.63U mg/Kg
SL-028-SA5DS-SS-0.0-0.5(REA)	TIN	3.05 mg/Kg	3.05U mg/Kg
SL-028-SA7-SB-8.0-9.0(RES)	TIN	2.53 mg/Kg	2.53U mg/Kg
SL-029-SA5DS-SS-0.0-0.5(REA)	TIN	3.12 mg/Kg	3.12U mg/Kg
SL-030-SA5DS-SS-0.0-0.5(REA)	TIN	3.08 mg/Kg	3.08U mg/Kg
SL-031-SA5DS-SS-0.0-0.5(REA)	TIN	3.21 mg/Kg	3.21U mg/Kg

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Method Blank Outlier Report

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-032-SA5DS-SS-0.0-0.5(REA)	TIN	3.07 mg/Kg	3.07U mg/Kg

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P26926AB220448A	10/4/2011 4:48:00 AM	LEAD	0.0329 mg/Kg	SL-028-SA7-SB-8.0-9.0

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method: 8151A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-001-SA5DS-SS-0.0-0.5 MS SL-001-SA5DS-SS-0.0-0.5 MSD (SL-001-SA5DS-SS-0.0-0.5)	2,4-D	229	-	17.00-180.00	114 (35.00)	2,4-D	J (all detects)
SL-001-SA5DS-SS-0.0-0.5 MS SL-001-SA5DS-SS-0.0-0.5 MSD (SL-001-SA5DS-SS-0.0-0.5)	2,4,5-TP (Silvex) 2,4-DB DALAPON DICAMBA DICHLOROPROP DINOSEB MCPA MCPP	0 0 - 0 0 0 0 0	0 0 0 0 0 6 0 0	24.00-141.00 10.00-201.00 10.00-125.00 10.00-190.00 33.00-178.00 10.00-46.00 10.00-213.00 10.00-184.00	- - 200 (50.00) - - 200 (35.00) - -	2,4,5-TP (Silvex) 2,4-DB DALAPON DICAMBA DICHLOROPROP DINOSEB MCPA MCPP	J(all detects) R(all non-detects)

Method: 8081A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-001-SA5DS-SS-0.0-0.5 MS SL-001-SA5DS-SS-0.0-0.5 MSD (SL-001-SA5DS-SS-0.0-0.5)	4,4'-DDD ENDRIN ALDEHYDE	0 0	- -	16.00-163.00 10.00-148.00	200 (50.00) -	4,4'-DDD ENDRIN ALDEHYDE	J(all detects) R(all non-detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-001-SA5DS-SS-0.0-0.5 MS SL-001-SA5DS-SS-0.0-0.5 MSD (DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5)	ARSENIC CADMIUM CHROMIUM COPPER NICKEL SILVER THALLIUM VANADIUM ZINC	187 143 181 131 147 139 134 213 -	150 143 164 134 143 140 141 202 131	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - - - - - -	ARSENIC CADMIUM CHROMIUM COPPER NICKEL SILVER THALLIUM VANADIUM ZINC	J(all detects) Cr, V, Zn No Qual, >4x
SL-001-SA5DS-SS-0.0-0.5 MS (DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5)	LEAD	7	-	75.00-125.00	-	LEAD	No Qual, >4x

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-001-SA5DS-SS-0.0-0.5 MS SL-001-SA5DS-SS-0.0-0.5 MSD (DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5)	ANTIMONY	54	50	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)
SL-001-SA5DS-SS-0.0-0.5 MS SL-001-SA5DS-SS-0.0-0.5 MSD (DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5)	SELENIUM	137	135	75.00-125.00	-	SELENIUM	J(all detects)
SL-001-SA5DS-SS-0.0-0.5 MS SL-001-SA5DS-SS-0.0-0.5 MSD (DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5)	MOLYBDENUM	145	147	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-001-SA5DS-SS-0.0-0.5 MS SL-001-SA5DS-SS-0.0-0.5 MSD (DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5)	BARIUM	133	131	75.00-125.00	-	BARIUM	No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-001-SA5DS-SS-0.0-0.5 MS SL-001-SA5DS-SS-0.0-0.5 MSD (DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5)	ALUMINUM CALCIUM IRON MAGNESIUM TITANIUM	948 335 330 144 529	956 259 763 192 548	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - -	ALUMINUM CALCIUM IRON MAGNESIUM TITANIUM	No Qual, >4x

Method: 8270C SIM

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-001-SA5DS-SS-0.0-0.5 MS (SL-001-SA5DS-SS-0.0-0.5)	BIS(2-ETHYLHEXYL)PHTHALAT	197	-	39.00-167.00	-	BIS(2-ETHYLHEXYL)PHTHALA	J(all detects)

Method: 300.0

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-001-SA5DS-SS-0.0-0.5 MS (SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5)	FLUORIDE	50	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
SL-032-SA5DS-SS-0.0-0.5MS (DUP01-SA5DS-QC-092611 SL-032-SA5DS-SS-0.0-0.5)	FLUORIDE	76	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Method: 8270C

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-001-SA5DS-SS-0.0-0.5 MSD (SL-001-SA5DS-SS-0.0-0.5)	2,4-DINITROPHENOL BENZOIC ACID PENTACHLOROPHENOL	- - -	- - -	20.00-143.00 10.00-173.00 28.00-127.00	36 (30.00) 34 (30.00) 39 (30.00)	2,4-DINITROPHENOL BENZOIC ACID PENTACHLOROPHENOL	J(all detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method: 8270C

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-001-SA5DS-SS-0.0-0.5 MS SL-001-SA5DS-SS-0.0-0.5 MSD (SL-001-SA5DS-SS-0.0-0.5)	BENZIDINE	0	0	35.00-141.00	-	BENZIDINE	J(all detects) R(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-032-SA5DS-SS-0.0-0.5DUP (DUP01-SA5DS-QC-092611 SL-032-SA5DS-SS-0.0-0.5)	FLUORIDE	42	20.00	No Qual, OK by Difference
SL-001-SA5DS-SS-0.0-0.5 DUP (SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5)	FLUORIDE	27	20.00	No Qual, OK by Difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-001-SA5DS-SS-0.0-0.5 DUP (DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5)	CADMIUM	24	20.00	No Qual, OK by Difference

Method: 7471A
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-001-SA5DS-SS-0.0-0.5 DUP (DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5)	MERCURY	200	20.00	No Qual, OK by Difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method: 8151A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12773AQ242124A (DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5)	DINOSEB	9	-	10.00-36.00	-	DINOSEB	J (all detects) R (all non-detects)

Method: 6020

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P26926AQ220450A (SL-028-SA7-SB-8.0-9.0)	ANTIMONY	65	-	80.00-120.00	-	ANTIMONY	No Qual, SRM Within QC Limits

Method: 6010B

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P26908EQ220707 (SL-028-SA7-SB-8.0-9.0)	ALUMINUM	138	-	80.00-120.00	-	ALUMINUM	No Qual, SRM Within QC Limits
P27108AQ220723 P27108AQ221735 (DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5)	ALUMINUM IRON MAGNESIUM	143 140 122	- - -	80.00-120.00 80.00-120.00 80.00-120.00	- - -	ALUMINUM IRON MAGNESIUM	No Qual, SRM Within QC Limits

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method: 8270C

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P7LCLCSQ262217 (DUP01 -SA5DS -QC-092611 SL -001-SA3-SS-0.0-0.5 SL -001-SA5DS -SS-0.0-0.5 SL -002-SA3-SS-0.0-0.5 SL -002-SA5DS -SS-0.0-0.5 SL -026-SA5DS -SS-0.0-0.5 SL -027-SA5DS -SS-0.0-0.5 SL -028-SA5DS -SS-0.0-0.5 SL -028-SA7-SB-8.0-9.0 SL -029-SA5DS -SS-0.0-0.5 SL -030-SA5DS -SS-0.0-0.5 SL -031-SA5DS -SS-0.0-0.5 SL -032-SA5DS -SS-0.0-0.5)	4,6-DINITRO-2-METHYLPHENOL	43	-	46.00-120.00	-	4,6-DINITRO-2-METHYLPHEN	J(all detects) UJ(all non-detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method: **8081A**
Matrix: **SO**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-001-SA3-SS-0.0 -0.5	DECACHLOROBIPHENYL	123	20.00-120.00	All Target Analytes	J (all detects)
SL-028-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	145	20.00-120.00	All Target Analytes	No Qual, Diluted Out

Field Duplicate RPD Report

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%) SL-001-SA5DS-SS-0.0-0.5	Concentration (%) DUP01-SA5DS-QC-092611	Sample RPD	eQAPP RPD	Flag
MOISTURE	0.67	0.73	9		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg) SL-001-SA5DS-SS-0.0-0.5	Concentration (mg/Kg) DUP01-SA5DS-QC-092611	Sample RPD	eQAPP RPD	Flag
FLUORIDE	4.6	2.9	45	50.00	No Qualifiers Applied

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg) SL-001-SA5DS-SS-0.0-0.5	Concentration (mg/Kg) DUP01-SA5DS-QC-092611	Sample RPD	eQAPP RPD	Flag
ALUMINUM	12200	12200	0	50.00	No Qualifiers Applied
BORON	7.49	6.86	9	50.00	
CALCIUM	5160	5090	1	50.00	
IRON	22900	23700	3	50.00	
LITHIUM	16.2	18.2	12	50.00	
MAGNESIUM	5630	5790	3	50.00	
MANGANESE	305	308	1	50.00	
PHOSPHORUS	878	879	0	50.00	
POTASSIUM	1760	1630	8	50.00	
SODIUM	124	109	13	50.00	
STRONTIUM	22.0	22.4	2	50.00	
TIN	3.00	2.90	3	50.00	
TITANIUM	1240	1160	7	50.00	
Zirconium	12.5	8.12	42	50.00	

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg) SL-001-SA5DS-SS-0.0-0.5	Concentration (mg/Kg) DUP01-SA5DS-QC-092611	Sample RPD	eQAPP RPD	Flag
ANTIMONY	0.436	0.430	1	50.00	No Qualifiers Applied
ARSENIC	7.36	8.99	20	50.00	
BARIUM	69.4	98.1	34	50.00	
BERYLLIUM	0.401	0.397	1	50.00	
CADMIUM	0.294	0.351	18	50.00	
CHROMIUM	54.1	63.1	15	50.00	
COBALT	7.42	11.7	45	50.00	
COPPER	7.37	8.84	18	50.00	
LEAD	40.1	48.0	18	50.00	
MOLYBDENUM	0.757	0.906	18	50.00	
NICKEL	14.0	19.4	32	50.00	
SELENIUM	0.257	0.275	7	50.00	
SILVER	0.0372	0.0541	37	50.00	
THALLIUM	0.172	0.197	14	50.00	
VANADIUM	98.1	118	18	50.00	
ZINC	72.7	82.3	12	50.00	

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method: 7471A
Matrix: SO

Analyte	Concentration (mg/Kg) SL-001-SA5DS-SS-0.0-0.5	Concentration (mg/Kg) DUP01-SA5DS-QC-092611	Sample RPD	eQAPP RPD	Flag
MERCURY	0.0133	0.0115	15	50.00	No Qualifiers Applied

Method: 8081A
Matrix: SO

Analyte	Concentration (ug/Kg) SL-001-SA5DS-SS-0.0-0.5	Concentration (ug/Kg) DUP01-SA5DS-QC-092611	Sample RPD	eQAPP RPD	Flag
4,4'-DDE	0.52	0.70	30	50.00	No Qualifiers Applied
4,4'-DDT	1.2	1.5	22	50.00	
ENDRIN ALDEHYDE	0.43	0.51	17	50.00	
Chlordane	2.0	5.3	90	50.00	J(all detects)
DELTA-BHC	0.17 U	0.48	200	50.00	UJ(all non-detects)

Method: 8082
Matrix: SO

Analyte	Concentration (ug/Kg) SL-001-SA5DS-SS-0.0-0.5	Concentration (ug/Kg) DUP01-SA5DS-QC-092611	Sample RPD	eQAPP RPD	Flag
AROCLOR 1254	8.0	4.9	48	50.00	No Qualifiers Applied
AROCLOR 1260	7.7	5.9	26	50.00	
Aroclor 5460	2.4	7.4	102	50.00	J(all detects)

Method: 8270C SIM
Matrix: SO

Analyte	Concentration (ug/Kg) SL-001-SA5DS-SS-0.0-0.5	Concentration (ug/Kg) DUP01-SA5DS-QC-092611	Sample RPD	eQAPP RPD	Flag
CHRYSENE	0.49	0.75	42	50.00	No Qualifiers Applied
BENZO(B)FLUORANTHENE	3.2	1.1	98	50.00	J(all detects)
Di-n-octylphthalate	6.9	18 U	200	50.00	UJ(all non-detects)

Method: 8270C
Matrix: SO

Analyte	Concentration (ug/Kg) SL-001-SA5DS-SS-0.0-0.5	Concentration (ug/Kg) DUP01-SA5DS-QC-092611	Sample RPD	eQAPP RPD	Flag
PHENOL	170 U	18	200	50.00	J(all detects) UJ(all non-detects)

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit) SL-001-SA5DS-SS-0.0-0.5	Concentration (pH unit) DUP01-SA5DS-QC-092611	Sample RPD	eQAPP RPD	Flag
PH	6.04	6.51	7	50.00	No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA5DS-QC-092611	TIN	J	2.90	9.88	PQL	mg/Kg	J (all detects)
SL-001-SA3-SS-0.0-0.5	SODIUM	J	87.8	98.0	PQL	mg/Kg	J (all detects)
	TIN	J	3.17	9.80	PQL	mg/Kg	
	Zirconium	J	2.95	4.90	PQL	mg/Kg	
SL-001-SA5DS-SS-0.0-0.5	TIN	J	3.00	10.1	PQL	mg/Kg	J (all detects)
SL-002-SA3-SS-0.0-0.5	SODIUM	J	74.5	97.1	PQL	mg/Kg	J (all detects)
	TIN	J	2.78	9.71	PQL	mg/Kg	
	Zirconium	J	2.40	4.85	PQL	mg/Kg	
SL-002-SA5DS-SS-0.0-0.5	TIN	J	3.06	10.0	PQL	mg/Kg	J (all detects)
SL-026-SA5DS-SS-0.0-0.5	TIN	J	2.20	9.85	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.89	4.92	PQL	mg/Kg	
SL-027-SA5DS-SS-0.0-0.5	TIN	J	2.63	9.83	PQL	mg/Kg	J (all detects)
SL-028-SA5DS-SS-0.0-0.5	TIN	J	3.05	9.76	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.42	4.88	PQL	mg/Kg	
SL-028-SA7-SB-8.0-9.0	TIN	J	2.53	10.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	0.771	5.30	PQL	mg/Kg	
SL-029-SA5DS-SS-0.0-0.5	TIN	J	3.12	10.2	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.39	5.12	PQL	mg/Kg	
SL-030-SA5DS-SS-0.0-0.5	TIN	J	3.08	10.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.54	5.06	PQL	mg/Kg	
SL-031-SA5DS-SS-0.0-0.5	TIN	J	3.21	10.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	5.13	5.18	PQL	mg/Kg	
SL-032-SA5DS-SS-0.0-0.5	TIN	J	3.07	10.2	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.88	5.11	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA5DS-QC-092611	SELENIUM	J	0.275	0.403	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0541	0.101	PQL	mg/Kg	
SL-001-SA3-SS-0.0-0.5	ANTIMONY	J	0.122	0.196	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.145	0.392	PQL	mg/Kg	
	SILVER	J	0.0759	0.0980	PQL	mg/Kg	
SL-001-SA5DS-SS-0.0-0.5	SELENIUM	J	0.257	0.395	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0372	0.0987	PQL	mg/Kg	
SL-002-SA3-SS-0.0-0.5	ANTIMONY	J	0.141	0.198	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.132	0.396	PQL	mg/Kg	
	SILVER	J	0.0809	0.0990	PQL	mg/Kg	
SL-002-SA5DS-SS-0.0-0.5	SELENIUM	J	0.294	0.405	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0472	0.101	PQL	mg/Kg	
SL-026-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.102	0.199	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.154	0.398	PQL	mg/Kg	
	SILVER	J	0.0205	0.0994	PQL	mg/Kg	
SL-027-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.194	0.198	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.282	0.397	PQL	mg/Kg	
SL-028-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.145	0.195	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.144	0.391	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-028-SA7-SB-8.0-9.0	CADMIUM	J	0.0722	0.103	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0969	0.412	PQL	mg/Kg	
	SILVER	J	0.0176	0.103	PQL	mg/Kg	
SL-029-SA5DS-SS-0.0-0.5	SILVER	J	0.0472	0.101	PQL	mg/Kg	J (all detects)
SL-030-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.182	0.202	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0488	0.101	PQL	mg/Kg	
SL-031-SA5DS-SS-0.0-0.5	SILVER	J	0.0554	0.101	PQL	mg/Kg	J (all detects)
SL-032-SA5DS-SS-0.0-0.5	SILVER	J	0.0435	0.101	PQL	mg/Kg	J (all detects)

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-026-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.34	1.0	PQL	mg/Kg	J (all detects)
SL-028-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.38	1.0	PQL	mg/Kg	J (all detects)
SL-028-SA7-SB-8.0-9.0	HEXAVALENT CHROMIUM	J	0.32	1.1	PQL	mg/Kg	J (all detects)
SL-031-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.38	1.0	PQL	mg/Kg	J (all detects)
SL-032-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.37	1.0	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA5DS-QC-092611	MERCURY	J	0.0115	0.0943	PQL	mg/Kg	J (all detects)
SL-001-SA5DS-SS-0.0-0.5	MERCURY	J	0.0133	0.0997	PQL	mg/Kg	J (all detects)
SL-002-SA5DS-SS-0.0-0.5	MERCURY	J	0.0222	0.0979	PQL	mg/Kg	J (all detects)
SL-028-SA5DS-SS-0.0-0.5	MERCURY	J	0.0095	0.0996	PQL	mg/Kg	J (all detects)
SL-029-SA5DS-SS-0.0-0.5	MERCURY	J	0.0076	0.0964	PQL	mg/Kg	J (all detects)
SL-030-SA5DS-SS-0.0-0.5	MERCURY	J	0.0145	0.100	PQL	mg/Kg	J (all detects)
SL-031-SA5DS-SS-0.0-0.5	MERCURY	J	0.0130	0.100	PQL	mg/Kg	J (all detects)

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA3-SS-0.0-0.5	Chlordane	J	2.4	3.4	PQL	ug/Kg	J (all detects)
SL-001-SA5DS-SS-0.0-0.5	Chlordane	J	2.0	3.4	PQL	ug/Kg	J (all detects)
SL-002-SA3-SS-0.0-0.5	Chlordane	J	1.7	3.4	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-002-SA5DS-SS-0.0-0.5	BETA-BHC	J	0.14	0.17	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.052	0.17	PQL	ug/Kg	
	gamma-BHC (Lindane)	J	0.040	0.17	PQL	ug/Kg	
SL-027-SA5DS-SS-0.0-0.5	4,4'-DDE	J	1.1	1.7	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	1.3	1.7	PQL	ug/Kg	
SL-028-SA5DS-SS-0.0-0.5	Chlordane	J	10	17	PQL	ug/Kg	J (all detects)
SL-029-SA5DS-SS-0.0-0.5	Chlordane	J	3.3	3.5	PQL	ug/Kg	J (all detects)
SL-030-SA5DS-SS-0.0-0.5	ALPHA-BHC	J	0.090	0.17	PQL	ug/Kg	J (all detects)
	Chlordane	J	3.4	3.5	PQL	ug/Kg	
	ENDOSULFAN I	J	0.089	0.17	PQL	ug/Kg	
SL-032-SA5DS-SS-0.0-0.5	Chlordane	J	2.6	3.5	PQL	ug/Kg	J (all detects)
	gamma-BHC (Lindane)	J	0.057	0.17	PQL	ug/Kg	
	METHOXYCHLOR	J	0.81	1.7	PQL	ug/Kg	

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA3-SS-0.0-0.5	AROCLOR 1254	J	0.53	1.7	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	1.3	1.7	PQL	ug/Kg	
	Aroclor 5460	J	3.0	3.3	PQL	ug/Kg	
SL-001-SA5DS-SS-0.0-0.5	Aroclor 5460	J	2.4	3.3	PQL	ug/Kg	J (all detects)
SL-002-SA3-SS-0.0-0.5	AROCLOR 1254	J	1.3	1.7	PQL	ug/Kg	J (all detects)
SL-002-SA5DS-SS-0.0-0.5	Aroclor 5460	J	3.3	3.4	PQL	ug/Kg	J (all detects)
SL-028-SA5DS-SS-0.0-0.5	AROCLOR 1260	J	0.98	1.7	PQL	ug/Kg	J (all detects)
SL-030-SA5DS-SS-0.0-0.5	AROCLOR 1260	J	1.3	1.7	PQL	ug/Kg	J (all detects)

Method: 8151A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA3-SS-0.0-0.5	DICHLOROPROP	J	1.6	1.7	PQL	ug/Kg	J (all detects)
SL-002-SA3-SS-0.0-0.5	2,4-D	J	2.5	3.6	PQL	ug/Kg	J (all detects)
SL-026-SA5DS-SS-0.0-0.5	DINOSEB	J	0.86	2.4	PQL	ug/Kg	J (all detects)
SL-028-SA5DS-SS-0.0-0.5	MCPA	J	120	250	PQL	ug/Kg	J (all detects)
SL-029-SA5DS-SS-0.0-0.5	2,4-DB	J	1.7	1.8	PQL	ug/Kg	J (all detects)
SL-032-SA5DS-SS-0.0-0.5	2,4,5-T	J	0.15	0.17	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA5DS-QC-092611	BIS(2-ETHYLHEXYL)PHTHALATE	J	51	330	PQL	ug/Kg	J (all detects)
	PHENOL	J	18	170	PQL	ug/Kg	
SL-001-SA5DS-SS-0.0-0.5	FLUORANTHENE	J	36	170	PQL	ug/Kg	J (all detects)
	PHENANTHRENE	J	35	170	PQL	ug/Kg	
	PYRENE	J	24	170	PQL	ug/Kg	
SL-002-SA3-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	83	330	PQL	ug/Kg	J (all detects)
SL-026-SA5DS-SS-0.0-0.5	BENZO(A)PYRENE	J	1400	8300	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1400	8300	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1100	8300	PQL	ug/Kg	
	CHRYSENE	J	1500	8300	PQL	ug/Kg	
	FLUORANTHENE	J	1100	8300	PQL	ug/Kg	
	PYRENE	J	1300	8300	PQL	ug/Kg	
SL-028-SA5DS-SS-0.0-0.5	PHENOL	J	18	170	PQL	ug/Kg	J (all detects)
SL-029-SA5DS-SS-0.0-0.5	PHENOL	J	18	170	PQL	ug/Kg	J (all detects)
SL-031-SA5DS-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	18	340	PQL	ug/Kg	J (all detects)
	PHENOL	J	20	170	PQL	ug/Kg	
SL-032-SA5DS-SS-0.0-0.5	PHENOL	J	18	170	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA5DS-QC-092611	BENZO(B)FLUORANTHENE	J	1.1	1.7	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.75	1.7	PQL	ug/Kg	
SL-001-SA3-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	5.9	18	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.97	1.6	PQL	ug/Kg	
	FLUORANTHENE	J	1.2	1.6	PQL	ug/Kg	
	PYRENE	J	1.1	1.6	PQL	ug/Kg	
SL-001-SA5DS-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	13	18	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.49	1.7	PQL	ug/Kg	
	Di-n-octylphthalate	J	6.9	18	PQL	ug/Kg	
SL-002-SA3-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.66	1.7	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.36	1.7	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.1	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.0	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.1	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.80	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	1.2	1.7	PQL	ug/Kg	
SL-002-SA5DS-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.70	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	0.96	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.2	1.7	PQL	ug/Kg	
	Butylbenzylphthalate	J	7.1	18	PQL	ug/Kg	
	Di-n-octylphthalate	J	11	18	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.88	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	1.3	1.7	PQL	ug/Kg	
SL-026-SA5DS-SS-0.0-0.5	ACENAPHTHYLENE	J	0.48	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.0	18	PQL	ug/Kg	
	NAPHTHALENE	J	0.99	1.7	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE253 **Laboratory: LL**

EDD Filename: DE253_v2. **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-027-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	3.9	8.4	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	33	90	PQL	ug/Kg	
	PHENANTHRENE	J	4.5	8.4	PQL	ug/Kg	
	PYRENE	J	7.4	8.4	PQL	ug/Kg	
SL-028-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.80	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.1	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.72	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.1	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	0.86	1.7	PQL	ug/Kg	
	PYRENE	J	0.82	1.7	PQL	ug/Kg	
SL-029-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.3	1.7	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.2	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.2	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	10	19	PQL	ug/Kg	
	Di-n-octylphthalate	J	7.5	19	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.76	1.7	PQL	ug/Kg	
SL-030-SA5DS-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	13	18	PQL	ug/Kg	J (all detects)
	INDENO(1,2,3-CD)PYRENE	J	0.94	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.99	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.4	1.7	PQL	ug/Kg	
SL-032-SA5DS-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.84	1.7	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	0.81	1.7	PQL	ug/Kg	
	ANTHRACENE	J	0.57	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.3	1.7	PQL	ug/Kg	
	Di-n-octylphthalate	J	9.6	18	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.4	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	1.5	1.7	PQL	ug/Kg	

LDC #: 26859W4 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/30/11
SDG #: DE253 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: W
2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	W	
III.	Calibration	W	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	Al, Ba, Ca, Cr, Fe, Pb, Mg, Mn, Ti, V, Zn 12 W (1-4X Cl-IV
VII.	Duplicate Sample Analysis	N A	Cd, Hg < 5X (1-4)
VIII.	Laboratory Control Samples (LCS)	N A	SRM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Ba, Cr, Pb, Ni, V, Zn J/UJ (1-4) 12 W
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	SL-001-SA3-SS-0.0-0.5	11	SL-032-SA5DS-SS-0.0-0.5	21	~~SL-08~~	31	
2	SL-002-SA3-SS-0.0-0.5	12	DUP01-SA5DS-QC-092611	22		32	
3	SL-002-SA5DS-SS-0.0-0.5	13	SL-001-SA5DS-SS-0.0-0.5MS	23		33	
4	SL-001-SA5DS-SS-0.0-0.5	14	SL-001-SA5DS-SS-0.0-0.5MSD	24		34	
5	SL-026-SA5DS-SS-0.0-0.5	15	SL-001-SA5DS-SS-0.0-0.5DUP	25		35	
6	SL-027-SA5DS-SS-0.0-0.5	16*	SL-028-SA7-SB-8.8-9.0	26		36	
7	SL-028-SA5DS-SS-0.0-0.5	17		27		37	
8	SL-029-SA5DS-SS-0.0-0.5	18		28		38	
9	SL-030-SA5DS-SS-0.0-0.5	19		29		39	
10	SL-031-SA5DS-SS-0.0-0.5	20		30		40	

Notes: * #16 batch with DE251, (see DE251 for MS/MSD + LR qualifiers)

LDC #: 26859W4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000) Soil preparation factor applied: 100X

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 16 Reason: B

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	16											
Zr			7.5	3.75	0.77											

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 1-6 Reason: B

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	1	2	5									
Zr			12.8	6.4	2.9	2.4	2.9									

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U". Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: DE253
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6419491BKG Matrix Spike Lab Sample ID: 6419492MS Matrix Spike Duplicate Lab Sample ID: 6419493MSD
% Solids for Sample: 99.3
Batch Id(s): P27108A, P27126A, P27111C

Analyte	Mass	BKG Sample Result	C	MS Sample Result	C	MSD Sample Result	C	MS Spike Added	MSD Spike Added	Units	MS %R	Q	MSD %R	Q	RPD	Q	Control Limit %R	RPD	M
Aluminum		12168.5791		14058.4258		14074.8018		199.4157	199.4157	MG/KG	948		956		0		74X	20	P
Antimony	121	0.4360		1.0850		1.0320		1.2085	1.1965	MG/KG	54	N	50	N	5		75 - 125	20	MS
Arsenic	75	7.3633		11.1259		10.3577		2.0141	1.9942	MG/KG	187	N	150	N	7		75 - 125	20	MS
Barium	137	69.4272		82.8399		82.4983		10.0705	9.9708	MG/KG	133		131		0		74X	20	MS
Beryllium	9	0.4014		1.0512		1.0082		0.8056	0.7977	MG/KG	81		76		4		75 - 125	20	MS
Boron		7.4884		191.7990		194.7903		199.4157	199.4157	MG/KG	92		94		2		84 - 115	20	P
Cadmium	111	0.2944		1.7301		1.7158		1.0070	0.9971	MG/KG	143	N	143	N	1		75 - 125	20	MS
Calcium		5159.4532		6497.2879		6192.8689		398.8314	398.8314	MG/KG	335		259		5		74X	20	P
Chromium	52	54.1635		72.3666		70.5134		10.0705	9.9708	MG/KG	181		164		3		74X	20	MS
Cobalt	59	7.4225		64.0483		63.8928		50.3525	49.8539	MG/KG	112		113		0		75 - 125	20	MS
Copper	63	7.3673		20.6042		20.7392		10.0705	9.9708	MG/KG	131	N	134	N	1		75 - 125	20	MS
Iron		22864.4179		23193.1969		23625.6678		99.7079	99.7079	MG/KG	330		763		2		74X	20	P
Lead	208	40.0648		40.2618		43.5524		3.0211	2.9912	MG/KG	7		117		8		↓	20	MS
Lithium		16.2296		112.4804		112.6878		99.7079	99.7079	MG/KG	97		97		0		82 - 114	20	P
Magnesium		5632.2256		5918.5716		6015.4428		199.4157	199.4157	MG/KG	144		192		2		74X	20	P
Manganese		305.2860		357.6940		366.4014		49.8539	49.8539	MG/KG	105		123		2		↓	20	P
Mercury		0.0133	B	0.1407		0.1643		0.1623	0.1651	MG/KG	78		91		15		65 - 135	20	CV
Molybdenum	98	0.7573		15.3938		15.4148		10.0705	9.9708	MG/KG	145	N	147	N	0		75 - 125	20	MS
Nickel	60	14.0533		28.8218		28.2971		10.0705	9.9708	MG/KG	147	N	143	N	2		75 - 125	20	MS
Phosphorus		878.3323		980.7474		971.1236		99.7079	99.7079	MG/KG	103		93		1			20	P
Potassium		1758.4713		2999.8046		3000.9053		997.0786	997.0786	MG/KG	124		125		0		75 - 125	20	P
Selenium	78	0.2571	B	3.0232		2.9553		2.0141	1.9942	MG/KG	137	N	135	N	2		75 - 125	20	MS
Silver	107	0.0372	B	14.0262		14.0349		10.0705	9.9708	MG/KG	139	N	140	N	0		75 - 125	20	MS
Sodium		123.9537		1135.3813		1135.9038		997.0786	997.0786	MG/KG	101		101		0		75 - 125	20	P
Strontium		21.9869		119.6634		121.0942		99.7079	99.7079	MG/KG	98		99		1		75 - 115	20	P
Thallium	203	0.1719		0.7112		0.7340		0.4028	0.3988	MG/KG	134	N	141	N	3		75 - 125	20	MS
Tin		3.0020	B	364.0164		366.1302		398.8314	398.8314	MG/KG	91		91		1		80 - 110	20	P
Titanium		1242.7865		1769.9142		1788.7978		99.7079	99.7079	MG/KG	529		548		1		74X	20	P
Vanadium	51	98.0985		119.5972		118.2136		10.0705	9.9708	MG/KG	213		202		1		↓	20	MS
Zinc	66	72.7248		85.1360		85.7687		10.0705	9.9708	MG/KG	123		131		1		↓	20	MS
Zirconium		12.5196		106.5239		106.2347		99.7079	99.7079	MG/KG	94		94		0		75 - 125	20	P

DE253

METHODS:
P = ICP Atomic Emission Spectrometer CV = Cold Vapor
MS = ICP Mass Spectrometry AF = Cold Vapor Atomic Fluorescence

CONCENTRATION QUALIFIERS:
U= Below MDL, B= Below LOQ
FLAGS:
N = Matrix Spike OOS, * = Duplicate OOS

SAMPLE DELIVERY GROUP

DE256

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	3050B	6010B	III
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	3050B	6020	III
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	3060A	7199	III
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	3550B	8081A	III
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	3550B	8082	III
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	3550B	8151A	III
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	3550B	8270C	III
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	3550B	8270C SIM	III
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	METHOD	300.0	III
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	METHOD	314.0	III
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	METHOD	7471A	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	3050B	6010B	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	3050B	6020	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	3060A	7199	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	3546	1625C	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	3550B	8015B	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	3550B	8015M	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	3550B	8082	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	3550B	8270C	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	3550B	8270C SIM	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	5035	8015M	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	METHOD	300.0	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	METHOD	314.0	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	METHOD	7471A	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	METHOD	8015B	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	METHOD	8015M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	METHOD	8315A	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	3050B	6010B	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	3050B	6020	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	3060A	7199	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	3546	1625C	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	3550B	8015B	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	3550B	8015M	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	3550B	8082	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	3550B	8270C	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	3550B	8270C SIM	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	5035	8015M	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	METHOD	300.0	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	METHOD	314.0	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	METHOD	7471A	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	METHOD	8015B	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	METHOD	8015M	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	METHOD	8315A	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	3050B	6010B	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	3050B	6020	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	3546	1625C	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	3550B	8015B	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	3550B	8015M	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	3550B	8082	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	3550B	8270C	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	3550B	8270C SIM	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	5035	8015M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	METHOD	7471A	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	METHOD	8015B	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	METHOD	8015M	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	METHOD	8315A	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0DUP	6421302	DUP	3050B	6010B	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0DUP	6421302	DUP	3050B	6020	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0DUP	6421302	DUP	3060A	7199	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0DUP	6421302	DUP	METHOD	300.0	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0DUP	6421302	DUP	METHOD	314.0	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0DUP	6421302	DUP	METHOD	7471A	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	3050B	6010B	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	3050B	6020	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	3060A	7199	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	3550B	8081A	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	3550B	8082	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	3550B	8151A	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	3550B	8270C	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	3550B	8270C SIM	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	METHOD	300.0	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	METHOD	314.0	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	METHOD	7471A	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	3050B	6010B	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	3050B	6020	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	3060A	7199	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	3546	1625C	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	3550B	8015B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	3550B	8015M	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	3550B	8082	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	3550B	8270C	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	3550B	8270C SIM	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	5035	8015M	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	METHOD	300.0	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	METHOD	314.0	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	METHOD	7471A	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	METHOD	8015B	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	METHOD	8015M	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	METHOD	8315A	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	3050B	6010B	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	3050B	6020	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	3060A	7199	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	3546	1625C	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	3550B	8015B	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	3550B	8015M	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	3550B	8082	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	3550B	8270C	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	3550B	8270C SIM	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	5035	8015M	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	METHOD	300.0	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	METHOD	314.0	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	METHOD	7471A	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	METHOD	8015B	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	METHOD	8015M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	METHOD	8315A	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	3050B	6010B	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	3050B	6020	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	3060A	7199	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	3550B	8081A	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	3550B	8082	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	3550B	8151A	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	3550B	8270C	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	3550B	8270C SIM	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	METHOD	300.0	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	METHOD	314.0	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	METHOD	7471A	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	3050B	6010B	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	3050B	6020	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	3060A	7199	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	3546	1625C	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	3550B	8015B	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	3550B	8015M	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	3550B	8082	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	3550B	8270C	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	3550B	8270C SIM	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	5035	8015M	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	METHOD	300.0	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	METHOD	314.0	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	METHOD	7471A	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	METHOD	8015B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	METHOD	8015M	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	METHOD	8315A	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	3050B	6010B	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	3050B	6020	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	3060A	7199	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	3550B	8081A	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	3550B	8082	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	3550B	8151A	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	3550B	8270C	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	3550B	8270C SIM	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	METHOD	300.0	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	METHOD	314.0	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	METHOD	7471A	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	3050B	6010B	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	3050B	6020	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	3060A	7199	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	3546	1625C	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	3550B	8015B	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	3550B	8015M	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	3550B	8082	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	3550B	8270C	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	3550B	8270C SIM	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	5035	8015M	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	METHOD	300.0	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	METHOD	314.0	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	METHOD	7471A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	METHOD	8015B	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	METHOD	8015M	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	METHOD	8315A	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	3050B	6010B	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	3050B	6020	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	3060A	7199	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	3550B	8081A	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	3550B	8082	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	3550B	8151A	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	3550B	8270C	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	3550B	8270C SIM	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	METHOD	300.0	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	METHOD	314.0	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	METHOD	7471A	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	3050B	6010B	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	3050B	6020	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	3060A	7199	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	3550B	8081A	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	3550B	8082	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	3550B	8151A	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	3550B	8270C	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	3550B	8270C SIM	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	METHOD	300.0	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	METHOD	314.0	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	METHOD	7471A	III
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	3050B	6010B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	3050B	6020	III
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	3060A	7199	III
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	3550B	8081A	III
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	3550B	8082	III
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	3550B	8151A	III
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	3550B	8270C	III
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	3550B	8270C SIM	III
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	METHOD	300.0	III
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	METHOD	314.0	III
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	METHOD	7471A	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	3050B	6010B	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	3050B	6020	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	3060A	7199	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	3546	1625C	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	3550B	8015B	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	3550B	8015M	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	3550B	8082	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	3550B	8270C	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	3550B	8270C SIM	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	METHOD	300.0	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	METHOD	314.0	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	METHOD	7471A	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	METHOD	8015B	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	METHOD	8015M	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	METHOD	8315A	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	3050B	6010B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	3050B	6020	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	3060A	7199	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	3546	1625C	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	3550B	8015B	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	3550B	8015M	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	3550B	8082	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	3550B	8270C	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	3550B	8270C SIM	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	METHOD	300.0	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	METHOD	314.0	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	METHOD	7471A	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	METHOD	8015B	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	METHOD	8015M	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	METHOD	8315A	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	3005A	6010B	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	3020A	6020	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	3510C	8015B	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	3510C	8015M	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	3510C	8082	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	3510C	8270C	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	3510C	8270C SIM	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	3520C	1625C	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	5030B	8015M	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	5030B	8260B	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	5030B	8260B SIM	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	8330	8330A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	Gen Prep	300.0	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	Gen Prep	314.0	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	Gen Prep	7199	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	Gen Prep	8015B	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	Gen Prep	8015M	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	METHOD	7470A	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	METHOD	8315A	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	METHOD	9012B	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	3050B	6010B	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	3050B	6020	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	3060A	7199	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	3550B	8081A	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	3550B	8082	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	3550B	8151A	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	3550B	8270C	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	3550B	8270C SIM	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	METHOD	300.0	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	METHOD	314.0	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	METHOD	7471A	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	3050B	6010B	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	3050B	6020	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	3060A	7199	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	3550B	8081A	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	3550B	8082	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	3550B	8151A	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	3550B	8270C	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	3550B	8270C SIM	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	METHOD	300.0	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	METHOD	314.0	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	METHOD	7471A	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5DU	P421288D270805A	DUP	METHOD	314.0	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5DU	P421288D271643A	DUP	METHOD	300.0	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5MS	P421288R270828A	MS	METHOD	314.0	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5MS	P421288R271655A	MS	METHOD	300.0	III
27-Sep-2011	TB-092711	6421312	TB	5030B	8015M	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	3050B	6010B	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	3050B	6020	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	3060A	7199	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	3550B	8081A	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	3550B	8082	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	3550B	8151A	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	3550B	8270C	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	3550B	8270C SIM	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	METHOD	300.0	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	METHOD	314.0	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	METHOD	7471A	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	3050B	6010B	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	3050B	6020	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	3060A	7199	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	3546	1625C	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	3550B	8015B	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	3550B	8015M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	3550B	8082	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	3550B	8270C	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	3550B	8270C SIM	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	5035	8015M	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	METHOD	300.0	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	METHOD	314.0	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	METHOD	7471A	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	METHOD	8015B	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	METHOD	8015M	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	METHOD	8315A	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	3050B	6010B	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	3050B	6020	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	3060A	7199	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	3550B	8081A	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	3550B	8082	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	3550B	8151A	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	3550B	8270C	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	3550B	8270C SIM	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	METHOD	300.0	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	METHOD	314.0	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	METHOD	7471A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE256 Laboratory: LL

EDD Filename: PrepDE256_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: **DUP-09-SA7-QC-092711** ***Collected:*** **9/27/2011 8:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.4		0.84	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	0.84	U	0.84	MDL	1.6	PQL	mg/Kg	UJ	FD

Sample ID: **SL-004-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 2:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.0		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: **SL-005-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 1:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: **SL-006-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.5		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: **SL-019-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 10:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		0.81	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: **SL-020-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.8		0.81	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: **SL-021-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.5		0.82	MDL	1.0	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: **SL-022-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 2:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.83	U	0.83	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: **SL-023-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 9:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.7		0.83	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: **SL-024-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 8:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.82	U	0.82	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: **SL-025-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 7:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.4		0.81	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: **SL-038-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 3:00:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.1		0.84	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: **SL-103-SA7-SB-4.0-5.0** ***Collected:*** **9/27/2011 8:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.7		0.84	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.7		0.84	MDL	1.6	PQL	mg/Kg	J	FD

Sample ID: **SL-103-SA7-SB-9.0-10.0** ***Collected:*** **9/27/2011 8:55:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.0		0.88	MDL	1.1	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-104-SA7-SB-4.0-5.0 *Collected:* 9/27/2011 12:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.5		0.84	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-104-SA7-SB-9.0-10.0 *Collected:* 9/27/2011 12:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.3		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-105-SA7-SB-4.0-5.0 *Collected:* 9/27/2011 2:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.9		0.81	MDL	1.0	PQL	mg/Kg	J	Q
Nitrate-NO3	0.96	J	0.81	MDL	1.5	PQL	mg/Kg	J	Z

Sample ID: SL-172-SA7-SB-4.0-5.0 *Collected:* 9/27/2011 10:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.7		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-172-SA7-SB-9.0-10.0 *Collected:* 9/27/2011 10:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.5		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix: AQ**

Sample ID: EB-SA7-SB-092711 *Collected:* 9/27/2011 1:00:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.0039	J	0.0022	MDL	0.0500	PQL	mg/L	J	Z
STRONTIUM	0.00023	J	0.00022	MDL	0.0050	PQL	mg/L	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **DUP-09-SA7-QC-092711** ***Collected:*** **9/27/2011 8:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	4210		2.48	MDL	19.8	PQL	mg/Kg	J	E
SODIUM	81.8	J	5.90	MDL	99.1	PQL	mg/Kg	J	Z
STRONTIUM	17.9		0.0248	MDL	0.496	PQL	mg/Kg	J	E
TIN	0.615	J	0.317	MDL	9.91	PQL	mg/Kg	U	B
Zirconium	1.13	J	0.456	MDL	4.96	PQL	mg/Kg	J	Z

Sample ID: **SL-004-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 2:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3540		2.52	MDL	20.1	PQL	mg/Kg	J	E
SODIUM	93.6	J	5.99	MDL	101	PQL	mg/Kg	J	Z
STRONTIUM	20.1		0.0252	MDL	0.504	PQL	mg/Kg	J	E
TIN	1.04	J	0.322	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: **SL-005-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 1:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3540		2.51	MDL	20.1	PQL	mg/Kg	J	E
SODIUM	91.1	J	5.98	MDL	101	PQL	mg/Kg	J	Z
STRONTIUM	20.9		0.0251	MDL	0.503	PQL	mg/Kg	J	E
TIN	1.06	J	0.322	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	3.56	J	0.462	MDL	5.03	PQL	mg/Kg	J	Z

Sample ID: **SL-006-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3840		2.42	MDL	19.4	PQL	mg/Kg	J	E
SODIUM	85.9	J	5.77	MDL	97.0	PQL	mg/Kg	J	Z
STRONTIUM	24.4		0.0242	MDL	0.485	PQL	mg/Kg	J	E
TIN	0.816	J	0.310	MDL	9.70	PQL	mg/Kg	U	B

Sample ID: **SL-019-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 10:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3250		2.49	MDL	19.9	PQL	mg/Kg	J	E

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-019-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 10:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	86.7	J	5.93	MDL	99.7	PQL	mg/Kg	J	Z
STRONTIUM	20.2		0.0249	MDL	0.499	PQL	mg/Kg	J	E
TIN	0.959	J	0.319	MDL	9.97	PQL	mg/Kg	U	B

Sample ID: **SL-020-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3440		2.49	MDL	19.9	PQL	mg/Kg	J	E
SODIUM	88.1	J	5.92	MDL	99.4	PQL	mg/Kg	J	Z
STRONTIUM	21.4		0.0249	MDL	0.497	PQL	mg/Kg	J	E
TIN	0.969	J	0.318	MDL	9.94	PQL	mg/Kg	U	B

Sample ID: **SL-021-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3510		2.47	MDL	19.7	PQL	mg/Kg	J	E
SODIUM	91.3	J	5.87	MDL	98.7	PQL	mg/Kg	J	Z
STRONTIUM	23.6		0.0247	MDL	0.493	PQL	mg/Kg	J	E
TIN	1.08	J	0.316	MDL	9.87	PQL	mg/Kg	U	B
Zirconium	4.06	J	0.454	MDL	4.93	PQL	mg/Kg	J	Z

Sample ID: **SL-022-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 2:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3560		2.52	MDL	20.2	PQL	mg/Kg	J	E
SODIUM	83.9	J	6.00	MDL	101	PQL	mg/Kg	J	Z
STRONTIUM	23.1		0.0252	MDL	0.504	PQL	mg/Kg	J	E
TIN	1.03	J	0.323	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: **SL-023-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 9:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3610		2.52	MDL	20.2	PQL	mg/Kg	J	E
SODIUM	98.7	J	6.01	MDL	101	PQL	mg/Kg	J	Z
STRONTIUM	21.9		0.0252	MDL	0.505	PQL	mg/Kg	J	E

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-023-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 9:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	1.04	J	0.323	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: **SL-024-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 8:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	4600		2.52	MDL	20.1	PQL	mg/Kg	J	E
STRONTIUM	20.5		0.0252	MDL	0.503	PQL	mg/Kg	J	E
TIN	0.857	J	0.322	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: **SL-025-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 7:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	4700		2.53	MDL	20.2	PQL	mg/Kg	J	E
SODIUM	98.2	J	6.01	MDL	101	PQL	mg/Kg	J	Z
STRONTIUM	21.3		0.0253	MDL	0.505	PQL	mg/Kg	J	E
TIN	1.01	J	0.323	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: **SL-038-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 3:00:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	14300		2.47	MDL	19.8	PQL	mg/Kg	J	E
SODIUM	85.8	J	5.88	MDL	98.8	PQL	mg/Kg	J	Z
STRONTIUM	41.1		0.0247	MDL	0.494	PQL	mg/Kg	J	E
TIN	0.592	J	0.316	MDL	9.88	PQL	mg/Kg	U	B
Zirconium	4.84	J	0.455	MDL	4.94	PQL	mg/Kg	J	Z

Sample ID: **SL-103-SA7-SB-4.0-5.0** ***Collected:*** **9/27/2011 8:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	5170		2.57	MDL	20.6	PQL	mg/Kg	J	E
STRONTIUM	26.2		0.0257	MDL	0.514	PQL	mg/Kg	J	E
TIN	0.840	J	0.329	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	1.38	J	0.473	MDL	5.14	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-103-SA7-SB-9.0-10.0** ***Collected:*** **9/27/2011 8:55:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3320		2.65	MDL	21.2	PQL	mg/Kg	J	E
STRONTIUM	14.7		0.0265	MDL	0.529	PQL	mg/Kg	J	E
TIN	0.721	J	0.339	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	0.905	J	0.487	MDL	5.29	PQL	mg/Kg	J	Z

Sample ID: **SL-104-SA7-SB-4.0-5.0** ***Collected:*** **9/27/2011 12:35:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3870		2.54	MDL	20.3	PQL	mg/Kg	J	E
SODIUM	82.2	J	6.04	MDL	101	PQL	mg/Kg	J	Z
STRONTIUM	17.4		0.0254	MDL	0.507	PQL	mg/Kg	J	E
TIN	0.751	J	0.325	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	1.40	J	0.467	MDL	5.07	PQL	mg/Kg	J	Z

Sample ID: **SL-104-SA7-SB-9.0-10.0** ***Collected:*** **9/27/2011 12:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	4070		2.65	MDL	21.2	PQL	mg/Kg	J	E
STRONTIUM	18.2		0.0265	MDL	0.531	PQL	mg/Kg	J	E
TIN	0.916	J	0.340	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	1.06	J	0.488	MDL	5.31	PQL	mg/Kg	J	Z

Sample ID: **SL-105-SA7-SB-4.0-5.0** ***Collected:*** **9/27/2011 2:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3260		2.56	MDL	20.5	PQL	mg/Kg	J	E
SODIUM	71.3	J	6.09	MDL	102	PQL	mg/Kg	J	Z
STRONTIUM	14.1		0.0256	MDL	0.511	PQL	mg/Kg	J	E
TIN	1.02	J	0.327	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	0.965	J	0.471	MDL	5.11	PQL	mg/Kg	J	Z

Sample ID: **SL-172-SA7-SB-4.0-5.0** ***Collected:*** **9/27/2011 10:35:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	7950		2.61	MDL	20.9	PQL	mg/Kg	J	E

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS
Method: 6010B **Matrix: SO**

Sample ID: **SL-172-SA7-SB-4.0-5.0** ***Collected:*** **9/27/2011 10:35:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
STRONTIUM	43.5		0.0261	MDL	0.521	PQL	mg/Kg	J	E
TIN	0.895	J	0.334	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	1.55	J	0.480	MDL	5.21	PQL	mg/Kg	J	Z

Sample ID: **SL-172-SA7-SB-9.0-10.0** ***Collected:*** **9/27/2011 10:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3920		2.73	MDL	21.8	PQL	mg/Kg	J	E
STRONTIUM	17.6		0.0273	MDL	0.545	PQL	mg/Kg	J	E
TIN	0.941	J	0.349	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.23	J	0.502	MDL	5.45	PQL	mg/Kg	J	Z

Method Category: METALS
Method: 6020 **Matrix: AQ**

Sample ID: **EB-SA7-SB-092711** ***Collected:*** **9/27/2011 1:00:00** ***Analysis Type:*** **REA4** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	0.00013	J	0.000080	MDL	0.0010	PQL	mg/L	U	B

Method Category: METALS
Method: 6020 **Matrix: SO**

Sample ID: **DUP-09-SA7-QC-092711** ***Collected:*** **9/27/2011 8:45:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.139	J	0.0580	MDL	0.400	PQL	mg/Kg	J	Z

Sample ID: **DUP-09-SA7-QC-092711** ***Collected:*** **9/27/2011 8:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0740	U	0.0740	MDL	0.200	PQL	mg/Kg	UJ	Q, FD
CADMIUM	0.0950	J	0.0440	MDL	0.100	PQL	mg/Kg	J	Z
SILVER	0.0142	U	0.0142	MDL	0.100	PQL	mg/Kg	UJ	FD

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-004-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 2:15:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.350	J	0.0584	MDL	0.403	PQL	mg/Kg	J	Z

Sample ID: **SL-004-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 2:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.105	J	0.0745	MDL	0.201	PQL	mg/Kg	J	Z, Q
SILVER	0.0252	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: **SL-005-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 1:50:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.244	J	0.0561	MDL	0.387	PQL	mg/Kg	J	Z

Sample ID: **SL-005-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 1:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.112	J	0.0715	MDL	0.193	PQL	mg/Kg	J	Z, Q
SILVER	0.0236	J	0.0137	MDL	0.0967	PQL	mg/Kg	J	Z

Sample ID: **SL-006-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:30:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.178	J	0.0585	MDL	0.403	PQL	mg/Kg	J	Z

Sample ID: **SL-006-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.134	J	0.0746	MDL	0.202	PQL	mg/Kg	J	Z, Q
SILVER	0.0282	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: **SL-019-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 10:45:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.190	J	0.0584	MDL	0.403	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-019-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 10:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0922	J	0.0745	MDL	0.201	PQL	mg/Kg	J	Z, Q
SILVER	0.0210	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: **SL-020-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:10:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.190	J	0.0588	MDL	0.406	PQL	mg/Kg	J	Z

Sample ID: **SL-020-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.107	J	0.0751	MDL	0.203	PQL	mg/Kg	J	Z, Q
SILVER	0.0708	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: **SL-021-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:50:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.170	J	0.0572	MDL	0.395	PQL	mg/Kg	J	Z

Sample ID: **SL-021-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.100	J	0.0730	MDL	0.197	PQL	mg/Kg	J	Z, Q
SILVER	0.0207	J	0.0140	MDL	0.0987	PQL	mg/Kg	J	Z

Sample ID: **SL-022-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 2:40:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.217	J	0.0585	MDL	0.403	PQL	mg/Kg	J	Z

Sample ID: **SL-022-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 2:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.108	J	0.0746	MDL	0.202	PQL	mg/Kg	J	Z, Q
SILVER	0.0204	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-023-SA5DS-SS-0.0-0.5 ***Collected:*** 9/27/2011 9:15:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.259	J	0.0585	MDL	0.404	PQL	mg/Kg	J	Z

Sample ID: SL-023-SA5DS-SS-0.0-0.5 ***Collected:*** 9/27/2011 9:15:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.111	J	0.0747	MDL	0.202	PQL	mg/Kg	J	Z, Q
SILVER	0.0152	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: SL-024-SA5DS-SS-0.0-0.5 ***Collected:*** 9/27/2011 8:45:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.170	J	0.0578	MDL	0.399	PQL	mg/Kg	J	Z

Sample ID: SL-024-SA5DS-SS-0.0-0.5 ***Collected:*** 9/27/2011 8:45:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.119	J	0.0737	MDL	0.199	PQL	mg/Kg	J	Z, Q
SILVER	0.0169	J	0.0141	MDL	0.0996	PQL	mg/Kg	J	Z

Sample ID: SL-025-SA5DS-SS-0.0-0.5 ***Collected:*** 9/27/2011 7:30:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.188	J	0.0564	MDL	0.389	PQL	mg/Kg	J	Z

Sample ID: SL-025-SA5DS-SS-0.0-0.5 ***Collected:*** 9/27/2011 7:30:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.133	J	0.0719	MDL	0.194	PQL	mg/Kg	J	Z, Q
SILVER	0.0162	J	0.0138	MDL	0.0972	PQL	mg/Kg	J	Z

Sample ID: SL-038-SA5DS-SS-0.0-0.5 ***Collected:*** 9/27/2011 3:00:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.292	J	0.0584	MDL	0.403	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-038-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 3:00:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.122	J	0.0746	MDL	0.202	PQL	mg/Kg	J	Z, Q
SILVER	0.0234	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: **SL-103-SA7-SB-4.0-5.0** ***Collected:*** **9/27/2011 8:40:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.160	J	0.0608	MDL	0.419	PQL	mg/Kg	J	Z

Sample ID: **SL-103-SA7-SB-4.0-5.0** ***Collected:*** **9/27/2011 8:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0944	J	0.0776	MDL	0.210	PQL	mg/Kg	J	Z, Q, FD
CADMIUM	0.0906	J	0.0461	MDL	0.105	PQL	mg/Kg	J	Z
SILVER	0.0234	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z, FD

Sample ID: **SL-103-SA7-SB-9.0-10.0** ***Collected:*** **9/27/2011 8:55:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.113	J	0.0632	MDL	0.436	PQL	mg/Kg	J	Z

Sample ID: **SL-103-SA7-SB-9.0-10.0** ***Collected:*** **9/27/2011 8:55:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0807	U	0.0807	MDL	0.218	PQL	mg/Kg	UJ	Q
CADMIUM	0.0962	J	0.0480	MDL	0.109	PQL	mg/Kg	J	Z
SILVER	0.0182	J	0.0155	MDL	0.109	PQL	mg/Kg	J	Z

Sample ID: **SL-104-SA7-SB-4.0-5.0** ***Collected:*** **9/27/2011 12:35:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.135	J	0.0588	MDL	0.406	PQL	mg/Kg	J	Z

Sample ID: **SL-104-SA7-SB-4.0-5.0** ***Collected:*** **9/27/2011 12:35:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0751	U	0.0751	MDL	0.203	PQL	mg/Kg	UJ	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-104-SA7-SB-4.0-5.0** ***Collected:*** **9/27/2011 12:35:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.0978	J	0.0446	MDL	0.101	PQL	mg/Kg	J	Z
SILVER	0.0200	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: **SL-104-SA7-SB-9.0-10.0** ***Collected:*** **9/27/2011 12:45:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.101	J	0.0610	MDL	0.420	PQL	mg/Kg	J	Z

Sample ID: **SL-104-SA7-SB-9.0-10.0** ***Collected:*** **9/27/2011 12:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0778	U	0.0778	MDL	0.210	PQL	mg/Kg	UJ	Q
CADMIUM	0.102	J	0.0462	MDL	0.105	PQL	mg/Kg	J	Z
SILVER	0.0221	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z

Sample ID: **SL-105-SA7-SB-4.0-5.0** ***Collected:*** **9/27/2011 2:45:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.142	J	0.0599	MDL	0.413	PQL	mg/Kg	J	Z

Sample ID: **SL-105-SA7-SB-4.0-5.0** ***Collected:*** **9/27/2011 2:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0764	U	0.0764	MDL	0.207	PQL	mg/Kg	UJ	Q
CADMIUM	0.0921	J	0.0455	MDL	0.103	PQL	mg/Kg	J	Z
SILVER	0.0154	J	0.0147	MDL	0.103	PQL	mg/Kg	J	Z

Sample ID: **SL-172-SA7-SB-4.0-5.0** ***Collected:*** **9/27/2011 10:35:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.160	J	0.0623	MDL	0.430	PQL	mg/Kg	J	Z

Sample ID: **SL-172-SA7-SB-4.0-5.0** ***Collected:*** **9/27/2011 10:35:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.377		0.0795	MDL	0.215	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-172-SA7-SB-4.0-5.0** ***Collected:*** **9/27/2011 10:35:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0248	J	0.0152	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: **SL-172-SA7-SB-9.0-10.0** ***Collected:*** **9/27/2011 10:45:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.126	J	0.0620	MDL	0.428	PQL	mg/Kg	J	Z

Sample ID: **SL-172-SA7-SB-9.0-10.0** ***Collected:*** **9/27/2011 10:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0791	U	0.0791	MDL	0.214	PQL	mg/Kg	UJ	Q
SILVER	0.0224	J	0.0152	MDL	0.107	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: **SL-004-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 2:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.97	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: **SL-005-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 1:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.92	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: **SL-021-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.65	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: **SL-022-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 2:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.56	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: **SL-024-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 8:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.67	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: **SL-025-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 7:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.86	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7470A **Matrix: AQ**

Sample ID: **EB-SA7-SB-092711** ***Collected:*** **9/27/2011 1:00:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.000045	J	0.000026	MDL	0.00020	PQL	mg/L	U	B, B

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: **DUP-09-SA7-QC-092711** ***Collected:*** **9/27/2011 8:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0079	J	0.0071	MDL	0.101	PQL	mg/Kg	UJ	F, FD

Sample ID: **SL-004-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 2:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0103	J	0.0071	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: **SL-005-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 1:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0074	J	0.0066	MDL	0.0945	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: **SL-006-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0109	J	0.0068	MDL	0.0963	PQL	mg/Kg	J	Z

Sample ID: **SL-019-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 10:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0135	J	0.0070	MDL	0.0991	PQL	mg/Kg	J	Z

Sample ID: **SL-020-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0088	J	0.0067	MDL	0.0959	PQL	mg/Kg	J	Z

Sample ID: **SL-021-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0115	J	0.0068	MDL	0.0972	PQL	mg/Kg	J	Z

Sample ID: **SL-022-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 2:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0193	J	0.0070	MDL	0.0997	PQL	mg/Kg	J	Z

Sample ID: **SL-023-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 9:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0118	J	0.0068	MDL	0.0967	PQL	mg/Kg	J	Z

Sample ID: **SL-024-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 8:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0098	J	0.0070	MDL	0.100	PQL	mg/Kg	J	Z

Sample ID: **SL-025-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 7:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0098	J	0.0068	MDL	0.0963	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-038-SA5DS-SS-0.0-0.5 *Collected:* 9/27/2011 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0877	J	0.0069	MDL	0.0977	PQL	mg/Kg	J	Z

Sample ID: SL-103-SA7-SB-4.0-5.0 *Collected:* 9/27/2011 8:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0071	U	0.0071	MDL	0.101	PQL	mg/Kg	UJ	FD

Sample ID: SL-172-SA7-SB-4.0-5.0 *Collected:* 9/27/2011 10:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0079	J	0.0074	MDL	0.105	PQL	mg/Kg	U	F

Sample ID: SL-172-SA7-SB-9.0-10.0 *Collected:* 9/27/2011 10:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0490	J	0.0074	MDL	0.105	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1625C **Matrix: AQ**

Sample ID: EB-SA7-SB-092711 *Collected:* 9/27/2011 1:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	3.23		0.532	MDL	1.06	PQL	ng/L	UJ	B, S

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: DUP-09-SA7-QC-092711 *Collected:* 9/27/2011 8:45:00 *Analysis Type:* REA2 *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	2.1	U	2.1	MDL	6.2	PQL	mg/Kg	UJ	FD
EFH (C21-C30)	17		2.1	MDL	6.2	PQL	mg/Kg	J	FD
EFH (C30-C40)	60		2.1	MDL	6.2	PQL	mg/Kg	J	FD

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-103-SA7-SB-4.0-5.0 *Collected:* 9/27/2011 8:40:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	5.2	U	5.2	MDL	10	PQL	mg/Kg	UJ	Q
ETHYLENE GLYCOL	5.2	U	5.2	MDL	10	PQL	mg/Kg	UJ	Q
Propylene glycol	5.2	U	5.2	MDL	10	PQL	mg/Kg	UJ	Q

Sample ID: SL-103-SA7-SB-4.0-5.0 *Collected:* 9/27/2011 8:40:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.60	J	0.42	MDL	1.3	PQL	mg/Kg	J	Z, FD
EFH (C21-C30)	8.7		0.42	MDL	1.3	PQL	mg/Kg	J	Q, Q, Q, FD
EFH (C30-C40)	24		0.42	MDL	1.3	PQL	mg/Kg	J	FD

Sample ID: SL-103-SA7-SB-9.0-10.0 *Collected:* 9/27/2011 8:55:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.44	J	0.44	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-104-SA7-SB-4.0-5.0 *Collected:* 9/27/2011 12:35:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.53	J	0.42	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-105-SA7-SB-4.0-5.0 *Collected:* 9/27/2011 2:45:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.45	J	0.41	MDL	1.2	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: SL-006-SA5DS-SS-0.0-0.5 *Collected:* 9/27/2011 11:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	1.0		0.067	MDL	0.35	PQL	ug/Kg	J	S
4,4'-DDT	0.63		0.067	MDL	0.35	PQL	ug/Kg	J	S
Chlordane	3.8		0.81	MDL	3.5	PQL	ug/Kg	J	S

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: **SL-019-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 10:45:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.23	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.086	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z

Sample ID: **SL-020-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:10:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	2.9	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: **SL-021-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:50:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	1.6	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z
TOXAPHENE	2.6	J	2.2	MDL	6.7	PQL	ug/Kg	J	Z

Sample ID: **SL-022-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 2:40:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DELTA-BHC	0.046	J	0.036	MDL	0.17	PQL	ug/Kg	J	Z
ENDRIN KETONE	0.097	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z

Sample ID: **SL-023-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 9:15:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S
4,4'-DDE	0.25	J	0.067	MDL	0.35	PQL	ug/Kg	J	Z, S
4,4'-DDT	0.38		0.067	MDL	0.35	PQL	ug/Kg	J	S
ALDRIN	0.067	U	0.067	MDL	0.17	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	S
BETA-BHC	0.061	U	0.061	MDL	0.17	PQL	ug/Kg	UJ	S
Chlordane	1.8	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z, S
DELTA-BHC	0.037	U	0.037	MDL	0.17	PQL	ug/Kg	UJ	S
DIELDRIN	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.045	U	0.045	MDL	0.17	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 Laboratory: LL

EDD Filename: PrepDE256_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: SL-023-SA5DS-SS-0.0-0.5 ***Collected:*** 9/27/2011 9:15:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.075	U	0.075	MDL	0.35	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.061	U	0.061	MDL	0.17	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.35	U	0.35	MDL	1.7	PQL	ug/Kg	UJ	S
MIREX	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S
TOXAPHENE	2.2	U	2.2	MDL	6.7	PQL	ug/Kg	UJ	S

Sample ID: SL-025-SA5DS-SS-0.0-0.5 ***Collected:*** 9/27/2011 7:30:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BETA-BHC	0.079	J	0.061	MDL	0.17	PQL	ug/Kg	J	Z
Chlordane	2.5	J	0.81	MDL	3.5	PQL	ug/Kg	J	Z

Sample ID: SL-038-SA5DS-SS-0.0-0.5 ***Collected:*** 9/27/2011 3:00:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	1.1	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: DUP-09-SA7-QC-092711 ***Collected:*** 9/27/2011 8:45:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.41	U	0.41	MDL	1.8	PQL	ug/Kg	UJ	FD

Sample ID: SL-004-SA5DS-SS-0.0-0.5 ***Collected:*** 9/27/2011 2:15:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.51	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
AROCLOR 1260	0.67	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	1.2	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: **SL-006-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:30:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.2	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
AROCLOR 1260	1.0	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	1.9	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: **SL-019-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 10:45:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.52	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-020-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:10:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.2	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
AROCLOR 1260	0.87	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	2.0	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: **SL-021-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:50:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.89	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
AROCLOR 1260	0.71	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	1.6	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: **SL-022-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 2:40:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.2	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z, S
AROCLOR 1260	0.97	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z, S
Aroclor 5460	2.0	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z, S

Sample ID: **SL-023-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 9:15:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.64	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z, S
AROCLOR 1260	0.75	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z, S

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: **SL-023-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 9:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	1.6	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z, S

Sample ID: **SL-024-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 8:45:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.89	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	1.3	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: **SL-025-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 7:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	1.3	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: **SL-038-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 3:00:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1242	0.72	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-103-SA7-SB-4.0-5.0** ***Collected:*** **9/27/2011 8:40:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.47	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z, S, FD

Sample ID: **SL-104-SA7-SB-4.0-5.0** ***Collected:*** **9/27/2011 12:35:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.90	J	0.40	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-104-SA7-SB-9.0-10.0** ***Collected:*** **9/27/2011 12:45:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.47	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-105-SA7-SB-4.0-5.0 *Collected:* 9/27/2011 2:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.75	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-172-SA7-SB-4.0-5.0 *Collected:* 9/27/2011 10:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.76	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8151A **Matrix: SO**

Sample ID: SL-006-SA5DS-SS-0.0-0.5 *Collected:* 9/27/2011 11:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-D	2.0	J	1.2	MDL	3.7	PQL	ug/Kg	J	Z

Sample ID: SL-021-SA5DS-SS-0.0-0.5 *Collected:* 9/27/2011 11:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-TP (Silvex)	0.13	J	0.076	MDL	0.17	PQL	ug/Kg	J	Z

Sample ID: SL-038-SA5DS-SS-0.0-0.5 *Collected:* 9/27/2011 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-TP (Silvex)	0.090	J	0.077	MDL	0.17	PQL	ug/Kg	J	Z
DICAMBA	0.61	J	0.41	MDL	1.2	PQL	ug/Kg	J	Z
DICHLOROPROP	1.6	J	0.82	MDL	1.7	PQL	ug/Kg	J	Z
DINOSEB	0.82	U	0.82	MDL	2.5	PQL	ug/Kg	R	L

Method Category: SVOA

Method: 8270C **Matrix: AQ**

Sample ID: EB-SA7-SB-092711 *Collected:* 9/27/2011 1:00:00 *Analysis Type:* RES-ACID *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZOIC ACID	7	U	7	MDL	17	PQL	ug/L	UJ	E

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: AQ**

Sample ID: DUP-09-SA7-QC-092711 **Collected:** 9/27/2011 8:45:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-butylphthalate	35	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-005-SA5DS-SS-0.0-0.5 **Collected:** 9/27/2011 1:50:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	19	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-006-SA5DS-SS-0.0-0.5 **Collected:** 9/27/2011 11:30:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	51	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-024-SA5DS-SS-0.0-0.5 **Collected:** 9/27/2011 8:45:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	18	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-103-SA7-SB-4.0-5.0 **Collected:** 9/27/2011 8:40:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	1200	U	1200	MDL	3400	PQL	ug/Kg	UJ	Q
BENZOIC ACID	170	U	170	MDL	520	PQL	ug/Kg	R	Q

Method Category: SVOA

Method: 8270C SIM **Matrix: AQ**

Sample ID: EB-SA7-SB-092711 **Collected:** 9/27/2011 1:00:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	0.13	J	0.055	MDL	1.1	PQL	ug/L	J	Z
Diethylphthalate	0.36	J	0.055	MDL	1.1	PQL	ug/L	J	Z
Di-n-butylphthalate	0.79	J	0.055	MDL	1.1	PQL	ug/L	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: AQ**

Sample ID: **EB-SA7-SB-092711** ***Collected:*** **9/27/2011 1:00:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	0.11	J	0.055	MDL	1.1	PQL	ug/L	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: **DUP-09-SA7-QC-092711** ***Collected:*** **9/27/2011 8:45:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	0.76	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD
BENZO(A)PYRENE	1.0	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD
BENZO(G,H,I)PERYLENE	1.0	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD
BIS(2-ETHYLHEXYL)PHTHALATE	6.2	U	6.2	MDL	19	PQL	ug/Kg	UJ	FD
CHRYSENE	1.5	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	1.0	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD
PYRENE	1.5	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD

Sample ID: **SL-004-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 2:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.78	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.2	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	0.81	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.6	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	12	J	6.0	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-005-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 1:50:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	0.76	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.0	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.4	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.71	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: **SL-006-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	0.78	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.73	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-019-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 10:45:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	0.36	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-020-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:10:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	0.76	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.71	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	16	J	6.1	MDL	18	PQL	ug/Kg	J	Z
Butylbenzylphthalate	6.6	J	6.1	MDL	18	PQL	ug/Kg	J	Z
NAPHTHALENE	1.0	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.0	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.6	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-021-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 11:50:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	7.1	J	6.1	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	0.93	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	0.98	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.76	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	0.86	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: **SL-022-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 2:40:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
Butylbenzylphthalate	10	J	6.1	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.89	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.87	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-023-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 9:15:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.5	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.90	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	6.6	J	6.1	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	1.6	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-024-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 8:45:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.71	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.79	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.0	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.4	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.70	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	1.6	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.3	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-025-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 7:30:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
Butylbenzylphthalate	6.6	J	6.1	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.74	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: **SL-025-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 7:30:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHENANTHRENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-038-SA5DS-SS-0.0-0.5** ***Collected:*** **9/27/2011 3:00:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	11	J	6.2	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	0.78	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	0.92	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	0.89	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-103-SA7-SB-4.0-5.0** ***Collected:*** **9/27/2011 8:40:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	FD
BENZO(A)PYRENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	FD
BENZO(G,H,I)PERYLENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	FD
BIS(2-ETHYLHEXYL)PHTHALATE	55		6.2	MDL	19	PQL	ug/Kg	J	Q, FD
CHRYSENE	0.48	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	FD
PYRENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	FD

Sample ID: **SL-103-SA7-SB-9.0-10.0** ***Collected:*** **9/27/2011 8:55:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.91	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-104-SA7-SB-4.0-5.0** ***Collected:*** **9/27/2011 12:35:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.75	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.2	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	6.3	J	6.2	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	0.76	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	0.98	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-104-SA7-SB-9.0-10.0 **Collected:** 9/27/2011 12:45:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.72	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-105-SA7-SB-4.0-5.0 **Collected:** 9/27/2011 2:45:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	0.87	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.5	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-172-SA7-SB-4.0-5.0 **Collected:** 9/27/2011 10:35:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.2	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
CHRYSENE	0.50	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-172-SA7-SB-9.0-10.0 **Collected:** 9/27/2011 10:45:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.74	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8330A **Matrix: AQ**

Sample ID: EB-SA7-SB-092711 **Collected:** 9/27/2011 1:00:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Tetryl	0.40	U	0.40	MDL	0.60	PQL	ug/L	UJ	L

Method Category: VOA

Method: 8260B **Matrix: AQ**

Sample ID: EB-SA7-SB-092711 **Collected:** 9/27/2011 1:00:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	3	J	2	MDL	5	PQL	ug/L	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: PrepDE256_v1

eQAPP Name: CDM_SSFL_110509

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Laboratory Triplicate Precision
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

F	Equipment Blank Contamination
F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Estimation
R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE256

Field Duplicate RPD Report

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-103-SA7-SB-4.0-5.0	DUP-09-SA7-QC-092711			
MOISTURE	4.6	3.9	16		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-103-SA7-SB-4.0-5.0	DUP-09-SA7-QC-092711			
FLUORIDE	3.7	2.4	43	50.00	No Qualifiers Applied
Nitrate-NO3	1.7	1.6 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-103-SA7-SB-4.0-5.0	DUP-09-SA7-QC-092711			
ALUMINUM	13700	14100	3	50.00	No Qualifiers Applied
BORON	6.93	6.69	4	50.00	
CALCIUM	5170	4210	20	50.00	
IRON	18300	18700	2	50.00	
LITHIUM	23.5	24.0	2	50.00	
MAGNESIUM	4200	4320	3	50.00	
MANGANESE	259	255	2	50.00	
PHOSPHORUS	356	378	6	50.00	
POTASSIUM	2670	2720	2	50.00	
SODIUM	103	81.8	23	50.00	
STRONTIUM	26.2	17.9	38	50.00	
TIN	0.840	0.615	31	50.00	
TITANIUM	1050	1140	8	50.00	
Zirconium	1.38	1.13	20	50.00	

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-103-SA7-SB-4.0-5.0	DUP-09-SA7-QC-092711			
ARSENIC	3.85	3.84	0	50.00	No Qualifiers Applied
BARIUM	76.5	76.0	1	50.00	
BERYLLIUM	0.500	0.425	16	50.00	
CADMIUM	0.0906	0.0950	5	50.00	
CHROMIUM	15.1	14.4	5	50.00	
COBALT	4.75	4.59	3	50.00	
COPPER	7.14	7.00	2	50.00	
LEAD	4.80	4.51	6	50.00	
MOLYBDENUM	0.615	0.445	32	50.00	
NICKEL	9.34	9.02	3	50.00	
SELENIUM	0.160	0.139	14	50.00	
THALLIUM	0.240	0.258	7	50.00	
VANADIUM	30.5	31.5	3	50.00	
ZINC	52.9	50.8	4	50.00	

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: PrepDE256_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

Analyte	SL-103-SA7-SB-4.0-5.0	DUP-09-SA7-QC-092711	Sample RPD	eQAPP RPD	Flag
ANTIMONY	0.0944	0.200 U	200	50.00	J(all detects) UJ(all non-detects)
SILVER	0.0234	0.100 U	200	50.00	

Method: 7471A
Matrix: SO

Analyte	Concentration (mg/Kg) SL-103-SA7-SB-4.0-5.0	Concentration (mg/Kg) DUP-09-SA7-QC-092711	Sample RPD	eQAPP RPD	Flag
MERCURY	0.101 U	0.0079	200	50.00	J(all detects) UJ(all non-detects)

Method: 8015M
Matrix: SO

Analyte	Concentration (mg/Kg) SL-103-SA7-SB-4.0-5.0	Concentration (mg/Kg) DUP-09-SA7-QC-092711	Sample RPD	eQAPP RPD	Flag
EFH (C15-C20)	0.60	6.2 U	200	50.00	J(all detects) UJ(all non-detects)
EFH (C21-C30)	8.7	17	65	50.00	
EFH (C30-C40)	24	60	86	50.00	

Method: 8082
Matrix: SO

Analyte	Concentration (ug/Kg) SL-103-SA7-SB-4.0-5.0	Concentration (ug/Kg) DUP-09-SA7-QC-092711	Sample RPD	eQAPP RPD	Flag
AROCLOR 1260	0.47	1.8 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 8270C SIM
Matrix: SO

Analyte	Concentration (ug/Kg) SL-103-SA7-SB-4.0-5.0	Concentration (ug/Kg) DUP-09-SA7-QC-092711	Sample RPD	eQAPP RPD	Flag
BENZO(B)FLUORANTHENE	2.1	2.4	13	50.00	No Qualifiers Applied
BENZO(A)ANTHRACENE	1.7 U	0.76	200	50.00	J(all detects) UJ(all non-detects)
BENZO(A)PYRENE	1.7 U	1.0	200	50.00	
BENZO(G,H,I)PERYLENE	1.7 U	1.0	200	50.00	
BIS(2-ETHYLHEXYL)PHTHALATE	55	19 U	200	50.00	
CHRYSENE	0.48	1.5	103	50.00	
FLUORANTHENE	1.7 U	1.0	200	50.00	
PYRENE	1.7 U	1.5	200	50.00	

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit) SL-103-SA7-SB-4.0-5.0	Concentration (pH unit) DUP-09-SA7-QC-092711	Sample RPD	eQAPP RPD	Flag
PH	8.37	8.32	1	50.00	No Qualifiers Applied

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Method Blank Outlier Report

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: DE256_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **1625C**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWA26B261601	10/3/2011 4:01:00 PM	N-NITROSODIMETHYLAMINE	1.47 ng/L	EB-SA7-SB-092711

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA7-SB-092711(RES)	N-NITROSODIMETHYLAMINE	3.23 ng/L	3.23U ng/L

Method: **6010B**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27848CB222339	10/9/2011 11:39:00 PM	STRONTIUM	0.00022 mg/L	EB-SA7-SB-092711

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA7-SB-092711(REA2)	STRONTIUM	0.00023 mg/L	0.00023U mg/L

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27208AB220108	10/11/2011 1:08:00 AM	ALUMINUM	8.39 mg/Kg	DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0

Method Blank Outlier Report

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: DE256_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27208AB220759	10/10/2011 7:59:00 AM	CALCIUM MANGANESE PHOSPHORUS STRONTIUM TIN	7.16 mg/Kg 0.0466 mg/Kg 1.24 mg/Kg 0.0262 mg/Kg 1.35 mg/Kg	DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP-09-SA7-QC-092711(RES)	TIN	0.615 mg/Kg	0.615U mg/Kg
SL-004-SA5DS-SS-0.0-0.5(RES)	TIN	1.04 mg/Kg	1.04U mg/Kg
SL-005-SA5DS-SS-0.0-0.5(RES)	TIN	1.06 mg/Kg	1.06U mg/Kg
SL-006-SA5DS-SS-0.0-0.5(RES)	TIN	0.816 mg/Kg	0.816U mg/Kg
SL-019-SA5DS-SS-0.0-0.5(RES)	TIN	0.959 mg/Kg	0.959U mg/Kg
SL-020-SA5DS-SS-0.0-0.5(RES)	TIN	0.969 mg/Kg	0.969U mg/Kg
SL-021-SA5DS-SS-0.0-0.5(RES)	TIN	1.08 mg/Kg	1.08U mg/Kg
SL-022-SA5DS-SS-0.0-0.5(RES)	TIN	1.03 mg/Kg	1.03U mg/Kg
SL-023-SA5DS-SS-0.0-0.5(RES)	TIN	1.04 mg/Kg	1.04U mg/Kg
SL-024-SA5DS-SS-0.0-0.5(RES)	TIN	0.857 mg/Kg	0.857U mg/Kg
SL-025-SA5DS-SS-0.0-0.5(RES)	TIN	1.01 mg/Kg	1.01U mg/Kg
SL-038-SA5DS-SS-0.0-0.5(RES)	TIN	0.592 mg/Kg	0.592U mg/Kg
SL-103-SA7-SB-4.0-5.0(RES)	TIN	0.840 mg/Kg	0.840U mg/Kg
SL-103-SA7-SB-9.0-10.0(RES)	TIN	0.721 mg/Kg	0.721U mg/Kg
SL-104-SA7-SB-4.0-5.0(RES)	TIN	0.751 mg/Kg	0.751U mg/Kg
SL-104-SA7-SB-9.0-10.0(RES)	TIN	0.916 mg/Kg	0.916U mg/Kg
SL-105-SA7-SB-4.0-5.0(RES)	TIN	1.02 mg/Kg	1.02U mg/Kg
SL-172-SA7-SB-4.0-5.0(RES)	TIN	0.895 mg/Kg	0.895U mg/Kg
SL-172-SA7-SB-9.0-10.0(RES)	TIN	0.941 mg/Kg	0.941U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: DE256_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27226AB222155A	9/29/2011 9:55:00 PM	COPPER LEAD	0.0875 mg/Kg 0.0645 mg/Kg	DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0

Method: 7470A
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27813AB220856	10/6/2011 8:56:00 AM	MERCURY	0.000042 mg/L	EB-SA7-SB-092711

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA7-SB-092711(RES)	MERCURY	0.000045 mg/L	0.000045U mg/L

Method: 8151A
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P78786AB241039A	10/7/2011 10:39:00 AM	MCPP	130 ug/Kg	SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5
P83832AB241715A	10/12/2011 5:15:00 PM	2,4,5-T	0.10 ug/Kg	SL-038-SA5DS-SS-0.0-0.5

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: DE256_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-103-SA7-SB-4.0-5.0MS SL-103-SA7-SB-4.0-5.0MSD (SL-103-SA7-SB-4.0-5.0)	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	12 49 55	16 55 59	59.00-109.00 63.00-107.00 63.00-107.00	28 (20.00) - -	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	J (all detects) UJ (all non-detects)
SL-103-SA7-SB-4.0-5.0MS SL-103-SA7-SB-4.0-5.0MSD (SL-103-SA7-SB-4.0-5.0)	EFH (C21-C30) EFH (C30-C40)	-50 -175	35 -220	49.00-123.00 49.00-123.00	22 (20.00) -	EFH (C21-C30) EFH (C30-C40)	J(all detects) R(all non-detects) EFH (C30-C40), No Qual >4x

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-103-SA7-SB-4.0-5.0MS SL-103-SA7-SB-4.0-5.0MSD (DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0)	ANTIMONY	35	30	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)
SL-103-SA7-SB-4.0-5.0MSD (DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0)	BARIUM	-	154	75.00-125.00	-	BARIUM	No Qual, >4x

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: DE256_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-103-SA7-SB-4.0-5.0MS **SL-103-SA7-SB-4.0-5.0MSD** (DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0)	ALUMINUM MAGNESIUM	361 -	988 279	75.00-125.00 75.00-125.00	- -	ALUMINUM MAGNESIUM	No Qual, >4x
SL-103-SA7-SB-4.0-5.0MS **SL-103-SA7-SB-4.0-5.0MSD** (DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0)	CALCIUM IRON	-278 -889	-149 837	75.00-125.00 75.00-125.00	- -	CALCIUM IRON	No Qual, >4x
SL-103-SA7-SB-4.0-5.0MS (DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0)	MANGANESE	54	-	75.00-125.00	-	MANGANESE	No Qual, >4x

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: DE256_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-004-SA5DS-SS-0.0-0.5MS (SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5)	FLUORIDE	44	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
SL-103-SA7-SB-4.0-5.0MS (DUP-09-SA7-QC-092711 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0)	FLUORIDE	61	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-103-SA7-SB-4.0-5.0MSD (SL-103-SA7-SB-4.0-5.0)	2,4-DINITROPHENOL 3,3'-DICHLOROBENZIDINE 4-CHLOROANILINE	- - -	- - -	20.00-143.00 28.00-109.00 23.00-95.00	56 (30.00) 43 (30.00) 42 (30.00)	2,4-DINITROPHENOL 3,3'-DICHLOROBENZIDINE 4-CHLOROANILINE	J(all detects)
SL-103-SA7-SB-4.0-5.0MSD (SL-103-SA7-SB-4.0-5.0)	BENZOIC ACID	-	0	10.00-173.00	200 (30.00)	BENZOIC ACID	J(all detects) R(all non-detects)
SL-103-SA7-SB-4.0-5.0MS SL-103-SA7-SB-4.0-5.0MSD (SL-103-SA7-SB-4.0-5.0)	BENZIDINE	21	25	35.00-141.00	-	BENZIDINE	J(all detects) UJ(all non-detects)

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-103-SA7-SB-4.0-5.0MSD (SL-103-SA7-SB-4.0-5.0)	N-NITROSODIMETHYLAMINE	-	277	48.00-113.00	105 (30.00)	N-NITROSODIMETHYLAMINE	J(all detects)
SL-103-SA7-SB-4.0-5.0MS SL-103-SA7-SB-4.0-5.0MSD (SL-103-SA7-SB-4.0-5.0)	BIS(2-ETHYLHEXYL)PHTHALAT	-27	-39	39.00-167.00	-	BIS(2-ETHYLHEXYL)PHTHALA	J(all detects) R(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: DE256_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 1625C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-103-SA7-SB-4.0-5.0MS (SL-103-SA7-SB-4.0-5.0)	N-NITROSODIMETHYLAMINE	134	-	70.00-130.00	-	N-NITROSODIMETHYLAMINE	J(all detects)

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-103-SA7-SB-4.0-5.0MS SL-103-SA7-SB-4.0-5.0MSD (DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0)	TITANIUM	205	230	75.00-125.00	-	TITANIUM	No Qual, >4x

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: DE256_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-103-SA7-SB-4.0-5.0DUP (DUP-09-SA7-QC-092711 SL -038-SA5DS-SS-0.0-0.5 SL -103-SA7-SB-4.0-5.0 SL -103-SA7-SB-9.0-10.0 SL -104-SA7-SB-4.0-5.0 SL -104-SA7-SB-9.0-10.0 SL -105-SA7-SB-4.0-5.0 SL -172-SA7-SB-4.0-5.0 SL -172-SA7-SB-9.0-10.0)	Nitrate-NO3	28	20.00	No Qual, OK by Difference

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-103-SA7-SB-4.0-5.0DUP	CALCIUM	38	20.00	
(DUP-09-SA7-QC-092711	STRONTIUM	47	20.00	
SL -004-SA5DS-SS-0.0-0.5	Zirconium	42	20.00	
SL -005-SA5DS-SS-0.0-0.5				
SL -006-SA5DS-SS-0.0-0.5				
SL -019-SA5DS-SS-0.0-0.5				J(all detects) UJ(all non-detects)
SL -020-SA5DS-SS-0.0-0.5				
SL -021-SA5DS-SS-0.0-0.5				
SL -022-SA5DS-SS-0.0-0.5				
SL -023-SA5DS-SS-0.0-0.5				
SL -024-SA5DS-SS-0.0-0.5				Zr, No Qual, OK by Difference
SL -025-SA5DS-SS-0.0-0.5				
SL -038-SA5DS-SS-0.0-0.5				
SL -103-SA7-SB-4.0-5.0				
SL -103-SA7-SB-9.0-10.0				
SL -104-SA7-SB-4.0-5.0				
SL -104-SA7-SB-9.0-10.0				
SL -105-SA7-SB-4.0-5.0				
SL -172-SA7-SB-4.0-5.0				
SL -172-SA7-SB-9.0-10.0)				

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: DE256_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-103-SA7-SB-4.0-5.0DUP	ANTIMONY	200	20.00	
(DUP-09-SA7-QC-092711	MOLYBDENUM	38	20.00	
SL -004-SA5DS-SS-0.0-0.5	SELENIUM	42	20.00	
SL -005-SA5DS-SS-0.0-0.5				
SL -006-SA5DS-SS-0.0-0.5				
SL -019-SA5DS-SS-0.0-0.5				
SL -020-SA5DS-SS-0.0-0.5				
SL -021-SA5DS-SS-0.0-0.5				No Qual,
SL -022-SA5DS-SS-0.0-0.5				OK by Difference
SL -023-SA5DS-SS-0.0-0.5				
SL -024-SA5DS-SS-0.0-0.5				
SL -025-SA5DS-SS-0.0-0.5				
SL -038-SA5DS-SS-0.0-0.5				
SL -103-SA7-SB-4.0-5.0				
SL -103-SA7-SB-9.0-10.0				
SL -104-SA7-SB-4.0-5.0				
SL -104-SA7-SB-9.0-10.0				
SL -105-SA7-SB-4.0-5.0				
SL -172-SA7-SB-4.0-5.0				
SL -172-SA7-SB-9.0-10.0)				

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-103-SA7-SB-4.0-5.0DUP	HEXAVALENT CHROMIUM	200	20.00	
(DUP-09-SA7-QC-092711				
SL -004-SA5DS-SS-0.0-0.5				
SL -005-SA5DS-SS-0.0-0.5				
SL -006-SA5DS-SS-0.0-0.5				
SL -019-SA5DS-SS-0.0-0.5				
SL -020-SA5DS-SS-0.0-0.5				
SL -021-SA5DS-SS-0.0-0.5				No Qual,
SL -022-SA5DS-SS-0.0-0.5				OK by Difference
SL -023-SA5DS-SS-0.0-0.5				
SL -024-SA5DS-SS-0.0-0.5				
SL -025-SA5DS-SS-0.0-0.5				
SL -038-SA5DS-SS-0.0-0.5				
SL -103-SA7-SB-4.0-5.0				
SL -103-SA7-SB-9.0-10.0				
SL -104-SA7-SB-4.0-5.0				
SL -104-SA7-SB-9.0-10.0				
SL -105-SA7-SB-4.0-5.0				
SL -172-SA7-SB-4.0-5.0				
SL -172-SA7-SB-9.0-10.0)				

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE256 Laboratory: LL

EDD Filename: DE256_v1. eQAPP Name: CDM_SSFL_110509

Method: 8330A
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12766AQ241326A P12766AY241408A (EB-SA7-SB-092711)	Tetryl	71	67	72.00-141.00	-	Tetryl	J (all detects) UJ (all non-detects)

Method: 8270C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P6WCLCSQ261423 (EB-SA7-SB-092711)	BIS(2-CHLOROETHYL) ETHER NITROBENZENE	109 111	- -	77.00-108.00 75.00-109.00	- -	BIS(2-CHLOROETHYL) ETHER NITROBENZENE	J(all detects)
P6WCLCSY261448 (EB-SA7-SB-092711)	BENZOIC ACID	-	-	10.00-69.00	82 (30.00)	BENZOIC ACID	J(all detects) UJ(all non-detects)

Method: 8081A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12799AQ242322A (SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5)	METHOXYCHLOR	130	-	59.00-125.00	-	METHOXYCHLOR	J(all detects)

Method: 8151A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12832AQ241743A (SL-038-SA5DS-SS-0.0-0.5)	DINOSEB	8	-	10.00-36.00	-	DINOSEB	J(all detects) R(all non-detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: DE256_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P27226AQ222158A (DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0)	ANTIMONY	62	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC limits

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P27208AQ220112 (DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0)	ALUMINUM	143	-	80.00-120.00	-	ALUMINUM	No Qual, SRM within QC limits

Surrogate Outlier Report

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: DE256_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 1625C
Matrix: AQ

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
EB-SA7-SB-092711	N-Nitrosodimethylamine-d6	277	50.00-150.00	All Target Analytes	J (all detects)

Method: 8081A
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-006-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	127	20.00-120.00	All Target Analytes	J(all detects)
SL-023-SA5DS-SS-0.0-0.5	TETRACHLORO-M-XYLENE	46	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)

Method: 8082
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-022-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	123	45.00-120.00	All Target Analytes	J(all detects)
SL-023-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	155 154	45.00-120.00 53.00-139.00	All Target Analytes	J(all detects)
SL-103-SA7-SB-4.0-5.0	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	135 152	45.00-120.00 53.00-139.00	All Target Analytes	J(all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: DE256_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-092711	BORON	J	0.0039	0.0500	PQL	mg/L	J (all detects)
	STRONTIUM	J	0.00023	0.0050	PQL	mg/L	

Method: 6020
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-092711	LEAD	J	0.00013	0.0010	PQL	mg/L	J (all detects)

Method: 7470A
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-092711	MERCURY	J	0.000045	0.00020	PQL	mg/L	J (all detects)

Method: 8260B
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-092711	METHYLENE CHLORIDE	J	3	5	PQL	ug/L	J (all detects)

Method: 8270C SIM
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-092711	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.13	1.1	PQL	ug/L	J (all detects)
	Diethylphthalate	J	0.36	1.1	PQL	ug/L	
	Di-n-butylphthalate	J	0.79	1.1	PQL	ug/L	
	Di-n-octylphthalate	J	0.11	1.1	PQL	ug/L	

Method: 300.0
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-105-SA7-SB-4.0-5.0	Nitrate-NO3	J	0.96	1.5	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: DE256_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-09-SA7-QC-092711	SODIUM	J	81.8	99.1	PQL	mg/Kg	J (all detects)
	TIN	J	0.615	9.91	PQL	mg/Kg	
	Zirconium	J	1.13	4.96	PQL	mg/Kg	
SL-004-SA5DS-SS-0.0-0.5	SODIUM	J	93.6	101	PQL	mg/Kg	J (all detects)
	TIN	J	1.04	10.1	PQL	mg/Kg	
SL-005-SA5DS-SS-0.0-0.5	SODIUM	J	91.1	101	PQL	mg/Kg	J (all detects)
	TIN	J	1.06	10.1	PQL	mg/Kg	
	Zirconium	J	3.56	5.03	PQL	mg/Kg	
SL-006-SA5DS-SS-0.0-0.5	SODIUM	J	85.9	97.0	PQL	mg/Kg	J (all detects)
	TIN	J	0.816	9.70	PQL	mg/Kg	
SL-019-SA5DS-SS-0.0-0.5	SODIUM	J	86.7	99.7	PQL	mg/Kg	J (all detects)
	TIN	J	0.959	9.97	PQL	mg/Kg	
SL-020-SA5DS-SS-0.0-0.5	SODIUM	J	88.1	99.4	PQL	mg/Kg	J (all detects)
	TIN	J	0.969	9.94	PQL	mg/Kg	
SL-021-SA5DS-SS-0.0-0.5	SODIUM	J	91.3	98.7	PQL	mg/Kg	J (all detects)
	TIN	J	1.08	9.87	PQL	mg/Kg	
	Zirconium	J	4.06	4.93	PQL	mg/Kg	
SL-022-SA5DS-SS-0.0-0.5	SODIUM	J	83.9	101	PQL	mg/Kg	J (all detects)
	TIN	J	1.03	10.1	PQL	mg/Kg	
SL-023-SA5DS-SS-0.0-0.5	SODIUM	J	98.7	101	PQL	mg/Kg	J (all detects)
	TIN	J	1.04	10.1	PQL	mg/Kg	
SL-024-SA5DS-SS-0.0-0.5	TIN	J	0.857	10.1	PQL	mg/Kg	J (all detects)
SL-025-SA5DS-SS-0.0-0.5	SODIUM	J	98.2	101	PQL	mg/Kg	J (all detects)
	TIN	J	1.01	10.1	PQL	mg/Kg	
SL-038-SA5DS-SS-0.0-0.5	SODIUM	J	85.8	98.8	PQL	mg/Kg	J (all detects)
	TIN	J	0.592	9.88	PQL	mg/Kg	
	Zirconium	J	4.84	4.94	PQL	mg/Kg	
SL-103-SA7-SB-4.0-5.0	TIN	J	0.840	10.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.38	5.14	PQL	mg/Kg	
SL-103-SA7-SB-9.0-10.0	TIN	J	0.721	10.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	0.905	5.29	PQL	mg/Kg	
SL-104-SA7-SB-4.0-5.0	SODIUM	J	82.2	101	PQL	mg/Kg	J (all detects)
	TIN	J	0.751	10.1	PQL	mg/Kg	
	Zirconium	J	1.40	5.07	PQL	mg/Kg	
SL-104-SA7-SB-9.0-10.0	TIN	J	0.916	10.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.06	5.31	PQL	mg/Kg	
SL-105-SA7-SB-4.0-5.0	SODIUM	J	71.3	102	PQL	mg/Kg	J (all detects)
	TIN	J	1.02	10.2	PQL	mg/Kg	
	Zirconium	J	0.965	5.11	PQL	mg/Kg	
SL-172-SA7-SB-4.0-5.0	TIN	J	0.895	10.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.55	5.21	PQL	mg/Kg	
SL-172-SA7-SB-9.0-10.0	TIN	J	0.941	10.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.23	5.45	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: DE256_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-09-SA7-QC-092711	CADMIUM	J	0.0950	0.100	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.139	0.400	PQL	mg/Kg	
SL-004-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.105	0.201	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.350	0.403	PQL	mg/Kg	
	SILVER	J	0.0252	0.101	PQL	mg/Kg	
SL-005-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.112	0.193	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.244	0.387	PQL	mg/Kg	
	SILVER	J	0.0236	0.0967	PQL	mg/Kg	
SL-006-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.134	0.202	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.178	0.403	PQL	mg/Kg	
	SILVER	J	0.0282	0.101	PQL	mg/Kg	
SL-019-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.0922	0.201	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.190	0.403	PQL	mg/Kg	
	SILVER	J	0.0210	0.101	PQL	mg/Kg	
SL-020-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.107	0.203	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.190	0.406	PQL	mg/Kg	
	SILVER	J	0.0708	0.101	PQL	mg/Kg	
SL-021-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.100	0.197	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.170	0.395	PQL	mg/Kg	
	SILVER	J	0.0207	0.0987	PQL	mg/Kg	
SL-022-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.108	0.202	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.217	0.403	PQL	mg/Kg	
	SILVER	J	0.0204	0.101	PQL	mg/Kg	
SL-023-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.111	0.202	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.259	0.404	PQL	mg/Kg	
	SILVER	J	0.0152	0.101	PQL	mg/Kg	
SL-024-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.119	0.199	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.170	0.399	PQL	mg/Kg	
	SILVER	J	0.0169	0.0996	PQL	mg/Kg	
SL-025-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.133	0.194	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.188	0.389	PQL	mg/Kg	
	SILVER	J	0.0162	0.0972	PQL	mg/Kg	
SL-038-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.122	0.202	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.292	0.403	PQL	mg/Kg	
	SILVER	J	0.0234	0.101	PQL	mg/Kg	
SL-103-SA7-SB-4.0-5.0	ANTIMONY	J	0.0944	0.210	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0906	0.105	PQL	mg/Kg	
	SELENIUM	J	0.160	0.419	PQL	mg/Kg	
	SILVER	J	0.0234	0.105	PQL	mg/Kg	
SL-103-SA7-SB-9.0-10.0	CADMIUM	J	0.0962	0.109	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.113	0.436	PQL	mg/Kg	
	SILVER	J	0.0182	0.109	PQL	mg/Kg	
SL-104-SA7-SB-4.0-5.0	CADMIUM	J	0.0978	0.101	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.135	0.406	PQL	mg/Kg	
	SILVER	J	0.0200	0.101	PQL	mg/Kg	
SL-104-SA7-SB-9.0-10.0	CADMIUM	J	0.102	0.105	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.101	0.420	PQL	mg/Kg	
	SILVER	J	0.0221	0.105	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: DE256_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-105-SA7-SB-4.0-5.0	CADMIUM	J	0.0921	0.103	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.142	0.413	PQL	mg/Kg	
	SILVER	J	0.0154	0.103	PQL	mg/Kg	
SL-172-SA7-SB-4.0-5.0	SELENIUM	J	0.160	0.430	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0248	0.107	PQL	mg/Kg	
SL-172-SA7-SB-9.0-10.0	SELENIUM	J	0.126	0.428	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0224	0.107	PQL	mg/Kg	

Method: 7199
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-004-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.97	1.0	PQL	mg/Kg	J (all detects)
SL-005-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.92	1.0	PQL	mg/Kg	J (all detects)
SL-021-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.65	1.0	PQL	mg/Kg	J (all detects)
SL-022-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.56	1.0	PQL	mg/Kg	J (all detects)
SL-024-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.67	1.0	PQL	mg/Kg	J (all detects)
SL-025-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.86	1.0	PQL	mg/Kg	J (all detects)

Method: 7471A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-09-SA7-QC-092711	MERCURY	J	0.0079	0.101	PQL	mg/Kg	J (all detects)
SL-004-SA5DS-SS-0.0-0.5	MERCURY	J	0.0103	0.101	PQL	mg/Kg	J (all detects)
SL-005-SA5DS-SS-0.0-0.5	MERCURY	J	0.0074	0.0945	PQL	mg/Kg	J (all detects)
SL-006-SA5DS-SS-0.0-0.5	MERCURY	J	0.0109	0.0963	PQL	mg/Kg	J (all detects)
SL-019-SA5DS-SS-0.0-0.5	MERCURY	J	0.0135	0.0991	PQL	mg/Kg	J (all detects)
SL-020-SA5DS-SS-0.0-0.5	MERCURY	J	0.0088	0.0959	PQL	mg/Kg	J (all detects)
SL-021-SA5DS-SS-0.0-0.5	MERCURY	J	0.0115	0.0972	PQL	mg/Kg	J (all detects)
SL-022-SA5DS-SS-0.0-0.5	MERCURY	J	0.0193	0.0997	PQL	mg/Kg	J (all detects)
SL-023-SA5DS-SS-0.0-0.5	MERCURY	J	0.0118	0.0967	PQL	mg/Kg	J (all detects)
SL-024-SA5DS-SS-0.0-0.5	MERCURY	J	0.0098	0.100	PQL	mg/Kg	J (all detects)
SL-025-SA5DS-SS-0.0-0.5	MERCURY	J	0.0098	0.0963	PQL	mg/Kg	J (all detects)
SL-038-SA5DS-SS-0.0-0.5	MERCURY	J	0.0877	0.0977	PQL	mg/Kg	J (all detects)
SL-172-SA7-SB-4.0-5.0	MERCURY	J	0.0079	0.105	PQL	mg/Kg	J (all detects)
SL-172-SA7-SB-9.0-10.0	MERCURY	J	0.0490	0.105	PQL	mg/Kg	J (all detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: DE256_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 7471A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-103-SA7-SB-4.0-5.0	EFH (C15-C20)	J	0.60	1.3	PQL	mg/Kg	J (all detects)
SL-103-SA7-SB-9.0-10.0	EFH (C15-C20)	J	0.44	1.3	PQL	mg/Kg	J (all detects)
SL-104-SA7-SB-4.0-5.0	EFH (C15-C20)	J	0.53	1.3	PQL	mg/Kg	J (all detects)
SL-105-SA7-SB-4.0-5.0	EFH (C15-C20)	J	0.45	1.2	PQL	mg/Kg	J (all detects)

Method: 8081A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-019-SA5DS-SS-0.0-0.5	4,4'-DDE ENDRIN ALDEHYDE	J J	0.23 0.086	0.34 0.34	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-020-SA5DS-SS-0.0-0.5	Chlordane	J	2.9	3.4	PQL	ug/Kg	J (all detects)
SL-021-SA5DS-SS-0.0-0.5	Chlordane TOXAPHENE	J J	1.6 2.6	3.4 6.7	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-022-SA5DS-SS-0.0-0.5	DELTA-BHC ENDRIN KETONE	J J	0.046 0.097	0.17 0.34	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-023-SA5DS-SS-0.0-0.5	4,4'-DDE Chlordane	J J	0.25 1.8	0.35 3.5	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-025-SA5DS-SS-0.0-0.5	BETA-BHC Chlordane	J J	0.079 2.5	0.17 3.5	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-038-SA5DS-SS-0.0-0.5	Chlordane	J	1.1	3.5	PQL	ug/Kg	J (all detects)

Method: 8082
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-004-SA5DS-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260 Aroclor 5460	J J J	0.51 0.67 1.2	1.7 1.7 3.4	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-006-SA5DS-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260 Aroclor 5460	J J J	1.2 1.0 1.9	1.7 1.7 3.4	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-019-SA5DS-SS-0.0-0.5	AROCLOR 1260	J	0.52	1.7	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: DE256_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-020-SA5DS-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260 Aroclor 5460	J J J	1.2 0.87 2.0	1.7 1.7 3.3	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-021-SA5DS-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260 Aroclor 5460	J J J	0.89 0.71 1.6	1.7 1.7 3.3	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-022-SA5DS-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260 Aroclor 5460	J J J	1.2 0.97 2.0	1.7 1.7 3.4	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-023-SA5DS-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260 Aroclor 5460	J J J	0.64 0.75 1.6	1.7 1.7 3.4	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-024-SA5DS-SS-0.0-0.5	AROCLOR 1254 Aroclor 5460	J J	0.89 1.3	1.7 3.3	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-025-SA5DS-SS-0.0-0.5	Aroclor 5460	J	1.3	3.3	PQL	ug/Kg	J (all detects)
SL-038-SA5DS-SS-0.0-0.5	AROCLOR 1242	J	0.72	1.7	PQL	ug/Kg	J (all detects)
SL-103-SA7-SB-4.0-5.0	AROCLOR 1260	J	0.47	1.8	PQL	ug/Kg	J (all detects)
SL-104-SA7-SB-4.0-5.0	AROCLOR 1260	J	0.90	1.8	PQL	ug/Kg	J (all detects)
SL-104-SA7-SB-9.0-10.0	AROCLOR 1260	J	0.47	1.8	PQL	ug/Kg	J (all detects)
SL-105-SA7-SB-4.0-5.0	AROCLOR 1260	J	0.75	1.7	PQL	ug/Kg	J (all detects)
SL-172-SA7-SB-4.0-5.0	AROCLOR 1260	J	0.76	1.8	PQL	ug/Kg	J (all detects)

Method: 8151A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-006-SA5DS-SS-0.0-0.5	2,4-D	J	2.0	3.7	PQL	ug/Kg	J (all detects)
SL-021-SA5DS-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.13	0.17	PQL	ug/Kg	J (all detects)
SL-038-SA5DS-SS-0.0-0.5	2,4,5-TP (Silvex) DICAMBA DICHLOROPROP	J J J	0.090 0.61 1.6	0.17 1.2 1.7	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-09-SA7-QC-092711	Di-n-butylphthalate	J	35	170	PQL	ug/Kg	J (all detects)
SL-005-SA5DS-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	19	340	PQL	ug/Kg	J (all detects)
SL-006-SA5DS-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	51	340	PQL	ug/Kg	J (all detects)
SL-024-SA5DS-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	18	340	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: DE256_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-09-SA7-QC-092711	BENZO(A)ANTHRACENE	J	0.76	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.0	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.0	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.5	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.0	1.7	PQL	ug/Kg	
	PYRENE	J	1.5	1.7	PQL	ug/Kg	
SL-004-SA5DS-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.78	1.7	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.2	1.7	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	0.81	1.7	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.6	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.1	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	12	18	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.7	PQL	ug/Kg	
SL-005-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.76	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.0	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.4	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.71	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.1	1.7	PQL	ug/Kg	
SL-006-SA5DS-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	1.2	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	0.78	1.7	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.2	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.73	1.7	PQL	ug/Kg	
SL-019-SA5DS-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.4	1.7	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.36	1.7	PQL	ug/Kg	
SL-020-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.76	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.1	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.71	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	16	18	PQL	ug/Kg	
	Butylbenzylphthalate	J	6.6	18	PQL	ug/Kg	
	NAPHTHALENE	J	1.0	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.0	1.7	PQL	ug/Kg	
	PYRENE	J	1.6	1.7	PQL	ug/Kg	
SL-021-SA5DS-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.1	18	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.93	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	0.98	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.76	1.7	PQL	ug/Kg	
	PYRENE	J	0.86	1.7	PQL	ug/Kg	
SL-022-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.1	1.7	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.1	1.7	PQL	ug/Kg	
	Butylbenzylphthalate	J	10	18	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.89	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.87	1.7	PQL	ug/Kg	
SL-023-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.5	1.7	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	0.90	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	6.6	18	PQL	ug/Kg	
	CHRYSENE	J	1.6	1.7	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE256 **Laboratory: LL**

EDD Filename: DE256_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-024-SA5DS-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.71	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	0.79	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.0	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.4	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.70	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	1.6	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.3	1.7	PQL	ug/Kg	
	PYRENE	J	1.5	1.7	PQL	ug/Kg	
SL-025-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.1	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.5	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.4	1.7	PQL	ug/Kg	
	Butylbenzylphthalate	J	6.6	18	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.74	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.5	1.7	PQL	ug/Kg	
SL-038-SA5DS-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	11	19	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.78	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	0.92	1.7	PQL	ug/Kg	
	PYRENE	J	0.89	1.7	PQL	ug/Kg	
SL-103-SA7-SB-4.0-5.0	CHRYSENE	J	0.48	1.7	PQL	ug/Kg	J (all detects)
SL-103-SA7-SB-9.0-10.0	BENZO(B)FLUORANTHENE	J	0.91	1.8	PQL	ug/Kg	J (all detects)
SL-104-SA7-SB-4.0-5.0	BENZO(A)PYRENE	J	0.75	1.7	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.2	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	6.3	19	PQL	ug/Kg	
	CHRYSENE	J	0.76	1.7	PQL	ug/Kg	
	PYRENE	J	0.98	1.7	PQL	ug/Kg	
SL-104-SA7-SB-9.0-10.0	BENZO(B)FLUORANTHENE	J	0.72	1.7	PQL	ug/Kg	J (all detects)
SL-105-SA7-SB-4.0-5.0	BENZO(G,H,I)PERYLENE	J	0.87	1.7	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	1.5	1.7	PQL	ug/Kg	
SL-172-SA7-SB-4.0-5.0	BENZO(B)FLUORANTHENE	J	1.2	1.8	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.50	1.8	PQL	ug/Kg	
SL-172-SA7-SB-9.0-10.0	BENZO(B)FLUORANTHENE	J	0.74	1.8	PQL	ug/Kg	J (all detects)

LDC #: 26859Z4 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/4/12
SDG #: DE256 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: W
2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	N	
III.	Calibration	N	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N SW	Al, Ba, Ca, Fe, Mg, Mn, Ti, >4X
VII.	Duplicate Sample Analysis	N SW	Sb, Mo, Se, Zr <5X
VIII.	Laboratory Control Samples (LCS)	N A	SRM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	SW	EB=20

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	SL-004-SA5DS-SS-0.0-0.5	11	SL-038-SA5DS-SS-0.0-0.5	21	SL-103-SA7-SB-4.0-5.0MS	31	
2	SL-005-SA5DS-SS-0.0-0.5	12	SL-103-SA7-SB-4.0-5.0	22	SL-103-SA7-SB-4.0-5.0MSD	32	
3	SL-006-SA5DS-SS-0.0-0.5	13	SL-103-SA7-SB-9.0-10.0	23	SL-103-SA7-SB-4.0-5.0DUP	33	
4	SL-019-SA5DS-SS-0.0-0.5	14	SL-104-SA7-SB-4.0-5.0	24		34	
5	SL-020-SA5DS-SS-0.0-0.5	15	SL-104-SA7-SB-9.0-10.0	25		35	
6	SL-021-SA5DS-SS-0.0-0.5	16	SL-105-SA7-SB-4.0-5.0	26		36	
7	SL-022-SA5DS-SS-0.0-0.5	17	SL-172-SA7-SB-4.0-5.0	27		37	
8	SL-023-SA5DS-SS-0.0-0.5	18	SL-172-SA7-SB-9.0-10.0	28		38	
9	SL-024-SA5DS-SS-0.0-0.5	19	DUP-09-SA7-QC-092711	29		39	
10	SL-025-SA5DS-SS-0.0-0.5	20	EB-SA7-SB-092711	30		40	

Notes:

LDC #: 26859Z4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)
Soil preparation factor applied: 100X
Sample Concentration units, unless otherwise noted: ug/L
Associated Samples: All AQ
Reason: B

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	20									
Pb			0.061	0.305	0.13									
Hg			0.036	0.18	0.045									

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U". Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 26859Z4

VALIDATION FINDINGS WORKSHEET
Field Blanks

METHOD: Trace Metals (EPA SW846 6010B/6020/7000)

(Y) N N/A Were field blanks identified in this SDG?

(Y) N N/A Were target analytes detected in the field blanks?

Blank units: ug/L **Associated sample units:** mg/Kg

Sampling date: 9/27/11 Soil factor applied 100X, Hg:167X

Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: ~~All Soil~~ 12-19 Reason Code: F

Analyte	Blank ID	Sample Identification												
	20	Action Level	~~1~~	2	3	4	5	6	7	~~8~~	~~9~~	~~10~~	17	19
B	3.9	1.95												
Pb	0.13	0.065												
Hg	0.045	0.037575	~~0.010~~	~~0.0074~~	0.011	0.014	~~0.0088~~	0.012	0.019	0.012	~~0.0098~~	~~0.0098~~	0.0079	0.0079
Sr	0.23	0.115												

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: DE256
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6421299BKG Matrix Spike Lab Sample ID: 6421300MS Matrix Spike Duplicate Lab Sample ID: 6421301MSD
% Solids for Sample: 95.4
Batch Id(s): P27208A, P27226A, P27211A, P28408B

Analyte	Mass	BKG Sample Result	C	MS Sample Result	C	MSD Sample Result	C	MS Spike Added	MSD Spike Added	Units	MS %R	Q	MSD %R	Q	RPD	Q	Control Limit %R	RPD	M
Aluminum		13667.8290		14417.2510		15679.3002		207.5679	203.5375	MG/KG	361		988		8		74A	20	P
Antimony	121	0.0944	B	0.5289		0.4602		1.2454	1.2095	MG/KG	35	N	30	N	14		75 - 125	20	MS
Arsenic	75	3.8470		5.9800		5.9708		2.0757	2.0158	MG/KG	103		105		0		75 - 125	20	MS
Barium	137	76.5199		88.4862		92.0618		10.3784	10.0790	MG/KG	115		154		4		74A	20	MS
Beryllium	9	0.5000		1.2116		1.1883		0.8303	0.8063	MG/KG	86		85		2		75 - 125	20	MS
Boron		6.9275		201.0389		203.4785		207.5679	203.5375	MG/KG	94		97		1		84 - 115	20	P
Cadmium	111	0.0906	B	1.1460		1.0817		1.0378	1.0079	MG/KG	102		98		6		75 - 125	20	MS
Calcium		5169.9973		4015.4742		4565.1981		415.1358	407.0750	MG/KG	-278		-149		13		74A	20	P
Chromium	52	15.1321		24.4307		23.5043		10.3784	10.0790	MG/KG	90		83		4		75 - 125	20	MS
Cobalt	59	4.7526		53.2204		51.1006		51.8920	50.3951	MG/KG	93		92		4		75 - 125	20	MS
Copper	63	7.1447		17.5914		16.0881		10.3784	10.0790	MG/KG	101		89		9		75 - 125	20	MS
Iron		18270.9705		17348.3218		19123.2257		103.7840	101.7687	MG/KG	-889		837		10		74A	20	P
Lead	208	4.7966		7.9955		7.6681		3.1135	3.0237	MG/KG	103		95		4		75 - 125	20	MS
Lithium		23.5346		124.3716		126.1719		103.7840	101.7687	MG/KG	97		101		1		82 - 114	20	P
Magnesium		4198.1502		4405.2546		4765.9431		207.5679	203.5375	MG/KG	100		279		8		74A	20	P
Manganese		258.6437		286.4323		308.4387		51.8920	50.8844	MG/KG	54		98		7		74A	20	P
Mercury		0.0073	U	0.1725		0.1734		0.1691	0.1741	MG/KG	102		100		1		65 - 135	20	CV
Molybdenum	98	0.6149		10.1750		9.8532		10.3784	10.0790	MG/KG	92		92		3		75 - 125	20	MS
Nickel	60	9.3354		20.0033		18.7409		10.3784	10.0790	MG/KG	103		93		7		75 - 125	20	MS
Phosphorus		355.8628		434.1688		449.1126		103.7840	101.7687	MG/KG	75		92		3		75 - 125	20	P
Potassium		2674.5468		3778.4513		3942.8457		1037.8396	1017.6874	MG/KG	106		125		4		75 - 125	20	P
Selenium	78	0.1604	B	2.1006		2.1005		2.0757	2.0158	MG/KG	93		96		0		75 - 125	20	MS
Silver	107	0.0234	B	10.1874		9.7867		10.3784	10.0790	MG/KG	98		97		4		75 - 125	20	MS
Sodium		103.0881		1021.7407		1043.8348		1037.8396	1017.6874	MG/KG	89		92		2		75 - 125	20	P
Strontium		26.1572		115.0310		117.7230		103.7840	101.7687	MG/KG	86		90		2		75 - 115	20	P
Thallium	203	0.2400		0.6557		0.6152		0.4151	0.4032	MG/KG	100		93		6		75 - 125	20	MS
Tin		0.8396	B	360.8755		359.7861		415.1358	407.0750	MG/KG	87		88		0		80 - 110	20	P
Titanium		1054.7817		1261.5163		1293.9919		100.7902	103.7840	MG/KG	205		230		3		>74A	20	P
Vanadium	51	30.5241		39.9568		39.3888		10.3784	10.0790	MG/KG	91		88		1		75 - 125	20	MS
Zinc	66	52.8931		64.5744		61.2603		10.3784	10.0790	MG/KG	113		83		5			20	MS
Zirconium		1.3812	B	101.3886		101.2283		103.7840	101.7687	MG/KG	96		98		0		81 - 110	20	P

DE256

METHODS:
P = ICP Atomic Emission Spectrometer CV = Cold Vapor
MS = ICP Mass Spectrometry AF = Cold Vapor Atomic Fluorescence

CONCENTRATION QUALIFIERS:
U= Below MDL, B= Below LOQ
FLAGS:
N = Matrix Spike OOS, * = Duplicate OOS

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 6
DUPLICATES
SDG No.: DE256
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6421299BKG
% Solids for Duplicate: 95.2
Batch ID(s): P27208A, P27226A, P27211A, P28408B
Concentration Units: MG/KG

Duplicate Lab Sample ID: 6421302DUP
% Solids for Sample: 95.4

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			13667.8290		13449.7437		2		P
Antimony	121		0.0944	B	0.0760	U	~~200~~		MS
Arsenic	75		3.8470		3.7777		2		MS
Barium	137		76.5199		80.0140		4		MS
Beryllium	9	0.1	0.5000		0.4692		6		MS
Boron		5.1	6.9275		6.5467		6		P
Cadmium	111		0.0906	B	0.0789	B	14		MS
Calcium			5169.9973		3501.8141		38	*	P
Chromium	52		15.1321		14.1345		7		MS
Cobalt	59		4.7526		4.8218		1		MS
Copper	63		7.1447		6.7682		5		MS
Iron			18270.9705		18669.9141		2		P
Lead	208		4.7966		4.4971		6		MS
Lithium			23.5346		25.1479		7		P
Magnesium			4198.1502		4437.6590		6		P
Manganese			258.6437		247.6088		4		P
Mercury			0.0073	U	0.0074	U			CV
Molybdenum	98	0.1	0.6149		0.4203		~~38~~	*	MS
Nickel	60		9.3354		9.1565		2		MS
Phosphorus			355.8628		329.2214		8		P
Potassium			2674.5468		2874.8075		7		P
Selenium	78		0.1604	B	0.1048	B	~~42~~		MS
Silver	107		0.0234	B	0.0240	B	3		MS
Sodium		102.8	103.0881		95.8538	B	7		P
Strontium			26.1572		16.1571		47	*	P
Thallium	203	0.1	0.2400		0.2234		7		MS
Tin			0.8396	B	0.7877	B	6		P
Titanium			1054.7817		1070.9829		2		P
Vanadium	51		30.5241		29.1240		5		MS
Zinc	66		52.8931		55.2473		4		MS
Zirconium			1.3812	B	2.1193	B	42		P

ok by difference

NOTE: An asterisk (*) in column "Q" indicates poor duplicate precision (RPD > 20% OR |(S) - (D)| > LOQ for values < 5x LOQ).
The data are considered to be valid because the laboratory control sample is within the control limits. See the Laboratory Control Sample.

DE256 5728

METHODS:	CONCENTRATION QUALIFIERS:
P = ICP Atomic Emission Spectrometer	U= Below MDL
MS = ICP Mass Spectrometry	B= Below LOQ
CV = Cold Vapor	FLAGS:
AF = Cold Vapor Atomic Fluorescence	* = Duplicate Out of Spec

SAMPLE DELIVERY GROUP

DE257

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	3050B	6010B	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	3050B	6020	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	3550B	8081A	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	3550B	8082	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	3550B	8151A	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	3550B	8270C	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	3550B	8270C SIM	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	Gen Prep	7199	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	METHOD	300.0	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	METHOD	314.0	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	METHOD	6850	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	METHOD	7471A	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	3050B	6010B	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	3050B	6020	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	3550B	8081A	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	3550B	8082	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	3550B	8151A	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	3550B	8270C	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	3550B	8270C SIM	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	Gen Prep	7199	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	METHOD	300.0	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	METHOD	314.0	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	METHOD	7471A	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	3050B	6010B	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	3050B	6020	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	3550B	8081A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	3550B	8082	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	3550B	8151A	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	3550B	8270C	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	3550B	8270C SIM	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	Gen Prep	7199	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	METHOD	300.0	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	METHOD	314.0	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	METHOD	7471A	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	3050B	6010B	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	3050B	6020	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	3550B	8081A	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	3550B	8082	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	3550B	8151A	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	3550B	8270C	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	3550B	8270C SIM	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	Gen Prep	7199	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	METHOD	300.0	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	METHOD	314.0	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	METHOD	7471A	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	3050B	6010B	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	3050B	6020	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	3550B	8081A	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	3550B	8082	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	3550B	8151A	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	3550B	8270C	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	3550B	8270C SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	Gen Prep	7199	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	METHOD	300.0	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	METHOD	314.0	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	METHOD	7471A	III
28-Sep-2011	SL-106-SA7-SB-15.5	6422525	N	5035	8015M	III
28-Sep-2011	SL-106-SA7-SB-15.5	6422525	N	5035	8260B	III
28-Sep-2011	SL-106-SA7-SB-15.5	6422525	N	5035	8260B SIM	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	3050B	6010B	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	3050B	6020	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	3546	1625C	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	3550B	8015B	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	3550B	8015M	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	3550B	8082	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	3550B	8270C	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	3550B	8270C SIM	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	5035	8015M	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	Gen Prep	7199	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	METHOD	300.0	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	METHOD	314.0	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	METHOD	7471A	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	METHOD	8015B	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	METHOD	8015M	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	METHOD	8315A	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	3050B	6010B	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	3050B	6020	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	3550B	8081A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	3550B	8082	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	3550B	8151A	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	3550B	8270C	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	3550B	8270C SIM	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	Gen Prep	7199	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	METHOD	300.0	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	METHOD	314.0	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	METHOD	7471A	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	3050B	6010B	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	3050B	6020	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	3550B	8081A	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	3550B	8082	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	3550B	8151A	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	3550B	8270C	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	3550B	8270C SIM	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	Gen Prep	7199	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	METHOD	300.0	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	METHOD	314.0	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	METHOD	7471A	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	3050B	6010B	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	3050B	6020	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	3550B	8081A	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	3550B	8082	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	3550B	8151A	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	3550B	8270C	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	3550B	8270C SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	Gen Prep	7199	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	METHOD	300.0	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	METHOD	314.0	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	METHOD	6850	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	METHOD	7471A	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	3050B	6010B	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	3050B	6020	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	3550B	8081A	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	3550B	8082	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	3550B	8151A	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	3550B	8270C	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	3550B	8270C SIM	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	Gen Prep	7199	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	METHOD	300.0	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	METHOD	314.0	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	METHOD	7471A	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	3050B	6010B	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	3050B	6020	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	3546	1625C	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	3550B	8015B	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	3550B	8015M	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	3550B	8082	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	3550B	8270C	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	3550B	8270C SIM	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	5035	8015M	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	Gen Prep	7199	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	METHOD	300.0	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	METHOD	314.0	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	METHOD	7471A	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	METHOD	8015B	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	METHOD	8015M	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	METHOD	8315A	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	3050B	6010B	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	3050B	6020	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	3546	1625C	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	3550B	8015B	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	3550B	8015M	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	3550B	8082	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	3550B	8270C	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	3550B	8270C SIM	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	5035	8015M	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	Gen Prep	7199	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	METHOD	300.0	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	METHOD	314.0	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	METHOD	7471A	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	METHOD	8015B	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	METHOD	8015M	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	METHOD	8315A	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	3050B	6010B	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	3050B	6020	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	3546	1625C	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	3550B	8015B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	3550B	8015M	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	3550B	8082	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	3550B	8270C	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	3550B	8270C SIM	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	5035	8015M	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	Gen Prep	7199	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	METHOD	300.0	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	METHOD	314.0	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	METHOD	7471A	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	METHOD	8015B	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	METHOD	8015M	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	METHOD	8315A	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	3005A	6010B	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	3020A	6020	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	3510C	8081A	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	3510C	8082	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	3510C	8270C	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	3510C	8270C SIM	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	Gen Prep	300.0	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	Gen Prep	314.0	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	Gen Prep	7199	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	METHOD	7470A	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	METHOD	8151A	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	3050B	6010B	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	3050B	6020	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	3550B	8081A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	3550B	8082	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	3550B	8151A	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	3550B	8270C	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	3550B	8270C SIM	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	Gen Prep	7199	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	METHOD	300.0	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	METHOD	314.0	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	METHOD	7471A	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	3050B	6010B	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	3050B	6020	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	3550B	8081A	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	3550B	8082	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	3550B	8151A	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	3550B	8270C	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	3550B	8270C SIM	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	Gen Prep	7199	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	METHOD	300.0	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	METHOD	314.0	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	METHOD	7471A	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	3050B	6010B	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	3050B	6020	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	3550B	8081A	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	3550B	8082	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	3550B	8151A	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	3550B	8270C	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	3550B	8270C SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	Gen Prep	7199	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	METHOD	300.0	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	METHOD	314.0	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	METHOD	7471A	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5DU	6422542	DUP	3050B	6010B	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5DU	6422542	DUP	3050B	6020	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5DU	6422542	DUP	Gen Prep	7199	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5DU	6422542	DUP	METHOD	300.0	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5DU	6422542	DUP	METHOD	314.0	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5DU	6422542	DUP	METHOD	7471A	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	3050B	6010B	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	3050B	6020	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	3550B	8081A	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	3550B	8082	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	3550B	8151A	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	3550B	8270C	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	3550B	8270C SIM	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	Gen Prep	7199	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	METHOD	300.0	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	METHOD	314.0	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	METHOD	7471A	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	3050B	6010B	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	3050B	6020	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	3546	1625C	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	3550B	8015B	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	3550B	8015M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	3550B	8082	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	3550B	8270C	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	3550B	8270C SIM	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	5035	8015M	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	Gen Prep	7199	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	METHOD	300.0	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	METHOD	314.0	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	METHOD	6850	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	METHOD	7471A	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	METHOD	8015B	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	METHOD	8015M	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	METHOD	8315A	III
28-Sep-2011	TB-092711	6422528	TB	5030B	8015M	III
28-Sep-2011	TB-092711	6422528	TB	5030B	8260B	III
28-Sep-2011	TB-092711	6422528	TB	5030B	8260B SIM	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0DU	P422522D270032A	DUP	METHOD	300.0	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0DU	P422522D272022A	DUP	METHOD	314.0	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0MS	P422522R270045A	MS	METHOD	300.0	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0MS	P422522R272045A	MS	METHOD	314.0	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	3050B	6010B	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	3050B	6020	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	3550B	8081A	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	3550B	8082	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	3550B	8151A	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	3550B	8270C	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	3550B	8270C SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	Gen Prep	7199	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	METHOD	300.0	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	METHOD	314.0	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	METHOD	6850	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	METHOD	7471A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: PrepDE257_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-007-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.81	U	0.81	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-008-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 7:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.1		0.81	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-009-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 9:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.81	U	0.81	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-010-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.81	U	0.81	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-013-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 11:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.93	J	0.81	MDL	1.0	PQL	mg/Kg	J	Z, Q

Sample ID: SL-103-SA7-SB-18.0-19.0 *Collected:* 9/28/2011 2:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.8		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-106-SA7-SB-16.5-17.5 *Collected:* 9/28/2011 12:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.2		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-106-SA7-SB-19.0-20.0 *Collected:* 9/28/2011 9:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.1		0.85	MDL	1.1	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: PrepDE257_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-106-SA7-SB-4.0-5.0 *Collected:* 9/28/2011 12:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.0		0.83	MDL	1.0	PQL	mg/Kg	J	Q
Nitrate-NO3	1.1	J	0.83	MDL	1.6	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-9.0-10.0 *Collected:* 9/28/2011 12:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.1		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix:** AQ

Sample ID: EB-SA5DS-SS-092811 *Collected:* 9/28/2011 1:00:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.0025	J	0.0022	MDL	0.0500	PQL	mg/L	J	Z
PHOSPHORUS	0.0105	J	0.0047	MDL	0.100	PQL	mg/L	U	B

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: DUP-02-SA5DS-QC-092811 *Collected:* 9/28/2011 1:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	99.2	J	6.12	MDL	103	PQL	mg/Kg	J	Z
TIN	2.82	J	0.329	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	4.15	J	0.473	MDL	5.15	PQL	mg/Kg	J	Z

Sample ID: SL-007-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	87.7	J	5.98	MDL	101	PQL	mg/Kg	J	Z
TIN	2.67	J	0.322	MDL	10.1	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: PrepDE257_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-008-SA5DS-SS-0.0-0.5 **Collected:** 9/28/2011 7:30:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.38	J	0.360	MDL	5.00	PQL	mg/Kg	J	Z
SODIUM	69.5	J	5.95	MDL	99.9	PQL	mg/Kg	J	Z
TIN	2.57	J	0.320	MDL	9.99	PQL	mg/Kg	U	B
Zirconium	0.970	J	0.460	MDL	5.00	PQL	mg/Kg	J	Z

Sample ID: SL-009-SA5DS-SS-0.0-0.5 **Collected:** 9/28/2011 9:50:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	88.4	J	6.04	MDL	102	PQL	mg/Kg	J	Z
TIN	2.78	J	0.325	MDL	10.2	PQL	mg/Kg	U	B

Sample ID: SL-010-SA5DS-SS-0.0-0.5 **Collected:** 9/28/2011 8:20:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	91.2	J	5.97	MDL	100	PQL	mg/Kg	J	Z
TIN	2.63	J	0.321	MDL	10.0	PQL	mg/Kg	U	B

Sample ID: SL-013-SA5DS-SS-0.0-0.5 **Collected:** 9/28/2011 11:00:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	85.1	J	6.02	MDL	101	PQL	mg/Kg	J	Z
TIN	2.52	J	0.324	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	3.72	J	0.466	MDL	5.06	PQL	mg/Kg	J	Z

Sample ID: SL-014-SA5DS-SS-0.0-0.5 **Collected:** 9/28/2011 10:05:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	93.6	J	5.92	MDL	99.5	PQL	mg/Kg	J	Z
TIN	2.71	J	0.319	MDL	9.95	PQL	mg/Kg	U	B
Zirconium	2.65	J	0.458	MDL	4.98	PQL	mg/Kg	J	Z

Sample ID: SL-015-SA5DS-SS-0.0-0.5 **Collected:** 9/28/2011 10:45:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	84.7	J	5.87	MDL	98.7	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: PrepDE257_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-015-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 10:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.74	J	0.316	MDL	9.87	PQL	mg/Kg	U	B

Sample ID: SL-016-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 9:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	80.5	J	6.13	MDL	103	PQL	mg/Kg	J	Z
TIN	2.71	J	0.330	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	4.97	J	0.474	MDL	5.15	PQL	mg/Kg	J	Z

Sample ID: SL-017-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	97.7	J	5.93	MDL	99.7	PQL	mg/Kg	J	Z
TIN	2.83	J	0.319	MDL	9.97	PQL	mg/Kg	U	B

Sample ID: SL-033-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 1:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.66	J	0.332	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	3.67	J	0.477	MDL	5.18	PQL	mg/Kg	J	Z

Sample ID: SL-034-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 1:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	100	J	6.14	MDL	103	PQL	mg/Kg	J	Z
TIN	2.95	J	0.330	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	4.78	J	0.474	MDL	5.16	PQL	mg/Kg	J	Z

Sample ID: SL-040-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 3:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	83.6	J	5.97	MDL	100	PQL	mg/Kg	J	Z
TIN	2.42	J	0.321	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	3.49	J	0.461	MDL	5.02	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 **Laboratory:** LL

EDD Filename: PrepDE257_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-103-SA7-SB-18.0-19.0 *Collected:* 9/28/2011 2:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.67	J	0.338	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	1.67	J	0.486	MDL	5.28	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-16.5-17.5 *Collected:* 9/28/2011 12:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.89	J	0.339	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	1.46	J	0.488	MDL	5.30	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-19.0-20.0 *Collected:* 9/28/2011 9:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.77	J	0.333	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	1.26	J	0.479	MDL	5.20	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-4.0-5.0 *Collected:* 9/28/2011 12:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.55	J	0.322	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	0.809	J	0.463	MDL	5.04	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-9.0-10.0 *Collected:* 9/28/2011 12:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.42	J	0.378	MDL	5.25	PQL	mg/Kg	J	Z
TIN	2.78	J	0.336	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	1.01	J	0.483	MDL	5.25	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix:** AQ

Sample ID: EB-SA5DS-SS-092811 *Collected:* 9/28/2011 1:00:00 *Analysis Type:* REA4 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.00022	J	0.00020	MDL	0.00050	PQL	mg/L	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: PrepDE257_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: DUP-02-SA5DS-QC-092811 *Collected:* 9/28/2011 1:55:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.267	J	0.0580	MDL	0.400	PQL	mg/Kg	J	Z

Sample ID: DUP-02-SA5DS-QC-092811 *Collected:* 9/28/2011 1:55:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.543		0.0500	MDL	0.100	PQL	mg/Kg	J	Q

Sample ID: DUP-02-SA5DS-QC-092811 *Collected:* 9/28/2011 1:55:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.330		0.0740	MDL	0.200	PQL	mg/Kg	J	Q
ARSENIC	7.53		0.0800	MDL	0.400	PQL	mg/Kg	J	Q
CADMIUM	0.277		0.0440	MDL	0.100	PQL	mg/Kg	J	Q
CHROMIUM	40.4		0.120	MDL	0.400	PQL	mg/Kg	J	Q
COBALT	14.2		0.0200	MDL	0.100	PQL	mg/Kg	J	Q
COPPER	21.8		0.0800	MDL	0.400	PQL	mg/Kg	J	Q
LEAD	12.7		0.0102	MDL	0.200	PQL	mg/Kg	J	Q
NICKEL	28.0		0.100	MDL	0.400	PQL	mg/Kg	J	Q
SILVER	0.0420	J	0.0142	MDL	0.100	PQL	mg/Kg	J	Z, Q
THALLIUM	0.448		0.0300	MDL	0.100	PQL	mg/Kg	J	Q

Sample ID: SL-007-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:00:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.204	J	0.0566	MDL	0.390	PQL	mg/Kg	J	Z

Sample ID: SL-007-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:00:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.705		0.0488	MDL	0.0976	PQL	mg/Kg	J	Q

Sample ID: SL-007-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:00:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.271		0.0722	MDL	0.195	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 **Laboratory:** LL

EDD Filename: PrepDE257_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-007-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:00:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	6.01		0.0781	MDL	0.390	PQL	mg/Kg	J	Q
CADMIUM	0.203		0.0430	MDL	0.0976	PQL	mg/Kg	J	Q
CHROMIUM	37.6		0.117	MDL	0.390	PQL	mg/Kg	J	Q
COBALT	6.77		0.0195	MDL	0.0976	PQL	mg/Kg	J	Q
COPPER	7.44		0.0781	MDL	0.390	PQL	mg/Kg	J	Q
LEAD	14.2		0.010	MDL	0.195	PQL	mg/Kg	J	Q
NICKEL	12.7		0.0976	MDL	0.390	PQL	mg/Kg	J	Q
SILVER	0.0242	J	0.0139	MDL	0.0976	PQL	mg/Kg	J	Z, Q
THALLIUM	0.184		0.0293	MDL	0.0976	PQL	mg/Kg	J	Q

Sample ID: SL-008-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 7:30:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0809	J	0.0574	MDL	0.396	PQL	mg/Kg	J	Z

Sample ID: SL-008-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 7:30:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.439		0.0495	MDL	0.0990	PQL	mg/Kg	J	Q

Sample ID: SL-008-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 7:30:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.105	J	0.0732	MDL	0.198	PQL	mg/Kg	J	Z, Q
ARSENIC	4.51		0.0792	MDL	0.396	PQL	mg/Kg	J	Q
CADMIUM	0.125		0.0435	MDL	0.0990	PQL	mg/Kg	J	Q
CHROMIUM	16.6		0.119	MDL	0.396	PQL	mg/Kg	J	Q
COBALT	6.13		0.0198	MDL	0.0990	PQL	mg/Kg	J	Q
COPPER	7.88		0.0792	MDL	0.396	PQL	mg/Kg	J	Q
LEAD	5.33		0.0101	MDL	0.198	PQL	mg/Kg	J	Q
NICKEL	12.0		0.0990	MDL	0.396	PQL	mg/Kg	J	Q
SILVER	0.0787	J	0.0141	MDL	0.0990	PQL	mg/Kg	J	Z, Q
THALLIUM	0.284		0.0297	MDL	0.0990	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE257 **Laboratory:** LL

EDD Filename: PrepDE257_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-009-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 9:50:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.222	J	0.0577	MDL	0.398	PQL	mg/Kg	J	Z

Sample ID: SL-009-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 9:50:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.696		0.0498	MDL	0.0995	PQL	mg/Kg	J	Q

Sample ID: SL-009-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 9:50:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.294		0.0737	MDL	0.199	PQL	mg/Kg	J	Q
ARSENIC	6.31		0.0796	MDL	0.398	PQL	mg/Kg	J	Q
CADMIUM	0.221		0.0438	MDL	0.0995	PQL	mg/Kg	J	Q
CHROMIUM	38.3		0.119	MDL	0.398	PQL	mg/Kg	J	Q
COBALT	7.48		0.0199	MDL	0.0995	PQL	mg/Kg	J	Q
COPPER	8.34		0.0796	MDL	0.398	PQL	mg/Kg	J	Q
LEAD	14.8		0.0102	MDL	0.199	PQL	mg/Kg	J	Q
NICKEL	13.4		0.0995	MDL	0.398	PQL	mg/Kg	J	Q
SILVER	0.0309	J	0.0141	MDL	0.0995	PQL	mg/Kg	J	Z, Q
THALLIUM	0.216		0.0299	MDL	0.0995	PQL	mg/Kg	J	Q

Sample ID: SL-010-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:20:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.252	J	0.0577	MDL	0.398	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:20:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.792		0.0497	MDL	0.0994	PQL	mg/Kg	J	Q

Sample ID: SL-010-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:20:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.307		0.0736	MDL	0.199	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 **Laboratory:** LL

EDD Filename: PrepDE257_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-010-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:20:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	7.13		0.0795	MDL	0.398	PQL	mg/Kg	J	Q
CADMIUM	0.297		0.0437	MDL	0.0994	PQL	mg/Kg	J	Q
CHROMIUM	46.2		0.119	MDL	0.398	PQL	mg/Kg	J	Q
COBALT	9.03		0.0199	MDL	0.0994	PQL	mg/Kg	J	Q
COPPER	9.76		0.0795	MDL	0.398	PQL	mg/Kg	J	Q
LEAD	18.9		0.0101	MDL	0.199	PQL	mg/Kg	J	Q
NICKEL	15.9		0.0994	MDL	0.398	PQL	mg/Kg	J	Q
SILVER	0.0320	J	0.0141	MDL	0.0994	PQL	mg/Kg	J	Z, Q
THALLIUM	0.248		0.0298	MDL	0.0994	PQL	mg/Kg	J	Q

Sample ID: SL-013-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 11:00:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.217	J	0.0581	MDL	0.401	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 11:00:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.839		0.0501	MDL	0.100	PQL	mg/Kg	J	Q

Sample ID: SL-013-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 11:00:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.229		0.0742	MDL	0.200	PQL	mg/Kg	J	Q
ARSENIC	5.71		0.0802	MDL	0.401	PQL	mg/Kg	J	Q
CADMIUM	0.240		0.0441	MDL	0.100	PQL	mg/Kg	J	Q
CHROMIUM	37.9		0.120	MDL	0.401	PQL	mg/Kg	J	Q
COBALT	7.23		0.0200	MDL	0.100	PQL	mg/Kg	J	Q
COPPER	8.80		0.0802	MDL	0.401	PQL	mg/Kg	J	Q
LEAD	14.2		0.0102	MDL	0.200	PQL	mg/Kg	J	Q
NICKEL	14.0		0.100	MDL	0.401	PQL	mg/Kg	J	Q
SILVER	0.0405	J	0.0142	MDL	0.100	PQL	mg/Kg	J	Z, Q
THALLIUM	0.210		0.0301	MDL	0.100	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: PrepDE257_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-014-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 10:05:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.216	J	0.0583	MDL	0.402	PQL	mg/Kg	J	Z

Sample ID: SL-014-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 10:05:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.685		0.0503	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-014-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 10:05:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.242		0.0744	MDL	0.201	PQL	mg/Kg	J	Q
ARSENIC	4.58		0.0804	MDL	0.402	PQL	mg/Kg	J	Q
CADMIUM	0.210		0.0442	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	31.3		0.121	MDL	0.402	PQL	mg/Kg	J	Q
COBALT	5.97		0.0201	MDL	0.101	PQL	mg/Kg	J	Q
COPPER	7.35		0.0804	MDL	0.402	PQL	mg/Kg	J	Q
LEAD	11.9		0.0103	MDL	0.201	PQL	mg/Kg	J	Q
NICKEL	11.6		0.101	MDL	0.402	PQL	mg/Kg	J	Q
SILVER	0.0258	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.186		0.0302	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-015-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 10:45:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.241	J	0.0573	MDL	0.395	PQL	mg/Kg	J	Z

Sample ID: SL-015-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 10:45:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.779		0.0494	MDL	0.0987	PQL	mg/Kg	J	Q

Sample ID: SL-015-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 10:45:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.305		0.0731	MDL	0.197	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 **Laboratory:** LL

EDD Filename: PrepDE257_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-015-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 10:45:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	6.25		0.0790	MDL	0.395	PQL	mg/Kg	J	Q
CADMIUM	0.279		0.0434	MDL	0.0987	PQL	mg/Kg	J	Q
CHROMIUM	39.8		0.118	MDL	0.395	PQL	mg/Kg	J	Q
COBALT	8.50		0.0197	MDL	0.0987	PQL	mg/Kg	J	Q
COPPER	9.03		0.0790	MDL	0.395	PQL	mg/Kg	J	Q
LEAD	11.6		0.0101	MDL	0.197	PQL	mg/Kg	J	Q
NICKEL	15.5		0.0987	MDL	0.395	PQL	mg/Kg	J	Q
SILVER	0.0297	J	0.0140	MDL	0.0987	PQL	mg/Kg	J	Z, Q
THALLIUM	0.233		0.0296	MDL	0.0987	PQL	mg/Kg	J	Q

Sample ID: SL-016-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 9:15:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.220	J	0.0604	MDL	0.416	PQL	mg/Kg	J	Z

Sample ID: SL-016-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 9:15:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.726		0.0521	MDL	0.104	PQL	mg/Kg	J	Q

Sample ID: SL-016-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 9:15:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.287		0.0770	MDL	0.208	PQL	mg/Kg	J	Q
ARSENIC	5.99		0.0833	MDL	0.416	PQL	mg/Kg	J	Q
CADMIUM	0.286		0.0458	MDL	0.104	PQL	mg/Kg	J	Q
CHROMIUM	38.1		0.125	MDL	0.416	PQL	mg/Kg	J	Q
COBALT	8.95		0.0208	MDL	0.104	PQL	mg/Kg	J	Q
COPPER	9.83		0.0833	MDL	0.416	PQL	mg/Kg	J	Q
LEAD	13.3		0.0106	MDL	0.208	PQL	mg/Kg	J	Q
NICKEL	15.7		0.104	MDL	0.416	PQL	mg/Kg	J	Q
SILVER	0.0328	J	0.0148	MDL	0.104	PQL	mg/Kg	J	Z, Q
THALLIUM	0.245		0.0312	MDL	0.104	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: PrepDE257_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-017-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:35:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.253	J	0.0584	MDL	0.403	PQL	mg/Kg	J	Z

Sample ID: SL-017-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:35:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.808		0.0504	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-017-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:35:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.328		0.0745	MDL	0.201	PQL	mg/Kg	J	Q
ARSENIC	6.84		0.0806	MDL	0.403	PQL	mg/Kg	J	Q
CADMIUM	0.338		0.0443	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	43.4		0.121	MDL	0.403	PQL	mg/Kg	J	Q
COBALT	10.6		0.0201	MDL	0.101	PQL	mg/Kg	J	Q
COPPER	10.5		0.0806	MDL	0.403	PQL	mg/Kg	J	Q
LEAD	30.0		0.0103	MDL	0.201	PQL	mg/Kg	J	Q
NICKEL	17.8		0.101	MDL	0.403	PQL	mg/Kg	J	Q
SILVER	0.0461	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.245		0.0302	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-033-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 1:25:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.194	J	0.0595	MDL	0.411	PQL	mg/Kg	J	Z

Sample ID: SL-033-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 1:25:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.646		0.0513	MDL	0.103	PQL	mg/Kg	J	Q

Sample ID: SL-033-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 1:25:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.340		0.0760	MDL	0.205	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 **Laboratory:** LL

EDD Filename: PrepDE257_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-033-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 1:25:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	8.25		0.0821	MDL	0.411	PQL	mg/Kg	J	Q
CADMIUM	0.304		0.0452	MDL	0.103	PQL	mg/Kg	J	Q
CHROMIUM	42.4		0.123	MDL	0.411	PQL	mg/Kg	J	Q
COBALT	15.0		0.0205	MDL	0.103	PQL	mg/Kg	J	Q
COPPER	20.5		0.0821	MDL	0.411	PQL	mg/Kg	J	Q
LEAD	12.4		0.0105	MDL	0.205	PQL	mg/Kg	J	Q
NICKEL	28.7		0.103	MDL	0.411	PQL	mg/Kg	J	Q
SILVER	0.0371	J	0.0146	MDL	0.103	PQL	mg/Kg	J	Z, Q
THALLIUM	0.448		0.0308	MDL	0.103	PQL	mg/Kg	J	Q

Sample ID: SL-034-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 1:45:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.272	J	0.0598	MDL	0.413	PQL	mg/Kg	J	Z

Sample ID: SL-034-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 1:45:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.548		0.0516	MDL	0.103	PQL	mg/Kg	J	Q

Sample ID: SL-034-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 1:45:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.392		0.0763	MDL	0.206	PQL	mg/Kg	J	Q
ARSENIC	7.40		0.0825	MDL	0.413	PQL	mg/Kg	J	Q
CADMIUM	0.304		0.0454	MDL	0.103	PQL	mg/Kg	J	Q
CHROMIUM	40.0		0.124	MDL	0.413	PQL	mg/Kg	J	Q
COBALT	13.9		0.0206	MDL	0.103	PQL	mg/Kg	J	Q
COPPER	21.6		0.0825	MDL	0.413	PQL	mg/Kg	J	Q
LEAD	12.4		0.0105	MDL	0.206	PQL	mg/Kg	J	Q
NICKEL	27.8		0.103	MDL	0.413	PQL	mg/Kg	J	Q
SILVER	0.0485	J	0.0146	MDL	0.103	PQL	mg/Kg	J	Z, Q
THALLIUM	0.432		0.0309	MDL	0.103	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: PrepDE257_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-040-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 3:05:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.188	J	0.0588	MDL	0.405	PQL	mg/Kg	J	Z

Sample ID: SL-040-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 3:05:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.762		0.0507	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-040-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 3:05:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.258		0.0750	MDL	0.203	PQL	mg/Kg	J	Q
ARSENIC	5.98		0.0811	MDL	0.405	PQL	mg/Kg	J	Q
CADMIUM	0.217		0.0446	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	33.2		0.122	MDL	0.405	PQL	mg/Kg	J	Q
COBALT	9.83		0.0203	MDL	0.101	PQL	mg/Kg	J	Q
COPPER	10.9		0.0811	MDL	0.405	PQL	mg/Kg	J	Q
LEAD	14.1		0.0103	MDL	0.203	PQL	mg/Kg	J	Q
NICKEL	17.7		0.101	MDL	0.405	PQL	mg/Kg	J	Q
SILVER	0.0289	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.273		0.0304	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-103-SA7-SB-18.0-19.0 *Collected:* 9/28/2011 2:30:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.204	J	0.0619	MDL	0.427	PQL	mg/Kg	J	Z

Sample ID: SL-103-SA7-SB-18.0-19.0 *Collected:* 9/28/2011 2:30:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.483		0.0533	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-103-SA7-SB-18.0-19.0 *Collected:* 9/28/2011 2:30:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.133	J	0.0790	MDL	0.213	PQL	mg/Kg	J	Z, Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: PrepDE257_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-103-SA7-SB-18.0-19.0 *Collected:* 9/28/2011 2:30:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	5.12		0.0854	MDL	0.427	PQL	mg/Kg	J	Q
CADMIUM	0.118		0.0469	MDL	0.107	PQL	mg/Kg	J	Q
CHROMIUM	17.2		0.128	MDL	0.427	PQL	mg/Kg	J	Q
COBALT	5.93		0.0213	MDL	0.107	PQL	mg/Kg	J	Q
COPPER	8.28		0.0854	MDL	0.427	PQL	mg/Kg	J	Q
LEAD	5.34		0.0109	MDL	0.213	PQL	mg/Kg	J	Q
NICKEL	11.5		0.107	MDL	0.427	PQL	mg/Kg	J	Q
SILVER	0.0267	J	0.0151	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.254		0.0320	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-106-SA7-SB-16.5-17.5 *Collected:* 9/28/2011 12:45:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.210	J	0.0621	MDL	0.428	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-16.5-17.5 *Collected:* 9/28/2011 12:45:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.909		0.0535	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-106-SA7-SB-16.5-17.5 *Collected:* 9/28/2011 12:45:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.347		0.0792	MDL	0.214	PQL	mg/Kg	J	Q
ARSENIC	10.5		0.0856	MDL	0.428	PQL	mg/Kg	J	Q
CADMIUM	0.183		0.0471	MDL	0.107	PQL	mg/Kg	J	Q
CHROMIUM	31.6		0.128	MDL	0.428	PQL	mg/Kg	J	Q
COBALT	9.55		0.0214	MDL	0.107	PQL	mg/Kg	J	Q
COPPER	15.9		0.0856	MDL	0.428	PQL	mg/Kg	J	Q
LEAD	16.3		0.0109	MDL	0.214	PQL	mg/Kg	J	Q
NICKEL	19.5		0.107	MDL	0.428	PQL	mg/Kg	J	Q
SILVER	0.0434	J	0.0152	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.414		0.0321	MDL	0.107	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: PrepDE257_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-106-SA7-SB-19.0-20.0 *Collected:* 9/28/2011 9:50:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.213	J	0.0609	MDL	0.420	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-19.0-20.0 *Collected:* 9/28/2011 9:50:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	4.43		0.0525	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: SL-106-SA7-SB-19.0-20.0 *Collected:* 9/28/2011 9:50:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.143	J	0.0778	MDL	0.210	PQL	mg/Kg	J	Z, Q
ARSENIC	5.25		0.0841	MDL	0.420	PQL	mg/Kg	J	Q
CADMIUM	0.186		0.0462	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	28.1		0.126	MDL	0.420	PQL	mg/Kg	J	Q
COBALT	6.42		0.0210	MDL	0.105	PQL	mg/Kg	J	Q
COPPER	9.86		0.0841	MDL	0.420	PQL	mg/Kg	J	Q
LEAD	6.75		0.0107	MDL	0.210	PQL	mg/Kg	J	Q
NICKEL	13.8		0.105	MDL	0.420	PQL	mg/Kg	J	Q
SILVER	0.0200	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z, Q
THALLIUM	0.311		0.0315	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: SL-106-SA7-SB-4.0-5.0 *Collected:* 9/28/2011 12:15:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.131	J	0.0579	MDL	0.399	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-4.0-5.0 *Collected:* 9/28/2011 12:15:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.511		0.0499	MDL	0.0997	PQL	mg/Kg	J	Q

Sample ID: SL-106-SA7-SB-4.0-5.0 *Collected:* 9/28/2011 12:15:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0932	J	0.0738	MDL	0.199	PQL	mg/Kg	J	Z, Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: PrepDE257_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-106-SA7-SB-4.0-5.0 **Collected:** 9/28/2011 12:15:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	4.57		0.0798	MDL	0.399	PQL	mg/Kg	J	Q
CADMIUM	0.109		0.0439	MDL	0.0997	PQL	mg/Kg	J	Q
CHROMIUM	16.3		0.120	MDL	0.399	PQL	mg/Kg	J	Q
COBALT	5.67		0.0199	MDL	0.0997	PQL	mg/Kg	J	Q
COPPER	7.35		0.0798	MDL	0.399	PQL	mg/Kg	J	Q
LEAD	5.54		0.0102	MDL	0.199	PQL	mg/Kg	J	Q
NICKEL	11.0		0.0997	MDL	0.399	PQL	mg/Kg	J	Q
SILVER	0.0241	J	0.0142	MDL	0.0997	PQL	mg/Kg	J	Z, Q
THALLIUM	0.270		0.0299	MDL	0.0997	PQL	mg/Kg	J	Q

Sample ID: SL-106-SA7-SB-9.0-10.0 **Collected:** 9/28/2011 12:30:00 **Analysis Type:** REA **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.160	J	0.0615	MDL	0.424	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-9.0-10.0 **Collected:** 9/28/2011 12:30:00 **Analysis Type:** REA2 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.529		0.0531	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-106-SA7-SB-9.0-10.0 **Collected:** 9/28/2011 12:30:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.127	J	0.0785	MDL	0.212	PQL	mg/Kg	J	Z, Q
ARSENIC	4.88		0.0849	MDL	0.424	PQL	mg/Kg	J	Q
CADMIUM	0.160		0.0467	MDL	0.106	PQL	mg/Kg	J	Q
CHROMIUM	16.5		0.127	MDL	0.424	PQL	mg/Kg	J	Q
COBALT	6.43		0.0212	MDL	0.106	PQL	mg/Kg	J	Q
COPPER	7.93		0.0849	MDL	0.424	PQL	mg/Kg	J	Q
LEAD	5.51		0.0108	MDL	0.212	PQL	mg/Kg	J	Q
NICKEL	12.7		0.106	MDL	0.424	PQL	mg/Kg	J	Q
THALLIUM	0.277		0.0318	MDL	0.106	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: PrepDE257_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: DUP-02-SA5DS-QC-092811 *Collected:* 9/28/2011 1:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	1.0		0.20	MDL	1.0	PQL	mg/Kg	J	FD

Sample ID: SL-008-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 7:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.48	J	0.20	MDL	0.99	PQL	mg/Kg	J	Z

Sample ID: SL-009-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 9:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.68	J	0.20	MDL	0.99	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.21	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-014-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 10:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.53	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-016-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 9:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.73	J	0.19	MDL	0.97	PQL	mg/Kg	J	Z

Sample ID: SL-034-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 1:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.21	U	0.21	MDL	1.0	PQL	mg/Kg	UJ	FD

Sample ID: SL-103-SA7-SB-18.0-19.0 *Collected:* 9/28/2011 2:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.23	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: PrepDE257_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 7199 **Matrix:** SO

Sample ID: SL-106-SA7-SB-16.5-17.5 *Collected:* 9/28/2011 12:45:00 *Analysis Type:* RES *Dilution:* 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	8.5	J	2.0	MDL	10.2	PQL	mg/Kg	J	Z

Method Category: METALS **Method:** 7470A **Matrix:** AQ

Sample ID: EB-SA5DS-SS-092811 *Collected:* 9/28/2011 1:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.000045	J	0.000026	MDL	0.00020	PQL	mg/L	U	B, B

Method Category: METALS **Method:** 7471A **Matrix:** SO

Sample ID: SL-007-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0121	J	0.0069	MDL	0.0981	PQL	mg/Kg	U	F

Sample ID: SL-009-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 9:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0105	J	0.0069	MDL	0.0983	PQL	mg/Kg	U	F

Sample ID: SL-010-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0133	J	0.0067	MDL	0.0947	PQL	mg/Kg	U	F

Sample ID: SL-013-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 11:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0081	J	0.0070	MDL	0.0997	PQL	mg/Kg	U	F

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 **Laboratory:** LL

EDD Filename: PrepDE257_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 7471A **Matrix:** SO

Sample ID: SL-014-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 10:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0114	J	0.0071	MDL	0.101	PQL	mg/Kg	U	F

Sample ID: SL-015-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 10:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0472	J	0.0070	MDL	0.0991	PQL	mg/Kg	J	Z

Sample ID: SL-017-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0238	J	0.0069	MDL	0.0978	PQL	mg/Kg	U	F

Sample ID: SL-106-SA7-SB-16.5-17.5 *Collected:* 9/28/2011 12:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0143	J	0.0072	MDL	0.102	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-19.0-20.0 *Collected:* 9/28/2011 9:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0073	J	0.0072	MDL	0.102	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-9.0-10.0 *Collected:* 9/28/2011 12:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0073	J	0.0072	MDL	0.102	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 6850 **Matrix:** SO

Sample ID: SL-040-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 3:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE	2.3	J	2.1	MDL	5.1	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 **Laboratory: LL**

EDD Filename: PrepDE257_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: DUP-02-SA5DS-QC-092811 *Collected:* 9/28/2011 1:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.36		0.068	MDL	0.35	PQL	ug/Kg	J	FD
4,4'-DDT	0.46		0.068	MDL	0.35	PQL	ug/Kg	J	FD
BETA-BHC	0.13	J	0.062	MDL	0.17	PQL	ug/Kg	J	Z, FD
Chlordane	1.9	J	0.83	MDL	3.5	PQL	ug/Kg	J	Z, FD
ENDRIN ALDEHYDE	0.13	J	0.068	MDL	0.35	PQL	ug/Kg	J	Z, FD
gamma-BHC (Lindane)	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	FD

Sample ID: SL-007-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.78		0.067	MDL	0.34	PQL	ug/Kg	J	S
4,4'-DDT	0.64		0.067	MDL	0.34	PQL	ug/Kg	J	S
Chlordane	1.9	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z, S

Sample ID: SL-008-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 7:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	1.9	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z
DELTA-BHC	0.038	J	0.037	MDL	0.17	PQL	ug/Kg	J	Z

Sample ID: SL-009-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 9:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.31	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z
Chlordane	2.0	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z
DELTA-BHC	0.071	J	0.036	MDL	0.17	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.089	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z

Sample ID: SL-010-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BETA-BHC	0.078	J	0.061	MDL	0.17	PQL	ug/Kg	J	Z
Chlordane	3.0	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z
DELTA-BHC	0.061	J	0.036	MDL	0.17	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE257 **Laboratory: LL**

EDD Filename: PrepDE257_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: SL-013-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 11:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	1.7	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z

Sample ID: SL-014-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 10:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	1.7	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-015-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 10:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.24	J	0.068	MDL	0.35	PQL	ug/Kg	J	Z
4,4'-DDT	0.31	J	0.068	MDL	0.35	PQL	ug/Kg	J	Z
Chlordane	1.8	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z

Sample ID: SL-016-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 9:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALPHA-BHC	0.076	J	0.036	MDL	0.17	PQL	ug/Kg	J	Z
Chlordane	2.5	J	0.84	MDL	3.6	PQL	ug/Kg	J	Z
HEPTACHLOR	0.077	J	0.063	MDL	0.17	PQL	ug/Kg	J	Z

Sample ID: SL-017-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S
4,4'-DDE	2.2		0.067	MDL	0.35	PQL	ug/Kg	J	S
4,4'-DDT	2.9		0.067	MDL	0.35	PQL	ug/Kg	J	S
ALDRIN	0.067	U	0.067	MDL	0.17	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	S
BETA-BHC	0.061	U	0.061	MDL	0.17	PQL	ug/Kg	UJ	S
Chlordane	4.4		0.81	MDL	3.5	PQL	ug/Kg	J	S
DELTA-BHC	0.048	U	0.048	MDL	0.17	PQL	ug/Kg	UJ	S
DIELDRIN	0.23	U	0.23	MDL	0.35	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.071	U	0.071	MDL	0.17	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.26	U	0.26	MDL	0.35	PQL	ug/Kg	UJ	S

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: PrepDE257_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: SL-017-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDOSULFAN SULFATE	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S
ENDRIN	0.13	U	0.13	MDL	0.35	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.99		0.067	MDL	0.35	PQL	ug/Kg	J	S
ENDRIN KETONE	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.061	U	0.061	MDL	0.17	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.081	U	0.081	MDL	0.17	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.35	U	0.35	MDL	1.7	PQL	ug/Kg	UJ	S
MIREX	0.26	U	0.26	MDL	0.35	PQL	ug/Kg	UJ	S
TOXAPHENE	18	U	18	MDL	18	PQL	ug/Kg	UJ	S

Sample ID: SL-034-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 1:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.10	J	0.069	MDL	0.35	PQL	ug/Kg	J	Z, FD
4,4'-DDT	0.22	J	0.069	MDL	0.35	PQL	ug/Kg	J	Z, FD
BETA-BHC	0.062	U	0.062	MDL	0.17	PQL	ug/Kg	UJ	FD
Chlordane	0.90	J	0.83	MDL	3.5	PQL	ug/Kg	J	Z, FD
ENDRIN ALDEHYDE	0.069	U	0.069	MDL	0.35	PQL	ug/Kg	UJ	FD
gamma-BHC (Lindane)	0.038	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z, FD

Sample ID: SL-040-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 3:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BETA-BHC	0.081	J	0.061	MDL	0.17	PQL	ug/Kg	J	Z
gamma-BHC (Lindane)	0.053	J	0.034	MDL	0.17	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: DUP-02-SA5DS-QC-092811 *Collected:* 9/28/2011 1:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.62	J	0.34	MDL	1.8	PQL	ug/Kg	J	Z, FD

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 **Laboratory:** LL

EDD Filename: PrepDE257_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-007-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.2	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
AROCLOR 1260	1.5	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-008-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 7:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.6	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	3.1	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: SL-009-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 9:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	2.0		0.34	MDL	1.7	PQL	ug/Kg	J	S
AROCLOR 1260	1.8		0.40	MDL	1.7	PQL	ug/Kg	J	S
Aroclor 5460	3.5		1.0	MDL	3.4	PQL	ug/Kg	J	S

Sample ID: SL-010-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.2	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	3.1	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: SL-013-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 11:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.2	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z, S
Aroclor 5460	1.9	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z, S

Sample ID: SL-014-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 10:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.92	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
AROCLOR 1260	0.92	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	2.4	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE257 **Laboratory: LL**

EDD Filename: PrepDE257_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-015-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 10:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	3.5		0.34	MDL	1.7	PQL	ug/Kg	J	S
Aroclor 5460	1.5	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z, S

Sample ID: SL-016-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 9:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	2.2		0.41	MDL	1.8	PQL	ug/Kg	J	S
Aroclor 5460	2.9	J	1.0	MDL	3.5	PQL	ug/Kg	J	Z, S

Sample ID: SL-017-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	9.3		0.40	MDL	1.7	PQL	ug/Kg	J	S
Aroclor 5460	5.9		1.0	MDL	3.4	PQL	ug/Kg	J	S

Sample ID: SL-033-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 1:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	2.6		0.34	MDL	1.8	PQL	ug/Kg	J	S

Sample ID: SL-034-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 1:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.34	U	0.34	MDL	1.8	PQL	ug/Kg	UJ	FD

Sample ID: SL-040-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 3:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.85	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
AROCLOR 1260	1.5	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	2.9	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: SL-103-SA7-SB-18.0-19.0 *Collected:* 9/28/2011 2:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.49	J	0.36	MDL	1.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 **Laboratory:** LL

EDD Filename: PrepDE257_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-106-SA7-SB-4.0-5.0 *Collected:* 9/28/2011 12:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1248	1.5	J	0.34	MDL	1.8	PQL	ug/Kg	J	Z, S
AROCLOR 1254	1.1	J	0.34	MDL	1.8	PQL	ug/Kg	J	Z, S
AROCLOR 1260	1.1	J	0.40	MDL	1.8	PQL	ug/Kg	J	Z, S

Sample ID: SL-106-SA7-SB-9.0-10.0 *Collected:* 9/28/2011 12:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.45	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z, S
AROCLOR 1260	0.71	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z, S

Method Category: SVOA

Method: 8151A **Matrix:** SO

Sample ID: DUP-02-SA5DS-QC-092811 *Collected:* 9/28/2011 1:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-TP (Silvex)	0.23	U	0.23	MDL	0.23	PQL	ug/Kg	UJ	FD

Sample ID: SL-014-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 10:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICHLOROPROP	1.0	J	0.81	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-034-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 1:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-TP (Silvex)	0.44		0.078	MDL	0.18	PQL	ug/Kg	J	Q, FD

Method Category: SVOA

Method: 8270C **Matrix:** AQ

Sample ID: EB-SA5DS-SS-092811 *Collected:* 9/28/2011 1:00:00 *Analysis Type:* RES-ACID *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZOIC ACID	6	U	6	MDL	15	PQL	ug/L	UJ	E

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: PrepDE257_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA **Method:** 8270C **Matrix:** AQ

Method Category: SVOA **Method:** 8270C **Matrix:** SO

Sample ID: DUP-02-SA5DS-QC-092811 *Collected:* 9/28/2011 1:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	48	J	17	MDL	350	PQL	ug/Kg	J	Z

Sample ID: SL-034-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 1:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	1200	U	1200	MDL	3400	PQL	ug/Kg	R	Q

Method Category: SVOA **Method:** 8270C SIM **Matrix:** AQ

Sample ID: EB-SA5DS-SS-092811 *Collected:* 9/28/2011 1:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	0.11	J	0.053	MDL	1.1	PQL	ug/L	J	Z
Diethylphthalate	0.36	J	0.053	MDL	1.1	PQL	ug/L	J	Z
Di-n-butylphthalate	0.74	J	0.053	MDL	1.1	PQL	ug/L	J	Z
Di-n-octylphthalate	0.12	J	0.053	MDL	1.1	PQL	ug/L	J	Z

Method Category: SVOA **Method:** 8270C SIM **Matrix:** SO

Sample ID: DUP-02-SA5DS-QC-092811 *Collected:* 9/28/2011 1:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.7	J	0.68	MDL	1.7	PQL	ug/Kg	J	FD

Sample ID: SL-007-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	10	J	6.0	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	0.84	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.0	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: PrepDE257_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-007-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PYRENE	1.0	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-008-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 7:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.87	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	14	J	6.0	MDL	18	PQL	ug/Kg	J	Z
Butylbenzylphthalate	11	J	6.0	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	1.2	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.6	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.77	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.77	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.3	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-009-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 9:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.84	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	9.5	J	6.0	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	1.2	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.96	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-010-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.89	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.3	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.84	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.90	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: PrepDE257_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-013-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 11:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.74	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	6.5	J	6.0	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	0.81	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.73	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.75	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-014-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 10:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	0.68	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.4	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.80	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.0	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.6	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-015-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 10:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.88	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	15	J	6.1	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	1.2	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.69	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.0	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-016-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 9:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.85	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	10	J	6.2	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	1.2	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 **Laboratory:** LL

EDD Filename: PrepDE257_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-016-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 9:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORANTHENE	1.4	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
FLUORENE	0.81	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.75	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.1	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.3	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-017-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.68	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	15	J	6.0	MDL	18	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.0	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
FLUORENE	1.3	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.67	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.95	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-033-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 1:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.96	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	8.4	J	6.2	MDL	19	PQL	ug/Kg	J	Z

Sample ID: SL-034-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 1:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.0	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z, FD

Sample ID: SL-040-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 3:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	0.77	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.2	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	13	J	6.0	MDL	18	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE257 **Laboratory:** LL

EDD Filename: PrepDE257_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-040-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 3:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Butylbenzylphthalate	8.8	J	6.0	MDL	18	PQL	ug/Kg	J	Z
NAPHTHALENE	1.4	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.5	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-103-SA7-SB-18.0-19.0 *Collected:* 9/28/2011 2:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.1	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
CHRYSENE	0.69	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-106-SA7-SB-16.5-17.5 *Collected:* 9/28/2011 12:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	1.2	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	6.8	J	6.4	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	1.3	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-106-SA7-SB-19.0-20.0 *Collected:* 9/28/2011 9:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	1.3	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.4	J	0.70	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	15	J	6.3	MDL	19	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.3	J	0.70	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-106-SA7-SB-4.0-5.0 *Collected:* 9/28/2011 12:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	0.70	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.1	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	0.72	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE257 **Laboratory:** LL

EDD Filename: PrepDE257_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-106-SA7-SB-9.0-10.0 *Collected:* 9/28/2011 12:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.82	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8315A **Matrix:** SO

Sample ID: SL-106-SA7-SB-19.0-20.0 *Collected:* 9/28/2011 9:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	1200	J	640	MDL	1600	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-106-SA7-SB-15.5 *Collected:* 9/28/2011 9:33:00 *Analysis Type:* RES *Dilution:* 0.96

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-BUTANONE (MEK)	2.9	J	1.3	MDL	8.3	PQL	ug/Kg	J	Z
ETHYLBENZENE	0.08	J	0.06	MDL	4.2	PQL	ug/Kg	J	Z
m,p-Xylene	0.32	J	0.18	MDL	4.2	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.72	J	0.25	MDL	4.2	PQL	ug/Kg	U	B
TOLUENE	0.42	J	0.08	MDL	4.2	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE257 **Laboratory: LL**

EDD Filename: PrepDE257_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Laboratory Triplicate Precision
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Differance Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE257 **Laboratory: LL**

EDD Filename: PrepDE257_v1 **eQAPP Name: CDM_SSFL_110509**

F	Equipment Blank Contamination
F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE257 **Laboratory: LL**

EDD Filename: PrepDE257_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Estimation
R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE257

Method Blank Outlier Report

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: DE257_v1. eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27848CB222339	10/9/2011 11:39:00 PM	STRONTIUM	0.00022 mg/L	EB-SA5DS-SS-092811

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27208BB220426	10/12/2011 4:26:00 AM	IRON	24.7 mg/Kg	DUP-02-SA5DS-QC-092811
		TITANIUM	0.112 mg/Kg	SL-007-SA5DS-SS-0.0-0.5
				SL-008-SA5DS-SS-0.0-0.5
				SL-009-SA5DS-SS-0.0-0.5
				SL-010-SA5DS-SS-0.0-0.5
				SL-013-SA5DS-SS-0.0-0.5
				SL-014-SA5DS-SS-0.0-0.5
				SL-015-SA5DS-SS-0.0-0.5
				SL-016-SA5DS-SS-0.0-0.5
				SL-017-SA5DS-SS-0.0-0.5
				SL-033-SA5DS-SS-0.0-0.5
				SL-034-SA5DS-SS-0.0-0.5
				SL-040-SA5DS-SS-0.0-0.5
				SL-103-SA7-SB-18.0-19.0
				SL-106-SA7-SB-16.5-17.5
				SL-106-SA7-SB-19.0-20.0
				SL-106-SA7-SB-4.0-5.0
				SL-106-SA7-SB-9.0-10.0
P27208BB221406	10/11/2011 2:06:00 PM	ALUMINUM	10.2 mg/Kg	DUP-02-SA5DS-QC-092811
		BORON	0.529 mg/Kg	SL-007-SA5DS-SS-0.0-0.5
		CALCIUM	41.1 mg/Kg	SL-008-SA5DS-SS-0.0-0.5
		MAGNESIUM	31.2 mg/Kg	SL-009-SA5DS-SS-0.0-0.5
		MANGANESE	0.174 mg/Kg	SL-010-SA5DS-SS-0.0-0.5
		PHOSPHORUS	1.50 mg/Kg	SL-013-SA5DS-SS-0.0-0.5
		POTASSIUM	11.5 mg/Kg	SL-014-SA5DS-SS-0.0-0.5
		STRONTIUM	0.0670 mg/Kg	SL-015-SA5DS-SS-0.0-0.5
		TIN	1.53 mg/Kg	SL-016-SA5DS-SS-0.0-0.5
				SL-017-SA5DS-SS-0.0-0.5
				SL-033-SA5DS-SS-0.0-0.5
				SL-034-SA5DS-SS-0.0-0.5
				SL-040-SA5DS-SS-0.0-0.5
				SL-103-SA7-SB-18.0-19.0
				SL-106-SA7-SB-16.5-17.5
				SL-106-SA7-SB-19.0-20.0
				SL-106-SA7-SB-4.0-5.0
				SL-106-SA7-SB-9.0-10.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP-02-SA5DS-QC-092811(RES)	TIN	2.82 mg/Kg	2.82U mg/Kg
SL-007-SA5DS-SS-0.0-0.5(RES)	TIN	2.67 mg/Kg	2.67U mg/Kg
SL-008-SA5DS-SS-0.0-0.5(RES)	TIN	2.57 mg/Kg	2.57U mg/Kg
SL-009-SA5DS-SS-0.0-0.5(RES)	TIN	2.78 mg/Kg	2.78U mg/Kg
SL-010-SA5DS-SS-0.0-0.5(RES)	TIN	2.63 mg/Kg	2.63U mg/Kg
SL-013-SA5DS-SS-0.0-0.5(RES)	TIN	2.52 mg/Kg	2.52U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: DE257_v1. eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-014-SA5DS-SS-0.0-0.5(RES)	TIN	2.71 mg/Kg	2.71U mg/Kg
SL-015-SA5DS-SS-0.0-0.5(RES)	TIN	2.74 mg/Kg	2.74U mg/Kg
SL-016-SA5DS-SS-0.0-0.5(RES)	TIN	2.71 mg/Kg	2.71U mg/Kg
SL-017-SA5DS-SS-0.0-0.5(RES)	TIN	2.83 mg/Kg	2.83U mg/Kg
SL-033-SA5DS-SS-0.0-0.5(RES)	TIN	2.66 mg/Kg	2.66U mg/Kg
SL-034-SA5DS-SS-0.0-0.5(RES)	TIN	2.95 mg/Kg	2.95U mg/Kg
SL-040-SA5DS-SS-0.0-0.5(RES)	TIN	2.42 mg/Kg	2.42U mg/Kg
SL-103-SA7-SB-18.0-19.0(RES)	TIN	2.67 mg/Kg	2.67U mg/Kg
SL-106-SA7-SB-16.5-17.5(RES)	TIN	2.89 mg/Kg	2.89U mg/Kg
SL-106-SA7-SB-19.0-20.0(RES)	TIN	2.77 mg/Kg	2.77U mg/Kg
SL-106-SA7-SB-4.0-5.0(RES)	TIN	2.55 mg/Kg	2.55U mg/Kg
SL-106-SA7-SB-9.0-10.0(RES)	TIN	2.78 mg/Kg	2.78U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27226BB221116A	9/30/2011 11:16:00 AM	LEAD	0.0226 mg/Kg	DUP-02-SA5DS-QC-092811 SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-014-SA5DS-SS-0.0-0.5 SL-015-SA5DS-SS-0.0-0.5 SL-016-SA5DS-SS-0.0-0.5 SL-017-SA5DS-SS-0.0-0.5 SL-033-SA5DS-SS-0.0-0.5 SL-034-SA5DS-SS-0.0-0.5 SL-040-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0

Method: 7470A
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27813AB220856	10/6/2011 8:56:00 AM	MERCURY	0.000042 mg/L	EB-SA5DS-SS-092811

Method Blank Outlier Report

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: DE257_v1. eQAPP Name: CDM_SSFL_110509

Method: 7470A
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA5DS-SS-092811(RES)	MERCURY	0.000045 mg/L	0.000045U mg/L

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB75B211352A	10/4/2011 1:52:00 PM	CHLOROFORM METHYLENE CHLORIDE	0.20 ug/Kg 0.57 ug/Kg	SL-106-SA7-SB-15.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-106-SA7-SB-15.5(RES)	METHYLENE CHLORIDE	0.72 ug/Kg	4.2U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: DE257_v1. eQAPP Name: CDM_SSFL_110509

Method: 8151A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-034-SA5DS-SS-0.0-0.5MSD (SL-034-SA5DS-SS-0.0-0.5)	2,4,5-T	-	-	10.00-156.00	38 (35.00)	2,4,5-T	J (all detects)
	2,4-D	-	-	17.00-180.00	131 (35.00)	2,4-D	
	DALAPON	-	-	10.00-125.00	65 (50.00)	DALAPON	
	MCPA	-	-	10.00-213.00	62 (50.00)	MCPA	
SL-034-SA5DS-SS-0.0-0.5MS SL-034-SA5DS-SS-0.0-0.5MSD (SL-034-SA5DS-SS-0.0-0.5)	2,4,5-TP (Silvex)	19	8	24.00-141.00	-	2,4,5-TP (Silvex)	J(all detects) UJ(all non-detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-034-SA5DS-SS-0.0-0.5MS	ARSENIC	145	-	75.00-125.00	-	ARSENIC	
SL-034-SA5DS-SS-0.0-0.5MSD	CADMIUM	130	132	75.00-125.00	-	CADMIUM	
(DUP-02-SA5DS-QC-092811	CHROMIUM	-	139	75.00-125.00	-	CHROMIUM	
SL-007-SA5DS-SS-0.0-0.5	COBALT	-	129	75.00-125.00	-	COBALT	
SL-008-SA5DS-SS-0.0-0.5	COPPER	127	128	75.00-125.00	-	COPPER	
SL-009-SA5DS-SS-0.0-0.5	LEAD	127	141	75.00-125.00	-	LEAD	J(all detects)
SL-010-SA5DS-SS-0.0-0.5	NICKEL	140	158	75.00-125.00	-	NICKEL	
SL-013-SA5DS-SS-0.0-0.5	SILVER	129	128	75.00-125.00	-	SILVER	
SL-014-SA5DS-SS-0.0-0.5	THALLIUM	129	-	75.00-125.00	-	THALLIUM	
SL-015-SA5DS-SS-0.0-0.5	VANADIUM	130	184	75.00-125.00	-	VANADIUM	
SL-016-SA5DS-SS-0.0-0.5	ZINC	135	-	75.00-125.00	-	ZINC	
SL-017-SA5DS-SS-0.0-0.5							V, Zn, No Qual, >4x
SL-033-SA5DS-SS-0.0-0.5							
SL-034-SA5DS-SS-0.0-0.5							
SL-040-SA5DS-SS-0.0-0.5							
SL-103-SA7-SB-18.0-19.0							
SL-106-SA7-SB-16.5-17.5							
SL-106-SA7-SB-19.0-20.0							
SL-106-SA7-SB-4.0-5.0							
SL-106-SA7-SB-9.0-10.0)							
SL-034-SA5DS-SS-0.0-0.5MS	ANTIMONY	61	61	75.00-125.00	-	ANTIMONY	
SL-034-SA5DS-SS-0.0-0.5MSD							
(DUP-02-SA5DS-QC-092811							
SL-007-SA5DS-SS-0.0-0.5							
SL-008-SA5DS-SS-0.0-0.5							
SL-009-SA5DS-SS-0.0-0.5							
SL-010-SA5DS-SS-0.0-0.5							
SL-013-SA5DS-SS-0.0-0.5							
SL-014-SA5DS-SS-0.0-0.5							
SL-015-SA5DS-SS-0.0-0.5							J(all detects)
SL-016-SA5DS-SS-0.0-0.5							UJ(all non-detects)
SL-017-SA5DS-SS-0.0-0.5							
SL-033-SA5DS-SS-0.0-0.5							
SL-034-SA5DS-SS-0.0-0.5							
SL-040-SA5DS-SS-0.0-0.5							
SL-103-SA7-SB-18.0-19.0							
SL-106-SA7-SB-16.5-17.5							
SL-106-SA7-SB-19.0-20.0							
SL-106-SA7-SB-4.0-5.0							
SL-106-SA7-SB-9.0-10.0)							

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: DE257_v1. eQAPP Name: CDM_SSFL_110509

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-034-SA5DS-SS-0.0-0.5MS SL-034-SA5DS-SS-0.0-0.5MSD (DUP-02-SA5DS-QC-092811 SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-014-SA5DS-SS-0.0-0.5 SL-015-SA5DS-SS-0.0-0.5 SL-016-SA5DS-SS-0.0-0.5 SL-017-SA5DS-SS-0.0-0.5 SL-033-SA5DS-SS-0.0-0.5 SL-034-SA5DS-SS-0.0-0.5 SL-040-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0)	MOLYBDENUM	132	132	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-034-SA5DS-SS-0.0-0.5MS SL-034-SA5DS-SS-0.0-0.5MSD (DUP-02-SA5DS-QC-092811 SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-014-SA5DS-SS-0.0-0.5 SL-015-SA5DS-SS-0.0-0.5 SL-016-SA5DS-SS-0.0-0.5 SL-017-SA5DS-SS-0.0-0.5 SL-033-SA5DS-SS-0.0-0.5 SL-034-SA5DS-SS-0.0-0.5 SL-040-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0)	BARIUM	-299	-318	75.00-125.00	-	BARIUM	No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: DE257_v1. eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-034-SA5DS-SS-0.0-0.5MS SL-034-SA5DS-SS-0.0-0.5MSD (DUP-02-SA5DS-QC-092811 SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-014-SA5DS-SS-0.0-0.5 SL-015-SA5DS-SS-0.0-0.5 SL-016-SA5DS-SS-0.0-0.5 SL-017-SA5DS-SS-0.0-0.5 SL-033-SA5DS-SS-0.0-0.5 SL-034-SA5DS-SS-0.0-0.5 SL-040-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0)	ALUMINUM MAGNESIUM POTASSIUM TITANIUM	2353 134 146 412	2665 182 161 508	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ALUMINUM MAGNESIUM POTASSIUM TITANIUM	No Qual, >4x
SL-034-SA5DS-SS-0.0-0.5MS SL-034-SA5DS-SS-0.0-0.5MSD (DUP-02-SA5DS-QC-092811 SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-014-SA5DS-SS-0.0-0.5 SL-015-SA5DS-SS-0.0-0.5 SL-016-SA5DS-SS-0.0-0.5 SL-017-SA5DS-SS-0.0-0.5 SL-033-SA5DS-SS-0.0-0.5 SL-034-SA5DS-SS-0.0-0.5 SL-040-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0)	CALCIUM IRON	29 -314	- 1817	75.00-125.00 75.00-125.00	- -	CALCIUM IRON	No Qual, >4x

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-034-SA5DS-SS-0.0-0.5MSD (SL-034-SA5DS-SS-0.0-0.5)	2-CHLORONAPHTHALENE	-	-	50.00-141.00	33 (30.00)	2-CHLORONAPHTHALENE	J(all detects)
SL-034-SA5DS-SS-0.0-0.5MS SL-034-SA5DS-SS-0.0-0.5MSD (SL-034-SA5DS-SS-0.0-0.5)	BENZIDINE	14	0	35.00-141.00	200 (30.00)	BENZIDINE	J(all detects) R(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: DE257_v1. eQAPP Name: CDM_SSFL_110509

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-103-SA7-SB-18.0-19.0MS (SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0)	FLUORIDE	76	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE257 **Laboratory: LL**

EDD Filename: DE257_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-034-SA5DS-SS-0.0-0.5DUP (DUP-02-SA5DS-QC-092811 SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-014-SA5DS-SS-0.0-0.5 SL-015-SA5DS-SS-0.0-0.5 SL-016-SA5DS-SS-0.0-0.5 SL-017-SA5DS-SS-0.0-0.5 SL-033-SA5DS-SS-0.0-0.5 SL-034-SA5DS-SS-0.0-0.5 SL-040-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0)	SILVER	26	20.00	No Qual, OK by Difference

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-034-SA5DS-SS-0.0-0.5DUP (DUP-02-SA5DS-QC-092811 SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-014-SA5DS-SS-0.0-0.5 SL-015-SA5DS-SS-0.0-0.5 SL-016-SA5DS-SS-0.0-0.5 SL-017-SA5DS-SS-0.0-0.5 SL-033-SA5DS-SS-0.0-0.5 SL-034-SA5DS-SS-0.0-0.5 SL-040-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0)	HEXAVALENT CHROMIUM	200	20.00	No Qual, OK by Difference

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE257 **Laboratory: LL**

EDD Filename: DE257_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	*Analyte*	*Sample RPD*	*eQAPP RPD*	*Flag*
SL-103-SA7-SB-18.0-19.0DUP (SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0)	FLUORIDE	25	20.00	No Qual, OK by Difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: DE257_v1. eQAPP Name: CDM_SSFL_110509

Method: 8270C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P6WCLCSQ261423 (EB-SA5DS-SS-092811)	BIS(2-CHLOROETHYL) ETHER NITROBENZENE	109 111	- -	77.00-108.00 75.00-109.00	- -	BIS(2-CHLOROETHYL) ETHER NITROBENZENE	J(all detects)
P6WCLCSY261448 (EB-SA5DS-SS-092811)	BENZOIC ACID	-	-	10.00-69.00	82 (30.00)	BENZOIC ACID	J(all detects) UJ(all non-detects)

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P27208BQ221410 (DUP-02-SA5DS-QC-092811 SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-014-SA5DS-SS-0.0-0.5 SL-015-SA5DS-SS-0.0-0.5 SL-016-SA5DS-SS-0.0-0.5 SL-017-SA5DS-SS-0.0-0.5 SL-033-SA5DS-SS-0.0-0.5 SL-034-SA5DS-SS-0.0-0.5 SL-040-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0)	ALUMINUM IRON MAGNESIUM	145 133 122	- - -	80.00-120.00 80.00-120.00 80.00-120.00	- - -	ALUMINUM IRON MAGNESIUM	No Qual, SRM within Limits

Method: 8260B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSB75Y211440A (SL-106-SA7-SB-15.5)	1,1,2-TRICHLORO-1,2,2-TRIFLU	-	127	61.00-126.00	-	1,1,2-TRICHLORO-1,2,2-TRIFL	J(all detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE257 **Laboratory: LL**

EDD Filename: PrepDE257_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8081A
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-007-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	127	20.00-120.00	All Target Analytes	J (all detects)
SL-017-SA5DS-SS-0.0-0.5	TETRACHLORO-M-XYLENE	45	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)

Method: 8082
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-009-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	137	45.00-120.00	All Target Analytes	J(all detects)
SL-013-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	141	45.00-120.00	All Target Analytes	J(all detects)
SL-015-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	137	45.00-120.00	All Target Analytes	J(all detects)
SL-016-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	127	45.00-120.00	All Target Analytes	J(all detects)
SL-017-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	122	45.00-120.00	All Target Analytes	J(all detects)
SL-033-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	132	45.00-120.00	All Target Analytes	J(all detects)
SL-034-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	148	45.00-120.00	All Target Analytes	J(all detects)
SL-034-SA5DS-SS-0.0-0.5RLLCS	DECACHLOROBIPHENYL	152	45.00-120.00	All Target Analytes	Not Validated
SL-034-SA5DS-SS-0.0-0.5RLMS	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	171 155	45.00-120.00 53.00-139.00	All Target Analytes	Not Validated
SL-106-SA7-SB-16.5-17.5	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	124 143	45.00-120.00 53.00-139.00	All Target Analytes	J(all detects)
SL-106-SA7-SB-4.0-5.0	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	149 176	45.00-120.00 53.00-139.00	All Target Analytes	J(all detects)
SL-106-SA7-SB-9.0-10.0	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	136 144	45.00-120.00 53.00-139.00	All Target Analytes	J(all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: DE257_v1. eQAPP Name: CDM_SSFL_110509

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
MOISTURE	4.0	3.8	5		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
FLUORIDE	1.4	1.3	7	50.00	No Qualifiers Applied

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
ALUMINUM	31900	30100	6	50.00	No Qualifiers Applied
BORON	15.5	14.9	4	50.00	
CALCIUM	9210	8920	3	50.00	
IRON	37400	35800	4	50.00	
LITHIUM	31.6	30.4	4	50.00	
MAGNESIUM	8840	8650	2	50.00	
MANGANESE	370	353	5	50.00	
PHOSPHORUS	511	533	4	50.00	
POTASSIUM	4980	5030	1	50.00	
SODIUM	100	99.2	1	50.00	
STRONTIUM	40.3	39.1	3	50.00	
TIN	2.95	2.82	5	50.00	
TITANIUM	1540	1440	7	50.00	
Zirconium	4.78	4.15	14	50.00	

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
ANTIMONY	0.392	0.330	17	50.00	No Qualifiers Applied
ARSENIC	7.40	7.53	2	50.00	
BARIUM	182	134	30	50.00	
BERYLLIUM	1.16	1.08	7	50.00	
CADMIUM	0.304	0.277	9	50.00	
CHROMIUM	40.0	40.4	1	50.00	
COBALT	13.9	14.2	2	50.00	
COPPER	21.6	21.8	1	50.00	
LEAD	12.4	12.7	2	50.00	
MOLYBDENUM	0.548	0.543	1	50.00	
NICKEL	27.8	28.0	1	50.00	
SELENIUM	0.272	0.267	2	50.00	
SILVER	0.0485	0.0420	14	50.00	
THALLIUM	0.432	0.448	4	50.00	
VANADIUM	79.0	81.1	3	50.00	
ZINC	102	99.6	2	50.00	

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: DE257_v1. eQAPP Name: CDM_SSFL_110509

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
HEXAVALENT CHROMIUM	1.0 U	1.0	200	50.00	J(all detects) UJ(all non-detects)

Method: 8081A
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
4,4'-DDE	0.10	0.36	113	50.00	
4,4'-DDT	0.22	0.46	71	50.00	
BETA-BHC	0.17 U	0.13	200	50.00	J(all detects)
Chlordane	0.90	1.9	71	50.00	UJ(all non-detects)
ENDRIN ALDEHYDE	0.35 U	0.13	200	50.00	
gamma-BHC (Lindane)	0.038	0.17 U	200	50.00	

Method: 8082
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
AROCLOR 1254	1.8 U	0.62	200	50.00	J(all detects) UJ(all non-detects)

Method: 8151A
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
2,4,5-TP (Silvex)	0.44	0.23 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 8270C SIM
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
BENZO(B)FLUORANTHENE	1.0	1.7	52	50.00	J(all detects)

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
PH	7.61	7.31	4	50.00	No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE257 Laboratory: LL

EDD Filename: DE257_v1. eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA5DS-SS-092811	BORON	J	0.0025	0.0500	PQL	mg/L	J (all detects)
	PHOSPHORUS	J	0.0105	0.100	PQL	mg/L	

Method: 6020
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA5DS-SS-092811	CADMIUM	J	0.00022	0.00050	PQL	mg/L	J (all detects)

Method: 7470A
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA5DS-SS-092811	MERCURY	J	0.000045	0.00020	PQL	mg/L	J (all detects)

Method: 8270C SIM
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA5DS-SS-092811	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.11	1.1	PQL	ug/L	J (all detects)
	Diethylphthalate	J	0.36	1.1	PQL	ug/L	
	Di-n-butylphthalate	J	0.74	1.1	PQL	ug/L	
	Di-n-octylphthalate	J	0.12	1.1	PQL	ug/L	

Method: 300.0
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-013-SA5DS-SS-0.0-0.5	FLUORIDE	J	0.93	1.0	PQL	mg/Kg	J (all detects)
SL-106-SA7-SB-4.0-5.0	Nitrate-NO3	J	1.1	1.6	PQL	mg/Kg	J (all detects)

Method: 6010B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-02-SA5DS-QC-092811	SODIUM	J	99.2	103	PQL	mg/Kg	J (all detects)
	TIN	J	2.82	10.3	PQL	mg/Kg	
	Zirconium	J	4.15	5.15	PQL	mg/Kg	
SL-007-SA5DS-SS-0.0-0.5	SODIUM	J	87.7	101	PQL	mg/Kg	J (all detects)
	TIN	J	2.67	10.1	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE257 | Laboratory: LL

EDD Filename: DE257_v1. | eQAPP Name: CDM_SSFL_110509

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA5DS-SS-0.0-0.5	BORON	J	4.38	5.00	PQL	mg/Kg	J (all detects)
	SODIUM	J	69.5	99.9	PQL	mg/Kg	
	TIN	J	2.57	9.99	PQL	mg/Kg	
	Zirconium	J	0.970	5.00	PQL	mg/Kg	
SL-009-SA5DS-SS-0.0-0.5	SODIUM	J	88.4	102	PQL	mg/Kg	J (all detects)
	TIN	J	2.78	10.2	PQL	mg/Kg	
SL-010-SA5DS-SS-0.0-0.5	SODIUM	J	91.2	100	PQL	mg/Kg	J (all detects)
	TIN	J	2.63	10.0	PQL	mg/Kg	
SL-013-SA5DS-SS-0.0-0.5	SODIUM	J	85.1	101	PQL	mg/Kg	J (all detects)
	TIN	J	2.52	10.1	PQL	mg/Kg	
	Zirconium	J	3.72	5.06	PQL	mg/Kg	
SL-014-SA5DS-SS-0.0-0.5	SODIUM	J	93.6	99.5	PQL	mg/Kg	J (all detects)
	TIN	J	2.71	9.95	PQL	mg/Kg	
	Zirconium	J	2.65	4.98	PQL	mg/Kg	
SL-015-SA5DS-SS-0.0-0.5	SODIUM	J	84.7	98.7	PQL	mg/Kg	J (all detects)
	TIN	J	2.74	9.87	PQL	mg/Kg	
SL-016-SA5DS-SS-0.0-0.5	SODIUM	J	80.5	103	PQL	mg/Kg	J (all detects)
	TIN	J	2.71	10.3	PQL	mg/Kg	
	Zirconium	J	4.97	5.15	PQL	mg/Kg	
SL-017-SA5DS-SS-0.0-0.5	SODIUM	J	97.7	99.7	PQL	mg/Kg	J (all detects)
	TIN	J	2.83	9.97	PQL	mg/Kg	
SL-033-SA5DS-SS-0.0-0.5	TIN	J	2.66	10.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.67	5.18	PQL	mg/Kg	
SL-034-SA5DS-SS-0.0-0.5	SODIUM	J	100	103	PQL	mg/Kg	J (all detects)
	TIN	J	2.95	10.3	PQL	mg/Kg	
	Zirconium	J	4.78	5.16	PQL	mg/Kg	
SL-040-SA5DS-SS-0.0-0.5	SODIUM	J	83.6	100	PQL	mg/Kg	J (all detects)
	TIN	J	2.42	10.0	PQL	mg/Kg	
	Zirconium	J	3.49	5.02	PQL	mg/Kg	
SL-103-SA7-SB-18.0-19.0	TIN	J	2.67	10.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.67	5.28	PQL	mg/Kg	
SL-106-SA7-SB-16.5-17.5	TIN	J	2.89	10.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.46	5.30	PQL	mg/Kg	
SL-106-SA7-SB-19.0-20.0	TIN	J	2.77	10.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.26	5.20	PQL	mg/Kg	
SL-106-SA7-SB-4.0-5.0	TIN	J	2.55	10.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	0.809	5.04	PQL	mg/Kg	
SL-106-SA7-SB-9.0-10.0	BORON	J	4.42	5.25	PQL	mg/Kg	J (all detects)
	TIN	J	2.78	10.5	PQL	mg/Kg	
	Zirconium	J	1.01	5.25	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-02-SA5DS-QC-092811	SELENIUM	J	0.267	0.400	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0420	0.100	PQL	mg/Kg	
SL-007-SA5DS-SS-0.0-0.5	SELENIUM	J	0.204	0.390	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0242	0.0976	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE257 | Laboratory: LL

EDD Filename: DE257_v1. | eQAPP Name: CDM_SSFL_110509

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.105	0.198	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0809	0.396	PQL	mg/Kg	
	SILVER	J	0.0787	0.0990	PQL	mg/Kg	
SL-009-SA5DS-SS-0.0-0.5	SELENIUM	J	0.222	0.398	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0309	0.0995	PQL	mg/Kg	
SL-010-SA5DS-SS-0.0-0.5	SELENIUM	J	0.252	0.398	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0320	0.0994	PQL	mg/Kg	
SL-013-SA5DS-SS-0.0-0.5	SELENIUM	J	0.217	0.401	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0405	0.100	PQL	mg/Kg	
SL-014-SA5DS-SS-0.0-0.5	SELENIUM	J	0.216	0.402	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0258	0.101	PQL	mg/Kg	
SL-015-SA5DS-SS-0.0-0.5	SELENIUM	J	0.241	0.395	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0297	0.0987	PQL	mg/Kg	
SL-016-SA5DS-SS-0.0-0.5	SELENIUM	J	0.220	0.416	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0328	0.104	PQL	mg/Kg	
SL-017-SA5DS-SS-0.0-0.5	SELENIUM	J	0.253	0.403	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0461	0.101	PQL	mg/Kg	
SL-033-SA5DS-SS-0.0-0.5	SELENIUM	J	0.194	0.411	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0371	0.103	PQL	mg/Kg	
SL-034-SA5DS-SS-0.0-0.5	SELENIUM	J	0.272	0.413	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0485	0.103	PQL	mg/Kg	
SL-040-SA5DS-SS-0.0-0.5	SELENIUM	J	0.188	0.405	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0289	0.101	PQL	mg/Kg	
SL-103-SA7-SB-18.0-19.0	ANTIMONY	J	0.133	0.213	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.204	0.427	PQL	mg/Kg	
	SILVER	J	0.0267	0.107	PQL	mg/Kg	
SL-106-SA7-SB-16.5-17.5	SELENIUM	J	0.210	0.428	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0434	0.107	PQL	mg/Kg	
SL-106-SA7-SB-19.0-20.0	ANTIMONY	J	0.143	0.210	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.213	0.420	PQL	mg/Kg	
	SILVER	J	0.0200	0.105	PQL	mg/Kg	
SL-106-SA7-SB-4.0-5.0	ANTIMONY	J	0.0932	0.199	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.131	0.399	PQL	mg/Kg	
	SILVER	J	0.0241	0.0997	PQL	mg/Kg	
SL-106-SA7-SB-9.0-10.0	ANTIMONY	J	0.127	0.212	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.160	0.424	PQL	mg/Kg	

Method: 6850

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-040-SA5DS-SS-0.0-0.5	PERCHLORATE	J	2.3	5.1	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE257 | Laboratory: LL

EDD Filename: DE257_v1. | eQAPP Name: CDM_SSFL_110509

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.48	0.99	PQL	mg/Kg	J (all detects)
SL-009-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.68	0.99	PQL	mg/Kg	J (all detects)
SL-010-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.21	1.0	PQL	mg/Kg	J (all detects)
SL-014-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.53	1.0	PQL	mg/Kg	J (all detects)
SL-016-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.73	0.97	PQL	mg/Kg	J (all detects)
SL-103-SA7-SB-18.0-19.0	HEXAVALENT CHROMIUM	J	0.23	1.1	PQL	mg/Kg	J (all detects)
SL-106-SA7-SB-16.5-17.5	HEXAVALENT CHROMIUM	J	8.5	10.2	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-007-SA5DS-SS-0.0-0.5	MERCURY	J	0.0121	0.0981	PQL	mg/Kg	J (all detects)
SL-009-SA5DS-SS-0.0-0.5	MERCURY	J	0.0105	0.0983	PQL	mg/Kg	J (all detects)
SL-010-SA5DS-SS-0.0-0.5	MERCURY	J	0.0133	0.0947	PQL	mg/Kg	J (all detects)
SL-013-SA5DS-SS-0.0-0.5	MERCURY	J	0.0081	0.0997	PQL	mg/Kg	J (all detects)
SL-014-SA5DS-SS-0.0-0.5	MERCURY	J	0.0114	0.101	PQL	mg/Kg	J (all detects)
SL-015-SA5DS-SS-0.0-0.5	MERCURY	J	0.0472	0.0991	PQL	mg/Kg	J (all detects)
SL-017-SA5DS-SS-0.0-0.5	MERCURY	J	0.0238	0.0978	PQL	mg/Kg	J (all detects)
SL-106-SA7-SB-16.5-17.5	MERCURY	J	0.0143	0.102	PQL	mg/Kg	J (all detects)
SL-106-SA7-SB-19.0-20.0	MERCURY	J	0.0073	0.102	PQL	mg/Kg	J (all detects)
SL-106-SA7-SB-9.0-10.0	MERCURY	J	0.0073	0.102	PQL	mg/Kg	J (all detects)

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-02-SA5DS-QC-092811	BETA-BHC	J	0.13	0.17	PQL	ug/Kg	J (all detects)
	Chlordane	J	1.9	3.5	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.13	0.35	PQL	ug/Kg	
SL-007-SA5DS-SS-0.0-0.5	Chlordane	J	1.9	3.4	PQL	ug/Kg	J (all detects)
SL-008-SA5DS-SS-0.0-0.5	Chlordane	J	1.9	3.4	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.038	0.17	PQL	ug/Kg	
SL-009-SA5DS-SS-0.0-0.5	4,4'-DDE	J	0.31	0.34	PQL	ug/Kg	J (all detects)
	Chlordane	J	2.0	3.4	PQL	ug/Kg	
	DELTA-BHC	J	0.071	0.17	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.089	0.34	PQL	ug/Kg	
SL-010-SA5DS-SS-0.0-0.5	BETA-BHC	J	0.078	0.17	PQL	ug/Kg	J (all detects)
	Chlordane	J	3.0	3.4	PQL	ug/Kg	
	DELTA-BHC	J	0.061	0.17	PQL	ug/Kg	
SL-013-SA5DS-SS-0.0-0.5	Chlordane	J	1.7	3.5	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE257 **Laboratory:** LL

EDD Filename: DE257_v1. **eQAPP Name:** CDM_SSFL_110509

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-014-SA5DS-SS-0.0-0.5	Chlordane	J	1.7	3.4	PQL	ug/Kg	J (all detects)
SL-015-SA5DS-SS-0.0-0.5	4,4'-DDE	J	0.24	0.35	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	0.31	0.35	PQL	ug/Kg	
	Chlordane	J	1.8	3.5	PQL	ug/Kg	
SL-016-SA5DS-SS-0.0-0.5	ALPHA-BHC	J	0.076	0.17	PQL	ug/Kg	J (all detects)
	Chlordane	J	2.5	3.6	PQL	ug/Kg	
	HEPTACHLOR	J	0.077	0.17	PQL	ug/Kg	
SL-034-SA5DS-SS-0.0-0.5	4,4'-DDE	J	0.10	0.35	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	0.22	0.35	PQL	ug/Kg	
	Chlordane	J	0.90	3.5	PQL	ug/Kg	
	gamma-BHC (Lindane)	J	0.038	0.17	PQL	ug/Kg	
SL-040-SA5DS-SS-0.0-0.5	BETA-BHC	J	0.081	0.17	PQL	ug/Kg	J (all detects)
	gamma-BHC (Lindane)	J	0.053	0.17	PQL	ug/Kg	

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-02-SA5DS-QC-092811	AROCLOR 1254	J	0.62	1.8	PQL	ug/Kg	J (all detects)
SL-007-SA5DS-SS-0.0-0.5	AROCLOR 1254	J	1.2	1.7	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	1.5	1.7	PQL	ug/Kg	
SL-008-SA5DS-SS-0.0-0.5	AROCLOR 1254	J	1.6	1.7	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	3.1	3.3	PQL	ug/Kg	
SL-010-SA5DS-SS-0.0-0.5	AROCLOR 1260	J	1.2	1.7	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	3.1	3.3	PQL	ug/Kg	
SL-013-SA5DS-SS-0.0-0.5	AROCLOR 1254	J	1.2	1.7	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	1.9	3.4	PQL	ug/Kg	
SL-014-SA5DS-SS-0.0-0.5	AROCLOR 1254	J	0.92	1.7	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	0.92	1.7	PQL	ug/Kg	
	Aroclor 5460	J	2.4	3.3	PQL	ug/Kg	
SL-015-SA5DS-SS-0.0-0.5	Aroclor 5460	J	1.5	3.4	PQL	ug/Kg	J (all detects)
SL-016-SA5DS-SS-0.0-0.5	Aroclor 5460	J	2.9	3.5	PQL	ug/Kg	J (all detects)
SL-040-SA5DS-SS-0.0-0.5	AROCLOR 1254	J	0.85	1.7	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	1.5	1.7	PQL	ug/Kg	
	Aroclor 5460	J	2.9	3.3	PQL	ug/Kg	
SL-103-SA7-SB-18.0-19.0	AROCLOR 1254	J	0.49	1.9	PQL	ug/Kg	J (all detects)
SL-106-SA7-SB-4.0-5.0	AROCLOR 1248	J	1.5	1.8	PQL	ug/Kg	J (all detects)
	AROCLOR 1254	J	1.1	1.8	PQL	ug/Kg	
	AROCLOR 1260	J	1.1	1.8	PQL	ug/Kg	
SL-106-SA7-SB-9.0-10.0	AROCLOR 1254	J	0.45	1.8	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	0.71	1.8	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE257 | Laboratory: LL

EDD Filename: DE257_v1. | eQAPP Name: CDM_SSFL_110509

Method: 8151A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-014-SA5DS-SS-0.0-0.5	DICHLOROPROP	J	1.0	1.7	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-106-SA7-SB-15.5	2-BUTANONE (MEK)	J	2.9	8.3	PQL	ug/Kg	J (all detects)
	ETHYLBENZENE	J	0.08	4.2	PQL	ug/Kg	
	m,p-Xylene	J	0.32	4.2	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	0.72	4.2	PQL	ug/Kg	
	TOLUENE	J	0.42	4.2	PQL	ug/Kg	

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-02-SA5DS-QC-092811	BIS(2-ETHYLHEXYL)PHTHALATE	J	48	350	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-007-SA5DS-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	10	18	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.84	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.0	1.7	PQL	ug/Kg	
	PYRENE	J	1.0	1.7	PQL	ug/Kg	
SL-008-SA5DS-SS-0.0-0.5	BENZO(A)PYRENE	J	0.87	1.7	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.5	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	14	18	PQL	ug/Kg	
	Butylbenzylphthalate	J	11	18	PQL	ug/Kg	
	CHRYSENE	J	1.2	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.6	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.77	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.77	1.7	PQL	ug/Kg	
	PYRENE	J	1.3	1.7	PQL	ug/Kg	
SL-009-SA5DS-SS-0.0-0.5	BENZO(A)PYRENE	J	0.84	1.7	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.4	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.5	18	PQL	ug/Kg	
	CHRYSENE	J	1.2	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.96	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.1	1.7	PQL	ug/Kg	
	PYRENE	J	1.5	1.7	PQL	ug/Kg	
SL-010-SA5DS-SS-0.0-0.5	BENZO(A)PYRENE	J	0.89	1.7	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.5	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.3	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.84	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.90	1.7	PQL	ug/Kg	
	PYRENE	J	1.4	1.7	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE257 **Laboratory: LL**

EDD Filename: DE257_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-013-SA5DS-SS-0.0-0.5	BENZO(A)PYRENE	J	0.74	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	6.5	18	PQL	ug/Kg	
	CHRYSENE	J	0.81	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.1	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.73	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.75	1.7	PQL	ug/Kg	
	PYRENE	J	1.1	1.7	PQL	ug/Kg	
SL-014-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.68	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.1	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.4	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.80	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.0	1.7	PQL	ug/Kg	
	PYRENE	J	1.6	1.7	PQL	ug/Kg	
SL-015-SA5DS-SS-0.0-0.5	BENZO(A)PYRENE	J	0.88	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	15	18	PQL	ug/Kg	
	CHRYSENE	J	1.2	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.5	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.69	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.0	1.7	PQL	ug/Kg	
	PYRENE	J	1.5	1.7	PQL	ug/Kg	
SL-016-SA5DS-SS-0.0-0.5	BENZO(A)PYRENE	J	0.85	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	10	19	PQL	ug/Kg	
	CHRYSENE	J	1.2	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.4	1.7	PQL	ug/Kg	
	FLUORENE	J	0.81	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.75	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.1	1.7	PQL	ug/Kg	
	PYRENE	J	1.3	1.7	PQL	ug/Kg	
SL-017-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.1	1.7	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	0.68	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	15	18	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.0	1.7	PQL	ug/Kg	
	FLUORENE	J	1.3	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.67	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.95	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.4	1.7	PQL	ug/Kg	
SL-033-SA5DS-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	0.96	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.4	19	PQL	ug/Kg	
SL-034-SA5DS-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.0	1.7	PQL	ug/Kg	J (all detects)
SL-040-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.77	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.2	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	13	18	PQL	ug/Kg	
	Butylbenzylphthalate	J	8.8	18	PQL	ug/Kg	
	NAPHTHALENE	J	1.4	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.5	1.7	PQL	ug/Kg	
SL-103-SA7-SB-18.0-19.0	BENZO(B)FLUORANTHENE	J	1.1	1.8	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.69	1.8	PQL	ug/Kg	
SL-106-SA7-SB-16.5-17.5	BENZO(G,H,I)PERYLENE	J	1.2	1.8	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	6.8	19	PQL	ug/Kg	
	CHRYSENE	J	1.3	1.8	PQL	ug/Kg	
SL-106-SA7-SB-19.0-20.0	ANTHRACENE	J	1.3	1.8	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.4	1.8	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	15	19	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.3	1.8	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: DE257_v1.

eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-106-SA7-SB-4.0-5.0	BENZO(G,H,I)PERYLENE	J	0.70	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.1	1.7	PQL	ug/Kg	J (all detects)
	PYRENE	J	0.72	1.7	PQL	ug/Kg	
SL-106-SA7-SB-9.0-10.0	BENZO(B)FLUORANTHENE	J	0.82	1.8	PQL	ug/Kg	J (all detects)

Method: 8315A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-106-SA7-SB-19.0-20.0	FORMALDEHYDE	J	1200	1600	PQL	ug/Kg	J (all detects)

LDC #: 26864A4 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/4/12
SDG #: DE257 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: ~
2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	N	
III.	Calibration	N	
IV.	Blanks	SW/A	~~K, qual by 30B/60B~~ N
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N SW	Al, Ba, Ca, Fe, Mg, K, Ti, V, Zn >4X
VII.	Duplicate Sample Analysis	N A	Ag <5X
VIII.	Laboratory Control Samples (LCS)	N A	SRM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	SW	EB=19

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	SL-103-SA7-SB-18.0-19.0	11	SL-014-SA5DS-SS-0.0-0.5	21	SL-034-SA5DS-SS-0.0-0.5MSD	31	
2	SL-106-SA7-SB-4.0-5.0	12	SL-015-SA5DS-SS-0.0-0.5	22	SL-034-SA5DS-SS-0.0-0.5DUP	32	
3	SL-106-SA7-SB-9.0-10.0	13	SL-016-SA5DS-SS-0.0-0.5	23		33	
4	SL-106-SA7-SB-16.5-17.5	14	SL-017-SA5DS-SS-0.0-0.5	24		34	
5	SL-106-SA7-SB-19.0-20.0	15	SL-033-SA5DS-SS-0.0-0.5	25		35	
6	SL-007-SA5DS-SS-0.0-0.5	16	SL-034-SA5DS-SS-0.0-0.5	26		36	
7	SL-008-SA5DS-SS-0.0-0.5	17	SL-040-SA5DS-SS-0.0-0.5	27		37	
8	SL-009-SA5DS-SS-0.0-0.5	18	DUP-02-SA5DS-QC-092811	28		38	
9	SL-010-SA5DS-SS-0.0-0.5	19	EB-SA5DS-SS-092811	29		39	
10	SL-013-SA5DS-SS-0.0-0.5	20	SL-034-SA5DS-SS-0.0-0.5MS	30		40	

Notes:

LDC #: 26864A4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)
Soil preparation factor applied: 100X
Sample Concentration units, unless otherwise noted: ug/L
Associated Samples: All AQ
Reason: B

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	19									
P			2.7	13.5	10.5									
Sb			0.39	1.95										
Pb			0.061	0.305										
Hg			0.036	0.18	0.045									

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U". Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 26864A4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: [signature]
2nd Reviewer: [signature]

METHOD: Trace Metals (EPA SW846 6010B/6020/7000)

(Y) N N/A Were field blanks identified in this SDG?

(Y) N N/A Were target analytes detected in the field blanks?

Blank units: ug/L **Associated sample units:** mg/Kg

Sampling date: 9/28/11 Soil factor applied 100X, Hg:167X

Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: ~~All Soil~~ 6-18 Reason Code: F

Analyte	Blank ID	Sample Identification												
	19	Action Level	~~2~~	~~3~~	~~4~~	~~5~~	6	8	9	10	11	14		
B	2.5	1.25												
Cd	0.22	0.11	~~0.11~~											
Pb	2.6	1.3												
Hg	0.045	0.037575		~~0.0073~~	~~0.014~~	~~0.0073~~	0.012	0.010	0.013	0.0081	0.011	0.024		
Sr	10.5	5.25												

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: DE257
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6422539BKG Matrix Spike Lab Sample ID: 6422540MS Matrix Spike Duplicate Lab Sample ID: 6422541MSD
% Solids for Sample: 96.0
Batch Id(s): P27208B, P27226B, P27211C

Analyte	Mass	BKG Sample Result	C	MS Sample Result	C	MSD Sample Result	C	MS Spike Added	MSD Spike Added	Units	MS %R	Q	MSD %R	Q	RPD	Q	Control Limit %R	Control Limit RPD	M
Aluminum		31930.1196		36643.1450		37373.8215		200.3205	204.2484	MG/KG	2353		2665		2		75	20	P
Antimony	121	0.3921		1.1542		1.1454		1.2500	1.2376	MG/KG	61	N	61	N	1		75 - 125	20	MS
Arsenic	75	7.4010		10.4167		9.9134		2.0833	2.0627	MG/KG	145	N	122		5		75 - 125	20	MS
Barium	137	182.4876		151.3542		149.7009		10.4167	10.3135	MG/KG	-299		-318		1		75	20	MS
Beryllium	9	1.1559		2.1188		2.0710		0.8333	0.8251	MG/KG	116		111		2		75 - 125	20	MS
Boron		15.5456		215.1252		219.4210		200.3205	204.2484	MG/KG	100		100		2		84 - 115	20	P
Cadmium	111	0.3045		1.6579		1.6679		1.0417	1.0314	MG/KG	130	N	132	N	1		75 - 125	20	MS
Calcium		9213.1271		9328.0769		9594.2330		400.6410	408.4967	MG/KG	29		93		3		75	20	P
Chromium	52	39.9752		51.5000		54.3317		10.4167	10.3135	MG/KG	111		139	N	5		75 - 125	20	MS
Cobalt	59	13.9212		78.8542		80.6106		52.0833	51.5677	MG/KG	125		129	N	2		75 - 125	20	MS
Copper	63	21.5965		34.8750		34.7772		10.4167	10.3135	MG/KG	127	N	128	N	0		75 - 125	20	MS
Iron		37434.7669		37119.8317		39290.6924		100.1603	102.1242	MG/KG	-314		1817		6		75	20	P
Lead	208	12.4278		16.4083		16.7987		3.1250	3.0941	MG/KG	127		141		2		75 - 125		MS
Lithium		31.5584		131.1308		135.4126		100.1603	102.1242	MG/KG	99		102		3		82 - 114	20	P
Magnesium		8844.7174		9112.7113		9217.3621		200.3205	204.2484	MG/KG	134		182		1		75	20	P
Manganese		369.7556		411.6577		421.0590		50.0801	51.0621	MG/KG	84		100		2			20	P
Mercury		0.0074	U	0.1815		0.1742		0.1729	0.1643	MG/KG	105		106		4		65 - 135	20	CV
Molybdenum	98	0.5476		14.2854		14.1172		10.4167	10.3135	MG/KG	132	N	132	N	1		75 - 125	20	MS
Nickel	60	27.7847		42.3542		44.1007		10.4167	10.3135	MG/KG	140	N	158	N	4		75 - 125	20	MS
Phosphorus		510.6817		605.2073		630.6097		100.1603	102.1242	MG/KG	94		117		4			20	P
Potassium		4979.0058		6442.1945		6621.1152		1001.6026	1021.2418	MG/KG	146		161		3		75	20	P
Selenium	78	0.2719	B	2.6167		2.6753		2.0833	2.0627	MG/KG	113		117		2		75 - 125	20	MS
Silver	107	0.0485	B	13.4458		13.2653		10.4167	10.3135	MG/KG	129	N	128	N	1		75 - 125	20	MS
Sodium		100.2279	B	1076.7728		1088.8807		1001.6026	1021.2418	MG/KG	97		97		1		75 - 125	20	P
Strontium		40.2527		135.6460		138.6509		100.1603	102.1242	MG/KG	95		96		2		75 - 115	20	P
Thallium	203	0.4319		0.9708		0.9383		0.4167	0.4125	MG/KG	129	N	123		3		75 - 125	20	MS
Tin		2.9455	B	341.2260		350.2522		400.6410	408.4967	MG/KG	84		85		3		80 - 110	20	P
Titanium		1540.2042		1952.6222		2059.2218		100.1603	102.1242	MG/KG	412		508		5		75	20	P
Vanadium	51	78.9810		92.5625		97.9167		10.4167	10.3135	MG/KG	130		184		6			20	MS
Zinc	66	101.6708		115.6875		113.9233		10.4167	10.3135	MG/KG	135		119		2			20	MS
Zirconium		4.7844	B	93.7049		96.7647		100.1603	102.1242	MG/KG	89		90		3		81 - 110	20	P

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence

CONCENTRATION QUALIFIERS:
U= Below MDL, B= Below LOQ
FLAGS:
N = Matrix Spike OOS, * = Duplicate OOS

SAMPLE DELIVERY GROUP

DE269

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
13-Oct-2011	SL-006-SA3-SB-9.0-10.0	6438619	N	3050B	6010B	III
13-Oct-2011	SL-006-SA3-SB-9.0-10.0	6438619	N	3050B	6020	III
13-Oct-2011	SL-006-SA3-SB-9.0-10.0	6438619	N	3060A	7199	III
13-Oct-2011	SL-006-SA3-SB-9.0-10.0	6438619	N	3550B	8082	III
13-Oct-2011	SL-006-SA3-SB-9.0-10.0	6438619	N	3550B	8270C	III
13-Oct-2011	SL-006-SA3-SB-9.0-10.0	6438619	N	3550B	8270C SIM	III
13-Oct-2011	SL-006-SA3-SB-9.0-10.0	6438619	N	METHOD	300.0	III
13-Oct-2011	SL-006-SA3-SB-9.0-10.0	6438619	N	METHOD	314.0	III
13-Oct-2011	SL-006-SA3-SB-9.0-10.0	6438619	N	METHOD	7471A	III
13-Oct-2011	SL-006-SA3-SB-4.0-5.0	6438618	N	3050B	6010B	III
13-Oct-2011	SL-006-SA3-SB-4.0-5.0	6438618	N	3050B	6020	III
13-Oct-2011	SL-006-SA3-SB-4.0-5.0	6438618	N	3060A	7199	III
13-Oct-2011	SL-006-SA3-SB-4.0-5.0	6438618	N	3550B	8082	III
13-Oct-2011	SL-006-SA3-SB-4.0-5.0	6438618	N	3550B	8270C	III
13-Oct-2011	SL-006-SA3-SB-4.0-5.0	6438618	N	3550B	8270C SIM	III
13-Oct-2011	SL-006-SA3-SB-4.0-5.0	6438618	N	METHOD	300.0	III
13-Oct-2011	SL-006-SA3-SB-4.0-5.0	6438618	N	METHOD	314.0	III
13-Oct-2011	SL-006-SA3-SB-4.0-5.0	6438618	N	METHOD	7471A	III
13-Oct-2011	SL-006-SA3-SB-4.0-5.0DUP	P438618D271513B	DUP	METHOD	314.0	III
13-Oct-2011	SL-006-SA3-SB-4.0-5.0MSD	P438618M261405	MSD	3550B	8270C SIM	III
13-Oct-2011	SL-006-SA3-SB-4.0-5.0MS	P438618R261332	MS	3550B	8270C SIM	III
13-Oct-2011	SL-006-SA3-SB-4.0-5.0MS	P438618R271536B	MS	METHOD	314.0	III
14-Oct-2011	TB-101411	6438628	TB	3520C	1625C	III
14-Oct-2011	TB-101411	6438629	TB	3546	1625C	III
14-Oct-2011	SL-037-SA5DS-SB-9.0-10.0	6438623	N	3050B	6010B	III
14-Oct-2011	SL-037-SA5DS-SB-9.0-10.0	6438623	N	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Oct-2011	SL-037-SA5DS-SB-9.0-10.0	6438623	N	3060A	7199	III
14-Oct-2011	SL-037-SA5DS-SB-9.0-10.0	6438623	N	3550B	8082	III
14-Oct-2011	SL-037-SA5DS-SB-9.0-10.0	6438623	N	3550B	8270C	III
14-Oct-2011	SL-037-SA5DS-SB-9.0-10.0	6438623	N	3550B	8270C SIM	III
14-Oct-2011	SL-037-SA5DS-SB-9.0-10.0	6438623	N	METHOD	300.0	III
14-Oct-2011	SL-037-SA5DS-SB-9.0-10.0	6438623	N	METHOD	314.0	III
14-Oct-2011	SL-037-SA5DS-SB-9.0-10.0	6438623	N	METHOD	7471A	III
14-Oct-2011	SL-037-SA5DS-SB-4.0-5.0	6438622	N	3050B	6010B	III
14-Oct-2011	SL-037-SA5DS-SB-4.0-5.0	6438622	N	3050B	6020	III
14-Oct-2011	SL-037-SA5DS-SB-4.0-5.0	6438622	N	3060A	7199	III
14-Oct-2011	SL-037-SA5DS-SB-4.0-5.0	6438622	N	3550B	8082	III
14-Oct-2011	SL-037-SA5DS-SB-4.0-5.0	6438622	N	3550B	8270C	III
14-Oct-2011	SL-037-SA5DS-SB-4.0-5.0	6438622	N	3550B	8270C SIM	III
14-Oct-2011	SL-037-SA5DS-SB-4.0-5.0	6438622	N	METHOD	300.0	III
14-Oct-2011	SL-037-SA5DS-SB-4.0-5.0	6438622	N	METHOD	314.0	III
14-Oct-2011	SL-037-SA5DS-SB-4.0-5.0	6438622	N	METHOD	7471A	III
14-Oct-2011	SL-038-SA5DS-SB-9.0-10.0	6438625	N	3050B	6010B	III
14-Oct-2011	SL-038-SA5DS-SB-9.0-10.0	6438625	N	3050B	6020	III
14-Oct-2011	SL-038-SA5DS-SB-9.0-10.0	6438625	N	3060A	7199	III
14-Oct-2011	SL-038-SA5DS-SB-9.0-10.0	6438625	N	3550B	8082	III
14-Oct-2011	SL-038-SA5DS-SB-9.0-10.0	6438625	N	3550B	8270C	III
14-Oct-2011	SL-038-SA5DS-SB-9.0-10.0	6438625	N	3550B	8270C SIM	III
14-Oct-2011	SL-038-SA5DS-SB-9.0-10.0	6438625	N	METHOD	300.0	III
14-Oct-2011	SL-038-SA5DS-SB-9.0-10.0	6438625	N	METHOD	314.0	III
14-Oct-2011	SL-038-SA5DS-SB-9.0-10.0	6438625	N	METHOD	7471A	III
14-Oct-2011	SL-038-SA5DS-SB-4.0-5.0	6438624	N	3050B	6010B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Oct-2011	SL-038-SA5DS-SB-4.0-5.0	6438624	N	3050B	6020	III
14-Oct-2011	SL-038-SA5DS-SB-4.0-5.0	6438624	N	3060A	7199	III
14-Oct-2011	SL-038-SA5DS-SB-4.0-5.0	6438624	N	3550B	8082	III
14-Oct-2011	SL-038-SA5DS-SB-4.0-5.0	6438624	N	3550B	8270C	III
14-Oct-2011	SL-038-SA5DS-SB-4.0-5.0	6438624	N	3550B	8270C SIM	III
14-Oct-2011	SL-038-SA5DS-SB-4.0-5.0	6438624	N	METHOD	300.0	III
14-Oct-2011	SL-038-SA5DS-SB-4.0-5.0	6438624	N	METHOD	314.0	III
14-Oct-2011	SL-038-SA5DS-SB-4.0-5.0	6438624	N	METHOD	7471A	III
14-Oct-2011	SL-036-SA5DS-SB-9.0-10.0	6438621	N	3050B	6010B	III
14-Oct-2011	SL-036-SA5DS-SB-9.0-10.0	6438621	N	3050B	6020	III
14-Oct-2011	SL-036-SA5DS-SB-9.0-10.0	6438621	N	3060A	7199	III
14-Oct-2011	SL-036-SA5DS-SB-9.0-10.0	6438621	N	3550B	8082	III
14-Oct-2011	SL-036-SA5DS-SB-9.0-10.0	6438621	N	3550B	8270C	III
14-Oct-2011	SL-036-SA5DS-SB-9.0-10.0	6438621	N	3550B	8270C SIM	III
14-Oct-2011	SL-036-SA5DS-SB-9.0-10.0	6438621	N	METHOD	300.0	III
14-Oct-2011	SL-036-SA5DS-SB-9.0-10.0	6438621	N	METHOD	314.0	III
14-Oct-2011	SL-036-SA5DS-SB-9.0-10.0	6438621	N	METHOD	7471A	III
14-Oct-2011	SL-036-SA5DS-SB-4.0-5.0	6438620	N	3050B	6010B	III
14-Oct-2011	SL-036-SA5DS-SB-4.0-5.0	6438620	N	3050B	6020	III
14-Oct-2011	SL-036-SA5DS-SB-4.0-5.0	6438620	N	3060A	7199	III
14-Oct-2011	SL-036-SA5DS-SB-4.0-5.0	6438620	N	3550B	8082	III
14-Oct-2011	SL-036-SA5DS-SB-4.0-5.0	6438620	N	3550B	8270C	III
14-Oct-2011	SL-036-SA5DS-SB-4.0-5.0	6438620	N	3550B	8270C SIM	III
14-Oct-2011	SL-036-SA5DS-SB-4.0-5.0	6438620	N	METHOD	300.0	III
14-Oct-2011	SL-036-SA5DS-SB-4.0-5.0	6438620	N	METHOD	314.0	III
14-Oct-2011	SL-036-SA5DS-SB-4.0-5.0	6438620	N	METHOD	7471A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Oct-2011	EB-SA3-SB-101411	6438627	EB	3520C	1625C	III
14-Oct-2011	SL-164-SA7-SB-0.5-1.5	6438626	N	3050B	6010B	III
14-Oct-2011	SL-164-SA7-SB-0.5-1.5	6438626	N	3050B	6020	III
14-Oct-2011	SL-164-SA7-SB-0.5-1.5	6438626	N	3060A	7199	III
14-Oct-2011	SL-164-SA7-SB-0.5-1.5	6438626	N	3546	1625C	III
14-Oct-2011	SL-164-SA7-SB-0.5-1.5	6438626	N	3550B	8015B	III
14-Oct-2011	SL-164-SA7-SB-0.5-1.5	6438626	N	3550B	8015M	III
14-Oct-2011	SL-164-SA7-SB-0.5-1.5	6438626	N	3550B	8082	III
14-Oct-2011	SL-164-SA7-SB-0.5-1.5	6438626	N	3550B	8270C	III
14-Oct-2011	SL-164-SA7-SB-0.5-1.5	6438626	N	3550B	8270C SIM	III
14-Oct-2011	SL-164-SA7-SB-0.5-1.5	6438626	N	8330	8330A	III
14-Oct-2011	SL-164-SA7-SB-0.5-1.5	6438626	N	METHOD	300.0	III
14-Oct-2011	SL-164-SA7-SB-0.5-1.5	6438626	N	METHOD	314.0	III
14-Oct-2011	SL-164-SA7-SB-0.5-1.5	6438626	N	METHOD	7471A	III
14-Oct-2011	SL-164-SA7-SB-0.5-1.5	6438626	N	METHOD	8015B	III
14-Oct-2011	SL-164-SA7-SB-0.5-1.5	6438626	N	METHOD	8015M	III
14-Oct-2011	SL-164-SA7-SB-0.5-1.5	6438626	N	METHOD	8315A	III
14-Oct-2011	SL-164-SA7-SB-0.5-1.5	6438626	N	METHOD	9012B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE269 Laboratory: LL

EDD Filename: PrepDE269_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-006-SA3-SB-4.0-5.0 *Collected:* 10/13/2011 3:29:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2230		12.0	MDL	53.0	PQL	mg/Kg	J	Q
SODIUM	86.7	J	6.31	MDL	106	PQL	mg/Kg	J	Z

Sample ID: SL-006-SA3-SB-4.0-5.0 *Collected:* 10/13/2011 3:29:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	18300		2.79	MDL	21.4	PQL	mg/Kg	J	E
TIN	2.71	J	0.343	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	1.24	J	0.492	MDL	5.35	PQL	mg/Kg	J	Z

Sample ID: SL-006-SA3-SB-9.0-10.0 *Collected:* 10/13/2011 2:47:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1560		12.4	MDL	55.0	PQL	mg/Kg	J	Q

Sample ID: SL-006-SA3-SB-9.0-10.0 *Collected:* 10/13/2011 2:47:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	18700		2.90	MDL	22.2	PQL	mg/Kg	J	E
TIN	2.92	J	0.355	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	1.23	J	0.511	MDL	5.55	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 11:38:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	33700		5.81	MDL	44.5	PQL	mg/Kg	J	E

Sample ID: SL-036-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 11:38:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3350		12.7	MDL	56.2	PQL	mg/Kg	J	Q

Sample ID: SL-036-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 11:38:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.64	J	0.356	MDL	11.1	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE269 Laboratory: LL

EDD Filename: PrepDE269_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-036-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 11:34:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	32600		5.78	MDL	44.3	PQL	mg/Kg	J	E

Sample ID: SL-036-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 11:34:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3050		12.7	MDL	56.4	PQL	mg/Kg	J	Q

Sample ID: SL-036-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 11:34:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.81	J	0.354	MDL	11.1	PQL	mg/Kg	U	B

Sample ID: SL-037-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 9:47:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	35200		5.95	MDL	45.6	PQL	mg/Kg	J	E

Sample ID: SL-037-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 9:47:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3700		12.7	MDL	56.4	PQL	mg/Kg	J	Q

Sample ID: SL-037-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 9:47:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.87	J	0.365	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	4.87	J	0.524	MDL	5.70	PQL	mg/Kg	J	Z

Sample ID: SL-037-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 9:05:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	40800		5.99	MDL	45.9	PQL	mg/Kg	J	E

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE269 Laboratory: LL

EDD Filename: PrepDE269_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-037-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 9:05:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	4230		13.0	MDL	57.4	PQL	mg/Kg	J	Q

Sample ID: SL-037-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 9:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.17	J	0.367	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	4.87	J	0.528	MDL	5.74	PQL	mg/Kg	J	Z

Sample ID: SL-038-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 11:00:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3760		12.2	MDL	54.0	PQL	mg/Kg	J	Q

Sample ID: SL-038-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 11:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	27200		2.79	MDL	21.4	PQL	mg/Kg	J	E
TIN	2.50	J	0.342	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	4.26	J	0.492	MDL	5.35	PQL	mg/Kg	J	Z

Sample ID: SL-038-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 10:27:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2800		11.8	MDL	52.4	PQL	mg/Kg	J	Q

Sample ID: SL-038-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 10:27:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	27100		2.79	MDL	21.4	PQL	mg/Kg	J	E
TIN	2.73	J	0.342	MDL	10.7	PQL	mg/Kg	U	B

Sample ID: SL-164-SA7-SB-0.5-1.5 *Collected:* 10/14/2011 2:20:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1980		11.5	MDL	51.1	PQL	mg/Kg	J	Q
SODIUM	73.0	J	6.08	MDL	102	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE269 Laboratory: LL

EDD Filename: PrepDE269_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 6010B **Matrix:** SO

Sample ID: SL-164-SA7-SB-0.5-1.5 *Collected:* 10/14/2011 2:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	21200		2.61	MDL	20.0	PQL	mg/Kg	J	E
TIN	2.45	J	0.320	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	0.552	J	0.461	MDL	5.01	PQL	mg/Kg	J	Z

Method Category: METALS **Method:** 6020 **Matrix:** SO

Sample ID: SL-006-SA3-SB-4.0-5.0 *Collected:* 10/13/2011 3:29:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.131	J	0.0615	MDL	0.424	PQL	mg/Kg	J	Z

Sample ID: SL-006-SA3-SB-4.0-5.0 *Collected:* 10/13/2011 3:29:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	74.4		0.112	MDL	0.424	PQL	mg/Kg	J	A

Sample ID: SL-006-SA3-SB-4.0-5.0 *Collected:* 10/13/2011 3:29:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0784	U	0.0784	MDL	0.212	PQL	mg/Kg	UJ	Q
CADMIUM	0.0492	J	0.0466	MDL	0.106	PQL	mg/Kg	J	Z
CHROMIUM	12.6		0.127	MDL	0.424	PQL	mg/Kg	J	A
COBALT	5.35		0.0212	MDL	0.106	PQL	mg/Kg	J	A
COPPER	4.36		0.0848	MDL	0.424	PQL	mg/Kg	J	A
LEAD	5.91		0.0108	MDL	0.212	PQL	mg/Kg	J	Q, A
NICKEL	7.96		0.106	MDL	0.424	PQL	mg/Kg	J	A
SILVER	0.0498	J	0.0151	MDL	0.106	PQL	mg/Kg	J	Z
VANADIUM	29.0		0.0233	MDL	0.106	PQL	mg/Kg	J	Q, A

Sample ID: SL-006-SA3-SB-9.0-10.0 *Collected:* 10/13/2011 2:47:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.114	J	0.0650	MDL	0.449	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE269 Laboratory: LL

EDD Filename: PrepDE269_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-006-SA3-SB-9.0-10.0 *Collected:* 10/13/2011 2:47:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	74.3		0.119	MDL	0.449	PQL	mg/Kg	J	A

Sample ID: SL-006-SA3-SB-9.0-10.0 *Collected:* 10/13/2011 2:47:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.161	J	0.0830	MDL	0.224	PQL	mg/Kg	J	Z, Q
CHROMIUM	15.3		0.135	MDL	0.449	PQL	mg/Kg	J	A
COBALT	5.76		0.0224	MDL	0.112	PQL	mg/Kg	J	A
COPPER	6.28		0.0897	MDL	0.449	PQL	mg/Kg	J	A
LEAD	7.77		0.0114	MDL	0.224	PQL	mg/Kg	J	Q, A
NICKEL	7.43		0.112	MDL	0.449	PQL	mg/Kg	J	A
SILVER	0.0453	J	0.0159	MDL	0.112	PQL	mg/Kg	J	Z
VANADIUM	38.3		0.0247	MDL	0.112	PQL	mg/Kg	J	Q, A

Sample ID: SL-036-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 11:38:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.110	J	0.0651	MDL	0.449	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 11:38:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	112		0.119	MDL	0.449	PQL	mg/Kg	J	A

Sample ID: SL-036-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 11:38:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.276		0.0831	MDL	0.225	PQL	mg/Kg	J	Q
CADMIUM	0.0551	J	0.0494	MDL	0.112	PQL	mg/Kg	J	Z
CHROMIUM	28.3		0.135	MDL	0.449	PQL	mg/Kg	J	A
COBALT	13.0		0.0225	MDL	0.112	PQL	mg/Kg	J	A
COPPER	32.6		0.0898	MDL	0.449	PQL	mg/Kg	J	A
LEAD	17.3		0.0115	MDL	0.225	PQL	mg/Kg	J	Q, A
NICKEL	20.8		0.112	MDL	0.449	PQL	mg/Kg	J	A
VANADIUM	74.7		0.0247	MDL	0.112	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE269 Laboratory: LL

EDD Filename: PrepDE269_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-036-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 11:34:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.175	J	0.0654	MDL	0.451	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 11:34:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	150		0.120	MDL	0.451	PQL	mg/Kg	J	A

Sample ID: SL-036-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 11:34:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.201	J	0.0835	MDL	0.226	PQL	mg/Kg	J	Z, Q
CHROMIUM	36.9		0.135	MDL	0.451	PQL	mg/Kg	J	A
COBALT	13.4		0.0226	MDL	0.113	PQL	mg/Kg	J	A
COPPER	16.7		0.0903	MDL	0.451	PQL	mg/Kg	J	A
LEAD	10.6		0.0115	MDL	0.226	PQL	mg/Kg	J	Q, A
NICKEL	20.5		0.113	MDL	0.451	PQL	mg/Kg	J	A
SILVER	0.0257	J	0.0160	MDL	0.113	PQL	mg/Kg	J	Z
VANADIUM	77.1		0.0248	MDL	0.113	PQL	mg/Kg	J	Q, A

Sample ID: SL-037-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 9:47:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.142	J	0.0654	MDL	0.451	PQL	mg/Kg	J	Z

Sample ID: SL-037-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 9:47:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	179		0.120	MDL	0.451	PQL	mg/Kg	J	A

Sample ID: SL-037-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 9:47:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.308		0.0835	MDL	0.226	PQL	mg/Kg	J	Q
CHROMIUM	38.9		0.135	MDL	0.451	PQL	mg/Kg	J	A
COBALT	12.8		0.0226	MDL	0.113	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE269 Laboratory: LL

EDD Filename: PrepDE269_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-037-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 9:47:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	17.2		0.0903	MDL	0.451	PQL	mg/Kg	J	A
LEAD	11.3		0.0115	MDL	0.226	PQL	mg/Kg	J	Q, A
NICKEL	23.4		0.113	MDL	0.451	PQL	mg/Kg	J	A
SILVER	0.0479	J	0.0160	MDL	0.113	PQL	mg/Kg	J	Z
VANADIUM	77.7		0.0248	MDL	0.113	PQL	mg/Kg	J	Q, A

Sample ID: SL-037-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 9:05:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.172	J	0.0672	MDL	0.464	PQL	mg/Kg	J	Z

Sample ID: SL-037-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 9:05:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	199		0.123	MDL	0.464	PQL	mg/Kg	J	A

Sample ID: SL-037-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 9:05:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.378		0.0858	MDL	0.232	PQL	mg/Kg	J	Q
CADMIUM	0.0708	J	0.0510	MDL	0.116	PQL	mg/Kg	J	Z
CHROMIUM	47.6		0.139	MDL	0.464	PQL	mg/Kg	J	A
COBALT	17.6		0.0232	MDL	0.116	PQL	mg/Kg	J	A
COPPER	25.8		0.0927	MDL	0.464	PQL	mg/Kg	J	A
LEAD	13.9		0.0118	MDL	0.232	PQL	mg/Kg	J	Q, A
NICKEL	30.5		0.116	MDL	0.464	PQL	mg/Kg	J	A
SILVER	0.0232	J	0.0165	MDL	0.116	PQL	mg/Kg	J	Z
VANADIUM	96.5		0.0255	MDL	0.116	PQL	mg/Kg	J	Q, A

Sample ID: SL-038-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 11:00:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.199	J	0.0633	MDL	0.437	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE269 Laboratory: LL

EDD Filename: PrepDE269_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-038-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 11:00:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	116		0.116	MDL	0.437	PQL	mg/Kg	J	A

Sample ID: SL-038-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 11:00:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.188	J	0.0808	MDL	0.218	PQL	mg/Kg	J	Z, Q
CHROMIUM	33.6		0.131	MDL	0.437	PQL	mg/Kg	J	A
COBALT	10.6		0.0218	MDL	0.109	PQL	mg/Kg	J	A
COPPER	13.1		0.0873	MDL	0.437	PQL	mg/Kg	J	A
LEAD	8.01		0.0111	MDL	0.218	PQL	mg/Kg	J	Q, A
NICKEL	17.9		0.109	MDL	0.437	PQL	mg/Kg	J	A
SILVER	0.0220	J	0.0155	MDL	0.109	PQL	mg/Kg	J	Z
VANADIUM	65.0		0.0240	MDL	0.109	PQL	mg/Kg	J	Q, A

Sample ID: SL-038-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 10:27:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.122	J	0.0607	MDL	0.419	PQL	mg/Kg	J	Z

Sample ID: SL-038-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 10:27:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	117		0.111	MDL	0.419	PQL	mg/Kg	J	A

Sample ID: SL-038-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 10:27:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.221		0.0775	MDL	0.209	PQL	mg/Kg	J	Q
CHROMIUM	40.4		0.126	MDL	0.419	PQL	mg/Kg	J	A
COBALT	10.0		0.0209	MDL	0.105	PQL	mg/Kg	J	A
COPPER	10.6		0.0838	MDL	0.419	PQL	mg/Kg	J	A
LEAD	8.06		0.0107	MDL	0.209	PQL	mg/Kg	J	Q, A
NICKEL	18.8		0.105	MDL	0.419	PQL	mg/Kg	J	A
SILVER	0.0413	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z
VANADIUM	72.6		0.0230	MDL	0.105	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE269 Laboratory: LL

EDD Filename: PrepDE269_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-164-SA7-SB-0.5-1.5 *Collected:* 10/14/2011 2:20:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.201	J	0.0581	MDL	0.401	PQL	mg/Kg	J	Z

Sample ID: SL-164-SA7-SB-0.5-1.5 *Collected:* 10/14/2011 2:20:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	88.2		0.106	MDL	0.401	PQL	mg/Kg	J	A

Sample ID: SL-164-SA7-SB-0.5-1.5 *Collected:* 10/14/2011 2:20:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.117	J	0.0741	MDL	0.200	PQL	mg/Kg	J	Z, Q
CADMIUM	0.0866	J	0.0441	MDL	0.100	PQL	mg/Kg	J	Z
CHROMIUM	22.4		0.120	MDL	0.401	PQL	mg/Kg	J	A
COBALT	6.94		0.0200	MDL	0.100	PQL	mg/Kg	J	A
COPPER	10.1		0.0801	MDL	0.401	PQL	mg/Kg	J	A
LEAD	5.70		0.0102	MDL	0.200	PQL	mg/Kg	J	Q, A
NICKEL	16.0		0.100	MDL	0.401	PQL	mg/Kg	J	A
SILVER	0.0314	J	0.0142	MDL	0.100	PQL	mg/Kg	J	Z
VANADIUM	41.3		0.0220	MDL	0.100	PQL	mg/Kg	J	Q, A

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: SL-006-SA3-SB-4.0-5.0 *Collected:* 10/13/2011 3:29:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.77	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-037-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 9:47:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.31	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE269 Laboratory: LL

EDD Filename: PrepDE269_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS
Method: 7199 **Matrix:** SO

Sample ID: SL-038-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 11:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.24	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-038-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 10:27:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.23	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-164-SA7-SB-0.5-1.5 *Collected:* 10/14/2011 2:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.27	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Method Category: METALS
Method: 7471A **Matrix:** SO

Sample ID: SL-036-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 11:38:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0194	J	0.0079	MDL	0.112	PQL	mg/Kg	U	B

Sample ID: SL-164-SA7-SB-0.5-1.5 *Collected:* 10/14/2011 2:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0107	J	0.0070	MDL	0.0992	PQL	mg/Kg	U	B

Method Category: SVOA
Method: 1625C **Matrix:** AQ

Sample ID: EB-SA3-SB-101411 *Collected:* 10/14/2011 2:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	1.20		0.492	MDL	0.984	PQL	ng/L	U	B, T

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE269 Laboratory: LL

EDD Filename: PrepDE269_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA **Method:** 1625C **Matrix:** AQ

Sample ID: TB-101411 *Collected:* 10/14/2011 8:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	3.99		0.533	MDL	1.07	PQL	ng/L	U	B

Method Category: SVOA **Method:** 8082 **Matrix:** SO

Sample ID: SL-006-SA3-SB-4.0-5.0 *Collected:* 10/13/2011 3:29:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1221	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1232	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	L

Sample ID: SL-006-SA3-SB-9.0-10.0 *Collected:* 10/13/2011 2:47:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1221	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1232	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L

Sample ID: SL-036-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 11:34:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.38	U	0.38	MDL	2.0	PQL	ug/Kg	UJ	L, S
AROCLOR 1221	0.38	U	0.38	MDL	2.0	PQL	ug/Kg	UJ	S, L
AROCLOR 1232	0.38	U	0.38	MDL	2.0	PQL	ug/Kg	UJ	S, L
AROCLOR 1242	0.38	U	0.38	MDL	2.0	PQL	ug/Kg	UJ	S
AROCLOR 1248	0.38	U	0.38	MDL	2.0	PQL	ug/Kg	UJ	S
AROCLOR 1254	0.38	U	0.38	MDL	2.0	PQL	ug/Kg	UJ	S
AROCLOR 1260	0.45	U	0.45	MDL	2.0	PQL	ug/Kg	UJ	S
Aroclor 1262	0.38	U	0.38	MDL	2.0	PQL	ug/Kg	UJ	S
Aroclor 1268	0.38	U	0.38	MDL	2.0	PQL	ug/Kg	UJ	S
Aroclor 5432	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	S
Aroclor 5442	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	S
Aroclor 5460	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	S

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE269 Laboratory: LL

EDD Filename: PrepDE269_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA
Method: 8082 **Matrix:** SO

Sample ID: SL-164-SA7-SB-0.5-1.5 *Collected:* 10/14/2011 2:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.80	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z

Method Category: SVOA
Method: 8270C **Matrix:** SO

Sample ID: SL-037-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 9:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	27	J	19	MDL	390	PQL	ug/Kg	J	Z

Sample ID: SL-164-SA7-SB-0.5-1.5 *Collected:* 10/14/2011 2:20:00 *Analysis Type:* RES-ACID *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHENOL	17	J	17	MDL	170	PQL	ug/Kg	J	Z

Method Category: SVOA
Method: 8270C SIM **Matrix:** SO

Sample ID: SL-036-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 11:38:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	9.3	J	6.8	MDL	20	PQL	ug/Kg	J	Z

Sample ID: SL-038-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 11:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	7.1	J	6.4	MDL	19	PQL	ug/Kg	J	Z

Sample ID: SL-038-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 10:27:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	9.0	J	6.5	MDL	19	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE269 Laboratory: LL

EDD Filename: PrepDE269_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-164-SA7-SB-0.5-1.5 *Collected:* 10/14/2011 2:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.77	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.5	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.3	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.97	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.6	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8015B **Matrix:** SO

Sample ID: SL-164-SA7-SB-0.5-1.5 *Collected:* 10/14/2011 2:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHANOL	100	U	100	MDL	510	PQL	ug/Kg	UJ	S
Isopropanol	100	U	100	MDL	510	PQL	ug/Kg	UJ	S
METHANOL	100	U	100	MDL	510	PQL	ug/Kg	UJ	S

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE269 Laboratory: LL

EDD Filename: PrepDE269_v1 eQAPP Name: CDM_SSFL_110509

Reason Code Legend

Reason Code	*Description*
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
E	Matrix Spike Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Upper Estimation
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Upper Estimation
T	Trip Blank Contamination
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE269

Method Blank Outlier Report

Lab Reporting Batch ID: DE269 **Laboratory: LL**

EDD Filename: DE269_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1625C**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWA29B261239	11/1/2011 12:39:00 PM	N-NITROSODIMETHYLAMINE	1.33 ng/L	EB-SA3-SB-101411 TB-101411

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA3-SB-101411(RES)	N-NITROSODIMETHYLAMINE	1.20 ng/L	1.20U ng/L
TB-101411(RES)	N-NITROSODIMETHYLAMINE	3.99 ng/L	3.99U ng/L

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P29008BB220208	10/25/2011 2:08:00 AM	CALCIUM PHOSPHORUS STRONTIUM TIN	6.41 mg/Kg 1.73 mg/Kg 0.0510 mg/Kg 1.44 mg/Kg	SL-006-SA3-SB-4.0-5.0 SL-006-SA3-SB-9.0-10.0 SL-036-SA5DS-SB-4.0-5.0 SL-036-SA5DS-SB-9.0-10.0 SL-037-SA5DS-SB-4.0-5.0 SL-037-SA5DS-SB-9.0-10.0 SL-038-SA5DS-SB-4.0-5.0 SL-038-SA5DS-SB-9.0-10.0 SL-164-SA7-SB-0.5-1.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-006-SA3-SB-4.0-5.0(RES)	TIN	2.71 mg/Kg	2.71U mg/Kg
SL-006-SA3-SB-9.0-10.0(RES)	TIN	2.92 mg/Kg	2.92U mg/Kg
SL-036-SA5DS-SB-4.0-5.0(RES)	TIN	2.64 mg/Kg	2.64U mg/Kg
SL-036-SA5DS-SB-9.0-10.0(RES)	TIN	2.81 mg/Kg	2.81U mg/Kg
SL-037-SA5DS-SB-4.0-5.0(RES)	TIN	2.87 mg/Kg	2.87U mg/Kg
SL-037-SA5DS-SB-9.0-10.0(RES)	TIN	3.17 mg/Kg	3.17U mg/Kg
SL-038-SA5DS-SB-4.0-5.0(RES)	TIN	2.50 mg/Kg	2.50U mg/Kg
SL-038-SA5DS-SB-9.0-10.0(RES)	TIN	2.73 mg/Kg	2.73U mg/Kg
SL-164-SA7-SB-0.5-1.5(RES)	TIN	2.45 mg/Kg	2.45U mg/Kg

Trip Blank Outlier Report

Lab Reporting Batch ID: DE269 **Laboratory: LL**

EDD Filename: DE269_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1625C**
Matrix: **AQ**

Trip Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
TB-101411(RES)	10/14/2011 8:00:00 AM	N-NITROSODIMETHYLAMINE	3.99 ng/L	EB-SA3-SB-101411 SL-006-SA3-SB-4.0-5.0 SL-006-SA3-SB-9.0-10.0 SL-036-SA5DS-SB-4.0-5.0 SL-036-SA5DS-SB-9.0-10.0 SL-037-SA5DS-SB-4.0-5.0 SL-037-SA5DS-SB-9.0-10.0 SL-038-SA5DS-SB-4.0-5.0 SL-038-SA5DS-SB-9.0-10.0 SL-164-SA7-SB-0.5-1.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA3-SB-101411(RES)	N-NITROSODIMETHYLAMINE	1.20 ng/L	1.20U ng/L

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE269 **Laboratory: LL**

EDD Filename: DE269_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**
Matrix: **SO**

QC Sample ID (Associated Samples)	*Compound*	*MS %R*	*MSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
SL-006-SA3-SB-4.0-5.0MSD (SL-006-SA3-SB-4.0-5.0)	BENZO(G,H,I)PERYLENE	-	-	33.00-141.00	53 (30.00)	BENZO(G,H,I)PERYLENE	J (all detects)
	DIBENZO(A,H)ANTHRACENE	-	-	22.00-133.00	41 (30.00)	DIBENZO(A,H)ANTHRACENE	
	INDENO(1,2,3-CD)PYRENE	-	-	21.00-143.00	47 (30.00)	INDENO(1,2,3-CD)PYRENE	

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE269 **Laboratory: LL**

EDD Filename: DE269_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12915AQ240707A (SL-006-SA3-SB-4.0-5.0 SL -006-SA3-SB-9.0-10.0 SL -036-SA5DS -SB-9.0-10.0)	AROCLOR 1016	67	-	72.00-120.00	-	AROCLOR 1016, 1221, 1232	J (all detects) UJ (all non-detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P29026AQ220717A (SL-006-SA3-SB-4.0-5.0 SL -006-SA3-SB-9.0-10.0 SL -036-SA5DS -SB-4.0-5.0 SL -036-SA5DS -SB-9.0-10.0 SL -037-SA5DS -SB-4.0-5.0 SL -037-SA5DS -SB-9.0-10.0 SL -038-SA5DS -SB-4.0-5.0 SL -038-SA5DS -SB-9.0-10.0 SL -164-SA7-SB-0.5-1.5)	ANTIMONY	134	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC Limits

Surrogate Outlier Report

Lab Reporting Batch ID: DE269 **Laboratory: LL**

EDD Filename: DE269_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8015B**
Matrix: **SO**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-164-SA7-SB-0.5 -1.5	n-Triacontane-d62	198	19.00-152.00	All Target Analytes	J(all detects)
SL-164-SA7-SB-0.5 -1.5	ACETONE	40	42.00-138.00	All Target Analytes	J(all detects) UJ(all non-detects)

Method: **8082**
Matrix: **SO**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-036-SA5DS-SB-9.0-10.0	TETRACHLORO-M-XYLENE	52	53.00-139.00	All Target Analytes	J (all detects) UJ (all non-detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE269 | Laboratory: LL

EDD Filename: DE269_v1 | eQAPP Name: CDM_SSFL_110509

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-006-SA3-SB-4.0-5.0	SODIUM	J	86.7	106	PQL	mg/Kg	J (all detects)
	TIN	J	2.71	10.7	PQL	mg/Kg	
	Zirconium	J	1.24	5.35	PQL	mg/Kg	
SL-006-SA3-SB-9.0-10.0	TIN	J	2.92	11.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.23	5.55	PQL	mg/Kg	
SL-036-SA5DS-SB-4.0-5.0	TIN	J	2.64	11.1	PQL	mg/Kg	J (all detects)
SL-036-SA5DS-SB-9.0-10.0	TIN	J	2.81	11.1	PQL	mg/Kg	J (all detects)
SL-037-SA5DS-SB-4.0-5.0	TIN	J	2.87	11.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.87	5.70	PQL	mg/Kg	
SL-037-SA5DS-SB-9.0-10.0	TIN	J	3.17	11.5	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.87	5.74	PQL	mg/Kg	
SL-038-SA5DS-SB-4.0-5.0	TIN	J	2.50	10.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.26	5.35	PQL	mg/Kg	
SL-038-SA5DS-SB-9.0-10.0	TIN	J	2.73	10.7	PQL	mg/Kg	J (all detects)
SL-164-SA7-SB-0.5-1.5	SODIUM	J	73.0	102	PQL	mg/Kg	J (all detects)
	TIN	J	2.45	10.0	PQL	mg/Kg	
	Zirconium	J	0.552	5.01	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-006-SA3-SB-4.0-5.0	CADMIUM	J	0.0492	0.106	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.131	0.424	PQL	mg/Kg	
	SILVER	J	0.0498	0.106	PQL	mg/Kg	
SL-006-SA3-SB-9.0-10.0	ANTIMONY	J	0.161	0.224	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.114	0.449	PQL	mg/Kg	
	SILVER	J	0.0453	0.112	PQL	mg/Kg	
SL-036-SA5DS-SB-4.0-5.0	CADMIUM	J	0.0551	0.112	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.110	0.449	PQL	mg/Kg	
SL-036-SA5DS-SB-9.0-10.0	ANTIMONY	J	0.201	0.226	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.175	0.451	PQL	mg/Kg	
	SILVER	J	0.0257	0.113	PQL	mg/Kg	
SL-037-SA5DS-SB-4.0-5.0	SELENIUM	J	0.142	0.451	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0479	0.113	PQL	mg/Kg	
SL-037-SA5DS-SB-9.0-10.0	CADMIUM	J	0.0708	0.116	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.172	0.464	PQL	mg/Kg	
	SILVER	J	0.0232	0.116	PQL	mg/Kg	
SL-038-SA5DS-SB-4.0-5.0	ANTIMONY	J	0.188	0.218	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.199	0.437	PQL	mg/Kg	
	SILVER	J	0.0220	0.109	PQL	mg/Kg	
SL-038-SA5DS-SB-9.0-10.0	SELENIUM	J	0.122	0.419	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0413	0.105	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE269 | Laboratory: LL

EDD Filename: DE269_v1 | eQAPP Name: CDM_SSFL_110509

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-164-SA7-SB-0.5-1.5	ANTIMONY	J	0.117	0.200	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0866	0.100	PQL	mg/Kg	
	SELENIUM	J	0.201	0.401	PQL	mg/Kg	
	SILVER	J	0.0314	0.100	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-006-SA3-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.77	1.1	PQL	mg/Kg	J (all detects)
SL-037-SA5DS-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.31	1.2	PQL	mg/Kg	J (all detects)
SL-038-SA5DS-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.24	1.1	PQL	mg/Kg	J (all detects)
SL-038-SA5DS-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.23	1.1	PQL	mg/Kg	J (all detects)
SL-164-SA7-SB-0.5-1.5	HEXAVALENT CHROMIUM	J	0.27	1.0	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-036-SA5DS-SB-4.0-5.0	MERCURY	J	0.0194	0.112	PQL	mg/Kg	J (all detects)
SL-164-SA7-SB-0.5-1.5	MERCURY	J	0.0107	0.0992	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-164-SA7-SB-0.5-1.5	AROCLOR 1254	J	0.80	1.7	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-037-SA5DS-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	27	390	PQL	ug/Kg	J (all detects)
SL-164-SA7-SB-0.5-1.5	PHENOL	J	17	170	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE269 Laboratory: LL

EDD Filename: DE269_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-036-SA5DS-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.3	20	PQL	ug/Kg	J (all detects)
SL-038-SA5DS-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.1	19	PQL	ug/Kg	J (all detects)
SL-038-SA5DS-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.0	19	PQL	ug/Kg	J (all detects)
SL-164-SA7-SB-0.5-1.5	BENZO(A)PYRENE	J	0.77	1.7	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.5	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.3	1.7	PQL	ug/Kg	J (all detects)
	PHENANTHRENE	J	0.97	1.7	PQL	ug/Kg	
	PYRENE	J	1.6	1.7	PQL	ug/Kg	

LDC #: 26979E4 **VALIDATION COMPLETENESS WORKSHEET** Date: 1-2012
SDG #: DE269 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: AL
2nd Reviewer: L

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MSD (from SDG: DE268)
VII.	Duplicate Sample Analysis	N	DUP
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	from DE268
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-006-SA3-SB-4.0-5.0	11		21		31	
2	SL-006-SA3-SB-9.0-10.0	12		22		32	
3	SL-036-SA5DS-SB-4.0-5.0	13		23		33	
4	SL-036-SA5DS-SB-9.0-10.0	14		24		34	
5	SL-037-SA5DS-SB-4.0-5.0	15		25		35	
6	SL-037-SA5DS-SB-9.0-10.0	16		26		36	
7	SL-038-SA5DS-SB-4.0-5.0	17		27		37	
8	SL-038-SA5DS-SB-9.0-10.0	18		28		38	
9	SL-164-SA7-SB-0.5-1.5	19		29		39	
10		20		30		40	

Notes: _____

LDC #: 26979E4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Reason: B

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)
Sample Concentration units, unless otherwise noted: mg/Kg

Soil preparation factor applied: 100x x MS (2xdil), Hg; 167x
Associated Samples: All

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	3	9								
Tl			0.11	0.11										
Hg			0.021	0.04	0.019	0.011								

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".

Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

SAMPLE DELIVERY GROUP

DE270

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Oct-2011	TB-101711	6439932	TB	3520C	1625C	III
17-Oct-2011	TB-101711	6439933	TB	3546	1625C	III
17-Oct-2011	TB-101711	6439934	TB	5030B	8015M	III
17-Oct-2011	SL-034-SA5DS-SB-9.0-10.0	6439928	N	3050B	6010B	III
17-Oct-2011	SL-034-SA5DS-SB-9.0-10.0	6439928	N	3050B	6020	III
17-Oct-2011	SL-034-SA5DS-SB-9.0-10.0	6439928	N	3060A	7199	III
17-Oct-2011	SL-034-SA5DS-SB-9.0-10.0	6439928	N	3550B	8082	III
17-Oct-2011	SL-034-SA5DS-SB-9.0-10.0	6439928	N	3550B	8270C	III
17-Oct-2011	SL-034-SA5DS-SB-9.0-10.0	6439928	N	3550B	8270C SIM	III
17-Oct-2011	SL-034-SA5DS-SB-9.0-10.0	6439928	N	METHOD	300.0	III
17-Oct-2011	SL-034-SA5DS-SB-9.0-10.0	6439928	N	METHOD	314.0	III
17-Oct-2011	SL-034-SA5DS-SB-9.0-10.0	6439928	N	METHOD	7471A	III
17-Oct-2011	DUP03-SA5DS-QC-101711	6439930	FD	3050B	6010B	III
17-Oct-2011	DUP03-SA5DS-QC-101711	6439930	FD	3050B	6020	III
17-Oct-2011	DUP03-SA5DS-QC-101711	6439930	FD	3060A	7199	III
17-Oct-2011	DUP03-SA5DS-QC-101711	6439930	FD	3550B	8082	III
17-Oct-2011	DUP03-SA5DS-QC-101711	6439930	FD	3550B	8270C	III
17-Oct-2011	DUP03-SA5DS-QC-101711	6439930	FD	3550B	8270C SIM	III
17-Oct-2011	DUP03-SA5DS-QC-101711	6439930	FD	METHOD	300.0	III
17-Oct-2011	DUP03-SA5DS-QC-101711	6439930	FD	METHOD	314.0	III
17-Oct-2011	DUP03-SA5DS-QC-101711	6439930	FD	METHOD	7471A	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0	6439922	N	3050B	6010B	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0	6439922	N	3050B	6020	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0	6439922	N	3060A	7199	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0	6439922	N	3550B	8082	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0	6439922	N	3550B	8270C	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0	6439922	N	3550B	8270C SIM	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0	6439922	N	METHOD	300.0	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0	6439922	N	METHOD	314.0	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0	6439922	N	METHOD	7471A	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0MS	6439923	MS	3050B	6010B	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0MS	6439923	MS	3050B	6020	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0MS	6439923	MS	3060A	7199	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0MS	6439923	MS	3550B	8082	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0MS	6439923	MS	3550B	8270C	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0MS	6439923	MS	3550B	8270C SIM	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0MS	6439923	MS	METHOD	300.0	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0MS	6439923	MS	METHOD	314.0	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0MS	6439923	MS	METHOD	7471A	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0DU	6439925	DUP	3050B	6010B	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0DU	6439925	DUP	3050B	6020	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0DU	6439925	DUP	3060A	7199	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0DU	6439925	DUP	METHOD	300.0	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0DU	6439925	DUP	METHOD	314.0	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0DU	6439925	DUP	METHOD	7471A	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0RL	6439927	N	3550B	8082	III
17-Oct-2011	SL-033-SA5DS-SB-2.0-3.0	6439921	N	3050B	6010B	III
17-Oct-2011	SL-033-SA5DS-SB-2.0-3.0	6439921	N	3050B	6020	III
17-Oct-2011	SL-033-SA5DS-SB-2.0-3.0	6439921	N	3550B	8082	III
17-Oct-2011	SL-033-SA5DS-SB-2.0-3.0	6439921	N	3550B	8270C	III
17-Oct-2011	SL-033-SA5DS-SB-2.0-3.0	6439921	N	3550B	8270C SIM	III
17-Oct-2011	SL-033-SA5DS-SB-2.0-3.0	6439921	N	Gen Prep	7199	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Oct-2011	SL-033-SA5DS-SB-2.0-3.0	6439921	N	METHOD	300.0	III
17-Oct-2011	SL-033-SA5DS-SB-2.0-3.0	6439921	N	METHOD	314.0	III
17-Oct-2011	SL-033-SA5DS-SB-2.0-3.0	6439921	N	METHOD	7471A	III
17-Oct-2011	SL-139-SA7-SB-2.0-3.0	6439920	N	3050B	6010B	III
17-Oct-2011	SL-139-SA7-SB-2.0-3.0	6439920	N	3050B	6020	III
17-Oct-2011	SL-139-SA7-SB-2.0-3.0	6439920	N	3550B	8015B	III
17-Oct-2011	SL-139-SA7-SB-2.0-3.0	6439920	N	3550B	8015M	III
17-Oct-2011	SL-139-SA7-SB-2.0-3.0	6439920	N	3550B	8082	III
17-Oct-2011	SL-139-SA7-SB-2.0-3.0	6439920	N	3550B	8270C	III
17-Oct-2011	SL-139-SA7-SB-2.0-3.0	6439920	N	3550B	8270C SIM	III
17-Oct-2011	SL-139-SA7-SB-2.0-3.0	6439920	N	5035	8015M	III
17-Oct-2011	SL-139-SA7-SB-2.0-3.0	6439920	N	Gen Prep	7199	III
17-Oct-2011	SL-139-SA7-SB-2.0-3.0	6439920	N	METHOD	300.0	III
17-Oct-2011	SL-139-SA7-SB-2.0-3.0	6439920	N	METHOD	314.0	III
17-Oct-2011	SL-139-SA7-SB-2.0-3.0	6439920	N	METHOD	7471A	III
17-Oct-2011	SL-139-SA7-SB-2.0-3.0	6439920	N	METHOD	8015B	III
17-Oct-2011	SL-139-SA7-SB-2.0-3.0	6439920	N	METHOD	8015M	III
17-Oct-2011	SL-139-SA7-SB-2.0-3.0	6439920	N	METHOD	9012B	III
17-Oct-2011	SL-139-SA7-SB-2.0-3.0MSD	P439920M322230A	MSD	METHOD	8015B	III
17-Oct-2011	SL-139-SA7-SB-2.0-3.0MS	P439920R322214A	MS	METHOD	8015B	III
17-Oct-2011	EB-SA5DS-SB-101711	6439931	EB	3520C	1625C	III
17-Oct-2011	SL-039-SA5DS-SB-3.0-4.0	6439929	N	3050B	6010B	III
17-Oct-2011	SL-039-SA5DS-SB-3.0-4.0	6439929	N	3050B	6020	III
17-Oct-2011	SL-039-SA5DS-SB-3.0-4.0	6439929	N	3060A	7199	III
17-Oct-2011	SL-039-SA5DS-SB-3.0-4.0	6439929	N	3550B	8082	III
17-Oct-2011	SL-039-SA5DS-SB-3.0-4.0	6439929	N	3550B	8270C	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Oct-2011	SL-039-SA5DS-SB-3.0-4.0	6439929	N	3550B	8270C SIM	III
17-Oct-2011	SL-039-SA5DS-SB-3.0-4.0	6439929	N	METHOD	300.0	III
17-Oct-2011	SL-039-SA5DS-SB-3.0-4.0	6439929	N	METHOD	314.0	III
17-Oct-2011	SL-039-SA5DS-SB-3.0-4.0	6439929	N	METHOD	6850	III
17-Oct-2011	SL-039-SA5DS-SB-3.0-4.0	6439929	N	METHOD	7471A	III
17-Oct-2011	SL-039-SA5DS-SB-3.0-4.0MS	P439929R241907A	MS	METHOD	6850	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE270 Laboratory: LL

EDD Filename: DE270_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 Matrix: SO

Sample ID: DUP03-SA5DS-QC-101711 *Collected:* 10/17/2011 10:44:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.4		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-033-SA5DS-SB-2.0-3.0 *Collected:* 10/17/2011 11:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.5		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-034-SA5DS-SB-4.0-5.0 *Collected:* 10/17/2011 10:53:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.9		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-034-SA5DS-SB-9.0-10.0 *Collected:* 10/17/2011 9:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.9		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-039-SA5DS-SB-3.0-4.0 *Collected:* 10/17/2011 2:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.5		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-139-SA7-SB-2.0-3.0 *Collected:* 10/17/2011 12:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.0		0.83	MDL	1.0	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B Matrix: SO

Sample ID: DUP03-SA5DS-QC-101711 *Collected:* 10/17/2011 10:44:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.65	J	0.408	MDL	5.67	PQL	mg/Kg	J	Z
CALCIUM	14900		2.84	MDL	22.7	PQL	mg/Kg	J	E

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE270 **Laboratory: LL**

EDD Filename: DE270_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: DUP03-SA5DS-QC-101711 *Collected:* 10/17/2011 10:44:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	295		0.397	MDL	11.3	PQL	mg/Kg	J	Q
TIN	2.70	J	0.363	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	4.85	J	0.522	MDL	5.67	PQL	mg/Kg	J	Z

Sample ID: SL-033-SA5DS-SB-2.0-3.0 *Collected:* 10/17/2011 11:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.70	J	0.403	MDL	5.60	PQL	mg/Kg	J	Z
CALCIUM	19600		2.80	MDL	22.4	PQL	mg/Kg	J	E
PHOSPHORUS	347		0.392	MDL	11.2	PQL	mg/Kg	J	Q
TIN	2.82	J	0.358	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	5.18	J	0.515	MDL	5.60	PQL	mg/Kg	J	Z

Sample ID: SL-034-SA5DS-SB-4.0-5.0 *Collected:* 10/17/2011 10:53:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.91	J	0.410	MDL	5.69	PQL	mg/Kg	J	Z
CALCIUM	9770		2.85	MDL	22.8	PQL	mg/Kg	J	E
PHOSPHORUS	258		0.399	MDL	11.4	PQL	mg/Kg	J	Q
TIN	2.76	J	0.364	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	5.12	J	0.524	MDL	5.69	PQL	mg/Kg	J	Z

Sample ID: SL-034-SA5DS-SB-9.0-10.0 *Collected:* 10/17/2011 9:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.84	J	0.396	MDL	5.50	PQL	mg/Kg	J	Z
CALCIUM	8610		2.75	MDL	22.0	PQL	mg/Kg	J	E
PHOSPHORUS	646		0.385	MDL	11.0	PQL	mg/Kg	J	Q
TIN	2.59	J	0.352	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	4.89	J	0.506	MDL	5.50	PQL	mg/Kg	J	Z

Sample ID: SL-039-SA5DS-SB-3.0-4.0 *Collected:* 10/17/2011 2:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.03	J	0.379	MDL	5.26	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE270 **Laboratory: LL**

EDD Filename: DE270_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-039-SA5DS-SB-3.0-4.0 *Collected:* 10/17/2011 2:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	25000		2.63	MDL	21.0	PQL	mg/Kg	J	E
PHOSPHORUS	469		0.368	MDL	10.5	PQL	mg/Kg	J	Q
TIN	2.55	J	0.337	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	4.05	J	0.484	MDL	5.26	PQL	mg/Kg	J	Z

Sample ID: SL-139-SA7-SB-2.0-3.0 *Collected:* 10/17/2011 12:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	2770		2.55	MDL	20.4	PQL	mg/Kg	J	E
PHOSPHORUS	251		0.357	MDL	10.2	PQL	mg/Kg	J	Q
SODIUM	93.2	J	6.07	MDL	102	PQL	mg/Kg	J	Z
TIN	2.66	J	0.327	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	1.47	J	0.470	MDL	5.10	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: DUP03-SA5DS-QC-101711 *Collected:* 10/17/2011 10:44:00 *Analysis Type:* REA2 *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.163	U	0.163	MDL	1.12	PQL	mg/Kg	UJ	FD

Sample ID: DUP03-SA5DS-QC-101711 *Collected:* 10/17/2011 10:44:00 *Analysis Type:* REA3 *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.262	J	0.140	MDL	0.281	PQL	mg/Kg	J	Z

Sample ID: DUP03-SA5DS-QC-101711 *Collected:* 10/17/2011 10:44:00 *Analysis Type:* RES *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.208	U	0.208	MDL	0.562	PQL	mg/Kg	UJ	Q, FD
ARSENIC	6.43		0.225	MDL	1.12	PQL	mg/Kg	J	Q, E
CADMIUM	0.154	J	0.124	MDL	0.281	PQL	mg/Kg	J	Z
LEAD	9.38		0.0286	MDL	0.562	PQL	mg/Kg	J	Q
NICKEL	21.8		0.281	MDL	1.12	PQL	mg/Kg	J	Q, E

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE270 Laboratory: LL

EDD Filename: DE270_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: DUP03-SA5DS-QC-101711 *Collected:* 10/17/2011 10:44:00 *Analysis Type:* RES *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0399	U	0.0399	MDL	0.281	PQL	mg/Kg	UJ	FD
VANADIUM	81.3		0.0618	MDL	0.281	PQL	mg/Kg	J	E

Sample ID: SL-033-SA5DS-SB-2.0-3.0 *Collected:* 10/17/2011 11:58:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.257	J	0.0649	MDL	0.448	PQL	mg/Kg	J	Z

Sample ID: SL-033-SA5DS-SB-2.0-3.0 *Collected:* 10/17/2011 11:58:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.104	J	0.0828	MDL	0.224	PQL	mg/Kg	UJ	Q, B
ARSENIC	5.25		0.0895	MDL	0.448	PQL	mg/Kg	J	Q, E
LEAD	8.15		0.0114	MDL	0.224	PQL	mg/Kg	J	Q
NICKEL	19.3		0.112	MDL	0.448	PQL	mg/Kg	J	Q, E
SILVER	0.0183	J	0.0159	MDL	0.112	PQL	mg/Kg	J	Z
VANADIUM	68.4		0.0246	MDL	0.112	PQL	mg/Kg	J	E

Sample ID: SL-034-SA5DS-SB-4.0-5.0 *Collected:* 10/17/2011 10:53:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.220	J	0.0648	MDL	0.447	PQL	mg/Kg	J	Z, FD

Sample ID: SL-034-SA5DS-SB-4.0-5.0 *Collected:* 10/17/2011 10:53:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.126	J	0.0826	MDL	0.223	PQL	mg/Kg	UJ	Q, FD, B
ARSENIC	6.85		0.0893	MDL	0.447	PQL	mg/Kg	J	Q, E
LEAD	11.0		0.0114	MDL	0.223	PQL	mg/Kg	J	Q
NICKEL	26.2		0.112	MDL	0.447	PQL	mg/Kg	J	Q, E
SILVER	0.0230	J	0.0159	MDL	0.112	PQL	mg/Kg	J	Z, FD
VANADIUM	99.3		0.0246	MDL	0.112	PQL	mg/Kg	J	E

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE270 **Laboratory: LL**

EDD Filename: DE270_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-034-SA5DS-SB-9.0-10.0 *Collected:* 10/17/2011 9:58:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.165	J	0.0638	MDL	0.440	PQL	mg/Kg	J	Z

Sample ID: SL-034-SA5DS-SB-9.0-10.0 *Collected:* 10/17/2011 9:58:00 *Analysis Type:* REA3 *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.239	J	0.138	MDL	0.275	PQL	mg/Kg	J	Z

Sample ID: SL-034-SA5DS-SB-9.0-10.0 *Collected:* 10/17/2011 9:58:00 *Analysis Type:* RES *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.204	U	0.204	MDL	0.550	PQL	mg/Kg	UJ	Q
ARSENIC	7.79		0.220	MDL	1.10	PQL	mg/Kg	J	Q, E
CADMIUM	0.136	J	0.121	MDL	0.275	PQL	mg/Kg	J	Z
LEAD	12.6		0.0281	MDL	0.550	PQL	mg/Kg	J	Q
NICKEL	25.5		0.275	MDL	1.10	PQL	mg/Kg	J	Q, E
VANADIUM	87.2		0.0605	MDL	0.275	PQL	mg/Kg	J	E

Sample ID: SL-039-SA5DS-SB-3.0-4.0 *Collected:* 10/17/2011 2:35:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.294	J	0.0604	MDL	0.417	PQL	mg/Kg	J	Z

Sample ID: SL-039-SA5DS-SB-3.0-4.0 *Collected:* 10/17/2011 2:35:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.139	J	0.0771	MDL	0.208	PQL	mg/Kg	UJ	Q, B
ARSENIC	4.97		0.0834	MDL	0.417	PQL	mg/Kg	J	Q, E
LEAD	10.1		0.0106	MDL	0.208	PQL	mg/Kg	J	Q
NICKEL	24.3		0.104	MDL	0.417	PQL	mg/Kg	J	Q, E
SILVER	0.0229	J	0.0148	MDL	0.104	PQL	mg/Kg	J	Z
VANADIUM	78.6		0.0229	MDL	0.104	PQL	mg/Kg	J	E

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE270 **Laboratory: LL**

EDD Filename: DE270_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-139-SA7-SB-2.0-3.0 *Collected:* 10/17/2011 12:05:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.143	J	0.0592	MDL	0.408	PQL	mg/Kg	J	Z

Sample ID: SL-139-SA7-SB-2.0-3.0 *Collected:* 10/17/2011 12:05:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0755	U	0.0755	MDL	0.204	PQL	mg/Kg	UJ	Q
ARSENIC	4.96		0.0817	MDL	0.408	PQL	mg/Kg	J	Q, E
LEAD	7.19		0.0104	MDL	0.204	PQL	mg/Kg	J	Q
NICKEL	12.0		0.102	MDL	0.408	PQL	mg/Kg	J	Q, E
SILVER	0.0442	J	0.0145	MDL	0.102	PQL	mg/Kg	J	Z
VANADIUM	41.9		0.0225	MDL	0.102	PQL	mg/Kg	J	E

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-034-SA5DS-SB-9.0-10.0 *Collected:* 10/17/2011 9:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.25	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-139-SA7-SB-2.0-3.0 *Collected:* 10/17/2011 12:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.33	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-139-SA7-SB-2.0-3.0 *Collected:* 10/17/2011 12:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0139	J	0.0071	MDL	0.101	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE270 Laboratory: LL

EDD Filename: DE270_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA **Method:** 1625C **Matrix:** AQ

Sample ID: EB-SA5DS-SB-101711 *Collected:* 10/17/2011 2:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	3.54		0.530	MDL	1.06	PQL	ng/L	U	B

Method Category: SVOA **Method:** 8015M **Matrix:** SO

Sample ID: SL-139-SA7-SB-2.0-3.0 *Collected:* 10/17/2011 12:05:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.65	J	0.42	MDL	1.3	PQL	mg/Kg	J	Z
EFH (C8-C11)	0.44	J	0.42	MDL	1.3	PQL	mg/Kg	J	Z

Method Category: SVOA **Method:** 8082 **Matrix:** SO

Sample ID: SL-139-SA7-SB-2.0-3.0 *Collected:* 10/17/2011 12:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.64	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z

Method Category: SVOA **Method:** 8270C **Matrix:** SO

Sample ID: SL-034-SA5DS-SB-4.0-5.0 *Collected:* 10/17/2011 10:53:00 *Analysis Type:* RES-ACID *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	380	U	380	MDL	1100	PQL	ug/Kg	UJ	Q

Sample ID: SL-139-SA7-SB-2.0-3.0 *Collected:* 10/17/2011 12:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	25	J	17	MDL	170	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE270 **Laboratory: LL**

EDD Filename: DE270_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
B	Calibration Blank Contamination
B	Method Blank Contamination
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
FD	Field Duplicate Precision
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE270

Method Blank Outlier Report

Lab Reporting Batch ID: DE270 Laboratory: LL

EDD Filename: DE270_v1 eQAPP Name: CDM_SSFL_110509

Method: 1625C
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWA29B261354	11/1/2011 1:54:00 PM	N-NITROSODIMETHYLAMINE	0.718 ng/L	EB-SA5DS-SB-101711 TB-101711

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA5DS-SB-101711(RES)	N-NITROSODIMETHYLAMINE	3.54 ng/L	3.54U ng/L

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P29108EB220655	10/26/2011 6:55:00 AM	CALCIUM PHOSPHORUS STRONTIUM TIN	8.59 mg/Kg 1.21 mg/Kg 0.0330 mg/Kg 1.48 mg/Kg	DUP03-SA5DS-QC-101711 SL-033-SA5DS-SB-2.0-3.0 SL-034-SA5DS-SB-4.0-5.0 SL-034-SA5DS-SB-9.0-10.0 SL-039-SA5DS-SB-3.0-4.0 SL-139-SA7-SB-2.0-3.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP03-SA5DS-QC-101711(RES)	TIN	2.70 mg/Kg	2.70U mg/Kg
SL-033-SA5DS-SB-2.0-3.0(RES)	TIN	2.82 mg/Kg	2.82U mg/Kg
SL-034-SA5DS-SB-4.0-5.0(RES)	TIN	2.76 mg/Kg	2.76U mg/Kg
SL-034-SA5DS-SB-9.0-10.0(RES)	TIN	2.59 mg/Kg	2.59U mg/Kg
SL-039-SA5DS-SB-3.0-4.0(RES)	TIN	2.55 mg/Kg	2.55U mg/Kg
SL-139-SA7-SB-2.0-3.0(RES)	TIN	2.66 mg/Kg	2.66U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P29126BB220615A	10/20/2011 6:15:00 AM	LEAD VANADIUM	0.0154 mg/Kg 0.307 mg/Kg	DUP03-SA5DS-QC-101711 SL-033-SA5DS-SB-2.0-3.0 SL-034-SA5DS-SB-4.0-5.0 SL-034-SA5DS-SB-9.0-10.0 SL-039-SA5DS-SB-3.0-4.0 SL-139-SA7-SB-2.0-3.0
P29126BB220615D	10/20/2011 6:15:00 AM	BARIUM	0.112 mg/Kg	DUP03-SA5DS-QC-101711 SL-033-SA5DS-SB-2.0-3.0 SL-034-SA5DS-SB-4.0-5.0 SL-034-SA5DS-SB-9.0-10.0 SL-039-SA5DS-SB-3.0-4.0 SL-139-SA7-SB-2.0-3.0

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE270 | Laboratory: LL

EDD Filename: DE270_v1 | eQAPP Name: CDM_SSFL_110509

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-034-SA5DS-SB-4.0-5.0MS SL-034-SA5DS-SB-4.0-5.0MSD (DUP03-SA5DS-QC-101711 SL-033-SA5DS-SB-2.0-3.0 SL-034-SA5DS-SB-4.0-5.0 SL-034-SA5DS-SB-9.0-10.0 SL-039-SA5DS-SB-3.0-4.0 SL-139-SA7-SB-2.0-3.0)	VANADIUM ZINC	-13 -47	- 32	75.00-125.00 75.00-125.00	- -	VANADIUM ZINC	No Qual, >4x
SL-034-SA5DS-SB-4.0-5.0MS SL-034-SA5DS-SB-4.0-5.0MSD (DUP03-SA5DS-QC-101711 SL-033-SA5DS-SB-2.0-3.0 SL-034-SA5DS-SB-4.0-5.0 SL-034-SA5DS-SB-9.0-10.0 SL-039-SA5DS-SB-3.0-4.0 SL-139-SA7-SB-2.0-3.0)	ANTIMONY ARSENIC CHROMIUM LEAD NICKEL	40 64 48 48 69	41 - - - -	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - -	ANTIMONY ARSENIC CHROMIUM LEAD NICKEL	J(all detects) UJ(all non-detects) Cr, No Qual, >4x
SL-034-SA5DS-SB-4.0-5.0MS (DUP03-SA5DS-QC-101711 SL-033-SA5DS-SB-2.0-3.0 SL-034-SA5DS-SB-4.0-5.0 SL-034-SA5DS-SB-9.0-10.0 SL-039-SA5DS-SB-3.0-4.0 SL-139-SA7-SB-2.0-3.0)	BARIUM	-84	-	75.00-125.00	-	BARIUM	No Qual, >4x

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-034-SA5DS-SB-4.0-5.0MS SL-034-SA5DS-SB-4.0-5.0MSD (DUP03-SA5DS-QC-101711 SL-033-SA5DS-SB-2.0-3.0 SL-034-SA5DS-SB-4.0-5.0 SL-034-SA5DS-SB-9.0-10.0 SL-039-SA5DS-SB-3.0-4.0 SL-139-SA7-SB-2.0-3.0)	ALUMINUM IRON MAGNESIUM PHOSPHORUS	2292 181 - -	3042 299 126 156	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ALUMINUM IRON MAGNESIUM PHOSPHORUS	J(all detects) Al, Fe, Mg, No Qual, >4x
SL-034-SA5DS-SB-4.0-5.0MS SL-034-SA5DS-SB-4.0-5.0MSD (DUP03-SA5DS-QC-101711 SL-033-SA5DS-SB-2.0-3.0 SL-034-SA5DS-SB-4.0-5.0 SL-034-SA5DS-SB-9.0-10.0 SL-039-SA5DS-SB-3.0-4.0 SL-139-SA7-SB-2.0-3.0)	CALCIUM	792	-96	75.00-125.00	35 (20.00)	CALCIUM	J(all detects) UJ(all non-detects) No Qual %R, >4x
SL-034-SA5DS-SB-4.0-5.0MS SL-034-SA5DS-SB-4.0-5.0MSD (DUP03-SA5DS-QC-101711 SL-033-SA5DS-SB-2.0-3.0 SL-034-SA5DS-SB-4.0-5.0 SL-034-SA5DS-SB-9.0-10.0 SL-039-SA5DS-SB-3.0-4.0 SL-139-SA7-SB-2.0-3.0)	MANGANESE	59	43	75.00-125.00	-	MANGANESE	No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE270 Laboratory: LL

EDD Filename: DE270_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-034-SA5DS-SB-4.0-5.0MSD (SL-034-SA5DS-SB-4.0-5.0)	2-CHLORONAPHTHALENE	-	-	50.00-141.00	34 (30.00)	2-CHLORONAPHTHALENE	J(all detects)
	4,6-DINITRO-2-METHYLPHENOL	-	-	11.00-126.00	112 (30.00)	4,6-DINITRO-2-METHYLPHEN	
	BENZOIC ACID	-	-	10.00-173.00	75 (30.00)	BENZOIC ACID	
	PENTACHLOROPHENOL	-	-	28.00-127.00	32 (30.00)	PENTACHLOROPHENOL	
SL-034-SA5DS-SB-4.0-5.0MSD (SL-034-SA5DS-SB-4.0-5.0)	2,4-DINITROPHENOL	-	12	20.00-143.00	93 (30.00)	2,4-DINITROPHENOL	J(all detects) UJ(all non-detects)

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-034-SA5DS-SB-4.0-5.0MS (DUP03-SA5DS-QC-101711 SL-033-SA5DS-SB-2.0-3.0 SL-034-SA5DS-SB-4.0-5.0 SL-034-SA5DS-SB-9.0-10.0 SL-039-SA5DS-SB-3.0-4.0 SL-139-SA7-SB-2.0-3.0)	FLUORIDE	62	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-034-SA5DS-SB-4.0-5.0MS SL-034-SA5DS-SB-4.0-5.0MSD (DUP03-SA5DS-QC-101711 SL-033-SA5DS-SB-2.0-3.0 SL-034-SA5DS-SB-4.0-5.0 SL-034-SA5DS-SB-9.0-10.0 SL-039-SA5DS-SB-3.0-4.0 SL-139-SA7-SB-2.0-3.0)	TITANIUM	367	432	75.00-125.00	-	TITANIUM	No Qual, >4x

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE270 **Laboratory: LL**

EDD Filename: DE270_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-034-SA5DS-SB-4.0-5.0DUP	ARSENIC	22	20.00	
(DUP03-SA5DS-QC-101711	MOLYBDENUM	48	20.00	J (all detects)
SL-033-SA5DS-SB-2.0-3.0	NICKEL	23	20.00	UJ (all non-detects)
SL-034-SA5DS-SB-4.0-5.0	SELENIUM	42	20.00	
SL-034-SA5DS-SB-9.0-10.0	SILVER	32	20.00	Mo, Se, Ag, Tl,
SL-039-SA5DS-SB-3.0-4.0	THALLIUM	21	20.00	No Qual,
SL-139-SA7-SB-2.0-3.0)	VANADIUM	25	20.00	OK by Difference

Field Duplicate RPD Report

Lab Reporting Batch ID: DE270 | Laboratory: LL

EDD Filename: DE270_v1 | eQAPP Name: CDM_SSFL_110509

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SB-4.0-5.0	DUP03-SA5DS-QC-101711			
MOISTURE	12.2	12.7	4		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SB-4.0-5.0	DUP03-SA5DS-QC-101711			
FLUORIDE	4.9	5.4	10	50.00	No Qualifiers Applied

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SB-4.0-5.0	DUP03-SA5DS-QC-101711			
ALUMINUM	34200	34700	1	50.00	No Qualifiers Applied
BORON	4.91	4.65	5	50.00	
CALCIUM	9770	14900	42	50.00	
IRON	36000	36000	0	50.00	
LITHIUM	31.2	31.7	2	50.00	
MAGNESIUM	8730	8640	1	50.00	
MANGANESE	367	327	12	50.00	
PHOSPHORUS	258	295	13	50.00	
POTASSIUM	4010	3840	4	50.00	
SODIUM	132	135	2	50.00	
STRONTIUM	47.1	49.0	4	50.00	
TIN	2.76	2.70	2	50.00	
TITANIUM	1820	1820	0	50.00	
Zirconium	5.12	4.85	5	50.00	

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SB-4.0-5.0	DUP03-SA5DS-QC-101711			
ARSENIC	6.85	6.43	6	50.00	No Qualifiers Applied
BARIUM	162	133	20	50.00	
BERYLLIUM	0.879	0.852	3	50.00	
CADMIUM	0.162	0.154	5	50.00	
CHROMIUM	48.2	40.0	19	50.00	
COBALT	15.5	12.7	20	50.00	
COPPER	21.3	18.3	15	50.00	
LEAD	11.0	9.38	16	50.00	
MOLYBDENUM	0.326	0.262	22	50.00	
NICKEL	26.2	21.8	18	50.00	
THALLIUM	0.441	0.290	41	50.00	
VANADIUM	99.3	81.3	20	50.00	
ZINC	91.9	77.6	17	50.00	
ANTIMONY	0.126	0.562 U	200	50.00	J(all detects) UJ(all non-detects)
SELENIUM	0.220	1.12 U	200	50.00	
SILVER	0.0230	0.281 U	200	50.00	

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE270 **Laboratory: LL**

EDD Filename: DE270_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 9045M
Matrix: SO

Analyte	*Concentration (pH unit)*		*Sample RPD*	*eQAPP RPD*	*Flag*
	SL-034-SA5DS-SB-4.0-5.0	DUP03-SA5DS-QC-101711			
PH	8.26	8.50	3	50.00	No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE270 **Laboratory:** LL

EDD Filename: DE270_v1 **eQAPP Name:** CDM_SSFL_110509

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP03-SA5DS-QC-101711	BORON	J	4.65	5.67	PQL	mg/Kg	J (all detects)
	TIN	J	2.70	11.3	PQL	mg/Kg	
	Zirconium	J	4.85	5.67	PQL	mg/Kg	
SL-033-SA5DS-SB-2.0-3.0	BORON	J	3.70	5.60	PQL	mg/Kg	J (all detects)
	TIN	J	2.82	11.2	PQL	mg/Kg	
	Zirconium	J	5.18	5.60	PQL	mg/Kg	
SL-034-SA5DS-SB-4.0-5.0	BORON	J	4.91	5.69	PQL	mg/Kg	J (all detects)
	TIN	J	2.76	11.4	PQL	mg/Kg	
	Zirconium	J	5.12	5.69	PQL	mg/Kg	
SL-034-SA5DS-SB-9.0-10.0	BORON	J	3.84	5.50	PQL	mg/Kg	J (all detects)
	TIN	J	2.59	11.0	PQL	mg/Kg	
	Zirconium	J	4.89	5.50	PQL	mg/Kg	
SL-039-SA5DS-SB-3.0-4.0	BORON	J	4.03	5.26	PQL	mg/Kg	J (all detects)
	TIN	J	2.55	10.5	PQL	mg/Kg	
	Zirconium	J	4.05	5.26	PQL	mg/Kg	
SL-139-SA7-SB-2.0-3.0	SODIUM	J	93.2	102	PQL	mg/Kg	J (all detects)
	TIN	J	2.66	10.2	PQL	mg/Kg	
	Zirconium	J	1.47	5.10	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP03-SA5DS-QC-101711	CADMIUM	J	0.154	0.281	PQL	mg/Kg	J (all detects)
	MOLYBDENUM	J	0.262	0.281	PQL	mg/Kg	
SL-033-SA5DS-SB-2.0-3.0	ANTIMONY	J	0.104	0.224	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.257	0.448	PQL	mg/Kg	
	SILVER	J	0.0183	0.112	PQL	mg/Kg	
SL-034-SA5DS-SB-4.0-5.0	ANTIMONY	J	0.126	0.223	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.220	0.447	PQL	mg/Kg	
	SILVER	J	0.0230	0.112	PQL	mg/Kg	
SL-034-SA5DS-SB-9.0-10.0	CADMIUM	J	0.136	0.275	PQL	mg/Kg	J (all detects)
	MOLYBDENUM	J	0.239	0.275	PQL	mg/Kg	
	SELENIUM	J	0.165	0.440	PQL	mg/Kg	
SL-039-SA5DS-SB-3.0-4.0	ANTIMONY	J	0.139	0.208	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.294	0.417	PQL	mg/Kg	
	SILVER	J	0.0229	0.104	PQL	mg/Kg	
SL-139-SA7-SB-2.0-3.0	SELENIUM	J	0.143	0.408	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0442	0.102	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-034-SA5DS-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.25	1.2	PQL	mg/Kg	J (all detects)
SL-139-SA7-SB-2.0-3.0	HEXAVALENT CHROMIUM	J	0.33	1.1	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE270 | Laboratory: LL

EDD Filename: DE270_v1 | eQAPP Name: CDM_SSFL_110509

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-139-SA7-SB-2.0-3.0	MERCURY	J	0.0139	0.101	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-139-SA7-SB-2.0-3.0	EFH (C15-C20) EFH (C8-C11)	J J	0.65 0.44	1.3 1.3	PQL PQL	mg/Kg mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-139-SA7-SB-2.0-3.0	AROCLOR 1260	J	0.64	1.8	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-139-SA7-SB-2.0-3.0	2-CHLORONAPHTHALENE	J	25	170	PQL	ug/Kg	J (all detects)

LDC #: 26979F4 **VALIDATION COMPLETENESS WORKSHEET** Date: 1-20-12

SDG #: DE270 ADR Page: 1 of 1

Laboratory: Lancaster Laboratories Reviewer: CR

2nd Reviewer: L

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (AT, Ba, Ca, Cr, Fe, Mg, Mn, Ti, V, Zn >4X) >RPDat
VII.	Duplicate Sample Analysis	N	Dup (Mo, Se, Ag, Tl <5xRL-noqual)
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-139-SA7-SB-2.0-3.0	11		21		31	
2	SL-033-SA5DS-SB-2.0-3.0	12		22		32	
3	SL-034-SA5DS-SB-4.0-5.0	13		23		33	
4	SL-034-SA5DS-SB-9.0-10.0	14		24		34	
5	SL-039-SA5DS-SB-3.0-4.0	15		25		35	
6	DUP03-SA5DS-QC-101711	16		26		36	
7	SL-034-SA5DS-SB-4.0-5.0MS	17		27		37	
8	SL-034-SA5DS-SB-4.0-5.0MSD	18		28		38	
9	SL-034-SA5DS-SB-4.0-5.0DUP	19		29		39	
10		20		30		40	

Notes:

LDC #: 26979F4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES Reason: B

Page: 1 of 1
Reviewer: CR
2nd Reviewer:

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)
Soil preparation factor applied: 100x x MS (2xdil), Hg: 167x
Sample Concentration units, unless otherwise noted: mg/Kg
Associated Samples: All

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	2	3	5							
Sb			0.37	0.37	0.10	0.13	0.14							

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

SAMPLE DELIVERY GROUP

DE271

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Oct-2011	TB-101811	6441969	TB	3520C	1625C	III
18-Oct-2011	TB-101811	6441970	TB	3546	1625C	III
18-Oct-2011	TB-101811	6441971	TB	5030B	8015M	III
18-Oct-2011	SL-013-SA5DS-SB-4.0-5.0	6441963	N	3050B	6010B	III
18-Oct-2011	SL-013-SA5DS-SB-4.0-5.0	6441963	N	3050B	6020	III
18-Oct-2011	SL-013-SA5DS-SB-4.0-5.0	6441963	N	3060A	7199	III
18-Oct-2011	SL-013-SA5DS-SB-4.0-5.0	6441963	N	3550B	8082	III
18-Oct-2011	SL-013-SA5DS-SB-4.0-5.0	6441963	N	3550B	8270C	III
18-Oct-2011	SL-013-SA5DS-SB-4.0-5.0	6441963	N	3550B	8270C SIM	III
18-Oct-2011	SL-013-SA5DS-SB-4.0-5.0	6441963	N	METHOD	300.0	III
18-Oct-2011	SL-013-SA5DS-SB-4.0-5.0	6441963	N	METHOD	314.0	III
18-Oct-2011	SL-013-SA5DS-SB-4.0-5.0	6441963	N	METHOD	7471A	III
18-Oct-2011	SL-013-SA5DS-SB-4.0-5.0DU	P441963D220449	DUP	3050B	6010B	III
18-Oct-2011	SL-013-SA5DS-SB-4.0-5.0DU	P441963D270951A	DUP	METHOD	300.0	III
18-Oct-2011	SL-013-SA5DS-SB-4.0-5.0DU	P441963D271430A	DUP	3060A	7199	III
18-Oct-2011	SL-013-SA5DS-SB-4.0-5.0DU	P441963D271540B	DUP	METHOD	314.0	III
18-Oct-2011	SL-013-SA5DS-SB-4.0-5.0MS	P441963R220452	MS	3050B	6010B	III
18-Oct-2011	SL-013-SA5DS-SB-4.0-5.0MS	P441963R260046	MS	3550B	8270C	III
18-Oct-2011	SL-013-SA5DS-SB-4.0-5.0MS	P441963R271006A	MS	METHOD	300.0	III
18-Oct-2011	SL-013-SA5DS-SB-4.0-5.0MS	P441963R271343A	MS	3060A	7199	III
18-Oct-2011	SL-013-SA5DS-SB-4.0-5.0MS	P441963R271626B	MS	METHOD	314.0	III
18-Oct-2011	SL-140-SA7-SB-3.0-4.0	6441967	N	3050B	6010B	III
18-Oct-2011	SL-140-SA7-SB-3.0-4.0	6441967	N	3050B	6020	III
18-Oct-2011	SL-140-SA7-SB-3.0-4.0	6441967	N	3060A	7199	III
18-Oct-2011	SL-140-SA7-SB-3.0-4.0	6441967	N	3550B	8015B	III
18-Oct-2011	SL-140-SA7-SB-3.0-4.0	6441967	N	3550B	8015M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Oct-2011	SL-140-SA7-SB-3.0-4.0	6441967	N	3550B	8082	III
18-Oct-2011	SL-140-SA7-SB-3.0-4.0	6441967	N	3550B	8270C	III
18-Oct-2011	SL-140-SA7-SB-3.0-4.0	6441967	N	3550B	8270C SIM	III
18-Oct-2011	SL-140-SA7-SB-3.0-4.0	6441967	N	5035	8015M	III
18-Oct-2011	SL-140-SA7-SB-3.0-4.0	6441967	N	METHOD	300.0	III
18-Oct-2011	SL-140-SA7-SB-3.0-4.0	6441967	N	METHOD	314.0	III
18-Oct-2011	SL-140-SA7-SB-3.0-4.0	6441967	N	METHOD	7471A	III
18-Oct-2011	SL-140-SA7-SB-3.0-4.0	6441967	N	METHOD	8015B	III
18-Oct-2011	SL-140-SA7-SB-3.0-4.0	6441967	N	METHOD	8015M	III
18-Oct-2011	SL-140-SA7-SB-3.0-4.0	6441967	N	METHOD	9012B	III
18-Oct-2011	SL-140-SA7-SB-3.0-4.0DUP	P441967D221747	DUP	METHOD	7471A	III
18-Oct-2011	SL-140-SA7-SB-3.0-4.0MSD	P441967M221750	MSD	METHOD	7471A	III
18-Oct-2011	SL-140-SA7-SB-3.0-4.0MS	P441967R221749	MS	METHOD	7471A	III
18-Oct-2011	SL-015-SA5DS-SB-3.5-4.5	6441964	N	3050B	6010B	III
18-Oct-2011	SL-015-SA5DS-SB-3.5-4.5	6441964	N	3050B	6020	III
18-Oct-2011	SL-015-SA5DS-SB-3.5-4.5	6441964	N	3060A	7199	III
18-Oct-2011	SL-015-SA5DS-SB-3.5-4.5	6441964	N	3550B	8082	III
18-Oct-2011	SL-015-SA5DS-SB-3.5-4.5	6441964	N	3550B	8270C	III
18-Oct-2011	SL-015-SA5DS-SB-3.5-4.5	6441964	N	3550B	8270C SIM	III
18-Oct-2011	SL-015-SA5DS-SB-3.5-4.5	6441964	N	METHOD	300.0	III
18-Oct-2011	SL-015-SA5DS-SB-3.5-4.5	6441964	N	METHOD	314.0	III
18-Oct-2011	SL-015-SA5DS-SB-3.5-4.5	6441964	N	METHOD	7471A	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0	6441965	N	3050B	6010B	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0	6441965	N	3050B	6020	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0	6441965	N	3060A	7199	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0	6441965	N	3550B	8015B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Oct-2011	SL-020-SA7-SB-4.0-5.0	6441965	N	3550B	8015M	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0	6441965	N	3550B	8082	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0	6441965	N	3550B	8270C	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0	6441965	N	3550B	8270C SIM	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0	6441965	N	5035	8015M	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0	6441965	N	METHOD	300.0	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0	6441965	N	METHOD	314.0	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0	6441965	N	METHOD	7471A	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0	6441965	N	METHOD	8015B	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0	6441965	N	METHOD	8015M	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0	6441965	N	METHOD	9012B	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0DUP	P441965D221410A	DUP	3050B	6020	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0DUP	P441965D221410B	DUP	3050B	6020	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0DUP	P441965D221410C	DUP	3050B	6020	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0DUP	P441965D221410D	DUP	3050B	6020	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0MSD	P441965M221416A	MSD	3050B	6020	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0MSD	P441965M221416B	MSD	3050B	6020	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0MSD	P441965M221416C	MSD	3050B	6020	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0MSD	P441965M221416D	MSD	3050B	6020	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0MS	P441965R221413A	MS	3050B	6020	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0MS	P441965R221413B	MS	3050B	6020	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0MS	P441965R221413C	MS	3050B	6020	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0MS	P441965R221413D	MS	3050B	6020	III
18-Oct-2011	EB-SA7-SB-101811	6441968	EB	3520C	1625C	III
18-Oct-2011	EB-SA5DS-SB-101811	6441972	EB	3005A	6010B	III
18-Oct-2011	EB-SA5DS-SB-101811	6441972	EB	3020A	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Oct-2011	EB-SA5DS-SB-101811	6441972	EB	3510C	8015B	III
18-Oct-2011	EB-SA5DS-SB-101811	6441972	EB	3510C	8015M	III
18-Oct-2011	EB-SA5DS-SB-101811	6441972	EB	3510C	8082	III
18-Oct-2011	EB-SA5DS-SB-101811	6441972	EB	3510C	8270C	III
18-Oct-2011	EB-SA5DS-SB-101811	6441972	EB	3510C	8270C SIM	III
18-Oct-2011	EB-SA5DS-SB-101811	6441972	EB	3520C	1625C	III
18-Oct-2011	EB-SA5DS-SB-101811	6441972	EB	5030B	8015M	III
18-Oct-2011	EB-SA5DS-SB-101811	6441972	EB	8330	8330A	III
18-Oct-2011	EB-SA5DS-SB-101811	6441972	EB	Gen Prep	300.0	III
18-Oct-2011	EB-SA5DS-SB-101811	6441972	EB	Gen Prep	314.0	III
18-Oct-2011	EB-SA5DS-SB-101811	6441972	EB	Gen Prep	7199	III
18-Oct-2011	EB-SA5DS-SB-101811	6441972	EB	Gen Prep	8015B	III
18-Oct-2011	EB-SA5DS-SB-101811	6441972	EB	Gen Prep	8015M	III
18-Oct-2011	EB-SA5DS-SB-101811	6441972	EB	METHOD	7470A	III
18-Oct-2011	EB-SA5DS-SB-101811	6441972	EB	METHOD	8315A	III
18-Oct-2011	EB-SA5DS-SB-101811	6441972	EB	METHOD	9012B	III
18-Oct-2011	SL-020-SA7-SB-9.0-10.0	6441966	N	3050B	6010B	III
18-Oct-2011	SL-020-SA7-SB-9.0-10.0	6441966	N	3050B	6020	III
18-Oct-2011	SL-020-SA7-SB-9.0-10.0	6441966	N	3060A	7199	III
18-Oct-2011	SL-020-SA7-SB-9.0-10.0	6441966	N	3550B	8015B	III
18-Oct-2011	SL-020-SA7-SB-9.0-10.0	6441966	N	3550B	8015M	III
18-Oct-2011	SL-020-SA7-SB-9.0-10.0	6441966	N	3550B	8082	III
18-Oct-2011	SL-020-SA7-SB-9.0-10.0	6441966	N	3550B	8270C	III
18-Oct-2011	SL-020-SA7-SB-9.0-10.0	6441966	N	3550B	8270C SIM	III
18-Oct-2011	SL-020-SA7-SB-9.0-10.0	6441966	N	5035	8015M	III
18-Oct-2011	SL-020-SA7-SB-9.0-10.0	6441966	N	METHOD	300.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Oct-2011	SL-020-SA7-SB-9.0-10.0	6441966	N	METHOD	314.0	III
18-Oct-2011	SL-020-SA7-SB-9.0-10.0	6441966	N	METHOD	7471A	III
18-Oct-2011	SL-020-SA7-SB-9.0-10.0	6441966	N	METHOD	8015B	III
18-Oct-2011	SL-020-SA7-SB-9.0-10.0	6441966	N	METHOD	8015M	III
18-Oct-2011	SL-020-SA7-SB-9.0-10.0	6441966	N	METHOD	9012B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE271 Laboratory: LL

EDD Filename: DE271_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 Matrix: SO

Sample ID: SL-013-SA5DS-SB-4.0-5.0 *Collected:* 10/18/2011 9:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.2		0.92	MDL	1.2	PQL	mg/Kg	J	Q, E

Sample ID: SL-015-SA5DS-SB-3.5-4.5 *Collected:* 10/18/2011 10:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.5		0.89	MDL	1.1	PQL	mg/Kg	J	Q, E

Sample ID: SL-020-SA7-SB-4.0-5.0 *Collected:* 10/18/2011 12:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.4		0.86	MDL	1.1	PQL	mg/Kg	J	Q, E

Sample ID: SL-020-SA7-SB-9.0-10.0 *Collected:* 10/18/2011 2:44:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.9		0.94	MDL	1.2	PQL	mg/Kg	J	Q, E

Sample ID: SL-140-SA7-SB-3.0-4.0 *Collected:* 10/18/2011 9:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.1		0.88	MDL	1.1	PQL	mg/Kg	J	Q, E

Method Category: METALS

Method: 6010B Matrix: AQ

Sample ID: EB-SA5DS-SB-101811 *Collected:* 10/18/2011 2:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.0034	J	0.0022	MDL	0.0500	PQL	mg/L	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE271 Laboratory: LL

EDD Filename: DE271_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B Matrix: SO

Sample ID: SL-013-SA5DS-SB-4.0-5.0 *Collected:* 10/18/2011 9:10:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	102	J	6.42	MDL	108	PQL	mg/Kg	J	Z
TIN	2.67	J	0.345	MDL	10.8	PQL	mg/Kg	U	B

Sample ID: SL-015-SA5DS-SB-3.5-4.5 *Collected:* 10/18/2011 10:20:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.54	J	0.337	MDL	10.5	PQL	mg/Kg	U	B

Sample ID: SL-020-SA7-SB-4.0-5.0 *Collected:* 10/18/2011 12:23:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.63	J	0.338	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	0.913	J	0.486	MDL	5.28	PQL	mg/Kg	J	Z

Sample ID: SL-020-SA7-SB-9.0-10.0 *Collected:* 10/18/2011 2:44:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	102	J	6.68	MDL	112	PQL	mg/Kg	J	Z
TIN	2.58	J	0.359	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	1.57	J	0.517	MDL	5.62	PQL	mg/Kg	J	Z

Sample ID: SL-140-SA7-SB-3.0-4.0 *Collected:* 10/18/2011 9:50:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.90	J	0.347	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	1.49	J	0.499	MDL	5.42	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 Matrix: SO

Sample ID: SL-013-SA5DS-SB-4.0-5.0 *Collected:* 10/18/2011 9:10:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.128	J	0.0806	MDL	0.218	PQL	mg/Kg	J	Z, Q
ARSENIC	6.34		0.0871	MDL	0.436	PQL	mg/Kg	J	Q, E

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE271 Laboratory: LL

EDD Filename: DE271_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-013-SA5DS-SB-4.0-5.0 *Collected:* 10/18/2011 9:10:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.896		0.0174	MDL	0.109	PQL	mg/Kg	J	Q, E
CADMIUM	0.143		0.0479	MDL	0.109	PQL	mg/Kg	J	Q
CHROMIUM	45.8		0.131	MDL	0.436	PQL	mg/Kg	J	Q, E
COBALT	9.22		0.0218	MDL	0.109	PQL	mg/Kg	J	Q
COPPER	8.96		0.0871	MDL	0.436	PQL	mg/Kg	J	Q, E
LEAD	7.64		0.0111	MDL	0.218	PQL	mg/Kg	J	Q, E
NICKEL	16.7		0.109	MDL	0.436	PQL	mg/Kg	J	Q, E, E
SILVER	0.0267	J	0.0155	MDL	0.109	PQL	mg/Kg	J	Z, Q
THALLIUM	0.272		0.0327	MDL	0.109	PQL	mg/Kg	J	Q
VANADIUM	78.1		0.0240	MDL	0.109	PQL	mg/Kg	J	Q, E

Sample ID: SL-013-SA5DS-SB-4.0-5.0 *Collected:* 10/18/2011 9:10:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.304	J	0.0632	MDL	0.436	PQL	mg/Kg	J	Z, Q

Sample ID: SL-013-SA5DS-SB-4.0-5.0 *Collected:* 10/18/2011 9:10:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.585		0.0544	MDL	0.109	PQL	mg/Kg	J	Q, E

Sample ID: SL-013-SA5DS-SB-4.0-5.0 *Collected:* 10/18/2011 9:10:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	92.1		0.115	MDL	0.436	PQL	mg/Kg	J	E

Sample ID: SL-015-SA5DS-SB-3.5-4.5 *Collected:* 10/18/2011 10:20:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.150	J	0.0803	MDL	0.217	PQL	mg/Kg	J	Z, Q
ARSENIC	5.91		0.0868	MDL	0.434	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.774		0.0174	MDL	0.108	PQL	mg/Kg	J	Q, E
CADMIUM	0.151		0.0477	MDL	0.108	PQL	mg/Kg	J	Q
CHROMIUM	41.8		0.130	MDL	0.434	PQL	mg/Kg	J	Q, E
COBALT	9.72		0.0217	MDL	0.108	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE271 **Laboratory:** LL

EDD Filename: DE271_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-015-SA5DS-SB-3.5-4.5 ***Collected:*** 10/18/2011 10:20:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	8.23		0.0868	MDL	0.434	PQL	mg/Kg	J	Q, E
LEAD	7.22		0.0111	MDL	0.217	PQL	mg/Kg	J	Q, E
NICKEL	14.6		0.108	MDL	0.434	PQL	mg/Kg	J	Q, E, E
SILVER	0.0200	J	0.0154	MDL	0.108	PQL	mg/Kg	J	Z, Q
THALLIUM	0.226		0.0325	MDL	0.108	PQL	mg/Kg	J	Q
VANADIUM	72.2		0.0239	MDL	0.108	PQL	mg/Kg	J	Q, E

Sample ID: SL-015-SA5DS-SB-3.5-4.5 ***Collected:*** 10/18/2011 10:20:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.303	J	0.0629	MDL	0.434	PQL	mg/Kg	J	Z, Q

Sample ID: SL-015-SA5DS-SB-3.5-4.5 ***Collected:*** 10/18/2011 10:20:00 ***Analysis Type:*** REA6 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.498		0.0542	MDL	0.108	PQL	mg/Kg	J	Q, E

Sample ID: SL-015-SA5DS-SB-3.5-4.5 ***Collected:*** 10/18/2011 10:20:00 ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	90.8		0.115	MDL	0.434	PQL	mg/Kg	J	E

Sample ID: SL-020-SA7-SB-4.0-5.0 ***Collected:*** 10/18/2011 12:23:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0932	J	0.0782	MDL	0.211	PQL	mg/Kg	J	Z, Q
ARSENIC	4.80		0.0845	MDL	0.423	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.654		0.0169	MDL	0.106	PQL	mg/Kg	J	Q, E
CADMIUM	0.0809	J	0.0465	MDL	0.106	PQL	mg/Kg	J	Z, Q
CHROMIUM	20.1		0.127	MDL	0.423	PQL	mg/Kg	J	Q, E
COBALT	5.59		0.0211	MDL	0.106	PQL	mg/Kg	J	Q
COPPER	7.09		0.0845	MDL	0.423	PQL	mg/Kg	J	Q, E
LEAD	6.15		0.0108	MDL	0.211	PQL	mg/Kg	J	Q, E
NICKEL	10.7		0.106	MDL	0.423	PQL	mg/Kg	J	Q, E, E
SILVER	0.0314	J	0.0150	MDL	0.106	PQL	mg/Kg	J	Z, Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE271 Laboratory: LL

EDD Filename: DE271_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-020-SA7-SB-4.0-5.0 *Collected:* 10/18/2011 12:23:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.306		0.0317	MDL	0.106	PQL	mg/Kg	J	Q
VANADIUM	39.0		0.0232	MDL	0.106	PQL	mg/Kg	J	Q, E

Sample ID: SL-020-SA7-SB-4.0-5.0 *Collected:* 10/18/2011 12:23:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.144	J	0.0613	MDL	0.423	PQL	mg/Kg	J	Z, Q

Sample ID: SL-020-SA7-SB-4.0-5.0 *Collected:* 10/18/2011 12:23:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.487		0.0528	MDL	0.106	PQL	mg/Kg	J	Q, E

Sample ID: SL-020-SA7-SB-4.0-5.0 *Collected:* 10/18/2011 12:23:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	77.4		0.112	MDL	0.423	PQL	mg/Kg	J	E

Sample ID: SL-020-SA7-SB-9.0-10.0 *Collected:* 10/18/2011 2:44:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.230	J	0.0864	MDL	0.234	PQL	mg/Kg	J	Z, Q
ARSENIC	24.6		0.0935	MDL	0.467	PQL	mg/Kg	J	Q, E
BERYLLIUM	1.60		0.0187	MDL	0.117	PQL	mg/Kg	J	Q, E
CHROMIUM	27.3		0.140	MDL	0.467	PQL	mg/Kg	J	Q, E
COBALT	5.98		0.0234	MDL	0.117	PQL	mg/Kg	J	Q
COPPER	12.7		0.0935	MDL	0.467	PQL	mg/Kg	J	Q, E
LEAD	13.1		0.0119	MDL	0.234	PQL	mg/Kg	J	Q, E
NICKEL	15.3		0.117	MDL	0.467	PQL	mg/Kg	J	Q, E, E
SILVER	0.0874	J	0.0166	MDL	0.117	PQL	mg/Kg	J	Z, Q
THALLIUM	0.211		0.0350	MDL	0.117	PQL	mg/Kg	J	Q
VANADIUM	77.4		0.0257	MDL	0.117	PQL	mg/Kg	J	Q, E

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE271 Laboratory: LL

EDD Filename: DE271_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-020-SA7-SB-9.0-10.0 *Collected:* 10/18/2011 2:44:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.305	J	0.0678	MDL	0.467	PQL	mg/Kg	J	Z, Q

Sample ID: SL-020-SA7-SB-9.0-10.0 *Collected:* 10/18/2011 2:44:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	2.95		0.0584	MDL	0.117	PQL	mg/Kg	J	Q, E

Sample ID: SL-020-SA7-SB-9.0-10.0 *Collected:* 10/18/2011 2:44:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	79.8		0.124	MDL	0.467	PQL	mg/Kg	J	E

Sample ID: SL-140-SA7-SB-3.0-4.0 *Collected:* 10/18/2011 9:50:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0965	J	0.0810	MDL	0.219	PQL	mg/Kg	J	Z, Q
ARSENIC	6.03		0.0876	MDL	0.438	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.746		0.0175	MDL	0.110	PQL	mg/Kg	J	Q, E
CHROMIUM	24.6		0.131	MDL	0.438	PQL	mg/Kg	J	Q, E
COBALT	5.53		0.0219	MDL	0.110	PQL	mg/Kg	J	Q
COPPER	5.24		0.0876	MDL	0.438	PQL	mg/Kg	J	Q, E
LEAD	6.89		0.0112	MDL	0.219	PQL	mg/Kg	J	Q, E
NICKEL	12.4		0.110	MDL	0.438	PQL	mg/Kg	J	Q, E, E
SILVER	0.0460	J	0.0156	MDL	0.110	PQL	mg/Kg	J	Z, Q
THALLIUM	0.204		0.0329	MDL	0.110	PQL	mg/Kg	J	Q
VANADIUM	48.0		0.0241	MDL	0.110	PQL	mg/Kg	J	Q, E

Sample ID: SL-140-SA7-SB-3.0-4.0 *Collected:* 10/18/2011 9:50:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.359	J	0.0635	MDL	0.438	PQL	mg/Kg	J	Z, Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE271 **Laboratory:** LL

EDD Filename: DE271_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-140-SA7-SB-3.0-4.0 *Collected:* 10/18/2011 9:50:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.663		0.0548	MDL	0.110	PQL	mg/Kg	J	Q, E

Sample ID: SL-140-SA7-SB-3.0-4.0 *Collected:* 10/18/2011 9:50:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	99.9		0.116	MDL	0.438	PQL	mg/Kg	J	E

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: SL-013-SA5DS-SB-4.0-5.0 *Collected:* 10/18/2011 9:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.52	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-020-SA7-SB-4.0-5.0 *Collected:* 10/18/2011 12:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.44	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-020-SA7-SB-9.0-10.0 *Collected:* 10/18/2011 2:44:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.45	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-140-SA7-SB-3.0-4.0 *Collected:* 10/18/2011 9:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.60	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE271 Laboratory: LL

EDD Filename: DE271_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 7471A **Matrix:** SO

Sample ID: SL-020-SA7-SB-9.0-10.0 *Collected:* 10/18/2011 2:44:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0143	J	0.0078	MDL	0.111	PQL	mg/Kg	J	Z

Sample ID: SL-140-SA7-SB-3.0-4.0 *Collected:* 10/18/2011 9:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0486	J	0.0075	MDL	0.107	PQL	mg/Kg	J	Z

Method Category: SVOA **Method:** 8082 **Matrix:** SO

Sample ID: SL-020-SA7-SB-4.0-5.0 *Collected:* 10/18/2011 12:23:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.6	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z

Method Category: SVOA **Method:** 8270C **Matrix:** SO

Sample ID: SL-013-SA5DS-SB-4.0-5.0 *Collected:* 10/18/2011 9:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	1300	U	1300	MDL	3800	PQL	ug/Kg	UJ	Q

Sample ID: SL-015-SA5DS-SB-3.5-4.5 *Collected:* 10/18/2011 10:20:00 *Analysis Type:* RES-ACID *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZOIC ACID	390	J	180	MDL	550	PQL	ug/Kg	J	Z

Sample ID: SL-020-SA7-SB-4.0-5.0 *Collected:* 10/18/2011 12:23:00 *Analysis Type:* RES-ACID *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZOIC ACID	180	J	180	MDL	540	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE271 **Laboratory:** LL

EDD Filename: DE271_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** AQ

Sample ID: EB-SA5DS-SB-101811 ***Collected:*** 10/18/2011 2:00:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Butylbenzylphthalate	0.10	U	0.10	MDL	2.0	PQL	ug/L	UJ	L
Dimethylphthalate	0.10	U	0.10	MDL	2.0	PQL	ug/L	UJ	L
Di-n-butylphthalate	0.14	J	0.10	MDL	2.0	PQL	ug/L	J	Z
Di-n-octylphthalate	0.18	J	0.10	MDL	2.0	PQL	ug/L	U	B

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-020-SA7-SB-4.0-5.0 ***Collected:*** 10/18/2011 12:23:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(K)FLUORANTHENE	0.74	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	9.9	J	6.4	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	0.39	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE271 **Laboratory: LL**

EDD Filename: DE271_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
B	Method Blank Contamination
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Upper Estimation
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE271

Method Blank Outlier Report

Lab Reporting Batch ID: DE271 Laboratory: LL

EDD Filename: DE271_v1 eQAPP Name: CDM_SSFL_110509

Method: 1625C
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWA29B261354	11/1/2011 1:54:00 PM	N-NITROSODIMETHYLAMINE	0.718 ng/L	EB-SA5DS-SB-101811 EB-SA7-SB-101811 TB-101811

Method: 6010B
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P29248FB221946	10/21/2011 7:46:00 PM	MANGANESE	0.00046 mg/L	EB-SA5DS-SB-101811

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P29308GB222025	10/26/2011 8:25:00 PM	CALCIUM	4.81 mg/Kg	SL-013-SA5DS-SB-4.0-5.0
		IRON	9.83 mg/Kg	SL-015-SA5DS-SB-3.5-4.5
		MAGNESIUM	0.564 mg/Kg	SL-020-SA7-SB-4.0-5.0
		PHOSPHORUS	1.17 mg/Kg	SL-020-SA7-SB-9.0-10.0
		TIN	1.40 mg/Kg	SL-140-SA7-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-013-SA5DS-SB-4.0-5.0(REA2)	TIN	2.67 mg/Kg	2.67U mg/Kg
SL-015-SA5DS-SB-3.5-4.5(REA2)	TIN	2.54 mg/Kg	2.54U mg/Kg
SL-020-SA7-SB-4.0-5.0(REA2)	TIN	2.63 mg/Kg	2.63U mg/Kg
SL-020-SA7-SB-9.0-10.0(REA2)	TIN	2.58 mg/Kg	2.58U mg/Kg
SL-140-SA7-SB-3.0-4.0(REA2)	TIN	2.90 mg/Kg	2.90U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P29326DB221357A	10/24/2011 1:57:00 PM	COPPER	0.117 mg/Kg	SL-013-SA5DS-SB-4.0-5.0
		LEAD	0.0110 mg/Kg	SL-015-SA5DS-SB-3.5-4.5
		VANADIUM	0.195 mg/Kg	SL-020-SA7-SB-4.0-5.0
				SL-020-SA7-SB-9.0-10.0
				SL-140-SA7-SB-3.0-4.0
P29326DB221357C	10/24/2011 1:57:00 PM	MOLYBDENUM	0.0581 mg/Kg	SL-013-SA5DS-SB-4.0-5.0
				SL-015-SA5DS-SB-3.5-4.5
				SL-020-SA7-SB-4.0-5.0
				SL-020-SA7-SB-9.0-10.0
				SL-140-SA7-SB-3.0-4.0

Method Blank Outlier Report

Lab Reporting Batch ID: DE271 Laboratory: LL

EDD Filename: DE271_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWE29B260829	10/25/2011 8:29:00 AM	Di-n-octylphthalate	0.094 ug/L	EB-SA5DS-SB-101811

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA5DS-SB-101811(RES)	Di-n-octylphthalate	0.18 ug/L	2.0U ug/L

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE271 | Laboratory: LL

EDD Filename: DE271_v1 | eQAPP Name: CDM_SSFL_110509

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-020-SA7-SB-4.0-5.0MSD (SL-013-SA5DS-SB-4.0-5.0 SL-015-SA5DS-SB-3.5-4.5 SL-020-SA7-SB-4.0-5.0 SL-020-SA7-SB-9.0-10.0 SL-140-SA7-SB-3.0-4.0)	CADMIUM COBALT SILVER THALLIUM	- - - -	135 146 138 151	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	CADMIUM COBALT SILVER THALLIUM	J (all detects)
SL-020-SA7-SB-4.0-5.0MS SL-020-SA7-SB-4.0-5.0MSD (SL-013-SA5DS-SB-4.0-5.0 SL-015-SA5DS-SB-3.5-4.5 SL-020-SA7-SB-4.0-5.0 SL-020-SA7-SB-9.0-10.0 SL-140-SA7-SB-3.0-4.0)	ANTIMONY ARSENIC BERYLLIUM CHROMIUM COPPER LEAD NICKEL VANADIUM ZINC	39 - - - - - - - 62	46 188 138 182 159 187 161 229 187	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- 24 (20.00) 22 (20.00) 25 (20.00) 23 (20.00) 23 (20.00) 22 (20.00) 28 (20.00) -	ANTIMONY ARSENIC BERYLLIUM CHROMIUM COPPER LEAD NICKEL VANADIUM ZINC	J(all detects) UJ(all non-detects) Zn, No Qual, >4x
SL-020-SA7-SB-4.0-5.0MSD (SL-013-SA5DS-SB-4.0-5.0 SL-015-SA5DS-SB-3.5-4.5 SL-020-SA7-SB-4.0-5.0 SL-020-SA7-SB-9.0-10.0 SL-140-SA7-SB-3.0-4.0)	SELENIUM	-	135	75.00-125.00	-	SELENIUM	J(all detects)
SL-020-SA7-SB-4.0-5.0MSD (SL-013-SA5DS-SB-4.0-5.0 SL-015-SA5DS-SB-3.5-4.5 SL-020-SA7-SB-4.0-5.0 SL-020-SA7-SB-9.0-10.0 SL-140-SA7-SB-3.0-4.0)	MOLYBDENUM	-	139	75.00-125.00	23 (20.00)	MOLYBDENUM	J(all detects) UJ(all non-detects)
SL-020-SA7-SB-4.0-5.0MSD (SL-013-SA5DS-SB-4.0-5.0 SL-015-SA5DS-SB-3.5-4.5 SL-020-SA7-SB-4.0-5.0 SL-020-SA7-SB-9.0-10.0 SL-140-SA7-SB-3.0-4.0)	BARIUM	-	326	75.00-125.00	24 (20.00)	BARIUM	J(all detects) UJ(all non-detects) No %R Qual, >4x

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-013-SA5DS-SB-4.0-5.0MS SL-013-SA5DS-SB-4.0-5.0MSD (SL-013-SA5DS-SB-4.0-5.0 SL-015-SA5DS-SB-3.5-4.5 SL-020-SA7-SB-4.0-5.0 SL-020-SA7-SB-9.0-10.0 SL-140-SA7-SB-3.0-4.0)	ALUMINUM CALCIUM MAGNESIUM TITANIUM	1463 153 153 211	1098 171 - 231	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ALUMINUM CALCIUM MAGNESIUM TITANIUM	No Qual, >4x
SL-013-SA5DS-SB-4.0-5.0MS SL-013-SA5DS-SB-4.0-5.0MSD (SL-013-SA5DS-SB-4.0-5.0 SL-015-SA5DS-SB-3.5-4.5 SL-020-SA7-SB-4.0-5.0 SL-020-SA7-SB-9.0-10.0 SL-140-SA7-SB-3.0-4.0)	IRON	437	-350	75.00-125.00	-	IRON	No Qual, >4x
SL-013-SA5DS-SB-4.0-5.0MS (SL-013-SA5DS-SB-4.0-5.0 SL-015-SA5DS-SB-3.5-4.5 SL-020-SA7-SB-4.0-5.0 SL-020-SA7-SB-9.0-10.0 SL-140-SA7-SB-3.0-4.0)	MANGANESE	66	-	75.00-125.00	-	MANGANESE	No Qual, >4x

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE271 Laboratory: LL

EDD Filename: DE271_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-013-SA5DS-SB-4.0-5.0MS SL-013-SA5DS-SB-4.0-5.0MSD (SL-013-SA5DS-SB-4.0-5.0)	BENZIDINE	16	15	35.00-141.00	-	BENZIDINE	J(all detects) UJ(all non-detects)

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-013-SA5DS-SB-4.0-5.0MS (SL-013-SA5DS-SB-4.0-5.0 SL-015-SA5DS-SB-3.5-4.5 SL-020-SA7-SB-4.0-5.0 SL-020-SA7-SB-9.0-10.0 SL-140-SA7-SB-3.0-4.0)	FLUORIDE	53	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE271 | Laboratory: LL

EDD Filename: DE271_v1 | eQAPP Name: CDM_SSFL_110509

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-013-SA5DS-SB-4.0-5.0DUP (SL-013-SA5DS-SB-4.0-5.0 SL-015-SA5DS-SB-3.5-4.5 SL-020-SA7-SB-4.0-5.0 SL-020-SA7-SB-9.0-10.0 SL-140-SA7-SB-3.0-4.0)	FLUORIDE	22	20.00	J (all detects) UJ (all non-detects)

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-013-SA5DS-SB-4.0-5.0DUP (SL-013-SA5DS-SB-4.0-5.0 SL-015-SA5DS-SB-3.5-4.5 SL-020-SA7-SB-4.0-5.0 SL-020-SA7-SB-9.0-10.0 SL-140-SA7-SB-3.0-4.0)	HEXAVALENT CHROMIUM	36	20.00	No Qual, OK by Difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-020-SA7-SB-4.0-5.0DUP (SL-013-SA5DS-SB-4.0-5.0 SL-015-SA5DS-SB-3.5-4.5 SL-020-SA7-SB-4.0-5.0 SL-020-SA7-SB-9.0-10.0 SL-140-SA7-SB-3.0-4.0)	CADMIUM	36	20.00	J(all detects) UJ(all non-detects) Cd, Ag, No Qual, OK by Difference
	NICKEL	35	20.00	
	SILVER	50	20.00	

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE271 Laboratory: LL

EDD Filename: DE271_v1 eQAPP Name: CDM_SSFL_110509

Method: 8015M
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12948AQ321249A (EB-SA5DS -SB-101811)	EFH (C8-C11)	114	-	46.00-107.00	-	EFH (C8-C11)	J (all detects)

Method: 8270C SIM
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P7WELCSQ260901 P7WELCSY260933 (EB-SA5DS -SB-101811)	Butylbenzylphthalate Dimethylphthalate	22 10	21 10	40.00-138.00 40.00-119.00	- -	Butylbenzylphthalate Dimethylphthalate	J(all detects) UJ(all non-detects)

Method: 8270C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P7WILCSQ261638 P7WILCSY261703 (EB-SA5DS -SB-101811)	PENTACHLOROPHENOL	111	112	53.00-110.00	-	PENTACHLOROPHENOL	J(all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P29326DQ221400A (SL-013-SA5DS -SB-4.0-5.0 SL -015-SA5DS -SB-3.5-4.5 SL -020-SA7-SB-4.0-5.0 SL -020-SA7-SB-9.0-10.0 SL -140-SA7-SB-3.0-4.0)	ANTIMONY	75	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC Limits

Reporting Limit Outliers

Lab Reporting Batch ID: DE271 | Laboratory: LL

EDD Filename: DE271_v1 | eQAPP Name: CDM_SSFL_110509

Method: 6010B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA5DS-SB-101811	BORON	J	0.0034	0.0500	PQL	mg/L	J (all detects)

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA5DS-SB-101811	Di-n-butylphthalate	J	0.14	2.0	PQL	ug/L	J (all detects)
	Di-n-octylphthalate	J	0.18	2.0	PQL	ug/L	

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-013-SA5DS-SB-4.0-5.0	SODIUM	J	102	108	PQL	mg/Kg	J (all detects)
	TIN	J	2.67	10.8	PQL	mg/Kg	
SL-015-SA5DS-SB-3.5-4.5	TIN	J	2.54	10.5	PQL	mg/Kg	J (all detects)
SL-020-SA7-SB-4.0-5.0	TIN	J	2.63	10.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	0.913	5.28	PQL	mg/Kg	
SL-020-SA7-SB-9.0-10.0	SODIUM	J	102	112	PQL	mg/Kg	J (all detects)
	TIN	J	2.58	11.2	PQL	mg/Kg	
	Zirconium	J	1.57	5.62	PQL	mg/Kg	
SL-140-SA7-SB-3.0-4.0	TIN	J	2.90	10.8	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.49	5.42	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-013-SA5DS-SB-4.0-5.0	ANTIMONY	J	0.128	0.218	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.304	0.436	PQL	mg/Kg	
	SILVER	J	0.0267	0.109	PQL	mg/Kg	
SL-015-SA5DS-SB-3.5-4.5	ANTIMONY	J	0.150	0.217	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.303	0.434	PQL	mg/Kg	
	SILVER	J	0.0200	0.108	PQL	mg/Kg	
SL-020-SA7-SB-4.0-5.0	ANTIMONY	J	0.0932	0.211	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0809	0.106	PQL	mg/Kg	
	SELENIUM	J	0.144	0.423	PQL	mg/Kg	
	SILVER	J	0.0314	0.106	PQL	mg/Kg	
SL-020-SA7-SB-9.0-10.0	ANTIMONY	J	0.230	0.234	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.305	0.467	PQL	mg/Kg	
	SILVER	J	0.0874	0.117	PQL	mg/Kg	
SL-140-SA7-SB-3.0-4.0	ANTIMONY	J	0.0965	0.219	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.359	0.438	PQL	mg/Kg	
	SILVER	J	0.0460	0.110	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE271 Laboratory: LL

EDD Filename: DE271_v1 eQAPP Name: CDM_SSFL_110509

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-013-SA5DS-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.52	1.1	PQL	mg/Kg	J (all detects)
SL-020-SA7-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.44	1.1	PQL	mg/Kg	J (all detects)
SL-020-SA7-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.45	1.2	PQL	mg/Kg	J (all detects)
SL-140-SA7-SB-3.0-4.0	HEXAVALENT CHROMIUM	J	0.60	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-020-SA7-SB-9.0-10.0	MERCURY	J	0.0143	0.111	PQL	mg/Kg	J (all detects)
SL-140-SA7-SB-3.0-4.0	MERCURY	J	0.0486	0.107	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-020-SA7-SB-4.0-5.0	AROCLOR 1260	J	1.6	1.8	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-015-SA5DS-SB-3.5-4.5	BENZOIC ACID	J	390	550	PQL	ug/Kg	J (all detects)
SL-020-SA7-SB-4.0-5.0	BENZOIC ACID	J	180	540	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-020-SA7-SB-4.0-5.0	BENZO(K)FLUORANTHENE	J	0.74	1.8	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.9	19	PQL	ug/Kg	
	CHRYSENE	J	0.39	1.8	PQL	ug/Kg	

LDC #: 26979G4 **VALIDATION COMPLETENESS WORKSHEET** Date: 1-2012

SDG #: DE271 ADR Page: 1 of 1

Laboratory: Lancaster Laboratories Reviewer: OR

2nd Reviewer: L

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	no quals
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (Al, Ca, Fe, Mg, Mn, B, Ti >4x) (Ba, Zn >4x) >RPD out
VII.	Duplicate Sample Analysis	N	Dup (Cd, Ag <5xRL - no qual)
VIII.	Laboratory Control Samples (LCS)	A	LCS/D
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	SW	EB=6

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	SL-013-SA5DS-SB-4.0-5.0	11	(A3) MSD	21		31	
2	SL-015-SA5DS-SB-3.5-4.5	12	Dup	22		32	
3	SL-020-SA7-SB-4.0-5.0	13	(A5) MS (CH5)	23		33	
4	SL-020-SA7-SB-9.0-10.0	14	MSD	24		34	
5	SL-140-SA7-SB-3.0-4.0	15	Dup	25		35	
6	EB-SA5DS-SB-101811	16		26		36	
7	(A4) MS (ICP only)	17		27		37	
8	MSD	18		28		38	
9	Dup	19		29		39	
10	(A3) MS (ms)	20		30		40	

Notes:

LDC #: 26979G4

VALIDATION FINDINGS WORKSHEET
Field Blanks

METHOD: Trace Metals (EPA SW846 6010B/7000)
Blank units: ug/L **Associated sample units:** mg/Kg Reason: F
Sampling date: 10/18/11 Soil factor applied 100x; Hg=167x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All Soil

Analyte	Blank ID	Sample Identification										
	6	Action Level	No Qualifiers									
B	3.4	1.7										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

SAMPLE DELIVERY GROUP

DE272

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
19-Oct-2011	TB-101911	6443496	TB	3520C	1625C	IV
19-Oct-2011	TB-101911	6443497	TB	3546	1625C	IV
19-Oct-2011	TB-101911	6443498	TB	5030B	8015M	IV
19-Oct-2011	TB-101911	6443498	TB	5030B	8260B	IV
19-Oct-2011	TB-101911	6443498	TB	5030B	8260B SIM	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0	6443490	N	3050B	6010B	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0	6443490	N	3050B	6020	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0	6443490	N	3060A	7199	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0	6443490	N	3550B	8082	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0	6443490	N	3550B	8270C	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0	6443490	N	3550B	8270C SIM	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0	6443490	N	METHOD	300.0	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0	6443490	N	METHOD	314.0	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0	6443490	N	METHOD	7471A	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0DU	P443490D220504A	DUP	3050B	6020	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0DU	P443490D220504B	DUP	3050B	6020	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0DU	P443490D220504C	DUP	3050B	6020	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0DU	P443490D220504D	DUP	3050B	6020	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0DU	P443490D221612	DUP	METHOD	7471A	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0DU	P443490D271557A	DUP	METHOD	314.0	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0MS	P443490R220507A	MS	3050B	6020	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0MS	P443490R220507B	MS	3050B	6020	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0MS	P443490R220507C	MS	3050B	6020	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0MS	P443490R220507D	MS	3050B	6020	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0MS	P443490R221613	MS	METHOD	7471A	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0MS	P443490R242257A	MS	3550B	8082	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0MS	P443490R262026	MS	3550B	8270C	IV
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0MS	P443490R271618A	MS	METHOD	314.0	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443491	N	3050B	6010B	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443491	N	3050B	6020	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443491	N	3060A	7199	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443491	N	3546	1625C	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443491	N	3550B	8015B	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443491	N	3550B	8015M	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443491	N	3550B	8082	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443491	N	3550B	8270C	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443491	N	3550B	8270C SIM	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443491	N	5035	8015M	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443491	N	5035	8260B	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443491	N	5035	8260B SIM	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443491	N	8330	8330A	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443491	N	METHOD	300.0	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443491	N	METHOD	314.0	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443491	N	METHOD	7471A	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443491	N	METHOD	8015B	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443491	N	METHOD	8015M	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443491	N	METHOD	8315A	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443491	N	METHOD	9012B	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0DUP	P443491D270836A	DUP	METHOD	9012B	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0MSD	P443491M240148A	MSD	8330	8330A	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0MSD	P443491M242334A	MSD	METHOD	8315A	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0MSD	P443491M261249	MSD	3550B	8270C SIM	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
19-Oct-2011	SL-143-SA7-SB-5.0-6.0MSD	P443491M262318	MSD	3546	1625C	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0MSD	P443491M322325A	MSD	METHOD	8015B	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0MS	P443491R240106A	MS	8330	8330A	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0MS	P443491R242324A	MS	METHOD	8315A	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0MS	P443491R261217	MS	3550B	8270C SIM	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0MS	P443491R262259	MS	3546	1625C	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0MS	P443491R270840A	MS	METHOD	9012B	IV
19-Oct-2011	SL-143-SA7-SB-5.0-6.0MS	P443491R322308A	MS	METHOD	8015B	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443492	N	3050B	6010B	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443492	N	3050B	6020	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443492	N	3060A	7199	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443492	N	3546	1625C	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443492	N	3550B	8015B	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443492	N	3550B	8015M	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443492	N	3550B	8082	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443492	N	3550B	8270C	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443492	N	3550B	8270C SIM	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443492	N	5035	8015M	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443492	N	5035	8260B	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443492	N	5035	8260B SIM	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443492	N	8330	8330A	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443492	N	METHOD	300.0	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443492	N	METHOD	314.0	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443492	N	METHOD	7471A	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443492	N	METHOD	8015B	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443492	N	METHOD	8015M	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443492	N	METHOD	8315A	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443492	N	METHOD	9012B	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0MSD	P443492M322142A	MSD	3550B	8015B	IV
19-Oct-2011	SL-143-SA7-SB-9.0-10.0MS	P443492R322120A	MS	3550B	8015B	IV
19-Oct-2011	EB-SA7-SB-101911	6443495	EB	3520C	1625C	IV
19-Oct-2011	EB-SA7-SB-101911	6443499	EB	3005A	6010B	IV
19-Oct-2011	EB-SA7-SB-101911	6443499	EB	3020A	6020	IV
19-Oct-2011	EB-SA7-SB-101911	6443499	EB	3510C	8015B	IV
19-Oct-2011	EB-SA7-SB-101911	6443499	EB	3510C	8015M	IV
19-Oct-2011	EB-SA7-SB-101911	6443499	EB	3510C	8082	IV
19-Oct-2011	EB-SA7-SB-101911	6443499	EB	3510C	8270C	IV
19-Oct-2011	EB-SA7-SB-101911	6443499	EB	3510C	8270C SIM	IV
19-Oct-2011	EB-SA7-SB-101911	6443499	EB	3520C	1625C	IV
19-Oct-2011	EB-SA7-SB-101911	6443499	EB	5030B	8015M	IV
19-Oct-2011	EB-SA7-SB-101911	6443499	EB	5030B	8260B	IV
19-Oct-2011	EB-SA7-SB-101911	6443499	EB	5030B	8260B SIM	IV
19-Oct-2011	EB-SA7-SB-101911	6443499	EB	8330	8330A	IV
19-Oct-2011	EB-SA7-SB-101911	6443499	EB	Gen Prep	300.0	IV
19-Oct-2011	EB-SA7-SB-101911	6443499	EB	Gen Prep	314.0	IV
19-Oct-2011	EB-SA7-SB-101911	6443499	EB	Gen Prep	7199	IV
19-Oct-2011	EB-SA7-SB-101911	6443499	EB	Gen Prep	8015B	IV
19-Oct-2011	EB-SA7-SB-101911	6443499	EB	Gen Prep	8015M	IV
19-Oct-2011	EB-SA7-SB-101911	6443499	EB	METHOD	7470A	IV
19-Oct-2011	EB-SA7-SB-101911	6443499	EB	METHOD	8315A	IV
19-Oct-2011	EB-SA7-SB-101911	6443499	EB	METHOD	9012B	IV
19-Oct-2011	EB-SA7-SB-101911MSD	P443499M322348A	MSD	Gen Prep	8015M	IV

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IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
19-Oct-2011	EB-SA7-SB-101911MS	P443499R322335A	MS	Gen Prep	8015M	IV
19-Oct-2011	SL-142-SA7-SB-2.0-3.0	6443493	N	3050B	6010B	IV
19-Oct-2011	SL-142-SA7-SB-2.0-3.0	6443493	N	3050B	6020	IV
19-Oct-2011	SL-142-SA7-SB-2.0-3.0	6443493	N	3060A	7199	IV
19-Oct-2011	SL-142-SA7-SB-2.0-3.0	6443493	N	3550B	8015B	IV
19-Oct-2011	SL-142-SA7-SB-2.0-3.0	6443493	N	3550B	8015M	IV
19-Oct-2011	SL-142-SA7-SB-2.0-3.0	6443493	N	3550B	8082	IV
19-Oct-2011	SL-142-SA7-SB-2.0-3.0	6443493	N	3550B	8270C	IV
19-Oct-2011	SL-142-SA7-SB-2.0-3.0	6443493	N	3550B	8270C SIM	IV
19-Oct-2011	SL-142-SA7-SB-2.0-3.0	6443493	N	5035	8015M	IV
19-Oct-2011	SL-142-SA7-SB-2.0-3.0	6443493	N	METHOD	300.0	IV
19-Oct-2011	SL-142-SA7-SB-2.0-3.0	6443493	N	METHOD	314.0	IV
19-Oct-2011	SL-142-SA7-SB-2.0-3.0	6443493	N	METHOD	7471A	IV
19-Oct-2011	SL-142-SA7-SB-2.0-3.0	6443493	N	METHOD	8015B	IV
19-Oct-2011	SL-142-SA7-SB-2.0-3.0	6443493	N	METHOD	8015M	IV
19-Oct-2011	SL-142-SA7-SB-2.0-3.0	6443493	N	METHOD	9012B	IV
19-Oct-2011	SL-142-SA7-SB-7.0-8.0	6443494	N	3050B	6010B	IV
19-Oct-2011	SL-142-SA7-SB-7.0-8.0	6443494	N	3050B	6020	IV
19-Oct-2011	SL-142-SA7-SB-7.0-8.0	6443494	N	3060A	7199	IV
19-Oct-2011	SL-142-SA7-SB-7.0-8.0	6443494	N	3550B	8015B	IV
19-Oct-2011	SL-142-SA7-SB-7.0-8.0	6443494	N	3550B	8015M	IV
19-Oct-2011	SL-142-SA7-SB-7.0-8.0	6443494	N	3550B	8082	IV
19-Oct-2011	SL-142-SA7-SB-7.0-8.0	6443494	N	3550B	8270C	IV
19-Oct-2011	SL-142-SA7-SB-7.0-8.0	6443494	N	3550B	8270C SIM	IV
19-Oct-2011	SL-142-SA7-SB-7.0-8.0	6443494	N	5035	8015M	IV
19-Oct-2011	SL-142-SA7-SB-7.0-8.0	6443494	N	METHOD	300.0	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
19-Oct-2011	SL-142-SA7-SB-7.0-8.0	6443494	N	METHOD	314.0	IV
19-Oct-2011	SL-142-SA7-SB-7.0-8.0	6443494	N	METHOD	7471A	IV
19-Oct-2011	SL-142-SA7-SB-7.0-8.0	6443494	N	METHOD	8015B	IV
19-Oct-2011	SL-142-SA7-SB-7.0-8.0	6443494	N	METHOD	8015M	IV
19-Oct-2011	SL-142-SA7-SB-7.0-8.0	6443494	N	METHOD	9012B	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE272 Laboratory: LL

EDD Filename: DE272_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-143-SA7-SB-5.0-6.0 *Collected:* 10/19/2011 9:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.4	J	0.84	MDL	1.6	PQL	mg/Kg	J	Z

Sample ID: SL-143-SA7-SB-9.0-10.0 *Collected:* 10/19/2011 10:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.4	J	0.85	MDL	1.6	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6010B **Matrix:** AQ

Sample ID: EB-SA7-SB-101911 *Collected:* 10/19/2011 2:30:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	0.0055	J	0.0047	MDL	0.100	PQL	mg/L	J	Z
STRONTIUM	0.00056	J	0.00022	MDL	0.0050	PQL	mg/L	U	B
TITANIUM	0.00063	J	0.00046	MDL	0.0100	PQL	mg/L	U	B

Sample ID: EB-SA7-SB-101911 *Collected:* 10/19/2011 2:30:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.0088	J	0.0022	MDL	0.0500	PQL	mg/L	U	B

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-016-SA5DS-SB-4.0-5.0 *Collected:* 10/19/2011 9:42:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.00	J	0.388	MDL	5.39	PQL	mg/Kg	J	Z
PHOSPHORUS	432		0.377	MDL	10.8	PQL	mg/Kg	J	Q, E
TIN	2.95	J	0.345	MDL	10.8	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE272 **Laboratory:** LL

EDD Filename: DE272_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-142-SA7-SB-2.0-3.0 ***Collected:*** 10/19/2011 3:15:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.61	J	0.367	MDL	5.10	PQL	mg/Kg	U	F
PHOSPHORUS	410		0.357	MDL	10.2	PQL	mg/Kg	J	Q, E
SODIUM	90.5	J	6.07	MDL	102	PQL	mg/Kg	J	Z
TIN	2.79	J	0.326	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	2.77	J	0.469	MDL	5.10	PQL	mg/Kg	J	Z

Sample ID: SL-142-SA7-SB-7.0-8.0 ***Collected:*** 10/19/2011 3:45:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.916	J	0.366	MDL	5.08	PQL	mg/Kg	U	F
PHOSPHORUS	268		0.355	MDL	10.2	PQL	mg/Kg	J	Q, E
SODIUM	95.8	J	6.04	MDL	102	PQL	mg/Kg	J	Z
TIN	2.75	J	0.325	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	2.78	J	0.467	MDL	5.08	PQL	mg/Kg	J	Z

Sample ID: SL-143-SA7-SB-5.0-6.0 ***Collected:*** 10/19/2011 9:45:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	192		0.362	MDL	10.3	PQL	mg/Kg	J	Q, E
SODIUM	95.7	J	6.15	MDL	103	PQL	mg/Kg	J	Z
TIN	2.77	J	0.331	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	3.80	J	0.476	MDL	5.17	PQL	mg/Kg	J	Z

Sample ID: SL-143-SA7-SB-9.0-10.0 ***Collected:*** 10/19/2011 10:50:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.975	J	0.374	MDL	5.20	PQL	mg/Kg	U	F
PHOSPHORUS	137		0.364	MDL	10.4	PQL	mg/Kg	J	Q, E
TIN	3.03	J	0.333	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	3.23	J	0.478	MDL	5.20	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE272 Laboratory: LL

EDD Filename: DE272_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 6020 **Matrix:** AQ

Sample ID: EB-SA7-SB-101911 *Collected:* 10/19/2011 2:30:00 *Analysis Type:* REA4 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	0.00012	J	0.000080	MDL	0.0010	PQL	mg/L	J	Z

Method Category: METALS **Method:** 6020 **Matrix:** SO

Sample ID: SL-016-SA5DS-SB-4.0-5.0 *Collected:* 10/19/2011 9:42:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.154	J	0.0625	MDL	0.431	PQL	mg/Kg	J	Z

Sample ID: SL-016-SA5DS-SB-4.0-5.0 *Collected:* 10/19/2011 9:42:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	65.0		0.114	MDL	0.431	PQL	mg/Kg	J	A

Sample ID: SL-016-SA5DS-SB-4.0-5.0 *Collected:* 10/19/2011 9:42:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.243		0.0797	MDL	0.215	PQL	mg/Kg	UJ	Q, B
ARSENIC	5.58		0.0862	MDL	0.431	PQL	mg/Kg	J	Q, E
CHROMIUM	36.8		0.129	MDL	0.431	PQL	mg/Kg	J	Q, A
COBALT	6.94		0.0215	MDL	0.108	PQL	mg/Kg	J	A
COPPER	6.80		0.0862	MDL	0.431	PQL	mg/Kg	J	Q
LEAD	5.59		0.0110	MDL	0.215	PQL	mg/Kg	J	Q, E, A
NICKEL	12.6		0.108	MDL	0.431	PQL	mg/Kg	J	Q, A
SILVER	0.0268	J	0.0153	MDL	0.108	PQL	mg/Kg	J	Z
VANADIUM	66.2		0.0237	MDL	0.108	PQL	mg/Kg	J	A

Sample ID: SL-142-SA7-SB-2.0-3.0 *Collected:* 10/19/2011 3:15:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.130	J	0.0592	MDL	0.408	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE272 Laboratory: LL

EDD Filename: DE272_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-142-SA7-SB-2.0-3.0 **Collected:** 10/19/2011 3:15:00 **Analysis Type:** REA3 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	93.4		0.108	MDL	0.408	PQL	mg/Kg	J	A

Sample ID: SL-142-SA7-SB-2.0-3.0 **Collected:** 10/19/2011 3:15:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.102	J	0.0755	MDL	0.204	PQL	mg/Kg	UJ	Q, B
ARSENIC	4.42		0.0816	MDL	0.408	PQL	mg/Kg	J	Q, E
CHROMIUM	17.6		0.122	MDL	0.408	PQL	mg/Kg	J	Q, A
COBALT	5.56		0.0204	MDL	0.102	PQL	mg/Kg	J	A
COPPER	7.54		0.0816	MDL	0.408	PQL	mg/Kg	J	Q
LEAD	5.27		0.0104	MDL	0.204	PQL	mg/Kg	J	Q, E, A
NICKEL	10.5		0.102	MDL	0.408	PQL	mg/Kg	J	Q, A
SILVER	0.0294	J	0.0145	MDL	0.102	PQL	mg/Kg	J	Z
VANADIUM	34.2		0.0224	MDL	0.102	PQL	mg/Kg	J	A

Sample ID: SL-142-SA7-SB-7.0-8.0 **Collected:** 10/19/2011 3:45:00 **Analysis Type:** REA **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.362	J	0.0606	MDL	0.418	PQL	mg/Kg	J	Z

Sample ID: SL-142-SA7-SB-7.0-8.0 **Collected:** 10/19/2011 3:45:00 **Analysis Type:** REA3 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	78.2		0.111	MDL	0.418	PQL	mg/Kg	J	A

Sample ID: SL-142-SA7-SB-7.0-8.0 **Collected:** 10/19/2011 3:45:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0774	U	0.0774	MDL	0.209	PQL	mg/Kg	UJ	Q
ARSENIC	4.35		0.0836	MDL	0.418	PQL	mg/Kg	J	Q, E
CHROMIUM	14.6		0.125	MDL	0.418	PQL	mg/Kg	J	Q, A
COBALT	4.48		0.0209	MDL	0.105	PQL	mg/Kg	J	A
COPPER	6.22		0.0836	MDL	0.418	PQL	mg/Kg	J	Q
LEAD	8.15		0.0107	MDL	0.209	PQL	mg/Kg	J	Q, E, A
NICKEL	8.55		0.105	MDL	0.418	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE272 Laboratory: LL

EDD Filename: DE272_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-142-SA7-SB-7.0-8.0 *Collected:* 10/19/2011 3:45:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0484	J	0.0148	MDL	0.105	PQL	mg/Kg	J	Z
VANADIUM	28.7		0.0230	MDL	0.105	PQL	mg/Kg	J	A

Sample ID: SL-143-SA7-SB-5.0-6.0 *Collected:* 10/19/2011 9:45:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.197	J	0.0606	MDL	0.418	PQL	mg/Kg	J	Z

Sample ID: SL-143-SA7-SB-5.0-6.0 *Collected:* 10/19/2011 9:45:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	113		0.111	MDL	0.418	PQL	mg/Kg	J	A

Sample ID: SL-143-SA7-SB-5.0-6.0 *Collected:* 10/19/2011 9:45:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.154	J	0.0773	MDL	0.209	PQL	mg/Kg	UJ	Q, B
ARSENIC	7.10		0.0835	MDL	0.418	PQL	mg/Kg	J	Q, E
CADMIUM	0.0555	J	0.0459	MDL	0.104	PQL	mg/Kg	J	Z
CHROMIUM	24.6		0.125	MDL	0.418	PQL	mg/Kg	J	Q, A
COBALT	7.74		0.0209	MDL	0.104	PQL	mg/Kg	J	A
COPPER	8.20		0.0835	MDL	0.418	PQL	mg/Kg	J	Q
LEAD	7.87		0.0106	MDL	0.209	PQL	mg/Kg	J	Q, E, A
NICKEL	14.8		0.104	MDL	0.418	PQL	mg/Kg	J	Q, A
SILVER	0.0661	J	0.0148	MDL	0.104	PQL	mg/Kg	J	Z
VANADIUM	48.5		0.0230	MDL	0.104	PQL	mg/Kg	J	A

Sample ID: SL-143-SA7-SB-9.0-10.0 *Collected:* 10/19/2011 10:50:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.223	J	0.0597	MDL	0.412	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE272 Laboratory: LL

EDD Filename: DE272_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 6020 **Matrix:** SO

Sample ID: SL-143-SA7-SB-9.0-10.0 *Collected:* 10/19/2011 10:50:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	95.3		0.109	MDL	0.412	PQL	mg/Kg	J	A

Sample ID: SL-143-SA7-SB-9.0-10.0 *Collected:* 10/19/2011 10:50:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.189	J	0.0762	MDL	0.206	PQL	mg/Kg	UJ	Q, B
ARSENIC	7.25		0.0824	MDL	0.412	PQL	mg/Kg	J	Q, E
CHROMIUM	27.0		0.124	MDL	0.412	PQL	mg/Kg	J	Q, A
COBALT	5.25		0.0206	MDL	0.103	PQL	mg/Kg	J	A
COPPER	7.13		0.0824	MDL	0.412	PQL	mg/Kg	J	Q
LEAD	7.73		0.0105	MDL	0.206	PQL	mg/Kg	J	Q, E, A
NICKEL	13.9		0.103	MDL	0.412	PQL	mg/Kg	J	Q, A
SILVER	0.0815	J	0.0146	MDL	0.103	PQL	mg/Kg	J	Z
VANADIUM	53.8		0.0227	MDL	0.103	PQL	mg/Kg	J	A

Method Category: METALS **Method:** 7199 **Matrix:** SO

Sample ID: SL-016-SA5DS-SB-4.0-5.0 *Collected:* 10/19/2011 9:42:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.56	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-142-SA7-SB-2.0-3.0 *Collected:* 10/19/2011 3:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.31	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-142-SA7-SB-7.0-8.0 *Collected:* 10/19/2011 3:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.49	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE272 Laboratory: LL

EDD Filename: DE272_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS
Method: 7199 **Matrix:** SO

Sample ID: SL-143-SA7-SB-5.0-6.0 *Collected:* 10/19/2011 9:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.56	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-143-SA7-SB-9.0-10.0 *Collected:* 10/19/2011 10:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.81	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS
Method: 7471A **Matrix:** SO

Sample ID: SL-142-SA7-SB-7.0-8.0 *Collected:* 10/19/2011 3:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0231	J	0.0070	MDL	0.0991	PQL	mg/Kg	J	Z

Sample ID: SL-143-SA7-SB-5.0-6.0 *Collected:* 10/19/2011 9:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0081	J	0.0073	MDL	0.104	PQL	mg/Kg	J	Z

Method Category: SVOA
Method: 1625C **Matrix:** AQ

Sample ID: EB-SA7-SB-101911 *Collected:* 10/19/2011 2:30:00 *Analysis Type:* REA-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	4.55		0.500	MDL	1.00	PQL	ng/L	U	B

Sample ID: EB-SA7-SB-101911 *Collected:* 10/19/2011 2:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	3.66		0.527	MDL	1.05	PQL	ng/L	U	B, T

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE272 Laboratory: LL

EDD Filename: DE272_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA **Method:** 1625C **Matrix:** AQ

Sample ID: TB-101911 *Collected:* 10/19/2011 8:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	0.860	J	0.495	MDL	0.990	PQL	ng/L	U	B

Method Category: SVOA **Method:** 8015M **Matrix:** AQ

Sample ID: EB-SA7-SB-101911 *Collected:* 10/19/2011 2:30:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLENE GLYCOL	20	U	20	MDL	200	PQL	mg/L	UJ	Q
Propylene glycol	20	U	20	MDL	200	PQL	mg/L	UJ	Q

Method Category: SVOA **Method:** 8015M **Matrix:** SO

Sample ID: SL-142-SA7-SB-2.0-3.0 *Collected:* 10/19/2011 3:15:00 *Analysis Type:* REA *Dilution:* 26.32

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
GASOLINE RANGE ORGANICS (C5-C12)	0.2	J	0.2	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-142-SA7-SB-2.0-3.0 *Collected:* 10/19/2011 3:15:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C12-C14)	0.56	J	0.42	MDL	1.2	PQL	mg/Kg	J	Z
EFH (C15-C20)	1.0	J	0.42	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-143-SA7-SB-5.0-6.0 *Collected:* 10/19/2011 9:45:00 *Analysis Type:* REA *Dilution:* 27.11

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
GASOLINE RANGE ORGANICS (C5-C12)	0.3	J	0.2	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-143-SA7-SB-5.0-6.0 *Collected:* 10/19/2011 9:45:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C12-C14)	0.67	J	0.43	MDL	1.3	PQL	mg/Kg	J	Z
EFH (C15-C20)	1.0	J	0.43	MDL	1.3	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE272 Laboratory: LL

EDD Filename: DE272_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA **Method:** 8015M **Matrix:** SO

Sample ID: SL-143-SA7-SB-9.0-10.0 *Collected:* 10/19/2011 10:50:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.50	J	0.42	MDL	1.3	PQL	mg/Kg	J	Z

Method Category: SVOA **Method:** 8082 **Matrix:** SO

Sample ID: SL-142-SA7-SB-7.0-8.0 *Collected:* 10/19/2011 3:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.6	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5460	3.0	J	1.1	MDL	3.5	PQL	ug/Kg	J	Z, *XIII

Method Category: SVOA **Method:** 8270C **Matrix:** SO

Sample ID: SL-016-SA5DS-SB-4.0-5.0 *Collected:* 10/19/2011 9:42:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	1300	U	1300	MDL	3600	PQL	ug/Kg	R	Q

Sample ID: SL-142-SA7-SB-2.0-3.0 *Collected:* 10/19/2011 3:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	18	J	17	MDL	350	PQL	ug/Kg	J	Z

Method Category: SVOA **Method:** 8270C SIM **Matrix:** AQ

Sample ID: EB-SA7-SB-101911 *Collected:* 10/19/2011 2:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	0.16	J	0.053	MDL	1.1	PQL	ug/L	J	Z
Butylbenzylphthalate	0.053	U	0.053	MDL	1.1	PQL	ug/L	UJ	L
Diethylphthalate	0.19	J	0.053	MDL	1.1	PQL	ug/L	J	Z
Dimethylphthalate	0.053	U	0.053	MDL	1.1	PQL	ug/L	UJ	L

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE272 Laboratory: LL

EDD Filename: DE272_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA **Method:** 8270C SIM **Matrix:** AQ

Sample ID: EB-SA7-SB-101911 *Collected:* 10/19/2011 2:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-butylphthalate	0.27	J	0.053	MDL	1.1	PQL	ug/L	J	Z
Di-n-octylphthalate	0.096	J	0.053	MDL	1.1	PQL	ug/L	U	B
NAPHTHALENE	0.039	J	0.032	MDL	0.053	PQL	ug/L	J	Z

Method Category: SVOA **Method:** 8270C SIM **Matrix:** SO

Sample ID: SL-142-SA7-SB-2.0-3.0 *Collected:* 10/19/2011 3:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.87	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	0.85	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	0.89	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-142-SA7-SB-7.0-8.0 *Collected:* 10/19/2011 3:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.0	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.77	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.76	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
FLUORENE	0.92	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.90	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.4	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-143-SA7-SB-9.0-10.0 *Collected:* 10/19/2011 10:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	8.4	J	6.3	MDL	19	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE272 Laboratory: LL

EDD Filename: DE272_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA **Method:** 8330A **Matrix:** AQ

Sample ID: EB-SA7-SB-101911 *Collected:* 10/19/2011 2:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
RDX	0.99		0.20	MDL	0.60	PQL	ug/L	NJ	*IX

Method Category: SVOA **Method:** 8330A **Matrix:** SO

Sample ID: SL-143-SA7-SB-5.0-6.0 *Collected:* 10/19/2011 9:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Tetryl	65	U	65	MDL	130	PQL	ug/Kg	UJ	C

Sample ID: SL-143-SA7-SB-9.0-10.0 *Collected:* 10/19/2011 10:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Tetryl	64	U	64	MDL	120	PQL	ug/Kg	UJ	C

Method Category: VOA **Method:** 8015B **Matrix:** SO

Sample ID: SL-142-SA7-SB-2.0-3.0 *Collected:* 10/19/2011 3:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Isopropanol	100	U	100	MDL	520	PQL	ug/Kg	UJ	C

Sample ID: SL-142-SA7-SB-7.0-8.0 *Collected:* 10/19/2011 3:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Isopropanol	110	U	110	MDL	530	PQL	ug/Kg	UJ	C

Sample ID: SL-143-SA7-SB-5.0-6.0 *Collected:* 10/19/2011 9:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Isopropanol	110	U	110	MDL	530	PQL	ug/Kg	UJ	C

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE272 Laboratory: LL

EDD Filename: DE272_v1 eQAPP Name: CDM_SSFL_110509

Method Category: VOA

Method: 8015B **Matrix:** SO

Sample ID: SL-143-SA7-SB-9.0-10.0 *Collected:* 10/19/2011 10:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Isopropanol	110	U	110	MDL	530	PQL	ug/Kg	UJ	C

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-143-SA7-SB-5.0-6.0 *Collected:* 10/19/2011 9:45:00 *Analysis Type:* RES *Dilution:* 1.05

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-Chloro-1,1,1-trifluoroethane	0.56	U	0.56	MDL	5.6	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.44	U	0.44	MDL	9.0	PQL	ug/Kg	UJ	C
CHLOROFORM	0.14	J	0.14	MDL	4.5	PQL	ug/Kg	U	B
Chlorotrifluoroethylene	0.56	U	0.56	MDL	5.6	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	0.78	J	0.27	MDL	4.5	PQL	ug/Kg	U	B, F
TOLUENE	0.21	J	0.09	MDL	4.5	PQL	ug/Kg	J	Z

Sample ID: SL-143-SA7-SB-9.0-10.0 *Collected:* 10/19/2011 10:50:00 *Analysis Type:* RES *Dilution:* 1.09

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-Chloro-1,1,1-trifluoroethane	0.58	U	0.58	MDL	5.8	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.45	U	0.45	MDL	9.2	PQL	ug/Kg	UJ	C
CHLOROFORM	0.15	J	0.14	MDL	4.6	PQL	ug/Kg	U	B
Chlorotrifluoroethylene	0.58	U	0.58	MDL	5.8	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	0.99	J	0.28	MDL	4.6	PQL	ug/Kg	U	B, F
TOLUENE	0.21	J	0.09	MDL	4.6	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE272 Laboratory: LL

EDD Filename: DE272_v1 eQAPP Name: CDM_SSFL_110509

Reason Code Legend

Reason Code	*Description*
*IX, XIII	Compound Quantitation and RLs
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Percent Difference Lower Estimation
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Upper Estimation
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Upper Estimation
T	Trip Blank Contamination
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE272

Method Blank Outlier Report

Lab Reporting Batch ID: DE272 Laboratory: LL

EDD Filename: DE272_v1 eQAPP Name: CDM_SSFL_110509

Method: 1625C
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWC29B261352	11/2/2011 1:52:00 PM	N-NITROSODIMETHYLAMINE	0.887 ng/L	EB-SA7-SB-101911 TB-101911

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA7-SB-101911(REA)	N-NITROSODIMETHYLAMINE	4.55 ng/L	4.55U ng/L
EB-SA7-SB-101911(RES)	N-NITROSODIMETHYLAMINE	3.66 ng/L	3.66U ng/L
TB-101911(RES)	N-NITROSODIMETHYLAMINE	0.860 ng/L	0.990U ng/L

Method: 6010B
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P29948CB221021	11/1/2011 10:21:00 AM	BORON MAGNESIUM	0.0024 mg/L 0.0171 mg/L	EB-SA7-SB-101911
P29948CB221824	10/28/2011 6:24:00 PM	CALCIUM IRON STRONTIUM	0.0765 mg/L 0.0246 mg/L 0.00028 mg/L	EB-SA7-SB-101911

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA7-SB-101911(REA)	STRONTIUM	0.00056 mg/L	0.00056U mg/L
EB-SA7-SB-101911(REA2)	BORON	0.0088 mg/L	0.0088U mg/L

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P29708DB221338	10/25/2011 1:38:00 PM	ALUMINUM CALCIUM MAGNESIUM PHOSPHORUS TIN	6.96 mg/Kg 4.01 mg/Kg 1.57 mg/Kg 0.992 mg/Kg 1.31 mg/Kg	SL-016-SA5DS-SB-4.0-5.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0 SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-016-SA5DS-SB-4.0-5.0(RES)	TIN	2.95 mg/Kg	2.95U mg/Kg
SL-142-SA7-SB-2.0-3.0(RES)	TIN	2.79 mg/Kg	2.79U mg/Kg
SL-142-SA7-SB-7.0-8.0(RES)	TIN	2.75 mg/Kg	2.75U mg/Kg
SL-143-SA7-SB-5.0-6.0(RES)	TIN	2.77 mg/Kg	2.77U mg/Kg
SL-143-SA7-SB-9.0-10.0(RES)	TIN	3.03 mg/Kg	3.03U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE272 **Laboratory: LL**

EDD Filename: DE272_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8260B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB95B211321A	10/25/2011 1:21:00 PM	CHLOROFORM METHYLENE CHLORIDE	0.22 ug/Kg 0.76 ug/Kg	SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-143-SA7-SB-5.0-6.0(RES)	CHLOROFORM	0.14 ug/Kg	4.5U ug/Kg
SL-143-SA7-SB-5.0-6.0(RES)	METHYLENE CHLORIDE	0.78 ug/Kg	4.5U ug/Kg
SL-143-SA7-SB-9.0-10.0(RES)	CHLOROFORM	0.15 ug/Kg	4.6U ug/Kg
SL-143-SA7-SB-9.0-10.0(RES)	METHYLENE CHLORIDE	0.99 ug/Kg	4.6U ug/Kg

Method: **8270C SIM**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWE29B260829	10/25/2011 8:29:00 AM	Di-n-octylphthalate	0.094 ug/L	EB-SA7-SB-101911

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA7-SB-101911(RES)	Di-n-octylphthalate	0.096 ug/L	1.1U ug/L

Trip Blank Outlier Report

Lab Reporting Batch ID: DE272 **Laboratory:** LL

EDD Filename: DE272_v1 **eQAPP Name:** CDM_SSFL_110509

Method: **1625C**
Matrix: **AQ**

Trip Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
TB-101911(RES)	10/19/2011 8:00:00 AM	N-NITROSODIMETHYLAMINE	0.86 ng/L	EB-SA7-SB-101911 SL-016-SA5DS-SB-4.0-5.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0 SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA7-SB-101911(RES)	N-NITROSODIMETHYLAMINE	3.66 ng/L	3.66U ng/L

Equipment Rinsate Blank Outlier Report

Lab Reporting Batch ID: DE272 **Laboratory: LL**

EDD Filename: DE272_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB-SA7-SB-101911(REA)	10/19/2011 2:30:00 PM	PHOSPHORUS STRONTIUM TITANIUM	0.0055 mg/L 0.00056 mg/L 0.00063 mg/L	SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0 SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0
EB-SA7-SB-101911(REA2)	10/19/2011 2:30:00 PM	BORON	0.0088 mg/L	SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0 SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-142-SA7-SB-2.0-3.0(RES)	BORON	1.61 mg/Kg	1.61U mg/Kg
SL-142-SA7-SB-7.0-8.0(RES)	BORON	0.916 mg/Kg	0.916U mg/Kg
SL-143-SA7-SB-9.0-10.0(RES)	BORON	0.975 mg/Kg	0.975U mg/Kg

Method: **8260B**
Matrix: **SO**

Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB-SA7-SB-101911(RES)	10/19/2011 2:30:00 PM	METHYLENE CHLORIDE	5 ug/L	SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0 SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-143-SA7-SB-5.0-6.0(RES)	METHYLENE CHLORIDE	0.78 ug/Kg	4.5U ug/Kg
SL-143-SA7-SB-9.0-10.0(RES)	METHYLENE CHLORIDE	0.99 ug/Kg	4.6U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE272 Laboratory: LL

EDD Filename: DE272_v1 eQAPP Name: CDM_SSFL_110509

Method: 8015M
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
EB-SA7-SB-101911MS EB-SA7-SB-101911MSD (EB-SA7-SB-101911)	ETHYLENE GLYCOL Propylene glycol	70 75	- 90	89.00-125.00 91.00-128.00	25 (20.00) -	ETHYLENE GLYCOL Propylene glycol	J (all detects) UJ (all non-detects)

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-016-SA5DS-SB-4.0-5.0MSD (SL-016-SA5DS-SB-4.0-5.0)	2,4-DINITROPHENOL 3,3'-DICHLOROBENZIDINE 4,6-DINITRO-2-METHYLPHENOL	- - -	- - -	20.00-143.00 28.00-109.00 11.00-126.00	104 (30.00) 33 (30.00) 53 (30.00)	2,4-DINITROPHENOL 3,3'-DICHLOROBENZIDINE 4,6-DINITRO-2-METHYLPHEN	J(all detects)
SL-016-SA5DS-SB-4.0-5.0MS SL-016-SA5DS-SB-4.0-5.0MSD (SL-016-SA5DS-SB-4.0-5.0)	BENZIDINE	0	0	35.00-141.00	-	BENZIDINE	J(all detects) R(all non-detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-016-SA5DS-SB-4.0-5.0MS SL-016-SA5DS-SB-4.0-5.0MSD (SL-016-SA5DS-SB-4.0-5.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0 SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0)	ARSENIC CHROMIUM COPPER LEAD NICKEL VANADIUM ZINC	148 - 127 146 135 159 162	161 149 133 153 142 199 186	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - - - -	ARSENIC CHROMIUM COPPER LEAD NICKEL VANADIUM ZINC	J(all detects) V, Zn, No Qual, >4x
SL-016-SA5DS-SB-4.0-5.0MS SL-016-SA5DS-SB-4.0-5.0MSD (SL-016-SA5DS-SB-4.0-5.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0 SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0)	ANTIMONY	49	57	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)
SL-016-SA5DS-SB-4.0-5.0MS SL-016-SA5DS-SB-4.0-5.0MSD (SL-016-SA5DS-SB-4.0-5.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0 SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0)	BARIUM	206	245	75.00-125.00	-	BARIUM	No Qual, >4x

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE272 **Laboratory: LL**

EDD Filename: DE272_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	*Analyte*	*Sample RPD*	*eQAPP RPD*	*Flag*
SL-016-SA5DS-SB-4.0-5.0DUP (SL-016-SA5DS-SB-4.0-5.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0 SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0)	ARSENIC	21	20.00	J (all detects) UJ (all non-detects)
	LEAD	21	20.00	

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE272 **Laboratory:** LL

EDD Filename: DE272_v1 **eQAPP Name:** CDM_SSFL_110509

Method: 8015M
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12948AQ321249A (EB-SA7-SB-101911)	EFH (C8-C11)	114	-	43.00-107.00	-	EFH (C8-C11)	J (all detects)

Method: 8270C SIM
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P7WELCSQ260901 P7WELCSY260933 (EB-SA7-SB-101911)	Butylbenzylphthalate Dimethylphthalate	22 10	21 10	40.00-138.00 40.00-119.00	- -	Butylbenzylphthalate Dimethylphthalate	J(all detects) UJ(all non-detects)

Method: 8270C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P7WILCSQ261638 P7WILCSY261703 (EB-SA7-SB-101911)	PENTACHLOROPHENOL	111	112	53.00-110.00	-	PENTACHLOROPHENOL	J(all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P29726BQ220455A (SL-016-SA5DS -SB-4.0-5.0 SL -142-SA7-SB-2.0-3.0 SL -142-SA7-SB-7.0-8.0 SL -143-SA7-SB-5.0-6.0 SL -143-SA7-SB-9.0-10.0)	ANTIMONY	122	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC Limits

Method: 8260B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCS1B95Q211434A LCS1B95Y211457A LCSB95Q211343A (SL-143-SA7-SB-5.0-6.0 SL -143-SA7-SB-9.0-10.0)	1,1,2-TRICHLORO-1,2,2-TRIFLU 1,1-DICHLOROETHENE 2-Chloro-1,1,1-trifluoroethane	134 126 129	- - 123	61.00-126.00 73.00-123.00 78.00-120.00	- - -	1,1,2-TRICHLORO-1,2,2-TRIFL 1,1-DICHLOROETHENE 2-Chloro-1,1,1-trifluoroethane	J(all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE272 **Laboratory: LL**

EDD Filename: DE272_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TB-101911	N-NITROSODIMETHYLAMINE	J	0.860	0.990	PQL	ng/L	J (all detects)

Method: 6010B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-101911	BORON	J	0.0088	0.0500	PQL	mg/L	J (all detects)
	PHOSPHORUS	J	0.0055	0.100	PQL	mg/L	
	STRONTIUM	J	0.00056	0.0050	PQL	mg/L	
	TITANIUM	J	0.00063	0.0100	PQL	mg/L	

Method: 6020

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-101911	LEAD	J	0.00012	0.0010	PQL	mg/L	J (all detects)

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-101911	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.16	1.1	PQL	ug/L	J (all detects)
	Diethylphthalate	J	0.19	1.1	PQL	ug/L	
	Di-n-butylphthalate	J	0.27	1.1	PQL	ug/L	
	Di-n-octylphthalate	J	0.096	1.1	PQL	ug/L	
	NAPHTHALENE	J	0.039	0.053	PQL	ug/L	

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-143-SA7-SB-5.0-6.0	Nitrate-NO3	J	1.4	1.6	PQL	mg/Kg	J (all detects)
SL-143-SA7-SB-9.0-10.0	Nitrate-NO3	J	1.4	1.6	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE272 **Laboratory: LL**

EDD Filename: DE272_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-016-SA5DS-SB-4.0-5.0	BORON	J	2.00	5.39	PQL	mg/Kg	J (all detects)
	TIN	J	2.95	10.8	PQL	mg/Kg	
SL-142-SA7-SB-2.0-3.0	BORON	J	1.61	5.10	PQL	mg/Kg	J (all detects)
	SODIUM	J	90.5	102	PQL	mg/Kg	
	TIN	J	2.79	10.2	PQL	mg/Kg	
	Zirconium	J	2.77	5.10	PQL	mg/Kg	
SL-142-SA7-SB-7.0-8.0	BORON	J	0.916	5.08	PQL	mg/Kg	J (all detects)
	SODIUM	J	95.8	102	PQL	mg/Kg	
	TIN	J	2.75	10.2	PQL	mg/Kg	
	Zirconium	J	2.78	5.08	PQL	mg/Kg	
SL-143-SA7-SB-5.0-6.0	SODIUM	J	95.7	103	PQL	mg/Kg	J (all detects)
	TIN	J	2.77	10.3	PQL	mg/Kg	
	Zirconium	J	3.80	5.17	PQL	mg/Kg	
SL-143-SA7-SB-9.0-10.0	BORON	J	0.975	5.20	PQL	mg/Kg	J (all detects)
	TIN	J	3.03	10.4	PQL	mg/Kg	
	Zirconium	J	3.23	5.20	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-016-SA5DS-SB-4.0-5.0	SELENIUM	J	0.154	0.431	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0268	0.108	PQL	mg/Kg	
SL-142-SA7-SB-2.0-3.0	ANTIMONY	J	0.102	0.204	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.130	0.408	PQL	mg/Kg	
	SILVER	J	0.0294	0.102	PQL	mg/Kg	
SL-142-SA7-SB-7.0-8.0	SELENIUM	J	0.362	0.418	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0484	0.105	PQL	mg/Kg	
SL-143-SA7-SB-5.0-6.0	ANTIMONY	J	0.154	0.209	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0555	0.104	PQL	mg/Kg	
	SELENIUM	J	0.197	0.418	PQL	mg/Kg	
	SILVER	J	0.0661	0.104	PQL	mg/Kg	
SL-143-SA7-SB-9.0-10.0	ANTIMONY	J	0.189	0.206	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.223	0.412	PQL	mg/Kg	
	SILVER	J	0.0815	0.103	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-016-SA5DS-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.56	1.1	PQL	mg/Kg	J (all detects)
SL-142-SA7-SB-2.0-3.0	HEXAVALENT CHROMIUM	J	0.31	1.0	PQL	mg/Kg	J (all detects)
SL-142-SA7-SB-7.0-8.0	HEXAVALENT CHROMIUM	J	0.49	1.0	PQL	mg/Kg	J (all detects)
SL-143-SA7-SB-5.0-6.0	HEXAVALENT CHROMIUM	J	0.56	1.1	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE272 **Laboratory: LL**

EDD Filename: DE272_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-143-SA7-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.81	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-142-SA7-SB-7.0-8.0	MERCURY	J	0.0231	0.0991	PQL	mg/Kg	J (all detects)
SL-143-SA7-SB-5.0-6.0	MERCURY	J	0.0081	0.104	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-142-SA7-SB-2.0-3.0	EFH (C12-C14)	J	0.56	1.2	PQL	mg/Kg	J (all detects)
	EFH (C15-C20)	J	1.0	1.2	PQL	mg/Kg	
	GASOLINE RANGE ORGANICS (C5-C12)	J	0.2	1.1	PQL	mg/Kg	
SL-143-SA7-SB-5.0-6.0	EFH (C12-C14)	J	0.67	1.3	PQL	mg/Kg	J (all detects)
	EFH (C15-C20)	J	1.0	1.3	PQL	mg/Kg	
	GASOLINE RANGE ORGANICS (C5-C12)	J	0.3	1.2	PQL	mg/Kg	
SL-143-SA7-SB-9.0-10.0	EFH (C15-C20)	J	0.50	1.3	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-142-SA7-SB-7.0-8.0	AROCLOR 1260	J	1.6	1.8	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	3.0	3.5	PQL	ug/Kg	

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-143-SA7-SB-5.0-6.0	CHLOROFORM	J	0.14	4.5	PQL	ug/Kg	J (all detects)
	METHYLENE CHLORIDE	J	0.78	4.5	PQL	ug/Kg	
	TOLUENE	J	0.21	4.5	PQL	ug/Kg	
SL-143-SA7-SB-9.0-10.0	CHLOROFORM	J	0.15	4.6	PQL	ug/Kg	J (all detects)
	METHYLENE CHLORIDE	J	0.99	4.6	PQL	ug/Kg	
	TOLUENE	J	0.21	4.6	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE272 **Laboratory: LL**

EDD Filename: DE272_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-142-SA7-SB-2.0-3.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	18	350	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-142-SA7-SB-2.0-3.0	BENZO(B)FLUORANTHENE	J	0.87	1.7	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.85	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.1	1.7	PQL	ug/Kg	
	PYRENE	J	0.89	1.7	PQL	ug/Kg	
SL-142-SA7-SB-7.0-8.0	BENZO(A)ANTHRACENE	J	1.0	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	0.77	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.76	1.7	PQL	ug/Kg	
	FLUORENE	J	0.92	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.90	1.7	PQL	ug/Kg	
	PYRENE	J	1.4	1.7	PQL	ug/Kg	
SL-143-SA7-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.4	19	PQL	ug/Kg	J (all detects)

Enclosure II

Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	October 19, 2011
LDC Report Date:	January 30, 2012
Matrix:	Soil/Water
Parameters:	Volatiles
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE272

Sample Identification

SL-143-SA7-SB-5.0-6.0
SL-143-SA7-SB-9.0-10.0
TB-101911
EB-SA7-SB-101911

Introduction

This data review covers 2 soil samples and 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a Laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
10/25/11 (bc25c01)	4-Methyl-2-pentanone	27	All soil samples in SDG DE272	J (all detects) UJ (all non-detects)	A
10/25/11 (bc25c02)	Freon 133a Chlorotrifluoroethene	28 29	All soil samples in SDG DE272	J (all detects) UJ (all non-detects)	A

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Analysis Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
VBLKB95	10/25/11	Methylene chloride Chloroform	0.76 ug/Kg 0.22 ug/Kg	SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
SL-143-SA7-SB-5.0-6.0	Methylene chloride Chloroform	0.78 ug/Kg 0.14 ug/Kg	4.5U ug/Kg 4.5U ug/Kg
SL-143-SA7-SB-9.0-10.0	Methylene chloride Chloroform	0.99 ug/Kg 0.15 ug/Kg	4.6U ug/Kg 4.6U ug/Kg

Sample TB-101911 was identified as a trip blank. No volatile contaminants were found.

Sample EB-SA7-SB-101911 was identified as an equipment blank. No volatile contaminants were found with the following exceptions:

Equipment Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB-SA7-SB-101911	10/19/11	Methylene chloride	5 ug/L	SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated field blanks with the following exceptions:

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-143-SA7-SB-5.0-6.0	Methylene chloride	0.78 ug/Kg	4.5U ug/Kg

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-143-SA7-SB-9.0-10.0	Methylene chloride	0.99 ug/Kg	4.6U ug/Kg

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
LCS/D B95 (All soil samples in SDG DE272)	Freon 133a	129 (78-120)	123 (78-120)	-	J (all detects)	P
	1,1-Dichloroethene	126 (73-123)	-	-	J (all detects)	
	Freon 113	134 (60-126)	-	-	J (all detects)	

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE272	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Volatiles - Data Qualification Summary - SDG DE272

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE272	SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0	4-Methyl-2-pentanone Freon 133a Chlorotrifluoroethene	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE272	SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0	Freon 133a 1,1-Dichloroethene Freon 113	J (all detects) J (all detects) J (all detects)	P	Laboratory control samples (%R) (L)
DE272	SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 TB-101911 EB-SA7-SB-101911	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Volatiles - Laboratory Blank Data Qualification Summary - SDG DE272

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE272	SL-143-SA7-SB-5.0-6.0	Methylene chloride Chloroform	4.5U ug/Kg 4.5U ug/Kg	A	B
DE272	SL-143-SA7-SB-9.0-10.0	Methylene chloride Chloroform	4.6U ug/Kg 4.6U ug/Kg	A	B

Santa Susana Field Laboratory
Volatiles - Field Blank Data Qualification Summary - SDG DE272

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE272	SL-143-SA7-SB-5.0-6.0	Methylene chloride	4.5U ug/Kg	A	F
DE272	SL-143-SA7-SB-9.0-10.0	Methylene chloride	4.6U ug/Kg	A	F

LDC #: 26979H1a **VALIDATION COMPLETENESS WORKSHEET** Date: 1/24/12
SDG #: DE272 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 10/19/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30, r²
IV.	Continuing calibration/ICV	SW	ICV/CCV ≤ 25
V.	Blanks	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	SW	LCS/LCSD
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation (RL)/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = 3 EB = 4

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: soil + water

1	SL-143-SA7-SB-5.0-6.0	11	VBLKB95	21		31	
2	SL-143-SA7-SB-9.0-10.0	12	VBLKY64	22		32	
3	TB-101911	13		23		33	
4	EB-SA7-SB-101911	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of $\geq$ 0.990?	✓			
Were all percent relative standard deviations (%RSD) $\leq$ 30% and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) $\leq$ 25% and relative response factors (RRF) $\geq$ 0.05?			✓	
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within + 30 seconds of the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride**	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform*	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene**	BB. 1,1,2,2-Tetrachloroethane*	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane*	CC. Toluene**	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene*	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform**	EE. Ethylbenzene**	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Chlorotrifluoroethene
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane**	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

* = System performance check compounds (SPCC) for RRF ; ** = Calibration check compounds (CCC) for %RSD.

LDC #: 26979H1a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?
Y N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?
Y N N/A Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %D (Limit: <25.0%)	Finding RRF (Limit: ≥0.05)	Associated Samples	Qualifications
	10/5/11	bc25c01	Y	27		All soils	J/UJ/A (c)
	10/5/11	bc25c02	Freon 133a	28		↓	↓
			NNN	29			

CONCAL_8260B.1S

LDC #: 26979H/a

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a method blank associated with every sample in this SDG?

Y N N/A Was a method blank analyzed at least once every 12 hours for each matrix and concentration?

Y N N/A Was there contamination in the method blanks? If yes, please see the qualifications below.

Blank analysis date: 10/25/11

Conc. units: ug/kg

Associated Samples: 1, 2

Compound	Blank ID	Sample Identification								
	VBLKB95		1	2						
E	0.76		0.78/4.54	0.99/4.64						
K	0.22		0.14/4.54	0.15/4.64						
CROL										

Blank analysis date:

Conc. units:

Associated Samples:

Compound	Blank ID	Sample Identification								
CROL										

All results were qualified using the criteria stated below except those circled.

Note: Common contaminants such as Methylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

LDC #: 26979B2a
SDG #: DF272

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: Y
2nd Reviewer: A

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Y N /N/A Were field blanks identified in this SDG?
Y N N/A Were target compounds detected in the field blanks?
Blank units: ug/L **Associated sample units:** ug/kg
Sampling date: 12/19/11
Field blank type: (circle one) Field Blank / (Rinsate) / Trip Blank / Other:_____ Associated Samples: 1, 2 (F)

Compound	Blank ID	Sample Identification								
	4		1	2						
Methylene chloride	5 ug/L		0.78/4.5U	0.99/4.6U						
Acetone										
Chloroform										
CRQL										

Blank units:_____ **Associated sample units:**
Sampling date:
Field blank type: (circle one) Field Blank / Rinsate / Trip Blank / Other:_____ Associated Samples:

Compound	Blank ID	Sample Identification								
Methylene chloride										
Acetone										
Chloroform										
CRQL										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Common contaminants such as Methylene chloride, Acetone, 2-Butanone and Carbon disulfide that were detected in samples within ten times the associated field blank concentration were qualified as not detected, "U". Other contaminants within five times the field blank concentration were also qualified as not detected, "U".

LDC #: 46979H1a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

[✓ Y] N N/A Was a LCS required?
Y [✓ N] N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		lcs/D B95	Freon 133a	129 (78-120)	123 (78-120)	( )	All soils	J/Pdet (L)
			H	126 (73-123)	( )	( )	↓	↓
			Freon 113	134 (61-126)	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		

LDC #: 26979 H/a

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the followi calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs
X = Mean of the RRFs

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (50 std)	Recalculated RRF (50 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	7/21/11	C (1st internal standard)	0.3422	0.3422	0.3505	0.3505	9	9
			EE (2nd internal standard)	1.8304	1.8304	1.7156	1.7156	7	7
			JJJ (3rd internal standard)	1.5137	1.5137	1.4916	1.4916	6	6
			(4th internal standard)						
2	ICAL	9/27/11	C (1st internal standard)	0.4337	0.4337	0.4274	0.4274	8	8
			EE (2nd internal standard)	2.2335	2.2335	2.1530	2.1530	3	3
			JJ (3rd internal standard)	1.8583	1.8583	1.7997	1.7997	4	4
			(4th internal standard)						
3			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						
4			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculat results.

LDC #: 26979H/a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounc identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	ccv 11:47	10/26/11	C (1st internal standard)	0.3505	0.3337	0.3337	5	5
			EE (2nd internal standard)	1.7156	1.7744	1.7744	3	3
			JJJ (3rd internal standard)	1.4916	1.4752	1.4752	1	1
			(4th internal standard)					
2	ccv 9:46	10/26/11	C (1st internal standard)	0.4274	0.4678	0.4678	9	9
			EE (2nd internal standard)	2.1530	2.1149	2.1149	2	2
			JJJ (3rd internal standard)	1.7997	1.6053	1.6053	11	11
			(4th internal standard)					
3			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
4			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of th recalculated results.

Surrogate Results Verification

Reviewer: FT
2nd reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane	50.0	51.533	103	103	0
1,2-Dichloroethane-d4	↓	53.657	107	107	↓
Toluene-d8		49.225	98	98	
Bromofluorobenzene		48.225	96	96	

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

SURRCALC.1SB

LDC #: 26979H/a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration
SA = Spike added

RPD = | LCS - LCSD | * 2/(LCS + LCSD) LCS = Laboraotry control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS ID: LCS/DB95

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,1-Dichloroethene	20	20	25.21	23.8	126	126	119	119	6	6
Trichloroethene	↓	↓	21.83	20.82	109	109	104	104	5	5
Benzene			22.23	21.16	111	111	106	106	5	5
Toluene			21.54	20.45	108	108	102	102	5	5
Chlorobenzene			21.48	20.41	107	107	102	102	5	5

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26779H/a

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer: A

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

Y N N/A Were all reported results recalculated and verified for all level IV samples?

Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

RRF = Relative response factor of the calibration standard.

V_o = Volume or weight of sample pruged in milliliters (ml) or grams (g).

Df = Dilution factor.

%S = Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. #1, K:

Conc. = $\frac{(1322)(50)(\quad)}{(1232988)(0.4428)(4.74)(\quad)}$

=

0.13 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	October 19, 2011
LDC Report Date:	January 30, 2012
Matrix:	Soil/Water
Parameters:	1,4-Dioxane
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE272

Sample Identification

SL-143-SA7-SB-5.0-6.0
SL-143-SA7-SB-9.0-10.0
TB-101911
EB-SA7-SB-101911

Introduction

This data review covers 2 soil samples and 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B using Selected Ion Monitoring (SIM) for 1,4-Dioxane.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for 1,4-Dioxane.

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 25.0% for 1,4-Dioxane.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for 1,4-Dioxane.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No 1,4-dioxane was found in the method blanks.

Sample TB-101911 was identified as a trip blank. No 1,4-dioxane was found.

Sample EB-SA7-SB-101911 was identified as an equipment blank. No 1,4-dioxane was found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE272	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
1,4-Dioxane - Data Qualification Summary - SDG DE272

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE272	SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 TB-101911 EB-SA7-SB-101911	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
1,4-Dioxane - Laboratory Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
1,4-Dioxane - Field Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

LDC #: 26979H1b **VALIDATION COMPLETENESS WORKSHEET** Date: 1/22/12
SDG #: DE272 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: F
2nd Reviewer: A

METHOD: GC/MS 1,4-Dioxane (EPA SW 846 Method 8260B-SIM)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 10/19/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30,
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 25
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS ID
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = 3 FB = 4

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:
soil + water

1	SL-143-SA7-SB-5.0-6.0 S	11	VBLKE82	21		31	
2	SL-143-SA7-SB-9.0-10.0	12	VBLKE81	22		32	
3	TB-101911 W	13		23		33	
4	EB-SA7-SB-101911	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

DC #: 26979H1b

VALIDATION FINDINGS CHECKLIST

Reviewer: FT

2nd Reviewer: A

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?			✓	
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓		✓	
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

DC #: 26979#112

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within + 30 seconds of the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?			✓	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?			✓	
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?			✓	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performances				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl chorida**	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform*	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene**	BB. 1,1,2,2-Tetrachloroethane*	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane*	CC. Toluene**	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene*	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform**	EE. Ethylbenzene**	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN.
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane**	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

* = System performance check compounds (SPCC) for RRF ; ** = Calibration check compounds (CCC) for %RSD.

LDC #: 26779#1b

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the followin calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs
X = Mean of the RRFs

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (5 std)	Recalculated RRF (5 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	6/17/11	1,4-Dioxane (1st internal standard)	1.4025	1.4025	1.4910	1.4910	6	6
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)	(20)	(20)				
2	ICAL	6/16/11	↓ (1st internal standard)	1.2847	1.2847	1.3554	1.3554	4	4
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						
3			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						
4			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculate results.

LDC #: 26979H1D

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compound identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	cc25c01	10/26/11	1,4-Dioxane (1st internal standard)	1.4910	1.4360	1.4360	9.59	9.59
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
2	cc24c51	10/24/11	1,4-Dioxane (1st internal standard)	1.3554	1.3438	1.3438	9.91	9.91
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
3			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
4			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of th recalculated results.

Surrogate Results Verification

Reviewer: FT
2nd reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8	10	9.331	93	93	0
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

LDC #: 26979H1h

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration
SA = Spike added

RPD = | LCS - LCSD | * 2/(LCS + LCSD) LCS = Laboraotry control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS ID: E112881 LCS 1D

Compound	Spike Added ( )		Spiked Sample Concentration ( )		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,4 - Dioxane ~~1,1 Dichloroethene~~	125	125	117.46	113.05	94	94	90	90	4	4
~~Trichloroethene~~										
Benzene										
Toluene										
Chlorobenzene										

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979H1h

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer: A

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

RRF = Relative response factor of the calibration standard.

V_o = Volume or weight of sample pruged in milliliters (ml) or grams (g).

Df = Dilution factor.

%S = Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. _____ , _____:

Conc. = $\frac{(\quad)(\quad)(\quad)}{(\quad)(\quad)(\quad)(\quad)}$

= MP

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	October 19, 2011
LDC Report Date:	January 30, 2012
Matrix:	Soil/Water
Parameters:	Semivolatiles
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE272

Sample Identification

SL-016-SA5DS-SB-4.0-5.0
SL-143-SA7-SB-5.0-6.0
SL-143-SA7-SB-9.0-10.0
SL-142-SA7-SB-2.0-3.0
SL-142-SA7-SB-7.0-8.0
EB-SA7-SB-101911
SL-016-SA5DS-SB-4.0-5.0MS
SL-016-SA5DS-SB-4.0-5.0MSD

Introduction

This data review covers 7 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

Sample EB-SA7-SB-101911 was identified as an equipment blank. No semivolatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-016-SA5DS-SB-4.0-5.0MS/MSD (SL-016-SA5DS-SB-4.0-5.0)	2,4-Dinitrophenol 4,6-Dinitro-2-methylphenol 3,3'-Dichlorobenzidine	- - -	- - -	104 (≤30) 53 (≤30) 33 (≤30)	J (all detects) J (all detects) J (all detects)	A
SL-016-SA5DS-SB-4.0-5.0MS/MSD (SL-016-SA5DS-SB-4.0-5.0)	Benzidine	0 (35-141)	0 (35-141)	-	J (all detects) R (all non-detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
297WILCS/D (All water samples in SDG DE272)	Pentachlorophenol	111 (53-110)	112 (53-110)	-	J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE272	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Semivolatiles - Data Qualification Summary - SDG DE272

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE272	SL-016-SA5DS-SB-4.0-5.0	2,4-Dinitrophenol 4,6-Dinitro-2-methylphenol 3,3'-Dichlorobenzidine	J (all detects) J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (RPD) (Q)
DE272	SL-016-SA5DS-SB-4.0-5.0	Benzidine	J (all detects) R (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE272	EB-SA7-SB-101911	Pentachlorophenol	J (all detects)	P	Laboratory control samples (%R) (L)
DE272	SL-016-SA5DS-SB-4.0-5.0 SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0 EB-SA7-SB-101911	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

LDC #: 26979H2a **VALIDATION COMPLETENESS WORKSHEET** Date: 1/24/12
SDG #: DE272 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 10/19/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%D ≤ 30, r²
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 25
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	SW	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	EB = 6

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: soil + water

1	SL-016-SA5DS-SB-4.0-5.0 S	11	SBLKLA295	21		31	
2	SL-143-SA7-SB-5.0-6.0	12	SBLKW1297	22		32	
3	SL-143-SA7-SB-9.0-10.0	13		23		33	
4	SL-142-SA7-SB-2.0-3.0	14		24		34	
5	SL-142-SA7-SB-7.0-8.0	15		25		35	
6	EB-SA7-SB-101911 W	16		26		36	
7	# MS	17		27		37	
8	# MSD	18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 26979 #2a

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?	✓			
IV. Calibration verification				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicate				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		✓		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

LDC #: 26979H2a

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer:

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		✓		
X. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation and CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA Method 8270)

A. Phenol	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol	III. Benzo(a)pyrene
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene	T. 4-Chloroaniline	II. 4-Nitrophenol	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene	JJ. Dibenzofuran	YY. Fluoranthene	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine	Y. 2,4,6-Trichlorophenol	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. 1-Methylnaphthalene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)	FFF. Di-n-octylphthalate	UUU.
N. 2-Nitrophenol	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 26979H2a

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

(Y) N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y (N) N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		7+8	HH	( )	( )	104 (30)	#1	J/Adet (Q)
			PP	( )	( )	53 (30)	↓	~~J/R/A~~ ↓
			SSS	0 (35-141)	0 (35-141)	( )	↓	J/R/Adet ↓
			BBB	( )	( )	33 (30)	↓	J/Adet ↓
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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LDC #: 26979H2a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

[✓ Y] N N/A Was a LCS required?

Y [✓ N] N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		297WILCS/D	TT	111 (53-110)	112 (53-110)	( )	all water	J/Pdet (L)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		
				( )	( )	( )		

LDC #: 26979HDQ

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

RRF = $(A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs,

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (50 std)	Recalculated RRF (50 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	10/26/11	Phenol (1st internal standard)	2.843	2.843	2.600	2.600	8	8
			2-nitrophenol (2nd internal standard)	0.198	0.198	0.192	0.192	6	6
			2-nitroaniline (3rd internal standard)	0.411	0.411	0.391	0.391	10	10
			Pentachlorophenol (4th internal standard)	0.127	0.127	0.123	0.123	9	9
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.674	0.674	0.667	0.667	4	4
			Di-n-octylphthalate (6th internal standard)	1.579	1.579	1.521	1.521	8	8
2			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979H2q

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	CCV	10/26/11	Phenol (1st internal standard)	2.600	2.427	2.427	7	7
			2-Nitrophenol ~~Naphthalene~~ (2nd internal standard)	0.192	0.188	0.188	2	2
			2-Nitroaniline ~~Fluorene~~ (3rd internal standard)	0.391	0.415	0.415	6	6
			Pentachlorophenol (4th internal standard)	0.123	0.124	0.124	1	1
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.667	0.721	0.721	8	8
			Di-n-octylphthalate ~~Benzo(a)pyrene~~ (6th internal standard)	1.521	1.473	1.473	3	3
2			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

VALIDATION FINDINGS WORKSHEET

Surrogate Results Verification

Reviewer: FT

2nd reviewer: A

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	100	79.596	80	80	0
2-Fluorobiphenyl	↓	84.683	85	85	
Terphenyl-d14	↓	96.835	97	97	↓
Phenol-d5	200	171.177	86	86	
2-Fluorophenol	↓	179.832	90	90	
2,4,6-Tribromophenol	↓	167.728	84	84	↓
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 26979#29

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentation

RPD = | MSC - MSC | * 2/(MSC + MSDC) MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD samples: 7 + 8

Compound	Spike Added (ug/kg)		Sample Concentration (ug/kg)	Spiked Sample Concentration (ug/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	------	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol	1655.63	1655.63	ND	1585.17	1651.3	96	96	100	100	4	4
N-Nitroso-di-n-propylamine	↓	↓	↓	1395.48	1442.08	84	84	87	87	3	3
4-Chloro-3-methylphenol				1553.9	1642.8	94	94	99	99	6	6
Acenaphthene				1516.91	1603.72	92	92	97	97	6	6
Pentachlorophenol				1582.27	1446.47	96	96	87	87	9	9
Pyrene				1522.82	1590.32	92	92	96	96	4	4

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26717T1T04

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: 295LALCS

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol	1666.67	NA	1603.39	NA	96	96				
N-Nitroso-di-n-propylamine			1415.37		85	85				
4-Chloro-3-methylphenol			1666.21		100	100				
Acenaphthene			1580.6		95	95				
Pentachlorophenol			1672.79		100	100				
Pyrene			1640.52		98	98	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979H25

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer: C

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. #4 , EEE.

Conc. = $\frac{(6897)(20)(1000)(\quad)(\quad)(\quad)}{(408276)(0.667)(30.0)(0.96)}$

= 17.58 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	October 19, 2011
LDC Report Date:	January 30, 2012
Matrix:	Soil/Water
Parameters:	Semivolatiles
Validation Level:	Level IV
Laboratory:	Lancaster laboratories
Sample Delivery Group (SDG):	DE272

Sample Identification

SL-016-SA5DS-SB-4.0-5.0
SL-143-SA7-SB-5.0-6.0
SL-143-SA7-SB-9.0-10.0
SL-142-SA7-SB-2.0-3.0
SL-142-SA7-SB-7.0-8.0
EB-SA7-SB-101911
SL-143-SA7-SB-5.0-6.0MS
SL-143-SA7-SB-5.0-6.0MSD

Introduction

This data review covers 7 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C using Selected Ion Monitoring (SIM) for Semivolatiles.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Extraction Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
SBLKWE297	10/24/11	Di-n-octylphthalate	0.094 ug/L	EB-SA7-SB-101911

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
EB-SA7-SB-101911	Di-n-octylphthalate	0.096 ug/L	1.1U ug/L

Sample EB-SA7-SB-101911 was identified as an equipment blank. No semivolatile contaminants were found with the following exceptions:

Equipment Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB-SA7-SB-101911	10/19/11	Di-n-butylphthalate	0.27 ug/L	SL-016-SA5DS-SB-4.0-5.0
		Diethylphthalate	0.19 ug/L	SL-143-SA7-SB-5.0-6.0
		Bis(2-ethylhexyl)phthalate	0.16 ug/L	SL-143-SA7-SB-9.0-10.0
		Naphthalene	0.039 ug/L	SL-142-SA7-SB-2.0-3.0
		Di-n-octylphthalate	0.096 ug/L	SL-142-SA7-SB-7.0-8.0

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated field blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
297WELCS/D (All water samples in SDG DE272)	Dimethylphthalate	10 (40-119)	10 (40-119)	-	J (all detects) UJ (all non-detects)	P
	Butylbenzylphthalate	22 (40-138)	21 (40-138)	-	J (all detects) UJ (all non-detects)	

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE272	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Semivolatiles - Data Qualification Summary - SDG DE272

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE272	EB-SA7-SB-101911	Dimethylphthalate Butylbenzylphthalate	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R) (L)
DE272	SL-016-SA5DS-SB-4.0-5.0 SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0 EB-SA7-SB-101911	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG DE272

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE272	EB-SA7-SB-101911	Di-n-octylphthalate	1.1U ug/L	A	B

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

LDC #: 26979H2b **VALIDATION COMPLETENESS WORKSHEET** Date: 1/24/12
SDG #: DE272 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
SVOA 2nd Reviewer: [illegible]

METHOD: GC/MS ~~Polynuclear Aromatic Hydrocarbons~~ (EPA SW 846 Method 8270C-SIM)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 10/19/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30, r²
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 25
V.	Blanks	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	SW	LCS ID
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	SW	EB = 6

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:
soil + water

1	SL-016-SA5DS-SB-4.0-5.0	11	SBLKLC295	21		31	
2	SL-143-SA7-SB-5.0-6.0	12	SBLKWE097	22		32	
3	SL-143-SA7-SB-9.0-10.0	13		23		33	
4	SL-142-SA7-SB-2.0-3.0	14		24		34	
5	SL-142-SA7-SB-7.0-8.0	15		25		35	
6	EB-SA7-SB-101911 W	16		26		36	
7	#2 MS	17		27		37	
8	#2 MSD	18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 26979H2b

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer:

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		✓		
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation and CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.	✓			

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA Method 8270)

A. Phenol	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol	III. Benzo(a)pyrene
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene	T. 4-Chloroaniline	II. 4-Nitrophenol	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene	JJ. Dibenzofuran	YY. Fluoranthene	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine	Y. 2,4,6-Trichlorophenol	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. 1-Methylnaphthalene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)	FFF. Di-n-octylphthalate	UUU.
N. 2-Nitrophenol	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 26979H2b

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a method blank analyzed for each matrix?
Y N N/A Was a method blank analyzed for each concentration preparation level?
Y N N/A Was a method blank associated with every sample?
Y N N/A Was the blank contaminated? If yes, please see qualification below.

Blank extraction date: 10/24/11 **Blank analysis date:** 10/25/11
Conc. units: ug/L Associated Samples: 6

Compound	Blank ID	Sample Identification								
	SBLKWE297		6							
FFF	0.094		0.096/1.1	U						

Blank extraction date: _____ **Blank analysis date:** _____
Conc. units: _____ Associated Samples: _____

Compound	Blank ID	Sample Identification								

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Common contaminants such as the phthalates and TICs noted above that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

LDC #: 26979H2b

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)
Y N N/A Were field blanks identified in this SDG?
Y N N/A Were target compounds detected in the field blanks?
Blank units: ug/L **Associated sample units:** ug/kg
Sampling date: 10/19/11
Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: 1-5 (ND + 5X, 10X)

Compound	Blank ID	Sample Identification								
	6		3							
XX	0.27									
LL	0.19									
EEE	0.16		(8.4)							
~~MMS~~ S	0.039									
FFF	0.096									
CRQL										

Blank units: _____ **Associated sample units:** _____
Sampling date: _____
Field blank type: (circle one) Field Blank / Rinsate / Other: _____ Associated Samples: _____

Compound	Blank ID	Sample Identification								
CRQL										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Common contaminants such as the phthalates and TICs noted above that were detected in samples within ten times the associated field blank concentration were qualified as not detected, "U". Other contaminants within five times the field blank concentration were also qualified as not detected, "U".

LDC #: 26979#2b

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

[✓ Y] N N/A Was a LCS required?

Y [✓ N] N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		297W E LCS/D	CC	10 (40-119)	10 (40-119)	( )	All water	J/UJ/P
			AAA	22 (40-138)	21 (40-138)	( )	↓	↓
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		

LDC #: 26717 HOD

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
$\%RSD = 100 * (S/X)$

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs,

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (/ std)	Recalculated RRF (/ std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	10/6/11	~~Phenol (1st internal standard)~~						
			Naphthalene (2nd internal standard)	1.114	1.114	1.099	1.099	2	2
			Fluorene (3rd internal standard)	1.388	1.388	1.340	1.340	6	6
			~~Pentachlorophenol~~ Anthracene (4th internal standard)	1.202	1.202	1.146	1.146	9	9
			~~Bis(2-ethylhexyl)phthalate~~ Chrysene (5th internal standard)	1.275	1.275	1.252	1.252	3	3
			Benzo(a)pyrene (6th internal standard)	1.187	1.187	1.151	1.151	7	7
2			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979H2b

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	CCV 6:18	10/25/17	~~Phenol (1st internal standard)~~					
			Naphthalene (2nd internal standard)	1.099	1.111	1.111	1	1
			Fluorene (3rd internal standard)	1.340	1.380	1.380	3	3
			~~Pentachlorophenol (4th internal standard)~~ Anthracene	1.146	1.226	1.226	7	7
			~~Bis(2-ethylhexyl)phthalate (5th internal standard)~~ Chrysene	1.252	1.325	1.325	6	6
			~~Benzo(a)pyrene (6th internal standard)~~	1.151	1.191	1.191	4	4
2			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

VALIDATION FINDINGS WORKSHEET

Surrogate Results Verification

Reviewer: FT

2nd reviewer: A

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	1.0	0.791	79	79	0
2-Fluorobiphenyl	↓	0.688	69	69	
Terphenyl-d14	↓	0.879	88	88	↓
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 26777A2D

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentation

RPD = I MSC - MSC I * 2/(MSC + MSDC) MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD samples: 7 +8

Compound	Spike Added (ug/Kg)		Sample Concentration (ug/Kg)	Spiked Sample Concentration (ug/Kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	------	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol											
N-Nitroso-di-n-propylamine											
4-Chloro-3-methylphenol											
Acenaphthene	32.79	32.79	ND	30.15	29.34	92	92	89	89	3	3
Pentachlorophenol											
Pyrene	32.79	32.79	ND	31.08	28.287	95	95	88	88	7	7

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 607 19110D

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: 295 LCS LCSD

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
Phenol										
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene	33.33	NA	29.8	NA	89	89				
Pentachlorophenol										
Pyrene	↓	NA	31.52	NA	95	95	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979#2b

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. #34, Benzo(k)fluoranthene

Conc. = $\frac{(77315)(1)(1000)(\quad)(\quad)}{(399079)(1.249)(30.5)(0.96)(\quad)}$

=

1.89 ug/kg

≈ 1.9 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	October 19, 2011
LDC Report Date:	January 31, 2012
Matrix:	Soil/Water
Parameters:	N-Nitrosodimethylamine
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE272

Sample Identification

SL-143-SA7-SB-5.0-6.0
SL-143-SA7-SB-9.0-10.0
EB-SA7-SB-101911-95
TB-101911 (water)
TB-101911 (sand)
EB-SA7-SB-101911-99
SL-143-SA7-SB-5.0-6.0MS
SL-143-SA7-SB-5.0-6.0MSD

Introduction

This data review covers 5 soil samples and 3 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 1625C for N-Nitrosodimethylamine.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check is not required for by this method.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% .

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% .

The percent differences (%D) of the second source calibration standard were less than or equal to 30.0% .

V. Blanks

Method blanks were reviewed for each matrix as applicable. No N-nitrosodimethylamine was found in the method blanks with the following exceptions:

Method Blank ID	Extraction Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
SBLKWC297	10/24/11	N-Nitrosodimethylamine	0.887 ng/L	EB-SA7-SB-101911-95 TB-101911 (water) EB-SA7-SB-101911-99

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
EB-SA7-SB-101911-95	N-Nitrosodimethylamine	3.66 ug/L	3.66U ug/L

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
TB-101911 (water)	N-Nitrosodimethylamine	0.860 ug/L	0.860U ug/L
EB-SA7-SB-101911-99	N-Nitrosodimethylamine	4.55 ug/L	4.55U ug/L

Samples TB-101911 (water) and TB-101911 (sand) were identified as trip blanks. No N-nitrosodimethylamine was found in the method blanks with the following exceptions:

Trip Blank ID	Sampling Date	Compound	Concentration	Associated Samples
TB-101911 (water)	10/19/11	N-Nitrosodimethylamine	0.860 ng/L	EB-SA7-SB-101911-95 EB-SA7-SB-101911-99

Samples EB-SA7-SB-101911-95 and EB-SA7-SB-101911-99 were identified as equipment blanks. No N-nitrosodimethylamine was found in the method blanks with the following exceptions:

Equipment Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB-SA7-SB-101911-95	10/19/11	N-Nitrosodimethylamine	3.66 ng/L	All soil samples in SDG DE272
EB-SA7-SB-101911-99	10/19/11	N-Nitrosodimethylamine	4.55 ng/L	All soil samples in SDG DE272

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated field blanks with the following exceptions:

Sample	Compound	Reported Concentration	Modified Final Concentration
EB-SA7-SB-101911-95	N-Nitrosodimethylamine	3.66 ng/L	3.66U ng/L

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE272	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Data Qualification Summary - SDG DE272

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE272	SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 EB-SA7-SB-101911-95 TB-101911 (water) TB-101911 (sand) EB-SA7-SB-101911-99	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Laboratory Blank Data Qualification Summary - SDG DE272

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE272	EB-SA7-SB-101911-95	N-Nitrosodimethylamine	3.66U ug/L	A	B
DE272	TB-101911 (water)	N-Nitrosodimethylamine	0.860U ug/L	A	B
DE272	EB-SA7-SB-101911-99	N-Nitrosodimethylamine	4.55U ug/L	A	B

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Field Blank Data Qualification Summary - SDG DE272

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE272	EB-SA7-SB-101911-95	N-Nitrosodimethylamine	3.66U ng/L	A	T

LDC #: 26979H2c **VALIDATION COMPLETENESS WORKSHEET** Date: 1/22/12
SDG #: DE272 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS N-Nitrosodimethylamine (EPA Method 1625C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 10/19/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30
IV.	Continuing calibration/ICV	A	ICV ≤ 30 CCV ≤ 20
V.	Blanks	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	SW	EB = 3, 6 TB = 4, 5

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
* ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:
soil + water

1	SL-143-SA7-SB-5.0-6.0 S	11	SBLKLB298	21		31	
2	SL-143-SA7-SB-9.0-10.0	12	SBLKWC297	22		32	
3	EB-SA7-SB-101911-95 W	13		23		33	
4	TB-101911 (water) W	14		24		34	
5	TB-101911 (sand) S	15		25		35	
6	EB-SA7-SB-101911-99 W	16		26		36	
7	#1 MS	17		27		37	
8	#1 MSD	18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 26979H2c

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer:

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?			✓	
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?			✓	
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓		✓	
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?				
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

LDC #: 26979#2c

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation and CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.	✓			

LDC #: 26979/2C

VALIDATION FINDINGS WORKSHEET
Blanks

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a method blank analyzed for each matrix?
Y N N/A Was a method blank analyzed for each concentration preparation level?
Y N N/A Was a method blank associated with every sample?
Y N N/A Was the blank contaminated? If yes, please see qualification below.

(B)

Blank extraction date: 10/24/11 **Blank analysis date:** 11/2/11
Conc. units: ng/L Associated Samples: 3, 4, 6

Compound	Blank ID	5x		Sample Identification						
	SBLKW297			3	4	6				
N-Nitrosodimethylamine	0.887	4.435		3.66/U	0.869/U	4.55/U				

Blank extraction date: _____ **Blank analysis date:** _____
Conc. units: _____ Associated Samples: _____

Compound	Blank ID	Sample Identification								

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Common contaminants such as the phthalates and TICs noted above that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

LDC #: 26979H2C

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were field blanks identified in this SDG?

Y N N/A Were target compounds detected in the field blanks?

Blank units: ng/L **Associated sample units:** ng/kg

Sampling date: 10/19/11

Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: All soils ND

Compound	Blank ID	Blank ID	Sample Identification							
	3	6								
N-Nitrosodimethylamine	3.66	4.55								
CRQL										

Blank units: ng/L **Associated sample units:** ng/L

Sampling date: 10/19/11

Field blank type: (circle one) Field Blank / Rinsate / Other: TB Associated Samples: 3, 6

Compound	Blank ID	Sample Identification								
	4	5X		3	6					
↓	0.860	4.30		3.66/4	4.55					
CRQL										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Common contaminants such as the phthalates and TICs noted above that were detected in samples within ten times the associated field blank concentration were qualified as not detected, "U". Other contaminants within five times the field blank concentration were also qualified as not detected, "U".

LDC #: 26979#2c

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs,

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (25 std)	Recalculated RRF (25 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	10/31/11	Phenol (1st internal standard) NDMA	0.909	0.909	0.973	0.973	14	14
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
2	ICAL	11/16/11	Phenol (1st internal standard) NDMA	0.977	0.977	1.018	1.018	15	15
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979#3c

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	CCV 13:00	11/2/11	~~Phenol (1st internal standard)~~ NDMA	0.97301	0.95395	0.95395	1.95884	1.95884
	ak0060		Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
	CCV 16:02	11/2/11	Pentachlorophenol (4th internal standard) NDMA	↓	1.03912	1.03912	6.79395	6.79395
	ak0069		Bis(2-ethylhexyl)phthalate (5th internal standard)					
			~~Benzo(a)pyrene (6th internal standard)~~					
2	CCV 18:35	11/2/11	Phenol (1st internal standard) NDMA	↓	1.07380	1.07380	10.35815	10.35815
	ak0077		Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			~~Benzo(a)pyrene (6th internal standard)~~					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Surrogate Results Verification

Reviewer: FT
2nd reviewer:

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
~~Nitrobenzene-d5~~ NDMA-d6	25	24.635	99	99	0
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 26979#2c

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentation

RPD = I MSC - MSC I * 2/(MSC + MSDC) MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD samples: 7+8

Compound	Spike Added (ng/kg)		Sample Concentration (ng/kg)	Spiked Sample Concentration (ng/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	------	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
~~Phenol~~ NDMA	825.08	825.08	ND	797.73	754.39	97	97	91	91	4	6
~~N-Nitroso-di-n-propylamine~~											
4-Chloro-3-methylphenol											
Acenaphthene											
Pentachlorophenol											
~~Pyrene~~											

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979H2c

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LCS SOIL

Compound	Spike Added (ng/kg)		Spike Concentration (ng/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
~~Phenol~~ NDMA	833.33	NA	805.24	NA	97	97	NA			
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene										
Pentachlorophenol										
Pyrene										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979#2c

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_t	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. #3 , NDMA

Conc. = $\frac{(15177)(25)(1000)(\quad)(\quad)}{(12480)(0.97301)(948)(\quad)(\quad)}$

= 3.66 ng/L

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	October 19, 2011
LDC Report Date:	January 30, 2012
Matrix:	Soil/Water
Parameters:	Polychlorinated Biphenyls
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE272

Sample Identification

SL-016-SA5DS-SB-4.0-5.0
SL-143-SA7-SB-5.0-6.0
SL-143-SA7-SB-9.0-10.0
SL-142-SA7-SB-2.0-3.0
SL-142-SA7-SB-7.0-8.0
EB-SA7-SB-101911
SL-016-SA5DS-SB-4.0-5.0MS
SL-016-SA5DS-SB-4.0-5.0MSD

Introduction

This data review covers 7 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

Sample EB-SA7-SB-101911 was identified as an equipment blank. No polychlorinated biphenyl contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XII. Target Compound Identification

All target compound identifications were within validation criteria.

XIII. Compound Quantitation and Reported RLs

All compound quantitation and RLs were within validation criteria.

The sample results for detected compounds from the two columns were within 40% relative percent difference (RPD) with the following exceptions:

Sample	Compound	RPD	Flag	A or P
SL-142-SA7-SB-7.0-8.0	Aroclor-5460	61.52	J (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE272	All compounds reported below the RL.	J (all detects)	A

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Data Qualification Summary - SDG DE272

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE272	SL-142-SA7-SB-7.0-8.0	Aroclor-5460	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE272	SL-016-SA5DS-SB-4.0-5.0 SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0 EB-SA7-SB-101911	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

LDC #: 26979H3b **VALIDATION COMPLETENESS WORKSHEET** Date: 2/22/12
SDG #: DE272 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: A

METHOD: GC Polychlorinated Biphenyls (EPA SW 846 Method 8082)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 10/19/11
II.	GC/ECD Instrument Performance Check	NA	
III.	Initial calibration	A	%RSD ≤ 20
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS/LCSD
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	A	
XIII.	Compound quantitation/RL/LOQ/LODs	SW	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	N	
XVI.	Field blanks	ND	EB = 6

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: soil + water

1	SL-016-SA5DS-SB-4.0-5.0 S	11		21		31	
2	SL-143-SA7-SB-5.0-6.0	12		22		32	
3	SL-143-SA7-SB-9.0-10.0	13		23		33	
4	SL-142-SA7-SB-2.0-3.0	14		24		34	
5	SL-142-SA7-SB-7.0-8.0	15		25		35	
6	EB-SA7-SB-101911 W	16		26		36	
7	#1MS	17		27		37	
8	#1MSD	18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 26979H3b
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: [illegible]
2nd Reviewer: [illegible]

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) < 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 26979H3b
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer:

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?			✓	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

LDC #: 26979#35
SDG #:

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Page: 1 of 1
Reviewer: EZ
2nd Reviewer: C

METHOD: GC Pesticides/PCBs (EPA SW 846, 8081)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Level IV/D Only

Y N N/A Were CRQLs adjusted for sample dilutions, dry weight factors, cleanup, activities, etc.?

Y N N/A Did the recalculated results for detected target compounds agree within 10.0% of the reported results?

#	Date	compound ~~Lab ID/Reference~~	% RPD Bet 2 Finding 61. ≤ 40	Associated Samples	Qualifications
		PCB-5460	61.52	5	J/A det * XIII

Comments: See sample calculation verification worksheet for recalculations

LDC #: 26979H3b
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer: A

METHOD: GC ✓ HPLC _____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (20ng std)	Recalculated CF (20ng std)	Reported Average CF (Initial)	Recalculated Average CF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL IPX3	10/31/11	Aroclor 1260-1 MR-1	121	121	123	123	8.9	8.9
			" MR-2	47	47	49	49	8.6	8.6
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979H3b
SDG #: fw cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: CA

METHOD: GC ✓ HPLC _____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(Ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	CCV 20:26	10/31/11	Aroclor 1260 MR-1	200.20	195.74	195.74	2.2	2.2
			MR-2	200.20	199.45	199.45	0.4	0.4
2	CCV 8:42	11/01/11	↓	200.0	196.26	196.26	1.9	1.9
				200.0	198.76	198.76	0.6	0.6
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: [illegible]

SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT

2nd reviewer:

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: # 1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
TCMX	MR1	1.041	0.742467	71	71	0
PCB	MR2	1.041	0.822786	79	79	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

SDG #: pw covers

VALIDATION FINDINGS WORKSHEET

Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FT

2nd Reviewer: Q

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration

SA = Spike added

RPD =(((SSCMS - SSCMSD} * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 7 & 8

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	---	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
PCB-1260	16.67	16.67	ND	15.99	15.61	96	96	94	94	2	2

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16774M2D
SDG #: all cores

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: FD
2nd Reviewer: A

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS ID

Compound	Spike Added (ug/L)		Spiked Sample Concentration (ug/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
PCB-1260	5	5	5	5.2	100	100	104	104	4	4

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979H3b
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC ___ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. # 5 Compound Name 1254

final Concentration = $\frac{5.63}{0.947}$

= 5.9 ug/kg

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications
	Aroclor 1254				
	1254-1 = 30128.71875 (2) / 94 (60) = 10.684			1254-1 = 10.684	
				-2 = 2.48205	
				-4 = 3.778207	
					5.63

Comments: ___

SAMPCALew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	October 19, 2011
LDC Report Date:	January 23, 2012
Matrix:	Soil/Water
Parameters:	Metals
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE272

Sample Identification

SL-016-SA5DS-SB-4.0-5.0
SL-143-SA7-SB-5.0-6.0
SL-143-SA7-SB-9.0-10.0
SL-142-SA7-SB-2.0-3.0
SL-142-SA7-SB-7.0-8.0
EB-SA7-SB-101911
SL-016-SA5DS-SB-4.0-5.0MS
SL-016-SA5DS-SB-4.0-5.0MSD
SL-016-SA5DS-SB-4.0-5.0DUP

Introduction

This data review covers 8 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010B, 6020, 7471A, and 7470A for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Molybdenum, Mercury, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, and Zirconium.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5% .

III. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No metal contaminants were found in the initial, continuing and preparation blanks with the following exceptions:

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
PB (prep blank)	Aluminum Calcium Magnesium Phosphorus Tin	6.955 mg/Kg 4.012 mg/Kg 1.566 mg/kg 0.992 mg/Kg 1.312 mg/Kg	All soil samples in SDG DE272
ICB/CCB	Aluminum Antimony Copper Magnesium Thallium Titanium	69.2 ug/L 0.38 ug/L 0.20 ug/L 41.8 ug/L 0.10 ug/L 0.85 ug/L	All soil samples in SDG DE272
PB (prep blank)	Boron Calcium Iron Magnesium Strontium	2.440 ug/L 76.480 ug/L 24.570 ug/L 17.090 ug/L 0.280 ug/L	All water samples in SDG DE272
ICB/CCB	Aluminum Calcium Lithium Phosphorus Titanium	105 ug/L 116 ug/L 3.5 ug/L 5.5 ug/L 0.24 ug/L	All water samples in SDG DE272

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-016-SA5DS-SB-4.0-5.0	Antimony Tin	0.24 mg/Kg 3.0 mg/Kg	0.24U mg/Kg 3.0U mg/Kg
SL-143-SA7-SB-5.0-6.0	Antimony Tin	0.15 mg/Kg 2.8 mg/Kg	0.15U mg/Kg 2.8U mg/Kg
SL-143-SA7-SB-9.0-10.0	Antimony Tin	0.19 mg/Kg 3.0 mg/Kg	0.19U mg/Kg 3.0U mg/Kg
SL-142-SA7-SB-2.0-3.0	Antimony Tin	0.10 mg/Kg 2.8 mg/Kg	0.10U mg/Kg 2.8U mg/Kg
SL-142-SA7-SB-7.0-8.0	Tin	2.7 mg/Kg	2.7U mg/Kg
EB-SA7-SB-101911	Boron Strontium Titanium	8.8 ug/L 0.56 ug/L 0.63 ug/L	8.8U ug/L 0.56U ug/L 0.63U ug/L

Sample EB-SA7-SB-101911 was identified as an equipment blank. No metal contaminants were found with the following exceptions:

Equipment Blank ID	Sampling Date	Analyte	Concentration	Associated Samples
EB-SA7-SB-101911	10/19/11	Boron Lead Phosphorus Strontium Titanium	8.8 ug/L 0.12 ug/L 5.5 ug/L 0.56 ug/L 0.63 ug/L	SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated field blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-143-SA7-SB-9.0-10.0	Boron	0.98 mg/Kg	0.98U mg/Kg
SL-142-SA7-SB-2.0-3.0	Boron	1.6 mg/Kg	1.6U mg/Kg

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-142-SA7-SB-7.0-8.0	Boron	0.92 mg/Kg	0.92U mg/Kg

V. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

VI. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-016-SA5DS-SB-4.0-5.0MS/MSD (All soil samples in SDG DE272)	Antimony	49 (75-125)	57 (75-125)	-	J (all detects) UJ (all non-detects)	A
SL-016-SA5DS-SB-4.0-5.0MS/MSD (All soil samples in SDG DE272)	Arsenic Chromium Copper Lead Nickel	148 (75-125) - 127 (75-125) 146 (75-125) 135 (75-125)	161 (75-125) 149 (75-125) 133 (75-125) 153 (75-125) 142 (75-125)	- - - - -	J (all detects) J (all detects) J (all detects) J (all detects) J (all detects)	A
SL-011-SA3-SB-4.0-5.0 (All soil samples in SDG DE272)	Phosphorus	-	258 (75-125)	-	J (all detects)	A
SL-011-SA3-SB-4.0-5.0 (All soil samples in SDG DE272)	Phosphorus	-	-	39 (≤20)	J (all detects) UJ (all non-detects)	A

VII. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits with the following exceptions:

DUP ID (Associated Samples)	Analyte	RPD (Limits)	Difference (Limits)	Flag	A or P
SL-016-SA5DS-SB-4.0-5.0DUP (All soil samples in SDG DE272)	Lead Arsenic	21 (≤20) 21 (≤20)	- -	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Internal Standards

All internal standard percent recoveries (%R) were within QC limits.

X. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

XI. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met with the following exceptions:

Diluted Sample	Analyte	%D (Limits)	Associated Samples	Flag	A or P
SL-016-SA5DS-SB-4.0-5.0	Barium Chromium Cobalt Lead Nickel Vanadium	14 (≤10) 26 (≤10) 20 (≤10) 13 (≤10) 15 (≤10) 27 (≤10)	All soil samples in SDG DE272	J (all detects) UJ (all non-detects)	A

XII. Sample Result Verification

All sample result verifications were acceptable.

All metals reported below the RL and above the MDL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG DE272	All analytes reported below the RL and above the MDL.	J (all detects)	A

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Metals - Data Qualification Summary - SDG DE272

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE272	SL-016-SA5DS-SB-4.0-5.0 SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0	Antimony	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE272	SL-016-SA5DS-SB-4.0-5.0 SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0	Arsenic Chromium Copper Lead Nickel Phosphorus	J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE272	SL-016-SA5DS-SB-4.0-5.0 SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0	Phosphorus	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (RPD) (E)
DE272	SL-016-SA5DS-SB-4.0-5.0 SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0	Lead Arsenic	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Duplicate sample analysis (RPD) (E)
DE272	SL-016-SA5DS-SB-4.0-5.0 SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0	Barium Chromium Cobalt Lead Nickel Vanadium	J (all detects) UJ (all non-detects)	A	ICP serial dilution (%D) (A)
DE272	SL-016-SA5DS-SB-4.0-5.0 SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0 EB-SA7-SB-101911	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)

Santa Susana Field Laboratory
Metals - Laboratory Blank Data Qualification Summary - SDG DE272

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE272	SL-016-SA5DS-SB-4.0-5.0	Antimony Tin	0.24U mg/Kg 3.0U mg/Kg	A	B
DE272	SL-143-SA7-SB-5.0-6.0	Antimony Tin	0.15U mg/Kg 2.8U mg/Kg	A	B

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE272	SL-143-SA7-SB-9.0-10.0	Antimony Tin	0.19U mg/Kg 3.0U mg/Kg	A	B
DE272	SL-142-SA7-SB-2.0-3.0	Antimony Tin	0.10U mg/Kg 2.8U mg/Kg	A	B
DE272	SL-142-SA7-SB-7.0-8.0	Tin	2.7U mg/Kg	A	B
DE272	EB-SA7-SB-101911	Boron Strontium Titanium	8.8U ug/L 0.56U ug/L 0.63U ug/L	A	B

Santa Susana Field Laboratory
Metals - Field Blank Data Qualification Summary - SDG DE272

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE272	SL-143-SA7-SB-9.0-10.0	Boron	0.98U mg/Kg	A	F
DE272	SL-142-SA7-SB-2.0-3.0	Boron	1.6U mg/Kg	A	F
DE272	SL-142-SA7-SB-7.0-8.0	Boron	0.92U mg/Kg	A	F

LDC #: 26979H4 **VALIDATION COMPLETENESS WORKSHEET** Date: 1-23-12

SDG #: DE272 Level IV Page: 1 of 1

Laboratory: Lancaster Laboratories Reviewer: CR

2nd Reviewer: V

7471A 1742OA

METHOD: Metals (EPA SW 846 Method 6010B/6020~~A/7000~~)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 10/19/11
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	SW	
VI.	Matrix Spike Analysis	SW	MS/D
VII.	Duplicate Sample Analysis	SW	D
VIII.	Laboratory Control Samples (LCS)	A	LCS/D
IX.	Internal Standard (ICP-MS)	A	
X.	Furnace Atomic Absorption QC	N	Not utilized
XI.	ICP Serial Dilution	SW	
XII.	Sample Result Verification	A	
XIII.	Overall Assessment of Data	A	
XIV.	Field Duplicates	N	
XV	Field Blanks	SW	EB=6

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: soil/water

1	SL-016-SA5DS-SB-4.0-5.0	11		21		31	
2	SL-143-SA7-SB-5.0-6.0	12		22		32	
3	SL-143-SA7-SB-9.0-10.0	13		23		33	
4	SL-142-SA7-SB-2.0-3.0	14		24		34	
5	SL-142-SA7-SB-7.0-8.0	15		25		35	
6	EB-SA7-SB-101911 W	16		26		36	
7	(~~A1~~) MS	17		27		37	
8	MSD	18		28		38	
9	DUP	19		29		39	
10		20		30		40	

Notes: _____

LDC #: 26979HM

VALIDATION FINDINGS CHECKLIST

Reviewer: CR
2nd Reviewer: W

Method: Metals (EPA SW 846 Method 6010B/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. ICP/MS Tune				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	✓			
Were %RSD of isotopes in the tuning solution ≤5%?	✓			
III. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	✓			
Were all initial calibration correlation coefficients ≥ 0.995?	✓			
IV. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
V. ICP Interference Check Sample				
Were ICP interference check samples performed daily?	✓			
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?	✓			
VI. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.		✓		
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of +/- RL(+/-2X RL for soil) was used for samples that were ≤ 5X the RL, including when only one of the duplicate sample values were ≤ 5X the RL.		✓		
VII. Laboratory control samples				
Was an LCS anaylzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% QC limits for water samples and laboratory established QC limits for soils?	✓			

LDC #: 26979H4

VALIDATION FINDINGS CHECKLIST

Reviewer: ER
2nd Reviewer: [illegible]

Validation Area	Yes	No	NA	Findings/Comments
VIII. Furnace Atomic Absorption QC				
If MSA was performed, was the correlation coefficients > 0.995?			✓	
Do all applicable analysies have duplicate injections? (Level IV only)			✓	
For sample concentrations > RL, are applicable duplicate injection RSD values < 20%? (Level IV only)			✓	
Were analytical spike recoveries within the 85-115% QC limits?			✓	
IX. ICP Serial Dilution				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL(ICP/MS)?	✓			
Were all percent differences (%Ds) < 10%?	✓			
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.		✓		
X. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?	✓			
If the %Rs were outside the criteria, was a reanalysis performed?	✓			
XI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
XII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target analytes were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.	✓			

LDC #: 26979I4

VALIDATION FINDINGS WORKSHEET
Sample Specific Element Reference

Page: 1 of 1
Reviewer: CR
2nd reviewer: ✓

All circled elements are applicable to each sample.

Sample ID	Matrix	Target Analyte List (TAL)
1-6		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
7-9		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
Analysis Method		
ICP		Al, B, Ca, Fe, Li, Mg, Mn, P, K, Na, Sr, Sn, Ti, Zr
ICP-MS		~~Sb, As, Ba, Be, Cd, Cr, Co, Cu,~~ Pb, Mo, Ni, Se, Ag, Tl, V, Zn

Comments: Mercury by CVAA if performed

LDC #: 26979H4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Page: 1 of 1
Reviewer: AL
2nd Reviewer: [illegible]

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000) Soil preparation factor applied: 100x x MS:2x dil Reason: B
Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: All Soil

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	1	2	3	4	5					
Al		6.955	69.2	34.78										
Sb			0.38	0.38	0.24	0.15	0.19	0.10						
Ca		4.012		20.06										
Cu			0.20	0.2										
Mg		1.566	41.8	20.9										
P		0.992		4.96										
Sn		1.312		6.56	3.0	2.8	3.0	2.8	2.7					
Tl			0.10	0.1										
Ti			0.85	0.425										

Sample Concentration units, unless otherwise noted: ug/L Associated Samples: All Water

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	6									
Al			105	525										
B		2.440		12.2	8.8									
Ca		76.480	116	580										
Fe		24.570		122.9										
Li			3.5	17.5										
Mg		17.090		85.45										
P			5.5	27.5										
Sr		0.280		1.4	0.56									
Ti			0.24	1.2	0.63									

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 26979H4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: AL
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW846 6010B/7000)
Blank units: ug/L **Associated sample units:** mg/Kg Reason: F
Sampling date: ~~10/26/11~~ 10/19/11 Soil factor applied 100x; Hg=167x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: 2-5

Analyte	Blank ID	Sample Identification										
	6	Action Level	3	4	5							
B	8.8	4.4	0.98	1.6	0.92							
Pb	0.12	0.06										
P	5.5	2.75										
Sr	0.56	0.28										
Ti	0.63	0.315										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

LDC #: 26979H4

VALIDATION FINDINGS WORKSHEET
ICP Interference Check Sample

Reviewer: CR
2nd Reviewer:

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were ICP interference check samples performed as required?
Y N N/A Were the AB solution percent recoveries (%R) within the control limits of 80-120% ?

LEVEL IV ONLY:

Y N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	ICS Identification	Analyte	Concentration (ug/L)	Limit (<MDL)	Associated Samples	Qualifications
	10/25/11	ICSA(13:23/14:53)	Mn	4	0.36	All Soil	No Qual (>10x)

Comments:

LDC #: 26979H4

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Reviewer: CR
2nd Reviewer:

METHOD: Trace metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a matrix spike analyzed for each matrix in this SDG?

Y (N) N/A Were matrix spike percent recoveries (%R) within the control limits of 75-125? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.

(Y) (N) N/A Were all duplicate sample relative percent differences (RPD) ≤ 20% ~~for water samples and ≤35%~~ for soil samples?

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	MS/MSD ID	Matrix	Analyte	MS %Recovery	MSD %Recovery	RPD (Limits)	Associated Samples	Qualifications
	7/8	S	Sb	49	57		All Soil	J (all) / A (Q)
			As	148	161			J (det) / A
			Cr		149			
			Cu	127	133			
			Pb	146	153			
			Ni	135	142			
	SL011-SA3-SB-4.0-5.0 (DE267)		P		258		All Soil	J (det) / A (Q)
			P			39		J (all) / A (E)

Comments:

LDC #: 26979H4

VALIDATION FINDINGS WORKSHEET
Duplicate Analysis

Page: 1 of 1
Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a duplicate sample analyzed for each matrix in this SDG?

Y (N) N/A Were all duplicate sample relative percent differences (RPD) ≤ 20% for water samples and ≤ 35% for soil samples? If no, see qualifications below. A control limit of ±R.L. (±2X R.L. for soil) was used for sample values that were <5X the R.L., including the case when only one of the duplicate sample values was <5X R.L.. If field blanks were used for laboratory duplicates, note in the Overall Assessment.

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	Duplicate ID	Matrix	Analyte	RPD (Limits)	Difference (Limits)	Associated Samples	Qualifications
		9	S	Pb	21 (≤20)		All Soil	J/UJ/A (E)
				As	21 ↓		↓	↓

Comments: _____

DUP.4SW

LDC #: 26979H4

VALIDATION FINDINGS WORKSHEET
ICP Serial Dilution

Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A If analyte concentrations were > 50X the MDL (ICP) ,or >100X the MDL (ICP/MS), was a serial dilution analyzed?
Y N N/A Were ICP serial dilution percent differences (%D) ≤10%?
Y N N/A Is there evidence of negative interference? If yes, professional judgement will be used to qualify the data.

LEVEL IV ONLY:

Y N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	Diluted Sample ID	Matrix	Analyte	%D (Limits)	Associated Samples	Qualifications
		1	S	Ba	14	All Soil	J (J/A CA)
				Cr	26		
				Co	20		
				Pb	13		
				Mn	15		
				V	27		

Comments: _____

SDILICPMS.wpd

LDC #: 26979H5

VALIDATION FINDINGS WORKSHEET
Initial and Continuing Calibration Calculation Verification

Page: 1 of 1
Reviewer: CR
2nd Reviewer:

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

An initial and continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = Found x 100 / True

Where, Found = concentration (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution
True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated %R	Reported %R	Acceptable (Y/N)
ICV	ICP (Initial calibration)	Fe	28797.5	30000	96.0	96.0	Y
↓	ICP/MS (Initial calibration)	Mo	51.77	50	103.5	103.5	↓
↓	CVAA (Initial calibration)	Hg	2.46	2.5	98.4	98.4	↓
CCV 2	ICP (Continuing calibration)	Sr	502.37	500	100.5	100.5	↓
↓ 2	ICP/MS (Continuing calibration)	Tl	24.78	25	99.1	99.1	↓
↓ 2	CVAA (Continuing calibration)	Hg	1.06	1.0	106	106	↓
	GFAA (Initial calibration)						
	GFAA (Continuing calibation)						

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 28979H4

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Reviewer: QR
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Percent recoveries (%R) for an ICP interference check sample, a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$\%R = \frac{Found}{True} \times 100$ Where, Found = Concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = Concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$RPD = \frac{|S-D|}{(S+D)/2} \times 100$ Where, S = Original sample concentration
D = Duplicate sample concentration

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

$\%D = \frac{|I-SDR|}{I} \times 100$ Where, I = Initial Sample Result (mg/L)
SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

Sample ID	Type of Analysis	Element	Found / S / I (units)	True / D / SDR (units)	Recalculated %R / RPD / %D	Reported %R / RPD / %D	Acceptable (Y/N)
ICSAB	ICP interference check	Ni	20.3	20	101.5	101.5	Y
LCS	Laboratory control sample	Zn	282.8	287	99	99	
7	Matrix spike	Mo	(SSR-SR) 11.7925	10.5645	112	112	
7/8	Duplicate	Tl	0.6888	0.7536	9	9	
1	ICP serial dilution	Ni	58.55	67.35	15	15	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 20926H4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: CR
2nd reviewer:

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments and within the linear range of the ICP?
Y N N/A Are all detection limits below the CRDL?

Detected analyte results for Li were recalculated and verified using the following equation:

Concentration = $\frac{(RD)(FV)(Dil)}{(In.\ Vol.)}$

RD = Raw data concentration
FV = Final volume (ml)
In. Vol. = Initial volume (ml) or weight (G)
Dil = Dilution factor

Recalculation:

$$\frac{100mL(0.1847mg/L)}{0.919(1.01g)} = 19.9mg/kg$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	1	Al	21500	21500	Y
		Sb	0.24	0.24	
		As	5.6	5.6	
		Ba	65.0	65.0	
		Be	0.71	0.71	
		B	2.0	2.0	
		Cd	0.12	0.12	
		Ca	3040	3040	
		Cr	36.8	36.8	
		Co	6.9	6.9	
		Cu	6.8	6.8	
		Fe	27000	27000	
		Pb	5.6	5.6	
		Li Mg	19.9	19.9	
		Mg Mn	5280	5280	
		Mn Mo	303	303	
		Mo Ni	0.54	0.54	
		Ni P	12.6	12.6	
		P K	432	432	
		K Se	1690	1690	
		Se As	0.15	0.15	
		Ag Na	0.027	0.027	
		Na Sr	110	110	
		Sr Tl	27.5	27.5	
		Tl Sn	0.22	0.22	
		Sn Ti	3.0	3.0	
		Ti V	1480	1480	
		V Zn	66.2	66.2	
		Zn Zr	50.7	50.7	
		Zr	13.0	13.0	

Note:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	October 19, 2011
LDC Report Date:	January 23, 2012
Matrix:	Soil/Water
Parameters:	Wet Chemistry
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE272

Sample Identification

SL-016-SA5DS-SB-4.0-5.0
SL-143-SA7-SB-5.0-6.0
SL-143-SA7-SB-9.0-10.0
SL-142-SA7-SB-2.0-3.0
SL-142-SA7-SB-7.0-8.0
EB-SA7-SB-101911
SL-016-SA5DS-SB-4.0-5.0MS
SL-016-SA5DS-SB-4.0-5.0MSD
SL-016-SA5DS-SB-4.0-5.0DUP
SL-143-SA7-SB-5.0-6.0MS
SL-143-SA7-SB-5.0-6.0MSD
SL-143-SA7-SB-5.0-6.0DUP

Introduction

This data review covers 11 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 9012B for Cyanide, EPA Method 300.0 for Nitrate and Fluoride, EPA SW 846 Method 7199 for Hexavalent Chromium, and EPA Method 314.0 for Perchlorate.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

All criteria for the initial calibration of each method were met.

III. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

Sample EB-SA7-SB-101911 was identified as an equipment blank. No contaminant concentrations were found.

V. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Sample Result Verification

All sample result verifications were acceptable

All analytes reported below the RL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG DE272	All analytes reported below the RL and above the MDL.	J (all detects)	A

IX. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

X. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Wet Chemistry - Data Qualification Summary - SDG DE272

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE272	SL-016-SA5DS-SB-4.0-5.0 SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0 EB-SA7-SB-101911	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)

Santa Susana Field Laboratory
Wet Chemistry – Laboratory Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Wet Chemistry - Field Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

LDC #: 26979H6 **VALIDATION COMPLETENESS WORKSHEET** Date: 12-12
SDG #: DE272 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: CL
2nd Reviewer: V

METHOD: (Analyte) Cyanide (EPA SW846 Method 9012B), Nitrate-~~N~~, Fluoride (EPA Method 300.0), Hexavalent Chromium (EPA SW846 Method 7199), Perchlorate (EPA Method 314.0)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 10/19/11
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	A	
IV	Matrix Spike/Matrix Spike Duplicates	A	MS/D
V	Duplicates	A	RP
VI.	Laboratory control samples	A	LCS/D
VII.	Sample result verification	A	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	N	
X.	Field blanks	ND	EB=6

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: soil / water

1	SL-016-SA5DS-SB-4.0-5.0	11	(X2) MSD	21		31	
2	SL-143-SA7-SB-5.0-6.0	12	↓ DUP	22		32	
3	SL-143-SA7-SB-9.0-10.0	13		23		33	
4	SL-142-SA7-SB-2.0-3.0	14		24		34	
5	SL-142-SA7-SB-7.0-8.0	15		25		35	
6	EB-SA7-SB-101911 W	16		26		36	
7	(X1) MS	17		27		37	
8	↓ MSD	18		28		38	
9	↓ Dup	19		29		39	
10	(X2) MS	20		30		40	

Notes:

LDC #: 26979H6

VALIDATION FINDINGS CHECKLIST

Reviewer: CR
2nd Reviewer: L

Method: Inorganics (EPA Method See Cover)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial calibration correlation coefficients ≥ 0.995?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	✓			
Were titrant checks performed as required? (Level IV only)			✓	
Were balance checks performed as required? (Level IV only)			✓	
III. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
IV. Matrix spike/Matrix spike duplicates and Duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of ≤ CRDL(≤ 2X CRDL for soil) was used for samples that were ≤ 5X the CRDL, including when only one of the duplicate sample values were < 5X the CRDL.	✓			
V. Laboratory control samples				
Was an LCS anaylzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	✓			
VI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓	✓	
Were the performance evaluation (PE) samples within the acceptance limits?				

Validation Area	Yes	No	NA	Findings/Comments
VII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
Were detection limits < RL?	✓			
VIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
IX. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target analytes were detected in the field duplicates.			✓	
X. Field blanks				
Field blanks were identified in this SDG.	✓	✓		
Target analytes were detected in the field blanks.		✓		

LDC #:

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Page: 1 of 1
Reviewer:
2nd reviewer:

All circled methods are applicable to each sample.

Sample ID	Parameter
1	pH TDS Cl [✓ F] NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC [✓ Cr6+] [✓ ClO_4]
2,3,6	pH TDS Cl [✓ F] [✓ NO_3] NO_2 SO_4 O-PO_4 Alk [✓ CN] NH_3 TKN TOC [✓ Cr6+] [✓ ClO_4]
4,5	pH TDS Cl [✓ F] NO_3 NO_2 SO_4 O-PO_4 Alk [✓ CN] NH_3 TKN TOC [✓ Cr6+] [✓ ClO_4]
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
QC:7-9	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ [✓ ClO_4]
10-12	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk [✓ CN] NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4

omments:

LDC #: 26979H6

Validation Findings Worksheet
Initial and Continuing Calibration Calculation Verification

Page: 1 of 1
Reviewer: CR
2nd Reviewer:

Method: Inorganics, Method See Cover

The correlation coefficient (r) for the calibration of ClO4 was recalculated. Calibration date: 11/3/11

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found} \times 100}{\text{True}}$$

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution
True = concentration of each analyte in the ICV or CCV source

Type of analysis	Analyte	Standard	Conc. (mg/L)	Area	Recalculated r or r^2	Reported r or r^2	Acceptable (Y/N)
Initial calibration	ClO4	s1	2	0	*1.000*	1.000	Y
		s2	4	0.004			
		s3	10	0.02			
		s4	25	0.06			
		s5	100	0.26			
Calibration verification	F	CCV 1.5	1.6054		107	107	
Calibration verification	NO3	CCV	15	1.5511	103	103	
Calibration verification	CN	CCV	0.15	91606	107	107	

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26978B6

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Reviewer: OR
2nd Reviewer: [illegible]

METHOD: Inorganics, Method see cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

%R = Found / True x 100 Where, Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

RPD = |S-D| / (S+D)/2 x 100 Where, S = Original sample concentration
D = Duplicate sample concentration

Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	Recalculated %R / RPD	Reported %R / RPD	Acceptable (Y/N)
LCS	Laboratory control sample	NO3	1.5	1.5	100	-	Y
10	Matrix spike sample	CN	(SSR-SR) 5	4.878048	103	102	↓
9	Duplicate sample	ClO4	ND	ND	0	0	↓

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26579H6

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: CR
2nd reviewer: ✓

METHOD: Inorganics, Method See cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments?
Y N N/A Are all detection limits below the CRQL?

Compound (analyte) results for F reported with a positive detect were recalculated and verified using the following equation:

Concentration =

$y = 0.4308x - 0.021$

Recalculation:

$$\frac{(0.078+0.021)(50mL)}{0.919(0.919)(5.01g)} = 2.5\ mg/kg$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	1	F	2.5	2.5	Y
		6+	0.56	0.56	✓

Note:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	October 19, 2011
LDC Report Date:	January 31, 2012
Matrix:	Soil/Water
Parameters:	Total Petroleum Hydrocarbons as Gasoline
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE272

Sample Identification

SL-143-SA7-SB-5.0-6.0
SL-143-SA7-SB-9.0-10.0
SL-142-SA7-SB-2.0-3.0
SL-142-SA7-SB-7.0-8.0
TB-101911
EB-SA7-SB-101911

Introduction

This data review covers 4 soil samples and 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

Sample TB-101911 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found.

Sample EB-SA7-SB-101911 was identified as an equipment blank. No total petroleum hydrocarbons as gasoline contaminants were found.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE272	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG DE272

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE272	SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0 TB-101911 EB-SA7-SB-101911	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

LDC #: 26979H7 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/22/12
SDG #: DE272 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC TPH as Gasoline (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 10/19/11
II	Initial calibration	A	% RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ± 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS ID
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	ND	TB = 3 EB = 6

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: soil, water

1 1	SL-143-SA7-SB-5.0-6.0 S	TT 1	BLKA6	21		31	
2 1	SL-143-SA7-SB-9.0-10.0	12 2	BLK9G	22		32	
3 1	SL-142-SA7-SB-2.0-3.0	13 3	BLK9P	23		33	
4 1	SL-142-SA7-SB-7.0-8.0	14		24		34	
5 3	TB-101911 W	15		25		35	
6 2	EB-SA7-SB-101911	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 26777M /
SDG #: all cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer:

Method: ✓ GC ____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) < 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 26979H7
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?			✓	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

LDC #: 26979#7
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: A

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the followin calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (220std)	Recalculated CF (220std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL LWJT16078	8/19/09	GRO @ 2:50	101665	101665	104182	104182	6	6
2	ICAL	9/23/11	GRO @	7338	7338	7034	7034	5.9	5.9
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculatec results.

LDC #: 26979H7
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: CA

METHOD: GC ✓ HPLC ____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = Initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(Ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	CCV 15:20	10/26/11	GRO	~~30.00~~	~~26.59~~	~~26.59~~	~~11.4~~	~~11.4~~
	Luft 16078			220.00	193.41	193.41	12.1	12.1
2	CCV 15:39	10/26/11	GRO	220.0	210.48	210.49	4.3	4.3
	Luft 16078							
3	CCV 10:51	10/24/11	GRO	~~30.0~~	~~29.77~~	~~29.77~~	~~0.8~~	~~0.8~~
	Luft 20266			550.00	596.57	596.57	8.5	8.5
4	CCV 9:52	10/25/11	GRO	550.0	545.32	545.32	0.9	0.9
	Luft 20266							

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26221 #1 /

SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT

2nd reviewer: A

METHOD: ✓ GC ___ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
TFT	FID	813.7	748.2081	92	92	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 26779#1 /
SDG #: all cases

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: F2
2nd Reviewer: A

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: lcs ID 801 /

Compound	Spike Added (ug/L)		Spiked Sample Concentration (ug/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)	1100	1100	1200	1200	109	109	109	109	0	0
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979H7
SDG #: pu gone

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration = _____

NP

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	October 19, 2011
LDC Report Date:	January 30, 2012
Matrix:	Soil/Water
Parameters:	Total Petroleum Hydrocarbons as Extractables
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE272

Sample Identification

SL-143-SA7-SB-5.0-6.0
SL-143-SA7-SB-9.0-10.0
SL-142-SA7-SB-2.0-3.0
SL-142-SA7-SB-7.0-8.0
EB-SA7-SB-101911

Introduction

This data review covers 4 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

Sample EB-SA7-SB-101911 was identified as an equipment blank. No total petroleum hydrocarbons as extractable contaminants were found.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
LCS/D 18294 (All water samples in SDG DE272)	Extractable fuel hydrocarbons (C8-C11)	114 (43-107)	-	-	J (all detects)	P

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE272	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG DE272

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE272	EB-SA7-SB-101911	Extractable fuel hydrocarbons (C8-C11)	J (all detects)	P	Laboratory control samples (%R) (L)
DE272	SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0 EB-SA7-SB-101911	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

LDC #: 26979H8 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/24/12
SDG #: DE272 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: PT
2nd Reviewer: A

METHOD: GC TPH as Extractables (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 10/19/11
II	Initial calibration	A	% RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	SW	LCS/LCSD
VIII.	Target compound identification	A	
IX.	Compound quantitation (RL/LOQ/LODs)	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	ND	EB = 5

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:
Soil + water

1	SL-143-SA7-SB-5.0-6.0 S	11	PBLK11300	21		31	
2	SL-143-SA7-SB-9.0-10.0	12	PBLK18394	22		32	
3	SL-142-SA7-SB-2.0-3.0	13		23		33	
4	SL-142-SA7-SB-7.0-8.0	14		24		34	
5	EB-SA7-SB-101911 W	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 26979H8
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: AC

Method: ✓ GC ____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 26979H8
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification.				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs.				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance.				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data.				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates.				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks.				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

LDC #: 26979H8

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 7
Reviewer: FT
2nd Reviewer: A

METHOD: ✓ GC __ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

[✓ Y] N ~~N/A~~ Were a laboratory control samples (LCS) and laboratory control sample duplicate (LCSD) analyzed for each matrix in this SDG?

Y [✓ N] ~~N/A~~ Were the LCS percent recoveries (%R) and relative percent differences (RPD) within the QC limits?

Level IV/D Only

[✓ Y] N ~~N/A~~ Was an LCS analyzed every 20 samples for each matrix or whenever a sample extraction was performed?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	LCS/D 18294	EFH (C8-C11)	114 (43-107)	( )	( )	All water	J/Pdet (L)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC #: 26779H8
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer: A

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the followin calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (28X std)	Recalculated CF (28X std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	10/12/11	TPH ck-cqU	25617	25617	26806.22	26806.22	10.7	10.7
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculatec results.

LDC #: 26979H8
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer:

METHOD: GC ✓ HPLC ____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	CCV 8:51	10/25/11	C8-C40	144.00	132.70	132.70	7.8	7.8
	CCV 20:51	10/26/11	↓	144.00	137.07	137.07	4.8	4.8
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: [illegible]

SDG #: see cover

METHOD: ✓ GC ___ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1

Reviewer: FT

2nd reviewer: [illegible]

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
chlorobenzene	NS	1.0	0.837219	84	84	0
orthoterphenyl	↓	1.0	0.879166	88	88	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

LDC #: 26979H8
SDG #: all cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: FR
2nd Reviewer: [illegible]

METHOD: ✓ GC ___HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS11300

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
EFH (C8-C11)	0.84	NA	0.74	NA	88	88	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979H8
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC ___ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= FInal Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. #1 Compound Name $C_{21} - C_{30}$

Concentration = $\frac{5812374 \quad (1000)}{26806.22 \quad (60) \quad 0.939 \quad (1000)}$

$= 3.8$ mg/kg

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

SAMPCALow.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	October 19, 2011
LDC Report Date:	January 30, 2012
Matrix:	Soil/Water
Parameters:	Explosives
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE272

Sample Identification

SL-143-SA7-SB-5.0-6.0
SL-143-SA7-SB-9.0-10.0
EB-SA7-SB-101911
SL-143-SA7-SB-5.0-6.0MS
SL-143-SA7-SB-5.0-6.0MSD

Introduction

This data review covers 4 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8330A for Explosives.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed for the primary (quantitation) column and confirmation column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification was performed at the required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits with the following exceptions:

Date	Column	Compound	%D	Associated Samples	Flag	A or P
11/1/11	Chrompack	Tetryl	28.2	All soil samples in SDG DE272	J (all detects) UJ (all non-detects)	A

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No explosive contaminants were found in the method blanks.

Sample EB-SA7-SB-101911 was identified as an equipment blank. No explosive contaminants were found with the following exceptions:

Equipment Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB-SA7-SB-101911	10/19/11	RDX	0.99 ug/L	All soil samples in SDG DE272

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated field blanks.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria with the following exceptions:

Sample	Compound	Finding	Criteria	Flag	A or P
EB-SA7-SB-101911	RDX	2nd column confirmation was not performed for this compound.	This compound must be confirmed on the 2nd column per the method.	NJ (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE272	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Explosives - Data Qualification Summary - SDG DE272

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE272	SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0	Tetryl	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE272	EB-SA7-SB-101911	RDX	NJ (all detects)	A	Compound quantitation and RLs (no 2nd column confirmation) (*IX)
DE272	SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 EB-SA7-SB-101911	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Explosives - Laboratory Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Explosives - Field Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

LDC #: 26979H40 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/22/12

SDG #: DE272 Level IV Page: 1 of 1

Laboratory: Lancaster Laboratories Reviewer: EJ

2nd Reviewer:

METHOD: HPLC Explosives (EPA SW 846 Method 8330A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 10/19/11
II	Initial calibration	A	%RSD ≤ 20, r^2
III.	Calibration verification/ICV	SW	%D ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LCS/D
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	SW	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	SW	EB = 3

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: SOIL + water

1	SL-143-SA7-SB-5.0-6.0 S	11	PBLK12302	21		31	
2	SL-143-SA7-SB-9.0-10.0	12	PBLK23093	22		32	
3	EB-SA7-SB-101911 W	13		23		33	
4	H/MS	14		24		34	
5	H/MSD	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

.DC #: 26979H4U
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Method: GC ✓ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	•	✓		
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 26979H4U
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification.				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs.				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.	✓			

LDC #: 26979A4O
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: F7
2nd Reviewer: C

METHOD: ___ GC [✓ HPLC]

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
What type of continuing calibration calculation was performed? ___%D or ___RPD
[✓ Y] N N/A Were continuing calibration standards analyzed at the required frequencies?
Y [✓ N] N/A Did the continuing calibration standards meet the %D / RPD validation criteria of ≤~~15.0~~%? w
Level IV Only
[✓ Y] N N/A Were the retention times for all calibrated compounds within their respective acceptance windows?

#	Date	Standard ID	Detector/ Column	Compound	%D / RPD (Limit ≤ ~~15.0~~) w	RT (limit)	Associated Samples	Qualifications
	11/01/11 20:09	2E12299.05	chrompack	Tetryl	28.2	( )	All soils	J/UJ/A (C)
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
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						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		

LDC #: 26979 HV

SDG #: fw cover

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of 1
Reviewer: EJ
2nd Reviewer: A

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Y N N/A Field blanks were identified in this SDG.

Y N N/A Were target compounds detected in the field blanks?

Blank units: ug/L **Associated sample units:** ug/Kg

Sampling date: 10/19/11

Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: All soils (ND)

Compound	Blank ID	Sample Identification								
	3									
RDX	0.99									
CRQL										

Blank units: _____ **Associated sample units:** _____

Sampling date: _____

Field blank type: (circle one) Field Blank / Rinsate / Other: _____ Associated Samples: _____

Compound	Blank ID	Sample Identification								
CRQL										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:

Samples with compound concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

LDC #: 26979H40
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Reviewer: EJ
2nd Reviewer: A

METHOD: ~~GC Pesticides/PCBs (EPA SW 846, 8081)~~ HPLC 8330A

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Level IV/D Only

Y N N/A Were CRQLs adjusted for sample dilutions, dry weight factors, cleanup, activities, etc.?
Y N N/A Did the recalculated results for detected target compounds agree within 10.0% of the reported results?

#	Date	compound ~~Lab ID/Reference~~	Finding	Associated Samples	Qualifications
		RDX	not confirmed on a 2nd column	3	NJ/A * IX

Comments: See sample calculation verification worksheet for recalculations

LDC #: 16979HV
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FJ
2nd Reviewer: A

METHOD: GC_____HPLC ✓

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the followin calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported 507/500.5 CF (std)	Recalculated 507/500.5 CF (std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	10/26/11	1,3-DNB chrompack	2.98×10^2	2.98×10^2	2.94×10^2	2.94×10^2	1.6	1.6
			2,6-Dinitrotoluene	1.31×10^2	1.31×10^2	1.31×10^2	1.31×10^2	5.5	5.5
			↓ Capcell	2.47×10^2	2.47×10^2	2.47×10^2	2.47×10^2	4.0	4.0
2				3.04×10^2	3.04×10^2	3.10×10^2	3.10×10^2	17.7	17.7
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979H4V
SDG #: fw cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: A

METHOD: GC_____HPLC ✓

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	11/01/11	11/01/11	1,3-DNB chromp cell	507.00	517.24	517.24	2.0	2.0
	20:09		2-6-Dinitrotoluene	500.50	514.55	514.55	2.8	2.8
			cap cell		563.35	563.35	11.1	11.1
2			↓	↓	580.93	580.93	15.8	16.0
3	10/27/11	10/27/11	↓	500.05	535.76	535.76	7.1	7.1
	2:20		↓	500.0	519.05	519.05	3.8	3.8
			↓	↓	535.75	535.75	7.1	7.1
4			↓	↓	515.10	515.10	3.0	3.0

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

SDG #: see cover

METHOD: ___ GC ✓ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT

2nd reviewer: A

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
2-Nitro-m-xylene	chrompack	2000	2094.9145	105	105	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

SDG #: per cover

VALIDATION FINDINGS WORKSHEET

Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: ___ GC ✓ HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration
SA = Spike added
RPD =(((SSCMS - SSCMSD) * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: #3 #4+5

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	---	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)	2000	2000	ND	1737.89	1761.9	87	87	88	88	1	1
2,4,6-Trinitrotoluene (8330)	1999.2	1999.2	ND	2086.38	2106.17	104	104	105	105	1	1

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26717HV0
SDG #: all cores

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: P2
2nd Reviewer:

METHOD: __ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS/23602

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)	2000	NA	1807.61	NA	90	90				
2,4,6-Trinitrotoluene (8330)	1999.2	↓	2163.25	↓	108	108	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979H4U
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: __ GC ✓ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= (A)(Fv)(Df) / (RF)(Vs or Ws)(%S/100)

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. #3 Compound Name RPX

final
Concentration = $\frac{6026 \cancel{(10,000)}}{\cancel{(500)}} \frac{(49.573)\ (10,000)}{(500)\ (1000)}$

= 0.99 ug/L

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications
	6026 = 91.058 (x) + 511.979				
		x = 49.573			

Comments: [illegible]

SAMPCALew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	October 19, 2011
LDC Report Date:	January 30, 2012
Matrix:	Soil/Water
Parameters:	Terphenyls
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE272

Sample Identification

SL-143-SA7-SB-5.0-6.0
SL-143-SA7-SB-9.0-10.0
SL-142-SA7-SB-2.0-3.0
SL-142-SA7-SB-7.0-8.0
EB-SA7-SB-101911
SL-143-SA7-SB-9.0-10.0MS
SL-143-SA7-SB-9.0-10.0MSD

Introduction

This data review covers 6 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Terphenyls.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No terphenyl contaminants were found in the method blanks.

Sample EB-SA7-SB-101911 was identified as an equipment blank. No terphenyl contaminants were found.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

Santa Susana Field Laboratory
Terphenyls - Data Qualification Summary - SDG DE272

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE272	SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0 EB-SA7-SB-101911	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Terphenyls - Laboratory Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Terphenyls - Field Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

LDC #: 26979H41 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/22/12
SDG #: DE272 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC Terphenyls (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 10/19/11
II	Initial calibration	A	%RSD ≤ 20
III.	Calibration verification/ICV	A	CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LCS %R
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	ND	FB= 5

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: soil + water

1 1	SL-143-SA7-SB-5.0-6.0 S	11 1	PBLK09294	21		31	
2 1	SL-143-SA7-SB-9.0-10.0	12 2	PBLK09297	22		32	
3 1	SL-142-SA7-SB-2.0-3.0	13		23		33	
4 1	SL-142-SA7-SB-7.0-8.0	14		24		34	
5 2	EB-SA7-SB-101911 W	15		25		35	
6	#MS	16		26		36	
7	#MSD	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 26979H41
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: R
2nd Reviewer: A

Method: ✓ GC ____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 24977H4 |
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: [illegible]

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

LDC #: 26979H41
SDG #: per users

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported 15.722912 CF (std)	Recalculated 15.722912 CF (std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	9/18/11	o-Terphenyl	2.56×10^4	2.56×10^4	2.59×10^4	2.59×10^4	5.2	5.2
2	ICAL	10/7/11	↓	2.56×10^4	2.56×10^4	2.59×10^4	2.59×10^4	5.2	5.2
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979H4/
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: A

METHOD: GC ✓ HPLC ____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	CCV 19:51	10/24/11	o-Terphenyl	15.73	15.56	15.56	1.1	1.1
2	CCV 10:17	11/02/11	"	15.73	17.42	17.42	10.7	10.7
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 2 8 7 7 4 7

SDG #: see cover

METHOD: ✓ GC ___ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT

2nd reviewer: ✓

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
n-Triacontane-d62	NS	0.3336	0.177459	53	53	0

Sample ID: ___

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: ___

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

SDG #: [illegible]

Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: [illegible]

2nd Reviewer: A

METHOD: ___ GC ___ HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration

SA = Spike added

RPD =(((SSCMS - SSCMSD} * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 6 & 7

Compound	Spike Added (mg/kg)		Sample Conc. (mg/kg)	Spike Sample Concentration (mg/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	—	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
m-Terphenyl	8.21	8.21	ND	7.92	8.04	96	96	98	98	2	2

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26879H41
SDG #: all cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS092294

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
m-Terphenyl	8.2	NA	7.7	NA	95	95	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979H4)
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC ___ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration = _____

ND

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	October 19, 2011
LDC Report Date:	January 30, 2012
Matrix:	Soil/Water
Parameters:	Alcohols
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE272

Sample Identification

SL-143-SA7-SB-5.0-6.0
SL-143-SA7-SB-9.0-10.0
SL-142-SA7-SB-2.0-3.0
SL-142-SA7-SB-7.0-8.0
EB-SA7-SB-101911
SL-143-SA7-SB-5.0-6.0MS
SL-143-SA7-SB-5.0-6.0MSD

Introduction

This data review covers 6 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Alcohols.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits with the following exceptions:

Date	Column	Compound	%D	Associated Samples	Flag	A or P
10/20/11	FID	Isopropanol	20.5	All soil samples in SDG DE272	J (all detects) UJ (all non-detects)	A

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No alcohol contaminants were found in the method blanks.

Sample EB-SA7-SB-101911 was identified as an equipment blank. No alcohol contaminants were found.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE272	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Alcohols - Data Qualification Summary - SDG DE272

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE272	SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0	Isopropanol	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE272	SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0 EB-SA7-SB-101911	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Alcohols - Laboratory Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Alcohols - Field Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

LDC #: 26979H43 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/22/12
SDG #: DE272 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC Alcohols (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 10/19/11
II	Initial calibration	A	%RSD ≤ 20
III.	Calibration verification/ICV	SW	%D/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound quantitation RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	ND	EB = 5

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil + Water

1	SL-143-SA7-SB-5.0-6.0 S	11	PBLK33293	21		31	
2	SL-143-SA7-SB-9.0-10.0	12	PBLK31293	22		32	
3	SL-142-SA7-SB-2.0-3.0	13		23		33	
4	SL-142-SA7-SB-7.0-8.0	14		24		34	
5	EB-SA7-SB-101911 W	15		25		35	
6	#1 MS	16		26		36	
7	#1 MSD	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

DC #: 26979 H43
SDG #: all cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: A

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) < 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 26979H4 3
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?			✓	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

LDC #: 26979H43
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: F7
2nd Reviewer: A

METHOD: ✓ GC ___ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
What type of continuing calibration calculation was performed? ___%D or ___RPD
[✓ Y] N N/A Were continuing calibration standards analyzed at the required frequencies?
Y [✓ N] N/A Did the continuing calibration standards meet the %D / RPD validation criteria of ≤15.0%? w
Level IV Only
[✓ Y] N N/A Were the retention times for all calibrated compounds within their respective acceptance windows?

#	Date	Standard ID	Detector/ Column	Compound	%D / RPD (Limit ≤ 15.0) w	RT (limit)	Associated Samples	Qualifications
	10/20/11	ccv	FID	Isopropanol	20.5	( )	All soils	J/UJ/A (c)
	19:02					( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
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						( )		
						( )		

LDC #: 26979H3
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (500.0 std)	Recalculated CF (500.0 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	9/22/11	methanol	8.62×10^{0}	8.62×10^{0}	8.49×10^{0}	8.42×10^{0}	5.1	5.1
2	ICAL	10/4/11	↓	3.79×10^{0}	3.79×10^{0}	3.76×10^{0}	3.76×10^{0}	6.4	6.4
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979#43
SDG #: fw comm

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: A

METHOD: GC ✓ HPLC _____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	CCV 19:02	10/20/11	methano	5000.00	4412.49	4412.49	11.8	11.8
2	CCV 17:07	10/21/11	↓	↓	5140.18	5140.18	2.8	2.8
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 28777 /

SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT

2nd reviewer: A

METHOD: ✓ GC ___ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Acetone	FID	2500	2053.38013	82	82	0

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: _____

SDG #: jw comes

VALIDATION FINDINGS WORKSHEET

Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1

Reviewer: EJ

2nd Reviewer: CT

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration

SA = Spike added

RPD =(((SSCMS - SSCMSD} * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 6 + 7

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	--	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
~~Gasoline~~ Methanol (8015)	2500	2500	ND	2079.95	2247.43	83	83	90	90	8	8
~~Diesel (8015)~~											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
~~2,4,6-Trinitrotoluene (8330)~~											

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979H43
SDG #: all cases

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: FO
2nd Reviewer: [illegible]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS33293

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
~~Gasoline~~ Methane (8015)	2500	NA	2300	NA	92	92	NA			
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979H43
SDG #: pu owen

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration =_____

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	October 19, 2011
LDC Report Date:	January 30, 2012
Matrix:	Soil/Water
Parameters:	Glycols
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE272

Sample Identification

SL-143-SA7-SB-5.0-6.0
SL-143-SA7-SB-9.0-10.0
SL-142-SA7-SB-2.0-3.0
SL-142-SA7-SB-7.0-8.0
EB-SA7-SB-101911
EB-SA7-SB-101911MS
EB-SA7-SB-101911MSD

Introduction

This data review covers 4 soil samples and 3 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Glycols.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No glycol contaminants were found in the method blanks.

Sample EB-SA7-SB-101911 was identified as an equipment blank. No glycol contaminants were found.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
EB-SA7-SB-101911MS/MSD (EB-SA7-SB-101911)	Ethylene glycol	70 (89-125)	-	25 (≤20)	J (all detects) UJ (all non-detects)	A
	Propylene glycol	75 (91-128)	90 (91-128)	-	J (all detects) UJ (all non-detects)	

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE272	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Glycols - Data Qualification Summary - SDG DE272

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE272	EB-SA7-SB-101911	Ethylene glycol	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (Q)
DE272	EB-SA7-SB-101911	Propylene glycol	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE272	SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 SL-142-SA7-SB-2.0-3.0 SL-142-SA7-SB-7.0-8.0 EB-SA7-SB-101911	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Glycols - Laboratory Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Glycols - Field Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

LDC #: 26979H45 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/22/12
SDG #: DE272 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC Glycols (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 10/19/11
II	Initial calibration	A	%RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	SW	
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	ND	EB = 5

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil + water

1	SL-143-SA7-SB-5.0-6.0	11	PBLK 42298	21		31	
2	SL-143-SA7-SB-9.0-10.0	12	PBLK 39297	22		32	
3	SL-142-SA7-SB-2.0-3.0	13		23		33	
4	SL-142-SA7-SB-7.0-8.0	14		24		34	
5	EB-SA7-SB-101911	15		25		35	
6	#5 MS	16		26		36	
7	#5 MSD	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

DC #: 26979 H45
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: R
2nd Reviewer: A

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) < 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 26979#45
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?			✓	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

LDC #: 26779H4S

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: ___ of 1
Reviewer: FT
2nd Reviewer: A

METHOD: ✓ GC ___ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

[✓ Y] N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG?
[✓ Y] N N/A Was an MS/MSD analyzed every 20 samples for each matrix or whenever a sample extraction was performed?
Y [✓ N] N/A Were the MS/MSD percent recoveries (%R) and relative percent differences (RPD) within QC limits?

#	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	6+7	Ethylene Glycol	70 (89-125)	( )	25 (20)	#5	J/UJ/Adet (Q)
		Propylene Glycol	75 (91-128)	90 (91-128)	( )	↓	↓ ↓
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		

LDC #: 26979H4S
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FP
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC _____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (10/.3373 std)	Recalculated CF (10/.3373 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	10/24/11	Propylene glycol	5.43×10^2	5.43×10^2	5.29×10^2	5.29×10^2	2.8	2.8
				(99.179)	(99.179)				
2	ICAL	10/19/11	↓	7.00×10^2	7.00×10^2	6.95×10^2	6.95×10^2	2.9	2.9
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

INICIC ISB

LDC #: 26979HV5
SDG #: per comm

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 7
Reviewer: EJ
2nd Reviewer: CA

METHOD: GC ✓ HPLC ____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	ccv 19:13	10/24/11	Propylene Glycol	314.07	308.78	308.78	1.7	1.7
2	ccv 21:32	10/25/11	↓	198.36	201.83	201.83	1.8	1.8
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: [illegible]

SDG #: see cover

METHOD: ✓ GC ___ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT

2nd reviewer: [illegible]

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetramethylene glycol	NG	206.41	180.13359	87	87	0

Sample ID: ___

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: ___

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: [illegible]

SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET

Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1

Reviewer: EJ

2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration

SA = Spike added

RPD =(({SSCMS - SSCMSD} * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 647

Compound	Spike Added (mg/L)		Sample Conc. (mg/L)	Spike Sample Concentration (mg/L)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	—	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
Ethylene glycol	200	200	NO	140	180	70	70	90	90	25	25

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26779H45
SDG #: all cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: FQ
2nd Reviewer: A

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
Ethylene Glycol	189.63	NA	201.8	NA	106	106	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979#5
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration = _____

ND

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

SAMPCALew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: October 19, 2011

LDC Report Date: January 30, 2012

Matrix: Soil/Water

Parameters: Formaldehyde

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE272

Sample Identification

SL-143-SA7-SB-5.0-6.0
SL-143-SA7-SB-9.0-10.0
EB-SA7-SB-101911
SL-143-SA7-SB-5.0-6.0MS
SL-143-SA7-SB-5.0-6.0MSD

Introduction

This data review covers 4 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8315A for Formaldehyde.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No formaldehyde was found in the method blanks.

Sample EB-SA7-SB-101911 was identified as an equipment blank. No formaldehyde was found.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE272	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Formaldehyde - Data Qualification Summary - SDG DE272

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE272	SL-143-SA7-SB-5.0-6.0 SL-143-SA7-SB-9.0-10.0 EB-SA7-SB-101911	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Formaldehyde - Laboratory Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Formaldehyde - Field Blank Data Qualification Summary - SDG DE272

No Sample Data Qualified in this SDG

LDC #: 26979H71 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/22/12
SDG #: DE272 Level IV Page: 6of 7
Laboratory: Lancaster Laboratories Reviewer: FJ
2nd Reviewer: A

METHOD: HPLC Formaldehyde (EPA SW 846 Method 8315A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 10/19/11
II	Initial calibration	A	% RSD ≤ 20, r²
III.	Calibration verification/ICV	A	CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LCS/D
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	ND	EB = 3

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:
soil + water

1	SL-143-SA7-SB-5.0-6.0 S	11	PBLK25098	21		31	
2	SL-143-SA7-SB-9.0-10.0	12	PBLK18293	22		32	
3	EB-SA7-SB-101911 W	13		23		33	
4	#/MS	14		24		34	
5	#/MSD	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

.DC #: 26979H71
SDG #: per memo

VALIDATION FINDINGS CHECKLIST

Reviewer: [illegible]
2nd Reviewer: [illegible]

Method: ✓ GC ✓ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓		✓	
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 26979H71
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

LDC # 26979H71
SDG# all covers

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: method 8315A

Parameter: formaldehyde

Date	Column	Compound	y	x	
10/27/2011	ns	formaldehyde	14829.60	100.1	
			30659.70	500.5	
			58485.30	1001.0	
			359300.40	6006.0	
			563648.40	10010.0	

Regression Output:		Regression Output:	**Reported**	
Constant		6602.26937	6602.27800	
Std Err of Y Est		9938.71211		
R Squared		0.99877		0.99880
No. of Observations		5.00000		
Degrees of Freedom		3.00000		
X Coefficient(s)	5.642E+001	0.25	56.42	
Std Err of Coef.	1.144130	0.04		

LDC #: 26979#71
SDG #: pucuro

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: F?
2nd Reviewer:

METHOD: GC _____ HPLC ✓

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported	Recalculated	Reported	Recalculated	Reported	Recalculated
				2002 CF (std)	2002 CF (std)	Average CF (initial)	Average CF (initial)	%RSD	%RSD
1	ICAL	10/21/11	Formaldehyde	5.04x10⁴	5.04x10⁴	4.96x10⁴	4.96x10⁴	4.8	4.8
2	ICAL	10/27/11	~~Acet~~	~~5.84x10⁴~~		~~7.68x10⁴~~	pucuro		
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979H7.1
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: A

METHOD: GC_____ HPLC ✓

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(Ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1								
			samples were analyzed after ICAL					
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: [illegible]

SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT

2nd reviewer: [illegible]

METHOD: __ GC ✓ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Butyraldehyde	N 7	2000	3896.07617 2	98	97.4	0

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #:_____

SDG #: per cover

VALIDATION FINDINGS WORKSHEET

Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1

Reviewer: EJ

2nd Reviewer: [illegible]

METHOD: __ GC ✓ HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration

SA = Spike added

RPD =(((SSCMS - SSCMSD) * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 4 & 5

Compound	Spike Added (ug/Kg)		Sample Conc. (ug/Kg)	Spike Sample Concentration (ug/Kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	---	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
Formaldehyde	5025	5025	ND	5370.12	5285.5	106	106	113	113	6	6

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26779H71
SDG #: all cores

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: FQ
2nd Reviewer: A

METHOD: __ GC __ HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS 25298

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
~~Gasoline (8015)~~ Formaldehyde	5005	NA	5679.45	NA	113	113	NA			
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26979H71
SDG #: pw gone

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: __ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration = _____

NP

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications

Comments: _____

SAMPLE DELIVERY GROUP

DE273

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Oct-2011	TB-102011	6445473	TB	5030B	8015M	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0	6445463	N	3050B	6010B	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0	6445463	N	3050B	6020	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0	6445463	N	3060A	7199	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0	6445463	N	3550B	8015B	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0	6445463	N	3550B	8015M	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0	6445463	N	3550B	8082	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0	6445463	N	3550B	8270C	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0	6445463	N	3550B	8270C SIM	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0	6445463	N	5035	8015M	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0	6445463	N	METHOD	300.0	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0	6445463	N	METHOD	314.0	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0	6445463	N	METHOD	7471A	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0	6445463	N	METHOD	8015B	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0	6445463	N	METHOD	8015M	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0	6445463	N	METHOD	9012B	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0DUP	P445463D271845B	DUP	METHOD	314.0	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0DUP	P445463D271857A	DUP	METHOD	300.0	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0MSD	P445463M320201A	MSD	3550B	8015M	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0MSD	P445463M321802A	MSD	3550B	8015B	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0MS	P445463R271906B	MS	METHOD	314.0	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0MS	P445463R271909A	MS	METHOD	300.0	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0MS	P445463R320137A	MS	3550B	8015M	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0MS	P445463R321718A	MS	3550B	8015B	III
20-Oct-2011	SL-040-SA5DS-SB-9.0-10.0	6445470	N	3050B	6010B	III
20-Oct-2011	SL-040-SA5DS-SB-9.0-10.0	6445470	N	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Oct-2011	SL-040-SA5DS-SB-9.0-10.0	6445470	N	3060A	7199	III
20-Oct-2011	SL-040-SA5DS-SB-9.0-10.0	6445470	N	3550B	8082	III
20-Oct-2011	SL-040-SA5DS-SB-9.0-10.0	6445470	N	3550B	8270C	III
20-Oct-2011	SL-040-SA5DS-SB-9.0-10.0	6445470	N	3550B	8270C SIM	III
20-Oct-2011	SL-040-SA5DS-SB-9.0-10.0	6445470	N	METHOD	300.0	III
20-Oct-2011	SL-040-SA5DS-SB-9.0-10.0	6445470	N	METHOD	314.0	III
20-Oct-2011	SL-040-SA5DS-SB-9.0-10.0	6445470	N	METHOD	7471A	III
20-Oct-2011	SL-040-SA5DS-SB-4.0-5.0	6445469	N	3050B	6010B	III
20-Oct-2011	SL-040-SA5DS-SB-4.0-5.0	6445469	N	3050B	6020	III
20-Oct-2011	SL-040-SA5DS-SB-4.0-5.0	6445469	N	3060A	7199	III
20-Oct-2011	SL-040-SA5DS-SB-4.0-5.0	6445469	N	3550B	8082	III
20-Oct-2011	SL-040-SA5DS-SB-4.0-5.0	6445469	N	3550B	8270C	III
20-Oct-2011	SL-040-SA5DS-SB-4.0-5.0	6445469	N	3550B	8270C SIM	III
20-Oct-2011	SL-040-SA5DS-SB-4.0-5.0	6445469	N	METHOD	300.0	III
20-Oct-2011	SL-040-SA5DS-SB-4.0-5.0	6445469	N	METHOD	314.0	III
20-Oct-2011	SL-040-SA5DS-SB-4.0-5.0	6445469	N	METHOD	7471A	III
20-Oct-2011	SL-060-SA7-SB-2.5-3.5	6445464	N	3050B	6010B	III
20-Oct-2011	SL-060-SA7-SB-2.5-3.5	6445464	N	3050B	6020	III
20-Oct-2011	SL-060-SA7-SB-2.5-3.5	6445464	N	3060A	7199	III
20-Oct-2011	SL-060-SA7-SB-2.5-3.5	6445464	N	3550B	8015B	III
20-Oct-2011	SL-060-SA7-SB-2.5-3.5	6445464	N	3550B	8015M	III
20-Oct-2011	SL-060-SA7-SB-2.5-3.5	6445464	N	3550B	8082	III
20-Oct-2011	SL-060-SA7-SB-2.5-3.5	6445464	N	3550B	8270C	III
20-Oct-2011	SL-060-SA7-SB-2.5-3.5	6445464	N	3550B	8270C SIM	III
20-Oct-2011	SL-060-SA7-SB-2.5-3.5	6445464	N	5035	8015M	III
20-Oct-2011	SL-060-SA7-SB-2.5-3.5	6445464	N	METHOD	300.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Oct-2011	SL-060-SA7-SB-2.5-3.5	6445464	N	METHOD	314.0	III
20-Oct-2011	SL-060-SA7-SB-2.5-3.5	6445464	N	METHOD	7471A	III
20-Oct-2011	SL-060-SA7-SB-2.5-3.5	6445464	N	METHOD	8015B	III
20-Oct-2011	SL-060-SA7-SB-2.5-3.5	6445464	N	METHOD	8015M	III
20-Oct-2011	SL-060-SA7-SB-2.5-3.5	6445464	N	METHOD	9012B	III
20-Oct-2011	SL-026-SA5DS-SB-9.0-10.0	6445468	N	3050B	6010B	III
20-Oct-2011	SL-026-SA5DS-SB-9.0-10.0	6445468	N	3050B	6020	III
20-Oct-2011	SL-026-SA5DS-SB-9.0-10.0	6445468	N	3060A	7199	III
20-Oct-2011	SL-026-SA5DS-SB-9.0-10.0	6445468	N	3550B	8082	III
20-Oct-2011	SL-026-SA5DS-SB-9.0-10.0	6445468	N	3550B	8270C	III
20-Oct-2011	SL-026-SA5DS-SB-9.0-10.0	6445468	N	3550B	8270C SIM	III
20-Oct-2011	SL-026-SA5DS-SB-9.0-10.0	6445468	N	METHOD	300.0	III
20-Oct-2011	SL-026-SA5DS-SB-9.0-10.0	6445468	N	METHOD	314.0	III
20-Oct-2011	SL-026-SA5DS-SB-9.0-10.0	6445468	N	METHOD	7471A	III
20-Oct-2011	SL-026-SA5DS-SB-4.0-5.0	6445467	N	3050B	6010B	III
20-Oct-2011	SL-026-SA5DS-SB-4.0-5.0	6445467	N	3050B	6020	III
20-Oct-2011	SL-026-SA5DS-SB-4.0-5.0	6445467	N	3060A	7199	III
20-Oct-2011	SL-026-SA5DS-SB-4.0-5.0	6445467	N	3550B	8082	III
20-Oct-2011	SL-026-SA5DS-SB-4.0-5.0	6445467	N	3550B	8270C	III
20-Oct-2011	SL-026-SA5DS-SB-4.0-5.0	6445467	N	3550B	8270C SIM	III
20-Oct-2011	SL-026-SA5DS-SB-4.0-5.0	6445467	N	METHOD	300.0	III
20-Oct-2011	SL-026-SA5DS-SB-4.0-5.0	6445467	N	METHOD	314.0	III
20-Oct-2011	SL-026-SA5DS-SB-4.0-5.0	6445467	N	METHOD	6850	III
20-Oct-2011	SL-026-SA5DS-SB-4.0-5.0	6445467	N	METHOD	7471A	III
20-Oct-2011	SL-148-SA7-SB-0.0-1.0	6445466	N	3050B	6010B	III
20-Oct-2011	SL-148-SA7-SB-0.0-1.0	6445466	N	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Oct-2011	SL-148-SA7-SB-0.0-1.0	6445466	N	3060A	7199	III
20-Oct-2011	SL-148-SA7-SB-0.0-1.0	6445466	N	3550B	8015B	III
20-Oct-2011	SL-148-SA7-SB-0.0-1.0	6445466	N	3550B	8015M	III
20-Oct-2011	SL-148-SA7-SB-0.0-1.0	6445466	N	3550B	8082	III
20-Oct-2011	SL-148-SA7-SB-0.0-1.0	6445466	N	3550B	8270C	III
20-Oct-2011	SL-148-SA7-SB-0.0-1.0	6445466	N	3550B	8270C SIM	III
20-Oct-2011	SL-148-SA7-SB-0.0-1.0	6445466	N	METHOD	300.0	III
20-Oct-2011	SL-148-SA7-SB-0.0-1.0	6445466	N	METHOD	314.0	III
20-Oct-2011	SL-148-SA7-SB-0.0-1.0	6445466	N	METHOD	7471A	III
20-Oct-2011	SL-148-SA7-SB-0.0-1.0	6445466	N	METHOD	8015B	III
20-Oct-2011	SL-148-SA7-SB-0.0-1.0	6445466	N	METHOD	8015M	III
20-Oct-2011	SL-148-SA7-SB-0.0-1.0	6445466	N	METHOD	9012B	III
20-Oct-2011	SL-016-SA8S-SB-4.0-5.0	6445471	N	3050B	6010B	III
20-Oct-2011	SL-016-SA8S-SB-4.0-5.0	6445471	N	3050B	6020	III
20-Oct-2011	SL-016-SA8S-SB-4.0-5.0	6445471	N	3060A	7199	III
20-Oct-2011	SL-016-SA8S-SB-4.0-5.0	6445471	N	3550B	8082	III
20-Oct-2011	SL-016-SA8S-SB-4.0-5.0	6445471	N	3550B	8270C	III
20-Oct-2011	SL-016-SA8S-SB-4.0-5.0	6445471	N	3550B	8270C SIM	III
20-Oct-2011	SL-016-SA8S-SB-4.0-5.0	6445471	N	METHOD	300.0	III
20-Oct-2011	SL-016-SA8S-SB-4.0-5.0	6445471	N	METHOD	314.0	III
20-Oct-2011	SL-016-SA8S-SB-4.0-5.0	6445471	N	METHOD	7471A	III
20-Oct-2011	SL-069-SA7-SB-2.5-3.5	6445465	N	3050B	6010B	III
20-Oct-2011	SL-069-SA7-SB-2.5-3.5	6445465	N	3050B	6020	III
20-Oct-2011	SL-069-SA7-SB-2.5-3.5	6445465	N	3060A	7199	III
20-Oct-2011	SL-069-SA7-SB-2.5-3.5	6445465	N	3550B	8015B	III
20-Oct-2011	SL-069-SA7-SB-2.5-3.5	6445465	N	3550B	8015M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Oct-2011	SL-069-SA7-SB-2.5-3.5	6445465	N	3550B	8082	III
20-Oct-2011	SL-069-SA7-SB-2.5-3.5	6445465	N	3550B	8270C	III
20-Oct-2011	SL-069-SA7-SB-2.5-3.5	6445465	N	3550B	8270C SIM	III
20-Oct-2011	SL-069-SA7-SB-2.5-3.5	6445465	N	5035	8015M	III
20-Oct-2011	SL-069-SA7-SB-2.5-3.5	6445465	N	METHOD	300.0	III
20-Oct-2011	SL-069-SA7-SB-2.5-3.5	6445465	N	METHOD	314.0	III
20-Oct-2011	SL-069-SA7-SB-2.5-3.5	6445465	N	METHOD	7471A	III
20-Oct-2011	SL-069-SA7-SB-2.5-3.5	6445465	N	METHOD	8015B	III
20-Oct-2011	SL-069-SA7-SB-2.5-3.5	6445465	N	METHOD	8015M	III
20-Oct-2011	SL-069-SA7-SB-2.5-3.5	6445465	N	METHOD	9012B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE273 Laboratory: LL

EDD Filename: PrepDE273_v2 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-016-SA8S-SB-4.0-5.0 **Collected:** 10/20/2011 3:08:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-023-SA7-SB-2.0-3.0 **Collected:** 10/20/2011 9:18:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.1		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-026-SA5DS-SB-4.0-5.0 **Collected:** 10/20/2011 12:37:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	6.7		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-026-SA5DS-SB-9.0-10.0 **Collected:** 10/20/2011 11:55:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	9.1		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-040-SA5DS-SB-4.0-5.0 **Collected:** 10/20/2011 10:01:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	25.0		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-040-SA5DS-SB-9.0-10.0 **Collected:** 10/20/2011 9:20:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	17.1		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-060-SA7-SB-2.5-3.5 **Collected:** 10/20/2011 11:05:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.2		0.83	MDL	1.0	PQL	mg/Kg	J	Q
Nitrate-NO3	1.4	J	0.83	MDL	1.6	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE273 Laboratory: LL

EDD Filename: PrepDE273_v2 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-069-SA7-SB-2.5-3.5 *Collected:* 10/20/2011 3:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.84	U	0.84	MDL	1.1	PQL	mg/Kg	UJ	Q

Sample ID: SL-148-SA7-SB-0.0-1.0 *Collected:* 10/20/2011 2:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.1		0.84	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-016-SA8S-SB-4.0-5.0 *Collected:* 10/20/2011 3:08:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	21400		6.63	MDL	21.9	PQL	mg/Kg	J	E
POTASSIUM	3940		12.4	MDL	54.8	PQL	mg/Kg	J	Q
SODIUM	83.0	J	6.52	MDL	110	PQL	mg/Kg	J	Z
TIN	2.71	J	0.351	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	4.78	J	0.504	MDL	5.48	PQL	mg/Kg	J	Z

Sample ID: SL-023-SA7-SB-2.0-3.0 *Collected:* 10/20/2011 9:18:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	13100		5.97	MDL	19.7	PQL	mg/Kg	J	E
POTASSIUM	3000		11.2	MDL	49.3	PQL	mg/Kg	J	Q
SODIUM	73.6	J	5.87	MDL	98.7	PQL	mg/Kg	J	Z
TIN	2.51	J	0.316	MDL	9.87	PQL	mg/Kg	U	B
Zirconium	3.26	J	0.454	MDL	4.93	PQL	mg/Kg	J	Z

Sample ID: SL-026-SA5DS-SB-4.0-5.0 *Collected:* 10/20/2011 12:37:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	20700		6.51	MDL	21.5	PQL	mg/Kg	J	E
POTASSIUM	4200		12.2	MDL	53.8	PQL	mg/Kg	J	Q
TIN	2.74	J	0.344	MDL	10.8	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE273 Laboratory: LL

EDD Filename: PrepDE273_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-026-SA5DS-SB-9.0-10.0 *Collected:* 10/20/2011 11:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	30100		6.64	MDL	22.0	PQL	mg/Kg	J	E
POTASSIUM	6250		12.4	MDL	54.9	PQL	mg/Kg	J	Q
TIN	2.98	J	0.351	MDL	11.0	PQL	mg/Kg	U	B

Sample ID: SL-040-SA5DS-SB-4.0-5.0 *Collected:* 10/20/2011 10:01:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	31000		6.53	MDL	21.6	PQL	mg/Kg	J	E
POTASSIUM	3930		12.2	MDL	54.0	PQL	mg/Kg	J	Q
TIN	2.92	J	0.346	MDL	10.8	PQL	mg/Kg	U	B

Sample ID: SL-040-SA5DS-SB-9.0-10.0 *Collected:* 10/20/2011 9:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	23800		6.38	MDL	21.1	PQL	mg/Kg	J	E
POTASSIUM	2760		11.9	MDL	52.7	PQL	mg/Kg	J	Q
TIN	2.92	J	0.337	MDL	10.5	PQL	mg/Kg	U	B

Sample ID: SL-060-SA7-SB-2.5-3.5 *Collected:* 10/20/2011 11:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	12400		6.21	MDL	20.5	PQL	mg/Kg	J	E
POTASSIUM	945		11.6	MDL	51.3	PQL	mg/Kg	J	Q
TIN	2.62	J	0.329	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	2.54	J	0.472	MDL	5.13	PQL	mg/Kg	J	Z

Sample ID: SL-069-SA7-SB-2.5-3.5 *Collected:* 10/20/2011 3:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	15700		6.18	MDL	20.4	PQL	mg/Kg	J	E
POTASSIUM	3780		11.5	MDL	51.1	PQL	mg/Kg	J	Q
SODIUM	78.9	J	6.08	MDL	102	PQL	mg/Kg	J	Z
TIN	2.68	J	0.327	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	3.10	J	0.470	MDL	5.11	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE273 Laboratory: LL

EDD Filename: PrepDE273_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 6010B **Matrix:** SO

Sample ID: SL-148-SA7-SB-0.0-1.0 *Collected:* 10/20/2011 2:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	14100		6.24	MDL	20.6	PQL	mg/Kg	J	E
BORON	4.61	J	0.371	MDL	5.15	PQL	mg/Kg	J	Z
POTASSIUM	2220		11.6	MDL	51.5	PQL	mg/Kg	J	Q
SODIUM	74.8	J	6.13	MDL	103	PQL	mg/Kg	J	Z
TIN	2.69	J	0.330	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	2.66	J	0.474	MDL	5.15	PQL	mg/Kg	J	Z

Method Category: METALS **Method:** 6020 **Matrix:** SO

Sample ID: SL-016-SA8S-SB-4.0-5.0 *Collected:* 10/20/2011 3:08:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0647	J	0.0612	MDL	0.422	PQL	mg/Kg	J	Z

Sample ID: SL-016-SA8S-SB-4.0-5.0 *Collected:* 10/20/2011 3:08:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0780	U	0.0780	MDL	0.211	PQL	mg/Kg	UJ	Q
ARSENIC	5.12		0.0843	MDL	0.422	PQL	mg/Kg	J	Q
BERYLLIUM	0.735		0.0169	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	22.5		0.127	MDL	0.422	PQL	mg/Kg	J	Q, A
COBALT	8.16		0.0211	MDL	0.105	PQL	mg/Kg	J	A
COPPER	12.1		0.0843	MDL	0.422	PQL	mg/Kg	J	A
LEAD	6.92		0.0108	MDL	0.211	PQL	mg/Kg	J	Q, A
NICKEL	16.1		0.105	MDL	0.422	PQL	mg/Kg	J	A
SILVER	0.0377	J	0.0150	MDL	0.105	PQL	mg/Kg	J	Z
VANADIUM	43.7		0.0232	MDL	0.105	PQL	mg/Kg	J	A

Sample ID: SL-023-SA7-SB-2.0-3.0 *Collected:* 10/20/2011 9:18:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.137	J	0.0601	MDL	0.415	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE273 Laboratory: LL

EDD Filename: PrepDE273_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-023-SA7-SB-2.0-3.0 *Collected:* 10/20/2011 9:18:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0767	U	0.0767	MDL	0.207	PQL	mg/Kg	UJ	Q
ARSENIC	3.51		0.0829	MDL	0.415	PQL	mg/Kg	J	Q
BERYLLIUM	0.467		0.0166	MDL	0.104	PQL	mg/Kg	J	Q
CHROMIUM	14.7		0.124	MDL	0.415	PQL	mg/Kg	J	Q, A
COBALT	5.10		0.0207	MDL	0.104	PQL	mg/Kg	J	A
COPPER	6.73		0.0829	MDL	0.415	PQL	mg/Kg	J	A
LEAD	4.68		0.0106	MDL	0.207	PQL	mg/Kg	J	Q, A
NICKEL	9.30		0.104	MDL	0.415	PQL	mg/Kg	J	A
SILVER	0.0253	J	0.0147	MDL	0.104	PQL	mg/Kg	J	Z
VANADIUM	29.5		0.0228	MDL	0.104	PQL	mg/Kg	J	A

Sample ID: SL-026-SA5DS-SB-4.0-5.0 *Collected:* 10/20/2011 12:37:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.206	J	0.0630	MDL	0.435	PQL	mg/Kg	J	Z

Sample ID: SL-026-SA5DS-SB-4.0-5.0 *Collected:* 10/20/2011 12:37:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0804	U	0.0804	MDL	0.217	PQL	mg/Kg	UJ	Q
ARSENIC	4.73		0.0870	MDL	0.435	PQL	mg/Kg	J	Q
BERYLLIUM	0.578		0.0174	MDL	0.109	PQL	mg/Kg	J	Q
CADMIUM	0.0890	J	0.0478	MDL	0.109	PQL	mg/Kg	J	Z
CHROMIUM	27.9		0.130	MDL	0.435	PQL	mg/Kg	J	Q, A
COBALT	8.63		0.0217	MDL	0.109	PQL	mg/Kg	J	A
COPPER	10.8		0.0870	MDL	0.435	PQL	mg/Kg	J	A
LEAD	6.65		0.0111	MDL	0.217	PQL	mg/Kg	J	Q, A
NICKEL	14.4		0.109	MDL	0.435	PQL	mg/Kg	J	A
VANADIUM	56.7		0.0239	MDL	0.109	PQL	mg/Kg	J	A

Sample ID: SL-026-SA5DS-SB-9.0-10.0 *Collected:* 10/20/2011 11:55:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.344	J	0.0637	MDL	0.439	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE273 Laboratory: LL

EDD Filename: PrepDE273_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-026-SA5DS-SB-9.0-10.0 *Collected:* 10/20/2011 11:55:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0880	J	0.0812	MDL	0.220	PQL	mg/Kg	J	Z, Q
ARSENIC	6.86		0.0878	MDL	0.439	PQL	mg/Kg	J	Q
BERYLLIUM	0.762		0.0176	MDL	0.110	PQL	mg/Kg	J	Q
CADMIUM	0.108	J	0.0483	MDL	0.110	PQL	mg/Kg	J	Z
CHROMIUM	35.9		0.132	MDL	0.439	PQL	mg/Kg	J	Q, A
COBALT	8.11		0.0220	MDL	0.110	PQL	mg/Kg	J	A
COPPER	20.6		0.0878	MDL	0.439	PQL	mg/Kg	J	A
LEAD	9.82		0.0112	MDL	0.220	PQL	mg/Kg	J	Q, A
NICKEL	22.5		0.110	MDL	0.439	PQL	mg/Kg	J	A
SILVER	0.0195	J	0.0156	MDL	0.110	PQL	mg/Kg	J	Z
VANADIUM	67.2		0.0241	MDL	0.110	PQL	mg/Kg	J	A

Sample ID: SL-040-SA5DS-SB-4.0-5.0 *Collected:* 10/20/2011 10:01:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.112	J	0.0626	MDL	0.432	PQL	mg/Kg	J	Z

Sample ID: SL-040-SA5DS-SB-4.0-5.0 *Collected:* 10/20/2011 10:01:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0827	J	0.0799	MDL	0.216	PQL	mg/Kg	J	Z, Q
ARSENIC	6.45		0.0864	MDL	0.432	PQL	mg/Kg	J	Q
BERYLLIUM	0.852		0.0173	MDL	0.108	PQL	mg/Kg	J	Q
CADMIUM	0.0595	J	0.0475	MDL	0.108	PQL	mg/Kg	J	Z
CHROMIUM	36.9		0.130	MDL	0.432	PQL	mg/Kg	J	Q, A
COBALT	10.5		0.0216	MDL	0.108	PQL	mg/Kg	J	A
COPPER	12.8		0.0864	MDL	0.432	PQL	mg/Kg	J	A
LEAD	8.46		0.0110	MDL	0.216	PQL	mg/Kg	J	Q, A
NICKEL	19.5		0.108	MDL	0.432	PQL	mg/Kg	J	A
SILVER	0.0407	J	0.0153	MDL	0.108	PQL	mg/Kg	J	Z
VANADIUM	70.5		0.0238	MDL	0.108	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE273 Laboratory: LL

EDD Filename: PrepDE273_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-040-SA5DS-SB-9.0-10.0 *Collected:* 10/20/2011 9:20:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.164	J	0.0624	MDL	0.430	PQL	mg/Kg	J	Z

Sample ID: SL-040-SA5DS-SB-9.0-10.0 *Collected:* 10/20/2011 9:20:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0796	U	0.0796	MDL	0.215	PQL	mg/Kg	UJ	Q
ARSENIC	6.47		0.0860	MDL	0.430	PQL	mg/Kg	J	Q
BERYLLIUM	0.729		0.0172	MDL	0.108	PQL	mg/Kg	J	Q
CHROMIUM	39.9		0.129	MDL	0.430	PQL	mg/Kg	J	Q, A
COBALT	10.7		0.0215	MDL	0.108	PQL	mg/Kg	J	A
COPPER	10.4		0.0860	MDL	0.430	PQL	mg/Kg	J	A
LEAD	7.86		0.0110	MDL	0.215	PQL	mg/Kg	J	Q, A
NICKEL	19.3		0.108	MDL	0.430	PQL	mg/Kg	J	A
SILVER	0.0203	J	0.0153	MDL	0.108	PQL	mg/Kg	J	Z
VANADIUM	67.5		0.0237	MDL	0.108	PQL	mg/Kg	J	A

Sample ID: SL-060-SA7-SB-2.5-3.5 *Collected:* 10/20/2011 11:05:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0657	J	0.0590	MDL	0.407	PQL	mg/Kg	J	Z

Sample ID: SL-060-SA7-SB-2.5-3.5 *Collected:* 10/20/2011 11:05:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0752	U	0.0752	MDL	0.203	PQL	mg/Kg	UJ	Q
ARSENIC	2.76		0.0813	MDL	0.407	PQL	mg/Kg	J	Q
BERYLLIUM	0.398		0.0163	MDL	0.102	PQL	mg/Kg	J	Q
CHROMIUM	13.9		0.122	MDL	0.407	PQL	mg/Kg	J	Q, A
COBALT	3.37		0.0203	MDL	0.102	PQL	mg/Kg	J	A
COPPER	4.05		0.0813	MDL	0.407	PQL	mg/Kg	J	A
LEAD	2.85		0.0104	MDL	0.203	PQL	mg/Kg	J	Q, A
NICKEL	10.8		0.102	MDL	0.407	PQL	mg/Kg	J	A
SILVER	0.0206	J	0.0144	MDL	0.102	PQL	mg/Kg	J	Z
THALLIUM	0.144		0.0305	MDL	0.102	PQL	mg/Kg	U	B
VANADIUM	25.5		0.0224	MDL	0.102	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE273 Laboratory: LL

EDD Filename: PrepDE273_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-069-SA7-SB-2.5-3.5 *Collected:* 10/20/2011 3:23:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.132	J	0.0604	MDL	0.417	PQL	mg/Kg	J	Z

Sample ID: SL-069-SA7-SB-2.5-3.5 *Collected:* 10/20/2011 3:23:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0771	U	0.0771	MDL	0.208	PQL	mg/Kg	UJ	Q
ARSENIC	4.63		0.0833	MDL	0.417	PQL	mg/Kg	J	Q
BERYLLIUM	0.585		0.0167	MDL	0.104	PQL	mg/Kg	J	Q
CADMIUM	0.0879	J	0.0458	MDL	0.104	PQL	mg/Kg	J	Z
CHROMIUM	22.9		0.125	MDL	0.417	PQL	mg/Kg	J	Q, A
COBALT	6.74		0.0208	MDL	0.104	PQL	mg/Kg	J	A
COPPER	10.0		0.0833	MDL	0.417	PQL	mg/Kg	J	A
LEAD	4.83		0.0106	MDL	0.208	PQL	mg/Kg	J	Q, A
NICKEL	15.8		0.104	MDL	0.417	PQL	mg/Kg	J	A
SILVER	0.0376	J	0.0148	MDL	0.104	PQL	mg/Kg	J	Z
VANADIUM	43.1		0.0229	MDL	0.104	PQL	mg/Kg	J	A

Sample ID: SL-148-SA7-SB-0.0-1.0 *Collected:* 10/20/2011 2:23:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.147	J	0.0581	MDL	0.401	PQL	mg/Kg	J	Z

Sample ID: SL-148-SA7-SB-0.0-1.0 *Collected:* 10/20/2011 2:23:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0741	U	0.0741	MDL	0.200	PQL	mg/Kg	UJ	Q
ARSENIC	4.44		0.0801	MDL	0.401	PQL	mg/Kg	J	Q
BERYLLIUM	0.607		0.0160	MDL	0.100	PQL	mg/Kg	J	Q
CADMIUM	0.0780	J	0.0441	MDL	0.100	PQL	mg/Kg	J	Z
CHROMIUM	18.2		0.120	MDL	0.401	PQL	mg/Kg	J	Q, A
COBALT	6.03		0.0200	MDL	0.100	PQL	mg/Kg	J	A
COPPER	7.01		0.0801	MDL	0.401	PQL	mg/Kg	J	A
LEAD	5.48		0.0102	MDL	0.200	PQL	mg/Kg	J	Q, A
NICKEL	11.7		0.100	MDL	0.401	PQL	mg/Kg	J	A
SILVER	0.0344	J	0.0142	MDL	0.100	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE273 Laboratory: LL

EDD Filename: PrepDE273_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 6020 **Matrix:** SO

Sample ID: SL-148-SA7-SB-0.0-1.0 *Collected:* 10/20/2011 2:23:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	35.8		0.0220	MDL	0.100	PQL	mg/Kg	J	A

Method Category: METALS **Method:** 7199 **Matrix:** SO

Sample ID: SL-148-SA7-SB-0.0-1.0 *Collected:* 10/20/2011 2:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.27	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

Method Category: METALS **Method:** 7471A **Matrix:** SO

Sample ID: SL-026-SA5DS-SB-9.0-10.0 *Collected:* 10/20/2011 11:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0142	J	0.0077	MDL	0.109	PQL	mg/Kg	U	B

Sample ID: SL-040-SA5DS-SB-9.0-10.0 *Collected:* 10/20/2011 9:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0141	J	0.0074	MDL	0.106	PQL	mg/Kg	U	B

Method Category: SVOA **Method:** 8015M **Matrix:** SO

Sample ID: SL-023-SA7-SB-2.0-3.0 *Collected:* 10/20/2011 9:18:00 *Analysis Type:* REA *Dilution:* 25.46

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
GASOLINE RANGE ORGANICS (C5-C12)	0.3	J	0.2	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-023-SA7-SB-2.0-3.0 *Collected:* 10/20/2011 9:18:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C12-C14)	0.66	J	0.41	MDL	1.2	PQL	mg/Kg	J	Z, Q, Q

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE273 Laboratory: LL

EDD Filename: PrepDE273_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8015M **Matrix:** SO

Sample ID: SL-023-SA7-SB-2.0-3.0 *Collected:* 10/20/2011 9:18:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	2.8		0.41	MDL	1.2	PQL	mg/Kg	J	Q, Q

Sample ID: SL-060-SA7-SB-2.5-3.5 *Collected:* 10/20/2011 11:05:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.83	J	0.42	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-069-SA7-SB-2.5-3.5 *Collected:* 10/20/2011 3:23:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.53	J	0.42	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-148-SA7-SB-0.0-1.0 *Collected:* 10/20/2011 2:23:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.71	J	0.42	MDL	1.3	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-016-SA8S-SB-4.0-5.0 *Collected:* 10/20/2011 3:08:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E

Sample ID: SL-023-SA7-SB-2.0-3.0 *Collected:* 10/20/2011 9:18:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.0	U	1.0	MDL	3.4	PQL	ug/Kg	UJ	E
Aroclor 5442	1.0	U	1.0	MDL	3.4	PQL	ug/Kg	UJ	E
Aroclor 5460	1.0	U	1.0	MDL	3.4	PQL	ug/Kg	UJ	E

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE273 Laboratory: LL

EDD Filename: PrepDE273_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-026-SA5DS-SB-4.0-5.0 *Collected:* 10/20/2011 12:37:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.65	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z, L
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E

Sample ID: SL-026-SA5DS-SB-9.0-10.0 *Collected:* 10/20/2011 11:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.8	J	0.36	MDL	1.9	PQL	ug/Kg	J	Z, L
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E

Sample ID: SL-040-SA5DS-SB-4.0-5.0 *Collected:* 10/20/2011 10:01:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E

Sample ID: SL-040-SA5DS-SB-9.0-10.0 *Collected:* 10/20/2011 9:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	E

Sample ID: SL-060-SA7-SB-2.5-3.5 *Collected:* 10/20/2011 11:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.0	U	1.0	MDL	3.4	PQL	ug/Kg	UJ	E
Aroclor 5442	1.0	U	1.0	MDL	3.4	PQL	ug/Kg	UJ	E
Aroclor 5460	1.0	U	1.0	MDL	3.4	PQL	ug/Kg	UJ	E

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE273 Laboratory: LL

EDD Filename: PrepDE273_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-069-SA7-SB-2.5-3.5 *Collected:* 10/20/2011 3:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.0	U	1.0	MDL	3.4	PQL	ug/Kg	UJ	E
Aroclor 5442	1.0	U	1.0	MDL	3.4	PQL	ug/Kg	UJ	E
Aroclor 5460	1.0	U	1.0	MDL	3.4	PQL	ug/Kg	UJ	E

Sample ID: SL-148-SA7-SB-0.0-1.0 *Collected:* 10/20/2011 2:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.0	U	1.0	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5442	1.0	U	1.0	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5460	1.4	J	1.0	MDL	3.5	PQL	ug/Kg	J	Z, E

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-016-SA8S-SB-4.0-5.0 *Collected:* 10/20/2011 3:08:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	9.5	J	6.5	MDL	19	PQL	ug/Kg	J	Z
Butylbenzylphthalate	13	J	6.5	MDL	19	PQL	ug/Kg	J	Z
Di-n-butylphthalate	8.2	J	6.5	MDL	19	PQL	ug/Kg	J	Z

Sample ID: SL-023-SA7-SB-2.0-3.0 *Collected:* 10/20/2011 9:18:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.75	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	0.62	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-026-SA5DS-SB-4.0-5.0 *Collected:* 10/20/2011 12:37:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	9.1	J	6.4	MDL	19	PQL	ug/Kg	J	Z
Di-n-butylphthalate	8.2	J	6.4	MDL	19	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE273 Laboratory: LL

EDD Filename: PrepDE273_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-026-SA5DS-SB-9.0-10.0 *Collected:* 10/20/2011 11:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	11	J	6.5	MDL	19	PQL	ug/Kg	J	Z
Di-n-butylphthalate	8.0	J	6.5	MDL	19	PQL	ug/Kg	J	Z

Sample ID: SL-040-SA5DS-SB-4.0-5.0 *Collected:* 10/20/2011 10:01:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	8.3	J	6.4	MDL	19	PQL	ug/Kg	J	Z
Di-n-butylphthalate	7.7	J	6.4	MDL	19	PQL	ug/Kg	J	Z

Sample ID: SL-040-SA5DS-SB-9.0-10.0 *Collected:* 10/20/2011 9:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	8.4	J	6.3	MDL	19	PQL	ug/Kg	J	Z
Di-n-butylphthalate	7.7	J	6.3	MDL	19	PQL	ug/Kg	J	Z

Sample ID: SL-069-SA7-SB-2.5-3.5 *Collected:* 10/20/2011 3:23:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(K)FLUORANTHENE	0.79	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	7.2	J	6.1	MDL	18	PQL	ug/Kg	J	Z

Sample ID: SL-148-SA7-SB-0.0-1.0 *Collected:* 10/20/2011 2:23:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(K)FLUORANTHENE	1.1	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	13	J	6.2	MDL	19	PQL	ug/Kg	J	Z
Butylbenzylphthalate	6.8	J	6.2	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	0.38	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
Di-n-butylphthalate	8.1	J	6.2	MDL	19	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE273 Laboratory: LL

EDD Filename: PrepDE273_v2 eQAPP Name: CDM_SSFL_110509

Reason Code Legend

Reason Code	*Description*
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Upper Estimation
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE273

Method Blank Outlier Report

Lab Reporting Batch ID: DE273 **Laboratory: LL**

EDD Filename: DE273_v2 **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P29708FB220649	10/29/2011 6:49:00 AM	BORON	0.447 mg/Kg	SL-016-SA8S-SB-4.0-5.0
		CALCIUM	17.2 mg/Kg	SL-023-SA7-SB-2.0-3.0
		MAGNESIUM	2.05 mg/Kg	SL-026-SA5DS-SB-4.0-5.0
		MANGANESE	0.0480 mg/Kg	SL-026-SA5DS-SB-9.0-10.0
		PHOSPHORUS	1.14 mg/Kg	SL-040-SA5DS-SB-4.0-5.0
		STRONTIUM	0.0770 mg/Kg	SL-040-SA5DS-SB-9.0-10.0
		TIN	1.18 mg/Kg	SL-060-SA7-SB-2.5-3.5
				SL-069-SA7-SB-2.5-3.5
				SL-148-SA7-SB-0.0-1.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-016-SA8S-SB-4.0-5.0(RES)	TIN	2.71 mg/Kg	2.71U mg/Kg
SL-023-SA7-SB-2.0-3.0(RES)	TIN	2.51 mg/Kg	2.51U mg/Kg
SL-026-SA5DS-SB-4.0-5.0(RES)	TIN	2.74 mg/Kg	2.74U mg/Kg
SL-026-SA5DS-SB-9.0-10.0(RES)	TIN	2.98 mg/Kg	2.98U mg/Kg
SL-040-SA5DS-SB-4.0-5.0(RES)	TIN	2.92 mg/Kg	2.92U mg/Kg
SL-040-SA5DS-SB-9.0-10.0(RES)	TIN	2.92 mg/Kg	2.92U mg/Kg
SL-060-SA7-SB-2.5-3.5(RES)	TIN	2.62 mg/Kg	2.62U mg/Kg
SL-069-SA7-SB-2.5-3.5(RES)	TIN	2.68 mg/Kg	2.68U mg/Kg
SL-148-SA7-SB-0.0-1.0(RES)	TIN	2.69 mg/Kg	2.69U mg/Kg

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P29726CB221913A	10/26/2011 7:13:00 PM	LEAD	0.0121 mg/Kg	SL-016-SA8S-SB-4.0-5.0
				SL-023-SA7-SB-2.0-3.0
				SL-026-SA5DS-SB-4.0-5.0
				SL-026-SA5DS-SB-9.0-10.0
				SL-040-SA5DS-SB-4.0-5.0
				SL-040-SA5DS-SB-9.0-10.0
				SL-060-SA7-SB-2.5-3.5
				SL-069-SA7-SB-2.5-3.5
				SL-148-SA7-SB-0.0-1.0

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE273 Laboratory: LL

EDD Filename: DE273_v2 eQAPP Name: CDM_SSFL_110509

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-023-SA7-SB-2.0-3.0MS	EFH (C12-C14)	-	283	49.00-123.00	59 (20.00)	EFH (C12-C14)	J (all detects)
SL-023-SA7-SB-2.0-3.0MSD	EFH (C15-C20)	494	190	49.00-123.00	55 (20.00)	EFH (C15-C20)	
(SL-023-SA7-SB-2.0-3.0)	EFH (C21-C30)	1022	728	49.00-123.00	-	EFH (C21-C30)	EFH (C21-C30) and
	EFH (C30-C40)	292	353	49.00-123.00	-	EFH (C30-C40)	(C30-C40), No Qual, >4x

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-023-SA7-SB-2.0-3.0MS	FLUORIDE	73	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
(SL-016-SA8S-SB-4.0-5.0							
SL -023-SA7-SB-2.0-3.0							
SL -026-SA5DS -SB-4.0-5.0							
SL -026-SA5DS -SB-9.0-10.0							
SL -040-SA5DS -SB-4.0-5.0							
SL -040-SA5DS -SB-9.0-10.0							
SL -060-SA7-SB-2.5-3.5							
SL -069-SA7-SB-2.5-3.5							
SL -148-SA7-SB-0.0-1.0)							

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE273 Laboratory: LL

EDD Filename: DE273_v2 eQAPP Name: CDM_SSFL_110509

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-023-SA7-SB-2.0-3.0DUP (SL-016-SA8S-SB-4.0-5.0 SL -023-SA7-SB-2.0-3.0 SL -026-SA5DS-SB-4.0-5.0 SL -026-SA5DS-SB-9.0-10.0 SL -040-SA5DS-SB-4.0-5.0 SL -040-SA5DS-SB-9.0-10.0 SL -060-SA7-SB-2.5-3.5 SL -069-SA7-SB-2.5-3.5 SL -148-SA7-SB-0.0-1.0)	FLUORIDE	200	20.00	No Qual, OK by Difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE273 Laboratory: LL

EDD Filename: DE273_v2 eQAPP Name: CDM_SSFL_110509

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12995AQ240434A (SL-016-SA8S-SB-4.0-5.0 SL-023-SA7-SB-2.0-3.0 SL-026-SA5DS-SB-4.0-5.0 SL-026-SA5DS-SB-9.0-10.0 SL-040-SA5DS-SB-4.0-5.0 SL-040-SA5DS-SB-9.0-10.0 SL-060-SA7-SB-2.5-3.5 SL-069-SA7-SB-2.5-3.5 SL-148-SA7-SB-0.0-1.0)	AROCLOR 1260	153	-	65.00-137.00	-	AROCLOR 1260, 1242, 1248, 1254, 1262, 1268	J (all detects)
P12995AY240512A (SL-016-SA8S-SB-4.0-5.0 SL-023-SA7-SB-2.0-3.0 SL-026-SA5DS-SB-4.0-5.0 SL-026-SA5DS-SB-9.0-10.0 SL-040-SA5DS-SB-4.0-5.0 SL-040-SA5DS-SB-9.0-10.0 SL-060-SA7-SB-2.5-3.5 SL-069-SA7-SB-2.5-3.5 SL-148-SA7-SB-0.0-1.0)	Aroclor 5442	-	-	36.00-106.00	32 (30.00)	Aroclor 5442, 5432, 5460	J(all detects) UJ(all non-detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P29726CQ221916A (SL-016-SA8S-SB-4.0-5.0 SL-023-SA7-SB-2.0-3.0 SL-026-SA5DS-SB-4.0-5.0 SL-026-SA5DS-SB-9.0-10.0 SL-040-SA5DS-SB-4.0-5.0 SL-040-SA5DS-SB-9.0-10.0 SL-060-SA7-SB-2.5-3.5 SL-069-SA7-SB-2.5-3.5 SL-148-SA7-SB-0.0-1.0)	ANTIMONY	79	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC Limits

Reporting Limit Outliers

Lab Reporting Batch ID: DE273 | Laboratory: LL

EDD Filename: DE273_v2 | eQAPP Name: CDM_SSFL_110509

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-060-SA7-SB-2.5-3.5	Nitrate-NO3	J	1.4	1.6	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-016-SA8S-SB-4.0-5.0	SODIUM	J	83.0	110	PQL	mg/Kg	J (all detects)
	TIN	J	2.71	11.0	PQL	mg/Kg	
	Zirconium	J	4.78	5.48	PQL	mg/Kg	
SL-023-SA7-SB-2.0-3.0	SODIUM	J	73.6	98.7	PQL	mg/Kg	J (all detects)
	TIN	J	2.51	9.87	PQL	mg/Kg	
	Zirconium	J	3.26	4.93	PQL	mg/Kg	
SL-026-SA5DS-SB-4.0-5.0	TIN	J	2.74	10.8	PQL	mg/Kg	J (all detects)
SL-026-SA5DS-SB-9.0-10.0	TIN	J	2.98	11.0	PQL	mg/Kg	J (all detects)
SL-040-SA5DS-SB-4.0-5.0	TIN	J	2.92	10.8	PQL	mg/Kg	J (all detects)
SL-040-SA5DS-SB-9.0-10.0	TIN	J	2.92	10.5	PQL	mg/Kg	J (all detects)
SL-060-SA7-SB-2.5-3.5	TIN	J	2.62	10.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.54	5.13	PQL	mg/Kg	
SL-069-SA7-SB-2.5-3.5	SODIUM	J	78.9	102	PQL	mg/Kg	J (all detects)
	TIN	J	2.68	10.2	PQL	mg/Kg	
	Zirconium	J	3.10	5.11	PQL	mg/Kg	
SL-148-SA7-SB-0.0-1.0	BORON	J	4.61	5.15	PQL	mg/Kg	J (all detects)
	SODIUM	J	74.8	103	PQL	mg/Kg	
	TIN	J	2.69	10.3	PQL	mg/Kg	
	Zirconium	J	2.66	5.15	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-016-SA8S-SB-4.0-5.0	SELENIUM	J	0.0647	0.422	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0377	0.105	PQL	mg/Kg	
SL-023-SA7-SB-2.0-3.0	SELENIUM	J	0.137	0.415	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0253	0.104	PQL	mg/Kg	
SL-026-SA5DS-SB-4.0-5.0	CADMIUM	J	0.0890	0.109	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.206	0.435	PQL	mg/Kg	
SL-026-SA5DS-SB-9.0-10.0	ANTIMONY	J	0.0880	0.220	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.108	0.110	PQL	mg/Kg	
	SELENIUM	J	0.344	0.439	PQL	mg/Kg	
	SILVER	J	0.0195	0.110	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE273 | Laboratory: LL

EDD Filename: DE273_v2 | eQAPP Name: CDM_SSFL_110509

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-040-SA5DS-SB-4.0-5.0	ANTIMONY	J	0.0827	0.216	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0595	0.108	PQL	mg/Kg	
	SELENIUM	J	0.112	0.432	PQL	mg/Kg	
	SILVER	J	0.0407	0.108	PQL	mg/Kg	
SL-040-SA5DS-SB-9.0-10.0	SELENIUM	J	0.164	0.430	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0203	0.108	PQL	mg/Kg	
SL-060-SA7-SB-2.5-3.5	SELENIUM	J	0.0657	0.407	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0206	0.102	PQL	mg/Kg	
SL-069-SA7-SB-2.5-3.5	CADMIUM	J	0.0879	0.104	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.132	0.417	PQL	mg/Kg	
	SILVER	J	0.0376	0.104	PQL	mg/Kg	
SL-148-SA7-SB-0.0-1.0	CADMIUM	J	0.0780	0.100	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.147	0.401	PQL	mg/Kg	
	SILVER	J	0.0344	0.100	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-148-SA7-SB-0.0-1.0	HEXAVALENT CHROMIUM	J	0.27	1.0	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-026-SA5DS-SB-9.0-10.0	MERCURY	J	0.0142	0.109	PQL	mg/Kg	J (all detects)
SL-040-SA5DS-SB-9.0-10.0	MERCURY	J	0.0141	0.106	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-023-SA7-SB-2.0-3.0	EFH (C12-C14)	J	0.66	1.2	PQL	mg/Kg	J (all detects)
	GASOLINE RANGE ORGANICS (C5-C12)	J	0.3	1.1	PQL	mg/Kg	
SL-060-SA7-SB-2.5-3.5	EFH (C15-C20)	J	0.83	1.3	PQL	mg/Kg	J (all detects)
SL-069-SA7-SB-2.5-3.5	EFH (C15-C20)	J	0.53	1.3	PQL	mg/Kg	J (all detects)
SL-148-SA7-SB-0.0-1.0	EFH (C15-C20)	J	0.71	1.3	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE273 | Laboratory: LL

EDD Filename: DE273_v2 | eQAPP Name: CDM_SSFL_110509

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-026-SA5DS-SB-4.0-5.0	AROCLOR 1254	J	0.65	1.8	PQL	ug/Kg	J (all detects)
SL-026-SA5DS-SB-9.0-10.0	AROCLOR 1254	J	1.8	1.9	PQL	ug/Kg	J (all detects)
SL-148-SA7-SB-0.0-1.0	Aroclor 5460	J	1.4	3.5	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-016-SA8S-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.5	19	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	13	19	PQL	ug/Kg	
	Di-n-butylphthalate	J	8.2	19	PQL	ug/Kg	
SL-023-SA7-SB-2.0-3.0	BENZO(B)FLUORANTHENE	J	0.75	1.7	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.62	1.7	PQL	ug/Kg	
SL-026-SA5DS-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.1	19	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	8.2	19	PQL	ug/Kg	
SL-026-SA5DS-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	11	19	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	8.0	19	PQL	ug/Kg	
SL-040-SA5DS-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.3	19	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	7.7	19	PQL	ug/Kg	
SL-040-SA5DS-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.4	19	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	7.7	19	PQL	ug/Kg	
SL-069-SA7-SB-2.5-3.5	BENZO(K)FLUORANTHENE	J	0.79	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.2	18	PQL	ug/Kg	
SL-148-SA7-SB-0.0-1.0	BENZO(K)FLUORANTHENE	J	1.1	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	13	19	PQL	ug/Kg	
	Butylbenzylphthalate	J	6.8	19	PQL	ug/Kg	
	CHRYSENE	J	0.38	1.7	PQL	ug/Kg	
	Di-n-butylphthalate	J	8.1	19	PQL	ug/Kg	

LDC #: 26979I4 **VALIDATION COMPLETENESS WORKSHEET** Date: 1-20-12

SDG #: DE273 ADR Page: 1 of 1

Laboratory: Lancaster Laboratories Reviewer: CL

2nd Reviewer: W

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (from SDG: DE277)
VII.	Duplicate Sample Analysis	N	Dup ↓
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	—	from DE277
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-023-SA7-SB-2.0-3.0	11		21		31	
2	SL-060-SA7-SB-2.5-3.5	12		22		32	
3	SL-069-SA7-SB-2.5-3.5	13		23		33	
4	SL-148-SA7-SB-0.0-1.0	14		24		34	
5	SL-026-SA5DS-SB-4.0-5.0	15		25		35	
6	SL-026-SA5DS-SB-9.0-10.0	16		26		36	
7	SL-040-SA5DS-SB-4.0-5.0	17		27		37	
8	SL-040-SA5DS-SB-9.0-10.0	18		28		38	
9	SL-016-SA8S-SB-4.0-5.0	19		29		39	
10		20		30		40	

Notes:

LDC #: 26979I4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES Reason: B

Reviewer: a
2nd Reviewer:

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)
Soil preparation factor applied: 100x x MS (2xdil), Hg; 167x
Sample Concentration units, unless otherwise noted: mg/Kg
Associated Samples: All

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	2	6	8							
Hg			0.049	0.08		0.014	0.014							
Tl			0.15	0.15	0.14									

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

SAMPLE DELIVERY GROUP

DE282

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
08-Nov-2011	TB-110811	6463911	TB	3520C	1625C	III
08-Nov-2011	TB-110811	6463912	TB	3546	1625C	III
08-Nov-2011	TB-110811	6463913	TB	5030B	8015M	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0	6463908	N	3050B	6010B	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0	6463908	N	3050B	6020	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0	6463908	N	3060A	7199	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0	6463908	N	3546	1625C	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0	6463908	N	3550B	8015B	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0	6463908	N	3550B	8015M	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0	6463908	N	3550B	8082	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0	6463908	N	3550B	8270C	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0	6463908	N	3550B	8270C SIM	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0	6463908	N	5035	8015M	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0	6463908	N	8330	8330A	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0	6463908	N	METHOD	300.0	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0	6463908	N	METHOD	314.0	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0	6463908	N	METHOD	7471A	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0	6463908	N	METHOD	8015B	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0	6463908	N	METHOD	8015M	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0	6463908	N	METHOD	8315A	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0	6463908	N	METHOD	9012B	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0DU	P463908D271225A	DUP	METHOD	314.0	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0DU	P463908D271507A	DUP	METHOD	300.0	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0MS	P463908R260506	MS	3546	1625C	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0MS	P463908R271246A	MS	METHOD	314.0	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0MS	P463908R271522A	MS	METHOD	300.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
08-Nov-2011	EB-SA5DS-SB-110811	6463910	EB	3520C	1625C	III
08-Nov-2011	SL-019-SA5DS-SB-2.0-3.0	6463909	N	3050B	6010B	III
08-Nov-2011	SL-019-SA5DS-SB-2.0-3.0	6463909	N	3050B	6020	III
08-Nov-2011	SL-019-SA5DS-SB-2.0-3.0	6463909	N	3060A	7199	III
08-Nov-2011	SL-019-SA5DS-SB-2.0-3.0	6463909	N	3546	1625C	III
08-Nov-2011	SL-019-SA5DS-SB-2.0-3.0	6463909	N	3550B	8015B	III
08-Nov-2011	SL-019-SA5DS-SB-2.0-3.0	6463909	N	3550B	8015M	III
08-Nov-2011	SL-019-SA5DS-SB-2.0-3.0	6463909	N	3550B	8082	III
08-Nov-2011	SL-019-SA5DS-SB-2.0-3.0	6463909	N	3550B	8270C	III
08-Nov-2011	SL-019-SA5DS-SB-2.0-3.0	6463909	N	3550B	8270C SIM	III
08-Nov-2011	SL-019-SA5DS-SB-2.0-3.0	6463909	N	5035	8015M	III
08-Nov-2011	SL-019-SA5DS-SB-2.0-3.0	6463909	N	8330	8330A	III
08-Nov-2011	SL-019-SA5DS-SB-2.0-3.0	6463909	N	METHOD	300.0	III
08-Nov-2011	SL-019-SA5DS-SB-2.0-3.0	6463909	N	METHOD	314.0	III
08-Nov-2011	SL-019-SA5DS-SB-2.0-3.0	6463909	N	METHOD	7471A	III
08-Nov-2011	SL-019-SA5DS-SB-2.0-3.0	6463909	N	METHOD	8015B	III
08-Nov-2011	SL-019-SA5DS-SB-2.0-3.0	6463909	N	METHOD	8015M	III
08-Nov-2011	SL-019-SA5DS-SB-2.0-3.0	6463909	N	METHOD	8315A	III
08-Nov-2011	SL-019-SA5DS-SB-2.0-3.0	6463909	N	METHOD	9012B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE282 Laboratory: LL

EDD Filename: DE282_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-010-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 9:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-019-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 2:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.1		0.85	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-010-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 9:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.04	J	0.350	MDL	10.9	PQL	mg/Kg	U	B

Sample ID: SL-019-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 2:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.96	J	0.343	MDL	10.7	PQL	mg/Kg	U	B

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-010-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 9:15:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.203	J	0.0640	MDL	0.442	PQL	mg/Kg	J	Z, E

Sample ID: SL-010-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 9:15:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.196		0.0552	MDL	0.110	PQL	mg/Kg	J	Q, E

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE282 **Laboratory:** LL

EDD Filename: DE282_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-010-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 9:15:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	38.2		0.117	MDL	0.442	PQL	mg/Kg	J	E

Sample ID: SL-010-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 9:15:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.160	J	0.0817	MDL	0.221	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.23		0.0883	MDL	0.442	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	0.469		0.0177	MDL	0.110	PQL	mg/Kg	J	Q, Q, E, E
CADMIUM	0.0665	J	0.0486	MDL	0.110	PQL	mg/Kg	J	Z, Q, E
CHROMIUM	36.8		0.132	MDL	0.442	PQL	mg/Kg	J	Q, Q, E
COBALT	3.85		0.0221	MDL	0.110	PQL	mg/Kg	J	E, E
COPPER	3.98		0.0883	MDL	0.442	PQL	mg/Kg	J	Q, E
LEAD	5.17		0.0113	MDL	0.221	PQL	mg/Kg	J	E
NICKEL	10.4		0.110	MDL	0.442	PQL	mg/Kg	J	Q, E
SILVER	0.0165	J	0.0157	MDL	0.110	PQL	mg/Kg	J	Z, Q, E
THALLIUM	0.101	J	0.0331	MDL	0.110	PQL	mg/Kg	J	Z, Q, E
VANADIUM	66.2		0.0243	MDL	0.110	PQL	mg/Kg	J	E
ZINC	42.9		0.618	MDL	3.31	PQL	mg/Kg	J	E

Sample ID: SL-019-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 2:40:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.124	J	0.0604	MDL	0.416	PQL	mg/Kg	J	Z, E

Sample ID: SL-019-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 2:40:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.218		0.0520	MDL	0.104	PQL	mg/Kg	J	Q, E

Sample ID: SL-019-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 2:40:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	47.4		0.110	MDL	0.416	PQL	mg/Kg	J	E

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE282 Laboratory: LL

EDD Filename: DE282_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 Matrix: SO

Sample ID: SL-019-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 2:40:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0982	J	0.0770	MDL	0.208	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.83		0.0833	MDL	0.416	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	0.534		0.0167	MDL	0.104	PQL	mg/Kg	J	Q, Q, E, E
CADMIUM	0.0667	J	0.0458	MDL	0.104	PQL	mg/Kg	J	Z, Q, E
CHROMIUM	36.3		0.125	MDL	0.416	PQL	mg/Kg	J	Q, Q, E
COBALT	4.49		0.0208	MDL	0.104	PQL	mg/Kg	J	E, E
COPPER	3.83		0.0833	MDL	0.416	PQL	mg/Kg	J	Q, E
LEAD	4.57		0.0106	MDL	0.208	PQL	mg/Kg	J	E
NICKEL	9.74		0.104	MDL	0.416	PQL	mg/Kg	J	Q, E
SILVER	0.0148	U	0.0148	MDL	0.104	PQL	mg/Kg	UJ	E
THALLIUM	0.124		0.0312	MDL	0.104	PQL	mg/Kg	J	Q, E
VANADIUM	64.3		0.0229	MDL	0.104	PQL	mg/Kg	J	E
ZINC	44.0		0.583	MDL	3.12	PQL	mg/Kg	J	E

Method Category: METALS

Method: 7199 Matrix: SO

Sample ID: SL-010-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 9:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.47	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-019-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 2:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.64	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A Matrix: SO

Sample ID: SL-010-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 9:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0091	J	0.0077	MDL	0.109	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE282 Laboratory: LL

EDD Filename: DE282_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA **Method:** 1625C **Matrix:** AQ

Sample ID: EB-SA5DS-SB-110811 *Collected:* 11/8/2011 2:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	1.57		0.486	MDL	0.972	PQL	ng/L	J	S

Method Category: SVOA **Method:** 8015M **Matrix:** SO

Sample ID: SL-019-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 2:40:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	1.2	J	0.43	MDL	1.3	PQL	mg/Kg	J	Z

Method Category: SVOA **Method:** 8270C SIM **Matrix:** SO

Sample ID: SL-010-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 9:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	10	J	6.7	MDL	20	PQL	ug/Kg	J	Z

Sample ID: SL-019-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 2:40:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	12	J	6.5	MDL	19	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE282 **Laboratory: LL**

EDD Filename: DE282_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
B	Method Blank Contamination
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
L	Laboratory Control Spike Lower Estimation
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE282

Method Blank Outlier Report

Lab Reporting Batch ID: DE282 Laboratory: LL

EDD Filename: DE282_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P31408GB220523	11/15/2011 5:23:00 AM	CALCIUM	3.80 mg/Kg	SL-010-SA5DS-SB-2.0-3.0
		IRON	2.81 mg/Kg	SL-019-SA5DS-SB-2.0-3.0
		PHOSPHORUS	1.17 mg/Kg	
		TIN	1.42 mg/Kg	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-010-SA5DS-SB-2.0-3.0(RES)	TIN	3.04 mg/Kg	3.04U mg/Kg
SL-019-SA5DS-SB-2.0-3.0(RES)	TIN	2.96 mg/Kg	2.96U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P31426CB222216A	11/19/2011 10:16:00 PM	LEAD	0.0859 mg/Kg	SL-010-SA5DS-SB-2.0-3.0
		ZINC	1.10 mg/Kg	SL-019-SA5DS-SB-2.0-3.0

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE282 **Laboratory: LL**

EDD Filename: DE282_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **300.0**
Matrix: **SO**

QC Sample ID (Associated Samples)	*Compound*	*MS %R*	*MSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
SL-010-SA5DS-SB-2.0-3.0MS (SL-010-SA5DS-SB-2.0-3.0 SL-019-SA5DS-SB-2.0-3.0)	FLUORIDE	65	-	80.00-120.00	-	FLUORIDE	J (all detects) UJ (all non-detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE282 Laboratory: LL

EDD Filename: DE282_v1 eQAPP Name: CDM_SSFL_110509

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P31426CQ222220A (SL-010-SA5DS-SB-2.0-3.0 SL-019-SA5DS-SB-2.0-3.0)	ANTIMONY	73	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within Limits

Surrogate Outlier Report

Lab Reporting Batch ID: DE282 Laboratory: LL

EDD Filename: DE282_v1 eQAPP Name: CDM_SSFL_110509

Method: 1625C
Matrix: AQ

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
EB-SA5DS-SB-110811	N-Nitrosodimethylamine-d6	176	50.00-150.00	All Target Analytes	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE282 **Laboratory:** LL

EDD Filename: DE282_v1 **eQAPP Name:** CDM_SSFL_110509

Method: 6010B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-010-SA5DS-SB-2.0-3.0	TIN	J	3.04	10.9	PQL	mg/Kg	J (all detects)
SL-019-SA5DS-SB-2.0-3.0	TIN	J	2.96	10.7	PQL	mg/Kg	J (all detects)

Method: 6020
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-010-SA5DS-SB-2.0-3.0	ANTIMONY	J	0.160	0.221	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0665	0.110	PQL	mg/Kg	
	SELENIUM	J	0.203	0.442	PQL	mg/Kg	
	SILVER	J	0.0165	0.110	PQL	mg/Kg	
	THALLIUM	J	0.101	0.110	PQL	mg/Kg	
SL-019-SA5DS-SB-2.0-3.0	ANTIMONY	J	0.0982	0.208	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0667	0.104	PQL	mg/Kg	
	SELENIUM	J	0.124	0.416	PQL	mg/Kg	

Method: 7199
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-010-SA5DS-SB-2.0-3.0	HEXAVALENT CHROMIUM	J	0.47	1.1	PQL	mg/Kg	J (all detects)
SL-019-SA5DS-SB-2.0-3.0	HEXAVALENT CHROMIUM	J	0.64	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-010-SA5DS-SB-2.0-3.0	MERCURY	J	0.0091	0.109	PQL	mg/Kg	J (all detects)

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-019-SA5DS-SB-2.0-3.0	EFH (C21-C30)	J	1.2	1.3	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE282 **Laboratory: LL**

EDD Filename: DE282_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
SL-010-SA5DS-SB-2.0-3.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	10	20	PQL	ug/Kg	J (all detects)
SL-019-SA5DS-SB-2.0-3.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	12	19	PQL	ug/Kg	J (all detects)

LDC #: 27039E4 **VALIDATION COMPLETENESS WORKSHEET** Date: 1-3-12

SDG #: DE282 ADR Page: 1 of 1

Laboratory: Lancaster Laboratories Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	MS/D (from SDG: DE283)
VII.	Duplicate Sample Analysis	SW	DUP ↓
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	A	from DE283
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks		

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: soil

1	SL-010-SA5DS-SB-2.0-3.0	11		21		31	
2	SL-019-SA5DS-SB-2.0-3.0	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

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*Sb: Post spike = 72% > J/R/A
*Cr: Post spike = 73% > J/R/A

QUALITY ASSURANCE SUMMARY
FORM 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: DE283
Matrix: SOIL Level (low/med): LOW

qualify

Background Lab Sample ID: 6465418BKG Matrix Spike Lab Sample ID: 6465419MS Matrix Spike Duplicate Lab Sample ID: 6465420MSD
% Solids for Sample: 89.7
Batch Id(s): P31408G, P31426C, P31411B

Analyte	Mass	BKG Sample Result	C	MS Sample Result	C	MSD Sample Result	C	MS Spike Added	MSD Spike Added	Units	MS %R	Q	MSD %R	Q	RPD	Q	Control Limit %R	Control Limit RPD	M	
Aluminum		17024.0569		19636.7270		19491.6410		218.5936	216.4713	MG/KG	1195		1140		1			20	P	
Antimony	121	0.2030	B	0.4700		0.6576		1.2988	1.2741	MG/KG	21	N	36	N	33	*	75 - 125	20	MS	J/R
Arsenic	75	5.7993		7.1436		9.3051		2.1647	2.1235	MG/KG	62	N	165	N	26	*	75 - 125	20	MS	J/c
Barium	137	81.1947		77.2586		110.9519		10.8236	10.6174	MG/KG	-36		280		36	*		20	MS	
Beryllium	9	0.6985		1.2848		1.7824		0.8659	0.8494	MG/KG	68	N	128	N	32	*	75 - 125	20	MS	
Boron		7.6222		221.0221		220.1134		218.5936	216.4713	MG/KG	98		98		0		84 - 115	20	P	
Cadmium	111	0.2331		1.3404		1.7672		1.0824	1.0617	MG/KG	102		144	N	27	*	75 - 125	20	MS	J/c
Calcium		3669.6087		4607.2661		4562.3210		437.1871	432.9426	MG/KG	214		206		1			20	P	
Chromium	52	41.9661		43.5107		58.8629		10.8236	10.6174	MG/KG	14	N	159	N	30	*	75 - 125	20	MS	J/R
Cobalt	59	6.6868		49.4420		65.7642		54.1178	53.0870	MG/KG	79		111		28	*	75 - 125	20	MS	J/c
Copper	63	7.6846		17.1900		24.2077		10.8236	10.6174	MG/KG	88		156	N	34	*	75 - 125	20	MS	
Iron		23299.4320		23654.5675		23705.0438		109.2968	108.2357	MG/KG	325		375		0			20	P	
Lead	208	14.7952		14.8456		21.7232		3.2471	3.1852	MG/KG	2		218		38	*		20	MS	J/c
Lithium		19.4532		129.0828		127.4724		109.2968	108.2357	MG/KG	100		100		1		82 - 114	20	P	
Magnesium		5012.2323		5392.3449		5343.8473		218.5936	216.4713	MG/KG	174		153		1			20	P	
Manganese		278.3129		320.6910		319.0224		54.6484	54.1178	MG/KG	78		75		1			20	P	
Mercury		0.0144	B	0.1735		0.1654		0.1836	0.1804	MG/KG	87		84		5		65 - 135	20	CV	
Molybdenum	98	0.4841		10.1395		14.5352		10.8236	10.6174	MG/KG	89		132	N	36	*	75 - 125	20	MS	J/c
Nickel	60	12.4596		21.1471		30.1322		10.8236	10.6174	MG/KG	80		166	N	35	*	75 - 125	20	MS	
Phosphorus		730.6726		799.8481		809.6395		109.2968	108.2357	MG/KG	63		73		1			20	P	
Potassium		3111.9786		4376.7493		4416.0340		1092.9678	1082.3565	MG/KG	116		120		1		75 - 125	20	P	
Selenium	78	0.2899	B	2.1487		2.8455		2.1647	2.1235	MG/KG	86		120		28	*	75 - 125	20	MS	J/c
Silver	107	0.0259	B	11.1180		14.9748		10.8236	10.6174	MG/KG	102		141	N	30	*	75 - 125	20	MS	
Sodium		98.2970	B	1178.6478		1167.7263		1092.9678	1082.3565	MG/KG	99		99		1		75 - 125	20	P	
Strontium		26.4904		136.4855		135.6388		109.2968	108.2357	MG/KG	101		101		1		75 - 115	20	P	
Thallium	203	0.2380		0.5988		0.8532		0.4329	0.4247	MG/KG	83		145	N	35	*	75 - 125	20	MS	J/c
Tin		2.7138	B	366.9825		363.2821		437.1871	432.9426	MG/KG	83		83		1		80 - 110	20	P	
Titanium		923.9614		1261.7909		1306.2441		109.2968	108.2357	MG/KG	309		353		3			20	P	
Vanadium	51	69.8257		66.9546		89.2711		10.8236	10.6174	MG/KG	-27		183		29	*		20	MS	J/c
Zinc	66	60.4656		58.8369		84.2809		10.8236	10.6174	MG/KG	-15		224		36	*		20	MS	
Zirconium		8.0278		106.5840		105.2548		109.2968	108.2357	MG/KG	90		90		1		81 - 110	20	P	

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence

CONCENTRATION QUALIFIERS:
U= Below MDL, B= Below LOQ
FLAGS:
N = Matrix Spike OOS, * = Duplicate OOS

LDC #: 29039F4

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: CR
2nd Reviewer:

METHOD: Trace metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a matrix spike analyzed for each matrix in this SDG?

Y (N) N/A Were matrix spike percent recoveries (%R) within the control limits of 75-125? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.

Y (N) N/A Were all duplicate sample relative percent differences (RPD) ≤ 20% ~~for water samples and ≤35%~~ for soil samples?

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	MS/MSD ID	Matrix	Analyte	MS %Recovery	MSD %Recovery	RPD (Limits)	Associated Samples	Qualifications
	6/7 from DE283	S	Sb	21	36		All	J/R/A (Q) PS=72%
			Sb			33		J/UJ/A (E)
			As	62	165	26		J/UJ/A (Q,E)
			Ba			36		(E)
			Be	68	128	32		(Q,E)
			Cd		144			Jdet/A (Q)
			Cd			27		J/UJ/A (E)
			Cr	14	159			J/R/A (Q) PS=73%
			Cr			30		J/UJ/A (E)
			Co			28		(E)
			Cu		156			Jdet/A (Q)
			Cu			34		J/UJ/A (E)
			Pb			38		Jdet/A (Q)
			Mo		132			
			Mo			32		J/UJ/A (E)
			Ni		166			Jdet/A (Q)
			Ni			35		J/UJ/A (E)
			Se			28		Jdet/A (Q)
			Ag		141			J/UJ/A (E)
			Ag			30		Jdet/A (Q)
			Tl		145			J/UJ/A (E)
			Tl			35		
			V			29		
			Zn			36		

Comments:

eurofins | Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 6
DUPLICATES
SDG No.: DE283
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6465418BKG
% Solids for Duplicate: 89.7
Batch ID(s): P31408G, P31426C, P31411B
Concentration Units: MG/KG

Duplicate Lab Sample ID: 6465421DUP
% Solids for Sample: 89.7

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			17024.0569		16849.7726		1		P
Antimony	121		0.2030	B	0.1160	B	55		MS
Arsenic	75		5.7993		4.7640		20		MS
Barium	137		81.1947		69.3180		16		MS
Beryllium	9		0.6985		0.5658		21	*	MS
Boron		5.3	7.6222		7.2274		5		P
Cadmium	111	0.1	0.2331		0.1715		30		MS
Calcium			3669.6087		3504.4392		5		P
Chromium	52		41.9661		35.7186		16		MS
Cobalt	59		6.6868		5.3490		22	*	MS
Copper	63		7.6846		6.8280		12		MS
Iron			23299.4320		25729.4571		10		P
Lead	208		14.7952		12.6605		16		MS
Lithium			19.4532		19.1750		1		P
Magnesium			5012.2323		5349.0368		7		P
Manganese			278.3129		264.5953		5		P
Mercury			0.0144	B	0.0124	B	15		CV
Molybdenum	98	0.1	0.4841		0.4479		8		MS
Nickel	60		12.4596		11.0865		12		MS
Phosphorus			730.6726		713.1628		2		P
Potassium			3111.9786		3376.4281		8		P
Selenium	78		0.2899	B	0.2148	B	30		MS
Silver	107		0.0259	B	0.0279	B	7		MS
Sodium			98.2970	B	95.6076	B	3		P
Strontium			26.4904		25.2330		5		P
Thallium	203	0.1	0.2380		0.1855		25		MS
Tin			2.7138	B	2.6923	B	1		P
Titanium			923.9614		916.4894		1		P
Vanadium	51		69.8257		60.1344		15		MS
Zinc	66		60.4656		53.4676		12		MS
Zirconium		5.3	8.0278		8.7023		8		P

NOTE: An asterisk (*) in column "Q" indicates poor duplicate precision (RPD > 20% OR |(S) - (D)| > LOQ for values < 5x LOQ).
The data are considered to be valid because the laboratory control sample is within the control limits. See the Laboratory Control Sample.

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence

CONCENTRATION QUALIFIERS:
U= Below MDL
B= Below LOQ
FLAGS:
* = Duplicate Out of Spec

SAMPLE DELIVERY GROUP

DE283

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
09-Nov-2011	TB-110911	6465428	TB	3546	1625C	IV
09-Nov-2011	TB-110911	6465429	TB	3520C	1625C	IV
09-Nov-2011	TB-110911	6465430	TB	5030B	8015M	IV
09-Nov-2011	SL-021-SA5DS-SB-2.0-3.0	6465424	N	3050B	6010B	IV
09-Nov-2011	SL-021-SA5DS-SB-2.0-3.0	6465424	N	3050B	6020	IV
09-Nov-2011	SL-021-SA5DS-SB-2.0-3.0	6465424	N	3060A	7199	IV
09-Nov-2011	SL-021-SA5DS-SB-2.0-3.0	6465424	N	3550B	8082	IV
09-Nov-2011	SL-021-SA5DS-SB-2.0-3.0	6465424	N	3550B	8270C	IV
09-Nov-2011	SL-021-SA5DS-SB-2.0-3.0	6465424	N	3550B	8270C SIM	IV
09-Nov-2011	SL-021-SA5DS-SB-2.0-3.0	6465424	N	METHOD	300.0	IV
09-Nov-2011	SL-021-SA5DS-SB-2.0-3.0	6465424	N	METHOD	314.0	IV
09-Nov-2011	SL-021-SA5DS-SB-2.0-3.0	6465424	N	METHOD	7471A	IV
09-Nov-2011	SL-022-SA5DS-SB-4.0-5.0	6465425	N	3050B	6010B	IV
09-Nov-2011	SL-022-SA5DS-SB-4.0-5.0	6465425	N	3050B	6020	IV
09-Nov-2011	SL-022-SA5DS-SB-4.0-5.0	6465425	N	3060A	7199	IV
09-Nov-2011	SL-022-SA5DS-SB-4.0-5.0	6465425	N	3550B	8082	IV
09-Nov-2011	SL-022-SA5DS-SB-4.0-5.0	6465425	N	3550B	8270C	IV
09-Nov-2011	SL-022-SA5DS-SB-4.0-5.0	6465425	N	3550B	8270C SIM	IV
09-Nov-2011	SL-022-SA5DS-SB-4.0-5.0	6465425	N	METHOD	300.0	IV
09-Nov-2011	SL-022-SA5DS-SB-4.0-5.0	6465425	N	METHOD	314.0	IV
09-Nov-2011	SL-022-SA5DS-SB-4.0-5.0	6465425	N	METHOD	7471A	IV
09-Nov-2011	EB-SA5DS-SB-110911	6465427	EB	3520C	1625C	IV
09-Nov-2011	SL-005-SA5DS-SB-1.0-2.0	6465417	N	3050B	6010B	IV
09-Nov-2011	SL-005-SA5DS-SB-1.0-2.0	6465417	N	3050B	6020	IV
09-Nov-2011	SL-005-SA5DS-SB-1.0-2.0	6465417	N	3060A	7199	IV
09-Nov-2011	SL-005-SA5DS-SB-1.0-2.0	6465417	N	3546	1625C	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
09-Nov-2011	SL-005-SA5DS-SB-1.0-2.0	6465417	N	3550B	8015B	IV
09-Nov-2011	SL-005-SA5DS-SB-1.0-2.0	6465417	N	3550B	8015M	IV
09-Nov-2011	SL-005-SA5DS-SB-1.0-2.0	6465417	N	3550B	8082	IV
09-Nov-2011	SL-005-SA5DS-SB-1.0-2.0	6465417	N	3550B	8270C	IV
09-Nov-2011	SL-005-SA5DS-SB-1.0-2.0	6465417	N	3550B	8270C SIM	IV
09-Nov-2011	SL-005-SA5DS-SB-1.0-2.0	6465417	N	5035	8015M	IV
09-Nov-2011	SL-005-SA5DS-SB-1.0-2.0	6465417	N	8330	8330A	IV
09-Nov-2011	SL-005-SA5DS-SB-1.0-2.0	6465417	N	METHOD	300.0	IV
09-Nov-2011	SL-005-SA5DS-SB-1.0-2.0	6465417	N	METHOD	314.0	IV
09-Nov-2011	SL-005-SA5DS-SB-1.0-2.0	6465417	N	METHOD	7471A	IV
09-Nov-2011	SL-005-SA5DS-SB-1.0-2.0	6465417	N	METHOD	8015B	IV
09-Nov-2011	SL-005-SA5DS-SB-1.0-2.0	6465417	N	METHOD	8015M	IV
09-Nov-2011	SL-005-SA5DS-SB-1.0-2.0	6465417	N	METHOD	8315A	IV
09-Nov-2011	SL-005-SA5DS-SB-1.0-2.0	6465417	N	METHOD	9012B	IV
09-Nov-2011	SL-005-SA5DS-SB-1.0-2.0MS	P465417R320159A	MS	METHOD	8015B	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5	6465418	N	3050B	6010B	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5	6465418	N	3050B	6020	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5	6465418	N	3060A	7199	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5	6465418	N	3550B	8082	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5	6465418	N	3550B	8270C	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5	6465418	N	3550B	8270C SIM	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5	6465418	N	METHOD	300.0	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5	6465418	N	METHOD	314.0	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5	6465418	N	METHOD	7471A	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5MS	6465419	MS	3050B	6010B	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5MS	6465419	MS	3050B	6020	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5MS	6465419	MS	3060A	7199	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5MS	6465419	MS	3550B	8082	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5MS	6465419	MS	3550B	8270C	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5MS	6465419	MS	3550B	8270C SIM	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5MS	6465419	MS	METHOD	300.0	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5MS	6465419	MS	METHOD	314.0	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5MS	6465419	MS	METHOD	7471A	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5DU	6465421	DUP	3050B	6010B	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5DU	6465421	DUP	3050B	6020	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5DU	6465421	DUP	3060A	7199	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5DU	6465421	DUP	METHOD	300.0	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5DU	6465421	DUP	METHOD	314.0	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5DU	6465421	DUP	METHOD	7471A	IV
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5RL	6465423	N	3550B	8082	IV
09-Nov-2011	DUP04-SA5DS-QC-110911	6465426	FD	3050B	6010B	IV
09-Nov-2011	DUP04-SA5DS-QC-110911	6465426	FD	3050B	6020	IV
09-Nov-2011	DUP04-SA5DS-QC-110911	6465426	FD	3060A	7199	IV
09-Nov-2011	DUP04-SA5DS-QC-110911	6465426	FD	3550B	8082	IV
09-Nov-2011	DUP04-SA5DS-QC-110911	6465426	FD	3550B	8270C	IV
09-Nov-2011	DUP04-SA5DS-QC-110911	6465426	FD	3550B	8270C SIM	IV
09-Nov-2011	DUP04-SA5DS-QC-110911	6465426	FD	METHOD	300.0	IV
09-Nov-2011	DUP04-SA5DS-QC-110911	6465426	FD	METHOD	314.0	IV
09-Nov-2011	DUP04-SA5DS-QC-110911	6465426	FD	METHOD	7471A	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: DUP04-SA5DS-QC-110911 *Collected:* 11/9/2011 1:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.90	U	0.90	MDL	1.1	PQL	mg/Kg	UJ	Q

Sample ID: SL-005-SA5DS-SB-1.0-2.0 *Collected:* 11/9/2011 1:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.85	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-006-SA5DS-SS-0.0-0.5 *Collected:* 11/9/2011 1:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.90	U	0.90	MDL	1.1	PQL	mg/Kg	UJ	Q

Sample ID: SL-021-SA5DS-SB-2.0-3.0 *Collected:* 11/9/2011 9:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-022-SA5DS-SB-4.0-5.0 *Collected:* 11/9/2011 11:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: DUP04-SA5DS-QC-110911 *Collected:* 11/9/2011 1:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	100	J	6.66	MDL	112	PQL	mg/Kg	J	Z
TIN	2.65	J	0.358	MDL	11.2	PQL	mg/Kg	U	B

Sample ID: SL-005-SA5DS-SB-1.0-2.0 *Collected:* 11/9/2011 1:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.83	J	0.328	MDL	10.3	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-006-SA5DS-SS-0.0-0.5 *Collected:* 11/9/2011 1:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	98.3	J	6.32	MDL	106	PQL	mg/Kg	J	Z
TIN	2.71	J	0.340	MDL	10.6	PQL	mg/Kg	U	B

Sample ID: SL-021-SA5DS-SB-2.0-3.0 *Collected:* 11/9/2011 9:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	95.0	J	6.24	MDL	105	PQL	mg/Kg	J	Z
TIN	2.56	J	0.336	MDL	10.5	PQL	mg/Kg	U	B

Sample ID: SL-022-SA5DS-SB-4.0-5.0 *Collected:* 11/9/2011 11:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.68	J	0.329	MDL	10.3	PQL	mg/Kg	U	B

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: DUP04-SA5DS-QC-110911 *Collected:* 11/9/2011 1:40:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.176	J	0.0631	MDL	0.435	PQL	mg/Kg	J	Z, E

Sample ID: DUP04-SA5DS-QC-110911 *Collected:* 11/9/2011 1:40:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.441		0.0544	MDL	0.109	PQL	mg/Kg	J	Q, E

Sample ID: DUP04-SA5DS-QC-110911 *Collected:* 11/9/2011 1:40:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	63.8		0.115	MDL	0.435	PQL	mg/Kg	J	E

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: DUP04-SA5DS-QC-110911 *Collected:* 11/9/2011 1:40:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0805	U	0.0805	MDL	0.217	PQL	mg/Kg	R	Q
ARSENIC	4.58		0.0870	MDL	0.435	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	0.498		0.0174	MDL	0.109	PQL	mg/Kg	J	Q, Q, E, E
CADMIUM	0.181		0.0478	MDL	0.109	PQL	mg/Kg	J	Q, E
CHROMIUM	33.4		0.130	MDL	0.435	PQL	mg/Kg	J	Q, Q, E
COBALT	5.31		0.0217	MDL	0.109	PQL	mg/Kg	J	E, E
COPPER	6.41		0.0870	MDL	0.435	PQL	mg/Kg	J	Q, E
LEAD	12.3		0.0111	MDL	0.217	PQL	mg/Kg	J	Q, E
NICKEL	9.63		0.109	MDL	0.435	PQL	mg/Kg	J	Q, E
SILVER	0.0262	J	0.0154	MDL	0.109	PQL	mg/Kg	J	Z, Q, E
THALLIUM	0.171		0.0326	MDL	0.109	PQL	mg/Kg	J	Q, E
VANADIUM	54.5		0.0239	MDL	0.109	PQL	mg/Kg	J	Q, E
ZINC	48.5		0.609	MDL	3.26	PQL	mg/Kg	J	Q, E

Sample ID: SL-005-SA5DS-SB-1.0-2.0 *Collected:* 11/9/2011 1:05:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.299	J	0.0595	MDL	0.410	PQL	mg/Kg	J	Z, E

Sample ID: SL-005-SA5DS-SB-1.0-2.0 *Collected:* 11/9/2011 1:05:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.333		0.0513	MDL	0.103	PQL	mg/Kg	J	Q, E

Sample ID: SL-005-SA5DS-SB-1.0-2.0 *Collected:* 11/9/2011 1:05:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	49.8		0.109	MDL	0.410	PQL	mg/Kg	J	E

Sample ID: SL-005-SA5DS-SB-1.0-2.0 *Collected:* 11/9/2011 1:05:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.114	J	0.0759	MDL	0.205	PQL	mg/Kg	J	Z, Q, Q, E
ARSENIC	6.45		0.0820	MDL	0.410	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	0.596		0.0164	MDL	0.103	PQL	mg/Kg	J	Q, Q, E, E

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-005-SA5DS-SB-1.0-2.0 *Collected:* 11/9/2011 1:05:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.128		0.0451	MDL	0.103	PQL	mg/Kg	J	Q, E
CHROMIUM	51.3		0.123	MDL	0.410	PQL	mg/Kg	J	Q, Q, E
COBALT	5.13		0.0205	MDL	0.103	PQL	mg/Kg	J	E, E
COPPER	5.67		0.0820	MDL	0.410	PQL	mg/Kg	J	Q, E
LEAD	7.68		0.0105	MDL	0.205	PQL	mg/Kg	J	Q, E
NICKEL	12.9		0.103	MDL	0.410	PQL	mg/Kg	J	Q, E
SILVER	0.0159	J	0.0146	MDL	0.103	PQL	mg/Kg	J	Z, Q, E
THALLIUM	0.134		0.0308	MDL	0.103	PQL	mg/Kg	J	Q, E
VANADIUM	84.3		0.0226	MDL	0.103	PQL	mg/Kg	J	Q, E
ZINC	61.9		0.574	MDL	3.08	PQL	mg/Kg	J	Q, E

Sample ID: SL-006-SA5DS-SS-0.0-0.5 *Collected:* 11/9/2011 1:35:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.290	J	0.0640	MDL	0.442	PQL	mg/Kg	J	Z, E

Sample ID: SL-006-SA5DS-SS-0.0-0.5 *Collected:* 11/9/2011 1:35:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.484		0.0552	MDL	0.110	PQL	mg/Kg	J	Q, E

Sample ID: SL-006-SA5DS-SS-0.0-0.5 *Collected:* 11/9/2011 1:35:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	81.2		0.117	MDL	0.442	PQL	mg/Kg	J	E

Sample ID: SL-006-SA5DS-SS-0.0-0.5 *Collected:* 11/9/2011 1:35:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.203	J	0.0817	MDL	0.221	PQL	mg/Kg	J	Z, Q, Q, E, FD
ARSENIC	5.80		0.0883	MDL	0.442	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	0.698		0.0177	MDL	0.110	PQL	mg/Kg	J	Q, Q, E, E
CADMIUM	0.233		0.0486	MDL	0.110	PQL	mg/Kg	J	Q, E
CHROMIUM	42.0		0.132	MDL	0.442	PQL	mg/Kg	J	Q, Q, E
COBALT	6.69		0.0221	MDL	0.110	PQL	mg/Kg	J	E, E

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-006-SA5DS-SS-0.0-0.5 *Collected:* 11/9/2011 1:35:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	7.68		0.0883	MDL	0.442	PQL	mg/Kg	J	Q, E
LEAD	14.8		0.0113	MDL	0.221	PQL	mg/Kg	J	Q, E
NICKEL	12.5		0.110	MDL	0.442	PQL	mg/Kg	J	Q, E
SILVER	0.0259	J	0.0157	MDL	0.110	PQL	mg/Kg	J	Z, Q, E
THALLIUM	0.238		0.0331	MDL	0.110	PQL	mg/Kg	J	Q, E
VANADIUM	69.8		0.0243	MDL	0.110	PQL	mg/Kg	J	Q, E
ZINC	60.5		0.618	MDL	3.31	PQL	mg/Kg	J	Q, E

Sample ID: SL-021-SA5DS-SB-2.0-3.0 *Collected:* 11/9/2011 9:55:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.103	J	0.0608	MDL	0.419	PQL	mg/Kg	J	Z, E

Sample ID: SL-021-SA5DS-SB-2.0-3.0 *Collected:* 11/9/2011 9:55:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.647		0.0524	MDL	0.105	PQL	mg/Kg	J	Q, E

Sample ID: SL-021-SA5DS-SB-2.0-3.0 *Collected:* 11/9/2011 9:55:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	104		0.111	MDL	0.419	PQL	mg/Kg	J	E

Sample ID: SL-021-SA5DS-SB-2.0-3.0 *Collected:* 11/9/2011 9:55:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.127	J	0.0776	MDL	0.210	PQL	mg/Kg	J	Z, Q, Q, E
ARSENIC	8.02		0.0839	MDL	0.419	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	0.846		0.0168	MDL	0.105	PQL	mg/Kg	J	Q, Q, E, E
CADMIUM	0.182		0.0461	MDL	0.105	PQL	mg/Kg	J	Q, E
CHROMIUM	32.7		0.126	MDL	0.419	PQL	mg/Kg	J	Q, Q, E
COBALT	4.92		0.0210	MDL	0.105	PQL	mg/Kg	J	E, E
COPPER	3.89		0.0839	MDL	0.419	PQL	mg/Kg	J	Q, E
LEAD	4.61		0.0107	MDL	0.210	PQL	mg/Kg	J	Q, E
NICKEL	14.0		0.105	MDL	0.419	PQL	mg/Kg	J	Q, E

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-021-SA5DS-SB-2.0-3.0 *Collected:* 11/9/2011 9:55:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0161	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z, Q, E
THALLIUM	0.150		0.0315	MDL	0.105	PQL	mg/Kg	J	Q, E
VANADIUM	68.1		0.0231	MDL	0.105	PQL	mg/Kg	J	Q, E
ZINC	37.3		0.587	MDL	3.15	PQL	mg/Kg	J	Q, E

Sample ID: SL-022-SA5DS-SB-4.0-5.0 *Collected:* 11/9/2011 11:15:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.209	J	0.0586	MDL	0.404	PQL	mg/Kg	J	Z, E

Sample ID: SL-022-SA5DS-SB-4.0-5.0 *Collected:* 11/9/2011 11:15:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.438		0.0505	MDL	0.101	PQL	mg/Kg	J	Q, E

Sample ID: SL-022-SA5DS-SB-4.0-5.0 *Collected:* 11/9/2011 11:15:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	67.3		0.107	MDL	0.404	PQL	mg/Kg	J	E

Sample ID: SL-022-SA5DS-SB-4.0-5.0 *Collected:* 11/9/2011 11:15:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.116	J	0.0747	MDL	0.202	PQL	mg/Kg	J	Z, Q, Q, E
ARSENIC	5.75		0.0808	MDL	0.404	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	0.649		0.0162	MDL	0.101	PQL	mg/Kg	J	Q, Q, E, E
CADMIUM	0.135		0.0444	MDL	0.101	PQL	mg/Kg	J	Q, E
CHROMIUM	40.8		0.121	MDL	0.404	PQL	mg/Kg	J	Q, Q, E
COBALT	6.57		0.0202	MDL	0.101	PQL	mg/Kg	J	E, E
COPPER	6.95		0.0808	MDL	0.404	PQL	mg/Kg	J	Q, E
LEAD	5.91		0.0103	MDL	0.202	PQL	mg/Kg	J	Q, E
NICKEL	13.9		0.101	MDL	0.404	PQL	mg/Kg	J	Q, E
SILVER	0.0210	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z, Q, E
THALLIUM	0.211		0.0303	MDL	0.101	PQL	mg/Kg	J	Q, E
VANADIUM	71.1		0.0222	MDL	0.101	PQL	mg/Kg	J	Q, E

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 6020 **Matrix:** SO

Sample ID: SL-022-SA5DS-SB-4.0-5.0 *Collected:* 11/9/2011 11:15:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	52.4		0.566	MDL	3.03	PQL	mg/Kg	J	Q, E

Method Category: METALS **Method:** 7199 **Matrix:** SO

Sample ID: DUP04-SA5DS-QC-110911 *Collected:* 11/9/2011 1:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	1.1	J	0.22	MDL	1.1	PQL	mg/Kg	J	FD

Sample ID: SL-005-SA5DS-SB-1.0-2.0 *Collected:* 11/9/2011 1:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.60	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-006-SA5DS-SS-0.0-0.5 *Collected:* 11/9/2011 1:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.22	U	0.22	MDL	1.1	PQL	mg/Kg	UJ	FD

Sample ID: SL-021-SA5DS-SB-2.0-3.0 *Collected:* 11/9/2011 9:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.62	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-022-SA5DS-SB-4.0-5.0 *Collected:* 11/9/2011 11:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.55	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 7471A Matrix: SO

Sample ID: DUP04-SA5DS-QC-110911 *Collected:* 11/9/2011 1:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0143	J	0.0076	MDL	0.108	PQL	mg/Kg	J	Z

Sample ID: SL-006-SA5DS-SS-0.0-0.5 *Collected:* 11/9/2011 1:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0144	J	0.0078	MDL	0.111	PQL	mg/Kg	J	Z

Sample ID: SL-021-SA5DS-SB-2.0-3.0 *Collected:* 11/9/2011 9:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0157	J	0.0076	MDL	0.108	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8082 Matrix: SO

Sample ID: DUP04-SA5DS-QC-110911 *Collected:* 11/9/2011 1:40:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.85	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z, FD, *XIII
AROCLOR 1260	0.68	J	0.44	MDL	1.9	PQL	ug/Kg	J	Z, FD, *XIII
Aroclor 5460	1.9	J	1.1	MDL	3.7	PQL	ug/Kg	J	Z

Sample ID: SL-006-SA5DS-SS-0.0-0.5 *Collected:* 11/9/2011 1:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.8	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z, FD, *XIII
AROCLOR 1260	0.43	U	0.43	MDL	1.9	PQL	ug/Kg	UJ	FD
Aroclor 5460	1.7	J	1.1	MDL	3.7	PQL	ug/Kg	J	Z, C

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C Matrix: SO

Sample ID: DUP04-SA5DS-QC-110911 *Collected:* 11/9/2011 1:40:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	C

Sample ID: SL-005-SA5DS-SB-1.0-2.0 *Collected:* 11/9/2011 1:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	17	U	17	MDL	170	PQL	ug/Kg	UJ	C

Sample ID: SL-006-SA5DS-SS-0.0-0.5 *Collected:* 11/9/2011 1:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	C
BENZIDINE	1300	U	1300	MDL	3700	PQL	ug/Kg	R	Q

Sample ID: SL-021-SA5DS-SB-2.0-3.0 *Collected:* 11/9/2011 9:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	C

Sample ID: SL-022-SA5DS-SB-4.0-5.0 *Collected:* 11/9/2011 11:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	17	U	17	MDL	170	PQL	ug/Kg	UJ	C
BENZOIC ACID	200	J	170	MDL	520	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM Matrix: SO

Sample ID: DUP04-SA5DS-QC-110911 *Collected:* 11/9/2011 1:40:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.47	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z, FD
BENZO(A)ANTHRACENE	0.93	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD
BENZO(A)PYRENE	0.78	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD
BENZO(B)FLUORANTHENE	2.0		0.73	MDL	1.8	PQL	ug/Kg	J	FD
BENZO(G,H,I)PERYLENE	0.89	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: DUP04-SA5DS-QC-110911 *Collected:* 11/9/2011 1:40:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(K)FLUORANTHENE	0.77	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD
BIS(2-ETHYLHEXYL)PHTHALATE	21		6.6	MDL	20	PQL	ug/Kg	J	FD
CHRYSENE	1.9		0.37	MDL	1.8	PQL	ug/Kg	J	FD
FLUORANTHENE	2.4		0.73	MDL	1.8	PQL	ug/Kg	J	FD
NAPHTHALENE	0.97	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD
PHENANTHRENE	1.4	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD
PYRENE	1.8	J	0.73	MDL	1.8	PQL	ug/Kg	J	FD

Sample ID: SL-005-SA5DS-SB-1.0-2.0 *Collected:* 11/9/2011 1:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.86	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
Butylbenzylphthalate	11	J	6.2	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	0.67	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	0.89	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	0.73	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-006-SA5DS-SS-0.0-0.5 *Collected:* 11/9/2011 1:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.37	U	0.37	MDL	1.8	PQL	ug/Kg	UJ	FD
BENZO(A)ANTHRACENE	0.73	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD
BENZO(A)PYRENE	0.73	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD
BENZO(B)FLUORANTHENE	0.73	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD
BENZO(G,H,I)PERYLENE	0.73	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD
BENZO(K)FLUORANTHENE	0.73	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD
BIS(2-ETHYLHEXYL)PHTHALATE	6.6	U	6.6	MDL	20	PQL	ug/Kg	UJ	FD
CHRYSENE	0.41	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	0.73	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD
NAPHTHALENE	0.73	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD
PHENANTHRENE	0.73	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD
PYRENE	0.73	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-021-SA5DS-SB-2.0-3.0 *Collected:* 11/9/2011 9:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.43	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	12	J	6.4	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	0.53	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
Di-n-octylphthalate	9.5	J	6.4	MDL	19	PQL	ug/Kg	J	Z

Sample ID: SL-022-SA5DS-SB-4.0-5.0 *Collected:* 11/9/2011 11:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHENE	1.0	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z, S
ACENAPHTHYLENE	0.90	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z, S
ANTHRACENE	11		0.35	MDL	1.7	PQL	ug/Kg	J	S
BENZO(A)ANTHRACENE	15		0.70	MDL	1.7	PQL	ug/Kg	J	S
BENZO(A)PYRENE	12		0.70	MDL	1.7	PQL	ug/Kg	J	S
BENZO(B)FLUORANTHENE	13		0.70	MDL	1.7	PQL	ug/Kg	J	S
BENZO(G,H,I)PERYLENE	10		0.70	MDL	1.7	PQL	ug/Kg	J	S
BENZO(K)FLUORANTHENE	13		0.70	MDL	1.7	PQL	ug/Kg	J	S
BIS(2-ETHYLHEXYL)PHTHALATE	27		6.3	MDL	19	PQL	ug/Kg	J	S
Butylbenzylphthalate	17	J	6.3	MDL	19	PQL	ug/Kg	J	Z, S
CHRYSENE	14		0.35	MDL	1.7	PQL	ug/Kg	J	S
DIBENZO(A,H)ANTHRACENE	11		0.70	MDL	1.7	PQL	ug/Kg	J	S
Diethylphthalate	10	J	6.3	MDL	19	PQL	ug/Kg	J	Z, S
Dimethylphthalate	6.3	J	6.3	MDL	19	PQL	ug/Kg	J	Z, S
Di-n-butylphthalate	19		6.3	MDL	19	PQL	ug/Kg	J	S
Di-n-octylphthalate	18	J	6.3	MDL	19	PQL	ug/Kg	J	Z, S
FLUORANTHENE	15		0.70	MDL	1.7	PQL	ug/Kg	J	S
FLUORENE	4.1		0.70	MDL	1.7	PQL	ug/Kg	J	S
INDENO(1,2,3-CD)PYRENE	11		0.70	MDL	1.7	PQL	ug/Kg	J	S
PHENANTHRENE	10		0.70	MDL	1.7	PQL	ug/Kg	J	S
PYRENE	12		0.70	MDL	1.7	PQL	ug/Kg	J	S

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Reason Code Legend

Reason Code	*Description*
*XIII	Compound Quantitation and RLs
A	ICP Serial Dilution
B	Method Blank Contamination
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Percent Difference Lower Estimation
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
FD	Field Duplicate Precision
L	Laboratory Control Spike Lower Estimation
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

DE283

Method Blank Outlier Report

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P31408GB220523	11/15/2011 5:23:00 AM	CALCIUM IRON PHOSPHORUS TIN	3.80 mg/Kg 2.81 mg/Kg 1.17 mg/Kg 1.42 mg/Kg	DUP04-SA5DS-QC-110911 SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP04-SA5DS-QC-110911(RES)	TIN	2.65 mg/Kg	2.65U mg/Kg
SL-005-SA5DS-SB-1.0-2.0(RES)	TIN	2.83 mg/Kg	2.83U mg/Kg
SL-006-SA5DS-SS-0.0-0.5(RES)	TIN	2.71 mg/Kg	2.71U mg/Kg
SL-021-SA5DS-SB-2.0-3.0(RES)	TIN	2.56 mg/Kg	2.56U mg/Kg
SL-022-SA5DS-SB-4.0-5.0(RES)	TIN	2.68 mg/Kg	2.68U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P31426CB222216A	11/19/2011 10:16:00 PM	LEAD ZINC	0.0859 mg/Kg 1.10 mg/Kg	DUP04-SA5DS-QC-110911 SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-006-SA5DS-SS-0.0-0.5MS SL-006-SA5DS-SS-0.0-0.5MSD (DUP04-SA5DS-QC-110911 SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0)	ANTIMONY CHROMIUM LEAD VANADIUM ZINC	21 14 2 -27 -15	36 159 218 183 224	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	33 (20.00) 30 (20.00) 38 (20.00) 29 (20.00) 36 (20.00)	ANTIMONY CHROMIUM LEAD VANADIUM ZINC	J (all detects) R (all non-detects) Sb (PS = 72%), Cr (PS=73%) J (all detects) UJ(all non-detects) Pb, V, Zn, No %R Qual, >4
SL-006-SA5DS-SS-0.0-0.5MS SL-006-SA5DS-SS-0.0-0.5MSD (DUP04-SA5DS-QC-110911 SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0)	ARSENIC BERYLLIUM CADMIUM COBALT COPPER NICKEL SILVER THALLIUM	62 68 - - - - - -	165 128 144 - 156 166 141 145	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	26 (20.00) 32 (20.00) 27 (20.00) 28 (20.00) 34 (20.00) 35 (20.00) 30 (20.00) 35 (20.00)	ARSENIC BERYLLIUM CADMIUM COBALT COPPER NICKEL SILVER THALLIUM	J(all detects) UJ(all non-detects)
SL-006-SA5DS-SS-0.0-0.5MSD (DUP04-SA5DS-QC-110911 SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0)	SELENIUM	-	-	75.00-125.00	28 (20.00)	SELENIUM	J(all detects) UJ(all non-detects)
SL-006-SA5DS-SS-0.0-0.5MSD (DUP04-SA5DS-QC-110911 SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0)	MOLYBDENUM	-	132	75.00-125.00	36 (20.00)	MOLYBDENUM	J(all detects) UJ(all non-detects)
SL-006-SA5DS-SS-0.0-0.5MS SL-006-SA5DS-SS-0.0-0.5MSD (DUP04-SA5DS-QC-110911 SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0)	BARIUM	-36	280	75.00-125.00	36 (20.00)	BARIUM	J(all detects) UJ(all non-detects) No Qual %R, >4x

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-006-SA5DS-SS-0.0-0.5MS SL-006-SA5DS-SS-0.0-0.5MSD (DUP04-SA5DS-QC-110911 SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0)	ALUMINUM CALCIUM IRON MAGNESIUM TITANIUM	1195 214 325 174 309	1140 206 375 153 353	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - -	ALUMINUM CALCIUM IRON MAGNESIUM TITANIUM	No Qual, >4x
SL-006-SA5DS-SS-0.0-0.5MS SL-006-SA5DS-SS-0.0-0.5MSD (DUP04-SA5DS-QC-110911 SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0)	PHOSPHORUS	63	73	75.00-125.00	-	PHOSPHORUS	No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-006-SA5DS-SS-0.0-0.5MS (DUP04-SA5DS-QC-110911 SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0)	FLUORIDE	72	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-006-SA5DS-SS-0.0-0.5MSD (SL-006-SA5DS-SS-0.0-0.5)	BENZO(G,H,I)PERYLENE	-	-	33.00-141.00	35 (30.00)	BENZO(G,H,I)PERYLENE	J(all detects)
	Di-n-octylphthalate	-	-	40.00-192.00	37 (30.00)	Di-n-octylphthalate	

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-006-SA5DS-SS-0.0-0.5MSD (SL-006-SA5DS-SS-0.0-0.5)	HEXACHLOROCYCLOPENTADI	-	-	10.00-153.00	35 (30.00)	HEXACHLOROCYCLOPENTAD	J(all detects)
SL-006-SA5DS-SS-0.0-0.5MS SL-006-SA5DS-SS-0.0-0.5MSD (SL-006-SA5DS-SS-0.0-0.5)	BENZIDINE	0	18	35.00-141.00	200 (30.00)	BENZIDINE	J(all detects) R(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-006-SA5DS-SS-0.0-0.5DUP (DUP04-SA5DS-QC-110911 SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0)	FLUORIDE	200	20.00	No Qual, OK by Difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-006-SA5DS-SS-0.0-0.5DUP (DUP04-SA5DS-QC-110911 SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0)	ANTIMONY	55	20.00	J(all detects) UJ(all non-detects)
	BERYLLIUM	21	20.00	
	CADMIUM	30	20.00	
	COBALT	22	20.00	
	SELENIUM	30	20.00	Sb, Cd, Se, Tl, No Qual, OK by Difference
	THALLIUM	25	20.00	

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-006-SA5DS-SS-0.0-0.5DUP (DUP04-SA5DS-QC-110911 SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0)	HEXAVALENT CHROMIUM	200	20.00	No Qual, OK by Difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P31426CQ222220A (DUP04 -SA5DS -QC-110911 SL -005-SA5DS -SB-1.0-2.0 SL -006-SA5DS -SS-0.0-0.5 SL -021-SA5DS -SB-2.0-3.0 SL -022-SA5DS -SB-4.0-5.0)	ANTIMONY	73	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC Limits

Surrogate Outlier Report

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
DUP04-SA5DS-QC-110911	Nitrobenzene-d5	143	40.00-130.00	No Affected Compounds	J (all detects)
SL-022-SA5DS-SB-4.0-5.0	Nitrobenzene-d5 Terphenyl-d14	140 191	40.00-130.00 45.00-135.00	All Base/Neutral Target Analytes	J(all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE283 | Laboratory: LL

EDD Filename: DE283_v1 | eQAPP Name: CDM_SSFL_110509

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-006-SA5DS-SS-0.0-0.5	DUP04-SA5DS-QC-110911			
MOISTURE	10.3	10.7	4		No Qualifiers Applied

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-006-SA5DS-SS-0.0-0.5	DUP04-SA5DS-QC-110911			
ALUMINUM	17000	17200	1	50.00	No Qualifiers Applied
BORON	7.62	7.21	6	50.00	
CALCIUM	3670	3730	2	50.00	
IRON	23300	23400	0	50.00	
LITHIUM	19.5	19.4	1	50.00	
MAGNESIUM	5010	4970	1	50.00	
MANGANESE	278	264	5	50.00	
PHOSPHORUS	731	751	3	50.00	
POTASSIUM	3110	3110	0	50.00	
SODIUM	98.3	100	2	50.00	
STRONTIUM	26.5	26.9	1	50.00	
TIN	2.71	2.65	2	50.00	
TITANIUM	924	964	4	50.00	
Zirconium	8.03	8.55	6	50.00	

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-006-SA5DS-SS-0.0-0.5	DUP04-SA5DS-QC-110911			
ARSENIC	5.80	4.58	24	50.00	No Qualifiers Applied
BARIUM	81.2	63.8	24	50.00	
BERYLLIUM	0.698	0.498	33	50.00	
CADMIUM	0.233	0.181	25	50.00	
CHROMIUM	42.0	33.4	23	50.00	
COBALT	6.69	5.31	23	50.00	
COPPER	7.68	6.41	18	50.00	
LEAD	14.8	12.3	18	50.00	
MOLYBDENUM	0.484	0.441	9	50.00	
NICKEL	12.5	9.63	26	50.00	
SELENIUM	0.290	0.176	49	50.00	
SILVER	0.0259	0.0262	1	50.00	
THALLIUM	0.238	0.171	33	50.00	
VANADIUM	69.8	54.5	25	50.00	
ZINC	60.5	48.5	22	50.00	
ANTIMONY	0.203	0.217 U	200	50.00	J(all detects) UJ(all non-detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-006-SA5DS-SS-0.0-0.5	DUP04-SA5DS-QC-110911			
HEXAVALENT CHROMIUM	1.1 U	1.1	200	50.00	J(all detects) UJ(all non-detects)

Method: 7471A
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-006-SA5DS-SS-0.0-0.5	DUP04-SA5DS-QC-110911			
MERCURY	0.0144	0.0143	1	50.00	No Qualifiers Applied

Method: 8082
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-006-SA5DS-SS-0.0-0.5	DUP04-SA5DS-QC-110911			
Aroclor 5460	1.7	1.9	11	50.00	No Qualifiers Applied
AROCLOR 1254	1.8	0.85	72	50.00	J(all detects)
AROCLOR 1260	1.9 U	0.68	200	50.00	UJ(all non-detects)

Method: 8270C SIM
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-006-SA5DS-SS-0.0-0.5	DUP04-SA5DS-QC-110911			
ANTHRACENE	1.8 U	0.47	200	50.00	
BENZO(A)ANTHRACENE	1.8 U	0.93	200	50.00	
BENZO(A)PYRENE	1.8 U	0.78	200	50.00	
BENZO(B)FLUORANTHENE	1.8 U	2.0	200	50.00	
BENZO(G,H,I)PERYLENE	1.8 U	0.89	200	50.00	
BENZO(K)FLUORANTHENE	1.8 U	0.77	200	50.00	J(all detects)
BIS(2-ETHYLHEXYL)PHTHALATE	20 U	21	200	50.00	UJ(all non-detects)
CHRYSENE	0.41	1.9	129	50.00	
FLUORANTHENE	1.8 U	2.4	200	50.00	
NAPHTHALENE	1.8 U	0.97	200	50.00	
PHENANTHRENE	1.8 U	1.4	200	50.00	
PYRENE	1.8 U	1.8	200	50.00	

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-006-SA5DS-SS-0.0-0.5	DUP04-SA5DS-QC-110911			
PH	6.27	6.16	2	50.00	No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP04-SA5DS-QC-110911	SODIUM	J	100	112	PQL	mg/Kg	J (all detects)
	TIN	J	2.65	11.2	PQL	mg/Kg	
SL-005-SA5DS-SB-1.0-2.0	TIN	J	2.83	10.3	PQL	mg/Kg	J (all detects)
SL-006-SA5DS-SS-0.0-0.5	SODIUM	J	98.3	106	PQL	mg/Kg	J (all detects)
	TIN	J	2.71	10.6	PQL	mg/Kg	
SL-021-SA5DS-SB-2.0-3.0	SODIUM	J	95.0	105	PQL	mg/Kg	J (all detects)
	TIN	J	2.56	10.5	PQL	mg/Kg	
SL-022-SA5DS-SB-4.0-5.0	TIN	J	2.68	10.3	PQL	mg/Kg	J (all detects)

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP04-SA5DS-QC-110911	SELENIUM	J	0.176	0.435	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0262	0.109	PQL	mg/Kg	
SL-005-SA5DS-SB-1.0-2.0	ANTIMONY	J	0.114	0.205	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.299	0.410	PQL	mg/Kg	
	SILVER	J	0.0159	0.103	PQL	mg/Kg	
SL-006-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.203	0.221	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.290	0.442	PQL	mg/Kg	
	SILVER	J	0.0259	0.110	PQL	mg/Kg	
SL-021-SA5DS-SB-2.0-3.0	ANTIMONY	J	0.127	0.210	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.103	0.419	PQL	mg/Kg	
	SILVER	J	0.0161	0.105	PQL	mg/Kg	
SL-022-SA5DS-SB-4.0-5.0	ANTIMONY	J	0.116	0.202	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.209	0.404	PQL	mg/Kg	
	SILVER	J	0.0210	0.101	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-005-SA5DS-SB-1.0-2.0	HEXAVALENT CHROMIUM	J	0.60	1.1	PQL	mg/Kg	J (all detects)
SL-021-SA5DS-SB-2.0-3.0	HEXAVALENT CHROMIUM	J	0.62	1.1	PQL	mg/Kg	J (all detects)
SL-022-SA5DS-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.55	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP04-SA5DS-QC-110911	MERCURY	J	0.0143	0.108	PQL	mg/Kg	J (all detects)
SL-006-SA5DS-SS-0.0-0.5	MERCURY	J	0.0144	0.111	PQL	mg/Kg	J (all detects)
SL-021-SA5DS-SB-2.0-3.0	MERCURY	J	0.0157	0.108	PQL	mg/Kg	J (all detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DE283 Laboratory: LL

EDD Filename: DE283_v1 eQAPP Name: CDM_SSFL_110509

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP04-SA5DS-QC-110911	AROCLOR 1254	J	0.85	1.9	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	0.68	1.9	PQL	ug/Kg	
	Aroclor 5460	J	1.9	3.7	PQL	ug/Kg	
SL-006-SA5DS-SS-0.0-0.5	AROCLOR 1254	J	1.8	1.9	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	1.7	3.7	PQL	ug/Kg	

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-022-SA5DS-SB-4.0-5.0	BENZOIC ACID	J	200	520	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP04-SA5DS-QC-110911	ANTHRACENE	J	0.47	1.8	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	0.93	1.8	PQL	ug/Kg	
	BENZO(A)PYRENE	J	0.78	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.89	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.77	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	0.97	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	1.4	1.8	PQL	ug/Kg	
SL-005-SA5DS-SB-1.0-2.0	BENZO(B)FLUORANTHENE	J	0.86	1.7	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	11	19	PQL	ug/Kg	
	CHRYSENE	J	0.67	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	0.89	1.7	PQL	ug/Kg	
	PYRENE	J	0.73	1.7	PQL	ug/Kg	
SL-006-SA5DS-SS-0.0-0.5	CHRYSENE	J	0.41	1.8	PQL	ug/Kg	J (all detects)
SL-021-SA5DS-SB-2.0-3.0	ANTHRACENE	J	0.43	1.8	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	12	19	PQL	ug/Kg	
	CHRYSENE	J	0.53	1.8	PQL	ug/Kg	
	Di-n-octylphthalate	J	9.5	19	PQL	ug/Kg	
SL-022-SA5DS-SB-4.0-5.0	ACENAPHTHENE	J	1.0	1.7	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	0.90	1.7	PQL	ug/Kg	
	Butylbenzylphthalate	J	17	19	PQL	ug/Kg	
	Diethylphthalate	J	10	19	PQL	ug/Kg	
	Dimethylphthalate	J	6.3	19	PQL	ug/Kg	
	Di-n-octylphthalate	J	18	19	PQL	ug/Kg	

Enclosure II

Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	November 9, 2011
LDC Report Date:	February 3, 2012
Matrix:	Soil
Parameters:	Semivolatiles
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE283

Sample Identification

SL-005-SA5DS-SB-1.0-2.0
SL-006-SA5DS-SS-0.0-5.0
SL-021-SA5DS-SB-2.0-3.0
SL-022-SA5DS-SB-4.0-5.0
DUP04-SA5DS-QC-110911
SL-006-SA5DS-SS-0.0-5.0MS
SL-006-SA5DS-SS-0.0-5.0MSD

Introduction

This data review covers 7 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds with the following exceptions:

Date	Compound	%D (Limits)	Associated Samples	Flag	A or P
11/24/11	2-Chloronaphthalene	41	All samples in SDG DE283	J (all detects) UJ (all non-detects)	A

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-006-SA5DS-SS-0.0-5.0MS/D (SL-006-SA5DS-SS-0.0-5.0)	Hexachlorocyclopentadiene	-	-	35 (≤30)	J (all detects)	A
SL-006-SA5DS-SS-0.0-5.0MS/D (SL-006-SA5DS-SS-0.0-5.0)	Benzidine	0 (34-141)	18 (34-141)	200 (≤30)	J (all detects) R (all non-detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE283	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples SL-006-SA5DS-SS-0.0-5.0 and DUP04-SA5DS-QC-110911 were identified as field duplicates. No semivolatiles were detected in any of the samples.

Santa Susana Field Laboratory
Semivolatiles - Data Qualification Summary - SDG DE283

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE283	SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-5.0 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0 DUP04-SA5DS-QC-110911	2-Chloronaphthalene	J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV%D) (C)
DE283	SL-006-SA5DS-SS-0.0-5.0	Hexachlorocyclopentadiene	J (all detects)	A	Matrix spike/Matrix spike duplicate (RPD) (Q)
DE283	SL-006-SA5DS-SS-0.0-5.0	Benzidine	J (all detects) R (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (RPD) (Q)
DE283	SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-5.0 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0 DUP04-SA5DS-QC-110911	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

LDC #: 27039F2a **VALIDATION COMPLETENESS WORKSHEET** Date: 1/31/12
SDG #: DE283 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/09/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD ≤ 30, r²
IV.	Continuing calibration/ICV	SW	ICV/CCV ≤ 25
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	ND	D = 2, 5
XVII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

SOIL

1	SL-005-SA5DS-SB-1.0-2.0	11	SBLKLK320	21		31	
2	SL-006-SA5DS-SS-0.0-5.0	12		22		32	
3	SL-021-SA5DS-SB-2.0-3.0	13		23		33	
4	SL-022-SA5DS-SB-4.0-5.0	14		24		34	
5	DUP04-SA5DS-QC-110911	15		25		35	
6	SL-006-SA5DS-SS-0.0-5.0MS	16		26		36	
7	SL-006-SA5DS-SS-0.0-5.0MSD	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 27039F2a

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: [illegible]

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?		✓		
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/matrix spike duplicate				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		✓		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal Standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target Compound Identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound Quantitation and CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively Identified Compounds				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System Performance				
System performance was found to be acceptable.	✓			
XV. Overall Assessment of Data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field Duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.		✓		
XVII. Field Blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA Method 8270)

A. Phenol	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol	III. Benzo(a)pyrene
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene	T. 4-Chloroaniline	II. 4-Nitrophenol	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene	JJ. Dibenzofuran	YY. Fluoranthene	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine	Y. 2,4,6-Trichlorophenol	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. 1-Methylnaphthalene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)	FFF. Di-n-octylphthalate	UUU.
N. 2-Nitrophenol	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 27639FQ2

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours of sample analysis for each instrument?
Y N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?
Y N N/A Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %D (Limit: ≤25.0%)	Finding RRF (Limit: ≥0.05)	Associated Samples	Qualifications
	11/24/11	ICV	AA	41		All	J/W/A (c)

CONCAL.2S

LDC #: 27039F29

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

[✓ Y] N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

[✓ Y] N ~~N/A~~ Was a MS/MSD analyzed every 20 samples of each matrix?

Y [✓ N] N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		6+7	X	( )	( )	35 (30)	2	J/Adet (Q)
			SSS	0 (34-141)	18 (34-141)	200 (30)	↓	J/R/A ↓
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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LDC #: 27039FDS

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

RRF = $(A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs,

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (50 std)	Recalculated RRF (50 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	11/23/11	Phenol (1st internal standard)	3.025	3.025	2.796	2.796	4	4
			~~Naphthalene~~ 4-chloroaniline (2nd internal standard)	0.486	0.486	0.489	0.489	3	3
			~~Fluorene~~ 2-nitroaniline (3rd internal standard)	0.416	0.416	0.409	0.409	3	3
			~~Pentachlorophenol~~ 4,6-Dinitro-2-methylphenol (4th internal standard)	0.155	0.155	0.147	0.147	13	13
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.648	0.648	0.656	0.656	1	1
			~~Benzo(a)pyrene~~ Di-n-octylphthalate (6th internal standard)	1.342	1.342	1.321	1.321	5	5
2			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039F29

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	CCV	12/01/11	Phenol (1st internal standard)	2.796	2.538	2.538	9	9
			4-chloroaniline Naphthalene (2nd internal standard)	0.489	0.464	0.464	5	5
			2-Nitroaniline Fluorene (3rd internal standard)	0.409	0.402	0.402	2	2
			4,6-Dinitro-2-methylphenol Pentachlorophenol (4th internal standard)	0.147	0.148	0.148	1	1
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.656	0.639	0.639	3	3
			Di-n-octylphthalate Benzo(a)pyrene (6th internal standard)	1.321	1.390	1.390	5	5
2			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Surrogate Results Verification

Reviewer: FT
2nd reviewer: C

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: # 1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	100	88.343	88	88	0
2-Fluorobiphenyl	↓	93.747	94	94	
Terphenyl-d14	↓	84.474	85	85	
Phenol-d5	200	193.923	97	97	
2-Fluorophenol	↓	197.231	99	99	
2,4,6-Tribromophenol	↓	193.751	97	97	↓
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 27039P0s

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentation

RPD = | MSC - MSC | * 2/(MSC + MSDC) MSC = Matrix spike concentration; MSDC = Matrix spike duplicate concentration

MS/MSD samples: 6 + 7

Compound	Spike Added (ug/kg)		Sample Concentration (ug/kg)	Spiked Sample Concentration (ug/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	------	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol	1637.34	1639.34	ND	1540.88	1303.03	94	94	79	79	17	17
N-Nitroso-di-n-propylamine				1478.04	1234.94	90	90	75	75	18	18
4-Chloro-3-methylphenol				1672.68	1443.02	102	102	88	88	15	15
Acenaphthene				1694.32	1456.63	103	103	89	89	15	15
Pentachlorophenol				1197.39	1244.68	73	73	76	76	4	4
Pyrene				1670.64	1462.86	102	102	89	89	13	13

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27037A9

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LCS

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol	1666.67	NA	1462.85	NA	88	88				
N-Nitroso-di-n-propylamine			1395.63		84	84				
4-Chloro-3-methylphenol			1642.95		99	99				
Acenaphthene			1591.01		95	95				
Pentachlorophenol			1342.86		81	81				
Pyrene			1611.16		97	97	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039F29

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_i)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_t)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. #4 , Benzoic Acid

Conc. = $\frac{(45018)(20)(1000)(\quad)(\quad)}{(423636)(0.36)(30.5)(0.94)(\quad)}$

= 205 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	November 9, 2011
LDC Report Date:	February 2, 2012
Matrix:	Soil
Parameters:	Semivolatiles
Validation Level:	Level IV
Laboratory:	Lancaster laboratories
Sample Delivery Group (SDG):	DE283

Sample Identification

SL-005-SA5DS-SB-1.0-2.0
SL-006-SA5DS-SS-0.0-5.0
SL-021-SA5DS-SB-2.0-3.0
SL-022-SA5DS-SB-4.0-5.0
DUP04-SA5DS-QC-110911
SL-006-SA5DS-SS-0.0-5.0MS
SL-006-SA5DS-SS-0.0-5.0MSD

Introduction

This data review covers 7 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C using Selected Ion Monitoring (SIM) for Semivolatiles.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Column	Surrogate	%R (Limits)	Compound	Flag	A or P
SL-022-SA5DS-SB-4.0-5.0	Not specified	Nitrobenzene-d5 Terphenyl-d14	140 (40-130) 191 (45-135)	All TCL compounds	J (all detects)	P

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-006-SA5DS-SS-0.0-5.0MS/D (SL-006-SA5DS-SS-0.0-5.0)	Di-n-octylphthalate	-	-	37 (≤30)	J (all detects)	A
	Benzo(g,h,i)perylene	-	-	35 (≤30)	J (all detects)	

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE283	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples SL-006-SA5DS-SS-0.0-5.0 and DUP04-SA5DS-QC-110911 were identified as field duplicates. No semivolatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	SL-006-SA5DS-SS-0.0-5.0	DUP04-SA5DS-QC-110911			
Chrysene	0.41	1.9	129 (≤50)	J (all detects)	A
Anthracene	1.8U	0.47	200 (≤50)	J (all detects) UJ (all non-detects)	A
Benzo(a)anthracene	1.8U	0.93	200 (≤50)	J (all detects) UJ (all non-detects)	A
Benzo(a)pyrene	1.8U	0.78	200 (≤50)	J (all detects) UJ (all non-detects)	A
Benzo(b)fluoranthene	1.8U	2.0	200 (≤50)	J (all detects) UJ (all non-detects)	A
Benzo(g,h,i)perylene	1.8U	0.89	200 (≤50)	J (all detects) UJ (all non-detects)	A
Benzo(k)fluoranthene	1.8U	0.77	200 (≤50)	J (all detects) UJ (all non-detects)	A

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	SL-006-SA5DS-SS-0.0-5.0	DUP04-SA5DS-QC-110911			
Bis(2-ethylhexyl)phthalate	20U	21	200 (≤50)	J (all detects) UJ (all non-detects)	A
Fluoranthene	1.8U	2.4	200 (≤50)	J (all detects) UJ (all non-detects)	A
Naphthalene	1.8U	0.97	200 (≤50)	J (all detects) UJ (all non-detects)	A
Phenanthrene	1.8U	1.4	200 (≤50)	J (all detects) UJ (all non-detects)	A
Pyrene	1.8U	1.8	200 (≤50)	J (all detects) UJ (all non-detects)	A

Santa Susana Field Laboratory
Semivolatiles - Data Qualification Summary - SDG DE283

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE283	SL-022-SA5DS-SB-4.0-5.0	All TCL compounds	J (all detects)	P	Surrogate spikes (%R) (S)
DE283	SL-006-SA5DS-SS-0.0-5.0	Di-n-octylphthalate Benzo(g,h,i)perylene	J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (RPD) (Q)
DE283	SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-5.0 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0 DUP04-SA5DS-QC-110911	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
DE283	SL-006-SA5DS-SS-0.0-5.0 DUP04-SA5DS-QC-110911	Chrysene	J (all detects)	A	Field duplicates (RPD) (FD)
DE283	SL-006-SA5DS-SS-0.0-5.0 DUP04-SA5DS-QC-110911	Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Bis(2-ethylhexyl)phthalate Fluoranthene Naphthalene Phenanthrene Pyrene	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

LDC #: 27039F2b **VALIDATION COMPLETENESS WORKSHEET** Date: 1/31/12

SDG #: DE283 Level IV Page: 1 of 1

Laboratory: Lancaster Laboratories Reviewer: [illegible]

2nd Reviewer: [illegible]

SW8270A

METHOD: GC/MS ~~Polynuclear Aromatic Hydrocarbons~~ (EPA SW 846 Method 8270C-SIM)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/09/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 25
V.	Blanks	A	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 2, 5
XVII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: SOIL

1	SL-005-SA5DS-SB-1.0-2.0	11	SB2KLJ320	21		31	
2	SL-006-SA5DS-SS-0.0-5.0	12		22		32	
3	SL-021-SA5DS-SB-2.0-3.0	13		23		33	
4	SL-022-SA5DS-SB-4.0-5.0	14		24		34	
5	DUP04-SA5DS-QC-110911	15		25		35	
6	SL-006-SA5DS-SS-0.0-5.0MS	16		26		36	
7	SL-006-SA5DS-SS-0.0-5.0MSD	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 27039F26

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer:

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	~~NT~~	✓		
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?		✓	~~NA~~	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		✓		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

LDC #: 27039 F2b

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer:

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound identification [illegible]				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.	✓			
XVII. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA Method 8270)

A. Phenol	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol	III. Benzo(a)pyrene
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene	T. 4-Chloroaniline	II. 4-Nitrophenol	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene	JJ. Dibenzofuran	YY. Fluoranthene	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine	Y. 2,4,6-Trichlorophenol	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. 1-Methylnaphthalene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)	FFF. Di-n-octylphthalate	UUU.
N. 2-Nitrophenol	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 27039F26

VALIDATION FINDINGS WORKSHEET
Surrogate Recovery

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualification below for all questions answered "N". Not applicable questions are identified as "N/A".

Y (N) N/A Were percent recoveries (%R) for surrogates within QC limits?
Y (N) N/A If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?
Y N (N/A) If any %R was less than 10 percent, was a reanalysis performed to confirm %R?

#	Date	Sample ID	Surrogate	%R (Limits)	Qualifications (S)
		4	NBZ	140 (40-130)	J/Pdet All TCL
			TPH	191 (45-135)	↓
				( )	
				( )	
		5	NBZ	143 (40-130)	no qual
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
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				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

* QC limits are advisory	QC Limits (Soil)	QC Limits (Water)
S1 (NBZ) = Nitrobenzene-d5	23-120	35-114
S2 (FBP) = 2-Fluorobiphenyl	30-115	43-116
S3 (TPH) = Terphenyl-d14	18-137	33-141
S4 (PHL) = Phenol-d5	24-113	10-94

	QC Limits (Soil)	QC Limits (Water)
S5 (2FP)= 2-Fluorophenol	25-121	21-100
S6 (TBP) = 2,4,6-Tribromophenol	19-122	10-123
S7 (2CP) = 2-Chlorophenol-d4	20-130*	33-110*
S8 (DCB) = 1,2-Dichlorobenzene-d4	20-130*	16-110*

LDC #: 27039 F2b

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		6 + 7	FFF	( )	( )	37 (30)	2	J/Adet (Q)
			LLL	( )	( )	35 (↓)	↓	↓
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

LDC#: 27039F2b **VALIDATION FINDINGS WORKSHEET**
Field Duplicates

Page: 1 of 1
Reviewer: F2
2nd Reviewer: 1

METHOD: GC/MS SVOA (EPA SW 846 Method 8270C-SIM)

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

(FD)

Compound	Concentration (ug/kg)		≤ 50 RPD	
	2	5		
DDD	0.41	1.9	129	J/Adt
VV	1.8U	0.47	200	J/UJ/A
CCC	1.8U	0.93	200	
III	1.8U	0.78	200	
GGG	1.8U	2.0	200	
LLL	1.8U	0.89	200	
HHH	1.8U	0.77	200	
EEE	20U	21	200	
YY	1.8U	2.4	200	
S	1.8U	0.97	200	
UU	1.8U	1.4	200	
ZZ	1.8U	1.8	200	↓

LDC #: 27039F26

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
$\%RSD = 100 * (S/X)$

A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard
S = Standard deviation of the RRFs, X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (/ std)	Recalculated RRF (/ std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	10/27/11	~~Phenol (1st internal standard)~~						
			Naphthalene (2nd internal standard)	1.105	1.105	1.102	1.102	3	3
			Fluorene (3rd internal standard)	1.381	1.381	1.350	1.350	7	7
			~~Pentachlorophenol~~ Anthracene (4th internal standard)	1.196	1.196	1.163	1.163	10	10
			~~Bis(2-ethylhexyl)phthalate~~ Chrysene (5th internal standard)	1.321	1.321	1.310	1.310	5	5
			Benzo(a)pyrene (6th internal standard)	1.163	1.163	1.139	1.139	8	8
2			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039F26

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	CCV 17:23	12/01/11	~~Phenol (1st internal standard)~~					
			Naphthalene (2nd internal standard)	1.102	1.141	1.141	4	4
			Fluorene (3rd internal standard)	1.350	1.515	1.515	12	12
			Anthracene Pentachlorophenol (4th internal standard)	1.163	1.302	1.302	12	12
			Chrysene ~~Bis(2-ethylhexyl)phthalate (5th internal standard)~~	1.310	1.337	1.337	2	2
			~~Benzo(a)pyrene (6th internal standard)~~	1.139	1.275	1.275	12	12
2			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Surrogate Results Verification

Reviewer: FT
2nd reviewer:

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	~~1.0~~ 1.0	1.256	126	126	0
2-Fluorobiphenyl	↓	0.864	87	87	↓
Terphenyl-d14		0.865	86	86	
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: ___

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: ___

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 21037F06

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [signature]

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentation

RPD = I MSC - MSC I * 2/(MSC + MSDC) MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD samples: 6 + 7

Compound	Spike Added (ug/Kg)		Sample Concentration (ug/Kg)	Spiked Sample Concentration (ug/Kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	------	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol											
N-Nitroso-di-n-propylamine											
4-Chloro-3-methylphenol											
Acenaphthene	32.79	32.79	ND	29.03	30.06	89	89	92	92	3	3
Pentachlorophenol											
Pyrene	32.79	32.79	ND	29.11	27.94	89	89	85	85	4	4

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039F2b

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LCS

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol										
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene	33.33	NA	30.43	NA	91	91				
Pentachlorophenol										
Pyrene	↓	↓	30.03	NA	90	90	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039F26

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. #1, YY:

Conc. = $\frac{(8693)(1.0)(1000)(\quad)(\quad)}{(2590\%1)(1.30\%)(30.5\%)(0.95)}$

= 0.89 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: November 9, 2011

LDC Report Date: February 3, 2012

Matrix: Soil/Water

Parameters: N-Nitrosodimethylamine

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE283

Sample Identification

SL-005-SA5DS-SB-1.0-2.0
EB-SA5DS-SB-110911
TB-110911-28
TB-110911-29

Introduction

This data review covers 2 soil samples and 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 1625C for N-Nitrosodimethylamine.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check is not required for by this method.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for N-Nitrosodimethylamine.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for N-Nitrosodimethylamine.

The percent difference (%D) of the second source calibration standard were less than or equal to 30.0% for N-Nitrosodimethylamine.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No N-nitrosodimethylamine was found in the method blanks.

Samples TB-110911-28 and TB-110911-29 were identified as trip blanks. No N-nitrosodimethylamine was found.

Sample EB-SA5DS-SB-110911 was identified as an equipment blank. No N-nitrosodimethylamine was found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE283	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Data Qualification Summary - SDG DE283

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE283	SL-005-SA5DS-SB-1.0-2.0 EB-SA5DS-SB-110911 TB-110911-28 TB-110911-29	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Laboratory Blank Data Qualification Summary - SDG DE283

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Field Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

LDC #: 27039F2c **VALIDATION COMPLETENESS WORKSHEET** Date: 1/31/12
SDG #: DE283 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS N-Nitrosodimethylamine (EPA Method 1625C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/09/11
II.	GC/MS Instrument performance check	N	not Required
III.	Initial calibration	A	%RSD ≤ 30
IV.	Continuing calibration/ICV	A	ICV ≤ 30 CCV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	EB = 2 TB = 3, 4

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:
soil + water

1	SL-005-SA5DS-SB-1.0-2.0 S	11		21		31	
2	EB-SA5DS-SB-110911 W	12		22		32	
3	TB-110911-28 S	13		23		33	
4	TB-110911-29 W	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 27039F2c

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: A

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?			✓	
Were all samples analyzed within the 12 hour clock criteria?			✓	
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓		✓	
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation and CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA Method 8270)

A. Phenol	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol	III. Benzo(a)pyrene
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene	T. 4-Chloroaniline	II. 4-Nitrophenol	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene	JJ. Dibenzofuran	YY. Fluoranthene	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine	Y. 2,4,6-Trichlorophenol	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. 1-Methylnaphthalene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)	FFF. Di-n-octylphthalate	UUU.
N. 2-Nitrophenol	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 27039F2c

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs,

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (25 std)	Recalculated RRF (25 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	11/16/11	N-Nitrosodimethylamine	0.977	0.977	1.018	1.018	15	15
			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
2	ICAL	12/01/11	N-Nitrosodimethylamine	1.075	1.075	1.137	1.137	15	15
			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039F2c

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	CCV 18:14	11/16/11	~~Phenol~~ N-Nitrosodimethylamine (1st internal standard)	1.01773	1.01954	1.01954	0.17797	0.17797
			~~Naphthalene (2nd internal standard)~~					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			~~Benzo(a)pyrene (6th internal standard)~~					
2	CCV 06:22	11/17/11	~~Phenol (1st internal standard)~~ ↓	↓	1.02271	1.02271	0.48920	0.48920
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3	CCV 02:02	12/3/11	~~Phenol (1st internal standard)~~ ↓	1.14417	0.96064	0.96064	16.0399	16.0399
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
	CCV 04:59	12/3/11	~~Pentachlorophenol (4th internal standard)~~ ↓	↓	0.99013	0.99013	13.46263	13.46263
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			~~Benzo(a)pyrene (6th internal standard)~~					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Surrogate Results Verification

Reviewer: FT
2nd reviewer:

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
~~Nitrobenzene-d5~~ N-Nitrosodimethylamine-d6	25	26.473	106	106	0
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 22059F2C

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LCS 1P

Compound	Spike Added (ug/L)		Spike Concentration (ug/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
N-Nitrosodimethylamine	25	25	24.19	22.72	97	97	91	91	6	6
~~Phenol~~										
~~N-Nitroso-di-n-propylamine~~										
4-Chloro-3-methylphenol										
Acenaphthene										
Pentachlorophenol										
~~Pyrene~~										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039FLC

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer: [signature]

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_t	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. _____, _____:

Conc. = ( )( )( )( )( ) / ( )( )( )( )( )

=

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	November 9, 2011
LDC Report Date:	February 3, 2012
Matrix:	Soil
Parameters:	Polychlorinated Biphenyls
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE283

Sample Identification

SL-005-SA5DS-SB-1.0-2.0
SL-006-SA5DS-SS-0.0-5.0
SL-021-SA5DS-SB-2.0-3.0
SL-022-SA5DS-SB-4.0-5.0
DUP04-SA5DS-QC-110911
SL-006-SA5DS-SS-0.0-5.0MS
SL-006-SA5DS-SS-0.0-5.0MSD

Introduction

This data review covers 7 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds with the following exceptions:

Date	Standard	Column	Compound	%RSD	Associated Samples	Flag	A or P
11/17/11	ICAL-IP25321	MR-1	Aroclor-5460	26.28	SL-006-SA5DS-SS-0.0-5.0 SL-006-SA5DS-SS-0.0-5.0MS SL-006-SA5DS-SS-0.0-5.0MSD PBLK20315	J (all detects) UJ (all non-detects)	A

Retention time windows were evaluated and considered technically acceptable.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XII. Target Compound Identification

All target compound identifications were within validation criteria.

XIII. Compound Quantitation and Reported RLs

All compound quantitation and RLs were within validation criteria.

The sample results for detected compounds from the two columns were within 40% relative percent difference (RPD) with the following exceptions:

Sample	Compound	RPD	Flag	A or P
SL-006-SA5DS-SS-0.0-5.0	Aroclor-1254	51.21	J (all detects)	A
DUP04-SA5DS-QC-110911	Aroclor-1254 Aroclor-1260	60.34 96.56	J (all detects) J (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE283	All compounds reported below the RL.	J (all detects)	A

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

Samples SL-006-SA5DS-SS-0.0-5.0 and DUP04-SA5DS-QC-110911 were identified as field duplicates. No polychlorinated biphenyl contaminants were detected in any of the samples with the following exceptions:

Compound	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-006-SA5DS-SS-0.0-5.0	DUP04-SA5DS-QC-110911			
Aroclor-5460	1.7	1.9	11 (≤50)	-	-
Aroclor-1254	1.8	0.85	72 (≤50)	J (all detects)	A
Aroclor-1260	1.9U	0.68	200 (≤50)	J (all detects) UJ (all non-detects)	A

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Data Qualification Summary - SDG DE283

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE248	SL-006-SA5DS-SS-0.0-5.0	Aroclor-5460	J (all detects) UJ (all non-detects)	A	Initial calibration (%RSD) (C)
DE248	SL-006-SA5DS-SS-0.0-5.0	Aroclor-1254	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE248	DUP04-SA5DS-QC-110911	Aroclor-1254 Aroclor-1260	J (all detects) J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE283	SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-5.0 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0 DUP04-SA5DS-QC-110911	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
DE248	SL-006-SA5DS-SS-0.0-5.0 DUP04-SA5DS-QC-110911	Aroclor-1254	J (all detects)	A	Field duplicates (RPD) (FD)
DE248	SL-006-SA5DS-SS-0.0-5.0 DUP04-SA5DS-QC-110911	Aroclor-1260	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

LDC #: 27039F3b **VALIDATION COMPLETENESS WORKSHEET** Date: 1/31/12
SDG #: DE283 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer:
2nd Reviewer:

METHOD: GC Polychlorinated Biphenyls (EPA SW 846 Method 8082)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/09/11
II.	GC/ECD Instrument Performance Check	NA	
III.	Initial calibration	SW	% RSD ≤ 20
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS ID
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	A	
XIII.	Compound quantitation/RL/LOQ/LODs	SW	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	SW	D = 2, 5
XVI.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

SOIL

1	SL-005-SA5DS-SB-1.0-2.0	11	PBLK20315	21		31	
2	SL-006-SA5DS-SS-0.0-5.0	12		22		32	
3	SL-021-SA5DS-SB-2.0-3.0	13		23		33	
4	SL-022-SA5DS-SB-4.0-5.0	14		24		34	
5	DUP04-SA5DS-QC-110911	15		25		35	
6	SL-006-SA5DS-SS-0.0-5.0MS	16		26		36	
7	SL-006-SA5DS-SS-0.0-5.0MSD	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

.DC #: 27039F3D
SDG #: all waters

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: [illegible]
2nd Reviewer: [illegible]

Method: ✓ GC ____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) < 20%?	~~NT~~	✓		
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 27039F3b
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.	✓			
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 27039F35
SDG #:

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
Reviewer: EF
2nd Reviewer: A

METHOD: (GC) __ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a 5 point calibration curve performed?
Y (N) N/A Was a linear fit used for evaluation? If yes, the acceptance criteria for each compound is %RSD less than or equal to 20.0%.
Y N (N/A) Was a curve fit used for evaluation? If yes, what was the acceptance criteria used for evaluation? _____
Y (N) N/A Did the initial calibration meet the acceptance criteria?
Y (N) N/A Was initial calibration performed at the required frequency?

Level IV Only

Y N N/A Were the retention time windows properly established for all compounds?
Y N N/A Were compounds run at the required concentrations in the initial calibrations?

#	Date	Standard ID	Column / Detector	Compound	Finding RPD Limit ≤20%	Associated Samples	Qualifications
	11/17/11	ICAL - IP2532	MR-1	Aroclor	26.28	PLK · PBLK20815,	J/UJ/A (C)
				5460		2, 6, 7	

Comments _____

LDC #: 27039F3b

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Reviewer: FT
2nd Reviewer: A

METHOD: GC / HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Level IV/D Only

Y N N/A Were CRQLs adjusted for sample dilutions, dry weight factors, etc.?

Y N N/A Did the reported results for detected target compounds agree within 10.0% of the recalculated results?

#	Compound Name	% RPD ≤ 40 Finding	Associated Samples	Qualifications
	~~PCB~~ 1254	51.21	2	J/A det *X11
	PCB 1254	60.34	5	J/A det *X11
	PCB 1260	96.56		↓
	Aroclor			

Comments: See sample calculation verification worksheet for recalculations

LDC #: 27039F3b

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: FT
2nd reviewer:

METHOD: ✓ GC ___ HPLC

Y N N/A Were field duplicate pairs identified in this SDG? (FD1)
Y N N/A Were target compounds detected in the field duplicate pairs?

Compound	Concentration (mg/kg)		%RPD Limit 50	Qualification Parent only / All Samples
	2	5		
Aroclor 5460	1.7	1.9	11	-
PCB - 1254	1.8	0.85	72	J/A det
PCB - 1260	1.9 U	0.68	200	J/UJ/A

Compound	Concentration ( )		%RPD Limit _____	Qualification Parent only / All Samples

LDC #: 27039F3b
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (200std)	Recalculated CF (200std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL IP20314	11/10/11	1260-1 ZBmultiR1	141	141	136	136	18.3	18.3
			ZBmultiR2	627	627	628	628	5.9	5.9
2	ICAL IP25321	11/17/11	1260-1 HR-1	75	75	76	76	19.5	19.5
			1260-1 HR-2	48	48	51	51	18.1	18.1
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039F3b
SDG #: fw comm

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: A

METHOD: GC ✓ HPLC ____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = Initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	CCV 5:35	11/16/11	Aroclor 1260 ZB-1	200.0	203.57	203.57	1.8	1.8
			ZB-2	200.0	182.97	182.97	8.5	8.5
2	CCV 14:52	11/18/11	MR 1	200.0	203.06	203.06	1.5	1.5
			MR 2	200.0	197.77	197.77	1.1	1.1
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: [illegible]

SDG #: see cover

METHOD: ✓ GC __ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT

2nd reviewer: A

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: # 1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
	~~ZB-1~~			Reported	Recalculated	
TCMX	~~Shroopack~~	1.0419	1.033609	99	99	0
PCB	✓	1.0419	0.947866	91	91	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: [illegible]
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET

Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: __ GC __ HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration
SA = Spike added

RPD =(({SSCMS - SSCMSD} * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 6 + 7

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		Matrix spike Percent Recovery		Matrix Spike Ouplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	—	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
PCB-1260	16.67	16.67	ND	14.09	15.6	85	85	94	94	10	10

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 21039F36
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: FO
2nd Reviewer: A

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS/D

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
PCB 1260	16.67	NA	14.26	NA	86	86	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039F3b
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC ___ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= (A)(Fv)(Df) / (RF)(Vs or Ws)(%S/100)

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. #2 Compound Name 1254

Concentration = 1.589 / 0.897

= 1.8 ug/kg

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications
	1254-1 = 3234.354 x 2 =	55 60	1.96	1254-1 = 1.96	
				2 = 0.478265	
				4 = 1.243476	
				5 = 2.674261	
					1.589

Comments: [illegible]

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: November 9, 2011

LDC Report Date: February 3, 2012

Matrix: Soil

Parameters: Metals

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE283

Sample Identification

SL-005-SA5DS-SB-1.0-2.0
SL-006-SA5DS-SS-0.0-5.0
SL-021-SA5DS-SB-2.0-3.0
SL-022-SA5DS-SB-4.0-5.0
DUP04-SA5DS-QC-110911
SL-006-SA5DS-SS-0.0-5.0MS
SL-006-SA5DS-SS-0.0-5.0MSD
SL-006-SA5DS-SS-0.0-5.0DUP

Introduction

This data review covers 8 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010B, 6020, and 7470A for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Molybdenum, Mercury, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, and Zirconium.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5% .

III. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No metal contaminants were found in the initial, continuing and preparation blanks with the following exceptions:

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
PB (prep blank)	Calcium Iron Phosphorus Lead Tin Zinc	3.798 mg/Kg 2.807 mg/Kg 1.169 mg/Kg 0.086 mg/Kg 1.417 mg/Kg 1.098 mg/Kg	All samples in SDG DE283
ICB/CCB	Thallium	0.10 ug/L	All samples in SDG DE283

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-005-SA5DS-SB-1.0-2.0	Tin	2.8 mg/Kg	2.8U mg/Kg
SL-006-SA5DS-SS-0.0-5.0	Tin	2.7 mg/Kg	2.7U mg/Kg

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-021-SA5DS-SB-2.0-3.0	Tin	2.6 mg/Kg	2.6U mg/Kg
SL-022-SA5DS-SB-4.0-5.0	Tin	2.7 mg/Kg	2.7U mg/Kg
DUP04-SA5DS-QC-110911	Tin	2.6 mg/Kg	2.6U mg/Kg

No field blanks were identified in this SDG.

V. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

VI. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-006-SA5DS-SS-0.0-5.0MS/MSD (All soil samples in SDG DE283)	Antimony	21 (75-125)	36 (75-125)	-	J (all detects) R (all non-detects)	A
	Chromium	14 (75-125)	159 (75-125)	-	J (all detects) R (all non-detects)	
SL-006-SA5DS-SS-0.0-5.0MS/MSD (All soil samples in SDG DE283)	Cadmium	-	144 (75-125)	-	J (all detects)	A
	Copper	-	156 (75-125)	-	J (all detects)	
	Molybdenum	-	132 (75-125)	-	J (all detects)	
	Nickel	-	166 (75-125)	-	J (all detects)	
	Silver	-	141 (75-125)	-	J (all detects)	
	Thallium	-	145 (75-125)	-	J (all detects)	
SL-006-SA5DS-SS-0.0-5.0MS/MSD (All soil samples in SDG DE283)	Antimony	-	-	33 (≤20)	J (all detects)	A
	Arsenic	62 (75-125)	165 (75-125)	26 (≤20)	UJ (all non-detects)	
	Barium	-	-	36 (≤20)		
	Beryllium	68 (75-125)	128 (75-125)	32 (≤20)		
	Cadmium	-	-	27 (≤20)		
	Chromium	-	-	30 (≤20)		
	Cobalt	-	-	28 (≤20)		
	Copper	-	-	34 (≤20)		
	Lead	-	-	38 (≤20)		
	Molybdenum	-	-	36 (≤20)		
	Nickel	-	-	35 (≤20)		
	Selenium	-	-	28 (≤20)		
	Silver	-	-	30 (≤20)		
	Thallium	-	-	35 (≤20)		
	Vanadium	-	-	29 (≤20)		
	Zinc	-	-	36 (≤20)		

VII. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits with the following exceptions:

DUP ID (Associated Samples)	Analyte	RPD (Limits)	Difference (Limits)	Flag	A or P
SL-006-SA5DS-SS-0.0-5.0DUP (All samples in SDG DE283)	Beryllium	21 (≤20)	-	J (all detects) UJ (all non-detects)	A
	Cobalt	22 (≤20)	-	J (all detects) UJ (all non-detects)	

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Internal Standards

All internal standard percent recoveries (%R) were within QC limits.

X. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

XI. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met.

XII. Sample Result Verification

All sample result verifications were acceptable.

All metals reported below the RL and above the MDL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG DE283	All analytes reported below the RL and above the MDL.	J (all detects)	A

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

Samples SL-006-SA5DS-SS-0.0-5.0 and DUP04-SA5DS-QC-110911 were identified as field duplicates. No metals were detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-006-SA5DS-SS-0.0-5.0	DUP04-SA5DS-QC-110911			
Aluminum	17000	17200	1 (≤50)	-	-
Antimony	0.20	0.217U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Arsenic	5.8	4.6	23 (≤50)	-	-
Barium	81.2	63.8	24 (≤50)	-	-
Beryllium	0.70	0.50	33 (≤50)	-	-
Boron	7.6	7.2	5 (≤50)	-	-
Cadmium	0.23	0.18	24 (≤50)	-	-
Calcium	3670	3730	2 (≤50)	-	-
Chromium	42.0	33.4	23 (≤50)	-	-
Cobalt	6.7	5.3	23 (≤50)	-	-
Copper	7.7	6.4	18 (≤50)	-	-
Iron	23300	23400	0 (≤50)	-	-
Lead	14.8	12.3	18 (≤50)	-	-
Lithium	19.5	19.4	1 (≤50)	-	-
Magnesium	5010	4970	1 (≤50)	-	-
Manganese	278	264	5 (≤50)	-	-
Mercury	0.014	0.014	0 (≤50)	-	-
Molybdenum	0.48	0.44	9 (≤50)	-	-

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-006-SA5DS-SS-0.0-5.0	DUP04-SA5DS-QC-110911			
Nickel	12.5	9.6	26 (≤50)	-	-
Phosphorus	731	751	3 (≤50)	-	-
Potassium	3110	3110	0 (≤50)	-	-
Selenium	0.29	0.18	47 (≤50)	-	-
Silver	0.026	0.026	0 (≤50)	-	-
Sodium	98.3	100	2 (≤50)	-	-
Strontium	26.5	26.9	1 (≤50)	-	-
Thallium	0.24	0.17	34 (≤50)	-	-
Tin	2.7	2.6	4 (≤50)	-	-
Titanium	924	964	4 (≤50)	-	-
Vanadium	69.8	54.5	25 (≤50)	-	-
Zinc	60.5	48.5	28 (≤50)	-	-
Zirconium	8.0	8.5	6 (≤50)	-	-

Santa Susana Field Laboratory
Metals - Data Qualification Summary - SDG DE283

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE283	SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-5.0 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0 DUP04-SA5DS-QC-110911	Antimony Chromium	J (all detects) R (all non-detects) J (all detects) R (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE283	SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-5.0 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0 DUP04-SA5DS-QC-110911	Cadmium Copper Molybdenum Nickel Silver Thallium	J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE283	SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-5.0 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0 DUP04-SA5DS-QC-110911	Arsenic Beryllium	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (RPD) (%R) (Q,E)
DE283	SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-5.0 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0 DUP04-SA5DS-QC-110911	Antimony Barium Cadmium Chromium Cobalt Copper Lead Molybdenum Nickel Selenium Silver Thallium Vanadium Zinc	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (RPD) (E)
DE283	SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-5.0 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0 DUP04-SA5DS-QC-110911	Beryllium Cobalt	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Duplicate sample analysis (RPD) (E)
DE283	SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-5.0 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0 DUP04-SA5DS-QC-110911	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)
DE283	SL-006-SA5DS-SS-0.0-5.0 DUP04-SA5DS-QC-110911	Antimony	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Metals - Laboratory Blank Data Qualification Summary - SDG DE283

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE283	SL-005-SA5DS-SB-1.0-2.0	Tin	2.8 mg/Kg	A	B
DE283	SL-006-SA5DS-SS-0.0-5.0	Tin	2.7U mg/Kg	A	B
DE283	SL-021-SA5DS-SB-2.0-3.0	Tin	2.6U mg/Kg	A	B
DE283	SL-022-SA5DS-SB-4.0-5.0	Tin	2.7U mg/Kg	A	B
DE283	DUP04-SA5DS-QC-110911	Tin	2.6U mg/Kg	A	B

Santa Susana Field Laboratory
Metals - Field Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

LDC #: 27039F4 **VALIDATION COMPLETENESS WORKSHEET** Date: 1-3-12
SDG #: DE283 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: AR
2nd Reviewer:

METHOD: Metals (EPA SW 846 Method 6010B/6020A/~~7000~~ 7470A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/9/11
II.	ICP/MS Tune	A	
III.	Calibration	~~SW~~ A	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	SW	
VI.	Matrix Spike Analysis	SW	MS/D
VII.	Duplicate Sample Analysis	SW	D
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	A	
X.	Furnace Atomic Absorption QC	N	Not utilized
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	A	
XIII.	Overall Assessment of Data	A	
XIV.	Field Duplicates	SW	(2,5)
XV	Field Blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: Soil

1	SL-005-SA5DS-SB-1.0-2.0	11		21		31	
2	SL-006-SA5DS-SS-0.0-5.0	12		22		32	
3	SL-021-SA5DS-SB-2.0-3.0	13		23		33	
4	SL-022-SA5DS-SB-4.0-5.0	14		24		34	
5	DUP04-SA5DS-QC-110911	15		25		35	
6	SL-006-SA5DS-SS-0.0-5.0MS	16		26		36	
7	SL-006-SA5DS-SS-0.0-5.0MSD	17		27		37	
8	SL-006-SA5DS-SS-0.0-5.0DUP	18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 27039F4

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: CR
2nd Reviewer: [illegible]

Method: Metals (EPA SW 846 Method 6010B/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. ICP/MS Tune				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	✓			
Were %RSD of isotopes in the tuning solution ≤5%?	✓			
III. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	✓			
Were all initial calibration correlation coefficients > 0.995?	✓			
IV. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
V. ICP Interference Check Sample				
Were ICP interference check samples performed daily?	✓			
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?	✓			
VI. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.		✓		
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of +/- RL(+/-2X RL for soil) was used for samples that were ≤ 5X the RL, including when only one of the duplicate sample values were < 5X the RL.		✓		
VII. Laboratory control samples				
Was an LCS anayized for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% QC limits for water samples and laboratory established QC limits for soils?	✓			

LDC #: 27039F4

VALIDATION FINDINGS CHECKLIST

Reviewer: ER
2nd Reviewer: [illegible]

Validation Area	Yes	No	NA	Findings/Comments
VIII. Furnace Atomic Absorption QC				
If MSA was performed, was the correlation coefficients > 0.995?			✓	
Do all applicable analysies have duplicate injections? (Level IV only)			✓	
For sample concentrations > RL, are applicable duplicate injection RSD values < 20%? (Level IV only)			✓	
Were analytical spike recoveries within the 85-115% QC limits?			✓	
IX. ICP Serial Dilution				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL(ICP/MS)?	✓			
Were all percent differences (%Ds) < 10%?	✓			
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.			✓	
X. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?	✓			
If the %Rs were outside the criteria, was a reanalysis performed?	✓			
XI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
XII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target analytes were detected in the field duplicates.	✓			
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target analytes were detected in the field blanks.			✓	

VALIDATION FINDINGS WORKSHEET
Sample Specific Element Reference

Reviewer: CR
2nd reviewer: V

All circled elements are applicable to each sample.

Sample ID	Matrix	Target Analyte List (TAL)
1-5		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
QC-68		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
Analysis Method		
ICP		Al, B, Ca, Fe, Li, Mg, Mn, P, K, Na, Sr, Sn, Ti, Zr
ICP-MS		Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, Ag, Tl, V, Zn

Comments: Mercury by CVAA if performed

LDC #: 27039F4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000) Soil preparation factor applied: 100x x MS: 2xdil
Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: All

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	1	2	3	4	5					
Ca	3.798			18.99										
Fe	2.807			14.04										
P	1.169			5.845										
Pb	0.086			0.43										
Sn	1.417			7.085	2.8	2.7	2.6	2.7	2.6					
Tl			0.10	0.1										
Zn	1.098			5.49										

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 27039F4

VALIDATION FINDINGS WORKSHEET
ICP Interference Check Sample

Reviewer: CR
2nd Reviewer: LA

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were ICP interference check samples performed as required?
(Y) N N/A Were the AB solution percent recoveries (%R) within the control limits of 80-120% ?

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	ICS Identification	Analyte	Concentration (ug/L)	Limit (<MDL)	Associated Samples	Qualifications
	11/15/11	ICSA (05:08)	Mn	4	(50.36)	1,2,4,5	No Qual (76x ~~4~~)
	11/21/11	ICSA (14:01)	Mn	3	↓	3	

Comments:

LDC #: 24039F4

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Reviewer: CR
2nd Reviewer: L

METHOD: Trace metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a matrix spike analyzed for each matrix in this SDG?

Y (N) N/A Were matrix spike percent recoveries (%R) within the control limits of (75-125)? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.

Y (N) N/A Were all duplicate sample relative percent differences (RPD) (≤ 20%) ~~for water samples and ≤35%~~ for soil samples?

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	MS/MSD ID	Matrix	Analyte	MS %Recovery	MSD %Recovery	RPD (Limits)	Associated Samples	Qualifications
	6/7	S	Sb	21	36		All	J/R/A (Q) PS=72%
			Sb			33		J/UJ/A (E)
			As	62	165	26		J/UJ/A (Q,E)
			Ba			36		(E)
			Be	68	128	32		(Q,E)
			Cd		144			Jdet/A (Q)
			Cd			27		J/UJ/A (E)
			Cr	14	159			J/R/A (Q) PS=73%
			Cr			30		J/UJ/A (E)
			Co			28		(E)
			Cu		156			Jdet/A (Q)
			Cu			34		J/UJ/A (E)
			Pb			38		
			Mo		132			Jdet/A (Q)
			Mo			36		J/UJ/A (E)
			Ni		166			Jdet/A (Q)
			Ni			35		J/UJ/A (E)
			Se			28		
			Ag		141			Jdet/A (Q)
			Ag			30		J/UJ/A (E)
			Tl		145			Jdet/A (Q)
			Tl			35		J/UJ/A (E)
			V			29		
			Zn			36		

Comments:

VALIDATION FINDINGS WORKSHEET
Duplicate Analysis

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a duplicate sample analyzed for each matrix in this SDG?

Y (N) N/A Were all duplicate sample relative percent differences (RPD) (≤ 20%) ~~for water samples and ≤35% for soil~~ samples? If no, see qualifications below. A control limit of ±R.L. (±2X R.L. for soil) was used for sample values that were <5X the R.L., including the case when only one of the duplicate sample values was <5X R.L.. If field blanks were used for laboratory duplicates, note in the Overall Assessment.

LEVEL IV ONLY:
(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	Duplicate ID	Matrix	Analyte	RPD (Limits)	Difference (Limits)	Associated Samples	Qualifications
		8	S	Be	21		All	J/UJ/A (E)
				Co	22		↓	↓

Comments:

LDC#: 27039F4

VALIDATION FINDINGS WORKSHEET
Field Duplicates

METHOD: Metals (EPA Method 6010B/7000)

Analyte	Concentration (mg/Kg)		RPD (≤50)	
	2	5		
Aluminum	17000	17200	1	
Antimony	0.20	~~0.000U~~ 0.217U	200	J/UJ/A (FD)
Arsenic	5.8	4.6	23	
Barium	81.2	63.8	24	
Beryllium	0.70	0.50	33	
Boron	7.6	7.2	5	
Cadmium	0.23	0.18	24	
Calcium	3670	3730	2	
Chromium	42.0	33.4	23	
Cobalt	6.7	5.3	23	
Copper	7.7	6.4	18	
Iron	23300	23400	0	
Lead	14.8	12.3	18	
Lithium	19.5	19.4	1	
Magnesium	5010	4970	1	
Manganese	278	264	5	
Mercury	0.014	0.014	0	
Molybdenum	0.48	0.44	9	
Nickel	12.5	9.6	26	

LDC#: 27039F4

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: OC
2nd Reviewer:

METHOD: Metals (EPA Method 6010B/7000)

Analyte	Concentration (mg/Kg)		RPD (≤50)	
	2	5		
Phosphorus	731	751	3	
Potassium	3110	3110	0	
Selenium	0.29	0.18	47	
Silver	0.026	0.026	0	
Sodium	98.3	100	2	
Strontium	26.5	26.9	1	
Thallium	0.24	0.17	34	
Tin	2.7	2.6	4	
Titanium	924	964	4	
Vanadium	69.8	54.5	25	
Zinc	60.5	~~45.5~~ 48.5	28	
Zirconium	8.0	8.5	6	

LDC #: 22039F9

VALIDATION FINDINGS WORKSHEET
Initial and Continuing Calibration Calculation Verification

Reviewer: QR
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

An initial and continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = Found x 100 / True

Where, Found = concentration (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution
True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated %R	Reported %R	Acceptable (Y/N)
ICV	ICP (Initial calibration)	B	609.78	600	101.6	101.6	Y
↓	ICP/MS (Initial calibration)	Ba	497.2	500	99.4	99.4	↓
↓	CVAA (Initial calibration)	Hg	2.6	2.5	104.0	104.0	
CCV 2	ICP (Continuing calibration)	P	509.12	500	101.8	101.8	
↓ 2	ICP/MS (Continuing calibration)	Tl	25.12	25	100.5	100.5	
↓ 5	CVAA (Continuing calibration)	Hg	0.94	1.0	94	94	↓
	GFAA (Initial calibration)						
	GFAA (Continuing calibation)						

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 22039R4

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Reviewer: QR
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Percent recoveries (%R) for an ICP interference check sample, a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$\%R = \frac{Found}{True} \times 100$ Where, Found = Concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = Concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$RPD = \frac{|S-D|}{(S+D)/2} \times 100$ Where, S = Original sample concentration
D = Duplicate sample concentration

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

$\%D = \frac{|I-SDR|}{I} \times 100$ Where, I = Initial Sample Result (mg/L)
SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

Sample ID	Type of Analysis	Element	Found / S / I (units)	True / D / SDR (units)	Recalculated %R / RPD / %D	Reported %R / RPD / %D	Acceptable (Y/N)
ICSAB	ICP interference check	Cd	19.8	20	99	99	Y
LCS	Laboratory control sample	V	116.7	116	101	101	
6	Matrix spike	Sn	(SSR-SR) 364.2687	437.1871	83	83	
8	Duplicate	P	730.6726	713.1628	2	2	
2	ICP serial dilution	Sr	249.5	261	5	5	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039F4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: CR
2nd reviewer:

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments and within the linear range of the ICP?
Y N N/A Are all detection limits below the CRDL?

Detected analyte results for Fe were recalculated and verified using the following equation:

Concentration = $\frac{(RD)(FV)(Dil)}{(In.\ Vol.)}$

RD = Raw data concentration
FV = Final volume (ml)
In. Vol. = Initial volume (ml) or weight (G)
Dil = Dilution factor

Recalculation:

$$\frac{100\ mL\ (219.4457\ mg/L)}{0.897\ (1.05g)} = 23299\ mg/kg$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	2	Al	17000	17000	Y
		Sb	0.20	0.20	
		As	5.8	5.8	
		Ba	81.2	81.2	
		Be	0.70	0.70	
		B	7.6	7.6	
		Cd	0.23	0.23	
		Ca	3670	3670	
		Cr	42.0	42.0	
		Co	6.7	6.7	
		Cu	7.7	7.7	
		Fe	23300	23300	
		Pb	14.8	14.8	
		Li	19.5	19.5	
		Mg	5010	5010	
		Mn	278	278	
		Hg	0.014	0.014	
		Mo	0.48	0.48	
		Ni	12.5	12.5	
		P	731	731	
		K	3110	3110	
		Se	0.29	0.29	
		Ag	0.026	0.026	
		Na	98.3	98.3	
		Sr	26.5	26.5	
		Tl	0.24	0.24	
		Sn	2.7	2.7	
		Ti	924	924	
		V	69.8	69.8	
		Zn	60.5	60.5	
		Zr	5.0	5.0	

Note:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	November 9, 2011
LDC Report Date:	February 3, 2012
Matrix:	Soil
Parameters:	Wet Chemistry
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE283

Sample Identification

SL-005-SA5DS-SB-1.0-2.0
SL-006-SA5DS-SS-0.0-5.0
SL-021-SA5DS-SB-2.0-3.0
SL-022-SA5DS-SB-4.0-5.0
DUP04-SA5DS-QC-110911
SL-006-SA5DS-SS-0.0-5.0MS
SL-006-SA5DS-SS-0.0-5.0DUP

Introduction

This data review covers 7 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 9012B for Cyanide, EPA Method 300.0 for Nitrate and Fluoride, EPA SW 846 Method 7199 for Hexavalent Chromium, and EPA Method 314.0 for Perchlorate.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

All criteria for the initial calibration of each method were met.

III. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

No field blanks were identified in this SDG.

V. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	%R (Limits)	Flag	A or P
SL-006-SA5DS-SS-0.0-5.0MS (All samples in SDG DE283)	Fluoride	72 (80-120)	J (all detects) UJ (all non-detects)	A

VI. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Sample Result Verification

All sample result verifications were acceptable

All analytes reported below the RL and above the MDL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG DE283	All analytes reported below the RL and above the MDL.	J (all detects)	A

IX. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

X. Field Duplicates

Samples SL-006-SA5DS-SS-0.0-5.0 and DUP04-SA5DS-QC-110911 were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-006-SA5DS-SS-0.0-5.0	DUP04-SA5DS-QC-110911			
Hexavalent chromium	~~0.22U~~ 1.1 U	1.1	200 (≤50)	J (all detects) UJ (all non-detects)	A

Santa Susana Field Laboratory
Wet Chemistry - Data Qualification Summary - SDG DE283

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE283	SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-5.0 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0 DUP04-SA5DS-QC-110911	Fluoride	J (all detects) UJ (all non-detects)	A	Matrix spike analysis (%R) (Q)
DE283	SL-005-SA5DS-SB-1.0-2.0 SL-006-SA5DS-SS-0.0-5.0 SL-021-SA5DS-SB-2.0-3.0 SL-022-SA5DS-SB-4.0-5.0 DUP04-SA5DS-QC-110911	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)
DE283	SL-006-SA5DS-SS-0.0-5.0 DUP04-SA5DS-QC-110911	Hexavalent chromium	J (all detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Wet Chemistry – Laboratory Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Wet Chemistry - Field Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

LDC #: 27039F6 **VALIDATION COMPLETENESS WORKSHEET** Date: 1-31-12
SDG #: DE283 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: QR
2nd Reviewer: [illegible]

METHOD: (Analyte) Cyanide (EPA SW846 Method 9012B), Nitrate-~~X~~, Fluoride (EPA Method 300.0), Hexavalent Chromium (EPA SW846 Method 7199), Perchlorate (EPA Method 314.0)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/9/11
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	A	
IV	Matrix Spike/Matrix Spike Duplicates	SW	MS
V	Duplicates	A	DUP
VI.	Laboratory control samples	A	LCS
VII.	Sample result verification	A	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	SW	(2,5)
X	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: Soil

1	SL-005-SA5DS-SB-1.0-2.0	11		21		31	
2	SL-006-SA5DS-SS-0.0-5.0	12		22		32	
3	SL-021-SA5DS-SB-2.0-3.0	13		23		33	
4	SL-022-SA5DS-SB-4.0-5.0	14		24		34	
5	DUP04-SA5DS-QC-110911	15		25		35	
6	SL-006-SA5DS-SS-0.0-5.0MS	16		26		36	
7	SL-006-SA5DS-SS-0.0-5.0DUP	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 27039F6

VALIDATION FINDINGS CHECKLIST

Reviewer: CR
2nd Reviewer: [illegible]

Method: Inorganics (EPA Method See Cover)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial calibration correlation coefficients ≥ 0.995?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	✓			
Were titrant checks performed as required? (Level IV only)			✓	
Were balance checks performed as required? (Level IV only)			✓	
III. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
IV. Matrix spike/Matrix spike duplicates and Duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.		✓		
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of ≤ CRDL(≤ 2X CRDL for soil) was used for samples that were ≤ 5X the CRDL, including when only one of the duplicate sample values were ≤ 5X the CRDL.	✓			
V. Laboratory control samples				
Was an LCS anaylzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	✓			
VI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

Validation Area	Yes	No	NA	Findings/Comments
VII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
Were detection limits < RL?	✓			
VIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
IX. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target analytes were detected in the field duplicates.	✓			
X. Field blanks				
Field blanks were identified in this SDG.		✓	✓	
Target analytes were detected in the field blanks.			✓	

LDC #:

VALIDATION FINDINGS WORKSHEET

Sample Specific Analysis Reference

Page: 1 of 1
Reviewer: CR
2nd reviewer:

All circled methods are applicable to each sample.

Sample ID	Parameter
1	pH TDS Cl [✓ F] [✓ NO_3] NO_2 SO_4 O-PO_4 Alk [✓ CN] NH_3 TKN TOC [✓ Cr6+] [✓ ClO_4]
2-5	pH TDS Cl [✓ F] NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC [✓ Cr6+] [✓ ClO_4]
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
QC:67	pH TDS Cl [✓ F] NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC [✓ Cr6+] [✓ ClO_4]
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4

omments:

LDC #: 27039F6

VALIDATION FINDINGS WORKSHEET
Matrix Spike Analysis

Page: 1 of 1
Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Inorganics, Method See cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a matrix spike analyzed for each matrix in this SDG?

Y (N) N/A Were matrix spike percent recoveries (%R) within the control limits of 75-125 (85-115% for Method 300.0)? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	Matrix Spike ID	Matrix	Analyte	%R	Associated Samples	Qualifications
		6	S	F	72(80-120)	All	J (all) / A (Q)

Comments:

LDC# 27039F6

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer:
2nd Reviewer:

Inorganics, Method See Cover

Analyte	Concentration (mg/L)		RPD (≤20) 50	
	3	4		
Hexavalent Chromium	~~0.22U~~ 1.1U	1.1	200	J/UJ/A (FD)

V:\FIELD DUPLICATES\FD_inorganic\27039F6.wpd

LDC #: 27039F6

Validation Findings Worksheet
Initial and Continuing Calibration Calculation Verification

Page: 1 of 1
Reviewer: AE
2nd Reviewer: AE

Method: Inorganics, Method See Cover

The correlation coefficient (r) for the calibration of ClO4 was recalculated. Calibration date: 11/17/11

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = Found X 100 / True

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution
True = concentration of each analyte in the ICV or CCV source

Type of analysis	Analyte	Standard	Conc. (mg/L)	Area	Recalculated r or r^2	Reported r or r^2	Acceptable (Y/N)
Initial calibration	ClO4	s1	2	0.01	0.9996	0.9998	Y
		s2	4	0.013			
		s3	10	0.039			
		s4	25	0.081			
		s5	100	0.325			
Calibration verification	F	CCV	1.5	1.5148	101	101	
Calibration verification	NO3		1.5 1.4993	→	100	100	
Calibration verification	CN	↓	0.15	0.1623	108	108	↓

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039F6

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Reviewer: OR
2nd Reviewer: VN

METHOD: Inorganics, Method see cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

%R = Found / True x 100 Where, Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

RPD = |S-D| / (S+D)/2 x 100 Where, S = Original sample concentration
D = Duplicate sample concentration

Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	Recalculated %R / RPD	Reported %R / RPD	Acceptable (Y/N)
LCS	Laboratory control sample	SO_4	95	100	95	-	Y
6	Matrix spike sample	F	(SSR-SR) 7.2	10.0406	72	72	
7	Duplicate sample	NO_3	7.2	7.5	4	4	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27659F10

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: OR
2nd reviewer:

METHOD: Inorganics, Method See cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments?
Y N N/A Are all detection limits below the CRQL?

Compound (analyte) results for F reported with a positive detect were recalculated and verified using the following equation:

Concentration =

$y = 0.4606 - 0.013$

Recalculation:

$$\frac{\frac{(0.04 + 0.0113)}{0.4606} \times 50mL}{0.947(4.47g)} = 1.2\ mg/kg$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	1	F	1.2	1.2	Y
		NO_3	3.0	3.0	↓
		SO_4	0.60	0.60	↓

Note:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	November 9, 2011
LDC Report Date:	February 1, 2012
Matrix:	Soil/Water
Parameters:	Total Petroleum Hydrocarbons as Gasoline
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE283

Sample Identification

SL-005-SA5DS-SB-1.0-2.0
TB-110911

Introduction

This data review covers one soil sample and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

Sample TB-110911 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE283	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG DE283

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE283	SL-005-SA5DS-SB-1.0-2.0 TB-110911	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

LDC #: 27039F7 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/31/12
SDG #: DE283 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: F2
2nd Reviewer: A

METHOD: GC TPH as Gasoline (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/09/11
II	Initial calibration	A	%RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	
VII.	Laboratory control samples	A	LCS/D
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	ND	TB = 2

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: SOIL + water

1 1	SL-005-SA5DS-SB-1.0-2.0 S	11 1	BLKE1	21		31	
2 2	TB-110911 W	12 2	BLKE3	22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 27039F7
SDG #: per memo

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: A

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) < 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 27039F7
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: F7
2nd Reviewer:

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?			✓	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

LDC #: 27039F7
SDG #: per report

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: F7
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (220std)	Recalculated CF (220std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/24/09	GRO	101665	101665	104182	104182	6	6
				(550)	(550)				
2	ICAL	9/23/11	GRO	7338	7338	7034	7034	5.9	5.9
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039F7
SDG #: w conn

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: F2
2nd Reviewer: A

METHOD: GC ✓ HPLC ____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	CCV 14:29	11/16/11	GRO	220.00	187.57	187.57	14.7	14.7
2	CCV 11:34	11/15/11	GRO	550.00	557.00	557.00	1.3	1.3
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: [illegible]

SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT

2nd reviewer: [illegible]

METHOD: ✓ GC ___ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
TFT	NS	860	7860464	91	91	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 21637F1
SDG #: mi cones

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: FR
2nd Reviewer: A

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: les ID 801L

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)	11	11	8.62	9.56	78	78	87	87	10	10
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039F7
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration = _____

ND

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	November 9, 2011
LDC Report Date:	February 3, 2012
Matrix:	Soil
Parameters:	Total Petroleum Hydrocarbons as Extractables
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE283

Sample Identification

SL-005-SA5DS-SB-1.0-2.0

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0%.

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE283	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG DE283

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE283	SL-005-SA5DS-SB-1.0-2.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

LDC #: 27039F8 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/30/12
SDG #: DE283 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC TPH as Extractables (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/09/11
II	Initial calibration	A	% RSD ≤20
III.	Calibration verification/ICV	A	ICV/CCV ≤20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-005-SA5DS-SB-1.0-2.0	11	PBLK11319	21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

DC #: 27039F8
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FJ
2nd Reviewer: A

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

.DC #: 27039FX
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 27039F5
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer: A

METHOD: GC ✓ HPLC _____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (788std)	Recalculated CF (788std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	11/8/11	C8 - C40	~~29463~~	~~29463~~	30399	30399	2.9	2.9
				29463	29463				
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039F8
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer:

METHOD: GC_____HPLC_____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	ccv	11/17/11	8260-C4U	576.00	644.17	644.17	11.8	11.8
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 07597A

SDG #: see cover

METHOD: ✓ GC __ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT

2nd reviewer: A

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
chlorobenzene	ND	1.0	0.729787	73	73	0
orthoterphenyl	↓	↓	0.8837	88	88	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

LDC #: 21037F8
SDG #: all cases

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: FO
2nd Reviewer: A

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
EFH (C8-C11)	0.84	NA	0.75	NA	89	89	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039F8
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ___ GC ___ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. #1 Compound Name $C_{21}-C_{30}$

Concentration = $\frac{5698361 \quad (1)}{30399 \quad (60)\ (0.947)}$

3-3 mg/kg

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	November 9, 2011
LDC Report Date:	February 1, 2012
Matrix:	Soil
Parameters:	Explosives
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE283

Sample Identification

SL-005-SA5DS-SB-1.0-2.0

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8330A for Explosives.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed for the primary (quantitation) column and confirmation column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification was performed at the required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No explosive contaminants were found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE283	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Explosives - Data Qualification Summary - SDG DE283

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE283	SL-005-SA5DS-SB-1.0-2.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Explosives - Laboratory Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Explosives - Field Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

LDC #: 27039F40 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/31/12
SDG #: DE283 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: FF
2nd Reviewer: A

METHOD: HPLC Explosives (EPA SW 846 Method 8330A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/09/11
II	Initial calibration	A	% RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS LCSD
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:
SOIL

1	SL-005-SA5DS-SB-1.0-2.0	11	PBLK01319	21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 27039F4U
SDG #: all waters

VALIDATION FINDINGS CHECKLIST

Reviewer: FM
2nd Reviewer: A

Method: ~~GC~~ / HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 27039F4U
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?			✓	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?		✓		
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 27039F4U
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC W HPLC /

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported	Recalculated	Reported	Recalculated	Reported	Recalculated
				507.0 CF (495.std)	507.0 CF 495.5 std)	Average CF (initial)	Average CF (initial)	%RSD	%RSD
1	ICAL	10/26/11	2-nitroaniline	1.27×10^2	1.27×10^2	1.27×10^2	1.27×10^2	3.9	3.9
			3-nitroaniline	1.33×10^2	1.33×10^2	1.35×10^2	1.35×10^2	4.5	4.5
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039F4(1)
SDG #: w conn

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: F2
2nd Reviewer: A

METHOD: GC MA HPLC ✓

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(Ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	CCV 20:28	11/18/11	2-Nitroaniline	495.50	494.49	494.49	0.2	0.2
			3-Nitroaniline	507.00	505.26	505.26	0.3	0.3
2	CCV 4:57	11/19/11	↓	991.00	959.48	959.48	3.2	3.2
				1014.00	982.03	982.03	3.2	3.2
3	CCV 20:28	11/18/11	↓	495.50	476.51	476.51	3.8	3.8
				NR				
4	CCV 4:57	11/19/11	↓	991.00	907.29	907.29	8.4	8.4

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

SDG #: see cover

METHOD: __ GC __ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer:

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
2- Nitro - m- xylene	chrompack	2000	1877.1754	94	94	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 27039F4C
SDG #: all cores

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: FA
2nd Reviewer: A

METHOD: ___ GC __/HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS013119

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)	2000	NA	1824.69	NA	91	91	NA			
2,4,6-Trinitrotoluene (8330)										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039F4U
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ___ GC ✓ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration = _____

ND

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

SAMPCALew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	November 9, 2011
LDC Report Date:	February 3, 2012
Matrix:	Soil
Parameters:	Terphenyls
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE283

Sample Identification

SL-005-SA5DS-SB-1.0-2.0

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Terphenyls.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No terphenyl contaminants were found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE283	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Terphenyls - Data Qualification Summary - SDG DE283

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE283	SL-005-SA5DS-SB-1.0-2.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Terphenyls - Laboratory Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Terphenyls - Field Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

LDC #: 27039F41 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/31/12

SDG #: DE283 Level IV Page: 1 of 1

Laboratory: Lancaster Laboratories Reviewer: EB

2nd Reviewer:

METHOD: GC Terphenyls (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/09/11
II	Initial calibration	A	%D ≤ 20
III.	Calibration verification/ICV	A	CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	SL-005-SA5DS-SB-1.0-2.0	11	PBLK12318	21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

.DC #: 27039F41
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: A

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 27039F41
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 27039F41
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: PJ
2nd Reviewer: [signature]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (std) 16.9944	Recalculated CF (std) 16.9944	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	9/18/11	m-Terphenyl	2.52X10^4	2.52X10^4	2.5X10^4	2.5X10^4	5.3	5.3
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

INICIAL SB

LDC #: 27039F41
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: [illegible]

METHOD: GC_____HPLC_____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	CCV 12:15	11/15/11	m-Terphenyl	16.99	16.63	16.33	2.2	2.2
2	CCV 1619	11/15/11	↓	16.99	19.33	19.33	13.8	13.8
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: [illegible]

SDG #: see cover

METHOD: ✓ GC __ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT

2nd reviewer: A

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
n-Triacontane-d62	NS	0.3333	0.255349	77	77	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 27639F41
SDG #: all cases

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
m-Terphenyl	8.21	NA	8.05	NA	98	98				

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039F41
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration =_____

ND

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	November 9, 2011
LDC Report Date:	February 2, 2012
Matrix:	Soil
Parameters:	Alcohols
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE283

Sample Identification

SL-005-SA5DS-SB-1.0-2.0
SL-005-SA5DS-SB-1.0-2.0MS
SL-005-SA5DS-SB-1.0-2.0MSD

Introduction

This data review covers 3 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Alcohols.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No alcohol contaminants were found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE283	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Alcohols - Data Qualification Summary - SDG DE283

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE283	SL-005-SA5DS-SB-1.0-2.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Alcohols - Laboratory Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Alcohols - Field Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

LDC #: 27039F43 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/30/12
SDG #: DE283 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC Alcohols (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/09/11
II	Initial calibration	A	%RSD ≤20
III.	Calibration verification/ICV	A	ICV/CCV ≤20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

SOIL

1	SL-005-SA5DS-SB-1.0-2.0	11	PB LK 29318	21		31	
2	#1 MS	12		22		32	
3	#1 MSD	13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 27039F43
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FI
2nd Reviewer: A

Method: ✓ GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) < 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 27039F43
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?			✓	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?		✓		
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 27039F43
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer: A

METHOD: GC_____HPLC_____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (500 std)	Recalculated CF (500 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	11/7/11	Methanol	4.99×10^0	4.99×10^0	4.88×10^0	4.88×10^0	10.5	10.5
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

INIC! C !SB

LDC #: 22039F43
SDG #: fw comm

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: A

METHOD: GC_____HPLC_____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(Ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	CCV 23:47	11/14/11	methanol	5000.0	4860.47	4860.47	2.8	2.8
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer:

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: # 1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Acetone	NS	29000	21871157	87	87	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

LDC #: [illegible]
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET

Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: FZ
2nd Reviewer: [illegible]

METHOD: __ GC __ HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration
SA = Spike added
RPD =(({SSCMS - SSCMSD} * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 2, 3

Compound	Spike Added (ug/kg)		Sample Conc (ug/kg)	Spike Sample Concentration (ug/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	—	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
Methanol	2500	2500	ND	2245.36	2219.14	90	90	89	89	1	1

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 21027193
SDG #: all cases

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: FD
2nd Reviewer: A

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
Methane	2500	NA	2382.31	NA	95	95	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039F43
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration = _____

NP

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications

Comments: _____

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Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	November 9, 2011
LDC Report Date:	February 3, 2012
Matrix:	Soil
Parameters:	Glycols
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE283

Sample Identification

SL-005-SA5DS-SB-1.0-2.0

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Glycols.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No glycol contaminants were found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE283	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Glycols - Data Qualification Summary - SDG DE283

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE283	SL-005-SA5DS-SB-1.0-2.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Glycols - Laboratory Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Glycols - Field Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

LDC #: 27039F45 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/31/12
SDG #: DE283 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer:
2nd Reviewer:

METHOD: GC Glycols (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/09/11
II	Initial calibration	A	%RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: SOIL

1	SL-005-SA5DS-SB-1.0-2.0	11	PBLK29320	21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

.DC #: 27039F45
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: PJ
2nd Reviewer: A

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.		✓		
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) < 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 27039F45
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer:

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.	✓	✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 27039F45
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer: A

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported 189.6273 (std)	Recalculated CF. std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	10/19/11	Ethylene Glycol	4.99×10^2	4.99×10^2	4.87×10^2	4.87×10^2	7.0	7.0
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27639F4J
SDG #: fw comm

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: A

METHOD: GC ✓ HPLC_____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(Ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	CCV 19.49	11/16/11	Ethylene Glycol	189.63	199.50	199.50	5.2	5.2
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 61037F3
SDG #: see cover

METHOD: ✓ GC ___ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: A

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetramethylene 9/4001	NS	206-87	181.994	88	88	0

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 27037F3
SDG #: all cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: FO
2nd Reviewer: [signature]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS29320

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
Ethylene Glycol	189.63	NA	200.12	NA	106	106	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039F45
SDG #: all waters

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: MP
2nd Reviewer: A

METHOD: __ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration =_____

MP

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

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Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	November 9, 2011
LDC Report Date:	February 3, 2012
Matrix:	Soil
Parameters:	Formaldehyde
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE283

Sample Identification

SL-005-SA5DS-SB-1.0-2.0

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8315A for Formaldehyde.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No formaldehyde was found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE283	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Formaldehyde - Data Qualification Summary - SDG DE283

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE283	SL-005-SA5DS-SB-1.0-2.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Formaldehyde - Laboratory Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Formaldehyde - Field Blank Data Qualification Summary - SDG DE283

No Sample Data Qualified in this SDG

LDC #: 27039F71 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/30/11
SDG #: DE283 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: HPLC Formaldehyde (EPA SW 846 Method 8315A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/09/11
II	Initial calibration	A	%RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	SL-005-SA5DS-SB-1.0-2.0	11	P131<033/8	21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 27039F71
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: F7
2nd Reviewer: A

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) < 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 27039F7 \
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: F7
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓	✓	
Target compounds were detected in the field blanks.				

LDC #: 27039F1)
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: F1
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported 2082 CF (std)	Recalculated 2082 CF. (std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	11/15/11	Formaldehyde	6.18X10		5.76 X10		10.3	
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

INICLC 1SB

LDC #: 27039F7.1
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: A

METHOD: GC ✓ HPLC _____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = Initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	CCV 14:22	11/16/11	Formaldehyde	2002.00	2011-02	2011.02	0.5	0.5
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: [illegible]

SDG #: see cover

METHOD: ✓ GC ___ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT

2nd reviewer: A

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Butyraldehyde	NS	~~2000~~ 1982	1742	88	88	J

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 27037F11
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: FD
2nd Reviewer: A

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS

Compound	Spike Added (ug/Kg)		Spiked Sample Concentration (ug/Kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
formaldehyde	5025	NA	4984.24	NA	99	99				

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27039F71
SDG #: all waters

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: MP
2nd Reviewer: A

METHOD: ✓ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= (A)(Fv)(Df) / (RF)(Vs or Ws)(%S/100)

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration =_____

MP

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Quallfications

Comments: _____

SAMPCALew.wpd

SAMPLE DELIVERY GROUP

DE284

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
10-Nov-2011	EB-SA5DS-SB-111011	6466779	EB	3005A	6010B	III
10-Nov-2011	EB-SA5DS-SB-111011	6466779	EB	3020A	6020	III
10-Nov-2011	EB-SA5DS-SB-111011	6466779	EB	3510C	8015B	III
10-Nov-2011	EB-SA5DS-SB-111011	6466779	EB	3510C	8015M	III
10-Nov-2011	EB-SA5DS-SB-111011	6466779	EB	3510C	8082	III
10-Nov-2011	EB-SA5DS-SB-111011	6466779	EB	3510C	8270C	III
10-Nov-2011	EB-SA5DS-SB-111011	6466779	EB	3510C	8270C SIM	III
10-Nov-2011	EB-SA5DS-SB-111011	6466779	EB	3520C	1625C	III
10-Nov-2011	EB-SA5DS-SB-111011	6466779	EB	5030B	8015M	III
10-Nov-2011	EB-SA5DS-SB-111011	6466779	EB	8330	8330A	III
10-Nov-2011	EB-SA5DS-SB-111011	6466779	EB	Gen Prep	300.0	III
10-Nov-2011	EB-SA5DS-SB-111011	6466779	EB	Gen Prep	314.0	III
10-Nov-2011	EB-SA5DS-SB-111011	6466779	EB	Gen Prep	7199	III
10-Nov-2011	EB-SA5DS-SB-111011	6466779	EB	Gen Prep	8015B	III
10-Nov-2011	EB-SA5DS-SB-111011	6466779	EB	Gen Prep	8015M	III
10-Nov-2011	EB-SA5DS-SB-111011	6466779	EB	METHOD	7470A	III
10-Nov-2011	EB-SA5DS-SB-111011	6466779	EB	METHOD	8315A	III
10-Nov-2011	EB-SA5DS-SB-111011	6466779	EB	METHOD	9012B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE284 Laboratory: LL

EDD Filename: DE284_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 6010B **Matrix:** AQ

Sample ID: EB-SA5DS-SB-111011 *Collected:* 11/10/2011 1:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.0061	J	0.0022	MDL	0.0500	PQL	mg/L	U	B
STRONTIUM	0.00026	J	0.00022	MDL	0.0050	PQL	mg/L	U	B

Method Category: METALS **Method:** 6020 **Matrix:** AQ

Sample ID: EB-SA5DS-SB-111011 *Collected:* 11/10/2011 1:30:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.00028	J	0.00025	MDL	0.00050	PQL	mg/L	U	B

Method Category: METALS **Method:** 7470A **Matrix:** AQ

Sample ID: EB-SA5DS-SB-111011 *Collected:* 11/10/2011 1:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.000058	J	0.000026	MDL	0.00020	PQL	mg/L	U	B, B

Method Category: SVOA **Method:** 8270C SIM **Matrix:** AQ

Sample ID: EB-SA5DS-SB-111011 *Collected:* 11/10/2011 1:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Diethylphthalate	0.097	J	0.050	MDL	1.0	PQL	ug/L	J	Z
Di-n-butylphthalate	0.36	J	0.050	MDL	1.0	PQL	ug/L	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE284 Laboratory: LL

EDD Filename: DE284_v1 eQAPP Name: CDM_SSFL_110509

Reason Code Legend

Reason Code	*Description*
B	Calibration Blank Contamination
B	Method Blank Contamination
L	Laboratory Control Spike Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

DE284

Method Blank Outlier Report

Lab Reporting Batch ID: DE284 Laboratory: LL

EDD Filename: DE284_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P32648BB220856	11/26/2011 8:56:00 AM	BORON	0.0042 mg/L	EB-SA5DS-SB-111011
		IRON	0.0173 mg/L	
		MAGNESIUM	0.0327 mg/L	
		POTASSIUM	0.0912 mg/L	
		STRONTIUM	0.00029 mg/L	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA5DS-SB-111011(RES)	BORON	0.0061 mg/L	0.0061U mg/L
EB-SA5DS-SB-111011(RES)	STRONTIUM	0.00026 mg/L	0.00026U mg/L

Method: 7470A
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P31813EB220940	11/15/2011 9:40:00 AM	MERCURY	0.000047 mg/L	EB-SA5DS-SB-111011

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA5DS-SB-111011(RES)	MERCURY	0.000058 mg/L	0.000058U mg/L

Method: 8015M
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P18187AB322023A	11/14/2011 8:23:00 PM	DIETHYLENE GLYCOL	11 mg/L	EB-SA5DS-SB-111011

Method: 8270C SIM
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWF31B261446	11/16/2011 2:46:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE	0.060 ug/L	EB-SA5DS-SB-111011

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE284 **Laboratory: LL**

EDD Filename: DE284_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**

Matrix: **AQ**

QC Sample ID (Associated Samples)	*Compound*	*LCS %R*	*LCSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
P9WFLCSY261553 (EB-SA5DS-SB-111011)	ACENAPHTHYLENE	-	111	70.00-110.00	-	ACENAPHTHYLENE	J (all detects)
	ANTHRACENE	-	112	66.00-111.00	-	ANTHRACENE	
	FLUORENE	-	115	75.00-114.00	-	FLUORENE	

Reporting Limit Outliers

Lab Reporting Batch ID: DE284 | Laboratory: LL

EDD Filename: DE284_v1 | eQAPP Name: CDM_SSFL_110509

Method: 6010B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA5DS-SB-111011	BORON	J	0.0061	0.0500	PQL	mg/L	J (all detects)
	STRONTIUM	J	0.00026	0.0050	PQL	mg/L	

Method: 6020

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA5DS-SB-111011	MOLYBDENUM	J	0.00028	0.00050	PQL	mg/L	J (all detects)

Method: 7470A

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA5DS-SB-111011	MERCURY	J	0.000058	0.00020	PQL	mg/L	J (all detects)

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA5DS-SB-111011	Diethylphthalate	J	0.097	1.0	PQL	ug/L	J (all detects)
	Di-n-butylphthalate	J	0.36	1.0	PQL	ug/L	

LDC #: 27039G4 **VALIDATION COMPLETENESS WORKSHEET** Date: 1-3-12
SDG #: DE284 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: CC
2nd Reviewer: ✓

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	CS
VII.	Duplicate Sample Analysis	N	↓
VIII.	Laboratory Control Samples (LCS)	A	LCS/D
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	—	Not performed
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	N	
XV	Field Blanks	SW	EB=1

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water

1	EB-SA5DS-SB-111011	11		21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 270329G4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

(B)

Reviewer: AL
2nd Reviewer: [illegible]

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)
Soil preparation factor applied: ~~100x x 2xdil (A)~~
Sample Concentration units, unless otherwise noted: ug/L
Associated Samples: All

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	1									
Mo			0.36	1.8	0.28									
Hg			0.050	0.25	0.058									

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 270329G4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: OZ
2nd Reviewer: LW

METHOD: Trace Metals (EPA SW846 6010B/7000)
Blank units: ug/L **Associated sample units:** mg/Kg
Sampling date: 11/10/11 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: None

Analyte	Blank ID	Sample Identification										
	1	Action Level										
B	6.1	3.05										
Hg	0.058	0.029										
Mo	0.28	0.14										
Sr	0.26	0.13										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

SAMPLE DELIVERY GROUP

DE285

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
11-Nov-2011	SL-029-SA5DS-SB-3.5-4.5	6467995	N	3050B	6010B	III
11-Nov-2011	SL-029-SA5DS-SB-3.5-4.5	6467995	N	3050B	6020	III
11-Nov-2011	SL-029-SA5DS-SB-3.5-4.5	6467995	N	3060A	7199	III
11-Nov-2011	SL-029-SA5DS-SB-3.5-4.5	6467995	N	3550B	8082	III
11-Nov-2011	SL-029-SA5DS-SB-3.5-4.5	6467995	N	3550B	8270C	III
11-Nov-2011	SL-029-SA5DS-SB-3.5-4.5	6467995	N	3550B	8270C SIM	III
11-Nov-2011	SL-029-SA5DS-SB-3.5-4.5	6467995	N	METHOD	300.0	III
11-Nov-2011	SL-029-SA5DS-SB-3.5-4.5	6467995	N	METHOD	314.0	III
11-Nov-2011	SL-029-SA5DS-SB-3.5-4.5	6467995	N	METHOD	7471A	III
11-Nov-2011	SL-028-SA5DS-SB-1.9-2.9	6467994	N	3050B	6010B	III
11-Nov-2011	SL-028-SA5DS-SB-1.9-2.9	6467994	N	3050B	6020	III
11-Nov-2011	SL-028-SA5DS-SB-1.9-2.9	6467994	N	3060A	7199	III
11-Nov-2011	SL-028-SA5DS-SB-1.9-2.9	6467994	N	3550B	8082	III
11-Nov-2011	SL-028-SA5DS-SB-1.9-2.9	6467994	N	3550B	8270C	III
11-Nov-2011	SL-028-SA5DS-SB-1.9-2.9	6467994	N	3550B	8270C SIM	III
11-Nov-2011	SL-028-SA5DS-SB-1.9-2.9	6467994	N	METHOD	300.0	III
11-Nov-2011	SL-028-SA5DS-SB-1.9-2.9	6467994	N	METHOD	314.0	III
11-Nov-2011	SL-028-SA5DS-SB-1.9-2.9	6467994	N	METHOD	6850	III
11-Nov-2011	SL-028-SA5DS-SB-1.9-2.9	6467994	N	METHOD	7471A	III
11-Nov-2011	SL-028-SA5DS-SB-1.9-2.9DU	P467994D220554	DUP	3050B	6010B	III
11-Nov-2011	SL-028-SA5DS-SB-1.9-2.9MS	P467994R220558	MS	3050B	6010B	III
11-Nov-2011	SL-028-SA5DS-SB-1.9-2.9MS	P467994R241507A	MS	METHOD	6850	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE285 Laboratory: LL

EDD Filename: DE285_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-028-SA5DS-SB-1.9-2.9 *Collected:* 11/11/2011 11:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.58	J	0.374	MDL	5.19	PQL	mg/Kg	J	Z
MANGANESE	313		0.0374	MDL	0.519	PQL	mg/Kg	J	E
POTASSIUM	2910		11.7	MDL	51.9	PQL	mg/Kg	J	Q
SODIUM	163		6.18	MDL	104	PQL	mg/Kg	J	E

Sample ID: SL-029-SA5DS-SB-3.5-4.5 *Collected:* 11/11/2011 9:15:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.57	J	0.336	MDL	10.5	PQL	mg/Kg	U	B

Sample ID: SL-029-SA5DS-SB-3.5-4.5 *Collected:* 11/11/2011 9:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	293		0.0377	MDL	0.524	PQL	mg/Kg	J	E
POTASSIUM	5010		11.8	MDL	52.4	PQL	mg/Kg	J	Q
SODIUM	150		6.24	MDL	105	PQL	mg/Kg	J	E

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-028-SA5DS-SB-1.9-2.9 *Collected:* 11/11/2011 11:45:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.202	J	0.0608	MDL	0.419	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA5DS-SB-1.9-2.9 *Collected:* 11/11/2011 11:45:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.264		0.0524	MDL	0.105	PQL	mg/Kg	U	B

Sample ID: SL-028-SA5DS-SB-1.9-2.9 *Collected:* 11/11/2011 11:45:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.0832	J	0.0461	MDL	0.105	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE285 Laboratory: LL

EDD Filename: PrepDE285_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-028-SA5DS-SB-1.9-2.9 *Collected:* 11/11/2011 11:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.95	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E

Sample ID: SL-029-SA5DS-SB-3.5-4.5 *Collected:* 11/11/2011 9:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	9.8		0.36	MDL	1.8	PQL	ug/Kg	J	S
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-028-SA5DS-SB-1.9-2.9 *Collected:* 11/11/2011 11:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	1.7	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	10	J	6.4	MDL	19	PQL	ug/Kg	J	Z
Butylbenzylphthalate	12	J	6.4	MDL	19	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.7	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
FLUORENE	0.71	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.7	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-029-SA5DS-SB-3.5-4.5 *Collected:* 11/11/2011 9:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	7.5	J	6.4	MDL	19	PQL	ug/Kg	J	Z
Butylbenzylphthalate	12	J	6.4	MDL	19	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE285 **Laboratory: LL**

EDD Filename: DE285_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
B	Calibration Blank Contamination
B	Method Blank Contamination
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Upper Estimation
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

DE285

Method Blank Outlier Report

Lab Reporting Batch ID: DE285 Laboratory: LL

EDD Filename: DE285_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P32408DB220536	11/22/2011 5:36:00 AM	CALCIUM IRON MAGNESIUM MANGANESE PHOSPHORUS	6.46 mg/Kg 3.25 mg/Kg 2.95 mg/Kg 0.0588 mg/Kg 1.31 mg/Kg	SL-028-SA5DS-SB-1.9-2.9 SL-029-SA5DS-SB-3.5-4.5
P32408DB220938	11/26/2011 9:38:00 AM	TIN	1.21 mg/Kg	SL-028-SA5DS-SB-1.9-2.9 SL-029-SA5DS-SB-3.5-4.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-029-SA5DS-SB-3.5-4.5(REA)	TIN	3.57 mg/Kg	3.57U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P32426BB221254A	11/29/2011 12:54:00 PM	ZINC	0.689 mg/Kg	SL-028-SA5DS-SB-1.9-2.9 SL-029-SA5DS-SB-3.5-4.5

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE285 Laboratory: LL

EDD Filename: DE285_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-028-SA5DS-SB-1.9-2.9MS SL-028-SA5DS-SB-1.9-2.9MSD (SL-028-SA5DS-SB-1.9-2.9 SL-029-SA5DS-SB-3.5-4.5)	ALUMINUM	1838	1801	75.00-125.00	-	ALUMINUM	J (all detects) All except K, No Qual >4x
	CALCIUM	166	180	75.00-125.00	-	CALCIUM	
	IRON	1639	569	75.00-125.00	-	IRON	
	MAGNESIUM	376	385	75.00-125.00	-	MAGNESIUM	
	POTASSIUM	158	155	75.00-125.00	-	POTASSIUM	
	TITANIUM	430	424	75.00-125.00	-	TITANIUM	
SL-028-SA5DS-SB-1.9-2.9MS SL-028-SA5DS-SB-1.9-2.9MSD (SL-028-SA5DS-SB-1.9-2.9 SL-029-SA5DS-SB-3.5-4.5)	MANGANESE	-1	137	75.00-125.00	21 (20.00)	MANGANESE	No Qual %R >4x

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE285 Laboratory: LL

EDD Filename: DE285_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-028-SA5DS-SB-1.9-2.9DUP (SL-028-SA5DS-SB-1.9-2.9 SL-029-SA5DS-SB-3.5-4.5)	SODIUM	27	20.00	J (all detects) UJ (all non-detects)
	TIN	153	20.00	Sn, No Qual, OK by Difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE285 Laboratory: LL

EDD Filename: DE285_v1 eQAPP Name: CDM_SSFL_110509

Method: 6850
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSAQ241442A (SL-028-SA5DS-SB-1.9-2.9)	PERCHLORATE	116	-	85.00-115.00	-	PERCHLORATE	J (all detects)

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P13234AQ242204A P13234AY242223A (SL-028-SA5DS-SB-1.9-2.9 SL-029-SA5DS-SB-3.5-4.5)	Aroclor 5442	244	-	36.00-106.00	107 (30.00)	Aroclor 5442 Aroclor 5432 Aroclor 5460	J(all detects) UJ(all non-detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P32426BQ221257A (SL-028-SA5DS-SB-1.9-2.9 SL-029-SA5DS-SB-3.5-4.5)	ANTIMONY	70	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC Limits

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P32408DQ220539 (SL-028-SA5DS-SB-1.9-2.9 SL-029-SA5DS-SB-3.5-4.5)	ALUMINUM	79	-	80.00-120.00	-	ALUMINUM	No Qual, SRM within QC Limits

Surrogate Outlier Report

Lab Reporting Batch ID: DE285 Laboratory: LL

EDD Filename: DE285_v1 eQAPP Name: CDM_SSFL_110509

Method: 8082
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-029-SA5DS-SB-3.5-4.5	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	186 181	45.00-120.00 53.00-139.00	All Target Analytes	J(all detects)

Method: 8270C SIM
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-028-SA5DS-SB-1.9-2.9	Nitrobenzene-d5	133	40.00-130.00	No Affected Compounds	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE285 | Laboratory: LL

EDD Filename: DE285_v1 | eQAPP Name: CDM_SSFL_110509

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-028-SA5DS-SB-1.9-2.9	BORON	J	4.58	5.19	PQL	mg/Kg	J (all detects)
SL-029-SA5DS-SB-3.5-4.5	TIN	J	3.57	10.5	PQL	mg/Kg	J (all detects)

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-028-SA5DS-SB-1.9-2.9	CADMIUM	J	0.0832	0.105	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.202	0.419	PQL	mg/Kg	
SL-029-SA5DS-SB-3.5-4.5	ANTIMONY	J	0.0902	0.216	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.215	0.432	PQL	mg/Kg	
	SILVER	J	0.0265	0.108	PQL	mg/Kg	

Method: 6850

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-028-SA5DS-SB-1.9-2.9	PERCHLORATE	J	4.1	5.4	PQL	ug/Kg	J (all detects)

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-029-SA5DS-SB-3.5-4.5	HEXAVALENT CHROMIUM	J	0.28	1.1	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-028-SA5DS-SB-1.9-2.9	AROCLOR 1260	J	0.95	1.8	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE285 **Laboratory: LL**

EDD Filename: DE285_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-028-SA5DS-SB-1.9-2.9	ANTHRACENE	J	1.7	1.8	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	10	19	PQL	ug/Kg	
	Butylbenzylphthalate	J	12	19	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.7	1.8	PQL	ug/Kg	
	FLUORENE	J	0.71	1.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.7	1.8	PQL	ug/Kg	
SL-029-SA5DS-SB-3.5-4.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.5	19	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	12	19	PQL	ug/Kg	

LDC #: 27039H4 **VALIDATION COMPLETENESS WORKSHEET** Date: 1-3-12

SDG #: DE285 ADR Page: 1 of 1

Laboratory: Lancaster Laboratories Reviewer: AL

2nd Reviewer: L

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (Al, Ca, Fe, Mg, Mn, ~~K~~, Ti) 6020: client-specified → RPD out (6/10)
VII.	Duplicate Sample Analysis	N	Dup (Sn < 5 RL: no qual) ~~2x~~ ↓ HS: DE289
VIII.	Laboratory Control Samples (LCS)	N	
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	~~SA~~	6020: CS
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Sn < 1

1	SL-028-SA5DS-SB-1.9-2.9	11		21		31	
2	SL-029-SA5DS-SB-3.5-4.5	12		22		32	
3	(Al) MS (6010)	13		23		33	
4	MSD	14		24		34	
5	Dup	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 270329H4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Reviewer: AL
2nd Reviewer: LA

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)
Soil preparation factor applied: 100x x MS: 2xdil
Sample Concentration units, unless otherwise noted: mg/Kg
Associated Samples: All (B)

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	1	2								
Mo			0.31	0.31	0.26	0.20								
Sn			4.2	2.1										

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

SAMPLE DELIVERY GROUP

DE286

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8	6470165	N	3050B	6010B	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8	6470165	N	3050B	6020	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8	6470165	N	3060A	7199	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8	6470165	N	3550B	8082	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8	6470165	N	3550B	8270C	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8	6470165	N	3550B	8270C SIM	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8	6470165	N	METHOD	300.0	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8	6470165	N	METHOD	314.0	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8	6470165	N	METHOD	7471A	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8DU	P470165D221050	DUP	3050B	6010B	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8DU	P470165D221510A	DUP	3050B	6020	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8DU	P470165D221510B	DUP	3050B	6020	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8DU	P470165D221510C	DUP	3050B	6020	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8DU	P470165D221510D	DUP	3050B	6020	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8DU	P470165D271111A	DUP	METHOD	300.0	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8DU	P470165D271735A	DUP	METHOD	314.0	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8MS	P470165R221512A	MS	3050B	6020	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8MS	P470165R221512B	MS	3050B	6020	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8MS	P470165R221512C	MS	3050B	6020	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8MS	P470165R221512D	MS	3050B	6020	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8MS	P470165R222345	MS	3050B	6010B	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8MS	P470165R240040A	MS	3550B	8082	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8MS	P470165R271157A	MS	METHOD	300.0	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8MS	P470165R271304A	MS	METHOD	314.0	III
14-Nov-2011	SL-031-SA5DS-SB-4.0-5.0	6470166	N	3050B	6010B	III
14-Nov-2011	SL-031-SA5DS-SB-4.0-5.0	6470166	N	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Nov-2011	SL-031-SA5DS-SB-4.0-5.0	6470166	N	3060A	7199	III
14-Nov-2011	SL-031-SA5DS-SB-4.0-5.0	6470166	N	3550B	8082	III
14-Nov-2011	SL-031-SA5DS-SB-4.0-5.0	6470166	N	3550B	8270C	III
14-Nov-2011	SL-031-SA5DS-SB-4.0-5.0	6470166	N	3550B	8270C SIM	III
14-Nov-2011	SL-031-SA5DS-SB-4.0-5.0	6470166	N	METHOD	300.0	III
14-Nov-2011	SL-031-SA5DS-SB-4.0-5.0	6470166	N	METHOD	314.0	III
14-Nov-2011	SL-031-SA5DS-SB-4.0-5.0	6470166	N	METHOD	7471A	III
14-Nov-2011	SL-031-SA5DS-SB-9.0-10.0	6470167	N	3050B	6010B	III
14-Nov-2011	SL-031-SA5DS-SB-9.0-10.0	6470167	N	3050B	6020	III
14-Nov-2011	SL-031-SA5DS-SB-9.0-10.0	6470167	N	3060A	7199	III
14-Nov-2011	SL-031-SA5DS-SB-9.0-10.0	6470167	N	3550B	8082	III
14-Nov-2011	SL-031-SA5DS-SB-9.0-10.0	6470167	N	3550B	8270C	III
14-Nov-2011	SL-031-SA5DS-SB-9.0-10.0	6470167	N	3550B	8270C SIM	III
14-Nov-2011	SL-031-SA5DS-SB-9.0-10.0	6470167	N	METHOD	300.0	III
14-Nov-2011	SL-031-SA5DS-SB-9.0-10.0	6470167	N	METHOD	314.0	III
14-Nov-2011	SL-031-SA5DS-SB-9.0-10.0	6470167	N	METHOD	7471A	III
14-Nov-2011	SL-013-SA8S-SB-4.0-5.0	6470168	N	3050B	6010B	III
14-Nov-2011	SL-013-SA8S-SB-4.0-5.0	6470168	N	3050B	6020	III
14-Nov-2011	SL-013-SA8S-SB-4.0-5.0	6470168	N	3060A	7199	III
14-Nov-2011	SL-013-SA8S-SB-4.0-5.0	6470168	N	3550B	8082	III
14-Nov-2011	SL-013-SA8S-SB-4.0-5.0	6470168	N	3550B	8270C	III
14-Nov-2011	SL-013-SA8S-SB-4.0-5.0	6470168	N	3550B	8270C SIM	III
14-Nov-2011	SL-013-SA8S-SB-4.0-5.0	6470168	N	METHOD	300.0	III
14-Nov-2011	SL-013-SA8S-SB-4.0-5.0	6470168	N	METHOD	314.0	III
14-Nov-2011	SL-013-SA8S-SB-4.0-5.0	6470168	N	METHOD	7471A	III
14-Nov-2011	SL-013-SA8S-SB-4.0-5.0DUP	P470168D222234A	DUP	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Nov-2011	SL-013-SA8S-SB-4.0-5.0MSD	P470168M222239A	MSD	3050B	6020	III
14-Nov-2011	SL-013-SA8S-SB-4.0-5.0MS	P470168R222236A	MS	3050B	6020	III

III = EPA Level 3 Data Review
IV = EPA Level 4 Data Validation
N = Normal Sample
FD = Field Duplicate
TB = Trip Blank
FB = Field Blank
MS = Matrix Spike
MSD = Matrix Spike Duplicate

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE286 Laboratory: LL

EDD Filename: DE286_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-002-SA5DS-SB-1.8-2.8 **Collected:** 11/14/2011 9:25:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-013-SA8S-SB-4.0-5.0 **Collected:** 11/14/2011 2:05:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-031-SA5DS-SB-4.0-5.0 **Collected:** 11/14/2011 10:40:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	6.2		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-031-SA5DS-SB-9.0-10.0 **Collected:** 11/14/2011 11:25:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.6		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-002-SA5DS-SB-1.8-2.8 **Collected:** 11/14/2011 9:25:00 **Analysis Type:** REA **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.93	J	0.339	MDL	10.6	PQL	mg/Kg	U	B

Sample ID: SL-002-SA5DS-SB-1.8-2.8 **Collected:** 11/14/2011 9:25:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	24900		2.77	MDL	21.2	PQL	mg/Kg	J	Q
POTASSIUM	2830		12.0	MDL	53.0	PQL	mg/Kg	J	Q
SODIUM	85.6	J	6.31	MDL	106	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE286 Laboratory: LL

EDD Filename: DE286_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-013-SA8S-SB-4.0-5.0 *Collected:* 11/14/2011 2:05:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.58	J	0.338	MDL	10.6	PQL	mg/Kg	U	B

Sample ID: SL-013-SA8S-SB-4.0-5.0 *Collected:* 11/14/2011 2:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	23500		2.76	MDL	21.2	PQL	mg/Kg	J	Q
POTASSIUM	2560		12.0	MDL	52.9	PQL	mg/Kg	J	Q
SODIUM	79.9	J	6.29	MDL	106	PQL	mg/Kg	J	Z
Zirconium	3.77	J	0.486	MDL	5.29	PQL	mg/Kg	J	Z

Sample ID: SL-031-SA5DS-SB-4.0-5.0 *Collected:* 11/14/2011 10:40:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.63	J	0.350	MDL	10.9	PQL	mg/Kg	U	B

Sample ID: SL-031-SA5DS-SB-4.0-5.0 *Collected:* 11/14/2011 10:40:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	38200		5.71	MDL	43.7	PQL	mg/Kg	J	Q

Sample ID: SL-031-SA5DS-SB-4.0-5.0 *Collected:* 11/14/2011 10:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	4740		12.4	MDL	54.6	PQL	mg/Kg	J	Q

Sample ID: SL-031-SA5DS-SB-9.0-10.0 *Collected:* 11/14/2011 11:25:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	44600		5.60	MDL	42.9	PQL	mg/Kg	J	Q

Sample ID: SL-031-SA5DS-SB-9.0-10.0 *Collected:* 11/14/2011 11:25:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.11	J	0.343	MDL	10.7	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE286 Laboratory: LL

EDD Filename: DE286_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 6010B **Matrix:** SO

Sample ID: SL-031-SA5DS-SB-9.0-10.0 *Collected:* 11/14/2011 11:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	5150		12.1	MDL	53.7	PQL	mg/Kg	J	Q

Method Category: METALS **Method:** 6020 **Matrix:** SO

Sample ID: SL-002-SA5DS-SB-1.8-2.8 *Collected:* 11/14/2011 9:25:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	4.92		0.0840	MDL	0.420	PQL	mg/Kg	J	Q
CHROMIUM	34.5		0.126	MDL	0.420	PQL	mg/Kg	J	Q, A
COBALT	8.13		0.0210	MDL	0.105	PQL	mg/Kg	J	A
LEAD	6.38		0.0107	MDL	0.210	PQL	mg/Kg	J	Q, A
NICKEL	12.2		0.105	MDL	0.420	PQL	mg/Kg	J	Q, A
VANADIUM	58.3		0.0231	MDL	0.105	PQL	mg/Kg	J	A

Sample ID: SL-002-SA5DS-SB-1.8-2.8 *Collected:* 11/14/2011 9:25:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.143	J	0.0609	MDL	0.420	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA5DS-SB-1.8-2.8 *Collected:* 11/14/2011 9:25:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	87.8		0.111	MDL	0.420	PQL	mg/Kg	J	E, A

Sample ID: SL-002-SA5DS-SB-1.8-2.8 *Collected:* 11/14/2011 9:25:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.180	J	0.0777	MDL	0.210	PQL	mg/Kg	J	Z, Q
SILVER	0.0381	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA8S-SB-4.0-5.0 *Collected:* 11/14/2011 2:05:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.182	J	0.0613	MDL	0.423	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE286 Laboratory: LL

EDD Filename: DE286_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-013-SA8S-SB-4.0-5.0 **Collected:** 11/14/2011 2:05:00 **Analysis Type:** REA4 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	97.4		0.112	MDL	0.423	PQL	mg/Kg	J	E, A

Sample ID: SL-013-SA8S-SB-4.0-5.0 **Collected:** 11/14/2011 2:05:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0798	J	0.0783	MDL	0.212	PQL	mg/Kg	J	Z, Q
ARSENIC	6.25		0.0846	MDL	0.423	PQL	mg/Kg	J	Q
CHROMIUM	24.0		0.127	MDL	0.423	PQL	mg/Kg	J	Q, A
COBALT	9.23		0.0212	MDL	0.106	PQL	mg/Kg	J	A
LEAD	7.62		0.0108	MDL	0.212	PQL	mg/Kg	J	Q, A
NICKEL	18.0		0.106	MDL	0.423	PQL	mg/Kg	J	Q, A
SILVER	0.0203	J	0.0150	MDL	0.106	PQL	mg/Kg	J	Z
VANADIUM	44.4		0.0233	MDL	0.106	PQL	mg/Kg	J	A

Sample ID: SL-031-SA5DS-SB-4.0-5.0 **Collected:** 11/14/2011 10:40:00 **Analysis Type:** REA2 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.294	J	0.0640	MDL	0.442	PQL	mg/Kg	J	Z

Sample ID: SL-031-SA5DS-SB-4.0-5.0 **Collected:** 11/14/2011 10:40:00 **Analysis Type:** REA4 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	124		0.117	MDL	0.442	PQL	mg/Kg	J	E, A

Sample ID: SL-031-SA5DS-SB-4.0-5.0 **Collected:** 11/14/2011 10:40:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.104	J	0.0817	MDL	0.221	PQL	mg/Kg	J	Z, Q
ARSENIC	5.80		0.0883	MDL	0.442	PQL	mg/Kg	J	Q
CHROMIUM	33.0		0.132	MDL	0.442	PQL	mg/Kg	J	Q, A
COBALT	11.2		0.0221	MDL	0.110	PQL	mg/Kg	J	A
LEAD	8.91		0.0113	MDL	0.221	PQL	mg/Kg	J	Q, A
NICKEL	21.9		0.110	MDL	0.442	PQL	mg/Kg	J	Q, A
SILVER	0.0233	J	0.0157	MDL	0.110	PQL	mg/Kg	J	Z
VANADIUM	65.5		0.0243	MDL	0.110	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE286 Laboratory: LL

EDD Filename: DE286_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-031-SA5DS-SB-9.0-10.0 *Collected:* 11/14/2011 11:25:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.269	J	0.0628	MDL	0.433	PQL	mg/Kg	J	Z

Sample ID: SL-031-SA5DS-SB-9.0-10.0 *Collected:* 11/14/2011 11:25:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.149		0.0542	MDL	0.108	PQL	mg/Kg	U	B

Sample ID: SL-031-SA5DS-SB-9.0-10.0 *Collected:* 11/14/2011 11:25:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	114		0.115	MDL	0.433	PQL	mg/Kg	J	E, A

Sample ID: SL-031-SA5DS-SB-9.0-10.0 *Collected:* 11/14/2011 11:25:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0802	U	0.0802	MDL	0.217	PQL	mg/Kg	UJ	Q
ARSENIC	5.35		0.0867	MDL	0.433	PQL	mg/Kg	J	Q
CHROMIUM	31.3		0.130	MDL	0.433	PQL	mg/Kg	J	Q, A
COBALT	11.4		0.0217	MDL	0.108	PQL	mg/Kg	J	A
LEAD	8.86		0.0111	MDL	0.217	PQL	mg/Kg	J	Q, A
NICKEL	21.4		0.108	MDL	0.433	PQL	mg/Kg	J	Q, A
SILVER	0.0466	J	0.0154	MDL	0.108	PQL	mg/Kg	J	Z
VANADIUM	59.4		0.0238	MDL	0.108	PQL	mg/Kg	J	A

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: SL-013-SA8S-SB-4.0-5.0 *Collected:* 11/14/2011 2:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.43	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE286 Laboratory: LL

EDD Filename: DE286_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: SL-031-SA5DS-SB-4.0-5.0 *Collected:* 11/14/2011 10:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.49	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-031-SA5DS-SB-9.0-10.0 *Collected:* 11/14/2011 11:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.36	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-002-SA5DS-SB-1.8-2.8 *Collected:* 11/14/2011 9:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.5	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z, S
Aroclor 5432	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	E

Sample ID: SL-013-SA8S-SB-4.0-5.0 *Collected:* 11/14/2011 2:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E

Sample ID: SL-031-SA5DS-SB-4.0-5.0 *Collected:* 11/14/2011 10:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	E

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE286 Laboratory: LL

EDD Filename: DE286_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA **Method:** 8082 **Matrix:** SO

Sample ID: SL-031-SA5DS-SB-9.0-10.0 *Collected:* 11/14/2011 11:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	E

Method Category: SVOA **Method:** 8270C SIM **Matrix:** SO

Sample ID: SL-002-SA5DS-SB-1.8-2.8 *Collected:* 11/14/2011 9:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.72	J	0.70	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	11	J	6.3	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	0.70	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-013-SA8S-SB-4.0-5.0 *Collected:* 11/14/2011 2:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Butylbenzylphthalate	13	J	6.4	MDL	19	PQL	ug/Kg	J	Z

Sample ID: SL-031-SA5DS-SB-9.0-10.0 *Collected:* 11/14/2011 11:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.43	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	13	J	6.6	MDL	20	PQL	ug/Kg	J	Z
Butylbenzylphthalate	8.5	J	6.6	MDL	20	PQL	ug/Kg	J	Z
CHRYSENE	0.80	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
FLUORANTHENE	0.91	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	0.83	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	0.85	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	0.74	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE286 **Laboratory: LL**

EDD Filename: DE286_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Upper Estimation
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Upper Estimation
Z	Reporting Limit Trace Value

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE286

Method Blank Outlier Report

Lab Reporting Batch ID: DE286 **Laboratory:** LL

EDD Filename: DE286_v1 **eQAPP Name:** CDM_SSFL_110509

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P32108EB222321	11/20/2011 11:21:00 PM	ALUMINUM	8.93 mg/Kg	SL-002-SA5DS-SB-1.8-2.8
		BORON	0.644 mg/Kg	SL-013-SA8S-SB-4.0-5.0
		CALCIUM	9.39 mg/Kg	SL-031-SA5DS-SB-4.0-5.0
		IRON	3.43 mg/Kg	SL-031-SA5DS-SB-9.0-10.0
		MAGNESIUM	0.949 mg/Kg	
		MANGANESE	0.0365 mg/Kg	
		PHOSPHORUS	1.86 mg/Kg	
		STRONTIUM	0.0596 mg/Kg	
		TIN	1.53 mg/Kg	
		TITANIUM	0.0740 mg/Kg	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-002-SA5DS-SB-1.8-2.8(REA)	TIN	2.93 mg/Kg	2.93U mg/Kg
SL-013-SA8S-SB-4.0-5.0(REA)	TIN	2.58 mg/Kg	2.58U mg/Kg
SL-031-SA5DS-SB-4.0-5.0(REA)	TIN	3.63 mg/Kg	3.63U mg/Kg
SL-031-SA5DS-SB-9.0-10.0(REA2)	TIN	3.11 mg/Kg	3.11U mg/Kg

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P32126CB221457A	11/29/2011 2:57:00 PM	ZINC	0.985 mg/Kg	SL-002-SA5DS-SB-1.8-2.8 SL-013-SA8S-SB-4.0-5.0 SL-031-SA5DS-SB-4.0-5.0 SL-031-SA5DS-SB-9.0-10.0

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE286 Laboratory: LL

EDD Filename: DE286_v1 eQAPP Name: CDM_SSFL_110509

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-002-SA5DS-SB-1.8-2.8MS (SL-002-SA5DS-SB-1.8-2.8 SL-013-SA8S-SB-4.0-5.0 SL-031-SA5DS-SB-4.0-5.0 SL-031-SA5DS-SB-9.0-10.0)	FLUORIDE	63	-	80.00-120.00	-	FLUORIDE	J (all detects) UJ (all non-detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-002-SA5DS-SB-1.8-2.8MS SL-002-SA5DS-SB-1.8-2.8MSD (SL-002-SA5DS-SB-1.8-2.8 SL-013-SA8S-SB-4.0-5.0 SL-031-SA5DS-SB-4.0-5.0 SL-031-SA5DS-SB-9.0-10.0)	ARSENIC	-	150	75.00-125.00	-	ARSENIC	J(all detects)
	CHROMIUM	-	141	75.00-125.00	-	CHROMIUM	
	LEAD	-	134	75.00-125.00	-	LEAD	V, Zn,
	NICKEL	-	140	75.00-125.00	-	NICKEL	No Qual, >4x
	VANADIUM	142	183	75.00-125.00	-	VANADIUM	
	ZINC	-	169	75.00-125.00	-	ZINC	
SL-002-SA5DS-SB-1.8-2.8MS SL-002-SA5DS-SB-1.8-2.8MSD (SL-002-SA5DS-SB-1.8-2.8 SL-013-SA8S-SB-4.0-5.0 SL-031-SA5DS-SB-4.0-5.0 SL-031-SA5DS-SB-9.0-10.0)	ANTIMONY	16	13	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects) Post Spike = 88%
SL-002-SA5DS-SB-1.8-2.8MS SL-002-SA5DS-SB-1.8-2.8MSD (SL-002-SA5DS-SB-1.8-2.8 SL-013-SA8S-SB-4.0-5.0 SL-031-SA5DS-SB-4.0-5.0 SL-031-SA5DS-SB-9.0-10.0)	BARIUM	62	141	75.00-125.00	-	BARIUM	No Qual, >4x

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-002-SA5DS-SB-1.8-2.8MS SL-002-SA5DS-SB-1.8-2.8MSD (SL-002-SA5DS-SB-1.8-2.8 SL-013-SA8S-SB-4.0-5.0 SL-031-SA5DS-SB-4.0-5.0 SL-031-SA5DS-SB-9.0-10.0)	ALUMINUM	1462	1339	75.00-125.00	-	ALUMINUM	J(all detects)
	CALCIUM	215	238	75.00-125.00	-	CALCIUM	
	IRON	135	269	75.00-125.00	-	IRON	
	MANGANESE	148	-	75.00-125.00	-	MANGANESE	All except Fe, K,
	POTASSIUM	-	126	75.00-125.00	-	POTASSIUM	No Qual, >4x
	TITANIUM	374	331	75.00-125.00	-	TITANIUM	
SL-002-SA5DS-SB-1.8-2.8MS SL-002-SA5DS-SB-1.8-2.8MSD (SL-002-SA5DS-SB-1.8-2.8 SL-013-SA8S-SB-4.0-5.0 SL-031-SA5DS-SB-4.0-5.0 SL-031-SA5DS-SB-9.0-10.0)	MAGNESIUM	36	53	75.00-125.00	-	MAGNESIUM	No Qual, >4x
	PHOSPHORUS	44	-	75.00-125.00	-	PHOSPHORUS	

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE286 Laboratory: LL

EDD Filename: DE286_v1 eQAPP Name: CDM_SSFL_110509

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-002-SA5DS-SB-1.8-2.8DUP (SL-002-SA5DS-SB-1.8-2.8 SL-013-SA8S-SB-4.0-5.0 SL-031-SA5DS-SB-4.0-5.0 SL-031-SA5DS-SB-9.0-10.0)	FLUORIDE	39	20.00	No Qual, OK by Difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-002-SA5DS-SB-1.8-2.8DUP (SL-002-SA5DS-SB-1.8-2.8 SL-013-SA8S-SB-4.0-5.0 SL-031-SA5DS-SB-4.0-5.0 SL-031-SA5DS-SB-9.0-10.0)	ANTIMONY	44	20.00	J(all detects) UJ(all non-detects)
	BARIUM	25	20.00	
	CADMIUM	32	20.00	All except Ba, No Qual, OK by Difference
	SELENIUM	26	20.00	
	SILVER	38	20.00	

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE286 Laboratory: LL

EDD Filename: DE286_v1 eQAPP Name: CDM_SSFL_110509

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P13234AQ242204A P13234AY242223A (SL-002-SA5DS-SB-1.8-2.8 SL-013-SA8S-SB-4.0-5.0 SL-031-SA5DS-SB-4.0-5.0 SL-031-SA5DS-SB-9.0-10.0)	Aroclor 5442	244	-	36.00-106.00	107 (30.00)	Aroclor 5442 Aroclor 5432 Aroclor 5460	J (all detects) UJ (all non-detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P32126CQ221500A (SL-002-SA5DS-SB-1.8-2.8 SL-013-SA8S-SB-4.0-5.0 SL-031-SA5DS-SB-4.0-5.0 SL-031-SA5DS-SB-9.0-10.0)	ANTIMONY	62	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC Limits

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P32108EQ222325 (SL-002-SA5DS-SB-1.8-2.8 SL-013-SA8S-SB-4.0-5.0 SL-031-SA5DS-SB-4.0-5.0 SL-031-SA5DS-SB-9.0-10.0)	ALUMINUM	76	-	80.00-120.00	-	ALUMINUM	No Qual, SRM within QC Limits

Surrogate Outlier Report

Lab Reporting Batch ID: DE286 Laboratory: LL

EDD Filename: DE286_v1 eQAPP Name: CDM_SSFL_110509

Method: 8082
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-002-SA5DS-SB-1.8-2.8	DECACHLOROBIPHENYL	126	45.00-120.00	All Target Analytes	J (all detects)

Method: 8270C SIM
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-002-SA5DS-SB-1.8-2.8	Nitrobenzene-d5	136	40.00-130.00	No Affected Compounds	J(all detects)
SL-031-SA5DS-SB-4.0-5.0	Nitrobenzene-d5	133	40.00-130.00	No Affected Compounds	J(all detects)
SL-031-SA5DS-SB-9.0-10.0	Nitrobenzene-d5	131	40.00-130.00	No Affected Compounds	J(all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE286 | Laboratory: LL

EDD Filename: DE286_v1 | eQAPP Name: CDM_SSFL_110509

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-002-SA5DS-SB-1.8-2.8	SODIUM	J	85.6	106	PQL	mg/Kg	J (all detects)
	TIN	J	2.93	10.6	PQL	mg/Kg	
SL-013-SA8S-SB-4.0-5.0	SODIUM	J	79.9	106	PQL	mg/Kg	J (all detects)
	TIN	J	2.58	10.6	PQL	mg/Kg	
	Zirconium	J	3.77	5.29	PQL	mg/Kg	
SL-031-SA5DS-SB-4.0-5.0	TIN	J	3.63	10.9	PQL	mg/Kg	J (all detects)
SL-031-SA5DS-SB-9.0-10.0	TIN	J	3.11	10.7	PQL	mg/Kg	J (all detects)

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-002-SA5DS-SB-1.8-2.8	ANTIMONY	J	0.180	0.210	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.143	0.420	PQL	mg/Kg	
	SILVER	J	0.0381	0.105	PQL	mg/Kg	
SL-013-SA8S-SB-4.0-5.0	ANTIMONY	J	0.0798	0.212	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.182	0.423	PQL	mg/Kg	
	SILVER	J	0.0203	0.106	PQL	mg/Kg	
SL-031-SA5DS-SB-4.0-5.0	ANTIMONY	J	0.104	0.221	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.294	0.442	PQL	mg/Kg	
	SILVER	J	0.0233	0.110	PQL	mg/Kg	
SL-031-SA5DS-SB-9.0-10.0	SELENIUM	J	0.269	0.433	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0466	0.108	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-013-SA8S-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.43	1.0	PQL	mg/Kg	J (all detects)
SL-031-SA5DS-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.49	1.1	PQL	mg/Kg	J (all detects)
SL-031-SA5DS-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.36	1.1	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-002-SA5DS-SB-1.8-2.8	AROCLOR 1254	J	1.5	1.8	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE286 **Laboratory:** LL

EDD Filename: DE286_v1 **eQAPP Name:** CDM_SSFL_110509

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-002-SA5DS-SB-1.8-2.8	BENZO(B)FLUORANTHENE	J	0.72	1.8	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	11	19	PQL	ug/Kg	
	CHRYSENE	J	0.70	1.8	PQL	ug/Kg	
SL-013-SA8S-SB-4.0-5.0	Butylbenzylphthalate	J	13	19	PQL	ug/Kg	J (all detects)
SL-031-SA5DS-SB-9.0-10.0	ANTHRACENE	J	0.43	1.8	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	13	20	PQL	ug/Kg	
	Butylbenzylphthalate	J	8.5	20	PQL	ug/Kg	
	CHRYSENE	J	0.80	1.8	PQL	ug/Kg	
	FLUORANTHENE	J	0.91	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	0.83	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	0.85	1.8	PQL	ug/Kg	
	PYRENE	J	0.74	1.8	PQL	ug/Kg	

LDC #: 27039I4 **VALIDATION COMPLETENESS WORKSHEET** Date: 1-3-12
SDG #: DE286 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: CC
2nd Reviewer:

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (Al, Ba, Ca, Mg, Mn, P, Ti, V, Zn >4X) *see below
VII.	Duplicate Sample Analysis	N	Dup (Cd, Sb, Se, Ag <5xRL: no qual)
VIII.	Laboratory Control Samples (LCS)	~~A~~	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: soil

1	SL-002-SA5DS-SB-1.8-2.8	11		21		31	
2	SL-031-SA5DS-SB-4.0-5.0	12		22		32	
3	SL-031-SA5DS-SB-9.0-10.0	13		23		33	
4	SL-013-SA8S-SB-4.0-5.0	14		24		34	
5	(X1) MS	15		25		35	
6	↓ MSD	16		26		36	
7	↓ DUP	17		27		37	
8	(X4) MS (CW)	18		28		38	
9	↓ MSD	19		29		39	
10	↓ DUP	20		30		40	

Notes: *Sb post spike = 88% :J/UJ/A

LDC #: 27032914

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Reviewer: AL
2nd Reviewer: W

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)
Soil preparation factor applied: 100x x MS: 2xdil
Sample Concentration units, unless otherwise noted: mg/Kg
Associated Samples: All (B)

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	3									
Mo			0.39	0.39	0.15									
Tl			0.19	0.19										

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

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QUALITY ASSURANCE SUMMARY
FORM 9
SERIAL DILUTIONS
SDG No.: DE286
Matrix: SOIL Level (low/med): LOW

J/UJ/A

Background Lab Sample ID: 6470165BKG Serial Dilution Lab Sample ID: 6470165L
Batch ID(s): P32108E, P32126C
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		169419.7500		175572.8500		4		P
Antimony	121	0.8558	B	1.8500	U	100		MS
Arsenic	75	23.4300		31.2800		34		MS
Barium	137	418.2000		494.3000		18	E	MS
Beryllium	9	2.5180		3.1125		24		MS
Boron		103.4200		131.9500	B	28		P
Cadmium	111	1.0190		1.1000	U	100		MS
Calcium		39459.9400		41599.2500		5		P
Chromium	52	164.1000		217.4500		33	E	MS
Cobalt	59	38.7400		45.3650		17	E	MS
Iron		234552.8300		231254.2500		1		P
Lead	208	30.3900		35.2850		16	E	MS
Lithium		219.8500		231.8500		5		P
Magnesium		54735.2500		57899.9000		6		P
Manganese		3118.9000		3313.2500		6		P
Molybdenum	98	2.3490		2.7310		16		MS
Nickel	60	58.1300		71.5000		23	E	MS
Phosphorus		5803.5100		5924.4000		2		P
Potassium		26666.4700		28187.2000		6		P
Selenium	78	0.6810	B	1.4500	U	100		MS
Silver	107	0.1817	B	0.3550	U	100		MS
Sodium		807.5600	B	603.6000	B	25		P
Strontium		225.5600		233.5000		4		P
Thallium	203	0.9809		1.0270	B	5		MS
Tin		27.6400	B	25.7500	B	7		P
Titanium		9404.2600		9397.9000		0		P
Vanadium	51	277.8000		363.2500		31	E	MS
Zinc	66	225.5000		271.6500		20		MS
Zirconium		83.3500		93.4000	B	12		P

NOTE: An E in column Q indicates the presence of a chemical or physical interference in the matrix when the % difference is greater than 10%. This applies only when (I) is greater than or equal to 50x MDL for ICP, 100x MDL for ICP-MS (6020), 50x MDL for ICP-MS (200.8), or 25x MDL for GFAA.

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry

CONCENTRATION QUALIFIERS:
U= Below MDL
B= Below LOQ

FLAGS:
E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

DE286 1454

SAMPLE DELIVERY GROUP

DX142

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Sep-2011	SL-030-SA7-SB-4.0-5.0	6418491	N	METHOD	1613B	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5	6418487	N	METHOD	1613B	III
23-Sep-2011	SL-073-SA7-SB-4.0-5.0	6418492	N	METHOD	1613B	III
23-Sep-2011	SL-181-SA7-SS-0.0-0.5	6418490	N	METHOD	1613B	III
23-Sep-2011	SL-076-SA7-SB-2.5-3.5	6418493	N	METHOD	1613B	III
23-Sep-2011	SL-152-SA7-SS-0.0-0.5	6418488	N	METHOD	1613B	III
23-Sep-2011	SL-153-SA7-SS-0.0-0.5	6418489	N	METHOD	1613B	III
23-Sep-2011	SL-069-SA7-SS-0.0-0.5	6418486	N	METHOD	1613B	III
23-Sep-2011	SL-028-SA7-SB-8.0-9.0	6418495	N	METHOD	1613B	III
23-Sep-2011	SL-028-SA7-SB-4.0-5.0	6418494	N	METHOD	1613B	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419507	N	METHOD	1613B	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419508	N	METHOD	1613B	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419514	N	METHOD	1613B	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419513	N	METHOD	1613B	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419515	N	METHOD	1613B	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419516	N	METHOD	1613B	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419517	N	METHOD	1613B	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419518	N	METHOD	1613B	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419509	N	METHOD	1613B	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419510	N	METHOD	1613B	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419511	MS	METHOD	1613B	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5MS	P419510R371128	MS	METHOD	1613B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DX142 Laboratory: LL

EDD Filename: PrepDX142_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-001-SA3-SS-0.0-0.5 *Collected:* 9/26/2011 7:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	2.15	JB	0.0216	MDL	4.82	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.135	JB	0.0563	MDL	4.82	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.183	J	0.0448	MDL	4.82	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.287	JQ	0.0378	MDL	4.82	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.534	JB	0.0433	MDL	4.82	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.215	JQ	0.0289	MDL	4.82	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.450	JBQ	0.0412	MDL	4.82	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.147	JQ	0.0455	MDL	4.82	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.142	JQ	0.0428	MDL	4.82	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.365	JBQ	0.0344	MDL	4.82	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.208	JBQ	0.0386	MDL	4.82	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0640	JQ	0.0488	MDL	0.964	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.186	JQ	0.0673	MDL	0.964	PQL	ng/Kg	J	Z
OCDF	5.56	JB	0.0765	MDL	9.64	PQL	ng/Kg	J	Z

Sample ID: SL-001-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 3:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	2.62	JB	0.0303	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.221	JB	0.0487	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.286	J	0.0527	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.260	J	0.0468	MDL	4.94	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HXCDD	0.734	JB	0.0514	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.419	J	0.0429	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.789	JB	0.0528	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.120	JQ	0.0494	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.246	JQ	0.0485	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	1.23	JB	0.0636	MDL	4.94	PQL	ng/Kg	J	Z, FD
2,3,4,6,7,8-HXCDF	0.314	JBQ	0.0438	MDL	4.94	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	1.31	JB	0.0628	MDL	4.94	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.510	J	0.105	MDL	0.987	PQL	ng/Kg	J	Z
OCDD	135	B	0.0709	MDL	9.87	PQL	ng/Kg	J	FD
OCDF	5.49	JB	0.0544	MDL	9.87	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX142 Laboratory: LL

EDD Filename: PrepDX142_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-002-SA3-SS-0.0-0.5 *Collected:* 9/26/2011 8:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	2.10	JB	0.0250	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.122	JBQ	0.0460	MDL	4.94	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.176	JQ	0.0513	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.465	J	0.0430	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.460	JB	0.0473	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.186	J	0.0361	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.312	JBQ	0.0404	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.176	JBQ	0.0459	MDL	4.94	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.244	JBQ	0.0400	MDL	4.94	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.236	JBQ	0.0461	MDL	4.94	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.242	J	0.0768	MDL	0.987	PQL	ng/Kg	J	Z
OCDF	6.98	JB	0.0582	MDL	9.87	PQL	ng/Kg	J	Z

Sample ID: SL-002-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 2:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.39	JB	0.0202	MDL	4.93	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.132	JB	0.0316	MDL	4.93	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.154	JQ	0.0398	MDL	4.93	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.480	JQ	0.0419	MDL	4.93	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.529	JB	0.0403	MDL	4.93	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.224	JQ	0.0371	MDL	4.93	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.655	JB	0.0401	MDL	4.93	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.459	JQ	0.0451	MDL	4.93	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.152	JQ	0.0435	MDL	4.93	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.473	JB	0.0492	MDL	4.93	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.401	JB	0.0396	MDL	4.93	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	1.09	JB	0.0492	MDL	4.93	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0574	JQ	0.0441	MDL	0.986	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.642	JQ	0.0987	MDL	0.986	PQL	ng/Kg	J	Z
OCDF	2.64	JB	0.0490	MDL	9.86	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX142 Laboratory: LL

EDD Filename: PrepDX142_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-026-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 10:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	6.83	JB	0.373	MDL	49.2	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	5.02	JB	0.315	MDL	49.2	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	4.10	JB	0.320	MDL	49.2	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	11.3	JB	0.498	MDL	49.2	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.485	JBQ	0.283	MDL	49.2	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	3.91	JB	0.433	MDL	49.2	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	3.86	J	0.406	MDL	49.2	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	3.87	JB	0.442	MDL	49.2	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	4.40	JB	0.379	MDL	49.2	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	9.93	JB	0.396	MDL	49.2	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	1.10	JC	0.791	MDL	9.85	PQL	ng/Kg	J	Z
OCDD	49.6	JB	0.406	MDL	98.5	PQL	ng/Kg	J	Z
OCDF	8.98	JB	0.436	MDL	98.5	PQL	ng/Kg	J	Z

Sample ID: SL-027-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 9:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	0.893	JBQ	0.153	MDL	4.87	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.597	JBQ	0.174	MDL	4.87	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.256	JQ	0.111	MDL	4.87	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.356	JBQ	0.154	MDL	4.87	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.249	JBQ	0.145	MDL	4.87	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.272	JQ	0.121	MDL	4.87	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.190	JBQ	0.0912	MDL	4.87	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.372	JBQ	0.100	MDL	4.87	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.427	JBQ	0.0845	MDL	4.87	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.108	JQ	0.0936	MDL	0.973	PQL	ng/Kg	J	Z
OCDF	2.01	JBQ	0.269	MDL	9.73	PQL	ng/Kg	J	Z

Sample ID: SL-028-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 10:50:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,7,8-TCDF	0.788	JC	0.0759	MDL	0.971	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX142 **Laboratory: LL**

EDD Filename: PrepDX142_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-028-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 10:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.78	JB	0.174	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.156	JBQ	0.127	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.301	JQ	0.0925	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.594	J	0.139	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.451	JBQ	0.0968	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.461	JQ	0.0888	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.320	JBQ	0.0916	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.109	JQ	0.0640	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.188	JQ	0.0524	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.179	JB	0.0744	MDL	4.85	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.470	JB	0.0551	MDL	4.85	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.855	JB	0.0688	MDL	4.85	PQL	ng/Kg	J	Z
OCDF	3.00	JB	0.224	MDL	9.71	PQL	ng/Kg	J	Z

Sample ID: SL-028-SA7-SB-4.0-5.0 *Collected:* 9/23/2011 2:18:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.228	JB	0.0400	MDL	5.41	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0918	JB	0.0114	MDL	5.41	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0596	JBQ	0.0298	MDL	5.41	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0552	JBQ	0.0244	MDL	5.41	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0433	JQ	0.0266	MDL	5.41	PQL	ng/Kg	J	Z
OCDD	0.604	JBQ	0.0314	MDL	10.8	PQL	ng/Kg	U	B
OCDF	0.122	JBQ	0.0882	MDL	10.8	PQL	ng/Kg	U	B

Sample ID: SL-028-SA7-SB-8.0-9.0 *Collected:* 9/23/2011 2:14:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.290	JBQ	0.0387	MDL	5.27	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.112	JBQ	0.0105	MDL	5.27	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0275	JBQ	0.0251	MDL	5.27	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0568	J	0.0219	MDL	5.27	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.0522	JBQ	0.0264	MDL	5.27	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0358	JQ	0.0171	MDL	5.27	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.0585	JBQ	0.0263	MDL	5.27	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX142 Laboratory: LL

EDD Filename: PrepDX142_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-028-SA7-SB-8.0-9.0 *Collected:* 9/23/2011 2:14:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HXCDF	0.0527	JQ	0.0249	MDL	5.27	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0688	JBQ	0.0194	MDL	5.27	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0665	JBQ	0.0194	MDL	5.27	PQL	ng/Kg	U	B
OCDD	0.722	JBQ	0.0268	MDL	10.5	PQL	ng/Kg	U	B
OCDF	0.285	JBQ	0.0798	MDL	10.5	PQL	ng/Kg	U	B

Sample ID: SL-029-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	1.51	JB	0.104	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.542	JB	0.0547	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.0913	JQ	0.0618	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.605	JQ	0.0552	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.121	JBQ	0.0635	MDL	4.99	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.336	JQ	0.0459	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.179	JBQ	0.0693	MDL	4.99	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.122	J	0.0617	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.629	JB	0.0466	MDL	4.99	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.202	JB	0.0497	MDL	4.99	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.655	JB	0.0464	MDL	4.99	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.166	J	0.0778	MDL	0.998	PQL	ng/Kg	J	Z
OCDF	1.09	JB	0.177	MDL	9.98	PQL	ng/Kg	J	Z

Sample ID: SL-030-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.49	JB	0.0870	MDL	5.05	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.797	JB	0.0429	MDL	5.05	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0979	JBQ	0.0742	MDL	5.05	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0932	JQ	0.0536	MDL	5.05	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.112	JQ	0.0362	MDL	5.05	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.133	JBQ	0.0507	MDL	5.05	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.111	JQ	0.0319	MDL	5.05	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.145	JBQ	0.0478	MDL	5.05	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0578	J	0.0415	MDL	5.05	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX142 **Laboratory: LL**

EDD Filename: PrepDX142_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-030-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8-PECDD	0.0762	JQ	0.0383	MDL	5.05	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0580	JBQ	0.0298	MDL	5.05	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.109	JBQ	0.0332	MDL	5.05	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0640	JQ	0.0555	MDL	1.01	PQL	ng/Kg	U	B
OCDF	1.79	JB	0.146	MDL	10.1	PQL	ng/Kg	J	Z

Sample ID: SL-030-SA7-SB-4.0-5.0 *Collected:* 9/23/2011 9:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.328	JB	0.0337	MDL	5.22	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.118	JBQ	0.0160	MDL	5.22	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0368	JB	0.0199	MDL	5.22	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.209	JBQ	0.0287	MDL	5.22	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0468	JBQ	0.0164	MDL	5.22	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.281	JBQ	0.0287	MDL	5.22	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.109	JQ	0.0218	MDL	5.22	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0310	JB	0.0215	MDL	5.22	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0341	JB	0.0172	MDL	5.22	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0443	JBQ	0.0222	MDL	5.22	PQL	ng/Kg	U	B
OCDD	1.19	JB	0.0261	MDL	10.4	PQL	ng/Kg	U	B
OCDF	0.185	JB	0.0484	MDL	10.4	PQL	ng/Kg	U	B

Sample ID: SL-031-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.42	JB	0.0237	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.145	JB	0.0440	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.173	J	0.0464	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.162	JQ	0.0391	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.504	JBQ	0.0472	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.170	J	0.0319	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.479	JBQ	0.0524	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.183	JQ	0.0396	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.294	JB	0.0436	MDL	5.18	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.176	JBQ	0.0344	MDL	5.18	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX142 **Laboratory:** LL

EDD Filename: PrepDX142_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-031-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 11:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,4,7,8-PECDF	0.239	JBQ	0.0448	MDL	5.18	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0792	JQ	0.0384	MDL	1.04	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.674	J	0.0808	MDL	1.04	PQL	ng/Kg	J	Z
OCDF	3.07	JB	0.0836	MDL	10.4	PQL	ng/Kg	J	Z

Sample ID: SL-069-SA7-SS-0.0-0.5 *Collected:* 9/23/2011 12:31:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	4.85	JB	0.0353	MDL	4.96	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	1.12	JB	0.0144	MDL	4.96	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.100	JB	0.0297	MDL	4.96	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.125	JQ	0.0388	MDL	4.96	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.136	JB	0.0273	MDL	4.96	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.360	JBQ	0.0383	MDL	4.96	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.120	JB	0.0230	MDL	4.96	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.335	JQ	0.0386	MDL	4.96	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0832	JBQ	0.0307	MDL	4.96	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.121	JQ	0.0338	MDL	4.96	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0683	JB	0.0197	MDL	4.96	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.126	JBQ	0.0251	MDL	4.96	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0670	JB	0.0210	MDL	4.96	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0883	JQ	0.0355	MDL	0.992	PQL	ng/Kg	J	Z
OCDF	2.30	JB	0.0411	MDL	9.92	PQL	ng/Kg	J	Z

Sample ID: SL-073-SA7-SB-4.0-5.0 *Collected:* 9/23/2011 10:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.408	JBQ	0.0363	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.176	JBQ	0.0133	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0517	JQ	0.0295	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.154	J	0.0254	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.172	JBQ	0.0299	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.109	J	0.0194	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.303	JBQ	0.0255	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.121	JQ	0.0323	MDL	5.14	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX142 Laboratory: LL

EDD Filename: PrepDX142_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-073-SA7-SB-4.0-5.0 *Collected:* 9/23/2011 10:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8-PECDD	0.139	J	0.0346	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.267	JB	0.0198	MDL	5.14	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0741	JBQ	0.0221	MDL	5.14	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.242	JBQ	0.0218	MDL	5.14	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.102	JQ	0.0412	MDL	1.03	PQL	ng/Kg	J	Z
OCDD	1.79	JB	0.0252	MDL	10.3	PQL	ng/Kg	J	Z
OCDF	0.292	JB	0.0747	MDL	10.3	PQL	ng/Kg	U	B

Sample ID: SL-076-SA7-SB-2.5-3.5 *Collected:* 9/23/2011 11:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.573	JB	0.0907	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.0487	J	0.0454	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	1.52	J	0.0642	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.443	JB	0.0445	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.269	J	0.0485	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.505	JB	0.0436	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.121	JQ	0.0841	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.112	JQ	0.0397	MDL	5.12	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.461	JB	0.0570	MDL	5.12	PQL	ng/Kg	J	Z

Sample ID: SL-089-SA7-SS-0.0-0.5 *Collected:* 9/23/2011 9:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	4.18	JB	0.0484	MDL	5.22	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.757	JB	0.0633	MDL	5.22	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.0778	JQ	0.0474	MDL	5.22	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.244	J	0.0567	MDL	5.22	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.641	JB	0.0472	MDL	5.22	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.187	J	0.0432	MDL	5.22	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.354	JB	0.0473	MDL	5.22	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0504	JQ	0.0306	MDL	5.22	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0483	JQ	0.0389	MDL	5.22	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0249	JBQ	0.0231	MDL	5.22	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.302	JB	0.0243	MDL	5.22	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX142 Laboratory: LL

EDD Filename: PrepDX142_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-089-SA7-SS-0.0-0.5 *Collected:* 9/23/2011 9:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,4,7,8-PECDF	0.163	JBQ	0.0250	MDL	5.22	PQL	ng/Kg	U	B

Sample ID: SL-152-SA7-SS-0.0-0.5 *Collected:* 9/23/2011 11:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	2.02	JB	0.0253	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.234	JB	0.0391	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.173	JQ	0.0558	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.301	JB	0.0409	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.559	JB	0.0559	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.177	JBQ	0.0357	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.434	JB	0.0526	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0851	JQ	0.0358	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.225	JB	0.0493	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.124	JB	0.0268	MDL	5.08	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.202	JB	0.0328	MDL	5.08	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.324	JBQ	0.0258	MDL	5.08	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0522	JB	0.0461	MDL	1.02	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.267	J	0.0484	MDL	1.02	PQL	ng/Kg	J	Z
OCDF	5.91	JB	0.0485	MDL	10.2	PQL	ng/Kg	J	Z

Sample ID: SL-153-SA7-SS-0.0-0.5 *Collected:* 9/23/2011 11:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.02	JB	0.0184	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0894	JBQ	0.0378	MDL	4.85	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.115	JQ	0.0378	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.186	JQ	0.0375	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.279	JB	0.0366	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0932	JQ	0.0267	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.198	JBQ	0.0340	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0320	J	0.0318	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0854	JQ	0.0322	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.143	JBQ	0.0211	MDL	4.85	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0908	JBQ	0.0245	MDL	4.85	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX142 Laboratory: LL

EDD Filename: PrepDX142_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-153-SA7-SS-0.0-0.5 *Collected:* 9/23/2011 11:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,4,7,8-PECDF	0.184	JB	0.0228	MDL	4.85	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0663	J	0.0406	MDL	0.970	PQL	ng/Kg	U	B
OCDF	2.88	JB	0.0651	MDL	9.70	PQL	ng/Kg	J	Z

Sample ID: SL-181-SA7-SS-0.0-0.5 *Collected:* 9/23/2011 10:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	2.02	JB	0.0286	MDL	4.88	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.230	JBQ	0.0476	MDL	4.88	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.250	JQ	0.0423	MDL	4.88	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.165	JB	0.0349	MDL	4.88	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.489	JB	0.0458	MDL	4.88	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.130	JB	0.0289	MDL	4.88	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.410	JB	0.0420	MDL	4.88	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0602	JQ	0.0359	MDL	4.88	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.147	JBQ	0.0423	MDL	4.88	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.168	JB	0.0294	MDL	4.88	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.147	JB	0.0226	MDL	4.88	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0709	JQ	0.0445	MDL	0.976	PQL	ng/Kg	J	Z
OCDF	6.52	JB	0.0478	MDL	9.76	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX142 **Laboratory: LL**

EDD Filename: PrepDX142_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
B	Method Blank Contamination
FD	Field Duplicate Precision
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DX142

Method Blank Outlier Report

Lab Reporting Batch ID: DX142 **Laboratory: LL**

EDD Filename: DX142_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK2780B370934	10/7/2011 9:34:00 AM	1,2,3,4,6,7,8-HPCDD 1,2,3,4,6,7,8-HPCDF 1,2,3,4,7,8,9-HPCDF 1,2,3,6,7,8-HXCDD 1,2,3,7,8,9-HXCDD 1,2,3,7,8-PECDF 2,3,4,6,7,8-HXCDF 2,3,4,7,8-PECDF OCDD OCDF	0.161 ng/Kg 0.0842 ng/Kg 0.0285 ng/Kg 0.0339 ng/Kg 0.0358 ng/Kg 0.0235 ng/Kg 0.0337 ng/Kg 0.0573 ng/Kg 0.328 ng/Kg 0.135 ng/Kg	SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-028-SA7-SB-4.0-5.0 SL-028-SA7-SB-8.0-9.0 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-073-SA7-SB-4.0-5.0 SL-076-SA7-SB-2.5-3.5 SL-089-SA7-SS-0.0-0.5 SL-153-SA7-SS-0.0-0.5
BLK2780B372114	10/12/2011 9:14:00 PM	2,3,7,8-TCDF	0.0143 ng/Kg	SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-028-SA7-SB-4.0-5.0 SL-028-SA7-SB-8.0-9.0 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-073-SA7-SB-4.0-5.0 SL-076-SA7-SB-2.5-3.5 SL-089-SA7-SS-0.0-0.5 SL-153-SA7-SS-0.0-0.5
BLK2800B372212	10/11/2011 10:12:00 PM	1,2,3,4,6,7,8-HPCDD 1,2,3,4,6,7,8-HPCDF 1,2,3,4,7,8,9-HPCDF 1,2,3,4,7,8-HXCDF 1,2,3,6,7,8-HXCDD 1,2,3,6,7,8-HXCDF 1,2,3,7,8,9-HXCDF 1,2,3,7,8-PECDF 2,3,4,6,7,8-HXCDF 2,3,4,7,8-PECDF OCDD OCDF	0.308 ng/Kg 0.210 ng/Kg 0.0464 ng/Kg 0.0739 ng/Kg 0.0498 ng/Kg 0.0577 ng/Kg 0.0378 ng/Kg 0.0197 ng/Kg 0.0899 ng/Kg 0.0656 ng/Kg 0.625 ng/Kg 0.226 ng/Kg	SL-069-SA7-SS-0.0-0.5
BLK2850B370732	10/15/2011 7:32:00 AM	1,2,3,4,6,7,8-HPCDD 1,2,3,4,6,7,8-HPCDF 1,2,3,4,7,8,9-HPCDF 1,2,3,4,7,8-HXCDF 1,2,3,6,7,8-HXCDD 1,2,3,6,7,8-HXCDF 1,2,3,7,8,9-HXCDD 1,2,3,7,8-PECDD 1,2,3,7,8-PECDF 2,3,4,6,7,8-HXCDF 2,3,4,7,8-PECDF 2,3,7,8-TCDD OCDD OCDF	0.227 ng/Kg 0.0966 ng/Kg 0.0371 ng/Kg 0.0401 ng/Kg 0.0270 ng/Kg 0.0225 ng/Kg 0.0287 ng/Kg 0.0433 ng/Kg 0.0611 ng/Kg 0.0261 ng/Kg 0.0852 ng/Kg 0.0501 ng/Kg 0.456 ng/Kg 0.217 ng/Kg	SL-026-SA5DS-SS-0.0-0.5 SL-030-SA7-SB-4.0-5.0 SL-152-SA7-SS-0.0-0.5 SL-181-SA7-SS-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-001-SA3-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.135 ng/Kg	0.135U ng/Kg
SL-001-SA3-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.208 ng/Kg	0.208U ng/Kg
SL-002-SA3-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.122 ng/Kg	0.122U ng/Kg

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Method Blank Outlier Report

Lab Reporting Batch ID: DX142 **Laboratory: LL**

EDD Filename: DX142_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-002-SA3-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.236 ng/Kg	0.236U ng/Kg
SL-002-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.132 ng/Kg	0.132U ng/Kg
SL-028-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.228 ng/Kg	0.228U ng/Kg
SL-028-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0918 ng/Kg	0.0918U ng/Kg
SL-028-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0596 ng/Kg	0.0596U ng/Kg
SL-028-SA7-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.0552 ng/Kg	0.0552U ng/Kg
SL-028-SA7-SB-4.0-5.0(RES)	OCDD	0.604 ng/Kg	0.604U ng/Kg
SL-028-SA7-SB-4.0-5.0(RES)	OCDF	0.122 ng/Kg	0.122U ng/Kg
SL-028-SA7-SB-8.0-9.0(RES)	1,2,3,4,6,7,8-HPCDD	0.290 ng/Kg	0.290U ng/Kg
SL-028-SA7-SB-8.0-9.0(RES)	1,2,3,4,6,7,8-HPCDF	0.112 ng/Kg	0.112U ng/Kg
SL-028-SA7-SB-8.0-9.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0275 ng/Kg	0.0275U ng/Kg
SL-028-SA7-SB-8.0-9.0(RES)	1,2,3,6,7,8-HXCDD	0.0522 ng/Kg	0.0522U ng/Kg
SL-028-SA7-SB-8.0-9.0(RES)	1,2,3,7,8,9-HXCDD	0.0585 ng/Kg	0.0585U ng/Kg
SL-028-SA7-SB-8.0-9.0(RES)	2,3,4,6,7,8-HXCDF	0.0688 ng/Kg	0.0688U ng/Kg
SL-028-SA7-SB-8.0-9.0(RES)	2,3,4,7,8-PECDF	0.0665 ng/Kg	0.0665U ng/Kg
SL-028-SA7-SB-8.0-9.0(RES)	OCDD	0.722 ng/Kg	0.722U ng/Kg
SL-028-SA7-SB-8.0-9.0(RES)	OCDF	0.285 ng/Kg	0.285U ng/Kg
SL-029-SA5DS-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDD	0.121 ng/Kg	0.121U ng/Kg
SL-029-SA5DS-SS-0.0-0.5(RES)	1,2,3,7,8,9-HXCDD	0.179 ng/Kg	0.179U ng/Kg
SL-030-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0979 ng/Kg	0.0979U ng/Kg
SL-030-SA5DS-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDD	0.133 ng/Kg	0.133U ng/Kg
SL-030-SA5DS-SS-0.0-0.5(RES)	1,2,3,7,8,9-HXCDD	0.145 ng/Kg	0.145U ng/Kg
SL-030-SA5DS-SS-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.0580 ng/Kg	0.0580U ng/Kg
SL-030-SA5DS-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.109 ng/Kg	0.109U ng/Kg
SL-030-SA5DS-SS-0.0-0.5(RES)	2,3,7,8-TCDF	0.0640 ng/Kg	0.0640U ng/Kg
SL-030-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.328 ng/Kg	0.328U ng/Kg
SL-030-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.118 ng/Kg	0.118U ng/Kg
SL-030-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0368 ng/Kg	0.0368U ng/Kg
SL-030-SA7-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0468 ng/Kg	0.0468U ng/Kg
SL-030-SA7-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0310 ng/Kg	0.0310U ng/Kg
SL-030-SA7-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0341 ng/Kg	0.0341U ng/Kg
SL-030-SA7-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0443 ng/Kg	0.0443U ng/Kg
SL-030-SA7-SB-4.0-5.0(RES)	OCDD	1.19 ng/Kg	1.19U ng/Kg
SL-030-SA7-SB-4.0-5.0(RES)	OCDF	0.185 ng/Kg	0.185U ng/Kg
SL-031-SA5DS-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.239 ng/Kg	0.239U ng/Kg
SL-069-SA7-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.100 ng/Kg	0.100U ng/Kg
SL-069-SA7-SS-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.136 ng/Kg	0.136U ng/Kg
SL-069-SA7-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.120 ng/Kg	0.120U ng/Kg
SL-069-SA7-SS-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.0832 ng/Kg	0.0832U ng/Kg
SL-069-SA7-SS-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.0683 ng/Kg	0.0683U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX142 **Laboratory: LL**

EDD Filename: DX142_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-069-SA7-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.126 ng/Kg	0.126U ng/Kg
SL-069-SA7-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.0670 ng/Kg	0.0670U ng/Kg
SL-073-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.408 ng/Kg	0.408U ng/Kg
SL-073-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.176 ng/Kg	0.176U ng/Kg
SL-073-SA7-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0741 ng/Kg	0.0741U ng/Kg
SL-073-SA7-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.242 ng/Kg	0.242U ng/Kg
SL-073-SA7-SB-4.0-5.0(RES)	OCDF	0.292 ng/Kg	0.292U ng/Kg
SL-089-SA7-SS-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.0249 ng/Kg	0.0249U ng/Kg
SL-089-SA7-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.163 ng/Kg	0.163U ng/Kg
SL-152-SA7-SS-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.124 ng/Kg	0.124U ng/Kg
SL-152-SA7-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.324 ng/Kg	0.324U ng/Kg
SL-152-SA7-SS-0.0-0.5(RES)	2,3,7,8-TCDD	0.0522 ng/Kg	0.0522U ng/Kg
SL-153-SA7-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0894 ng/Kg	0.0894U ng/Kg
SL-153-SA7-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.0908 ng/Kg	0.0908U ng/Kg
SL-153-SA7-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.184 ng/Kg	0.184U ng/Kg
SL-153-SA7-SS-0.0-0.5(RES)	2,3,7,8-TCDF	0.0663 ng/Kg	0.0663U ng/Kg
SL-181-SA7-SS-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.165 ng/Kg	0.165U ng/Kg
SL-181-SA7-SS-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.147 ng/Kg	0.147U ng/Kg
SL-181-SA7-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.147 ng/Kg	0.147U ng/Kg

Field Duplicate RPD Report

Lab Reporting Batch ID: DX142 | Laboratory: LL

EDD Filename: DX142_v1 | eQAPP Name: CDM_SSFL_110509

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-001-SA5DS-SS-0.0-0.5	DUP01-SA5DS-QC-092611			
MOISTURE	0.67	0.730000000	9		No Qualifiers Applied

Method: 1613B
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-001-SA5DS-SS-0.0-0.5	DUP01-SA5DS-QC-092611			
1,2,3,4,6,7,8-HPCDD	13.6	15.100000000	10	50.00	No Qualifiers Applied
1,2,3,4,6,7,8-HPCDF	2.62	2.430000000	8	50.00	
1,2,3,4,7,8,9-HPCDF	0.221	0.233000000	5	50.00	
1,2,3,4,7,8-HxCDD	0.286	0.295000000	3	50.00	
1,2,3,6,7,8-HXCDD	0.734	0.765000000	4	50.00	
1,2,3,6,7,8-HXCDF	0.419	0.347000000	19	50.00	
1,2,3,7,8,9-HXCDD	0.789	0.668000000	17	50.00	
1,2,3,7,8,9-HXCDF	0.120	0.117000000	3	50.00	
1,2,3,7,8-PECDD	0.246	0.159000000	43	50.00	
2,3,4,6,7,8-HXCDF	0.314	0.328000000	4	50.00	
2,3,4,7,8-PECDF	1.31	1.150000000	13	50.00	
2,3,7,8-TCDF	0.510	0.602000000	17	50.00	
OCDF	5.49	5.390000000	2	50.00	
1,2,3,4,7,8-HXCDF	0.260	0.466000000	57	50.00	J(all detects) UJ(all non-detects)
1,2,3,7,8-PECDF	1.23	0.644000000	63	50.00	
OCDD	135	230.000000000	52	50.00	

Reporting Limit Outliers

Lab Reporting Batch ID: DX142 | Laboratory: LL

EDD Filename: DX142_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA3-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	2.15	4.82	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	JB	0.135	4.82	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.183	4.82	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JQ	0.287	4.82	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.534	4.82	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JQ	0.215	4.82	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.450	4.82	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.147	4.82	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.142	4.82	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.365	4.82	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.208	4.82	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0640	0.964	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.186	0.964	PQL	ng/Kg	
	OCDF	JB	5.56	9.64	PQL	ng/Kg	
SL-001-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	2.62	4.94	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	JB	0.221	4.94	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.286	4.94	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.260	4.94	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.734	4.94	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	J	0.419	4.94	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.789	4.94	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.120	4.94	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.246	4.94	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	1.23	4.94	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.314	4.94	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	1.31	4.94	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.510	0.987	PQL	ng/Kg	
	OCDF	JB	5.49	9.87	PQL	ng/Kg	
SL-002-SA3-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	2.10	4.94	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	JBQ	0.122	4.94	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.176	4.94	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.465	4.94	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.460	4.94	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	J	0.186	4.94	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.312	4.94	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.176	4.94	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.244	4.94	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.236	4.94	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.242	0.987	PQL	ng/Kg	
	OCDF	JB	6.98	9.87	PQL	ng/Kg	
SL-002-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	1.39	4.93	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	JB	0.132	4.93	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.154	4.93	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JQ	0.480	4.93	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.529	4.93	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JQ	0.224	4.93	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.655	4.93	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.459	4.93	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.152	4.93	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.473	4.93	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.401	4.93	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	1.09	4.93	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0574	0.986	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.642	0.986	PQL	ng/Kg	
	OCDF	JB	2.64	9.86	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX142 **Laboratory: LL**

EDD Filename: DX142_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-026-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	6.83	49.2	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	5.02	49.2	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	4.10	49.2	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	11.3	49.2	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.485	49.2	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	3.91	49.2	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	J	3.86	49.2	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDF	JB	3.87	49.2	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	4.40	49.2	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	9.93	49.2	PQL	ng/Kg	
	2,3,7,8-TCDF	JC	1.10	9.85	PQL	ng/Kg	
	OCDD	JB	49.6	98.5	PQL	ng/Kg	
	OCDF	JB	8.98	98.5	PQL	ng/Kg	
SL-027-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JBQ	0.893	4.87	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.597	4.87	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JQ	0.256	4.87	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.356	4.87	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.249	4.87	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.272	4.87	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDF	JBQ	0.190	4.87	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.372	4.87	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.427	4.87	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.108	0.973	PQL	ng/Kg	
	OCDF	JBQ	2.01	9.73	PQL	ng/Kg	
SL-028-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	1.78	4.85	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.156	4.85	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.301	4.85	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.594	4.85	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.451	4.85	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JQ	0.461	4.85	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.320	4.85	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.109	4.85	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JQ	0.188	4.85	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.179	4.85	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.470	4.85	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.855	4.85	PQL	ng/Kg	
	2,3,7,8-TCDF	JC	0.788	0.971	PQL	ng/Kg	
	OCDF	JB	3.00	9.71	PQL	ng/Kg	
SL-028-SA7-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.228	5.41	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.0918	5.41	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0596	5.41	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0552	5.41	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JQ	0.0433	5.41	PQL	ng/Kg	
	OCDD	JBQ	0.604	10.8	PQL	ng/Kg	
	OCDF	JBQ	0.122	10.8	PQL	ng/Kg	
SL-028-SA7-SB-8.0-9.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.290	5.27	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.112	5.27	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0275	5.27	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.0568	5.27	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0522	5.27	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JQ	0.0358	5.27	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0585	5.27	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JQ	0.0527	5.27	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0688	5.27	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0665	5.27	PQL	ng/Kg	
	OCDD	JBQ	0.722	10.5	PQL	ng/Kg	
	OCDF	JBQ	0.285	10.5	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX142 **Laboratory: LL**

EDD Filename: DX142_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-029-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	1.51	4.99	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.542	4.99	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0913	4.99	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JQ	0.605	4.99	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.121	4.99	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JQ	0.336	4.99	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.179	4.99	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	J	0.122	4.99	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.629	4.99	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.202	4.99	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.655	4.99	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.166	0.998	PQL	ng/Kg	
	OCDF	JB	1.09	9.98	PQL	ng/Kg	
SL-030-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	3.49	5.05	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.797	5.05	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0979	5.05	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0932	5.05	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JQ	0.112	5.05	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.133	5.05	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JQ	0.111	5.05	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.145	5.05	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	J	0.0578	5.05	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0762	5.05	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0580	5.05	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.109	5.05	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0640	1.01	PQL	ng/Kg	
	OCDF	JB	1.79	10.1	PQL	ng/Kg	
SL-030-SA7-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.328	5.22	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.118	5.22	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0368	5.22	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.209	5.22	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0468	5.22	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.281	5.22	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.109	5.22	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDF	JB	0.0310	5.22	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0341	5.22	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0443	5.22	PQL	ng/Kg	
	OCDD	JB	1.19	10.4	PQL	ng/Kg	
	OCDF	JB	0.185	10.4	PQL	ng/Kg	
SL-031-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	1.42	5.18	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.145	5.18	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.173	5.18	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JQ	0.162	5.18	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.504	5.18	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	J	0.170	5.18	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.479	5.18	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.183	5.18	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDF	JB	0.294	5.18	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.176	5.18	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.239	5.18	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0792	1.04	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.674	1.04	PQL	ng/Kg	
	OCDF	JB	3.07	10.4	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX142 **Laboratory: LL**

EDD Filename: DX142_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-069-SA7-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	4.85	4.96	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	1.12	4.96	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.100	4.96	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.125	4.96	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.136	4.96	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.360	4.96	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.120	4.96	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	0.335	4.96	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0832	4.96	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.121	4.96	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0683	4.96	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.126	4.96	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0670	4.96	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0883	0.992	PQL	ng/Kg	
	OCDF	JB	2.30	9.92	PQL	ng/Kg	
SL-073-SA7-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.408	5.14	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.176	5.14	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0517	5.14	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.154	5.14	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.172	5.14	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	J	0.109	5.14	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.303	5.14	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.121	5.14	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	0.139	5.14	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.267	5.14	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0741	5.14	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.242	5.14	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.102	1.03	PQL	ng/Kg	
	OCDD	JB	1.79	10.3	PQL	ng/Kg	
	OCDF	JB	0.292	10.3	PQL	ng/Kg	
SL-076-SA7-SB-2.5-3.5	1,2,3,4,7,8,9-HPCDF	JB	0.573	5.12	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.0487	5.12	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	1.52	5.12	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.443	5.12	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	J	0.269	5.12	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDD	JB	0.505	5.12	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.121	5.12	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.112	5.12	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.461	5.12	PQL	ng/Kg	
SL-089-SA7-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	4.18	5.22	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.757	5.22	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0778	5.22	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.244	5.22	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.641	5.22	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	J	0.187	5.22	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.354	5.22	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JQ	0.0504	5.22	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0483	5.22	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0249	5.22	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.302	5.22	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.163	5.22	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX142 | Laboratory: LL

EDD Filename: DX142_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-152-SA7-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	2.02	5.08	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.234	5.08	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.173	5.08	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.301	5.08	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.559	5.08	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.177	5.08	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.434	5.08	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.0851	5.08	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JB	0.225	5.08	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.124	5.08	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.202	5.08	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.324	5.08	PQL	ng/Kg	
	2,3,7,8-TCDD	JB	0.0522	1.02	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.267	1.02	PQL	ng/Kg	
	OCDF	JB	5.91	10.2	PQL	ng/Kg	
SL-153-SA7-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	1.02	4.85	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0894	4.85	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.115	4.85	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JQ	0.186	4.85	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.279	4.85	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JQ	0.0932	4.85	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.198	4.85	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	J	0.0320	4.85	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0854	4.85	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.143	4.85	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0908	4.85	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.184	4.85	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0663	0.970	PQL	ng/Kg	
	OCDF	JB	2.88	9.70	PQL	ng/Kg	
SL-181-SA7-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	2.02	4.88	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.230	4.88	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.250	4.88	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.165	4.88	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.489	4.88	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.130	4.88	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.410	4.88	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JQ	0.0602	4.88	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.147	4.88	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.168	4.88	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.147	4.88	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0709	0.976	PQL	ng/Kg	
	OCDF	JB	6.52	9.76	PQL	ng/Kg	

SAMPLE DELIVERY GROUP

DX143

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-Sep-2011	SL-102-SA7-SB-4.0-5.0	6419541	N	METHOD	1613B	IV
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MS	6419542	MS	METHOD	1613B	IV
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MSD	6419543	MSD	METHOD	1613B	IV
26-Sep-2011	SL-102-SA7-SB-9.0-10.0	6419544	N	METHOD	1613B	IV
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419539	N	METHOD	1613B	IV
26-Sep-2011	SL-109-SA7-SB-4.0-5.0	6419545	N	METHOD	1613B	IV
26-Sep-2011	SL-109-SA7-SB-9.0-10.0	6419546	N	METHOD	1613B	IV
26-Sep-2011	DUP01-SA5DS-QC-092611	6419540	FD	METHOD	1613B	IV
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421332	N	METHOD	1613B	IV
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421331	N	METHOD	1613B	IV
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421330	N	METHOD	1613B	IV
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421326	N	METHOD	1613B	IV
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421327	N	METHOD	1613B	IV
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421325	N	METHOD	1613B	IV
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421328	N	METHOD	1613B	IV
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421324	N	METHOD	1613B	IV
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421323	N	METHOD	1613B	IV
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421329	N	METHOD	1613B	IV
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421333	N	METHOD	1613B	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DX143 Laboratory: LL

EDD Filename: PrepDX143_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: DUP01-SA5DS-QC-092611 *Collected:* 9/26/2011 3:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	2.43	JB	0.0255	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.233	JB	0.0426	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.295	J	0.0457	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.466	JB	0.0395	MDL	4.94	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HXCDD	0.765	JB	0.0426	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.347	JB	0.0360	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.668	JB	0.0454	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.117	JB	0.0456	MDL	4.94	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.159	J	0.0383	MDL	4.94	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.644	JB	0.0549	MDL	4.94	PQL	ng/Kg	J	Z, FD
2,3,4,6,7,8-HXCDF	0.328	JB	0.0388	MDL	4.94	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	1.15	JB	0.0558	MDL	4.94	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.602	J	0.0808	MDL	0.989	PQL	ng/Kg	J	Z
OCDD	230	B	0.0865	MDL	9.89	PQL	ng/Kg	J	FD
OCDF	5.39	JB	0.0562	MDL	9.89	PQL	ng/Kg	J	Z

Sample ID: SL-004-SA5DS-SS-0.0-0.5 *Collected:* 9/27/2011 2:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.37	JB	0.0215	MDL	4.86	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.151	JBQ	0.0337	MDL	4.86	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.224	J	0.0423	MDL	4.86	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.345	JB	0.0339	MDL	4.86	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.749	JB	0.0444	MDL	4.86	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.350	JB	0.0288	MDL	4.86	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.802	JB	0.0428	MDL	4.86	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.259	JB	0.0315	MDL	4.86	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.412	J	0.0379	MDL	4.86	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.371	JB	0.0369	MDL	4.86	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.373	JB	0.0287	MDL	4.86	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.944	JB	0.0358	MDL	4.86	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.148	J	0.0336	MDL	0.972	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.339	JQ	0.0713	MDL	0.972	PQL	ng/Kg	J	Z
OCDF	3.08	JB	0.0512	MDL	9.72	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX143 Laboratory: LL

EDD Filename: PrepDX143_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-005-SA5DS-SS-0.0-0.5 *Collected:* 9/27/2011 1:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	4.04	JB	0.0339	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.908	JB	0.0213	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0925	JB	0.0343	MDL	4.97	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.193	JQ	0.0410	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.312	JB	0.0339	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.747	JB	0.0402	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.277	JB	0.0294	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.957	JB	0.0443	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.298	JBQ	0.0346	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.369	J	0.0371	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.429	JB	0.0308	MDL	4.97	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.240	JB	0.0299	MDL	4.97	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.691	JB	0.0293	MDL	4.97	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.115	J	0.0376	MDL	0.994	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.133	J	0.0510	MDL	0.994	PQL	ng/Kg	J	Z
OCDF	1.59	JB	0.0533	MDL	9.94	PQL	ng/Kg	J	Z

Sample ID: SL-006-SA5DS-SS-0.0-0.5 *Collected:* 9/27/2011 11:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.12	JB	0.0223	MDL	5.07	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0934	JBQ	0.0389	MDL	5.07	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.155	JQ	0.0445	MDL	5.07	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.472	JB	0.0401	MDL	5.07	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	1.09	JBQ	0.0454	MDL	5.07	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.273	JBQ	0.0336	MDL	5.07	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	1.30	JB	0.0458	MDL	5.07	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.464	JB	0.0382	MDL	5.07	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.287	J	0.0405	MDL	5.07	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.305	JB	0.0396	MDL	5.07	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.277	JB	0.0330	MDL	5.07	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.815	JB	0.0397	MDL	5.07	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0400	JQ	0.0374	MDL	1.01	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.337	J	0.0713	MDL	1.01	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX143 Laboratory: LL

EDD Filename: PrepDX143_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-006-SA5DS-SS-0.0-0.5 *Collected:* 9/27/2011 11:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
OCDF	2.23	JB	0.0509	MDL	10.1	PQL	ng/Kg	J	Z

Sample ID: SL-019-SA5DS-SS-0.0-0.5 *Collected:* 9/27/2011 10:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.67	JB	0.0376	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.730	JB	0.0243	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0584	JBQ	0.0427	MDL	5.02	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0878	JQ	0.0384	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.364	JB	0.0347	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.633	JB	0.0374	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.142	JB	0.0293	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.929	JB	0.0381	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.504	JB	0.0354	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.115	JQ	0.0387	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.231	JB	0.0379	MDL	5.02	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.168	JB	0.0307	MDL	5.02	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.146	JBQ	0.0392	MDL	5.02	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.176	JQ	0.0660	MDL	1.00	PQL	ng/Kg	J	Z
OCDF	1.48	JB	0.0536	MDL	10.0	PQL	ng/Kg	J	Z

Sample ID: SL-020-SA5DS-SS-0.0-0.5 *Collected:* 9/27/2011 11:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.14	JB	0.0195	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.116	JBQ	0.0343	MDL	5.02	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0998	J	0.0417	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.166	JBQ	0.0374	MDL	5.02	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.777	JB	0.0403	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.212	JBQ	0.0319	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.958	JB	0.0371	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.330	JBQ	0.0382	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.144	JQ	0.0361	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.187	JBQ	0.0338	MDL	5.02	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.233	JB	0.0328	MDL	5.02	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX143 **Laboratory: LL**

EDD Filename: PrepDX143_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-020-SA5DS-SS-0.0-0.5 *Collected:* 9/27/2011 11:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,4,7,8-PECDF	0.0954	JBQ	0.0337	MDL	5.02	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.218	J	0.0619	MDL	1.00	PQL	ng/Kg	J	Z
OCDF	2.43	JB	0.0534	MDL	10.0	PQL	ng/Kg	J	Z

Sample ID: SL-021-SA5DS-SS-0.0-0.5 *Collected:* 9/27/2011 11:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.37	JB	0.0300	MDL	4.93	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.537	JB	0.0171	MDL	4.93	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0356	JBQ	0.0310	MDL	4.93	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0334	JQ	0.0328	MDL	4.93	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0833	JBQ	0.0297	MDL	4.93	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.622	JB	0.0326	MDL	4.93	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.109	JBQ	0.0239	MDL	4.93	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.785	JB	0.0285	MDL	4.93	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.400	JB	0.0275	MDL	4.93	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.113	JQ	0.0289	MDL	4.93	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.148	JBQ	0.0217	MDL	4.93	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.138	JB	0.0225	MDL	4.93	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.260	JBQ	0.0251	MDL	4.93	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0407	JQ	0.0308	MDL	0.987	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.143	JQ	0.0393	MDL	0.987	PQL	ng/Kg	J	Z
OCDF	1.11	JB	0.0554	MDL	9.87	PQL	ng/Kg	J	Z

Sample ID: SL-022-SA5DS-SS-0.0-0.5 *Collected:* 9/27/2011 2:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.30	JB	0.0203	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.189	JBQ	0.0282	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.126	JQ	0.0370	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.323	JB	0.0380	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.721	JBQ	0.0367	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.208	JBQ	0.0345	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.947	JB	0.0351	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.413	JB	0.0316	MDL	4.99	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX143 **Laboratory: LL**

EDD Filename: PrepDX143_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-022-SA5DS-SS-0.0-0.5 *Collected:* 9/27/2011 2:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8-PECDD	0.134	J	0.0351	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.169	JBQ	0.0285	MDL	4.99	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.194	JB	0.0263	MDL	4.99	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.172	JB	0.0295	MDL	4.99	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.247	JQ	0.0488	MDL	0.997	PQL	ng/Kg	J	Z
OCDF	2.47	JB	0.0465	MDL	9.97	PQL	ng/Kg	J	Z

Sample ID: SL-023-SA5DS-SS-0.0-0.5 *Collected:* 9/27/2011 9:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.76	JB	0.0385	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.770	JBQ	0.0194	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.101	JBQ	0.0332	MDL	4.97	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.100	JQ	0.0405	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.255	JBQ	0.0348	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.462	JBQ	0.0384	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.167	JBQ	0.0300	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.524	JB	0.0405	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.295	JBQ	0.0336	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.130	J	0.0376	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.248	JB	0.0331	MDL	4.97	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.189	JB	0.0296	MDL	4.97	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.228	JB	0.0331	MDL	4.97	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.193	JQ	0.0549	MDL	0.994	PQL	ng/Kg	J	Z
OCDF	1.73	JB	0.0547	MDL	9.94	PQL	ng/Kg	J	Z

Sample ID: SL-024-SA5DS-SS-0.0-0.5 *Collected:* 9/27/2011 8:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.77	JB	0.0395	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.824	JB	0.0213	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0556	JBQ	0.0441	MDL	5.04	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.134	JQ	0.0442	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.112	JB	0.0359	MDL	5.04	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.313	JBQ	0.0423	MDL	5.04	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX143 **Laboratory: LL**

EDD Filename: PrepDX143_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-024-SA5DS-SS-0.0-0.5 *Collected:* 9/27/2011 8:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,6,7,8-HXCDF	0.123	JBQ	0.0292	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.347	JB	0.0450	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0920	JB	0.0371	MDL	5.04	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.169	JQ	0.0384	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.227	JBQ	0.0336	MDL	5.04	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.126	JB	0.0316	MDL	5.04	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.338	JBQ	0.0355	MDL	5.04	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.223	JQ	0.0578	MDL	1.01	PQL	ng/Kg	J	Z
OCDF	2.18	JB	0.0675	MDL	10.1	PQL	ng/Kg	J	Z

Sample ID: SL-025-SA5DS-SS-0.0-0.5 *Collected:* 9/27/2011 7:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.66	JB	0.0367	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.771	JB	0.0182	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.120	JBQ	0.0358	MDL	4.92	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.142	J	0.0380	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.589	JB	0.0411	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.359	JB	0.0379	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.234	JB	0.0353	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.355	JB	0.0336	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.219	JBQ	0.0438	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.227	JQ	0.0369	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.329	JBQ	0.0382	MDL	4.92	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.201	JBQ	0.0357	MDL	4.92	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.773	JBQ	0.0405	MDL	4.92	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0797	JQ	0.0362	MDL	0.985	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.458	J	0.0671	MDL	0.985	PQL	ng/Kg	J	Z
OCDF	1.39	JB	0.0502	MDL	9.85	PQL	ng/Kg	J	Z

Sample ID: SL-032-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 12:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.95	JB	0.0390	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.611	JB	0.0162	MDL	5.09	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX143 Laboratory: LL

EDD Filename: PrepDX143_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-032-SA5DS-SS-0.0-0.5 *Collected:* 9/26/2011 12:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.0771	JBQ	0.0276	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0950	JQ	0.0364	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.326	JB	0.0277	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.125	JBQ	0.0369	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0945	JBQ	0.0247	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.122	JBQ	0.0356	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0596	JBQ	0.0283	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0740	JQ	0.0316	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.325	JB	0.0302	MDL	5.09	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.117	JB	0.0256	MDL	5.09	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0971	JB	0.0313	MDL	5.09	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.197	J	0.0561	MDL	1.02	PQL	ng/Kg	J	Z
OCDF	1.27	JB	0.0488	MDL	10.2	PQL	ng/Kg	J	Z

Sample ID: SL-038-SA5DS-SS-0.0-0.5 *Collected:* 9/27/2011 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.06	JB	0.0327	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.685	JB	0.0159	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0646	JBQ	0.0343	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0632	JQ	0.0336	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.297	JBQ	0.0290	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.408	JBQ	0.0331	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.132	JB	0.0238	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.633	JB	0.0317	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.414	JBQ	0.0341	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.161	J	0.0321	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.281	JBQ	0.0245	MDL	5.09	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.157	JBQ	0.0258	MDL	5.09	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.237	JB	0.0262	MDL	5.09	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0367	JQ	0.0312	MDL	1.02	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0661	JQ	0.0428	MDL	1.02	PQL	ng/Kg	J	Z
OCDF	1.98	JB	0.0528	MDL	10.2	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX143 Laboratory: LL

EDD Filename: PrepDX143_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-102-SA7-SB-4.0-5.0 *Collected:* 9/26/2011 9:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.550	JB	0.0323	MDL	5.14	PQL	ng/Kg	UJ	B, FD
1,2,3,4,6,7,8-HPCDF	0.172	JBQ	0.0155	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0585	JBQ	0.0266	MDL	5.14	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8-HXCDF	0.0345	JBQ	0.0200	MDL	5.14	PQL	ng/Kg	UJ	B, FD
1,2,3,6,7,8-HXCDD	0.0891	JBQ	0.0260	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0504	JBQ	0.0172	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.142	JBQ	0.0260	MDL	5.14	PQL	ng/Kg	J	Z, FD
1,2,3,7,8,9-HXCDF	0.0948	JBQ	0.0180	MDL	5.14	PQL	ng/Kg	UJ	B, FD
2,3,4,6,7,8-HXCDF	0.0273	JB	0.0159	MDL	5.14	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0395	JB	0.0149	MDL	5.14	PQL	ng/Kg	U	B
OCDD	5.11	JB	0.0252	MDL	10.3	PQL	ng/Kg	J	Z, FD
OCDF	0.267	JB	0.0485	MDL	10.3	PQL	ng/Kg	U	B

Sample ID: SL-102-SA7-SB-9.0-10.0 *Collected:* 9/26/2011 9:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	1.88	JB	0.0510	MDL	5.62	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.287	JB	0.0194	MDL	5.62	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0559	JBQ	0.0369	MDL	5.62	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0805	JBQ	0.0362	MDL	5.62	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.230	JBQ	0.0401	MDL	5.62	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0628	JBQ	0.0296	MDL	5.62	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.310	JBQ	0.0393	MDL	5.62	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.529	JB	0.0346	MDL	5.62	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0561	JQ	0.0378	MDL	5.62	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.103	JBQ	0.0202	MDL	5.62	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0869	JB	0.0288	MDL	5.62	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0644	JBQ	0.0216	MDL	5.62	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0642	JQ	0.0444	MDL	1.12	PQL	ng/Kg	J	Z
OCDF	0.805	JB	0.0869	MDL	11.2	PQL	ng/Kg	J	Z

Sample ID: SL-109-SA7-SB-4.0-5.0 *Collected:* 9/26/2011 12:13:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.473	JBQ	0.0343	MDL	5.17	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX143 **Laboratory: LL**

EDD Filename: PrepDX143_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-109-SA7-SB-4.0-5.0 *Collected:* 9/26/2011 12:13:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	0.198	JB	0.0125	MDL	5.17	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0329	JQ	0.0287	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0437	JBQ	0.0206	MDL	5.17	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0871	JB	0.0274	MDL	5.17	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0340	JBQ	0.0171	MDL	5.17	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.116	JBQ	0.0256	MDL	5.17	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0231	JBQ	0.0217	MDL	5.17	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0286	JBQ	0.0158	MDL	5.17	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0459	JB	0.0188	MDL	5.17	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0895	JBQ	0.0160	MDL	5.17	PQL	ng/Kg	U	B
OCDD	5.61	JB	0.0343	MDL	10.3	PQL	ng/Kg	J	Z
OCDF	0.247	JB	0.0516	MDL	10.3	PQL	ng/Kg	U	B

Sample ID: SL-109-SA7-SB-9.0-10.0 *Collected:* 9/26/2011 12:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	1.13	JB	0.0451	MDL	5.41	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.195	JBQ	0.0184	MDL	5.41	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0530	JBQ	0.0325	MDL	5.41	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0923	J	0.0369	MDL	5.41	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.177	JBQ	0.0384	MDL	5.41	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.173	JBQ	0.0371	MDL	5.41	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.134	JBQ	0.0292	MDL	5.41	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.393	JB	0.0349	MDL	5.41	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.339	JB	0.0318	MDL	5.41	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.265	JQ	0.0402	MDL	5.41	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.279	JB	0.0205	MDL	5.41	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.135	JBQ	0.0258	MDL	5.41	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.231	JB	0.0207	MDL	5.41	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0993	JQ	0.0420	MDL	1.08	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0681	JQ	0.0383	MDL	1.08	PQL	ng/Kg	J	Z
OCDD	10.1	JB	0.0497	MDL	10.8	PQL	ng/Kg	J	Z
OCDF	0.305	JB	0.0766	MDL	10.8	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX143

Laboratory: LL

EDD Filename: PrepDX143_v1

eQAPP Name: CDM_SSFL_110509

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX143 **Laboratory: LL**

EDD Filename: PrepDX143_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
B	Method Blank Contamination
FD	Field Duplicate Precision
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DX143

Method Blank Outlier Report

Lab Reporting Batch ID: DX143 **Laboratory: LL**

EDD Filename: DX143_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK2790B372300	10/8/2011 11:00:00 PM	1,2,3,4,6,7,8-HPCDD	0.197 ng/Kg	DUP01-SA5DS-QC-092611
		1,2,3,4,6,7,8-HPCDF	0.123 ng/Kg	SL-004-SA5DS-SS-0.0-0.5
		1,2,3,4,7,8,9-HPCDF	0.0342 ng/Kg	SL-005-SA5DS-SS-0.0-0.5
		1,2,3,4,7,8-HXCDF	0.0470 ng/Kg	SL-006-SA5DS-SS-0.0-0.5
		1,2,3,6,7,8-HXCDD	0.0361 ng/Kg	SL-019-SA5DS-SS-0.0-0.5
		1,2,3,6,7,8-HXCDF	0.0229 ng/Kg	SL-020-SA5DS-SS-0.0-0.5
		1,2,3,7,8,9-HXCDD	0.0277 ng/Kg	SL-021-SA5DS-SS-0.0-0.5
		1,2,3,7,8,9-HXCDF	0.0335 ng/Kg	SL-022-SA5DS-SS-0.0-0.5
		1,2,3,7,8-PECDF	0.0199 ng/Kg	SL-023-SA5DS-SS-0.0-0.5
		2,3,4,6,7,8-HXCDF	0.0501 ng/Kg	SL-024-SA5DS-SS-0.0-0.5
		2,3,4,7,8-PECDF	0.0351 ng/Kg	SL-025-SA5DS-SS-0.0-0.5
		OCDD	0.280 ng/Kg	SL-032-SA5DS-SS-0.0-0.5
		OCDF	0.108 ng/Kg	SL-038-SA5DS-SS-0.0-0.5
				SL-102-SA7-SB-4.0-5.0
				SL-102-SA7-SB-9.0-10.0
				SL-109-SA7-SB-4.0-5.0
				SL-109-SA7-SB-9.0-10.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP01-SA5DS-QC-092611(RES)	1,2,3,7,8,9-HXCDF	0.117 ng/Kg	0.117U ng/Kg
SL-004-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.151 ng/Kg	0.151U ng/Kg
SL-005-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0925 ng/Kg	0.0925U ng/Kg
SL-005-SA5DS-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.240 ng/Kg	0.240U ng/Kg
SL-006-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0934 ng/Kg	0.0934U ng/Kg
SL-019-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0584 ng/Kg	0.0584U ng/Kg
SL-019-SA5DS-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.168 ng/Kg	0.168U ng/Kg
SL-019-SA5DS-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.146 ng/Kg	0.146U ng/Kg
SL-020-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.116 ng/Kg	0.116U ng/Kg
SL-020-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.166 ng/Kg	0.166U ng/Kg
SL-020-SA5DS-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.233 ng/Kg	0.233U ng/Kg
SL-020-SA5DS-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.0954 ng/Kg	0.0954U ng/Kg
SL-021-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,6,7,8-HPCDF	0.537 ng/Kg	0.537U ng/Kg
SL-021-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0356 ng/Kg	0.0356U ng/Kg
SL-021-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.0833 ng/Kg	0.0833U ng/Kg
SL-021-SA5DS-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.109 ng/Kg	0.109U ng/Kg
SL-021-SA5DS-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.138 ng/Kg	0.138U ng/Kg
SL-022-SA5DS-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.194 ng/Kg	0.194U ng/Kg
SL-022-SA5DS-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.172 ng/Kg	0.172U ng/Kg
SL-023-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.101 ng/Kg	0.101U ng/Kg
SL-023-SA5DS-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.189 ng/Kg	0.189U ng/Kg
SL-024-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0556 ng/Kg	0.0556U ng/Kg
SL-024-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.112 ng/Kg	0.112U ng/Kg
SL-024-SA5DS-SS-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.0920 ng/Kg	0.0920U ng/Kg
SL-024-SA5DS-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.126 ng/Kg	0.126U ng/Kg
SL-025-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.120 ng/Kg	0.120U ng/Kg
SL-025-SA5DS-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.201 ng/Kg	0.201U ng/Kg
SL-032-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,6,7,8-HPCDF	0.611 ng/Kg	0.611U ng/Kg
SL-032-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0771 ng/Kg	0.0771U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX143 Laboratory: LL

EDD Filename: DX143_v1 eQAPP Name: CDM_SSFL_110509

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-032-SA5DS-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDD	0.125 ng/Kg	0.125U ng/Kg
SL-032-SA5DS-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.0945 ng/Kg	0.0945U ng/Kg
SL-032-SA5DS-SS-0.0-0.5(RES)	1,2,3,7,8,9-HXCDD	0.122 ng/Kg	0.122U ng/Kg
SL-032-SA5DS-SS-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.0596 ng/Kg	0.0596U ng/Kg
SL-032-SA5DS-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.117 ng/Kg	0.117U ng/Kg
SL-032-SA5DS-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.0971 ng/Kg	0.0971U ng/Kg
SL-038-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0646 ng/Kg	0.0646U ng/Kg
SL-038-SA5DS-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.157 ng/Kg	0.157U ng/Kg
SL-102-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.550 ng/Kg	0.550U ng/Kg
SL-102-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.172 ng/Kg	0.172U ng/Kg
SL-102-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,6,9-HPCDF	0.0585 ng/Kg	0.0585U ng/Kg
SL-102-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0345 ng/Kg	0.0345U ng/Kg
SL-102-SA7-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.0891 ng/Kg	0.0891U ng/Kg
SL-102-SA7-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0504 ng/Kg	0.0504U ng/Kg
SL-102-SA7-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0948 ng/Kg	0.0948U ng/Kg
SL-102-SA7-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0273 ng/Kg	0.0273U ng/Kg
SL-102-SA7-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0395 ng/Kg	0.0395U ng/Kg
SL-102-SA7-SB-4.0-5.0(RES)	OCDF	0.267 ng/Kg	0.267U ng/Kg
SL-102-SA7-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.287 ng/Kg	0.287U ng/Kg
SL-102-SA7-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0559 ng/Kg	0.0559U ng/Kg
SL-102-SA7-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.0805 ng/Kg	0.0805U ng/Kg
SL-102-SA7-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.0628 ng/Kg	0.0628U ng/Kg
SL-102-SA7-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.0869 ng/Kg	0.0869U ng/Kg
SL-102-SA7-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.0644 ng/Kg	0.0644U ng/Kg
SL-109-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.473 ng/Kg	0.473U ng/Kg
SL-109-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.198 ng/Kg	0.198U ng/Kg
SL-109-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0437 ng/Kg	0.0437U ng/Kg
SL-109-SA7-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.0871 ng/Kg	0.0871U ng/Kg
SL-109-SA7-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0340 ng/Kg	0.0340U ng/Kg
SL-109-SA7-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.116 ng/Kg	0.116U ng/Kg
SL-109-SA7-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0231 ng/Kg	0.0231U ng/Kg
SL-109-SA7-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0286 ng/Kg	0.0286U ng/Kg
SL-109-SA7-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0459 ng/Kg	0.0459U ng/Kg
SL-109-SA7-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0895 ng/Kg	0.0895U ng/Kg
SL-109-SA7-SB-4.0-5.0(RES)	OCDF	0.247 ng/Kg	0.247U ng/Kg
SL-109-SA7-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.195 ng/Kg	0.195U ng/Kg
SL-109-SA7-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0530 ng/Kg	0.0530U ng/Kg
SL-109-SA7-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.177 ng/Kg	0.177U ng/Kg
SL-109-SA7-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDD	0.173 ng/Kg	0.173U ng/Kg
SL-109-SA7-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.135 ng/Kg	0.135U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX143 **Laboratory: LL**

EDD Filename: DX143_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-109-SA7-SB-9.0-10.0(RES)	OCDF	0.305 ng/Kg	0.305U ng/Kg

Field Duplicate RPD Report

Lab Reporting Batch ID: DX143 **Laboratory: LL**

EDD Filename: DX143_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-102-SA7-SB-4.0-5.0	DUP007-SA7-QC-092611			
MOISTURE	4.6	5.100000000	10		No Qualifiers Applied

Method: 1613B
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-102-SA7-SB-4.0-5.0	DUP007-SA7-QC-092611			
1,2,3,4,6,7,8-HPCDF	0.172	0.122000000	34	50.00	No Qualifiers Applied
1,2,3,6,7,8-HXCDD	0.0891	0.078300000	13	50.00	
1,2,3,6,7,8-HXCDF	0.0504	0.060600000	18	50.00	
2,3,4,6,7,8-HXCDF	0.0273	0.034600000	24	50.00	
2,3,4,7,8-PECDF	0.0395	0.047900000	19	50.00	
OCDF	0.267	0.196000000	31	50.00	
1,2,3,4,6,7,8-HPCDD	0.550	0.292000000	61	50.00	J(all detects) UJ(all non-detects)
1,2,3,4,7,8,9-HPCDF	0.0585	0.028300000	70	50.00	
1,2,3,4,7,8-HXCDF	0.0345	0.071000000	69	50.00	
1,2,3,7,8,9-HXCDD	0.142	5.200000000 U	200	50.00	
1,2,3,7,8,9-HXCDF	0.0948	0.056200000	51	50.00	
OCDD	5.11	2.390000000	73	50.00	

Reporting Limit Outliers

Lab Reporting Batch ID: DX143 | Laboratory: LL

EDD Filename: DX143_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA5DS-QC-092611	1,2,3,4,6,7,8-HPCDF	JB	2.43	4.94	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	JB	0.233	4.94	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.295	4.94	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.466	4.94	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.765	4.94	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.347	4.94	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.668	4.94	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.117	4.94	PQL	ng/Kg	
	1,2,3,7,8-PECDD	J	0.159	4.94	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.644	4.94	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.328	4.94	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	1.15	4.94	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.602	0.989	PQL	ng/Kg	
	OCDF	JB	5.39	9.89	PQL	ng/Kg	
SL-004-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	1.37	4.86	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	JBQ	0.151	4.86	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.224	4.86	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.345	4.86	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.749	4.86	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.350	4.86	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.802	4.86	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.259	4.86	PQL	ng/Kg	
	1,2,3,7,8-PECDD	J	0.412	4.86	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.371	4.86	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.373	4.86	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.944	4.86	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.148	0.972	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.339	0.972	PQL	ng/Kg	
	OCDF	JB	3.08	9.72	PQL	ng/Kg	
SL-005-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	4.04	4.97	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.908	4.97	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0925	4.97	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.193	4.97	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.312	4.97	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.747	4.97	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.277	4.97	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.957	4.97	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.298	4.97	PQL	ng/Kg	
	1,2,3,7,8-PECDD	J	0.369	4.97	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.429	4.97	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.240	4.97	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.691	4.97	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.115	0.994	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.133	0.994	PQL	ng/Kg	
	OCDF	JB	1.59	9.94	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX143 **Laboratory:** LL

EDD Filename: DX143_v1 **eQAPP Name:** CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-006-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	1.12	5.07	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0934	5.07	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.155	5.07	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.472	5.07	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	1.09	5.07	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.273	5.07	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	1.30	5.07	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.464	5.07	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	0.287	5.07	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.305	5.07	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.277	5.07	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.815	5.07	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0400	1.01	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.337	1.01	PQL	ng/Kg	
	OCDF	JB	2.23	10.1	PQL	ng/Kg	
SL-019-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	3.67	5.02	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.730	5.02	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0584	5.02	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0878	5.02	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.364	5.02	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.633	5.02	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.142	5.02	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.929	5.02	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.504	5.02	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.115	5.02	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.231	5.02	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.168	5.02	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.146	5.02	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.176	1.00	PQL	ng/Kg	
	OCDF	JB	1.48	10.0	PQL	ng/Kg	
SL-020-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	1.14	5.02	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.116	5.02	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.0998	5.02	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.166	5.02	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.777	5.02	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.212	5.02	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.958	5.02	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.330	5.02	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JQ	0.144	5.02	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.187	5.02	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.233	5.02	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0954	5.02	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.218	1.00	PQL	ng/Kg	
	OCDF	JB	2.43	10.0	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX143 **Laboratory: LL**

EDD Filename: DX143_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-021-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	2.37	4.93	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.537	4.93	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0356	4.93	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0334	4.93	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0833	4.93	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.622	4.93	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.109	4.93	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.785	4.93	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.400	4.93	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JQ	0.113	4.93	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.148	4.93	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.138	4.93	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.260	4.93	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0407	0.987	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.143	0.987	PQL	ng/Kg	
	OCDF	JB	1.11	9.87	PQL	ng/Kg	
SL-022-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	1.30	4.99	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.189	4.99	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.126	4.99	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.323	4.99	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.721	4.99	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.208	4.99	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.947	4.99	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.413	4.99	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	0.134	4.99	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.169	4.99	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.194	4.99	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.172	4.99	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.247	0.997	PQL	ng/Kg	
	OCDF	JB	2.47	9.97	PQL	ng/Kg	
SL-023-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	3.76	4.97	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.770	4.97	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.101	4.97	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.100	4.97	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.255	4.97	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.462	4.97	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.167	4.97	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.524	4.97	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.295	4.97	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	0.130	4.97	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.248	4.97	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.189	4.97	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.228	4.97	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.193	0.994	PQL	ng/Kg	
	OCDF	JB	1.73	9.94	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX143 | Laboratory: LL

EDD Filename: DX143_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-024-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	3.77	5.04	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.824	5.04	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0556	5.04	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.134	5.04	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.112	5.04	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.313	5.04	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.123	5.04	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.347	5.04	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.0920	5.04	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.169	5.04	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.227	5.04	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.126	5.04	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.338	5.04	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.223	1.01	PQL	ng/Kg	
	OCDF	JB	2.18	10.1	PQL	ng/Kg	
SL-025-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	3.66	4.92	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.771	4.92	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.120	4.92	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.142	4.92	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.589	4.92	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.359	4.92	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.234	4.92	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.355	4.92	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.219	4.92	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.227	4.92	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.329	4.92	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.201	4.92	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.773	4.92	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0797	0.985	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.458	0.985	PQL	ng/Kg	
	OCDF	JB	1.39	9.85	PQL	ng/Kg	
SL-032-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	2.95	5.09	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.611	5.09	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0771	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0950	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.326	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.125	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0945	5.09	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.122	5.09	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0596	5.09	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0740	5.09	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.325	5.09	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.117	5.09	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0971	5.09	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.197	1.02	PQL	ng/Kg	
	OCDF	JB	1.27	10.2	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX143 Laboratory: LL

EDD Filename: DX143_v1 eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-038-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	2.06	5.09	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.685	5.09	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0646	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0632	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.297	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.408	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.132	5.09	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.633	5.09	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.414	5.09	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	0.161	5.09	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.281	5.09	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.157	5.09	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.237	5.09	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0367	1.02	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0661	1.02	PQL	ng/Kg	
	OCDF	JB	1.98	10.2	PQL	ng/Kg	
SL-102-SA7-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.550	5.14	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.172	5.14	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0585	5.14	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0345	5.14	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0891	5.14	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0504	5.14	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.142	5.14	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0948	5.14	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0273	5.14	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0395	5.14	PQL	ng/Kg	
	OCDD	JB	5.11	10.3	PQL	ng/Kg	
	OCDF	JB	0.267	10.3	PQL	ng/Kg	
SL-102-SA7-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	1.88	5.62	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.287	5.62	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0559	5.62	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0805	5.62	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.230	5.62	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0628	5.62	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.310	5.62	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.529	5.62	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JQ	0.0561	5.62	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.103	5.62	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0869	5.62	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0644	5.62	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0642	1.12	PQL	ng/Kg	
	OCDF	JB	0.805	11.2	PQL	ng/Kg	
SL-109-SA7-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.473	5.17	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.198	5.17	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0329	5.17	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0437	5.17	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0871	5.17	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0340	5.17	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.116	5.17	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0231	5.17	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0286	5.17	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0459	5.17	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0895	5.17	PQL	ng/Kg	
	OCDD	JB	5.61	10.3	PQL	ng/Kg	
	OCDF	JB	0.247	10.3	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX143 **Laboratory:** LL

EDD Filename: DX143_v1 **eQAPP Name:** CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-109-SA7-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	1.13	5.41	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.195	5.41	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0530	5.41	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.0923	5.41	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.177	5.41	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.173	5.41	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.134	5.41	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.393	5.41	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.339	5.41	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JQ	0.265	5.41	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.279	5.41	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.135	5.41	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.231	5.41	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0993	1.08	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0681	1.08	PQL	ng/Kg	
	OCDD	JB	10.1	10.8	PQL	ng/Kg	
	OCDF	JB	0.305	10.8	PQL	ng/Kg	

Enclosure II

Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	September 26 through September 27, 2011
LDC Report Date:	January 20, 2012
Matrix:	Soil
Parameters:	Dioxins/Dibenzofurans
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DX143

Sample Identification

SL-032-SA5DS-SS-0.0-0.5
DUP01-SA5DS-QC-092611
SL-102-SA7-SB-4.0-5.0
SL-102-SA7-SB-9.0-10.0
SL-109-SA7-SB-4.0-5.0
SL-109-SA7-SB-9.0-10.0
SL-004-SA5DS-SS-0.0-0.5
SL-005-SA5DS-SS-0.0-0.5
SL-006-SA5DS-SS-0.0-0.5
SL-019-SA5DS-SS-0.0-0.5
SL-020-SA5DS-SS-0.0-0.5
SL-021-SA5DS-SS-0.0-0.5
SL-022-SA5DS-SS-0.0-0.5
SL-023-SA5DS-SS-0.0-0.5
SL-024-SA5DS-SS-0.0-0.5
SL-025-SA5DS-SS-0.0-0.5
SL-038-SA5DS-SS-0.0-0.5
SL-102-SA7-SB-4.0-5.0MS
SL-102-SA7-SB-4.0-5.0MSD

Introduction

This data review covers 19 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 1613B for Polychlorinated Dioxins/Dibenzofurans.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and the USEPA Contract Laboratory Program National Functional Guidelines for Polychlorinated Dioxins/Dibenzofurans Data Review (September 2005).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. HRGC/HRMS Instrument Performance Check

Instrument performance was checked at the required daily frequency.

The chromatographic resolution between 2,3,7,8-TCDD and the peaks representing any other unlabeled TCDD isomers was resolved with a valley of less than or equal to 25%.

PFK and static resolving power were within validation criteria.

III. Initial Calibration

A five point initial calibration was performed as required by the method.

Percent relative standard deviations (%RSD) were less than or equal to 20.0% for unlabeled compounds and less than or equal to 35.0% for labeled compounds.

The ion abundance ratios for all PCDDs and PCDFs were within validation criteria.

The minimum S/N ratio was greater than or equal to 10 for each unlabeled compound and labeled compound.

IV. Routine Calibration (Continuing)

Routine calibration was performed at the required frequencies.

All of the routine calibration percent differences (%D) between the initial calibration RRF and the routine calibration RRF were within QC limits.

The ion abundance ratios for all PCDDs and PCDFs were within validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated dioxin/dibenzofuran contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Extraction Date	Compound	Concentration	Associated Samples
Blank279002	10/6/11	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD OCDF	0.0199 ng/Kg 0.0351 ng/Kg 0.0470 ng/Kg 0.0229 ng/Kg 0.0501 ng/Kg 0.0361 ng/Kg 0.0277 ng/Kg 0.0335 ng/Kg 0.123 ng/Kg 0.197 ng/Kg 0.0342 ng/Kg 0.280 ng/Kg 0.108 ng/Kg	All samples in SDG DX143

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-032-SA5DS-SS-0.0-0.5	2,3,4,7,8-PeCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF	0.0971 ng/Kg 0.0945 ng/Kg 0.117 ng/Kg 0.125 ng/Kg 0.122 ng/Kg 0.0596 ng/Kg 0.611 ng/Kg 0.0771 ng/Kg	0.0971U ng/Kg 0.0945U ng/Kg 0.117U ng/Kg 0.125U ng/Kg 0.122U ng/Kg 0.0596U ng/Kg 0.611U ng/Kg 0.0771U ng/Kg
DUP01-SA5DS-QC-092611	1,2,3,7,8,9-HxCDF	0.117 ng/Kg	0.117U ng/Kg
SL-102-SA7-SB-4.0-5.0	2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDF	0.0395 ng/Kg 0.0345 ng/Kg 0.0504 ng/Kg 0.0273 ng/Kg 0.0891 ng/Kg 0.0948 ng/Kg 0.172 ng/Kg 0.550 ng/Kg 0.0585 ng/Kg 0.267 ng/Kg	0.0395U ng/Kg 0.0345U ng/Kg 0.0504U ng/Kg 0.0273U ng/Kg 0.0891U ng/Kg 0.0948U ng/Kg 0.172U ng/Kg 0.550U ng/Kg 0.0585U ng/Kg 0.267U ng/Kg
SL-102-SA7-SB-9.0-10.0	2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF	0.0644 ng/Kg 0.0805 ng/Kg 0.0628 ng/Kg 0.0869 ng/Kg 0.287 ng/Kg 0.0559 ng/Kg	0.0644U ng/Kg 0.0805U ng/Kg 0.0628U ng/Kg 0.0869U ng/Kg 0.287U ng/Kg 0.0559U ng/Kg

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-109-SA7-SB-4.0-5.0	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD OCDF	0.0286 ng/Kg 0.0895 ng/Kg 0.0437 ng/Kg 0.0340 ng/Kg 0.0459 ng/Kg 0.0871 ng/Kg 0.116 ng/Kg 0.0231 ng/Kg 0.198 ng/Kg 0.473 ng/Kg 0.247 ng/Kg	0.0286U ng/Kg 0.0895U ng/Kg 0.0437U ng/Kg 0.0340U ng/Kg 0.0459U ng/Kg 0.0871U ng/Kg 0.116U ng/Kg 0.0231U ng/Kg 0.198U ng/Kg 0.473U ng/Kg 0.247U ng/Kg
SL-109-SA7-SB-9.0-10.0	1,2,3,4,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	0.177 ng/Kg 0.135 ng/Kg 0.173 ng/Kg 0.195 ng/Kg 0.0530 ng/Kg 0.305 ng/Kg	0.177U ng/Kg 0.135U ng/Kg 0.173U ng/Kg 0.195U ng/Kg 0.0530U ng/Kg 0.305U ng/Kg
SL-004-SA5DS-SS-0.0-0.5	1,2,3,4,7,8,9-HpCDF	0.151 ng/Kg	0.151U ng/Kg
SL-005-SA5DS-SS-0.0-0.5	2,3,4,6,7,8-HxCDF 1,2,3,4,7,8,9-HpCDF	0.240 ng/Kg 0.0925 ng/Kg	0.240U ng/Kg 0.0925U ng/Kg
SL-006-SA5DS-SS-0.0-0.5	1,2,3,4,7,8,9-HpCDF	0.0934 ng/Kg	0.0934U ng/Kg
SL-019-SA5DS-SS-0.0-0.5	2,3,4,7,8-PeCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8,9-HpCDF	0.146 ng/Kg 0.168 ng/Kg 0.0584 ng/Kg	0.146U ng/Kg 0.168U ng/Kg 0.0584U ng/Kg
SL-020-SA5DS-SS-0.0-0.5	2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8,9-HpCDF	0.0954 ng/Kg 0.166 ng/Kg 0.233 ng/Kg 0.116 ng/Kg	0.0954U ng/Kg 0.166U ng/Kg 0.233U ng/Kg 0.116U ng/Kg
SL-021-SA5DS-SS-0.0-0.5	1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF	0.0833 ng/Kg 0.109 ng/Kg 0.138 ng/Kg 0.537 ng/Kg 0.0356* ng/Kg	0.0833U ng/Kg 0.109U ng/Kg 0.138U ng/Kg 0.537U ng/Kg 0.0356U ng/Kg
SL-022-SA5DS-SS-0.0-0.5	2,3,4,7,8-PeCDF 2,3,4,6,7,8-HxCDF	0.172 ng/Kg 0.194 ng/Kg	0.172U ng/Kg 0.194U ng/Kg
SL-023-SA5DS-SS-0.0-0.5	2,3,4,6,7,8-HxCDF 1,2,3,4,7,8,9-HpCDF	0.189 ng/Kg 0.101 ng/Kg	0.189U ng/Kg 0.0101U ng/Kg
SL-024-SA5DS-SS-0.0-0.5	1,2,3,4,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 1,2,3,4,7,8,9-HpCDF	0.112 ng/Kg 0.126 ng/Kg 0.0920 ng/Kg 0.0.0556 ng/Kg	0.112U ng/Kg 0.126U ng/Kg 0.0920U ng/Kg 0.0.0556U ng/Kg
SL-025-SA5DS-SS-0.0-0.5	1,2,3,4,7,8,9-HpCDF	0.120 ng/Kg	0.120U ng/Kg

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-038-SA5DS-SS-0.0-0.5	2,3,4,6,7,8-HxCDF 1,2,3,4,7,8,9-HpCDF	0.157 ng/Kg 0.0646 ng/Kg	0.157U ng/Kg 0.0646U ng/Kg

No field blanks were identified in this SDG.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. The percent recoveries (%R) were within the QC limits.

VIII. Regional Quality Assurance and Quality Control

Not applicable.

IX. Internal Standards

All internal standard recoveries were within QC limits.

X. Target Compound Identifications

All target compound identifications were within validation criteria.

XI. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DX143	All compounds reported below the RL.	J (all detects)	A

XII. System Performance

The system performance was acceptable.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

Samples DUP01-SA5DS-QC-092611 and SL-001-SA5DS-SS-0.0-0.5 (from SDG DX142) and samples SL-102-SA7-SB-4.0-5.0 and DUP007-SA7-QC-092611 (from SDG DX144) were identified as field duplicates. No polychlorinated dioxins/dibenzofurans were detected in any of the samples with the following exceptions:

Compound	Concentration (ng/Kg)		RPD (Limits)	Flags	A or P
	DUP01-SA5DS-QC-092611	SL-001-SA5DS-SS-0.0-0.5			
1,2,3,7,8-PeCDD	0.159	0.246*	43 (≤50)	-	-
1,2,3,4,7,8-HxCDD	0.295	0.286	3 (≤50)	-	-
1,2,3,6,7,8-HxCDD	0.765	0.734	4 (≤50)	-	-
1,2,3,7,8,9-HxCDD	0.668	0.789	17 (≤50)	-	-
1,2,3,4,6,7,8-HpCDD	15.1	13.6	10 (≤50)	-	-
OCDD	230	135	52 (≤50)	J (all detects)	A
2,3,7,8-TCDF	0.602	0.510	17 (≤50)	-	-
1,2,3,7,8-PeCDF	0.644	1.23	63 (≤50)	J (all detects)	A
2,3,4,7,8-PeCDF	1.15	1.31	13 (≤50)	-	-
1,2,3,4,7,8-HxCDF	0.466	0.260	57 (≤50)	J (all detects)	A
1,2,3,6,7,8-HxCDF	0.347	0.419	19 (≤50)	-	-
1,2,3,7,8,9-HxCDF	0.117	0.120*	3 (≤50)	-	-
2,3,4,6,7,8-HxCDF	0.328	0.314*	4 (≤50)	-	-
1,2,3,4,6,7,8-HpCDF	2.43	2.62	8 (≤50)	-	-
1,2,3,4,7,8,9-HpCDF	0.233	0.221	5 (≤50)	-	-
OCDF	5.39	5.49	2 (≤50)	-	-

Compound	Concentration (ng/Kg)		RPD (Limits)	Flags	A or P
	SL-102-SA7-SB-4.0-5.0	DUP007-SA7-QC-092611			
1,2,3,4,6,7,8-HpCDF	0.172	0.122	34 (≤50)	-	-
1,2,3,6,7,8-HxCDD	0.0891	0.0783	13 (≤50)	-	-
1,2,3,6,7,8-HxCDF	0.0504	0.0606	18 (≤50)	-	-
2,3,4,6,7,8-HxCDF	0.0273	0.0346	24 (≤50)	-	-
2,3,4,7,8-PeCDF	0.0395	0.0479	19 (≤50)	-	-
OCDF	0.267	0.196	31 (≤50)	-	-
1,2,3,4,6,7,8-HpCDD	0.550	0.292	61(≤50)	J (all detects)	A
1,2,3,4,7,8,9-HpCDF	0.0585	0.0283	70 (≤50)	J (all detects)	A
1,2,3,4,7,8-HxCDF	0.0345	0.071	69 (≤50)	J (all detects)	A
1,2,3,7,8,9-HxCDD	0.142	5.20 U	200 (≤50)	J (all detects) UJ (all non-detects)	A
1,2,3,7,8,9-HxCDF	0.0948	0.0562	51 (≤50)	J (all detects)	A
OCDD	5.11	2.39	73 (≤50)	J (all detects)	A

Santa Susana Field Laboratory
Dioxins/Dibenzofurans - Data Qualification Summary - SDG DX143

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DX143	SL-032-SA5DS-SS-0.0-0.5 DUP01-SA5DS-QC-092611 SL-102-SA7-SB-4.0-5.0 SL-102-SA7-SB-9.0-10.0 SL-109-SA7-SB-4.0-5.0 SL-109-SA7-SB-9.0-10.0 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
DX143	SL-001-SA5DS-SS-0.0-0.5 DUP01-SA5DS-QC-092611	OCDD 1,2,3,7,8-PeCDF 1,2,3,4,7,8-HxCDF	J (all detects)	A	Field duplicates (RPD) (FD)
DX143	SL-102-SA7-SB-4.0-5.0 ~~DUP007-SA7-QC-092611~~	1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF 1,2,3,4,7,8-HxCDF 1,2,3,7,8,9-HxCDF OCDD	J (all detects)	A	Field duplicates (RPD) (FD)
DX143	SL-102-SA7-SB-4.0-5.0 ~~DUP007-SA7-QC-092611~~	1,2,3,7,8,9-HxCDD	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Dioxins/Dibenzofurans - Laboratory Blank Data Qualification Summary - SDG DX143

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
DX143	SL-032-SA5DS-SS-0.0-0.5	2,3,4,7,8-PeCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF	0.0971U ng/Kg 0.0945U ng/Kg 0.117U ng/Kg 0.125U ng/Kg 0.122U ng/Kg 0.0596U ng/Kg 0.611U ng/Kg 0.0771U ng/Kg	A	B
DX143	DUP01-SA5DS-QC-092611	1,2,3,7,8,9-HxCDF	0.117U ng/Kg	A	B

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
DX143	SL-022-SA5DS-SS-0.0-0.5	2,3,4,7,8-PeCDF 2,3,4,6,7,8-HxCDF	0.172U ng/Kg 0.194U ng/Kg	A	B
DX143	SL-023-SA5DS-SS-0.0-0.5	2,3,4,6,7,8-HxCDF 1,2,3,4,7,8,9-HpCDF	0.189U ng/Kg 0.0101U ng/Kg	A	B
DX143	SL-024-SA5DS-SS-0.0-0.5	1,2,3,4,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 1,2,3,4,7,8,9-HpCDF	0.112U ng/Kg 0.126U ng/Kg 0.0920U ng/Kg 0.0.0556U ng/Kg	A	B
DX143	SL-025-SA5DS-SS-0.0-0.5	1,2,3,4,7,8,9-HpCDF	0.120U ng/Kg	A	B
DX143	SL-038-SA5DS-SS-0.0-0.5	2,3,4,6,7,8-HxCDF 1,2,3,4,7,8,9-HpCDF	0.157U ng/Kg 0.0646U ng/Kg	A	B

Santa Susana Field Laboratory
Dioxins/Dibenzofurans - Field Blank Data Qualification Summary - SDG DX143

No Sample Data Qualified in this SDG

LDC #: 26922D21 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/11/12
SDG #: DX143 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: FZ
2nd Reviewer:

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 9/26/11 – 9/27/11
II.	HRGC/HRMS Instrument performance check	A	
III.	Initial calibration	A	% RSD ≤ 20/35
IV.	Routine calibration/~~ICV~~	A	QC limit
V.	Blanks	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	OPR
VIII.	Regional quality assurance and quality control	N	
IX.	Internal standards	A	QC limit
X.	Target compound identifications	A	
XI.	Compound quantitation and CRQLs	A	
XII.	System performance	A	
XIII.	Overall assessment of data	A	
XIV.	Field duplicates	SW	D = 2, (SL-001-SA5DS-SS-0.0-0.5 and 3, DUP007-SA7-QC-092611 (SDG DX143) SDG DX142)
XV.	Field blanks	N	

Note: A = Acceptable ND = No compounds detected D = Duplicate
N = Not provided/applicable R = Rinsate TB = Trip blank
SW = See worksheet FB = Field blank EB = Equipment blank

Validated Samples: Soil

1	SL-032-SA5DS-SS-0.0-0.5	11	SL-020-SA5DS-SS-0.0-0.5	21	Blank 279002	31	
2	DUP01-SA5DS-QC-092611	12	SL-021-SA5DS-SS-0.0-0.5	22		32	
3	SL-102-SA7-SB-4.0-5.0	13	SL-022-SA5DS-SS-0.0-0.5	23		33	
4	SL-102-SA7-SB-9.0-10.0	14	SL-023-SA5DS-SS-0.0-0.5	24		34	
5	SL-109-SA7-SB-4.0-5.0	15	SL-024-SA5DS-SS-0.0-0.5	25		35	
6	SL-109-SA7-SB-9.0-10.0	16	SL-025-SA5DS-SS-0.0-0.5	26		36	
7	SL-004-SA5DS-SS-0.0-0.5	17	SL-038-SA5DS-SS-0.0-0.5	27		37	
8	SL-005-SA5DS-SS-0.0-0.5	18	SL-102-SA7-SB-4.0-5.0MS	28		38	
9	SL-006-SA5DS-SS-0.0-0.5	19	SL-102-SA7-SB-4.0-5.0MSD	29		39	
10	SL-019-SA5DS-SS-0.0-0.5	20		30		40	

Notes:

LDC #: 26922D21

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Method: Dioxins/Dibenzofurans (EPA SW 846 Method 1613B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Was PFK exact mass 380.9760 verified?	✓			
Were the retention time windows established for all homologues?	✓			
Was the chromatographic resolution between 2,3,7,8-TCDD and peaks representing any other unlabeled TCDD isomers ≤ 25% ?	✓			
Is the static resolving power at least 10,000 (10% valley definition)?	✓			
Was the mass resolution adequately check with PFK?	✓			
Was the presence of 1,2,8,9-TCDD and 1,3,4,6,8-PeCDF verified?	✓			
III. Initial calibration				
Was the initial calibration performed at 5 concentration levels?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20% for unlabeled compounds and ≤ 35% for labeled compounds ?	✓			
Did all calibration standards meet the Ion Abundance Ratio criteria?	✓			
Was the signal to noise ratio for each target compound ≥ 2.5 and for each recovery and internal standard ≥ 10?	✓			
IV. Continuing calibration				
Was a routine calibration performed at the beginning and end of each 12 hour period?	✓			
Were all the concentrations for the unlabeled compounds and labeled compounds within the QC limits (Method 1613B, Table 6)?	✓			
Did all routine calibration standards meet the Ion Abundance Ratio criteria?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank performed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet?	✓			
VI. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			

LDC #: 26922D21

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
VIII. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
IX. Internal standards				
Were internal standard recoveries within the 25-150% criteria?	✓			
Was the minimum S/N ratio of all internal standard peaks > 10?	✓			
X. Target compound identification				
For 2,3,7,8 substituted congeners with associated labeled standards, were the retention times of the two quantitation peaks within -1 to 3 sec. of the RT of the labeled standard?	✓			
For 2,3,7,8 substituted congeners without associated labeled standards, were the relative retention times of the two quantitation peaks within 0.005 time units of the RRT measured in the routine calibration?	✓			
For non-2,3,7,8 substituted congeners, were the retention times of the two quantitation peaks within RT established in the performance check solution?	✓			
Did compound spectra contain all characteristic ions listed in the table attached?	✓			
Was the Ion Abundance Ratio for the two quantitation ions within criteria?	✓			
Was the signal to noise ratio for each target compound and labeled standard ≥ 2.5?	✓			
Does the maximum intensity of each specified characteristic ion coincide within ± 2 seconds (includes labeled standards)?	✓			
For PCDF identification, was any signal (S/N ≥ 2.5, at ± seconds RT) detected in the corresponding PCDPE channel?		✓		
Was an acceptable lock mass recorded and monitored?	✓			
XI. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.	✓			
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

VALIDATION FINDINGS WORKSHEET

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

A. 2,3,7,8-TCDD	F. 1,2,3,4,6,7,8-HpCDD	K. 1,2,3,4,7,8-HxCDF	P. 1,2,3,4,7,8,9-HpCDF	U. Total HpCDD
B. 1,2,3,7,8-PeCDD	G. OCDD	L. 1,2,3,6,7,8-HxCDF	Q. OCDF	V. Total TCDF
C. 1,2,3,4,7,8-HxCDD	H. 2,3,7,8-TCDF	M. 2,3,4,6,7,8-HxCDF	R. Total TCDD	W. Total PeCDF
D. 1,2,3,6,7,8-HxCDD	I. 1,2,3,7,8-PeCDF	N. 1,2,3,7,8,9-HxCDF	S. Total PeCDD	X. Total HxCDF
E. 1,2,3,7,8,9-HxCDD	J. 2,3,4,7,8-PeCDF	O. 1,2,3,4,6,7,8-HpCDF	T. Total HxCDD	Y. Total HpCDF

Notes:

LDC #: 26922D21

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were all samples associated with a method blank?

Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed? *EMPC

Y N N/A Was the method blank contaminated?

Blank extraction date: 10/06/11 **Blank analysis date:** 10/08/11 **Associated samples:** ALL

Conc. units: ng/Kg

Compound	Blank ID	Sample Identification								
	Blank279002	5X	1	2	3	4	5	6	7	8
I	0.0199*	0.0995					0.0286*U			
J	0.0351*	0.1755	0.0971U		0.0395U	0.0644*U	0.0895*U			
K	0.0470*	0.235			0.0345*U	0.0805*U	0.0437*U	0.177*U		
L	0.0229*	0.1145	0.0945*U		0.0504*U	0.0628*U	0.0340*U			
M	0.0501	0.2505	0.117U		0.0273U	0.0869U	0.0459U	0.135*U		0.240U
D	0.0361*	0.1805	0.125*U		0.0891*U		0.0871U	0.173*U		
E	0.0277*	0.1385	0.122*U				0.116*U			
N	0.0335*	0.1675	0.0596*U	0.117U	0.0948*U		0.0231*U			
O	0.123	0.615	0.611U		0.172*U	0.287U	0.198U	0.195*U		
F	0.197*	0.985			0.550U		0.473*U			
P	0.0342*	0.171	0.0771*U		0.0585*U	0.0559*U		0.0530*U	0.151*U	0.0925U
G	0.280	1.4								
Q	0.108	0.54			0.267U		0.247U	0.305U		

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the method blank concentration were qualified as not detected, "U".

LDC #: 26922D21

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: [signature]
2nd Reviewer: [signature]

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were all samples associated with a method blank?
Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed? *EMPC
Y N N/A Was the method blank contaminated?

Blank extraction date: 10/06/11 **Blank analysis date:** 10/08/11 **Associated samples:** ALL
Conc. units: ng/Kg

Compound	Blank ID	Sample Identification									
	Blank279002	5X	9	10	11	12	13	14	15	16	17
I	0.0199*	0.0995									
J	0.0351*	0.1755		0.146*U	0.0954*U		0.172U				
K	0.0470*	0.235			0.166*U	0.0833*U			0.112U		
L	0.0229*	0.1145				0.109*U					
M	0.0501	0.2505		0.168U	0.233U	0.138U	0.194U	0.189U	0.126U		0.157*U
D	0.0361*	0.1805									
E	0.0277*	0.1385									
N	0.0335*	0.1675							0.0920U		
O	0.123	0.615				0.537U					
F	0.197*	0.985									
P	0.0342*	0.171	0.0934*U	0.0584*U	0.116*U	0.0356*U		0.101*U	0.0556*U	0.120*U	0.0646*U
G	0.280	1.4									
Q	0.108	0.54									

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the method blank concentration were qualified as not detected, "U".

LDC#: 26922021 **VALIDATION FINDINGS WORKSHEET**
Field Duplicates

Page: 1 of 1
Reviewer: EJ
2nd Reviewer: A

METHOD: Method 1613B

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

(fd)

Compound	Concentration (ng/kg)		≤50 RPD	
	2	SL-001-SA5DS-SS-0.0-0.5		
B	0.159	0.246*	43	
C	0.295	0.286	3	
D	0.765	0.734	4	
E	0.668	0.789	17	
F	15.1	13.6	10	
G	230	135	52	J/Adj
H	0.602	0.510	17	
I	0.644	1.23	63	↓
J	1.15	1.31	13	
K	0.466	0.260	57	↓
L	0.347	0.419	19	
N	0.117	0.120*	3	
M	0.328	0.314*	4	
O	2.43	2.62	8	
P	0.233	0.221	5	
Q	5.39	5.49	2	

LDC#: 26922-D21

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: APL
2nd Reviewer: [signature]

METHOD: Method 1613B

(Y) N NA Were field duplicate pairs identified in this SDG? *EMPC

(Y) N NA Were target analytes detected in the field duplicate pairs? (FD)

Compound	Concentration (ng/kg)		<50 RPD	
	3	DUP007-SA7-QC-092611		
O	0.172	0.122	34	
D	0.0891	0.0783	13	
L	0.0504	0.0606	18	
M	0.0273	0.0346	24	
J	0.0395	0.0479	19	
Q	0.267	0.196	31	
F	0.550	0.292	61	J (all detects)
P	0.0585	0.0283	70	J (all detects)
K	0.0345	0.071	69	J (all detects)
E	0.142	5.20 U	200	J/UJ
N	0.0948	0.0562	51	J (all detects)
G	5.11	2.39	73	J (all detects)

LDC #: 26922D21

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [illegible]

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$ — A_x = Area of compound, A_{is} = Area of associated internal standard
average RRF = sum of the RRFs/number of standards — C_x = Concentration of compound, C_{is} = Concentration of internal standard
$\%RSD = 100 * (S/X)$ — S = Standard deviation of the RRFs, X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported RRF (CS3 std)	Recalculated RRF (CS3 std)	Reported %RSD	Recalculated %RSD
1	ICAL	6/24/11	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)	1.022	1.022	1.028	1.028	7.77	7.77
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)	1.133	1.133	1.142	1.142	3.52	3.52
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)	0.971	0.971	1.018	1.018	4.32	4.32
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)	1.053	1.053	1.087	1.087	4.49	4.49
			OCDF (^{13}C-OCDF)	0.950	0.950	1.001	1.001	5.01	5.01
2			2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)						
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)						
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)						
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)						
			OCDF (^{13}C-OCDF)						
3			2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)						
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)						
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)						
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)						
			OCDF (^{13}C-OCDF)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26922202/

VALIDATION FINDINGS WORKSHEET
Routine Calibration Results Verification

Reviewer: FT
2nd Reviewer: A

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compound identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %R	Recalculated %D
1	CCV	10/8/11	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)	10.0	9.320	9.320	93	93
	20:10		2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)	10.0	10.070	10.070	101	101
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)	50.0	48.910	48.910	98	98
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)	50.0	49.220	49.220	98	98
			OCDF (^{13}C-OCDF)	100.0	97.030	97.030	97	97
2	CCV	10/9/11	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)		9.410	9.410	94	94
	8:39		2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)		9.960	9.960	100	100
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)		49.810	49.810	100	100
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)		49.060	49.060	98	98
			OCDF (^{13}C-OCDF)		95.730	95.730	96	96
3	CCV	10/9/11	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)		9.380	9.380	94	94
	21:07		2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)		9.770	9.770	98	98
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)		48.670	48.670	97	97
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)		47.510	47.510	95	95
			OCDF (^{13}C-OCDF)		93.900	93.900	94	94

Comments: Refer to Routine Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results

LDC #: 26922021

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA SW 846 Method 1613B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSR - SR)/SA Where: SSR = Spiked sample result, SR = Sample result
SA = Spike added

RPD = | MSR - MSDR | * 2/(MSR + MSDR) MSR = Matrix spike percent recovery MSDR = Matrix spike duplicate percent recovery

MS/MSD samples: 18 + 19

Compound	Spike Added (ng/Kg)		Sample Concentration (ng/Kg)	Spiked Sample Concentration (ng/Kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		Reported RPD	Recalculated RPD
	MS	MSD	------	MS	MSD	Reported	Recalc	Reported	Recalc	----	----
2,3,7,8-TCDD	21.0	21.0	ND	22.1	20.8	106	106	99	99	6	6
1,2,3,7,8-PeCDD	105	105	ND	106	103	101	101	98	98	2	2
1,2,3,4,7,8-HxCDD	105	105	ND	105	102	101	101	97	97	3	3
1,2,3,4,7,8,9-HpCDF	105	105	0.0585	104	98.4	99	99	44	44	5	5
OCDF	210	210	0.267	205	195	97	97	93	93	5	5

Comments: Refer to Matrix Spike/Matrix Spike Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26922021

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS Dioxins/Dibenzofurans (EPA SW 846 Method 1613B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculate for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration
SA = Spike added

RPD = | LCS - LCSD | * 2/(LCS + LCSD) LCS = Laboraotry control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS ID: OPR279002

Compound	Spike Added (ng/kg)		Spiked Sample Concentration (ng/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
2,3,7,8-TCDD	20.0	NA	20.4	NA	102	102				
1,2,3,7,8-PeCDD	100		101		101	101				
1,2,3,4,7,8-HxCDD	100		101		101	101				
1,2,3,4,7,8,9-HpCDF	100		96.8		97	97				
OCDF	200		196		98	98	NA			

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26922B2)

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer: C

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

(Y) N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

RRF = Relative Response Factor (average) from the initial calibration

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

Example:

Sample I.D. #1 , OCDD :

Conc. = $\frac{(65547 + 58493)(4000)(\quad)}{(956095 + 849266)(1.041)(10.1)(0.978)}$

= 26.7 ng/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

SAMPLE DELIVERY GROUP

DX144

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-Sep-2011	DUP007-SA7-QC-092611	6419591	FD	METHOD	1613B	III
26-Sep-2011	SL-170-SA7-SB-4.0-5.0	6419589	N	METHOD	1613B	III
26-Sep-2011	SL-170-SA7-SB-9.0-10.0	6419590	N	METHOD	1613B	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0	6419586	N	METHOD	1613B	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 MS	6419587	MS	METHOD	1613B	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 MSD	6419588	MSD	METHOD	1613B	III
26-Sep-2011	DUP008-SA7-QC-092611	6419592	FD	METHOD	1613B	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422596	N	METHOD	1613B	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422595	N	METHOD	1613B	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422598	N	METHOD	1613B	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422603	N	METHOD	1613B	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422602	N	METHOD	1613B	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422594	N	METHOD	1613B	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422597	N	METHOD	1613B	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422600	N	METHOD	1613B	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422601	N	METHOD	1613B	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422599	N	METHOD	1613B	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422591	N	METHOD	1613B	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422592	N	METHOD	1613B	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422593	N	METHOD	1613B	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422604	N	METHOD	1613B	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422590	N	METHOD	1613B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DX144 **Laboratory:** LL

EDD Filename: PrepDX144_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: DUP007-SA7-QC-092611 *Collected:* 9/26/2011 9:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.292	JB	0.0445	MDL	5.20	PQL	ng/Kg	UJ	B, FD
1,2,3,4,6,7,8-HPCDF	0.122	JB	0.0156	MDL	5.20	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0283	JBQ	0.0247	MDL	5.20	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8-HXCDF	0.0710	JBQ	0.0226	MDL	5.20	PQL	ng/Kg	UJ	B, FD
1,2,3,6,7,8-HXCDD	0.0783	JBQ	0.0302	MDL	5.20	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0606	JBQ	0.0199	MDL	5.20	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0292	U	0.0292	MDL	5.20	PQL	ng/Kg	UJ	FD
1,2,3,7,8,9-HXCDF	0.0562	JQ	0.0252	MDL	5.20	PQL	ng/Kg	J	Z, FD
2,3,4,6,7,8-HXCDF	0.0346	J	0.0212	MDL	5.20	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.0479	JBQ	0.0252	MDL	5.20	PQL	ng/Kg	U	B
OCDD	2.39	JB	0.0367	MDL	10.4	PQL	ng/Kg	J	Z, FD
OCDF	0.196	JBQ	0.0703	MDL	10.4	PQL	ng/Kg	U	B

Sample ID: DUP008-SA7-QC-092611 *Collected:* 9/26/2011 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.58	JB	0.0554	MDL	5.06	PQL	ng/Kg	J	Z, FD
1,2,3,4,6,7,8-HPCDF	0.569	JB	0.0203	MDL	5.06	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8,9-HPCDF	0.0301	U	0.0301	MDL	5.06	PQL	ng/Kg	UJ	FD
1,2,3,4,7,8-HxCDD	0.0705	J	0.0361	MDL	5.06	PQL	ng/Kg	J	Z, FD
1,2,3,4,7,8-HXCDF	0.279	JBQ	0.0300	MDL	5.06	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HXCDD	0.0829	JB	0.0342	MDL	5.06	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0878	JB	0.0284	MDL	5.06	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8,9-HXCDD	0.132	J	0.0363	MDL	5.06	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0855	JQ	0.0337	MDL	5.06	PQL	ng/Kg	J	Z, FD
1,2,3,7,8-PECDD	0.0411	U	0.0411	MDL	5.06	PQL	ng/Kg	UJ	FD
1,2,3,7,8-PECDF	0.0487	JBQ	0.0235	MDL	5.06	PQL	ng/Kg	UJ	B, FD
2,3,4,6,7,8-HXCDF	0.0411	JQ	0.0295	MDL	5.06	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.129	JBQ	0.0225	MDL	5.06	PQL	ng/Kg	U	B
OCDD	22.4	B	0.0443	MDL	10.1	PQL	ng/Kg	J	FD
OCDF	1.19	JB	0.0642	MDL	10.1	PQL	ng/Kg	J	Z, FD

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX144 **Laboratory: LL**

EDD Filename: PrepDX144_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-007-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.83	JB	0.0521	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.809	JB	0.0219	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0546	JBQ	0.0328	MDL	4.97	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.128	JBQ	0.0399	MDL	4.97	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.934	JB	0.0511	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.146	JBQ	0.0357	MDL	4.97	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	1.23	J	0.0514	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.671	J	0.0441	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.136	JQ	0.0509	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.119	JBQ	0.0412	MDL	4.97	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.180	JQ	0.0371	MDL	4.97	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.291	JBQ	0.0395	MDL	4.97	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.121	JQ	0.0714	MDL	0.993	PQL	ng/Kg	J	Z
OCDF	2.20	JB	0.0652	MDL	9.93	PQL	ng/Kg	J	Z

Sample ID: SL-008-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 7:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.58	JB	0.0493	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.676	JB	0.0202	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0527	JBQ	0.0315	MDL	4.90	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.102	J	0.0438	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.221	JB	0.0357	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.416	JB	0.0407	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.133	JBQ	0.0317	MDL	4.90	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.509	JQ	0.0384	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.228	JQ	0.0373	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0916	JQ	0.0428	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.130	JB	0.0369	MDL	4.90	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.194	JQ	0.0330	MDL	4.90	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.115	JBQ	0.0361	MDL	4.90	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0433	J	0.0428	MDL	0.980	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.137	J	0.0654	MDL	0.980	PQL	ng/Kg	J	Z
OCDF	1.53	JB	0.0582	MDL	9.80	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX144 **Laboratory:** LL

EDD Filename: PrepDX144_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-009-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 9:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	4.23	JB	0.0456	MDL	5.05	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.958	JB	0.0255	MDL	5.05	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0653	JBQ	0.0380	MDL	5.05	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0814	JQ	0.0445	MDL	5.05	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0575	JBQ	0.0355	MDL	5.05	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.571	JB	0.0430	MDL	5.05	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.174	JB	0.0323	MDL	5.05	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.746	J	0.0424	MDL	5.05	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.483	J	0.0377	MDL	5.05	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.142	JQ	0.0414	MDL	5.05	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.183	JBQ	0.0303	MDL	5.05	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.202	JQ	0.0339	MDL	5.05	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.196	JQ	0.0539	MDL	1.01	PQL	ng/Kg	J	Z
OCDF	2.43	JB	0.0519	MDL	10.1	PQL	ng/Kg	J	Z

Sample ID: SL-010-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	4.60	JB	0.0528	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.834	JB	0.0253	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.145	JBQ	0.0397	MDL	5.02	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.102	JQ	0.0469	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.323	JBQ	0.0368	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.994	JB	0.0453	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.198	JBQ	0.0318	MDL	5.02	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	1.32	J	0.0399	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.825	J	0.0349	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.186	JQ	0.0456	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.333	JBQ	0.0358	MDL	5.02	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.215	J	0.0319	MDL	5.02	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.260	JBQ	0.0348	MDL	5.02	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0545	JQ	0.0437	MDL	1.00	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.226	JQ	0.0647	MDL	1.00	PQL	ng/Kg	J	Z
OCDF	1.93	JB	0.0543	MDL	10.0	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX144 **Laboratory:** LL

EDD Filename: PrepDX144_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-013-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 11:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	1.78	JB	0.0517	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.297	JB	0.0199	MDL	5.02	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0580	JBQ	0.0351	MDL	5.02	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0821	JQ	0.0470	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.123	JB	0.0336	MDL	5.02	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.632	JB	0.0438	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.162	JBQ	0.0284	MDL	5.02	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.822	JQ	0.0403	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.316	J	0.0352	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.195	J	0.0480	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.306	JBQ	0.0296	MDL	5.02	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0908	J	0.0297	MDL	5.02	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.290	JB	0.0290	MDL	5.02	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0930	JQ	0.0472	MDL	1.00	PQL	ng/Kg	J	Z
OCDF	0.890	JBQ	0.0746	MDL	10.0	PQL	ng/Kg	J	Z

Sample ID: SL-014-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 10:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.14	JB	0.0229	MDL	4.83	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.136	JB	0.0411	MDL	4.83	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0886	JQ	0.0475	MDL	4.83	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.283	JBQ	0.0438	MDL	4.83	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.994	JB	0.0463	MDL	4.83	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.215	JB	0.0369	MDL	4.83	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.984	J	0.0435	MDL	4.83	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.507	J	0.0439	MDL	4.83	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.234	J	0.0432	MDL	4.83	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.294	JB	0.0309	MDL	4.83	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.205	JQ	0.0375	MDL	4.83	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.431	JB	0.0306	MDL	4.83	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.162	JQ	0.0572	MDL	0.967	PQL	ng/Kg	J	Z
OCDF	2.71	JB	0.0560	MDL	9.67	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX144 **Laboratory:** LL

EDD Filename: PrepDX144_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-015-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 10:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.73	JB	0.0416	MDL	5.03	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.557	JB	0.0153	MDL	5.03	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.127	JQ	0.0417	MDL	5.03	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.514	JB	0.0409	MDL	5.03	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.100	JB	0.0258	MDL	5.03	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.834	JQ	0.0395	MDL	5.03	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.521	J	0.0294	MDL	5.03	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.170	J	0.0414	MDL	5.03	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.188	JB	0.0262	MDL	5.03	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.126	JQ	0.0269	MDL	5.03	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.189	JB	0.0259	MDL	5.03	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0574	J	0.0512	MDL	1.01	PQL	ng/Kg	J	Z
OCDF	1.16	JBQ	0.0426	MDL	10.1	PQL	ng/Kg	J	Z

Sample ID: SL-016-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 9:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.72	JB	0.0466	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.771	JB	0.0178	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0631	JB	0.0277	MDL	5.17	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0651	JQ	0.0369	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.258	JB	0.0318	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.584	JBQ	0.0365	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.103	JB	0.0283	MDL	5.17	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.787	J	0.0335	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.565	J	0.0330	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.159	JQ	0.0431	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.165	JBQ	0.0290	MDL	5.17	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.148	JQ	0.0299	MDL	5.17	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.193	JB	0.0284	MDL	5.17	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.132	JQ	0.0634	MDL	1.03	PQL	ng/Kg	J	Z
OCDF	1.78	JB	0.0382	MDL	10.3	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX144 **Laboratory:** LL

EDD Filename: PrepDX144_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-017-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 8:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.42	JB	0.0180	MDL	5.06	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.121	JBQ	0.0274	MDL	5.06	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.136	J	0.0408	MDL	5.06	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.464	JB	0.0374	MDL	5.06	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	1.02	JB	0.0411	MDL	5.06	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.278	JB	0.0340	MDL	5.06	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	1.06	J	0.0361	MDL	5.06	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.500	J	0.0363	MDL	5.06	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.208	J	0.0394	MDL	5.06	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.295	JB	0.0519	MDL	5.06	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.341	J	0.0336	MDL	5.06	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	1.11	JB	0.0512	MDL	5.06	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0586	J	0.0340	MDL	1.01	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.589	J	0.0962	MDL	1.01	PQL	ng/Kg	J	Z
OCDF	2.56	JB	0.0272	MDL	10.1	PQL	ng/Kg	J	Z

Sample ID: SL-033-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 1:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.444	JBQ	0.0260	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.153	JB	0.0159	MDL	5.04	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0478	JBQ	0.0231	MDL	5.04	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0425	JQ	0.0227	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0353	JBQ	0.0139	MDL	5.04	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0582	JB	0.0223	MDL	5.04	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0256	JBQ	0.0127	MDL	5.04	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.127	JQ	0.0310	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.112	JQ	0.0381	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0490	J	0.0299	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0223	JBQ	0.0197	MDL	5.04	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0401	J	0.0139	MDL	5.04	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.0414	JBQ	0.0187	MDL	5.04	PQL	ng/Kg	U	B
OCDD	2.21	JB	0.0176	MDL	10.1	PQL	ng/Kg	J	Z
OCDF	0.253	JB	0.0281	MDL	10.1	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX144 Laboratory: LL

EDD Filename: PrepDX144_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-103-SA7-SB-18.0-19.0 *Collected:* 9/28/2011 2:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	0.563	JBQ	0.0274	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0926	JB	0.0391	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.126	JQ	0.0503	MDL	5.42	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.192	JBQ	0.0332	MDL	5.42	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.298	JB	0.0473	MDL	5.42	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.118	JB	0.0320	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.226	JQ	0.0489	MDL	5.42	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.268	J	0.0375	MDL	5.42	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.128	J	0.0418	MDL	5.42	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.238	JBQ	0.0249	MDL	5.42	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0931	JQ	0.0335	MDL	5.42	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.249	JB	0.0241	MDL	5.42	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0514	JQ	0.0469	MDL	1.08	PQL	ng/Kg	J	Z
OCDF	1.54	JB	0.0581	MDL	10.8	PQL	ng/Kg	J	Z

Sample ID: SL-106-SA7-SB-16.5-17.5 *Collected:* 9/28/2011 12:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	0.728	JB	0.0345	MDL	5.25	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0678	JB	0.0450	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0716	JB	0.0285	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.373	JB	0.0461	MDL	5.25	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0735	JBQ	0.0268	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.339	JQ	0.0476	MDL	5.25	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.152	JQ	0.0298	MDL	5.25	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.105	J	0.0379	MDL	5.25	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.111	JBQ	0.0222	MDL	5.25	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0641	JQ	0.0275	MDL	5.25	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.129	JBQ	0.0198	MDL	5.25	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0488	JQ	0.0409	MDL	1.05	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0425	J	0.0342	MDL	1.05	PQL	ng/Kg	J	Z
OCDF	2.31	JB	0.0552	MDL	10.5	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX144 Laboratory: LL

EDD Filename: PrepDX144_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-106-SA7-SB-19.0-20.0 *Collected:* 9/28/2011 9:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.14	JB	0.0308	MDL	5.30	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.154	JB	0.0421	MDL	5.30	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0687	JQ	0.0463	MDL	5.30	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.174	JB	0.0354	MDL	5.30	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.338	JB	0.0429	MDL	5.30	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0489	JBQ	0.0313	MDL	5.30	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.230	J	0.0401	MDL	5.30	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.113	JQ	0.0313	MDL	5.30	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0591	JQ	0.0378	MDL	5.30	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0862	J	0.0289	MDL	5.30	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.0762	JBQ	0.0204	MDL	5.30	PQL	ng/Kg	U	B
OCDF	2.61	JB	0.0431	MDL	10.6	PQL	ng/Kg	J	Z

Sample ID: SL-106-SA7-SB-4.0-5.0 *Collected:* 9/28/2011 12:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.98	JB	0.0342	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.222	JBQ	0.0497	MDL	5.12	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.175	JQ	0.0497	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.328	JB	0.0442	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.417	JB	0.0489	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.153	JB	0.0418	MDL	5.12	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.239	JQ	0.0493	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.151	JQ	0.0468	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.231	JQ	0.0423	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.212	JB	0.0275	MDL	5.12	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.177	JQ	0.0409	MDL	5.12	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.289	JB	0.0265	MDL	5.12	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0960	JQ	0.0426	MDL	1.02	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0494	JQ	0.0422	MDL	1.02	PQL	ng/Kg	J	Z
OCDF	4.55	JB	0.0566	MDL	10.2	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX144 **Laboratory: LL**

EDD Filename: PrepDX144_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-106-SA7-SB-9.0-10.0 *Collected:* 9/28/2011 12:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.54	JB	0.0508	MDL	5.25	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.330	JBQ	0.0197	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0657	JBQ	0.0307	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.137	JBQ	0.0285	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.176	JBQ	0.0377	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0967	JB	0.0258	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0825	J	0.0361	MDL	5.25	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0887	J	0.0299	MDL	5.25	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.102	JQ	0.0393	MDL	5.25	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.210	JBQ	0.0255	MDL	5.25	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0546	JQ	0.0274	MDL	5.25	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.212	JBQ	0.0250	MDL	5.25	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0513	JQ	0.0386	MDL	1.05	PQL	ng/Kg	J	Z
OCDF	0.884	JB	0.0550	MDL	10.5	PQL	ng/Kg	J	Z

Sample ID: SL-125-SA7-SB-4.0-5.0 *Collected:* 9/26/2011 2:52:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	1.27	JB	0.0543	MDL	4.97	PQL	ng/Kg	J	Z, FD
1,2,3,4,6,7,8-HPCDF	0.225	JBQ	0.0171	MDL	4.97	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8,9-HPCDF	0.0398	JBQ	0.0290	MDL	4.97	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8-HxCDD	0.0361	U	0.0361	MDL	4.97	PQL	ng/Kg	UJ	FD
1,2,3,4,7,8-HXCDF	0.0385	JBQ	0.0280	MDL	4.97	PQL	ng/Kg	UJ	B, FD
1,2,3,6,7,8-HXCDD	0.0963	JBQ	0.0367	MDL	4.97	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0371	JBQ	0.0236	MDL	4.97	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8,9-HXCDD	0.0831	JQ	0.0345	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0347	J	0.0287	MDL	4.97	PQL	ng/Kg	J	Z, FD
1,2,3,7,8-PECDD	0.288	J	0.0465	MDL	4.97	PQL	ng/Kg	J	Z, FD
1,2,3,7,8-PECDF	0.0250	U	0.0250	MDL	4.97	PQL	ng/Kg	UJ	FD
2,3,4,6,7,8-HXCDF	0.0294	JQ	0.0247	MDL	4.97	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.0805	JBQ	0.0247	MDL	4.97	PQL	ng/Kg	U	B
OCDD	11.5	B	0.0461	MDL	9.95	PQL	ng/Kg	J	FD
OCDF	0.358	JBQ	0.0828	MDL	9.95	PQL	ng/Kg	UJ	B, FD

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX144 Laboratory: LL

EDD Filename: PrepDX144_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-170-SA7-SB-4.0-5.0 *Collected:* 9/26/2011 11:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.405	JB	0.0442	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.193	JBQ	0.0152	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0553	JBQ	0.0241	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0340	JQ	0.0335	MDL	5.10	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0356	JBQ	0.0243	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.186	JBQ	0.0331	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0849	JB	0.0231	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.227	JQ	0.0347	MDL	5.10	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0618	JQ	0.0273	MDL	5.10	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0408	JBQ	0.0255	MDL	5.10	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0463	JQ	0.0242	MDL	5.10	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.0906	JBQ	0.0228	MDL	5.10	PQL	ng/Kg	U	B
OCDD	2.85	JB	0.0302	MDL	10.2	PQL	ng/Kg	J	Z
OCDF	0.234	JBQ	0.0585	MDL	10.2	PQL	ng/Kg	U	B

Sample ID: SL-170-SA7-SB-9.0-10.0 *Collected:* 9/26/2011 11:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.417	JBQ	0.0483	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.152	JB	0.0154	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0551	JBQ	0.0256	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.184	JBQ	0.0361	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.109	JB	0.0231	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.265	J	0.0358	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0438	J	0.0386	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0400	JB	0.0245	MDL	5.14	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0323	JQ	0.0235	MDL	5.14	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.0703	JBQ	0.0238	MDL	5.14	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0553	JQ	0.0475	MDL	1.03	PQL	ng/Kg	J	Z
OCDD	2.89	JB	0.0317	MDL	10.3	PQL	ng/Kg	J	Z
OCDF	0.219	JB	0.0682	MDL	10.3	PQL	ng/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX144 **Laboratory: LL**

EDD Filename: PrepDX144_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
B	Method Blank Contamination
FD	Field Duplicate Precision
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DX144

Method Blank Outlier Report

Lab Reporting Batch ID: DX144 | Laboratory: LL

EDD Filename: DX144_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK2800B371511	10/10/2011 3:11:00 PM	1,2,3,4,6,7,8-HPCDD	0.0871 ng/Kg	DUP007-SA7-QC-092611
		1,2,3,4,6,7,8-HPCDF	0.114 ng/Kg	DUP008-SA7-QC-092611
		1,2,3,4,7,8,9-HPCDF	0.0877 ng/Kg	SL-007-SA5DS-SS-0.0-0.5
		1,2,3,4,7,8-HXCDF	0.0339 ng/Kg	SL-008-SA5DS-SS-0.0-0.5
		1,2,3,6,7,8-HXCDD	0.0400 ng/Kg	SL-009-SA5DS-SS-0.0-0.5
		1,2,3,6,7,8-HXCDF	0.0407 ng/Kg	SL-010-SA5DS-SS-0.0-0.5
		1,2,3,7,8-PECDF	0.0255 ng/Kg	SL-013-SA5DS-SS-0.0-0.5
		2,3,4,7,8-PECDF	0.0542 ng/Kg	SL-014-SA5DS-SS-0.0-0.5
		OCDD	0.371 ng/Kg	SL-015-SA5DS-SS-0.0-0.5
		OCDF	0.0977 ng/Kg	SL-016-SA5DS-SS-0.0-0.5
				SL-017-SA5DS-SS-0.0-0.5
				SL-033-SA5DS-SS-0.0-0.5
				SL-103-SA7-SB-18.0-19.0
				SL-106-SA7-SB-16.5-17.5
				SL-106-SA7-SB-19.0-20.0
				SL-106-SA7-SB-4.0-5.0
				SL-106-SA7-SB-9.0-10.0
				SL-125-SA7-SB-4.0-5.0
				SL-170-SA7-SB-4.0-5.0
				SL-170-SA7-SB-9.0-10.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP007-SA7-QC-092611(RES)	1,2,3,4,6,7,8-HPCDD	0.292 ng/Kg	0.292U ng/Kg
DUP007-SA7-QC-092611(RES)	1,2,3,4,6,7,8-HPCDF	0.122 ng/Kg	0.122U ng/Kg
DUP007-SA7-QC-092611(RES)	1,2,3,4,7,8,9-HPCDF	0.0283 ng/Kg	0.0283U ng/Kg
DUP007-SA7-QC-092611(RES)	1,2,3,4,7,8-HXCDF	0.0710 ng/Kg	0.0710U ng/Kg
DUP007-SA7-QC-092611(RES)	1,2,3,6,7,8-HXCDD	0.0783 ng/Kg	0.0783U ng/Kg
DUP007-SA7-QC-092611(RES)	1,2,3,6,7,8-HXCDF	0.0606 ng/Kg	0.0606U ng/Kg
DUP007-SA7-QC-092611(RES)	2,3,4,7,8-PECDF	0.0479 ng/Kg	0.0479U ng/Kg
DUP007-SA7-QC-092611(RES)	OCDF	0.198 ng/Kg	0.196U ng/Kg
DUP008-SA7-QC-092611(RES)	1,2,3,4,6,7,8-HPCDF	0.569 ng/Kg	0.569U ng/Kg
DUP008-SA7-QC-092611(RES)	1,2,3,6,7,8-HXCDD	0.0829 ng/Kg	0.0829U ng/Kg
DUP008-SA7-QC-092611(RES)	1,2,3,6,7,8-HXCDF	0.0878 ng/Kg	0.0878U ng/Kg
DUP008-SA7-QC-092611(RES)	1,2,3,7,8-PECDF	0.0487 ng/Kg	0.0487U ng/Kg
DUP008-SA7-QC-092611(RES)	2,3,4,7,8-PECDF	0.129 ng/Kg	0.129U ng/Kg
SL-007-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0546 ng/Kg	0.0546U ng/Kg
SL-007-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.128 ng/Kg	0.128U ng/Kg
SL-007-SA5DS-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.146 ng/Kg	0.146U ng/Kg
SL-007-SA5DS-SS-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.119 ng/Kg	0.119U ng/Kg
SL-008-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0527 ng/Kg	0.0527U ng/Kg
SL-008-SA5DS-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.133 ng/Kg	0.133U ng/Kg
SL-008-SA5DS-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.115 ng/Kg	0.115U ng/Kg
SL-009-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0653 ng/Kg	0.0653U ng/Kg
SL-009-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.0575 ng/Kg	0.0575U ng/Kg
SL-009-SA5DS-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.174 ng/Kg	0.174U ng/Kg
SL-010-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.145 ng/Kg	0.145U ng/Kg
SL-010-SA5DS-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.198 ng/Kg	0.198U ng/Kg
SL-010-SA5DS-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.260 ng/Kg	0.260U ng/Kg
SL-013-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,6,7,8-HPCDF	0.297 ng/Kg	0.297U ng/Kg

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Method Blank Outlier Report

Lab Reporting Batch ID: DX144 | Laboratory: LL

EDD Filename: DX144_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-013-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0580 ng/Kg	0.0580U ng/Kg
SL-013-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.123 ng/Kg	0.123U ng/Kg
SL-013-SA5DS-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.162 ng/Kg	0.162U ng/Kg
SL-014-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.136 ng/Kg	0.136U ng/Kg
SL-015-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,6,7,8-HPCDF	0.557 ng/Kg	0.557U ng/Kg
SL-015-SA5DS-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.100 ng/Kg	0.100U ng/Kg
SL-015-SA5DS-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.169 ng/Kg	0.169U ng/Kg
SL-016-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0631 ng/Kg	0.0631U ng/Kg
SL-016-SA5DS-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.103 ng/Kg	0.103U ng/Kg
SL-016-SA5DS-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.193 ng/Kg	0.193U ng/Kg
SL-017-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.121 ng/Kg	0.121U ng/Kg
SL-033-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,6,7,8-HPCDF	0.153 ng/Kg	0.153U ng/Kg
SL-033-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0478 ng/Kg	0.0478U ng/Kg
SL-033-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.0353 ng/Kg	0.0353U ng/Kg
SL-033-SA5DS-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDD	0.0582 ng/Kg	0.0582U ng/Kg
SL-033-SA5DS-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.0256 ng/Kg	0.0256U ng/Kg
SL-033-SA5DS-SS-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.0223 ng/Kg	0.0223U ng/Kg
SL-033-SA5DS-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.0414 ng/Kg	0.0414U ng/Kg
SL-033-SA5DS-SS-0.0-0.5(RES)	OCDF	0.253 ng/Kg	0.253U ng/Kg
SL-103-SA7-SB-18.0-19.0(RES)	1,2,3,4,6,7,8-HPCDF	0.563 ng/Kg	0.563U ng/Kg
SL-103-SA7-SB-18.0-19.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0926 ng/Kg	0.0926U ng/Kg
SL-103-SA7-SB-18.0-19.0(RES)	1,2,3,6,7,8-HXCDF	0.118 ng/Kg	0.118U ng/Kg
SL-103-SA7-SB-18.0-19.0(RES)	2,3,4,7,8-PECDF	0.249 ng/Kg	0.249U ng/Kg
SL-106-SA7-SB-16.5-17.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0678 ng/Kg	0.0678U ng/Kg
SL-106-SA7-SB-16.5-17.5(RES)	1,2,3,4,7,8-HXCDF	0.0716 ng/Kg	0.0716U ng/Kg
SL-106-SA7-SB-16.5-17.5(RES)	1,2,3,6,7,8-HXCDF	0.0735 ng/Kg	0.0735U ng/Kg
SL-106-SA7-SB-16.5-17.5(RES)	1,2,3,7,8-PECDF	0.111 ng/Kg	0.111U ng/Kg
SL-106-SA7-SB-16.5-17.5(RES)	2,3,4,7,8-PECDF	0.129 ng/Kg	0.129U ng/Kg
SL-106-SA7-SB-19.0-20.0(RES)	1,2,3,4,7,8,9-HPCDF	0.154 ng/Kg	0.154U ng/Kg
SL-106-SA7-SB-19.0-20.0(RES)	1,2,3,6,7,8-HXCDF	0.0489 ng/Kg	0.0489U ng/Kg
SL-106-SA7-SB-19.0-20.0(RES)	2,3,4,7,8-PECDF	0.0762 ng/Kg	0.0762U ng/Kg
SL-106-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.222 ng/Kg	0.222U ng/Kg
SL-106-SA7-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.153 ng/Kg	0.153U ng/Kg
SL-106-SA7-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.330 ng/Kg	0.330U ng/Kg
SL-106-SA7-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0657 ng/Kg	0.0657U ng/Kg
SL-106-SA7-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.137 ng/Kg	0.137U ng/Kg
SL-106-SA7-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDD	0.176 ng/Kg	0.176U ng/Kg
SL-106-SA7-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.0967 ng/Kg	0.0967U ng/Kg
SL-106-SA7-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.212 ng/Kg	0.212U ng/Kg
SL-125-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.225 ng/Kg	0.225U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX144 | Laboratory: LL

EDD Filename: DX144_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-125-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0398 ng/Kg	0.0398U ng/Kg
SL-125-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0385 ng/Kg	0.0385U ng/Kg
SL-125-SA7-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.0963 ng/Kg	0.0963U ng/Kg
SL-125-SA7-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0371 ng/Kg	0.0371U ng/Kg
SL-125-SA7-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0805 ng/Kg	0.0805U ng/Kg
SL-125-SA7-SB-4.0-5.0(RES)	OCDF	0.358 ng/Kg	0.358U ng/Kg
SL-170-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.405 ng/Kg	0.405U ng/Kg
SL-170-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.193 ng/Kg	0.193U ng/Kg
SL-170-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0553 ng/Kg	0.0553U ng/Kg
SL-170-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0356 ng/Kg	0.0356U ng/Kg
SL-170-SA7-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.186 ng/Kg	0.186U ng/Kg
SL-170-SA7-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0849 ng/Kg	0.0849U ng/Kg
SL-170-SA7-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0408 ng/Kg	0.0408U ng/Kg
SL-170-SA7-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0906 ng/Kg	0.0906U ng/Kg
SL-170-SA7-SB-4.0-5.0(RES)	OCDF	0.234 ng/Kg	0.234U ng/Kg
SL-170-SA7-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDD	0.417 ng/Kg	0.417U ng/Kg
SL-170-SA7-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.152 ng/Kg	0.152U ng/Kg
SL-170-SA7-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.0551 ng/Kg	0.0551U ng/Kg
SL-170-SA7-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDD	0.184 ng/Kg	0.184U ng/Kg
SL-170-SA7-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.109 ng/Kg	0.109U ng/Kg
SL-170-SA7-SB-9.0-10.0(RES)	1,2,3,7,8-PECDF	0.0400 ng/Kg	0.0400U ng/Kg
SL-170-SA7-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.0703 ng/Kg	0.0703U ng/Kg
SL-170-SA7-SB-9.0-10.0(RES)	OCDF	0.219 ng/Kg	0.219U ng/Kg

Field Duplicate RPD Report

Lab Reporting Batch ID: DX144 | Laboratory: LL

EDD Filename: DX144_v1 | eQAPP Name: CDM_SSFL_110509

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-125-SA7-SB-4.0-5.0	DUP008-SA7-QC-092611			
MOISTURE	2.0	3.0	40		No Qualifiers Applied

Method: 1613B
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-125-SA7-SB-4.0-5.0	DUP008-SA7-QC-092611			
1,2,3,6,7,8-HXCDD	0.0963	0.0829	15	50.00	No Qualifiers Applied
1,2,3,7,8,9-HXCDD	0.0831	0.132	45	50.00	
2,3,4,6,7,8-HXCDF	0.0294	0.0411	33	50.00	
2,3,4,7,8-PECDF	0.0805	0.129	46	50.00	
1,2,3,4,6,7,8-HPCDD	1.27	2.58	68	50.00	J(all detects) UJ(all non-detects)
1,2,3,4,6,7,8-HPCDF	0.225	0.569	87	50.00	
1,2,3,4,7,8,9-HPCDF	0.0398	5.06 U	200	50.00	
1,2,3,4,7,8-HxCDD	4.97 U	0.0705	200	50.00	
1,2,3,4,7,8-HXCDF	0.0385	0.279	151	50.00	
1,2,3,6,7,8-HXCDF	0.0371	0.0878	81	50.00	
1,2,3,7,8,9-HXCDF	0.0347	0.0855	85	50.00	
1,2,3,7,8-PECDD	0.288	5.06 U	200	50.00	
1,2,3,7,8-PECDF	4.97 U	0.0487	200	50.00	
OCDD	11.5	22.4	64	50.00	
OCDF	0.358	1.19	107	50.00	

Reporting Limit Outliers

Lab Reporting Batch ID: DX144 | Laboratory: LL

EDD Filename: DX144_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP007-SA7-QC-092611	1,2,3,4,6,7,8-HPCDD	JB	0.292	5.20	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.122	5.20	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0283	5.20	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0710	5.20	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0783	5.20	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0606	5.20	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JQ	0.0562	5.20	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	J	0.0346	5.20	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0479	5.20	PQL	ng/Kg	
	OCDD	JB	2.39	10.4	PQL	ng/Kg	
	OCDF	JBQ	0.196	10.4	PQL	ng/Kg	
DUP008-SA7-QC-092611	1,2,3,4,6,7,8-HPCDD	JB	2.58	5.06	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.569	5.06	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.0705	5.06	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.279	5.06	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0829	5.06	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0878	5.06	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.132	5.06	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JQ	0.0855	5.06	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0487	5.06	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.0411	5.06	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.129	5.06	PQL	ng/Kg	
	OCDF	JB	1.19	10.1	PQL	ng/Kg	
SL-007-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	3.83	4.97	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.809	4.97	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0546	4.97	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.128	4.97	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.934	4.97	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.146	4.97	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	1.23	4.97	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	J	0.671	4.97	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.136	4.97	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.119	4.97	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.180	4.97	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.291	4.97	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.121	0.993	PQL	ng/Kg	
	OCDF	JB	2.20	9.93	PQL	ng/Kg	
SL-008-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	3.58	4.90	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.676	4.90	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0527	4.90	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.102	4.90	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.221	4.90	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.416	4.90	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.133	4.90	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	0.509	4.90	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JQ	0.228	4.90	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0916	4.90	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.130	4.90	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.194	4.90	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.115	4.90	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0433	0.980	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.137	0.980	PQL	ng/Kg	
	OCDF	JB	1.53	9.80	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX144 | Laboratory: LL

EDD Filename: DX144_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-009-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	4.23	5.05	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.958	5.05	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0653	5.05	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0814	5.05	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0575	5.05	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.571	5.05	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.174	5.05	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.746	5.05	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	J	0.483	5.05	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.142	5.05	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.183	5.05	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.202	5.05	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.196	1.01	PQL	ng/Kg	
	OCDF	JB	2.43	10.1	PQL	ng/Kg	
SL-010-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	4.60	5.02	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.834	5.02	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.145	5.02	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.102	5.02	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.323	5.02	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.994	5.02	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.198	5.02	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	1.32	5.02	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	J	0.825	5.02	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.186	5.02	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.333	5.02	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	J	0.215	5.02	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.260	5.02	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0545	1.00	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.226	1.00	PQL	ng/Kg	
	OCDF	JB	1.93	10.0	PQL	ng/Kg	
SL-013-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	1.78	5.02	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.297	5.02	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0580	5.02	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0821	5.02	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.123	5.02	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.632	5.02	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.162	5.02	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	0.822	5.02	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	J	0.316	5.02	PQL	ng/Kg	
	1,2,3,7,8-PECDD	J	0.195	5.02	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.306	5.02	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	J	0.0908	5.02	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.290	5.02	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0930	1.00	PQL	ng/Kg	
	OCDF	JBQ	0.890	10.0	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX144 **Laboratory: LL**

EDD Filename: DX144_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-014-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	1.14	4.83	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.136	4.83	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0886	4.83	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.283	4.83	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.994	4.83	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.215	4.83	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.984	4.83	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	J	0.507	4.83	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	0.234	4.83	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.294	4.83	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.205	4.83	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.431	4.83	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.162	0.967	PQL	ng/Kg	
	OCDF	JB	2.71	9.67	PQL	ng/Kg	
SL-015-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	2.73	5.03	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.557	5.03	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.127	5.03	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.514	5.03	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.100	5.03	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	0.834	5.03	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	J	0.521	5.03	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	0.170	5.03	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.188	5.03	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.126	5.03	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.189	5.03	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0574	1.01	PQL	ng/Kg	
	OCDF	JBQ	1.16	10.1	PQL	ng/Kg	
SL-016-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	3.72	5.17	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.771	5.17	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0631	5.17	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0651	5.17	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.258	5.17	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.584	5.17	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.103	5.17	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.787	5.17	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	J	0.565	5.17	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.159	5.17	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.165	5.17	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.148	5.17	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.193	5.17	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.132	1.03	PQL	ng/Kg	
	OCDF	JB	1.78	10.3	PQL	ng/Kg	
SL-017-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	1.42	5.06	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.121	5.06	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.136	5.06	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.464	5.06	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	1.02	5.06	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.278	5.06	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	1.06	5.06	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	J	0.500	5.06	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	0.208	5.06	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.295	5.06	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	J	0.341	5.06	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	1.11	5.06	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0586	1.01	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.589	1.01	PQL	ng/Kg	
	OCDF	JB	2.56	10.1	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX144 | Laboratory: LL

EDD Filename: DX144_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-033-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JBQ	0.444	5.04	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.153	5.04	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0478	5.04	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0425	5.04	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0353	5.04	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0582	5.04	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0256	5.04	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	0.127	5.04	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.112	5.04	PQL	ng/Kg	
	1,2,3,7,8-PECDD	J	0.0490	5.04	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0223	5.04	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	J	0.0401	5.04	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0414	5.04	PQL	ng/Kg	
	OCDD	JB	2.21	10.1	PQL	ng/Kg	
	OCDF	JB	0.253	10.1	PQL	ng/Kg	
SL-103-SA7-SB-18.0-19.0	1,2,3,4,6,7,8-HPCDF	JBQ	0.563	5.42	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	JB	0.0926	5.42	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.126	5.42	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.192	5.42	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.298	5.42	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.118	5.42	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	0.226	5.42	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	J	0.268	5.42	PQL	ng/Kg	
	1,2,3,7,8-PECDD	J	0.128	5.42	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.238	5.42	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.0931	5.42	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.249	5.42	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0514	1.08	PQL	ng/Kg	
	OCDF	JB	1.54	10.8	PQL	ng/Kg	
SL-106-SA7-SB-16.5-17.5	1,2,3,4,6,7,8-HPCDF	JB	0.728	5.25	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	JB	0.0678	5.25	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0716	5.25	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.373	5.25	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0735	5.25	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	0.339	5.25	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.152	5.25	PQL	ng/Kg	
	1,2,3,7,8-PECDD	J	0.105	5.25	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.111	5.25	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.0641	5.25	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.129	5.25	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0488	1.05	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0425	1.05	PQL	ng/Kg	
	OCDF	JB	2.31	10.5	PQL	ng/Kg	
SL-106-SA7-SB-19.0-20.0	1,2,3,4,6,7,8-HPCDF	JB	1.14	5.30	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	JB	0.154	5.30	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0687	5.30	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.174	5.30	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.338	5.30	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0489	5.30	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.230	5.30	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.113	5.30	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0591	5.30	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	J	0.0862	5.30	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0762	5.30	PQL	ng/Kg	
	OCDF	JB	2.61	10.6	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX144 **Laboratory: LL**

EDD Filename: DX144_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-106-SA7-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDF	JB	1.98	5.12	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.222	5.12	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.175	5.12	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.328	5.12	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.417	5.12	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.153	5.12	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	0.239	5.12	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.151	5.12	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JQ	0.231	5.12	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.212	5.12	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.177	5.12	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.289	5.12	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0960	1.02	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0494	1.02	PQL	ng/Kg	
	OCDF	JB	4.55	10.2	PQL	ng/Kg	
SL-106-SA7-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	2.54	5.25	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.330	5.25	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0657	5.25	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.137	5.25	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.176	5.25	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0967	5.25	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.0825	5.25	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	J	0.0887	5.25	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.102	5.25	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.210	5.25	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.0546	5.25	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.212	5.25	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0513	1.05	PQL	ng/Kg	
	OCDF	JB	0.884	10.5	PQL	ng/Kg	
SL-125-SA7-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	1.27	4.97	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.225	4.97	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0398	4.97	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0385	4.97	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0963	4.97	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0371	4.97	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	0.0831	4.97	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	J	0.0347	4.97	PQL	ng/Kg	
	1,2,3,7,8-PECDD	J	0.288	4.97	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.0294	4.97	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0805	4.97	PQL	ng/Kg	
	OCDF	JBQ	0.358	9.95	PQL	ng/Kg	
SL-170-SA7-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.405	5.10	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.193	5.10	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0553	5.10	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0340	5.10	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0356	5.10	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.186	5.10	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0849	5.10	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	0.227	5.10	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JQ	0.0618	5.10	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0408	5.10	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.0463	5.10	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0906	5.10	PQL	ng/Kg	
	OCDD	JB	2.85	10.2	PQL	ng/Kg	
	OCDF	JBQ	0.234	10.2	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX144 | Laboratory: LL

EDD Filename: DX144_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-170-SA7-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.417	5.14	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.152	5.14	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0551	5.14	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.184	5.14	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.109	5.14	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.265	5.14	PQL	ng/Kg	
	1,2,3,7,8-PECDD	J	0.0438	5.14	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDF	JB	0.0400	5.14	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.0323	5.14	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0703	5.14	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0553	1.03	PQL	ng/Kg	
	OCDD	JB	2.89	10.3	PQL	ng/Kg	
	OCDF	JB	0.219	10.3	PQL	ng/Kg	

SAMPLE DELIVERY GROUP

DX146

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	EB-SA5DS-SS-092811	6422610	EB	METHOD	1613B	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422605	N	METHOD	1613B	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422606	MS	METHOD	1613B	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422609	FD	METHOD	1613B	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422608	N	METHOD	1613B	III
30-Sep-2011	SL-132-SA7-SB-8.5-9.5	6426151	N	METHOD	1613B	III
30-Sep-2011	SL-132-SA7-SB-4.0-5.0	6426150	N	METHOD	1613B	III
30-Sep-2011	SL-023-SA8S-SS-0.0-0.5	6426146	N	METHOD	1613B	III
30-Sep-2011	SL-022-SA8S-SS-0.0-0.5	6426145	N	METHOD	1613B	III
30-Sep-2011	SL-180-SA7-SB-2.0-3.0	6426152	N	METHOD	1613B	III
30-Sep-2011	SL-084-SA7-SB-0.0-1.0	6426147	N	METHOD	1613B	III
30-Sep-2011	SL-115-SA7-SB-0.5-1.5	6426149	N	METHOD	1613B	III
30-Sep-2011	SL-113-SA7-SB-0.0-1.0	6426148	N	METHOD	1613B	III
03-Oct-2011	SL-064-SA6-SB-4.0-5.0	6427660	N	METHOD	1613B	III
03-Oct-2011	SL-064-SA6-SB-9.0-10.0	6427661	N	METHOD	1613B	III
04-Oct-2011	SL-037-SA6-SB-4.0-5.0	6429939	N	METHOD	1613B	III
04-Oct-2011	SL-037-SA6-SB-9.0-10.0	6429940	N	METHOD	1613B	III
04-Oct-2011	SL-225-SA6-SB-3.0-4.0	6429943	N	METHOD	1613B	III
04-Oct-2011	SL-007-SA6-SB-1.0-2.0	6429938	N	METHOD	1613B	III
04-Oct-2011	SL-206-SA6-SB-4.0-5.0	6429942	N	METHOD	1613B	III
04-Oct-2011	SL-191-SA6-SB-0.0-1.0	6429941	N	METHOD	1613B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DX146 Laboratory: LL

EDD Filename: DX146_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA **Method:** 1613B **Matrix:** AQ

Sample ID: EB-SA5DS-SS-092811 *Collected:* 9/28/2011 1:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.89	JB	0.297	MDL	9.69	PQL	pg/L	U	B
1,2,3,4,6,7,8-HPCDF	1.76	JB	0.135	MDL	9.69	PQL	pg/L	U	B
1,2,3,4,7,8,9-HPCDF	0.521	JBQ	0.154	MDL	9.69	PQL	pg/L	U	B
1,2,3,4,7,8-HxCDD	0.360	JB	0.179	MDL	9.69	PQL	pg/L	U	B
1,2,3,4,7,8-HXCDF	0.497	JB	0.112	MDL	9.69	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDD	0.286	JB	0.183	MDL	9.69	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDF	0.497	JB	0.113	MDL	9.69	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDD	0.355	JBQ	0.181	MDL	9.69	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDF	0.562	JB	0.108	MDL	9.69	PQL	pg/L	U	B
1,2,3,7,8-PECDD	0.594	JBQ	0.214	MDL	9.69	PQL	pg/L	U	B
1,2,3,7,8-PECDF	0.627	JBQ	0.135	MDL	9.69	PQL	pg/L	U	B
2,3,4,6,7,8-HXCDF	0.387	JBQ	0.110	MDL	9.69	PQL	pg/L	U	B
2,3,4,7,8-PECDF	0.712	JB	0.122	MDL	9.69	PQL	pg/L	U	B
OCDD	5.08	JB	0.321	MDL	19.4	PQL	pg/L	U	B
OCDF	1.67	JBQ	0.217	MDL	19.4	PQL	pg/L	U	B

Method Category: SVOA **Method:** 1613B **Matrix:** SO

Sample ID: DUP-02-SA5DS-QC-092811 *Collected:* 9/28/2011 1:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.809	JB	0.0253	MDL	5.06	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.571	JB	0.0239	MDL	5.06	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8,9-HPCDF	0.0552	JB	0.0241	MDL	5.06	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8-HxCDD	0.0496	JBQ	0.0248	MDL	5.06	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8-HXCDF	0.172	JB	0.0333	MDL	5.06	PQL	ng/Kg	UJ	B, FD
1,2,3,6,7,8-HXCDD	0.0932	JB	0.0258	MDL	5.06	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.101	JBQ	0.0285	MDL	5.06	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8,9-HXCDD	0.192	JBQ	0.0243	MDL	5.06	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.174	JQ	0.0196	MDL	5.06	PQL	ng/Kg	J	Z, FD
1,2,3,7,8-PECDD	0.0619	JB	0.0317	MDL	5.06	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8-PECDF	0.107	JB	0.0203	MDL	5.06	PQL	ng/Kg	UJ	B, FD
2,3,4,6,7,8-HXCDF	0.134	JBQ	0.0161	MDL	5.06	PQL	ng/Kg	UJ	B, FD

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX146 **Laboratory:** LL

EDD Filename: DX146_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: DUP-02-SA5DS-QC-092811 *Collected:* 9/28/2011 1:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,4,7,8-PECDF	0.117	JB	0.0193	MDL	5.06	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0615	J	0.0275	MDL	1.01	PQL	ng/Kg	J	Z, FD
OCDD	6.37	JB	0.0209	MDL	10.1	PQL	ng/Kg	J	Z
OCDF	0.480	JB	0.0340	MDL	10.1	PQL	ng/Kg	U	B

Sample ID: SL-007-SA6-SB-1.0-2.0 *Collected:* 10/4/2011 11:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.332	JBQ	0.0404	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.133	JB	0.0243	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0287	JBQ	0.0267	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0321	JQ	0.0257	MDL	5.24	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0604	JBQ	0.0259	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0353	JQ	0.0254	MDL	5.24	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0531	JBQ	0.0229	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0556	JQ	0.0255	MDL	5.24	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0307	JBQ	0.0181	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0488	JBQ	0.0176	MDL	5.24	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0572	JBQ	0.0166	MDL	5.24	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0711	JBQ	0.0169	MDL	5.24	PQL	ng/Kg	U	B
OCDD	1.00	JB	0.0289	MDL	10.5	PQL	ng/Kg	U	B
OCDF	0.171	JB	0.0457	MDL	10.5	PQL	ng/Kg	U	B

Sample ID: SL-022-SA8S-SS-0.0-0.5 *Collected:* 9/30/2011 9:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.60	JB	0.0328	MDL	5.26	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.777	JB	0.0181	MDL	5.26	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0858	JB	0.0243	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0991	J	0.0297	MDL	5.26	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.126	JBQ	0.0243	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.182	JQ	0.0327	MDL	5.26	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.102	JB	0.0223	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.153	J	0.0283	MDL	5.26	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.112	JB	0.0309	MDL	5.26	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX146 **Laboratory:** LL

EDD Filename: DX146_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-022-SA8S-SS-0.0-0.5 *Collected:* 9/30/2011 9:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8-PECDF	0.0992	JBQ	0.0286	MDL	5.26	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.130	JBQ	0.0220	MDL	5.26	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.165	JB	0.0276	MDL	5.26	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.128	JQ	0.0559	MDL	1.05	PQL	ng/Kg	J	Z
OCDF	1.23	JB	0.0256	MDL	10.5	PQL	ng/Kg	J	Z

Sample ID: SL-023-SA8S-SS-0.0-0.5 *Collected:* 9/30/2011 8:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.01	JB	0.0312	MDL	5.25	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0811	JBQ	0.0387	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.128	JQ	0.0384	MDL	5.25	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.186	JBQ	0.0295	MDL	5.25	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.310	J	0.0411	MDL	5.25	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.175	JB	0.0278	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.333	JQ	0.0666	MDL	5.25	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0383	JBQ	0.0314	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0967	JB	0.0377	MDL	5.25	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.116	JBQ	0.0368	MDL	5.25	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.183	JBQ	0.0287	MDL	5.25	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0466	JQ	0.0403	MDL	1.05	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.474	J	0.0693	MDL	1.05	PQL	ng/Kg	J	Z
OCDF	1.63	JB	0.0310	MDL	10.5	PQL	ng/Kg	J	Z

Sample ID: SL-034-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 1:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.974	JBQ	0.0306	MDL	5.13	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.301	JB	0.0221	MDL	5.13	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8,9-HPCDF	0.0310	JBQ	0.0217	MDL	5.13	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8-HxCDD	0.0227	U	0.0227	MDL	5.13	PQL	ng/Kg	UJ	FD
1,2,3,4,7,8-HXCDF	0.0775	JBQ	0.0315	MDL	5.13	PQL	ng/Kg	UJ	B, FD
1,2,3,6,7,8-HXCDD	0.0828	JQ	0.0233	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0507	JBQ	0.0302	MDL	5.13	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8,9-HXCDD	0.133	JQ	0.0244	MDL	5.13	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX146 **Laboratory:** LL

EDD Filename: DX146_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-034-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 1:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HXCDF	0.101	JBQ	0.0180	MDL	5.13	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8-PECDD	0.0265	U	0.0265	MDL	5.13	PQL	ng/Kg	UJ	FD
1,2,3,7,8-PECDF	0.0401	JBQ	0.0176	MDL	5.13	PQL	ng/Kg	UJ	B, FD
2,3,4,6,7,8-HXCDF	0.0678	JBQ	0.0156	MDL	5.13	PQL	ng/Kg	UJ	B, FD
2,3,4,7,8-PECDF	0.0902	JBQ	0.0168	MDL	5.13	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0290	U	0.0290	MDL	1.03	PQL	ng/Kg	UJ	FD
OCDD	9.33	JB	0.0295	MDL	10.3	PQL	ng/Kg	J	Z, Q, Q
OCDF	0.613	JB	0.0370	MDL	10.3	PQL	ng/Kg	J	Z

Sample ID: SL-037-SA6-SB-4.0-5.0 *Collected:* 10/4/2011 8:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.987	JB	0.0409	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.208	JB	0.0159	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0559	JBQ	0.0248	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0707	JQ	0.0228	MDL	5.10	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.107	JBQ	0.0207	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0677	J	0.0235	MDL	5.10	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0692	JB	0.0177	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0672	JQ	0.0240	MDL	5.10	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0594	JBQ	0.0211	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.121	JBQ	0.0270	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.131	JBQ	0.0196	MDL	5.10	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0562	JBQ	0.0177	MDL	5.10	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.181	JB	0.0188	MDL	5.10	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0582	J	0.0358	MDL	1.02	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0640	JQ	0.0320	MDL	1.02	PQL	ng/Kg	J	Z
OCDD	5.58	JB	0.0282	MDL	10.2	PQL	ng/Kg	J	Z
OCDF	0.386	JBQ	0.0354	MDL	10.2	PQL	ng/Kg	U	B

Sample ID: SL-037-SA6-SB-9.0-10.0 *Collected:* 10/4/2011 9:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	1.59	JB	0.0633	MDL	5.51	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.153	JB	0.0240	MDL	5.51	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX146 **Laboratory:** LL

EDD Filename: DX146_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-037-SA6-SB-9.0-10.0 *Collected:* 10/4/2011 9:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.0818	JBQ	0.0404	MDL	5.51	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0376	JQ	0.0322	MDL	5.51	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.140	JBQ	0.0249	MDL	5.51	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0453	JQ	0.0320	MDL	5.51	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0326	JBQ	0.0207	MDL	5.51	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0781	JQ	0.0332	MDL	5.51	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0283	JBQ	0.0237	MDL	5.51	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.125	JBQ	0.0400	MDL	5.51	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0902	JBQ	0.0200	MDL	5.51	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0541	JB	0.0184	MDL	5.51	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0634	JBQ	0.0204	MDL	5.51	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0547	JQ	0.0474	MDL	1.10	PQL	ng/Kg	J	Z
OCDF	0.205	JB	0.0632	MDL	11.0	PQL	ng/Kg	U	B

Sample ID: SL-040-SA5DS-SS-0.0-0.5 *Collected:* 9/28/2011 3:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.38	JB	0.0399	MDL	5.06	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.128	JBQ	0.0265	MDL	5.06	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.341	J	0.0439	MDL	5.06	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.275	JBQ	0.0531	MDL	5.06	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.696	JQ	0.0486	MDL	5.06	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.219	JBQ	0.0498	MDL	5.06	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.648	J	0.0372	MDL	5.06	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.585	JB	0.0201	MDL	5.06	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.154	JB	0.0298	MDL	5.06	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.201	JBQ	0.0184	MDL	5.06	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.172	JB	0.0171	MDL	5.06	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.0854	JB	0.0182	MDL	5.06	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.186	J	0.0314	MDL	1.01	PQL	ng/Kg	J	Z
OCDF	4.60	JB	0.0275	MDL	10.1	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX146 **Laboratory: LL**

EDD Filename: DX146_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-064-SA6-SB-4.0-5.0 *Collected:* 10/3/2011 3:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	2.91	JB	0.0859	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.835	J	0.0629	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	1.15	JB	0.0811	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	5.15	J	0.0615	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.790	JB	0.0678	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	1.83	J	0.0607	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.170	JBQ	0.0584	MDL	5.17	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	1.15	JBQ	0.0433	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0327	JBQ	0.0276	MDL	5.17	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	1.17	JB	0.0462	MDL	5.17	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.346	JB	0.0274	MDL	5.17	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.190	JQ	0.0390	MDL	1.03	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0770	JQ	0.0381	MDL	1.03	PQL	ng/Kg	J	Z

Sample ID: SL-064-SA6-SB-9.0-10.0 *Collected:* 10/3/2011 4:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	1.04	JB	0.0717	MDL	5.64	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.457	J	0.0636	MDL	5.64	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.461	JB	0.0468	MDL	5.64	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	3.01	J	0.0646	MDL	5.64	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.393	JB	0.0384	MDL	5.64	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	1.27	J	0.0635	MDL	5.64	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.127	JBQ	0.0468	MDL	5.64	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.299	JBQ	0.0522	MDL	5.64	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0547	JB	0.0263	MDL	5.64	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.606	JB	0.0373	MDL	5.64	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.152	JB	0.0264	MDL	5.64	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0779	J	0.0414	MDL	1.13	PQL	ng/Kg	J	Z

Sample ID: SL-084-SA7-SB-0.0-1.0 *Collected:* 9/30/2011 12:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.374	JB	0.0230	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.144	JBQ	0.0189	MDL	5.09	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX146 **Laboratory:** LL

EDD Filename: DX146_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-084-SA7-SB-0.0-1.0 *Collected:* 9/30/2011 12:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.0268	JBQ	0.0251	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0473	J	0.0235	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0709	JBQ	0.0205	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0561	JQ	0.0265	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0683	JBQ	0.0168	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0453	JQ	0.0407	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0466	JBQ	0.0243	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0447	JB	0.0271	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0527	JB	0.0135	MDL	5.09	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0603	JBQ	0.0127	MDL	5.09	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.106	JBQ	0.0138	MDL	5.09	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0390	J	0.0340	MDL	1.02	PQL	ng/Kg	J	Z
OCDD	2.44	JB	0.0205	MDL	10.2	PQL	ng/Kg	J	Z
OCDF	0.212	JB	0.0345	MDL	10.2	PQL	ng/Kg	U	B

Sample ID: SL-113-SA7-SB-0.0-1.0 *Collected:* 9/30/2011 2:06:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.662	JB	0.0255	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.195	JBQ	0.0114	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0386	JBQ	0.0204	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0587	J	0.0240	MDL	5.53	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.149	JBQ	0.0185	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.487	J	0.0241	MDL	5.53	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.161	JB	0.0157	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.643	J	0.0234	MDL	5.53	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0741	JB	0.0218	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.155	JB	0.0249	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.156	JB	0.0135	MDL	5.53	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0789	JBQ	0.0167	MDL	5.53	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.167	JB	0.0142	MDL	5.53	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0643	JQ	0.0266	MDL	1.11	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0416	JQ	0.0197	MDL	1.11	PQL	ng/Kg	J	Z
OCDD	4.39	JB	0.0200	MDL	11.1	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX146 **Laboratory:** LL

EDD Filename: DX146_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-113-SA7-SB-0.0-1.0 *Collected:* 9/30/2011 2:06:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
OCDF	0.329	JB	0.0331	MDL	11.1	PQL	ng/Kg	U	B

Sample ID: SL-115-SA7-SB-0.5-1.5 *Collected:* 9/30/2011 12:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.395	JB	0.0262	MDL	5.20	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.130	JB	0.0101	MDL	5.20	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0320	JBQ	0.0263	MDL	5.20	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.313	J	0.0270	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.199	JBQ	0.0192	MDL	5.20	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.434	J	0.0283	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0431	JBQ	0.0208	MDL	5.20	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0468	JBQ	0.0307	MDL	5.20	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0864	JB	0.0135	MDL	5.20	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0565	JB	0.0157	MDL	5.20	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.110	JBQ	0.0140	MDL	5.20	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0243	J	0.0220	MDL	1.04	PQL	ng/Kg	J	Z
OCDD	3.13	JB	0.0248	MDL	10.4	PQL	ng/Kg	J	Z
OCDF	0.221	JB	0.0380	MDL	10.4	PQL	ng/Kg	U	B

Sample ID: SL-132-SA7-SB-4.0-5.0 *Collected:* 9/30/2011 8:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	0.709	JB	0.0181	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0713	JB	0.0251	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0415	JQ	0.0316	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0727	JBQ	0.0195	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.239	J	0.0317	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0644	JBQ	0.0182	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.187	JQ	0.0310	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0498	JBQ	0.0208	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0449	JBQ	0.0226	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0365	JBQ	0.0140	MDL	5.09	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0652	JBQ	0.0175	MDL	5.09	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.115	JBQ	0.0130	MDL	5.09	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX146 Laboratory: LL

EDD Filename: DX146_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-132-SA7-SB-4.0-5.0 *Collected:* 9/30/2011 8:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
OCDF	1.77	JB	0.0299	MDL	10.2	PQL	ng/Kg	J	Z

Sample ID: SL-132-SA7-SB-8.5-9.5 *Collected:* 9/30/2011 8:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.70	JB	0.0493	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.364	JB	0.0153	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.102	JBQ	0.0267	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0579	JBQ	0.0257	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.446	J	0.0332	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.182	JB	0.0209	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.762	J	0.0307	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.110	JBQ	0.0243	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0489	JBQ	0.0300	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0636	JBQ	0.0168	MDL	5.28	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0422	JB	0.0198	MDL	5.28	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0637	JB	0.0180	MDL	5.28	PQL	ng/Kg	U	B
OCDF	0.667	JB	0.0484	MDL	10.6	PQL	ng/Kg	J	Z

Sample ID: SL-180-SA7-SB-2.0-3.0 *Collected:* 9/30/2011 9:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.591	JBQ	0.0301	MDL	5.12	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.191	JB	0.0102	MDL	5.12	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0489	JBQ	0.0182	MDL	5.12	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0426	JBQ	0.0168	MDL	5.12	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0787	JQ	0.0220	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0179	JBQ	0.0140	MDL	5.12	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.127	JQ	0.0220	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0730	JBQ	0.0155	MDL	5.12	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0278	JB	0.0159	MDL	5.12	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0712	JBQ	0.0134	MDL	5.12	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0980	JBQ	0.0169	MDL	5.12	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0376	JQ	0.0366	MDL	1.02	PQL	ng/Kg	J	Z
OCDD	2.78	JB	0.0195	MDL	10.2	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX146 Laboratory: LL

EDD Filename: DX146_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-180-SA7-SB-2.0-3.0 *Collected:* 9/30/2011 9:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
OCDF	0.252	JBQ	0.0377	MDL	10.2	PQL	ng/Kg	U	B

Sample ID: SL-191-SA6-SB-0.0-1.0 *Collected:* 10/4/2011 3:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	1.65	JB	0.0563	MDL	4.91	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	1.29	J	0.0506	MDL	4.91	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	1.38	JB	0.0471	MDL	4.91	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	4.20	J	0.0542	MDL	4.91	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	1.24	JB	0.0467	MDL	4.91	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	2.09	J	0.0527	MDL	4.91	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.380	JBQ	0.0409	MDL	4.91	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.822	JB	0.0462	MDL	4.91	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.577	JB	0.0353	MDL	4.91	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	1.49	JB	0.0357	MDL	4.91	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.978	JB	0.0329	MDL	4.91	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0615	J	0.0337	MDL	0.983	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.419	J	0.0566	MDL	0.983	PQL	ng/Kg	J	Z

Sample ID: SL-206-SA6-SB-4.0-5.0 *Collected:* 10/4/2011 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.58	JB	0.0481	MDL	5.21	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.642	JB	0.0180	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0703	JBQ	0.0294	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0694	JQ	0.0292	MDL	5.21	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0777	JBQ	0.0215	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.132	JQ	0.0294	MDL	5.21	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0463	JB	0.0192	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.108	J	0.0296	MDL	5.21	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0452	JBQ	0.0296	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0328	JBQ	0.0179	MDL	5.21	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0648	JB	0.0190	MDL	5.21	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.121	JBQ	0.0175	MDL	5.21	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.100	JQ	0.0325	MDL	1.04	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX146 **Laboratory:** LL

EDD Filename: DX146_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-206-SA6-SB-4.0-5.0 *Collected:* 10/4/2011 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
OCDF	1.38	JB	0.0430	MDL	10.4	PQL	ng/Kg	J	Z

Sample ID: SL-225-SA6-SB-3.0-4.0 *Collected:* 10/4/2011 10:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.663	JB	0.0397	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.257	JB	0.0141	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0364	JBQ	0.0172	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0694	J	0.0236	MDL	5.43	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0170	JBQ	0.0150	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0467	JQ	0.0244	MDL	5.43	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0309	JBQ	0.0272	MDL	5.43	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0426	JB	0.0148	MDL	5.43	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0638	JBQ	0.0152	MDL	5.43	PQL	ng/Kg	U	B
OCDD	6.16	JB	0.0259	MDL	10.9	PQL	ng/Kg	J	Z
OCDF	0.575	JB	0.0389	MDL	10.9	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX146 **Laboratory: LL**

EDD Filename: DX146_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
B	Method Blank Contamination
E	Matrix Spike Precision
FD	Field Duplicate Precision
L	Laboratory Control Spike Upper Estimation
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Lower Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DX146

Method Blank Outlier Report

Lab Reporting Batch ID: DX146 | Laboratory: LL

EDD Filename: DX146_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK2760B370751	10/5/2011 7:51:00 AM	1,2,3,4,6,7,8-HPCDD	2.57 pg/L	EB-SA5DS-SS-092811
		1,2,3,4,6,7,8-HPCDF	1.42 pg/L	
		1,2,3,4,7,8,9-HPCDF	0.763 pg/L	
		1,2,3,4,7,8-HxCDD	0.388 pg/L	
		1,2,3,4,7,8-HXCDF	0.622 pg/L	
		1,2,3,6,7,8-HXCDD	0.421 pg/L	
		1,2,3,6,7,8-HXCDF	0.553 pg/L	
		1,2,3,7,8,9-HXCDD	0.543 pg/L	
		1,2,3,7,8,9-HXCDF	0.770 pg/L	
		1,2,3,7,8-PECDD	0.712 pg/L	
		1,2,3,7,8-PECDF	0.901 pg/L	
		2,3,4,6,7,8-HXCDF	0.643 pg/L	
		2,3,4,7,8-PECDF	0.929 pg/L	
		2,3,7,8-TCDD	0.373 pg/L	
		2,3,7,8-TCDF	0.261 pg/L	
		OCDD	3.69 pg/L	
		OCDF	1.50 pg/L	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA5DS-SS-092811(RES)	1,2,3,4,6,7,8-HPCDD	2.89 pg/L	2.89U pg/L
EB-SA5DS-SS-092811(RES)	1,2,3,4,6,7,8-HPCDF	1.76 pg/L	1.76U pg/L
EB-SA5DS-SS-092811(RES)	1,2,3,4,7,8,9-HPCDF	0.521 pg/L	0.521U pg/L
EB-SA5DS-SS-092811(RES)	1,2,3,4,7,8-HxCDD	0.360 pg/L	0.360U pg/L
EB-SA5DS-SS-092811(RES)	1,2,3,4,7,8-HXCDF	0.497 pg/L	0.497U pg/L
EB-SA5DS-SS-092811(RES)	1,2,3,6,7,8-HXCDD	0.286 pg/L	0.286U pg/L
EB-SA5DS-SS-092811(RES)	1,2,3,6,7,8-HXCDF	0.497 pg/L	0.497U pg/L
EB-SA5DS-SS-092811(RES)	1,2,3,7,8,9-HXCDD	0.355 pg/L	0.355U pg/L
EB-SA5DS-SS-092811(RES)	1,2,3,7,8,9-HXCDF	0.562 pg/L	0.562U pg/L
EB-SA5DS-SS-092811(RES)	1,2,3,7,8-PECDD	0.594 pg/L	0.594U pg/L
EB-SA5DS-SS-092811(RES)	1,2,3,7,8-PECDF	0.627 pg/L	0.627U pg/L
EB-SA5DS-SS-092811(RES)	2,3,4,6,7,8-HXCDF	0.387 pg/L	0.387U pg/L
EB-SA5DS-SS-092811(RES)	2,3,4,7,8-PECDF	0.712 pg/L	0.712U pg/L
EB-SA5DS-SS-092811(RES)	OCDD	5.08 pg/L	5.08U pg/L
EB-SA5DS-SS-092811(RES)	OCDF	1.67 pg/L	1.67U pg/L

Method Blank Outlier Report

Lab Reporting Batch ID: DX146 **Laboratory: LL**

EDD Filename: DX146_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK2830B371806	10/13/2011 6:06:00 PM	1,2,3,4,6,7,8-HPCDD 1,2,3,4,6,7,8-HPCDF 1,2,3,4,7,8,9-HPCDF 1,2,3,4,7,8-HXCDF 1,2,3,6,7,8-HXCDF 1,2,3,7,8,9-HXCDF 1,2,3,7,8-PECDD 1,2,3,7,8-PECDF 2,3,4,6,7,8-HXCDF 2,3,4,7,8-PECDF OCDD OCDF	0.268 ng/Kg 0.129 ng/Kg 0.0187 ng/Kg 0.0314 ng/Kg 0.0471 ng/Kg 0.0484 ng/Kg 0.0326 ng/Kg 0.0149 ng/Kg 0.0274 ng/Kg 0.0319 ng/Kg 0.392 ng/Kg 0.121 ng/Kg	SL-007-SA6-SB-1.0-2.0 SL-022-SA8S-SS-0.0-0.5 SL-023-SA8S-SS-0.0-0.5 SL-034-SA5DS-SS-0.0-0.5 SL-037-SA6-SB-4.0-5.0 SL-037-SA6-SB-9.0-10.0 SL-040-SA5DS-SS-0.0-0.5 SL-064-SA6-SB-4.0-5.0 SL-064-SA6-SB-9.0-10.0 SL-084-SA7-SB-0.0-1.0 SL-113-SA7-SB-0.0-1.0 SL-115-SA7-SB-0.5-1.5 SL-132-SA7-SB-4.0-5.0 SL-132-SA7-SB-8.5-9.5 SL-180-SA7-SB-2.0-3.0 SL-191-SA6-SB-0.0-1.0 SL-206-SA6-SB-4.0-5.0 SL-225-SA6-SB-3.0-4.0
BLK2920B371824	10/20/2011 6:24:00 PM	1,2,3,4,6,7,8-HPCDD 1,2,3,4,6,7,8-HPCDF 1,2,3,4,7,8,9-HPCDF 1,2,3,4,7,8-HxCDD 1,2,3,4,7,8-HXCDF 1,2,3,6,7,8-HXCDD 1,2,3,6,7,8-HXCDF 1,2,3,7,8,9-HXCDD 1,2,3,7,8-PECDD 1,2,3,7,8-PECDF 2,3,4,6,7,8-HXCDF 2,3,4,7,8-PECDF OCDD OCDF	0.305 ng/Kg 0.370 ng/Kg 0.0805 ng/Kg 0.0310 ng/Kg 0.114 ng/Kg 0.0294 ng/Kg 0.0822 ng/Kg 0.0415 ng/Kg 0.0488 ng/Kg 0.0392 ng/Kg 0.0874 ng/Kg 0.0693 ng/Kg 0.653 ng/Kg 0.256 ng/Kg	DUP-02-SA5DS-QC-092811

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP-02-SA5DS-QC-092811(RES)	1,2,3,4,6,7,8-HPCDD	0.809 ng/Kg	0.809U ng/Kg
DUP-02-SA5DS-QC-092811(RES)	1,2,3,4,6,7,8-HPCDF	0.571 ng/Kg	0.571U ng/Kg
DUP-02-SA5DS-QC-092811(RES)	1,2,3,4,7,8,9-HPCDF	0.0552 ng/Kg	0.0552U ng/Kg
DUP-02-SA5DS-QC-092811(RES)	1,2,3,4,7,8-HxCDD	0.0496 ng/Kg	0.0496U ng/Kg
DUP-02-SA5DS-QC-092811(RES)	1,2,3,4,7,8-HXCDF	0.172 ng/Kg	0.172U ng/Kg
DUP-02-SA5DS-QC-092811(RES)	1,2,3,6,7,8-HXCDD	0.0932 ng/Kg	0.0932U ng/Kg
DUP-02-SA5DS-QC-092811(RES)	1,2,3,6,7,8-HXCDF	0.101 ng/Kg	0.101U ng/Kg
DUP-02-SA5DS-QC-092811(RES)	1,2,3,7,8,9-HXCDD	0.192 ng/Kg	0.192U ng/Kg
DUP-02-SA5DS-QC-092811(RES)	1,2,3,7,8-PECDD	0.0619 ng/Kg	0.0619U ng/Kg
DUP-02-SA5DS-QC-092811(RES)	1,2,3,7,8-PECDF	0.107 ng/Kg	0.107U ng/Kg
DUP-02-SA5DS-QC-092811(RES)	2,3,4,6,7,8-HXCDF	0.134 ng/Kg	0.134U ng/Kg
DUP-02-SA5DS-QC-092811(RES)	2,3,4,7,8-PECDF	0.117 ng/Kg	0.117U ng/Kg
DUP-02-SA5DS-QC-092811(RES)	OCDF	0.480 ng/Kg	0.480U ng/Kg
SL-007-SA6-SB-1.0-2.0(RES)	1,2,3,4,6,7,8-HPCDD	0.332 ng/Kg	0.332U ng/Kg
SL-007-SA6-SB-1.0-2.0(RES)	1,2,3,4,6,7,8-HPCDF	0.133 ng/Kg	0.133U ng/Kg
SL-007-SA6-SB-1.0-2.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0287 ng/Kg	0.0287U ng/Kg
SL-007-SA6-SB-1.0-2.0(RES)	1,2,3,4,7,8-HXCDF	0.0604 ng/Kg	0.0604U ng/Kg
SL-007-SA6-SB-1.0-2.0(RES)	1,2,3,6,7,8-HXCDF	0.0531 ng/Kg	0.0531U ng/Kg
SL-007-SA6-SB-1.0-2.0(RES)	1,2,3,7,8,9-HXCDF	0.0307 ng/Kg	0.0307U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX146 **Laboratory: LL**

EDD Filename: DX146_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-007-SA6-SB-1.0-2.0(RES)	1,2,3,7,8-PECDF	0.0488 ng/Kg	0.0488U ng/Kg
SL-007-SA6-SB-1.0-2.0(RES)	2,3,4,6,7,8-HXCDF	0.0572 ng/Kg	0.0572U ng/Kg
SL-007-SA6-SB-1.0-2.0(RES)	2,3,4,7,8-PECDF	0.0711 ng/Kg	0.0711U ng/Kg
SL-007-SA6-SB-1.0-2.0(RES)	OCDD	1.00 ng/Kg	1.00U ng/Kg
SL-007-SA6-SB-1.0-2.0(RES)	OCDF	0.171 ng/Kg	0.171U ng/Kg
SL-022-SA8S-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0858 ng/Kg	0.0858U ng/Kg
SL-022-SA8S-SS-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.126 ng/Kg	0.126U ng/Kg
SL-022-SA8S-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.102 ng/Kg	0.102U ng/Kg
SL-022-SA8S-SS-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.112 ng/Kg	0.112U ng/Kg
SL-022-SA8S-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.130 ng/Kg	0.130U ng/Kg
SL-023-SA8S-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0811 ng/Kg	0.0811U ng/Kg
SL-023-SA8S-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.175 ng/Kg	0.175U ng/Kg
SL-023-SA8S-SS-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.0383 ng/Kg	0.0383U ng/Kg
SL-023-SA8S-SS-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.0967 ng/Kg	0.0967U ng/Kg
SL-034-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,6,7,8-HPCDD	0.974 ng/Kg	0.974U ng/Kg
SL-034-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,6,7,8-HPCDF	0.301 ng/Kg	0.301U ng/Kg
SL-034-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0310 ng/Kg	0.0310U ng/Kg
SL-034-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.0775 ng/Kg	0.0775U ng/Kg
SL-034-SA5DS-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.0507 ng/Kg	0.0507U ng/Kg
SL-034-SA5DS-SS-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.101 ng/Kg	0.101U ng/Kg
SL-034-SA5DS-SS-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.0401 ng/Kg	0.0401U ng/Kg
SL-034-SA5DS-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.0678 ng/Kg	0.0678U ng/Kg
SL-034-SA5DS-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.0902 ng/Kg	0.0902U ng/Kg
SL-037-SA6-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.987 ng/Kg	0.987U ng/Kg
SL-037-SA6-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.208 ng/Kg	0.208U ng/Kg
SL-037-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0559 ng/Kg	0.0559U ng/Kg
SL-037-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.107 ng/Kg	0.107U ng/Kg
SL-037-SA6-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0692 ng/Kg	0.0692U ng/Kg
SL-037-SA6-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0594 ng/Kg	0.0594U ng/Kg
SL-037-SA6-SB-4.0-5.0(RES)	1,2,3,7,8-PECDD	0.121 ng/Kg	0.121U ng/Kg
SL-037-SA6-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0562 ng/Kg	0.0562U ng/Kg
SL-037-SA6-SB-4.0-5.0(RES)	OCDF	0.386 ng/Kg	0.386U ng/Kg
SL-037-SA6-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.153 ng/Kg	0.153U ng/Kg
SL-037-SA6-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0818 ng/Kg	0.0818U ng/Kg
SL-037-SA6-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.140 ng/Kg	0.140U ng/Kg
SL-037-SA6-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.0326 ng/Kg	0.0326U ng/Kg
SL-037-SA6-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDF	0.0283 ng/Kg	0.0283U ng/Kg
SL-037-SA6-SB-9.0-10.0(RES)	1,2,3,7,8-PECDD	0.125 ng/Kg	0.125U ng/Kg
SL-037-SA6-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.0541 ng/Kg	0.0541U ng/Kg
SL-037-SA6-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.0634 ng/Kg	0.0634U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX146 **Laboratory: LL**

EDD Filename: DX146_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-037-SA6-SB-9.0-10.0(RES)	OCDF	0.205 ng/Kg	0.205U ng/Kg
SL-040-SA5DS-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.219 ng/Kg	0.219U ng/Kg
SL-040-SA5DS-SS-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.154 ng/Kg	0.154U ng/Kg
SL-040-SA5DS-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.0854 ng/Kg	0.0854U ng/Kg
SL-064-SA6-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.170 ng/Kg	0.170U ng/Kg
SL-064-SA6-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0327 ng/Kg	0.0327U ng/Kg
SL-064-SA6-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDF	0.127 ng/Kg	0.127U ng/Kg
SL-064-SA6-SB-9.0-10.0(RES)	1,2,3,7,8-PECDF	0.0547 ng/Kg	0.0547U ng/Kg
SL-064-SA6-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.152 ng/Kg	0.152U ng/Kg
SL-084-SA7-SB-0.0-1.0(RES)	1,2,3,4,6,7,8-HPCDD	0.374 ng/Kg	0.374U ng/Kg
SL-084-SA7-SB-0.0-1.0(RES)	1,2,3,4,6,7,8-HPCDF	0.144 ng/Kg	0.144U ng/Kg
SL-084-SA7-SB-0.0-1.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0268 ng/Kg	0.0268U ng/Kg
SL-084-SA7-SB-0.0-1.0(RES)	1,2,3,4,7,8-HXCDF	0.0709 ng/Kg	0.0709U ng/Kg
SL-084-SA7-SB-0.0-1.0(RES)	1,2,3,6,7,8-HXCDF	0.0683 ng/Kg	0.0683U ng/Kg
SL-084-SA7-SB-0.0-1.0(RES)	1,2,3,7,8,9-HXCDF	0.0466 ng/Kg	0.0466U ng/Kg
SL-084-SA7-SB-0.0-1.0(RES)	1,2,3,7,8-PECDD	0.0447 ng/Kg	0.0447U ng/Kg
SL-084-SA7-SB-0.0-1.0(RES)	1,2,3,7,8-PECDF	0.0527 ng/Kg	0.0527U ng/Kg
SL-084-SA7-SB-0.0-1.0(RES)	2,3,4,6,7,8-HXCDF	0.0603 ng/Kg	0.0603U ng/Kg
SL-084-SA7-SB-0.0-1.0(RES)	2,3,4,7,8-PECDF	0.106 ng/Kg	0.106U ng/Kg
SL-084-SA7-SB-0.0-1.0(RES)	OCDF	0.212 ng/Kg	0.212U ng/Kg
SL-113-SA7-SB-0.0-1.0(RES)	1,2,3,4,6,7,8-HPCDD	0.662 ng/Kg	0.662U ng/Kg
SL-113-SA7-SB-0.0-1.0(RES)	1,2,3,4,6,7,8-HPCDF	0.195 ng/Kg	0.195U ng/Kg
SL-113-SA7-SB-0.0-1.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0386 ng/Kg	0.0386U ng/Kg
SL-113-SA7-SB-0.0-1.0(RES)	1,2,3,4,7,8-HXCDF	0.149 ng/Kg	0.149U ng/Kg
SL-113-SA7-SB-0.0-1.0(RES)	1,2,3,6,7,8-HXCDF	0.161 ng/Kg	0.161U ng/Kg
SL-113-SA7-SB-0.0-1.0(RES)	1,2,3,7,8,9-HXCDF	0.0741 ng/Kg	0.0741U ng/Kg
SL-113-SA7-SB-0.0-1.0(RES)	1,2,3,7,8-PECDD	0.155 ng/Kg	0.155U ng/Kg
SL-113-SA7-SB-0.0-1.0(RES)	2,3,4,6,7,8-HXCDF	0.0789 ng/Kg	0.0789U ng/Kg
SL-113-SA7-SB-0.0-1.0(RES)	OCDF	0.329 ng/Kg	0.329U ng/Kg
SL-115-SA7-SB-0.5-1.5(RES)	1,2,3,4,6,7,8-HPCDD	0.395 ng/Kg	0.395U ng/Kg
SL-115-SA7-SB-0.5-1.5(RES)	1,2,3,4,6,7,8-HPCDF	0.130 ng/Kg	0.130U ng/Kg
SL-115-SA7-SB-0.5-1.5(RES)	1,2,3,4,7,8-HXCDF	0.0320 ng/Kg	0.0320U ng/Kg
SL-115-SA7-SB-0.5-1.5(RES)	1,2,3,6,7,8-HXCDF	0.199 ng/Kg	0.199U ng/Kg
SL-115-SA7-SB-0.5-1.5(RES)	1,2,3,7,8,9-HXCDF	0.0431 ng/Kg	0.0431U ng/Kg
SL-115-SA7-SB-0.5-1.5(RES)	1,2,3,7,8-PECDD	0.0468 ng/Kg	0.0468U ng/Kg
SL-115-SA7-SB-0.5-1.5(RES)	2,3,4,6,7,8-HXCDF	0.0565 ng/Kg	0.0565U ng/Kg
SL-115-SA7-SB-0.5-1.5(RES)	2,3,4,7,8-PECDF	0.110 ng/Kg	0.110U ng/Kg
SL-115-SA7-SB-0.5-1.5(RES)	OCDF	0.221 ng/Kg	0.221U ng/Kg
SL-132-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0713 ng/Kg	0.0713U ng/Kg
SL-132-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0727 ng/Kg	0.0727U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX146 | Laboratory: LL

EDD Filename: DX146_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-132-SA7-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0644 ng/Kg	0.0644U ng/Kg
SL-132-SA7-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0498 ng/Kg	0.0498U ng/Kg
SL-132-SA7-SB-4.0-5.0(RES)	1,2,3,7,8-PECDD	0.0449 ng/Kg	0.0449U ng/Kg
SL-132-SA7-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0365 ng/Kg	0.0365U ng/Kg
SL-132-SA7-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0652 ng/Kg	0.0652U ng/Kg
SL-132-SA7-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.115 ng/Kg	0.115U ng/Kg
SL-132-SA7-SB-8.5-9.5(RES)	1,2,3,4,6,7,8-HPCDF	0.364 ng/Kg	0.364U ng/Kg
SL-132-SA7-SB-8.5-9.5(RES)	1,2,3,4,7,8-HXCDF	0.0579 ng/Kg	0.0579U ng/Kg
SL-132-SA7-SB-8.5-9.5(RES)	1,2,3,6,7,8-HXCDF	0.182 ng/Kg	0.182U ng/Kg
SL-132-SA7-SB-8.5-9.5(RES)	1,2,3,7,8,9-HXCDF	0.110 ng/Kg	0.110U ng/Kg
SL-132-SA7-SB-8.5-9.5(RES)	1,2,3,7,8-PECDD	0.0489 ng/Kg	0.0489U ng/Kg
SL-132-SA7-SB-8.5-9.5(RES)	1,2,3,7,8-PECDF	0.0636 ng/Kg	0.0636U ng/Kg
SL-132-SA7-SB-8.5-9.5(RES)	2,3,4,6,7,8-HXCDF	0.0422 ng/Kg	0.0422U ng/Kg
SL-132-SA7-SB-8.5-9.5(RES)	2,3,4,7,8-PECDF	0.0637 ng/Kg	0.0637U ng/Kg
SL-180-SA7-SB-2.0-3.0(RES)	1,2,3,4,6,7,8-HPCDD	0.591 ng/Kg	0.591U ng/Kg
SL-180-SA7-SB-2.0-3.0(RES)	1,2,3,4,6,7,8-HPCDF	0.191 ng/Kg	0.191U ng/Kg
SL-180-SA7-SB-2.0-3.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0489 ng/Kg	0.0489U ng/Kg
SL-180-SA7-SB-2.0-3.0(RES)	1,2,3,4,7,8-HXCDF	0.0426 ng/Kg	0.0426U ng/Kg
SL-180-SA7-SB-2.0-3.0(RES)	1,2,3,6,7,8-HXCDF	0.0179 ng/Kg	0.0179U ng/Kg
SL-180-SA7-SB-2.0-3.0(RES)	1,2,3,7,8,9-HXCDF	0.0730 ng/Kg	0.0730U ng/Kg
SL-180-SA7-SB-2.0-3.0(RES)	1,2,3,7,8-PECDF	0.0278 ng/Kg	0.0278U ng/Kg
SL-180-SA7-SB-2.0-3.0(RES)	2,3,4,6,7,8-HXCDF	0.0712 ng/Kg	0.0712U ng/Kg
SL-180-SA7-SB-2.0-3.0(RES)	2,3,4,7,8-PECDF	0.0980 ng/Kg	0.0980U ng/Kg
SL-180-SA7-SB-2.0-3.0(RES)	OCDF	0.252 ng/Kg	0.252U ng/Kg
SL-206-SA6-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.642 ng/Kg	0.642U ng/Kg
SL-206-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0703 ng/Kg	0.0703U ng/Kg
SL-206-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0777 ng/Kg	0.0777U ng/Kg
SL-206-SA6-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0463 ng/Kg	0.0463U ng/Kg
SL-206-SA6-SB-4.0-5.0(RES)	1,2,3,7,8-PECDD	0.0452 ng/Kg	0.0452U ng/Kg
SL-206-SA6-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0328 ng/Kg	0.0328U ng/Kg
SL-206-SA6-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0648 ng/Kg	0.0648U ng/Kg
SL-206-SA6-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.121 ng/Kg	0.121U ng/Kg
SL-225-SA6-SB-3.0-4.0(RES)	1,2,3,4,6,7,8-HPCDD	0.663 ng/Kg	0.663U ng/Kg
SL-225-SA6-SB-3.0-4.0(RES)	1,2,3,4,6,7,8-HPCDF	0.257 ng/Kg	0.257U ng/Kg
SL-225-SA6-SB-3.0-4.0(RES)	1,2,3,4,7,8-HXCDF	0.0364 ng/Kg	0.0364U ng/Kg
SL-225-SA6-SB-3.0-4.0(RES)	1,2,3,6,7,8-HXCDF	0.0170 ng/Kg	0.0170U ng/Kg
SL-225-SA6-SB-3.0-4.0(RES)	1,2,3,7,8-PECDD	0.0309 ng/Kg	0.0309U ng/Kg
SL-225-SA6-SB-3.0-4.0(RES)	2,3,4,6,7,8-HXCDF	0.0426 ng/Kg	0.0426U ng/Kg
SL-225-SA6-SB-3.0-4.0(RES)	2,3,4,7,8-PECDF	0.0838 ng/Kg	0.0838U ng/Kg
SL-225-SA6-SB-3.0-4.0(RES)	OCDF	0.575 ng/Kg	0.575U ng/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DX146 **Laboratory: LL**

EDD Filename: DX146_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

QC Sample ID (Associated Samples)	*Compound*	*MS %R*	*MSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
SL-034-SA5DS-SS-0.0-0.5MSD (SL-034-SA5DS-SS-0.0-0.5)	OCDD	-	169	40.00-135.00	54 (20.00)	OCDD	J (all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DX146

Laboratory: LL

EDD Filename: DX146_v1

eQAPP Name: CDM_SSFL_110509

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
MOISTURE	4.0	3.8	5		No Qualifiers Applied

Method: 1613B
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
1,2,3,4,6,7,8-HPCDD	0.974	0.809	19	50.00	No Qualifiers Applied
1,2,3,6,7,8-HXCDD	0.0828	0.0932	12	50.00	
1,2,3,7,8,9-HXCDD	0.133	0.192	36	50.00	
2,3,4,7,8-PECDF	0.0902	0.117	26	50.00	
OCDD	9.33	6.37	38	50.00	
OCDF	0.613	0.480	24	50.00	
1,2,3,4,6,7,8-HPCDF	0.301	0.571	62	50.00	J(all detects) UJ(all non-detects)
1,2,3,4,7,8,9-HPCDF	0.0310	0.0552	56	50.00	
1,2,3,4,7,8-HxCDD	5.13 U	0.0496	200	50.00	
1,2,3,4,7,8-HXCDF	0.0775	0.172	76	50.00	
1,2,3,6,7,8-HXCDF	0.0507	0.101	66	50.00	
1,2,3,7,8,9-HXCDF	0.101	0.174	53	50.00	
1,2,3,7,8-PECDD	5.13 U	0.0619	200	50.00	
1,2,3,7,8-PECDF	0.0401	0.107	91	50.00	
2,3,4,6,7,8-HXCDF	0.0678	0.134	66	50.00	
2,3,7,8-TCDF	1.03 U	0.0615	200	50.00	

Reporting Limit Outliers

Lab Reporting Batch ID: DX146 | Laboratory: LL

EDD Filename: DX146_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA5DS-SS-092811	1,2,3,4,6,7,8-HPCDD	JB	2.89	9.69	PQL	pg/L	
	1,2,3,4,6,7,8-HPCDF	JB	1.76	9.69	PQL	pg/L	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.521	9.69	PQL	pg/L	
	1,2,3,4,7,8-HxCDD	JB	0.360	9.69	PQL	pg/L	
	1,2,3,4,7,8-HXCDF	JB	0.497	9.69	PQL	pg/L	
	1,2,3,6,7,8-HXCDD	JB	0.286	9.69	PQL	pg/L	
	1,2,3,6,7,8-HXCDF	JB	0.497	9.69	PQL	pg/L	
	1,2,3,7,8,9-HXCDD	JBQ	0.355	9.69	PQL	pg/L	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.562	9.69	PQL	pg/L	
	1,2,3,7,8-PECDD	JBQ	0.594	9.69	PQL	pg/L	
	1,2,3,7,8-PECDF	JBQ	0.627	9.69	PQL	pg/L	
	2,3,4,6,7,8-HXCDF	JBQ	0.387	9.69	PQL	pg/L	
	2,3,4,7,8-PECDF	JB	0.712	9.69	PQL	pg/L	
	OCDD	JB	5.08	19.4	PQL	pg/L	
	OCDF	JBQ	1.67	19.4	PQL	pg/L	

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-02-SA5DS-QC-092811	1,2,3,4,6,7,8-HPCDD	JB	0.809	5.06	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.571	5.06	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0552	5.06	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0496	5.06	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.172	5.06	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0932	5.06	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.101	5.06	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.192	5.06	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.174	5.06	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JB	0.0619	5.06	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.107	5.06	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.134	5.06	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.117	5.06	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0615	1.01	PQL	ng/Kg	
	OCDD	JB	6.37	10.1	PQL	ng/Kg	
	OCDF	JB	0.480	10.1	PQL	ng/Kg	
SL-007-SA6-SB-1.0-2.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.332	5.24	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.133	5.24	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0287	5.24	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0321	5.24	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0604	5.24	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.0353	5.24	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0531	5.24	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	0.0556	5.24	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0307	5.24	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0488	5.24	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0572	5.24	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0711	5.24	PQL	ng/Kg	
	OCDD	JB	1.00	10.5	PQL	ng/Kg	
	OCDF	JB	0.171	10.5	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX146 | Laboratory: LL

EDD Filename: DX146_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-022-SA8S-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	3.60	5.26	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.777	5.26	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0858	5.26	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.0991	5.26	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.126	5.26	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.182	5.26	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.102	5.26	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.153	5.26	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.112	5.26	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0992	5.26	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.130	5.26	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.165	5.26	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.128	1.05	PQL	ng/Kg	
	OCDF	JB	1.23	10.5	PQL	ng/Kg	
SL-023-SA8S-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	1.01	5.25	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0811	5.25	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.128	5.25	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.186	5.25	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.310	5.25	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.175	5.25	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	0.333	5.25	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0383	5.25	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.0967	5.25	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.116	5.25	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.183	5.25	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0466	1.05	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.474	1.05	PQL	ng/Kg	
	OCDF	JB	1.63	10.5	PQL	ng/Kg	
SL-034-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JBQ	0.974	5.13	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.301	5.13	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0310	5.13	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0775	5.13	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.0828	5.13	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0507	5.13	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	0.133	5.13	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.101	5.13	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0401	5.13	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0678	5.13	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0902	5.13	PQL	ng/Kg	
	OCDD	JB	9.33	10.3	PQL	ng/Kg	
	OCDF	JB	0.613	10.3	PQL	ng/Kg	
SL-037-SA6-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.987	5.10	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.208	5.10	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0559	5.10	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0707	5.10	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.107	5.10	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.0677	5.10	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0692	5.10	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	0.0672	5.10	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0594	5.10	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.121	5.10	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.131	5.10	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0562	5.10	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.181	5.10	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0582	1.02	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0640	1.02	PQL	ng/Kg	
	OCDD	JB	5.58	10.2	PQL	ng/Kg	
	OCDF	JBQ	0.386	10.2	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX146 **Laboratory: LL**

EDD Filename: DX146_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-037-SA6-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	1.59	5.51	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.153	5.51	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0818	5.51	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0376	5.51	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.140	5.51	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.0453	5.51	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0326	5.51	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	0.0781	5.51	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0283	5.51	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.125	5.51	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0902	5.51	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0541	5.51	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0634	5.51	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0547	1.10	PQL	ng/Kg	
	OCDF	JB	0.205	11.0	PQL	ng/Kg	
SL-040-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	1.38	5.06	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.128	5.06	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.341	5.06	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.275	5.06	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.696	5.06	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.219	5.06	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.648	5.06	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.585	5.06	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.154	5.06	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.201	5.06	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.172	5.06	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0854	5.06	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.186	1.01	PQL	ng/Kg	
	OCDF	JB	4.60	10.1	PQL	ng/Kg	
SL-064-SA6-SB-4.0-5.0	1,2,3,4,7,8,9-HPCDF	JB	2.91	5.17	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.835	5.17	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	1.15	5.17	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	5.15	5.17	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.790	5.17	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	1.83	5.17	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.170	5.17	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	1.15	5.17	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0327	5.17	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	1.17	5.17	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.346	5.17	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.190	1.03	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0770	1.03	PQL	ng/Kg	
SL-064-SA6-SB-9.0-10.0	1,2,3,4,7,8,9-HPCDF	JB	1.04	5.64	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.457	5.64	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.461	5.64	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	3.01	5.64	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.393	5.64	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	1.27	5.64	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.127	5.64	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.299	5.64	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0547	5.64	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.606	5.64	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.152	5.64	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0779	1.13	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX146 **Laboratory: LL**

EDD Filename: DX146_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-084-SA7-SB-0.0-1.0	1,2,3,4,6,7,8-HPCDD	JB	0.374	5.09	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.144	5.09	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0268	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.0473	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0709	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.0561	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0683	5.09	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	0.0453	5.09	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0466	5.09	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.0447	5.09	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0527	5.09	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0603	5.09	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.106	5.09	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0390	1.02	PQL	ng/Kg	
	OCDD	JB	2.44	10.2	PQL	ng/Kg	
	OCDF	JB	0.212	10.2	PQL	ng/Kg	
SL-113-SA7-SB-0.0-1.0	1,2,3,4,6,7,8-HPCDD	JB	0.662	5.53	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.195	5.53	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0386	5.53	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.0587	5.53	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.149	5.53	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.487	5.53	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.161	5.53	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.643	5.53	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.0741	5.53	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JB	0.155	5.53	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.156	5.53	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0789	5.53	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.167	5.53	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0643	1.11	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0416	1.11	PQL	ng/Kg	
	OCDD	JB	4.39	11.1	PQL	ng/Kg	
	OCDF	JB	0.329	11.1	PQL	ng/Kg	
SL-115-SA7-SB-0.5-1.5	1,2,3,4,6,7,8-HPCDD	JB	0.395	5.20	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.130	5.20	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0320	5.20	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.313	5.20	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.199	5.20	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.434	5.20	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0431	5.20	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.0468	5.20	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0864	5.20	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0565	5.20	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.110	5.20	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0243	1.04	PQL	ng/Kg	
	OCDD	JB	3.13	10.4	PQL	ng/Kg	
	OCDF	JB	0.221	10.4	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX146 | Laboratory: LL

EDD Filename: DX146_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-132-SA7-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDF	JB	0.709	5.09	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0713	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0415	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0727	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.239	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0644	5.09	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	0.187	5.09	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0498	5.09	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0449	5.09	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0365	5.09	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0652	5.09	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.115	5.09	PQL	ng/Kg	
	OCDF	JB	1.77	10.2	PQL	ng/Kg	
SL-132-SA7-SB-8.5-9.5	1,2,3,4,6,7,8-HPCDD	JB	2.70	5.28	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.364	5.28	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.102	5.28	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0579	5.28	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.446	5.28	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.182	5.28	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.762	5.28	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.110	5.28	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0489	5.28	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0636	5.28	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0422	5.28	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0637	5.28	PQL	ng/Kg	
	OCDF	JB	0.667	10.6	PQL	ng/Kg	
SL-180-SA7-SB-2.0-3.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.591	5.12	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.191	5.12	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0489	5.12	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0426	5.12	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.0787	5.12	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0179	5.12	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	0.127	5.12	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0730	5.12	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0278	5.12	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0712	5.12	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0980	5.12	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0376	1.02	PQL	ng/Kg	
	OCDD	JB	2.78	10.2	PQL	ng/Kg	
	OCDF	JBQ	0.252	10.2	PQL	ng/Kg	
SL-191-SA6-SB-0.0-1.0	1,2,3,4,7,8,9-HPCDF	JB	1.65	4.91	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	1.29	4.91	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	1.38	4.91	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	4.20	4.91	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	1.24	4.91	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	2.09	4.91	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.380	4.91	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JB	0.822	4.91	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.577	4.91	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	1.49	4.91	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.978	4.91	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0615	0.983	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.419	0.983	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX146 | Laboratory: LL

EDD Filename: DX146_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-206-SA6-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	3.58	5.21	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.642	5.21	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0703	5.21	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0694	5.21	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0777	5.21	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.132	5.21	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0463	5.21	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.108	5.21	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0452	5.21	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0328	5.21	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0648	5.21	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.121	5.21	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.100	1.04	PQL	ng/Kg	
	OCDF	JB	1.38	10.4	PQL	ng/Kg	
SL-225-SA6-SB-3.0-4.0	1,2,3,4,6,7,8-HPCDD	JB	0.663	5.43	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.257	5.43	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0364	5.43	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.0694	5.43	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0170	5.43	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	0.0467	5.43	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0309	5.43	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0426	5.43	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0638	5.43	PQL	ng/Kg	
	OCDD	JB	6.16	10.9	PQL	ng/Kg	
	OCDF	JB	0.575	10.9	PQL	ng/Kg	

SAMPLE DELIVERY GROUP

DX149

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
11-Oct-2011	SL-168-SA7-SB-0.5-1.5	6434489	N	METHOD	1613B	III
12-Oct-2011	SL-011-SA3-SB-4.0-5.0	6435711	N	METHOD	1613B	III
12-Oct-2011	SL-011-SA3-SB-4.0-5.0MS	6435712	MS	METHOD	1613B	III
12-Oct-2011	SL-011-SA3-SB-4.0-5.0MSD	6435713	MSD	METHOD	1613B	III
12-Oct-2011	DUP01-SA3-QC-101211	6435715	FD	METHOD	1613B	III
12-Oct-2011	SL-096-SA7-SB-2.0-3.0	6435714	N	METHOD	1613B	III
12-Oct-2011	EB-SA3-SB-101211	6435716	EB	METHOD	1613B	III
13-Oct-2011	SL-006-SA3-SB-9.0-10.0	6438635	N	METHOD	1613B	III
13-Oct-2011	SL-006-SA3-SB-4.0-5.0	6438634	N	METHOD	1613B	III
14-Oct-2011	SL-037-SA5DS-SB-9.0-10.0	6438639	N	METHOD	1613B	III
14-Oct-2011	SL-037-SA5DS-SB-4.0-5.0	6438638	N	METHOD	1613B	III
14-Oct-2011	SL-038-SA5DS-SB-9.0-10.0	6438641	N	METHOD	1613B	III
14-Oct-2011	SL-038-SA5DS-SB-4.0-5.0	6438640	N	METHOD	1613B	III
14-Oct-2011	SL-036-SA5DS-SB-9.0-10.0	6438637	N	METHOD	1613B	III
14-Oct-2011	SL-036-SA5DS-SB-4.0-5.0	6438636	N	METHOD	1613B	III
14-Oct-2011	SL-164-SA7-SB-0.5-1.5	6438642	N	METHOD	1613B	III
18-Oct-2011	SL-013-SA5DS-SB-4.0-5.0	6441984	N	METHOD	1613B	III
18-Oct-2011	SL-140-SA7-SB-3.0-4.0	6441988	N	METHOD	1613B	III
18-Oct-2011	SL-015-SA5DS-SB-3.5-4.5	6441985	N	METHOD	1613B	III
18-Oct-2011	SL-020-SA7-SB-4.0-5.0	6441986	N	METHOD	1613B	III
18-Oct-2011	EB-SA5DS-SB-101811	6441989	EB	METHOD	1613B	III
18-Oct-2011	SL-020-SA7-SB-9.0-10.0	6441987	N	METHOD	1613B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DX149 Laboratory: LL

EDD Filename: DX149_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** AQ

Sample ID: EB-SA3-SB-101211 *Collected:* 10/12/2011 2:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.15	JBQ	0.296	MDL	10.2	PQL	pg/L	U	B
1,2,3,4,6,7,8-HPCDF	1.86	JB	0.127	MDL	10.2	PQL	pg/L	U	B
1,2,3,4,7,8,9-HPCDF	0.238	JBQ	0.143	MDL	10.2	PQL	pg/L	U	B
1,2,3,4,7,8-HxCDD	0.305	JQ	0.233	MDL	10.2	PQL	pg/L	J	Z
1,2,3,4,7,8-HXCDF	0.319	JBQ	0.150	MDL	10.2	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDD	0.290	JQ	0.243	MDL	10.2	PQL	pg/L	J	Z
1,2,3,6,7,8-HXCDF	0.337	JBQ	0.149	MDL	10.2	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDD	0.265	JBQ	0.221	MDL	10.2	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDF	0.243	JBQ	0.158	MDL	10.2	PQL	pg/L	U	B
1,2,3,7,8-PECDD	0.499	JBQ	0.325	MDL	10.2	PQL	pg/L	U	B
1,2,3,7,8-PECDF	0.248	JBQ	0.166	MDL	10.2	PQL	pg/L	U	B
2,3,4,6,7,8-HXCDF	0.426	JBQ	0.139	MDL	10.2	PQL	pg/L	U	B
2,3,4,7,8-PECDF	0.485	JB	0.152	MDL	10.2	PQL	pg/L	U	B
2,3,7,8-TCDD	0.436	JQ	0.376	MDL	2.03	PQL	pg/L	J	Z
OCDD	8.35	JB	0.234	MDL	20.3	PQL	pg/L	U	B
OCDF	1.46	JB	0.285	MDL	20.3	PQL	pg/L	U	B

Sample ID: EB-SA5DS-SB-101811 *Collected:* 10/18/2011 2:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.72	JB	0.215	MDL	10.2	PQL	pg/L	U	B
1,2,3,4,6,7,8-HPCDF	2.10	JBQ	0.118	MDL	10.2	PQL	pg/L	U	B
1,2,3,4,7,8,9-HPCDF	0.403	JBQ	0.133	MDL	10.2	PQL	pg/L	U	B
1,2,3,4,7,8-HXCDF	0.500	JBQ	0.127	MDL	10.2	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDD	0.269	JBQ	0.225	MDL	10.2	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDF	0.297	JBQ	0.126	MDL	10.2	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDD	0.264	JB	0.221	MDL	10.2	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDF	0.364	JBQ	0.130	MDL	10.2	PQL	pg/L	U	B
1,2,3,7,8-PECDD	0.332	JQ	0.230	MDL	10.2	PQL	pg/L	J	Z
1,2,3,7,8-PECDF	0.161	JBQ	0.139	MDL	10.2	PQL	pg/L	U	B
2,3,4,6,7,8-HXCDF	0.370	JBQ	0.119	MDL	10.2	PQL	pg/L	U	B
OCDD	5.70	JB	0.291	MDL	20.4	PQL	pg/L	U	B
OCDF	1.39	JB	0.363	MDL	20.4	PQL	pg/L	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX149 Laboratory: LL

EDD Filename: DX149_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: DUP01-SA3-QC-101211 ***Collected:*** 10/12/2011 10:35:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	1.37	JB	0.0434	MDL	5.05	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.551	JB	0.0200	MDL	5.05	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.103	JBQ	0.0260	MDL	5.05	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0523	JBQ	0.0329	MDL	5.05	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8-HXCDF	0.431	JB	0.0380	MDL	5.05	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HXCDD	0.161	J	0.0351	MDL	5.05	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.151	JB	0.0355	MDL	5.05	PQL	ng/Kg	J	Z, FD
1,2,3,7,8,9-HXCDD	0.126	JB	0.0356	MDL	5.05	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0620	JBQ	0.0390	MDL	5.05	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8-PECDD	0.0790	JBQ	0.0455	MDL	5.05	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8-PECDF	0.0458	JB	0.0371	MDL	5.05	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.187	JB	0.0324	MDL	5.05	PQL	ng/Kg	UJ	B, FD
2,3,4,7,8-PECDF	0.572	JB	0.0342	MDL	5.05	PQL	ng/Kg	J	Z, FD
2,3,7,8-TCDF	0.0730	J	0.0502	MDL	1.01	PQL	ng/Kg	J	Z, FD
OCDD	11.1	B	0.0418	MDL	10.1	PQL	ng/Kg	J	FD
OCDF	1.02	JB	0.0356	MDL	10.1	PQL	ng/Kg	J	Z

Sample ID: SL-006-SA3-SB-4.0-5.0 ***Collected:*** 10/13/2011 3:29:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.276	JB	0.0305	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.176	JB	0.0142	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0370	JBQ	0.0186	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0633	JBQ	0.0279	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0431	JBQ	0.0155	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0516	JQ	0.0289	MDL	5.43	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0193	JBQ	0.0143	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0621	JBQ	0.0298	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0450	JBQ	0.0386	MDL	5.43	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0445	JBQ	0.0186	MDL	5.43	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0589	JBQ	0.0136	MDL	5.43	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0526	JB	0.0175	MDL	5.43	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0372	JQ	0.0286	MDL	1.09	PQL	ng/Kg	J	Z
OCDD	0.641	JBQ	0.0312	MDL	10.9	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX149 **Laboratory: LL**

EDD Filename: DX149_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: **SL-006-SA3-SB-4.0-5.0** ***Collected:*** **10/13/2011 3:29:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
OCDF	0.158	JB	0.0408	MDL	10.9	PQL	ng/Kg	U	B

Sample ID: **SL-006-SA3-SB-9.0-10.0** ***Collected:*** **10/13/2011 2:47:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.342	JBQ	0.0307	MDL	5.64	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.234	JB	0.0160	MDL	5.64	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0545	JB	0.0203	MDL	5.64	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.126	JBQ	0.0225	MDL	5.64	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0545	JQ	0.0307	MDL	5.64	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0975	JBQ	0.0211	MDL	5.64	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0856	JBQ	0.0291	MDL	5.64	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0731	JBQ	0.0224	MDL	5.64	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.123	JBQ	0.0223	MDL	5.64	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0980	JB	0.0193	MDL	5.64	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.118	JBQ	0.0197	MDL	5.64	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.115	JQ	0.0525	MDL	1.13	PQL	ng/Kg	J	Z
OCDD	0.910	JB	0.0262	MDL	11.3	PQL	ng/Kg	U	B
OCDF	0.145	JB	0.0370	MDL	11.3	PQL	ng/Kg	U	B

Sample ID: **SL-011-SA3-SB-4.0-5.0** ***Collected:*** **10/12/2011 10:25:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.940	JB	0.0453	MDL	5.07	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.515	JB	0.0206	MDL	5.07	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0805	JBQ	0.0292	MDL	5.07	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0260	U	0.0260	MDL	5.07	PQL	ng/Kg	UJ	FD
1,2,3,4,7,8-HXCDF	0.247	JBQ	0.0262	MDL	5.07	PQL	ng/Kg	UJ	B, FD
1,2,3,6,7,8-HXCDD	0.106	JQ	0.0268	MDL	5.07	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0517	JB	0.0245	MDL	5.07	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8,9-HXCDD	0.143	JB	0.0273	MDL	5.07	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0282	U	0.0282	MDL	5.07	PQL	ng/Kg	UJ	FD
1,2,3,7,8-PECDD	0.0407	U	0.0407	MDL	5.07	PQL	ng/Kg	UJ	FD
1,2,3,7,8-PECDF	0.0648	JBQ	0.0269	MDL	5.07	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0969	JBQ	0.0222	MDL	5.07	PQL	ng/Kg	UJ	B, FD

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX149 **Laboratory:** LL

EDD Filename: DX149_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-011-SA3-SB-4.0-5.0 *Collected:* 10/12/2011 10:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,4,7,8-PECDF	0.288	JB	0.0263	MDL	5.07	PQL	ng/Kg	J	Z, FD
2,3,7,8-TCDF	0.0390	U	0.0390	MDL	1.01	PQL	ng/Kg	UJ	FD
OCDD	5.84	JB	0.0394	MDL	10.1	PQL	ng/Kg	J	Z, FD
OCDF	0.637	JBQ	0.0407	MDL	10.1	PQL	ng/Kg	U	B

Sample ID: SL-013-SA5DS-SB-4.0-5.0 *Collected:* 10/18/2011 9:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.263	JBQ	0.0256	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.108	JB	0.0117	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0406	JBQ	0.0169	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0251	JBQ	0.0250	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0358	JBQ	0.0157	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0758	J	0.0267	MDL	5.48	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0671	JB	0.0146	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.113	JB	0.0254	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0840	JBQ	0.0165	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0766	JBQ	0.0315	MDL	5.48	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0766	JBQ	0.0172	MDL	5.48	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0424	JB	0.0139	MDL	5.48	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0965	JBQ	0.0161	MDL	5.48	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0307	JQ	0.0263	MDL	1.10	PQL	ng/Kg	J	Z
OCDD	0.429	JB	0.0279	MDL	11.0	PQL	ng/Kg	U	B
OCDF	0.141	JBQ	0.0332	MDL	11.0	PQL	ng/Kg	U	B

Sample ID: SL-015-SA5DS-SB-3.5-4.5 *Collected:* 10/18/2011 10:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.414	JBQ	0.0291	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.115	JB	0.0137	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0561	JB	0.0195	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0750	JBQ	0.0280	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.132	JBQ	0.0221	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.199	J	0.0290	MDL	5.44	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.117	JBQ	0.0199	MDL	5.44	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX149 **Laboratory:** LL

EDD Filename: DX149_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-015-SA5DS-SB-3.5-4.5 *Collected:* 10/18/2011 10:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HXCDD	0.264	JBQ	0.0292	MDL	5.44	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.182	JBQ	0.0225	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.176	JBQ	0.0423	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.193	JBQ	0.0199	MDL	5.44	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0756	JBQ	0.0180	MDL	5.44	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.182	JBQ	0.0192	MDL	5.44	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0480	JQ	0.0419	MDL	1.09	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0938	JQ	0.0325	MDL	1.09	PQL	ng/Kg	J	Z
OCDD	2.44	JB	0.0239	MDL	10.9	PQL	ng/Kg	J	Z
OCDF	0.233	JB	0.0376	MDL	10.9	PQL	ng/Kg	U	B

Sample ID: SL-020-SA7-SB-4.0-5.0 *Collected:* 10/18/2011 12:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.76	JB	0.0446	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.954	JB	0.0232	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.112	JBQ	0.0358	MDL	5.15	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0621	JB	0.0356	MDL	5.15	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.456	JB	0.0345	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.313	JQ	0.0347	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.130	JB	0.0304	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.199	JB	0.0343	MDL	5.15	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0967	JBQ	0.0334	MDL	5.15	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.250	JBQ	0.0416	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.375	JBQ	0.0292	MDL	5.15	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.151	JB	0.0298	MDL	5.15	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.405	JBQ	0.0290	MDL	5.15	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.141	JQ	0.0460	MDL	1.03	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0709	J	0.0483	MDL	1.03	PQL	ng/Kg	J	Z
OCDF	1.73	JB	0.0436	MDL	10.3	PQL	ng/Kg	J	Z

Sample ID: SL-020-SA7-SB-9.0-10.0 *Collected:* 10/18/2011 2:44:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.492	JB	0.0289	MDL	5.71	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX149 **Laboratory: LL**

EDD Filename: DX149_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-020-SA7-SB-9.0-10.0 *Collected:* 10/18/2011 2:44:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	0.124	JB	0.0144	MDL	5.71	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0384	JB	0.0204	MDL	5.71	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0784	JB	0.0196	MDL	5.71	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0385	JQ	0.0264	MDL	5.71	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0799	JBQ	0.0179	MDL	5.71	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0668	JB	0.0262	MDL	5.71	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0791	JBQ	0.0195	MDL	5.71	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.117	JBQ	0.0400	MDL	5.71	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.163	JB	0.0203	MDL	5.71	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0421	JBQ	0.0162	MDL	5.71	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.145	JB	0.0192	MDL	5.71	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0367	JQ	0.0328	MDL	1.14	PQL	ng/Kg	J	Z
OCDD	2.78	JB	0.0346	MDL	11.4	PQL	ng/Kg	J	Z
OCDF	0.188	JB	0.0387	MDL	11.4	PQL	ng/Kg	U	B

Sample ID: SL-036-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 11:38:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.366	JBQ	0.0346	MDL	5.73	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.229	JBQ	0.0152	MDL	5.73	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.105	JBQ	0.0191	MDL	5.73	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.202	JBQ	0.0323	MDL	5.73	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.241	JB	0.0243	MDL	5.73	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.197	JQ	0.0328	MDL	5.73	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.281	JBQ	0.0222	MDL	5.73	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.158	JBQ	0.0322	MDL	5.73	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.184	JBQ	0.0235	MDL	5.73	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.391	JB	0.0450	MDL	5.73	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.479	JB	0.0230	MDL	5.73	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.165	JBQ	0.0211	MDL	5.73	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.357	JB	0.0207	MDL	5.73	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0632	JQ	0.0504	MDL	1.15	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0811	J	0.0298	MDL	1.15	PQL	ng/Kg	J	Z
OCDD	0.559	JBQ	0.0305	MDL	11.5	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX149 **Laboratory: LL**

EDD Filename: DX149_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: **SL-036-SA5DS-SB-4.0-5.0** ***Collected:*** **10/14/2011 11:38:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
OCDF	0.200	JBQ	0.0389	MDL	11.5	PQL	ng/Kg	U	B

Sample ID: **SL-036-SA5DS-SB-9.0-10.0** ***Collected:*** **10/14/2011 11:34:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.355	JBQ	0.0349	MDL	5.64	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.165	JBQ	0.0167	MDL	5.64	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0242	JBQ	0.0227	MDL	5.64	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0897	JBQ	0.0364	MDL	5.64	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.137	JBQ	0.0243	MDL	5.64	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.286	J	0.0369	MDL	5.64	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.166	JBQ	0.0217	MDL	5.64	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.690	JBQ	0.0360	MDL	5.64	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.725	JBQ	0.0245	MDL	5.64	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.182	JBQ	0.0440	MDL	5.64	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.267	JB	0.0217	MDL	5.64	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.114	JB	0.0204	MDL	5.64	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.168	JBQ	0.0209	MDL	5.64	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0589	JQ	0.0349	MDL	1.13	PQL	ng/Kg	J	Z
OCDD	0.628	JB	0.0335	MDL	11.3	PQL	ng/Kg	U	B
OCDF	0.112	JBQ	0.0453	MDL	11.3	PQL	ng/Kg	U	B

Sample ID: **SL-037-SA5DS-SB-4.0-5.0** ***Collected:*** **10/14/2011 9:47:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.294	JBQ	0.0338	MDL	5.75	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.138	JBQ	0.0171	MDL	5.75	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0546	JBQ	0.0234	MDL	5.75	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0654	JBQ	0.0311	MDL	5.75	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.136	JBQ	0.0264	MDL	5.75	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.239	J	0.0320	MDL	5.75	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0902	JBQ	0.0235	MDL	5.75	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.488	JB	0.0343	MDL	5.75	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.657	JB	0.0258	MDL	5.75	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.172	JBQ	0.0442	MDL	5.75	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX149 Laboratory: LL

EDD Filename: DX149_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-037-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 9:47:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8-PECDF	0.301	JB	0.0224	MDL	5.75	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0677	JBQ	0.0213	MDL	5.75	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.285	JBQ	0.0201	MDL	5.75	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.114	JQ	0.0563	MDL	1.15	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0416	J	0.0344	MDL	1.15	PQL	ng/Kg	J	Z
OCDD	0.670	JB	0.0350	MDL	11.5	PQL	ng/Kg	U	B
OCDF	0.0767	JB	0.0428	MDL	11.5	PQL	ng/Kg	U	B

Sample ID: SL-037-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 9:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.298	JB	0.0337	MDL	5.83	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0771	JB	0.0142	MDL	5.83	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0336	JBQ	0.0215	MDL	5.83	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0314	JBQ	0.0287	MDL	5.83	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0300	JBQ	0.0187	MDL	5.83	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0294	JBQ	0.0165	MDL	5.83	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0452	JBQ	0.0291	MDL	5.83	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0584	JBQ	0.0184	MDL	5.83	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0215	JBQ	0.0202	MDL	5.83	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0283	JBQ	0.0150	MDL	5.83	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0579	JBQ	0.0196	MDL	5.83	PQL	ng/Kg	U	B
OCDD	0.585	JB	0.0303	MDL	11.7	PQL	ng/Kg	U	B
OCDF	0.194	JB	0.0405	MDL	11.7	PQL	ng/Kg	U	B

Sample ID: SL-038-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 11:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.268	JBQ	0.0314	MDL	5.38	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0996	JBQ	0.0140	MDL	5.38	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0575	JBQ	0.0205	MDL	5.38	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0436	JBQ	0.0246	MDL	5.38	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0179	JBQ	0.0169	MDL	5.38	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.101	JBQ	0.0236	MDL	5.38	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.120	JBQ	0.0167	MDL	5.38	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX149 **Laboratory: LL**

EDD Filename: DX149_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-038-SA5DS-SB-4.0-5.0 *Collected:* 10/14/2011 11:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8-PECDF	0.0523	JBQ	0.0175	MDL	5.38	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0392	JBQ	0.0174	MDL	5.38	PQL	ng/Kg	U	B
OCDD	0.914	JB	0.0271	MDL	10.8	PQL	ng/Kg	U	B
OCDF	0.217	JBQ	0.0406	MDL	10.8	PQL	ng/Kg	U	B

Sample ID: SL-038-SA5DS-SB-9.0-10.0 *Collected:* 10/14/2011 10:27:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.332	JBQ	0.0263	MDL	5.22	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0871	JBQ	0.0145	MDL	5.22	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0399	JBQ	0.0198	MDL	5.22	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0292	JB	0.0187	MDL	5.22	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0232	JBQ	0.0166	MDL	5.22	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0735	JBQ	0.0288	MDL	5.22	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.147	JBQ	0.0201	MDL	5.22	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0544	JBQ	0.0352	MDL	5.22	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0315	JBQ	0.0188	MDL	5.22	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0281	JBQ	0.0161	MDL	5.22	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0419	JBQ	0.0172	MDL	5.22	PQL	ng/Kg	U	B
OCDD	0.580	JB	0.0296	MDL	10.4	PQL	ng/Kg	U	B
OCDF	0.146	JBQ	0.0351	MDL	10.4	PQL	ng/Kg	U	B

Sample ID: SL-096-SA7-SB-2.0-3.0 *Collected:* 10/12/2011 11:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.07	JB	0.0240	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.152	JBQ	0.0340	MDL	4.99	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.184	JBQ	0.0419	MDL	4.99	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0644	JB	0.0333	MDL	4.99	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.468	JQ	0.0425	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.143	JB	0.0289	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.396	JB	0.0419	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.251	JB	0.0299	MDL	4.99	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.162	JB	0.0452	MDL	4.99	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.135	JBQ	0.0250	MDL	4.99	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX149 **Laboratory:** LL

EDD Filename: DX149_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-096-SA7-SB-2.0-3.0 ***Collected:*** 10/12/2011 11:40:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,4,6,7,8-HXCDF	0.163	JBQ	0.0250	MDL	4.99	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.219	JBQ	0.0235	MDL	4.99	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0540	JQ	0.0499	MDL	0.997	PQL	ng/Kg	J	Z
OCDF	2.53	JB	0.0419	MDL	9.97	PQL	ng/Kg	J	Z

Sample ID: SL-140-SA7-SB-3.0-4.0 ***Collected:*** 10/18/2011 9:50:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.381	JBQ	0.0273	MDL	5.38	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0982	JB	0.0129	MDL	5.38	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0737	JB	0.0200	MDL	5.38	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0354	JBQ	0.0225	MDL	5.38	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0432	JQ	0.0229	MDL	5.38	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0285	JBQ	0.0158	MDL	5.38	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0726	JBQ	0.0223	MDL	5.38	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0377	JBQ	0.0170	MDL	5.38	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0517	JBQ	0.0343	MDL	5.38	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0563	JBQ	0.0177	MDL	5.38	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0408	JBQ	0.0146	MDL	5.38	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0830	JBQ	0.0178	MDL	5.38	PQL	ng/Kg	U	B
OCDD	1.58	JB	0.0281	MDL	10.8	PQL	ng/Kg	U	B
OCDF	0.131	JB	0.0389	MDL	10.8	PQL	ng/Kg	U	B

Sample ID: SL-164-SA7-SB-0.5-1.5 ***Collected:*** 10/14/2011 2:20:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.584	JB	0.0335	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.195	JB	0.0150	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0524	JBQ	0.0220	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0311	JBQ	0.0289	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0717	JBQ	0.0219	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0286	JB	0.0195	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0690	JB	0.0280	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0294	JBQ	0.0211	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0477	JB	0.0339	MDL	5.00	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX149 **Laboratory:** LL

EDD Filename: DX149_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-164-SA7-SB-0.5-1.5 ***Collected:*** 10/14/2011 2:20:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8-PECDF	0.0354	JBQ	0.0222	MDL	5.00	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0622	JBQ	0.0177	MDL	5.00	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0601	JB	0.0210	MDL	5.00	PQL	ng/Kg	U	B
OCDD	4.56	JB	0.0246	MDL	9.99	PQL	ng/Kg	J	Z
OCDF	0.392	JBQ	0.0368	MDL	9.99	PQL	ng/Kg	U	B

Sample ID: SL-168-SA7-SB-0.5-1.5 ***Collected:*** 10/11/2011 1:45:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	5.08	JB	0.0318	MDL	5.16	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.475	JB	0.0351	MDL	5.16	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.492	JB	0.0437	MDL	5.16	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.755	JB	0.0424	MDL	5.16	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	1.44	J	0.0445	MDL	5.16	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.248	JB	0.0387	MDL	5.16	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.997	JB	0.0433	MDL	5.16	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.147	JB	0.0351	MDL	5.16	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.347	JB	0.0402	MDL	5.16	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0565	JB	0.0341	MDL	5.16	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.342	JB	0.0307	MDL	5.16	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.387	JB	0.0315	MDL	5.16	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0601	J	0.0385	MDL	1.03	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX149 **Laboratory: LL**

EDD Filename: DX149_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
B	Method Blank Contamination
FD	Field Duplicate Precision
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DX149

Method Blank Outlier Report

Lab Reporting Batch ID: DX149 Laboratory: LL

EDD Filename: DX149_v1 eQAPP Name: CDM_SSFL_110509

Method: 1613B
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK2920B371632	10/21/2011 4:32:00 PM	1,2,3,4,6,7,8-HPCDD	2.75 pg/L	EB-SA3-SB-101211
		1,2,3,4,6,7,8-HPCDF	2.04 pg/L	
		1,2,3,4,7,8,9-HPCDF	0.351 pg/L	
		1,2,3,4,7,8-HXCDF	0.536 pg/L	
		1,2,3,6,7,8-HXCDF	0.592 pg/L	
		1,2,3,7,8,9-HXCDD	0.623 pg/L	
		1,2,3,7,8,9-HXCDF	0.484 pg/L	
		1,2,3,7,8-PECDD	0.541 pg/L	
		1,2,3,7,8-PECDF	0.414 pg/L	
		2,3,4,6,7,8-HXCDF	0.606 pg/L	
		2,3,4,7,8-PECDF	0.934 pg/L	
		OCDD	5.09 pg/L	
		OCDF	1.52 pg/L	
BLK2970B372330	10/25/2011 11:30:00 PM	1,2,3,4,6,7,8-HPCDD	3.78 pg/L	EB-SA5DS-SB-101811
		1,2,3,4,6,7,8-HPCDF	1.54 pg/L	
		1,2,3,4,7,8,9-HPCDF	0.445 pg/L	
		1,2,3,4,7,8-HXCDF	0.588 pg/L	
		1,2,3,6,7,8-HXCDD	0.372 pg/L	
		1,2,3,6,7,8-HXCDF	0.410 pg/L	
		1,2,3,7,8,9-HXCDD	0.989 pg/L	
		1,2,3,7,8,9-HXCDF	0.976 pg/L	
		1,2,3,7,8-PECDF	0.262 pg/L	
		2,3,4,6,7,8-HXCDF	0.342 pg/L	
		2,3,4,7,8-PECDF	0.327 pg/L	
		2,3,7,8-TCDF	0.339 pg/L	
		OCDD	6.96 pg/L	
		OCDF	2.32 pg/L	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA3-SB-101211(RES)	1,2,3,4,6,7,8-HPCDD	3.15 pg/L	3.15U pg/L
EB-SA3-SB-101211(RES)	1,2,3,4,6,7,8-HPCDF	1.86 pg/L	1.86U pg/L
EB-SA3-SB-101211(RES)	1,2,3,4,7,8,9-HPCDF	0.238 pg/L	0.238U pg/L
EB-SA3-SB-101211(RES)	1,2,3,4,7,8-HXCDF	0.319 pg/L	0.319U pg/L
EB-SA3-SB-101211(RES)	1,2,3,6,7,8-HXCDF	0.337 pg/L	0.337U pg/L
EB-SA3-SB-101211(RES)	1,2,3,7,8,9-HXCDD	0.265 pg/L	0.265U pg/L
EB-SA3-SB-101211(RES)	1,2,3,7,8,9-HXCDF	0.243 pg/L	0.243U pg/L
EB-SA3-SB-101211(RES)	1,2,3,7,8-PECDD	0.499 pg/L	0.499U pg/L
EB-SA3-SB-101211(RES)	1,2,3,7,8-PECDF	0.248 pg/L	0.248U pg/L
EB-SA3-SB-101211(RES)	2,3,4,6,7,8-HXCDF	0.426 pg/L	0.426U pg/L
EB-SA3-SB-101211(RES)	2,3,4,7,8-PECDF	0.485 pg/L	0.485U pg/L
EB-SA3-SB-101211(RES)	OCDD	8.35 pg/L	8.35U pg/L
EB-SA3-SB-101211(RES)	OCDF	1.46 pg/L	1.46U pg/L
EB-SA5DS-SB-101811(RES)	1,2,3,4,6,7,8-HPCDD	2.72 pg/L	2.72U pg/L
EB-SA5DS-SB-101811(RES)	1,2,3,4,6,7,8-HPCDF	2.10 pg/L	2.10U pg/L
EB-SA5DS-SB-101811(RES)	1,2,3,4,7,8,9-HPCDF	0.403 pg/L	0.403U pg/L
EB-SA5DS-SB-101811(RES)	1,2,3,4,7,8-HXCDF	0.500 pg/L	0.500U pg/L
EB-SA5DS-SB-101811(RES)	1,2,3,6,7,8-HXCDD	0.269 pg/L	0.269U pg/L
EB-SA5DS-SB-101811(RES)	1,2,3,6,7,8-HXCDF	0.297 pg/L	0.297U pg/L
EB-SA5DS-SB-101811(RES)	1,2,3,7,8,9-HXCDD	0.264 pg/L	0.264U pg/L
EB-SA5DS-SB-101811(RES)	1,2,3,7,8,9-HXCDF	0.364 pg/L	0.364U pg/L
EB-SA5DS-SB-101811(RES)	1,2,3,7,8-PECDF	0.161 pg/L	0.161U pg/L

Method Blank Outlier Report

Lab Reporting Batch ID: DX149 **Laboratory: LL**

EDD Filename: DX149_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA5DS-SB-101811(RES)	2,3,4,6,7,8-HXCDF	0.370 pg/L	0.370U pg/L
EB-SA5DS-SB-101811(RES)	OCDD	5.70 pg/L	5.70U pg/L
EB-SA5DS-SB-101811(RES)	OCDF	1.39 pg/L	1.39U pg/L

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK2940B371447	10/24/2011 2:47:00 PM	1,2,3,4,6,7,8-HPCDD	0.267 ng/Kg	DUP01-SA3-QC-101211
		1,2,3,4,6,7,8-HPCDF	0.154 ng/Kg	SL-006-SA3-SB-4.0-5.0
		1,2,3,4,7,8,9-HPCDF	0.0824 ng/Kg	SL-006-SA3-SB-9.0-10.0
		1,2,3,4,7,8-HxCDD	0.0460 ng/Kg	SL-011-SA3-SB-4.0-5.0
		1,2,3,4,7,8-HXCDF	0.0843 ng/Kg	SL-013-SA5DS-SB-4.0-5.0
		1,2,3,6,7,8-HXCDF	0.0224 ng/Kg	SL-015-SA5DS-SB-3.5-4.5
		1,2,3,7,8,9-HXCDD	0.0516 ng/Kg	SL-020-SA7-SB-4.0-5.0
		1,2,3,7,8,9-HXCDF	0.0575 ng/Kg	SL-020-SA7-SB-9.0-10.0
		1,2,3,7,8-PECDD	0.0460 ng/Kg	SL-036-SA5DS-SB-4.0-5.0
		1,2,3,7,8-PECDF	0.0382 ng/Kg	SL-036-SA5DS-SB-9.0-10.0
		2,3,4,6,7,8-HXCDF	0.0541 ng/Kg	SL-037-SA5DS-SB-4.0-5.0
		2,3,4,7,8-PECDF	0.0374 ng/Kg	SL-037-SA5DS-SB-9.0-10.0
		OCDD	0.461 ng/Kg	SL-038-SA5DS-SB-4.0-5.0
		OCDF	0.172 ng/Kg	SL-038-SA5DS-SB-9.0-10.0
				SL-096-SA7-SB-2.0-3.0
				SL-140-SA7-SB-3.0-4.0
				SL-164-SA7-SB-0.5-1.5
				SL-168-SA7-SB-0.5-1.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP01-SA3-QC-101211(RES)	1,2,3,4,6,7,8-HPCDF	0.551 ng/Kg	0.551U ng/Kg
DUP01-SA3-QC-101211(RES)	1,2,3,4,7,8,9-HPCDF	0.103 ng/Kg	0.103U ng/Kg
DUP01-SA3-QC-101211(RES)	1,2,3,4,7,8-HxCDD	0.0523 ng/Kg	0.0523U ng/Kg
DUP01-SA3-QC-101211(RES)	1,2,3,7,8,9-HXCDD	0.126 ng/Kg	0.126U ng/Kg
DUP01-SA3-QC-101211(RES)	1,2,3,7,8,9-HXCDF	0.0620 ng/Kg	0.0620U ng/Kg
DUP01-SA3-QC-101211(RES)	1,2,3,7,8-PECDD	0.0790 ng/Kg	0.0790U ng/Kg
DUP01-SA3-QC-101211(RES)	1,2,3,7,8-PECDF	0.0458 ng/Kg	0.0458U ng/Kg
DUP01-SA3-QC-101211(RES)	2,3,4,6,7,8-HXCDF	0.187 ng/Kg	0.187U ng/Kg
SL-006-SA3-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.276 ng/Kg	0.276U ng/Kg
SL-006-SA3-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.176 ng/Kg	0.176U ng/Kg
SL-006-SA3-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0370 ng/Kg	0.0370U ng/Kg
SL-006-SA3-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0633 ng/Kg	0.0633U ng/Kg
SL-006-SA3-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0431 ng/Kg	0.0431U ng/Kg
SL-006-SA3-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0193 ng/Kg	0.0193U ng/Kg
SL-006-SA3-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.0621 ng/Kg	0.0621U ng/Kg
SL-006-SA3-SB-4.0-5.0(RES)	1,2,3,7,8-PECDD	0.0450 ng/Kg	0.0450U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX149 Laboratory: LL

EDD Filename: DX149_v1 eQAPP Name: CDM_SSFL_110509

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-006-SA3-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0445 ng/Kg	0.0445U ng/Kg
SL-006-SA3-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0589 ng/Kg	0.0589U ng/Kg
SL-006-SA3-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0526 ng/Kg	0.0526U ng/Kg
SL-006-SA3-SB-4.0-5.0(RES)	OCDD	0.641 ng/Kg	0.641U ng/Kg
SL-006-SA3-SB-4.0-5.0(RES)	OCDF	0.158 ng/Kg	0.158U ng/Kg
SL-006-SA3-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDD	0.342 ng/Kg	0.342U ng/Kg
SL-006-SA3-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.234 ng/Kg	0.234U ng/Kg
SL-006-SA3-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0545 ng/Kg	0.0545U ng/Kg
SL-006-SA3-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.126 ng/Kg	0.126U ng/Kg
SL-006-SA3-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.0975 ng/Kg	0.0975U ng/Kg
SL-006-SA3-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDD	0.0856 ng/Kg	0.0856U ng/Kg
SL-006-SA3-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDF	0.0731 ng/Kg	0.0731U ng/Kg
SL-006-SA3-SB-9.0-10.0(RES)	1,2,3,7,8-PECDF	0.123 ng/Kg	0.123U ng/Kg
SL-006-SA3-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.0980 ng/Kg	0.0980U ng/Kg
SL-006-SA3-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.118 ng/Kg	0.118U ng/Kg
SL-006-SA3-SB-9.0-10.0(RES)	OCDD	0.910 ng/Kg	0.910U ng/Kg
SL-006-SA3-SB-9.0-10.0(RES)	OCDF	0.145 ng/Kg	0.145U ng/Kg
SL-011-SA3-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.940 ng/Kg	0.940U ng/Kg
SL-011-SA3-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.515 ng/Kg	0.515U ng/Kg
SL-011-SA3-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0805 ng/Kg	0.0805U ng/Kg
SL-011-SA3-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.247 ng/Kg	0.247U ng/Kg
SL-011-SA3-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0517 ng/Kg	0.0517U ng/Kg
SL-011-SA3-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.143 ng/Kg	0.143U ng/Kg
SL-011-SA3-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0648 ng/Kg	0.0648U ng/Kg
SL-011-SA3-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0969 ng/Kg	0.0969U ng/Kg
SL-011-SA3-SB-4.0-5.0(RES)	OCDF	0.637 ng/Kg	0.637U ng/Kg
SL-013-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.263 ng/Kg	0.263U ng/Kg
SL-013-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.108 ng/Kg	0.108U ng/Kg
SL-013-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0406 ng/Kg	0.0406U ng/Kg
SL-013-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0251 ng/Kg	0.0251U ng/Kg
SL-013-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0358 ng/Kg	0.0358U ng/Kg
SL-013-SA5DS-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0671 ng/Kg	0.0671U ng/Kg
SL-013-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.113 ng/Kg	0.113U ng/Kg
SL-013-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0840 ng/Kg	0.0840U ng/Kg
SL-013-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8-PECDD	0.0766 ng/Kg	0.0766U ng/Kg
SL-013-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0766 ng/Kg	0.0766U ng/Kg
SL-013-SA5DS-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0424 ng/Kg	0.0424U ng/Kg
SL-013-SA5DS-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0965 ng/Kg	0.0965U ng/Kg
SL-013-SA5DS-SB-4.0-5.0(RES)	OCDD	0.429 ng/Kg	0.429U ng/Kg
SL-013-SA5DS-SB-4.0-5.0(RES)	OCDF	0.141 ng/Kg	0.141U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX149 **Laboratory: LL**

EDD Filename: DX149_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-015-SA5DS-SB-3.5-4.5(RES)	1,2,3,4,6,7,8-HPCDD	0.414 ng/Kg	0.414U ng/Kg
SL-015-SA5DS-SB-3.5-4.5(RES)	1,2,3,4,6,7,8-HPCDF	0.115 ng/Kg	0.115U ng/Kg
SL-015-SA5DS-SB-3.5-4.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0561 ng/Kg	0.0561U ng/Kg
SL-015-SA5DS-SB-3.5-4.5(RES)	1,2,3,4,7,8-HxCDD	0.0750 ng/Kg	0.0750U ng/Kg
SL-015-SA5DS-SB-3.5-4.5(RES)	1,2,3,4,7,8-HXCDF	0.132 ng/Kg	0.132U ng/Kg
SL-015-SA5DS-SB-3.5-4.5(RES)	1,2,3,7,8,9-HXCDF	0.182 ng/Kg	0.182U ng/Kg
SL-015-SA5DS-SB-3.5-4.5(RES)	1,2,3,7,8-PECDD	0.176 ng/Kg	0.176U ng/Kg
SL-015-SA5DS-SB-3.5-4.5(RES)	2,3,4,6,7,8-HXCDF	0.0756 ng/Kg	0.0756U ng/Kg
SL-015-SA5DS-SB-3.5-4.5(RES)	2,3,4,7,8-PECDF	0.182 ng/Kg	0.182U ng/Kg
SL-015-SA5DS-SB-3.5-4.5(RES)	OCDF	0.233 ng/Kg	0.233U ng/Kg
SL-020-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.112 ng/Kg	0.112U ng/Kg
SL-020-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0621 ng/Kg	0.0621U ng/Kg
SL-020-SA7-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.199 ng/Kg	0.199U ng/Kg
SL-020-SA7-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0967 ng/Kg	0.0967U ng/Kg
SL-020-SA7-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.151 ng/Kg	0.151U ng/Kg
SL-020-SA7-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDD	0.492 ng/Kg	0.492U ng/Kg
SL-020-SA7-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.124 ng/Kg	0.124U ng/Kg
SL-020-SA7-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0384 ng/Kg	0.0384U ng/Kg
SL-020-SA7-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.0784 ng/Kg	0.0784U ng/Kg
SL-020-SA7-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.0799 ng/Kg	0.0799U ng/Kg
SL-020-SA7-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDD	0.0668 ng/Kg	0.0668U ng/Kg
SL-020-SA7-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDF	0.0791 ng/Kg	0.0791U ng/Kg
SL-020-SA7-SB-9.0-10.0(RES)	1,2,3,7,8-PECDD	0.117 ng/Kg	0.117U ng/Kg
SL-020-SA7-SB-9.0-10.0(RES)	1,2,3,7,8-PECDF	0.163 ng/Kg	0.163U ng/Kg
SL-020-SA7-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.0421 ng/Kg	0.0421U ng/Kg
SL-020-SA7-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.145 ng/Kg	0.145U ng/Kg
SL-020-SA7-SB-9.0-10.0(RES)	OCDF	0.188 ng/Kg	0.188U ng/Kg
SL-036-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.366 ng/Kg	0.366U ng/Kg
SL-036-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.229 ng/Kg	0.229U ng/Kg
SL-036-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.105 ng/Kg	0.105U ng/Kg
SL-036-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.202 ng/Kg	0.202U ng/Kg
SL-036-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.241 ng/Kg	0.241U ng/Kg
SL-036-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.158 ng/Kg	0.158U ng/Kg
SL-036-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.184 ng/Kg	0.184U ng/Kg
SL-036-SA5DS-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.165 ng/Kg	0.165U ng/Kg
SL-036-SA5DS-SB-4.0-5.0(RES)	OCDD	0.559 ng/Kg	0.559U ng/Kg
SL-036-SA5DS-SB-4.0-5.0(RES)	OCDF	0.200 ng/Kg	0.200U ng/Kg
SL-036-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDD	0.355 ng/Kg	0.355U ng/Kg
SL-036-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.165 ng/Kg	0.165U ng/Kg
SL-036-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0242 ng/Kg	0.0242U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX149 **Laboratory: LL**

EDD Filename: DX149_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-036-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,7,8-HxCDD	0.0897 ng/Kg	0.0897U ng/Kg
SL-036-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.137 ng/Kg	0.137U ng/Kg
SL-036-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8-PECDD	0.182 ng/Kg	0.182U ng/Kg
SL-036-SA5DS-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.114 ng/Kg	0.114U ng/Kg
SL-036-SA5DS-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.168 ng/Kg	0.168U ng/Kg
SL-036-SA5DS-SB-9.0-10.0(RES)	OCDD	0.628 ng/Kg	0.628U ng/Kg
SL-036-SA5DS-SB-9.0-10.0(RES)	OCDF	0.112 ng/Kg	0.112U ng/Kg
SL-037-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.294 ng/Kg	0.294U ng/Kg
SL-037-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.138 ng/Kg	0.138U ng/Kg
SL-037-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0546 ng/Kg	0.0546U ng/Kg
SL-037-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0654 ng/Kg	0.0654U ng/Kg
SL-037-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.136 ng/Kg	0.136U ng/Kg
SL-037-SA5DS-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0902 ng/Kg	0.0902U ng/Kg
SL-037-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8-PECDD	0.172 ng/Kg	0.172U ng/Kg
SL-037-SA5DS-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0677 ng/Kg	0.0677U ng/Kg
SL-037-SA5DS-SB-4.0-5.0(RES)	OCDD	0.670 ng/Kg	0.670U ng/Kg
SL-037-SA5DS-SB-4.0-5.0(RES)	OCDF	0.0767 ng/Kg	0.0767U ng/Kg
SL-037-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDD	0.298 ng/Kg	0.298U ng/Kg
SL-037-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0771 ng/Kg	0.0771U ng/Kg
SL-037-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0336 ng/Kg	0.0336U ng/Kg
SL-037-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,7,8-HxCDD	0.0314 ng/Kg	0.0314U ng/Kg
SL-037-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.0300 ng/Kg	0.0300U ng/Kg
SL-037-SA5DS-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.0294 ng/Kg	0.0294U ng/Kg
SL-037-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDD	0.0452 ng/Kg	0.0452U ng/Kg
SL-037-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDF	0.0584 ng/Kg	0.0584U ng/Kg
SL-037-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8-PECDF	0.0215 ng/Kg	0.0215U ng/Kg
SL-037-SA5DS-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.0283 ng/Kg	0.0283U ng/Kg
SL-037-SA5DS-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.0579 ng/Kg	0.0579U ng/Kg
SL-037-SA5DS-SB-9.0-10.0(RES)	OCDD	0.585 ng/Kg	0.585U ng/Kg
SL-037-SA5DS-SB-9.0-10.0(RES)	OCDF	0.194 ng/Kg	0.194U ng/Kg
SL-038-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.268 ng/Kg	0.268U ng/Kg
SL-038-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0996 ng/Kg	0.0996U ng/Kg
SL-038-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0575 ng/Kg	0.0575U ng/Kg
SL-038-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0436 ng/Kg	0.0436U ng/Kg
SL-038-SA5DS-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0179 ng/Kg	0.0179U ng/Kg
SL-038-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.101 ng/Kg	0.101U ng/Kg
SL-038-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.120 ng/Kg	0.120U ng/Kg
SL-038-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0523 ng/Kg	0.0523U ng/Kg
SL-038-SA5DS-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0392 ng/Kg	0.0392U ng/Kg
SL-038-SA5DS-SB-4.0-5.0(RES)	OCDD	0.914 ng/Kg	0.914U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX149 | Laboratory: LL

EDD Filename: DX149_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-038-SA5DS-SB-4.0-5.0(RES)	OCDF	0.217 ng/Kg	0.217U ng/Kg
SL-038-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDD	0.332 ng/Kg	0.332U ng/Kg
SL-038-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0871 ng/Kg	0.0871U ng/Kg
SL-038-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0399 ng/Kg	0.0399U ng/Kg
SL-038-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.0292 ng/Kg	0.0292U ng/Kg
SL-038-SA5DS-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.0232 ng/Kg	0.0232U ng/Kg
SL-038-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDD	0.0735 ng/Kg	0.0735U ng/Kg
SL-038-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDF	0.147 ng/Kg	0.147U ng/Kg
SL-038-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8-PECDD	0.0544 ng/Kg	0.0544U ng/Kg
SL-038-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8-PECDF	0.0315 ng/Kg	0.0315U ng/Kg
SL-038-SA5DS-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.0281 ng/Kg	0.0281U ng/Kg
SL-038-SA5DS-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.0419 ng/Kg	0.0419U ng/Kg
SL-038-SA5DS-SB-9.0-10.0(RES)	OCDD	0.580 ng/Kg	0.580U ng/Kg
SL-038-SA5DS-SB-9.0-10.0(RES)	OCDF	0.146 ng/Kg	0.146U ng/Kg
SL-096-SA7-SB-2.0-3.0(RES)	1,2,3,4,7,8,9-HPCDF	0.152 ng/Kg	0.152U ng/Kg
SL-096-SA7-SB-2.0-3.0(RES)	1,2,3,4,7,8-HxCDD	0.184 ng/Kg	0.184U ng/Kg
SL-096-SA7-SB-2.0-3.0(RES)	1,2,3,4,7,8-HXCDF	0.0644 ng/Kg	0.0644U ng/Kg
SL-096-SA7-SB-2.0-3.0(RES)	1,2,3,7,8,9-HXCDF	0.251 ng/Kg	0.251U ng/Kg
SL-096-SA7-SB-2.0-3.0(RES)	1,2,3,7,8-PECDD	0.162 ng/Kg	0.162U ng/Kg
SL-096-SA7-SB-2.0-3.0(RES)	1,2,3,7,8-PECDF	0.135 ng/Kg	0.135U ng/Kg
SL-096-SA7-SB-2.0-3.0(RES)	2,3,4,6,7,8-HXCDF	0.163 ng/Kg	0.163U ng/Kg
SL-140-SA7-SB-3.0-4.0(RES)	1,2,3,4,6,7,8-HPCDD	0.381 ng/Kg	0.381U ng/Kg
SL-140-SA7-SB-3.0-4.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0982 ng/Kg	0.0982U ng/Kg
SL-140-SA7-SB-3.0-4.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0737 ng/Kg	0.0737U ng/Kg
SL-140-SA7-SB-3.0-4.0(RES)	1,2,3,4,7,8-HxCDD	0.0354 ng/Kg	0.0354U ng/Kg
SL-140-SA7-SB-3.0-4.0(RES)	1,2,3,6,7,8-HXCDF	0.0285 ng/Kg	0.0285U ng/Kg
SL-140-SA7-SB-3.0-4.0(RES)	1,2,3,7,8,9-HXCDD	0.0726 ng/Kg	0.0726U ng/Kg
SL-140-SA7-SB-3.0-4.0(RES)	1,2,3,7,8,9-HXCDF	0.0377 ng/Kg	0.0377U ng/Kg
SL-140-SA7-SB-3.0-4.0(RES)	1,2,3,7,8-PECDD	0.0517 ng/Kg	0.0517U ng/Kg
SL-140-SA7-SB-3.0-4.0(RES)	1,2,3,7,8-PECDF	0.0563 ng/Kg	0.0563U ng/Kg
SL-140-SA7-SB-3.0-4.0(RES)	2,3,4,6,7,8-HXCDF	0.0408 ng/Kg	0.0408U ng/Kg
SL-140-SA7-SB-3.0-4.0(RES)	2,3,4,7,8-PECDF	0.0830 ng/Kg	0.0830U ng/Kg
SL-140-SA7-SB-3.0-4.0(RES)	OCDD	1.58 ng/Kg	1.58U ng/Kg
SL-140-SA7-SB-3.0-4.0(RES)	OCDF	0.131 ng/Kg	0.131U ng/Kg
SL-164-SA7-SB-0.5-1.5(RES)	1,2,3,4,6,7,8-HPCDD	0.584 ng/Kg	0.584U ng/Kg
SL-164-SA7-SB-0.5-1.5(RES)	1,2,3,4,6,7,8-HPCDF	0.195 ng/Kg	0.195U ng/Kg
SL-164-SA7-SB-0.5-1.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0524 ng/Kg	0.0524U ng/Kg
SL-164-SA7-SB-0.5-1.5(RES)	1,2,3,4,7,8-HxCDD	0.0311 ng/Kg	0.0311U ng/Kg
SL-164-SA7-SB-0.5-1.5(RES)	1,2,3,4,7,8-HXCDF	0.0717 ng/Kg	0.0717U ng/Kg
SL-164-SA7-SB-0.5-1.5(RES)	1,2,3,6,7,8-HXCDF	0.0286 ng/Kg	0.0286U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX149 Laboratory: LL

EDD Filename: DX149_v1 eQAPP Name: CDM_SSFL_110509

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-164-SA7-SB-0.5-1.5(RES)	1,2,3,7,8,9-HXCDD	0.0690 ng/Kg	0.0690U ng/Kg
SL-164-SA7-SB-0.5-1.5(RES)	1,2,3,7,8,9-HXCDF	0.0294 ng/Kg	0.0294U ng/Kg
SL-164-SA7-SB-0.5-1.5(RES)	1,2,3,7,8-PECDD	0.0477 ng/Kg	0.0477U ng/Kg
SL-164-SA7-SB-0.5-1.5(RES)	1,2,3,7,8-PECDF	0.0354 ng/Kg	0.0354U ng/Kg
SL-164-SA7-SB-0.5-1.5(RES)	2,3,4,6,7,8-HXCDF	0.0622 ng/Kg	0.0622U ng/Kg
SL-164-SA7-SB-0.5-1.5(RES)	2,3,4,7,8-PECDF	0.0601 ng/Kg	0.0601U ng/Kg
SL-164-SA7-SB-0.5-1.5(RES)	OCDF	0.392 ng/Kg	0.392U ng/Kg
SL-168-SA7-SB-0.5-1.5(RES)	1,2,3,7,8,9-HXCDF	0.147 ng/Kg	0.147U ng/Kg
SL-168-SA7-SB-0.5-1.5(RES)	1,2,3,7,8-PECDF	0.0565 ng/Kg	0.0565U ng/Kg

Field Duplicate RPD Report

Lab Reporting Batch ID: DX149 | Laboratory: LL

EDD Filename: DX149_v1 | eQAPP Name: CDM_SSFL_110509

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-011-SA3-SB-4.0-5.0	DUP01-SA3-QC-101211			
MOISTURE	2.2	2.4	9		No Qualifiers Applied

Method: 1613B
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-011-SA3-SB-4.0-5.0	DUP01-SA3-QC-101211			
1,2,3,4,6,7,8-HPCDD	0.940	1.37	37	50.00	No Qualifiers Applied
1,2,3,4,6,7,8-HPCDF	0.515	0.551	7	50.00	
1,2,3,4,7,8,9-HPCDF	0.0805	0.103	25	50.00	
1,2,3,6,7,8-HXCDD	0.106	0.161	41	50.00	
1,2,3,7,8,9-HXCDD	0.143	0.126	13	50.00	
1,2,3,7,8-PECDF	0.0648	0.0458	34	50.00	
OCDF	0.637	1.02	46	50.00	
1,2,3,4,7,8-HxCDD	5.07 U	0.0523	200	50.00	J(all detects) UJ(all non-detects)
1,2,3,4,7,8-HXCDF	0.247	0.431	54	50.00	
1,2,3,6,7,8-HXCDF	0.0517	0.151	98	50.00	
1,2,3,7,8,9-HXCDF	5.07 U	0.0620	200	50.00	
1,2,3,7,8-PECDD	5.07 U	0.0790	200	50.00	
2,3,4,6,7,8-HXCDF	0.0969	0.187	63	50.00	
2,3,4,7,8-PECDF	0.288	0.572	66	50.00	
2,3,7,8-TCDF	1.01 U	0.0730	200	50.00	
OCDD	5.84	11.1	62	50.00	

Reporting Limit Outliers

Lab Reporting Batch ID: DX149 | Laboratory: LL

EDD Filename: DX149_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA3-SB-101211	1,2,3,4,6,7,8-HPCDD	JBQ	3.15	10.2	PQL	pg/L	
	1,2,3,4,6,7,8-HPCDF	JB	1.86	10.2	PQL	pg/L	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.238	10.2	PQL	pg/L	
	1,2,3,4,7,8-HxCDD	JQ	0.305	10.2	PQL	pg/L	
	1,2,3,4,7,8-HXCDF	JBQ	0.319	10.2	PQL	pg/L	
	1,2,3,6,7,8-HXCDD	JQ	0.290	10.2	PQL	pg/L	
	1,2,3,6,7,8-HXCDF	JBQ	0.337	10.2	PQL	pg/L	
	1,2,3,7,8,9-HXCDD	JBQ	0.265	10.2	PQL	pg/L	
	1,2,3,7,8,9-HXCDF	JBQ	0.243	10.2	PQL	pg/L	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.499	10.2	PQL	pg/L	
	1,2,3,7,8-PECDF	JBQ	0.248	10.2	PQL	pg/L	
	2,3,4,6,7,8-HXCDF	JBQ	0.426	10.2	PQL	pg/L	
	2,3,4,7,8-PECDF	JB	0.485	10.2	PQL	pg/L	
	2,3,7,8-TCDD	JQ	0.436	2.03	PQL	pg/L	
	OCDD	JB	8.35	20.3	PQL	pg/L	
	OCDF	JB	1.46	20.3	PQL	pg/L	
EB-SA5DS-SB-101811	1,2,3,4,6,7,8-HPCDD	JB	2.72	10.2	PQL	pg/L	
	1,2,3,4,6,7,8-HPCDF	JBQ	2.10	10.2	PQL	pg/L	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.403	10.2	PQL	pg/L	
	1,2,3,4,7,8-HXCDF	JBQ	0.500	10.2	PQL	pg/L	
	1,2,3,6,7,8-HXCDD	JBQ	0.269	10.2	PQL	pg/L	
	1,2,3,6,7,8-HXCDF	JBQ	0.297	10.2	PQL	pg/L	
	1,2,3,7,8,9-HXCDD	JB	0.264	10.2	PQL	pg/L	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.364	10.2	PQL	pg/L	
	1,2,3,7,8-PECDD	JQ	0.332	10.2	PQL	pg/L	
	1,2,3,7,8-PECDF	JBQ	0.161	10.2	PQL	pg/L	
	2,3,4,6,7,8-HXCDF	JBQ	0.370	10.2	PQL	pg/L	
	OCDD	JB	5.70	20.4	PQL	pg/L	
	OCDF	JB	1.39	20.4	PQL	pg/L	

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA3-QC-101211	1,2,3,4,6,7,8-HPCDD	JB	1.37	5.05	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.551	5.05	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.103	5.05	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0523	5.05	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.431	5.05	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.161	5.05	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.151	5.05	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.126	5.05	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0620	5.05	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0790	5.05	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0458	5.05	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.187	5.05	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.572	5.05	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0730	1.01	PQL	ng/Kg	
	OCDF	JB	1.02	10.1	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX149 **Laboratory: LL**

EDD Filename: DX149_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-006-SA3-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.276	5.43	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.176	5.43	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0370	5.43	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0633	5.43	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0431	5.43	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.0516	5.43	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0193	5.43	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0621	5.43	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.0450	5.43	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0445	5.43	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0589	5.43	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0526	5.43	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0372	1.09	PQL	ng/Kg	
	OCDD	JBQ	0.641	10.9	PQL	ng/Kg	
	OCDF	JB	0.158	10.9	PQL	ng/Kg	
SL-006-SA3-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.342	5.64	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.234	5.64	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0545	5.64	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.126	5.64	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.0545	5.64	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0975	5.64	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0856	5.64	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0731	5.64	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.123	5.64	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0980	5.64	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.118	5.64	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.115	1.13	PQL	ng/Kg	
	OCDD	JB	0.910	11.3	PQL	ng/Kg	
	OCDF	JB	0.145	11.3	PQL	ng/Kg	
SL-011-SA3-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.940	5.07	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.515	5.07	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0805	5.07	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.247	5.07	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.106	5.07	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0517	5.07	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.143	5.07	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDF	JBQ	0.0648	5.07	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0969	5.07	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.288	5.07	PQL	ng/Kg	
	OCDD	JB	5.84	10.1	PQL	ng/Kg	
	OCDF	JBQ	0.637	10.1	PQL	ng/Kg	
SL-013-SA5DS-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.263	5.48	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.108	5.48	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0406	5.48	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0251	5.48	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0358	5.48	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.0758	5.48	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0671	5.48	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.113	5.48	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0840	5.48	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0766	5.48	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0766	5.48	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0424	5.48	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0965	5.48	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0307	1.10	PQL	ng/Kg	
	OCDD	JB	0.429	11.0	PQL	ng/Kg	
	OCDF	JBQ	0.141	11.0	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX149 | Laboratory: LL

EDD Filename: DX149_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-015-SA5DS-SB-3.5-4.5	1,2,3,4,6,7,8-HPCDD	JBQ	0.414	5.44	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.115	5.44	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0561	5.44	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0750	5.44	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.132	5.44	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.199	5.44	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.117	5.44	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.264	5.44	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.182	5.44	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.176	5.44	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.193	5.44	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0756	5.44	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.182	5.44	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0480	1.09	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0938	1.09	PQL	ng/Kg	
	OCDD	JB	2.44	10.9	PQL	ng/Kg	
	OCDF	JB	0.233	10.9	PQL	ng/Kg	
SL-020-SA7-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	3.76	5.15	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.954	5.15	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.112	5.15	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0621	5.15	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.456	5.15	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.313	5.15	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.130	5.15	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.199	5.15	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0967	5.15	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.250	5.15	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.375	5.15	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.151	5.15	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.405	5.15	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.141	1.03	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0709	1.03	PQL	ng/Kg	
	OCDF	JB	1.73	10.3	PQL	ng/Kg	
SL-020-SA7-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	0.492	5.71	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.124	5.71	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0384	5.71	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0784	5.71	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.0385	5.71	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0799	5.71	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0668	5.71	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0791	5.71	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.117	5.71	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.163	5.71	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0421	5.71	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.145	5.71	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0367	1.14	PQL	ng/Kg	
	OCDD	JB	2.78	11.4	PQL	ng/Kg	
	OCDF	JB	0.188	11.4	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX149 **Laboratory: LL**

EDD Filename: DX149_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-036-SA5DS-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.366	5.73	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.229	5.73	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.105	5.73	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.202	5.73	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.241	5.73	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.197	5.73	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.281	5.73	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.158	5.73	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.184	5.73	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JB	0.391	5.73	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.479	5.73	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.165	5.73	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.357	5.73	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0632	1.15	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0811	1.15	PQL	ng/Kg	
	OCDD	JBQ	0.559	11.5	PQL	ng/Kg	
	OCDF	JBQ	0.200	11.5	PQL	ng/Kg	
SL-036-SA5DS-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.355	5.64	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.165	5.64	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0242	5.64	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0897	5.64	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.137	5.64	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.286	5.64	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.166	5.64	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.690	5.64	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.725	5.64	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.182	5.64	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.267	5.64	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.114	5.64	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.168	5.64	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0589	1.13	PQL	ng/Kg	
	OCDD	JB	0.628	11.3	PQL	ng/Kg	
	OCDF	JBQ	0.112	11.3	PQL	ng/Kg	
SL-037-SA5DS-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.294	5.75	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.138	5.75	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0546	5.75	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0654	5.75	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.136	5.75	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.239	5.75	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0902	5.75	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.488	5.75	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.657	5.75	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.172	5.75	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.301	5.75	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0677	5.75	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.285	5.75	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.114	1.15	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0416	1.15	PQL	ng/Kg	
	OCDD	JB	0.670	11.5	PQL	ng/Kg	
	OCDF	JB	0.0767	11.5	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX149 | Laboratory: LL

EDD Filename: DX149_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-037-SA5DS-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	0.298	5.83	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.0771	5.83	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0336	5.83	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0314	5.83	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0300	5.83	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0294	5.83	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0452	5.83	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0584	5.83	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0215	5.83	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0283	5.83	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0579	5.83	PQL	ng/Kg	
	OCDD	JB	0.585	11.7	PQL	ng/Kg	
	OCDF	JB	0.194	11.7	PQL	ng/Kg	
SL-038-SA5DS-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.268	5.38	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0996	5.38	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0575	5.38	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0436	5.38	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0179	5.38	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.101	5.38	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.120	5.38	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0523	5.38	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0392	5.38	PQL	ng/Kg	
	OCDD	JB	0.914	10.8	PQL	ng/Kg	
	OCDF	JBQ	0.217	10.8	PQL	ng/Kg	
SL-038-SA5DS-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.332	5.22	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0871	5.22	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0399	5.22	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0292	5.22	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0232	5.22	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0735	5.22	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.147	5.22	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.0544	5.22	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0315	5.22	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0281	5.22	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0419	5.22	PQL	ng/Kg	
	OCDD	JB	0.580	10.4	PQL	ng/Kg	
	OCDF	JBQ	0.146	10.4	PQL	ng/Kg	
SL-096-SA7-SB-2.0-3.0	1,2,3,4,6,7,8-HPCDF	JB	1.07	4.99	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.152	4.99	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.184	4.99	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0644	4.99	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.468	4.99	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.143	4.99	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.396	4.99	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.251	4.99	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.162	4.99	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.135	4.99	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.163	4.99	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.219	4.99	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0540	0.997	PQL	ng/Kg	
	OCDF	JB	2.53	9.97	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX149 **Laboratory: LL**

EDD Filename: DX149_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
SL-140-SA7-SB-3.0-4.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.381	5.38	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.0982	5.38	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0737	5.38	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0354	5.38	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.0432	5.38	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0285	5.38	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0726	5.38	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0377	5.38	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0517	5.38	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0563	5.38	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0408	5.38	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0830	5.38	PQL	ng/Kg	
	OCDD	JB	1.58	10.8	PQL	ng/Kg	
	OCDF	JB	0.131	10.8	PQL	ng/Kg	
SL-164-SA7-SB-0.5-1.5	1,2,3,4,6,7,8-HPCDD	JB	0.584	5.00	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.195	5.00	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0524	5.00	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0311	5.00	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0717	5.00	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0286	5.00	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0690	5.00	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0294	5.00	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.0477	5.00	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0354	5.00	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0622	5.00	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0601	5.00	PQL	ng/Kg	
	OCDD	JB	4.56	9.99	PQL	ng/Kg	
	OCDF	JBQ	0.392	9.99	PQL	ng/Kg	
SL-168-SA7-SB-0.5-1.5	1,2,3,4,6,7,8-HPCDF	JB	5.08	5.16	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.475	5.16	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.492	5.16	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.755	5.16	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	1.44	5.16	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.248	5.16	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.997	5.16	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.147	5.16	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.347	5.16	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0565	5.16	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.342	5.16	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.387	5.16	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0601	1.03	PQL	ng/Kg	

SAMPLE DELIVERY GROUP

DX150

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
13-Oct-2011	SL-005-SA3-SB-7.5-8.5	6437219	N	METHOD	1613B	III
13-Oct-2011	SL-005-SA3-SB-4.0-5.0	6437218	N	METHOD	1613B	III
13-Oct-2011	SL-089-SA7-SB-3.5-4.5	6437220	N	METHOD	1613B	III
13-Oct-2011	SL-089-SA7-SB-3.5-4.5MS	6437221	MS	METHOD	1613B	III
13-Oct-2011	SL-089-SA7-SB-3.5-4.5MSD	6437222	MSD	METHOD	1613B	III
13-Oct-2011	DUP09-SA7-QC-101311	6437223	FD	METHOD	1613B	III
13-Oct-2011	EB-SA7-SB-101311	6437224	EB	METHOD	1613B	III
19-Oct-2011	SL-016-SA5DS-SB-4.0-5.0	6443500	N	METHOD	1613B	III
19-Oct-2011	SL-143-SA7-SB-5.0-6.0	6443501	N	METHOD	1613B	III
19-Oct-2011	SL-143-SA7-SB-9.0-10.0	6443502	N	METHOD	1613B	III
19-Oct-2011	EB-SA7-SB-101911	6443505	EB	METHOD	1613B	III
19-Oct-2011	SL-142-SA7-SB-2.0-3.0	6443503	N	METHOD	1613B	III
19-Oct-2011	SL-142-SA7-SB-7.0-8.0	6443504	N	METHOD	1613B	III
20-Oct-2011	SL-023-SA7-SB-2.0-3.0	6445474	N	METHOD	1613B	III
20-Oct-2011	SL-040-SA5DS-SB-9.0-10.0	6445481	N	METHOD	1613B	III
20-Oct-2011	SL-040-SA5DS-SB-4.0-5.0	6445480	N	METHOD	1613B	III
20-Oct-2011	SL-060-SA7-SB-2.5-3.5	6445475	N	METHOD	1613B	III
20-Oct-2011	SL-026-SA5DS-SB-9.0-10.0	6445479	N	METHOD	1613B	III
20-Oct-2011	SL-026-SA5DS-SB-4.0-5.0	6445478	N	METHOD	1613B	III
20-Oct-2011	SL-148-SA7-SB-0.0-1.0	6445477	N	METHOD	1613B	III
20-Oct-2011	SL-016-SA8S-SB-4.0-5.0	6445482	N	METHOD	1613B	III
20-Oct-2011	SL-069-SA7-SB-2.5-3.5	6445476	N	METHOD	1613B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DX150 Laboratory: LL

EDD Filename: PrepDX150_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** AQ

Sample ID: EB-SA7-SB-101311 *Collected:* 10/13/2011 2:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.09	JB	0.265	MDL	9.99	PQL	pg/L	U	B
1,2,3,4,6,7,8-HPCDF	2.11	JB	0.110	MDL	9.99	PQL	pg/L	U	B
1,2,3,4,7,8,9-HPCDF	0.292	JBQ	0.120	MDL	9.99	PQL	pg/L	U	B
1,2,3,4,7,8-HXCDF	0.423	JB	0.143	MDL	9.99	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDD	0.265	JQ	0.224	MDL	9.99	PQL	pg/L	J	Z
1,2,3,6,7,8-HXCDF	0.458	JBQ	0.145	MDL	9.99	PQL	pg/L	U	B
2,3,4,6,7,8-HXCDF	0.416	JB	0.124	MDL	9.99	PQL	pg/L	U	B
2,3,4,7,8-PECDF	0.419	JBQ	0.128	MDL	9.99	PQL	pg/L	U	B
OCDD	6.33	JB	0.232	MDL	20.0	PQL	pg/L	U	B
OCDF	1.70	JB	0.276	MDL	20.0	PQL	pg/L	U	B

Sample ID: EB-SA7-SB-101911 *Collected:* 10/19/2011 2:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.05	JB	0.351	MDL	10.6	PQL	pg/L	U	B
1,2,3,4,6,7,8-HPCDF	2.50	JB	0.182	MDL	10.6	PQL	pg/L	U	B
1,2,3,4,7,8,9-HPCDF	0.479	JBQ	0.214	MDL	10.6	PQL	pg/L	U	B
1,2,3,4,7,8-HXCDF	0.302	JBQ	0.192	MDL	10.6	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDD	0.623	JBQ	0.327	MDL	10.6	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDF	0.460	JBQ	0.179	MDL	10.6	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDD	0.805	JBQ	0.319	MDL	10.6	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDF	0.426	JBQ	0.186	MDL	10.6	PQL	pg/L	U	B
1,2,3,7,8-PECDF	0.543	JBQ	0.217	MDL	10.6	PQL	pg/L	U	B
2,3,4,6,7,8-HXCDF	0.536	JBQ	0.171	MDL	10.6	PQL	pg/L	U	B
2,3,4,7,8-PECDF	0.801	JBQ	0.196	MDL	10.6	PQL	pg/L	U	B
2,3,7,8-TCDF	0.315	JBQ	0.266	MDL	2.12	PQL	pg/L	U	B
OCDD	6.70	JB	0.371	MDL	21.2	PQL	pg/L	U	B
OCDF	2.49	JBQ	0.505	MDL	21.2	PQL	pg/L	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX150 **Laboratory:** LL

EDD Filename: PrepDX150_v2 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: DUP09-SA7-QC-101311 ***Collected:*** 10/13/2011 12:40:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	4.45	JB	0.0370	MDL	5.59	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.789	JB	0.0183	MDL	5.59	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.111	JB	0.0305	MDL	5.59	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0729	JBQ	0.0306	MDL	5.59	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.244	JQ	0.0247	MDL	5.59	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.188	JBQ	0.0309	MDL	5.59	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0971	JB	0.0226	MDL	5.59	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.150	JBQ	0.0293	MDL	5.59	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0436	JB	0.0268	MDL	5.59	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8-PECDD	0.0835	JBQ	0.0298	MDL	5.59	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8-PECDF	0.0785	JBQ	0.0201	MDL	5.59	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.153	JBQ	0.0212	MDL	5.59	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.128	JBQ	0.0202	MDL	5.59	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0366	J	0.0332	MDL	1.12	PQL	ng/Kg	J	Z, FD
2,3,7,8-TCDF	0.0570	JQ	0.0293	MDL	1.12	PQL	ng/Kg	J	Z
OCDF	2.24	JB	0.0450	MDL	11.2	PQL	ng/Kg	J	Z

Sample ID: SL-005-SA3-SB-4.0-5.0 ***Collected:*** 10/13/2011 12:09:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.646	JB	0.0317	MDL	5.30	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.207	JB	0.0149	MDL	5.30	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0417	JB	0.0234	MDL	5.30	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0405	JQ	0.0171	MDL	5.30	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.0467	JBQ	0.0239	MDL	5.30	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0484	JBQ	0.0152	MDL	5.30	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0620	JBQ	0.0241	MDL	5.30	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0330	JBQ	0.0324	MDL	5.30	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0490	JBQ	0.0169	MDL	5.30	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0386	JBQ	0.0149	MDL	5.30	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0572	JBQ	0.0164	MDL	5.30	PQL	ng/Kg	U	B
OCDD	4.27	JB	0.0337	MDL	10.6	PQL	ng/Kg	J	Z
OCDF	0.392	JBQ	0.0494	MDL	10.6	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX150 **Laboratory:** LL

EDD Filename: PrepDX150_v2 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-005-SA3-SB-7.5-8.5 *Collected:* 10/13/2011 11:34:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.266	JBQ	0.0244	MDL	5.80	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.115	JBQ	0.0113	MDL	5.80	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0359	JBQ	0.0198	MDL	5.80	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0240	JBQ	0.0197	MDL	5.80	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0469	J	0.0153	MDL	5.80	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.0412	JB	0.0200	MDL	5.80	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0195	JBQ	0.0120	MDL	5.80	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0215	JBQ	0.0205	MDL	5.80	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0322	JBQ	0.0163	MDL	5.80	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0472	JBQ	0.0304	MDL	5.80	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0460	JBQ	0.0132	MDL	5.80	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0682	JBQ	0.0149	MDL	5.80	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0285	JQ	0.0261	MDL	1.16	PQL	ng/Kg	J	Z
OCDD	0.630	JB	0.0266	MDL	11.6	PQL	ng/Kg	U	B
OCDF	0.159	JBQ	0.0472	MDL	11.6	PQL	ng/Kg	U	B

Sample ID: SL-016-SA5DS-SB-4.0-5.0 *Collected:* 10/19/2011 9:42:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.264	JB	0.0239	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.145	JB	0.0122	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0397	JBQ	0.0237	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0316	J	0.0176	MDL	5.42	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.0801	JB	0.0252	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0409	JBQ	0.0146	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.161	JBQ	0.0234	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.183	JB	0.0203	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0435	JB	0.0276	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0355	JB	0.0131	MDL	5.42	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0493	JBQ	0.0152	MDL	5.42	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0479	JB	0.0143	MDL	5.42	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0249	JQ	0.0244	MDL	1.08	PQL	ng/Kg	J	Z
OCDD	0.552	JBQ	0.0415	MDL	10.8	PQL	ng/Kg	U	B
OCDF	0.164	JBQ	0.0467	MDL	10.8	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX150 **Laboratory:** LL

EDD Filename: PrepDX150_v2 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-016-SA8S-SB-4.0-5.0 *Collected:* 10/20/2011 3:08:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.314	JBQ	0.0243	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0831	JB	0.0163	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0335	JB	0.0266	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0230	JBQ	0.0221	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0636	J	0.0231	MDL	5.44	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0383	JBQ	0.0184	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0393	JBQ	0.0214	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0410	JB	0.0195	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0529	JBQ	0.0164	MDL	5.44	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0377	JBQ	0.0146	MDL	5.44	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.134	JBQ	0.0173	MDL	5.44	PQL	ng/Kg	U	B
OCDD	0.618	JB	0.0498	MDL	10.9	PQL	ng/Kg	U	B
OCDF	0.140	JB	0.0594	MDL	10.9	PQL	ng/Kg	U	B

Sample ID: SL-023-SA7-SB-2.0-3.0 *Collected:* 10/20/2011 9:18:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.55	JB	0.0314	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.653	JB	0.0166	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0434	JB	0.0277	MDL	5.15	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0513	JBQ	0.0261	MDL	5.15	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.462	J	0.0289	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.199	JB	0.0265	MDL	5.15	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0703	JB	0.0245	MDL	5.15	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.310	JBQ	0.0252	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.137	JB	0.0298	MDL	5.15	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0570	JBQ	0.0274	MDL	5.15	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0624	JBQ	0.0233	MDL	5.15	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0988	JB	0.0218	MDL	5.15	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.176	JB	0.0237	MDL	5.15	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0490	JQ	0.0359	MDL	1.03	PQL	ng/Kg	J	Z
OCDF	1.53	JB	0.0413	MDL	10.3	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX150 Laboratory: LL

EDD Filename: PrepDX150_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-026-SA5DS-SB-4.0-5.0 *Collected:* 10/20/2011 12:37:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.555	JBQ	0.0239	MDL	5.27	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.191	JB	0.0104	MDL	5.27	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0221	JBQ	0.0203	MDL	5.27	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0419	JBQ	0.0190	MDL	5.27	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0647	JQ	0.0172	MDL	5.27	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.0749	JBQ	0.0193	MDL	5.27	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0349	JBQ	0.0127	MDL	5.27	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0559	JBQ	0.0188	MDL	5.27	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0230	JB	0.0161	MDL	5.27	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0656	JB	0.0118	MDL	5.27	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0370	JBQ	0.0116	MDL	5.27	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.123	JB	0.0132	MDL	5.27	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0251	JQ	0.0202	MDL	1.05	PQL	ng/Kg	J	Z
OCDD	3.60	JB	0.0293	MDL	10.5	PQL	ng/Kg	J	Z
OCDF	0.395	JB	0.0424	MDL	10.5	PQL	ng/Kg	U	B

Sample ID: SL-026-SA5DS-SB-9.0-10.0 *Collected:* 10/20/2011 11:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.263	JB	0.0257	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0992	JB	0.00999	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0417	JBQ	0.0218	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0689	JQ	0.0193	MDL	5.40	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.0734	JB	0.0199	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0426	JBQ	0.0150	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0487	JBQ	0.0199	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0855	JB	0.0201	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.110	JB	0.0273	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.159	JB	0.0144	MDL	5.40	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0297	JBQ	0.0145	MDL	5.40	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0537	JQ	0.0319	MDL	1.08	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0563	J	0.0241	MDL	1.08	PQL	ng/Kg	J	Z
OCDD	0.667	JB	0.0381	MDL	10.8	PQL	ng/Kg	U	B
OCDF	0.210	JB	0.0469	MDL	10.8	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX150 **Laboratory:** LL

EDD Filename: PrepDX150_v2 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-040-SA5DS-SB-4.0-5.0 *Collected:* 10/20/2011 10:01:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.186	JB	0.0256	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.135	JBQ	0.0122	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0399	JB	0.0205	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0279	JB	0.0184	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0409	JQ	0.0217	MDL	5.40	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.0420	JB	0.0181	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0414	JBQ	0.0162	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0702	JBQ	0.0179	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0552	JB	0.0185	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0860	JBQ	0.0312	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0733	JB	0.0158	MDL	5.40	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0383	JB	0.0138	MDL	5.40	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0902	JBQ	0.0173	MDL	5.40	PQL	ng/Kg	U	B
OCDD	0.582	JB	0.0418	MDL	10.8	PQL	ng/Kg	U	B
OCDF	0.171	JB	0.0579	MDL	10.8	PQL	ng/Kg	U	B

Sample ID: SL-040-SA5DS-SB-9.0-10.0 *Collected:* 10/20/2011 9:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.245	JB	0.0226	MDL	5.34	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0813	JB	0.0102	MDL	5.34	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0318	JBQ	0.0194	MDL	5.34	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0471	JQ	0.0153	MDL	5.34	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.0363	JB	0.0176	MDL	5.34	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0142	JBQ	0.0123	MDL	5.34	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0672	JB	0.0171	MDL	5.34	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.118	JBQ	0.0147	MDL	5.34	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0347	JBQ	0.0261	MDL	5.34	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0345	JBQ	0.0108	MDL	5.34	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0293	JB	0.0138	MDL	5.34	PQL	ng/Kg	U	B
OCDD	0.613	JB	0.0396	MDL	10.7	PQL	ng/Kg	U	B
OCDF	0.190	JB	0.0460	MDL	10.7	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX150 **Laboratory:** LL

EDD Filename: PrepDX150_v2 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-060-SA7-SB-2.5-3.5 *Collected:* 10/20/2011 11:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.283	JB	0.0176	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.138	JB	0.00942	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0237	JBQ	0.0171	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0458	J	0.0119	MDL	5.21	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.0201	JBQ	0.0165	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0198	JB	0.0169	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0231	JBQ	0.0114	MDL	5.21	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0300	JBQ	0.00848	MDL	5.21	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0512	JBQ	0.00942	MDL	5.21	PQL	ng/Kg	U	B
OCDD	1.58	JB	0.0248	MDL	10.4	PQL	ng/Kg	U	B
OCDF	0.200	JBQ	0.0326	MDL	10.4	PQL	ng/Kg	U	B

Sample ID: SL-069-SA7-SB-2.5-3.5 *Collected:* 10/20/2011 3:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.429	JB	0.0198	MDL	5.04	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.157	JB	0.0118	MDL	5.04	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0242	JB	0.0228	MDL	5.04	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0475	J	0.0145	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.0460	JBQ	0.0179	MDL	5.04	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0469	JBQ	0.0122	MDL	5.04	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0442	JBQ	0.0174	MDL	5.04	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0420	JBQ	0.0166	MDL	5.04	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0351	JB	0.0121	MDL	5.04	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0564	JBQ	0.0123	MDL	5.04	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0799	JBQ	0.0125	MDL	5.04	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0271	JQ	0.0243	MDL	1.01	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0260	JQ	0.0204	MDL	1.01	PQL	ng/Kg	J	Z
OCDD	2.28	JB	0.0297	MDL	10.1	PQL	ng/Kg	U	B
OCDF	0.210	JBQ	0.0347	MDL	10.1	PQL	ng/Kg	U	B

Sample ID: SL-089-SA7-SB-3.5-4.5 *Collected:* 10/13/2011 12:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	4.64	JB	0.0430	MDL	5.60	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX150 **Laboratory:** LL

EDD Filename: PrepDX150_v2 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-089-SA7-SB-3.5-4.5 ***Collected:*** 10/13/2011 12:35:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	0.936	JB	0.0189	MDL	5.60	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0695	JBQ	0.0400	MDL	5.60	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0699	JB	0.0303	MDL	5.60	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.328	J	0.0264	MDL	5.60	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.253	JB	0.0300	MDL	5.60	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0847	JB	0.0212	MDL	5.60	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.119	JBQ	0.0283	MDL	5.60	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0800	JB	0.0294	MDL	5.60	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8-PECDD	0.0421	JBQ	0.0282	MDL	5.60	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8-PECDF	0.0524	JBQ	0.0194	MDL	5.60	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.146	JBQ	0.0220	MDL	5.60	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.196	JBQ	0.0212	MDL	5.60	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0332	U	0.0332	MDL	1.12	PQL	ng/Kg	UJ	FD
2,3,7,8-TCDF	0.0780	JQ	0.0325	MDL	1.12	PQL	ng/Kg	J	Z
OCDF	2.37	JB	0.0520	MDL	11.2	PQL	ng/Kg	J	Z

Sample ID: SL-142-SA7-SB-2.0-3.0 ***Collected:*** 10/19/2011 3:15:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.16	JB	0.0300	MDL	5.10	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.633	JB	0.0126	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0417	JB	0.0237	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0851	JB	0.0249	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.411	J	0.0241	MDL	5.10	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.182	JB	0.0241	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0818	JB	0.0190	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.221	JB	0.0250	MDL	5.10	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.167	JB	0.0246	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.135	JB	0.0271	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.137	JB	0.0200	MDL	5.10	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0887	JB	0.0201	MDL	5.10	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.205	JB	0.0207	MDL	5.10	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0615	J	0.0271	MDL	1.02	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.155	J	0.0362	MDL	1.02	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX150 Laboratory: LL

EDD Filename: PrepDX150_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-142-SA7-SB-2.0-3.0 *Collected:* 10/19/2011 3:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
OCDF	1.31	JB	0.0395	MDL	10.2	PQL	ng/Kg	J	Z

Sample ID: SL-142-SA7-SB-7.0-8.0 *Collected:* 10/19/2011 3:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.45	JB	0.0172	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.147	JBQ	0.0305	MDL	5.20	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.188	JB	0.0297	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.437	J	0.0303	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.539	JB	0.0304	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.177	JB	0.0248	MDL	5.20	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.415	JB	0.0298	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.126	JB	0.0302	MDL	5.20	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0919	JB	0.0301	MDL	5.20	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.225	JB	0.0278	MDL	5.20	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.194	JB	0.0229	MDL	5.20	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.336	JQ	0.0571	MDL	1.04	PQL	ng/Kg	J	Z
OCDF	3.44	JB	0.0396	MDL	10.4	PQL	ng/Kg	J	Z

Sample ID: SL-143-SA7-SB-5.0-6.0 *Collected:* 10/19/2011 9:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.709	JB	0.0251	MDL	5.30	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.191	JB	0.0130	MDL	5.30	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0688	JBQ	0.0245	MDL	5.30	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0481	JB	0.0209	MDL	5.30	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.129	JQ	0.0170	MDL	5.30	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.0925	JBQ	0.0216	MDL	5.30	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0594	JBQ	0.0135	MDL	5.30	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0778	JBQ	0.0210	MDL	5.30	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0576	JBQ	0.0188	MDL	5.30	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0776	JBQ	0.0274	MDL	5.30	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.103	JBQ	0.0152	MDL	5.30	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0785	JBQ	0.0137	MDL	5.30	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.120	JB	0.0163	MDL	5.30	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX150 **Laboratory: LL**

EDD Filename: PrepDX150_v2 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-143-SA7-SB-5.0-6.0 *Collected:* 10/19/2011 9:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,7,8-TCDF	0.0429	JQ	0.0256	MDL	1.06	PQL	ng/Kg	J	Z
OCDD	4.51	JB	0.0447	MDL	10.6	PQL	ng/Kg	J	Z
OCDF	0.298	JBQ	0.0449	MDL	10.6	PQL	ng/Kg	U	B

Sample ID: SL-143-SA7-SB-9.0-10.0 *Collected:* 10/19/2011 10:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.354	JB	0.0222	MDL	5.05	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.217	JB	0.0110	MDL	5.05	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0633	JBQ	0.0203	MDL	5.05	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0456	JBQ	0.0211	MDL	5.05	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0821	J	0.0171	MDL	5.05	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.107	JBQ	0.0215	MDL	5.05	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0777	JB	0.0137	MDL	5.05	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.104	JB	0.0196	MDL	5.05	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0508	JBQ	0.0174	MDL	5.05	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.150	JBQ	0.0236	MDL	5.05	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.159	JB	0.0123	MDL	5.05	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0847	JB	0.0143	MDL	5.05	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.158	JBQ	0.0131	MDL	5.05	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0635	JQ	0.0309	MDL	1.01	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.100	JQ	0.0217	MDL	1.01	PQL	ng/Kg	J	Z
OCDD	1.37	JBQ	0.0294	MDL	10.1	PQL	ng/Kg	U	B
OCDF	0.304	JB	0.0433	MDL	10.1	PQL	ng/Kg	U	B

Sample ID: SL-148-SA7-SB-0.0-1.0 *Collected:* 10/20/2011 2:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	1.84	JB	0.0293	MDL	5.22	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.437	JB	0.0158	MDL	5.22	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0671	JB	0.0253	MDL	5.22	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0500	JBQ	0.0238	MDL	5.22	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.110	J	0.0229	MDL	5.22	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.111	JB	0.0242	MDL	5.22	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0770	JBQ	0.0180	MDL	5.22	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX150 Laboratory: LL

EDD Filename: PrepDX150_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-148-SA7-SB-0.0-1.0 *Collected:* 10/20/2011 2:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HXCDD	0.128	JB	0.0244	MDL	5.22	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0441	JB	0.0209	MDL	5.22	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0351	JBQ	0.0268	MDL	5.22	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0730	JB	0.0154	MDL	5.22	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0610	JB	0.0152	MDL	5.22	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.108	JB	0.0167	MDL	5.22	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0365	JQ	0.0286	MDL	1.04	PQL	ng/Kg	J	Z
OCDF	0.833	JB	0.0442	MDL	10.4	PQL	ng/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX150 **Laboratory: LL**

EDD Filename: PrepDX150_v2 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
B	Method Blank Contamination
FD	Field Duplicate Precision
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DX150

Method Blank Outlier Report

Lab Reporting Batch ID: DX150 **Laboratory: LL**

EDD Filename: DX150_v2 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK2920B371632	10/21/2011 4:32:00 PM	1,2,3,4,6,7,8-HPCDD	2.75 pg/L	EB-SA7-SB-101311
		1,2,3,4,6,7,8-HPCDF	2.04 pg/L	
		1,2,3,4,7,8,9-HPCDF	0.351 pg/L	
		1,2,3,4,7,8-HXCDF	0.536 pg/L	
		1,2,3,6,7,8-HXCDF	0.592 pg/L	
		1,2,3,7,8,9-HXCDD	0.623 pg/L	
		1,2,3,7,8,9-HXCDF	0.484 pg/L	
		1,2,3,7,8-PECDD	0.541 pg/L	
		1,2,3,7,8-PECDF	0.414 pg/L	
		2,3,4,6,7,8-HXCDF	0.606 pg/L	
		2,3,4,7,8-PECDF	0.934 pg/L	
		OCDD	5.09 pg/L	
		OCDF	1.52 pg/L	
BLK2970B372330	10/25/2011 11:30:00 PM	1,2,3,4,6,7,8-HPCDD	3.78 pg/L	EB-SA7-SB-101911
		1,2,3,4,6,7,8-HPCDF	1.54 pg/L	
		1,2,3,4,7,8,9-HPCDF	0.445 pg/L	
		1,2,3,4,7,8-HXCDF	0.588 pg/L	
		1,2,3,6,7,8-HXCDD	0.372 pg/L	
		1,2,3,6,7,8-HXCDF	0.410 pg/L	
		1,2,3,7,8,9-HXCDD	0.989 pg/L	
		1,2,3,7,8,9-HXCDF	0.976 pg/L	
		1,2,3,7,8-PECDF	0.262 pg/L	
		2,3,4,6,7,8-HXCDF	0.342 pg/L	
		2,3,4,7,8-PECDF	0.327 pg/L	
		2,3,7,8-TCDF	0.339 pg/L	
		OCDD	6.96 pg/L	
		OCDF	2.32 pg/L	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA7-SB-101311(RES)	1,2,3,4,6,7,8-HPCDD	3.09 pg/L	3.09U pg/L
EB-SA7-SB-101311(RES)	1,2,3,4,6,7,8-HPCDF	2.11 pg/L	2.11U pg/L
EB-SA7-SB-101311(RES)	1,2,3,4,7,8,9-HPCDF	0.292 pg/L	0.292U pg/L
EB-SA7-SB-101311(RES)	1,2,3,4,7,8-HXCDF	0.423 pg/L	0.423U pg/L
EB-SA7-SB-101311(RES)	1,2,3,6,7,8-HXCDF	0.458 pg/L	0.458U pg/L
EB-SA7-SB-101311(RES)	2,3,4,6,7,8-HXCDF	0.416 pg/L	0.416U pg/L
EB-SA7-SB-101311(RES)	2,3,4,7,8-PECDF	0.419 pg/L	0.419U pg/L
EB-SA7-SB-101311(RES)	OCDD	6.33 pg/L	6.33U pg/L
EB-SA7-SB-101311(RES)	OCDF	1.70 pg/L	1.70U pg/L
EB-SA7-SB-101911(RES)	1,2,3,4,6,7,8-HPCDD	3.05 pg/L	3.05U pg/L
EB-SA7-SB-101911(RES)	1,2,3,4,6,7,8-HPCDF	2.50 pg/L	2.50U pg/L
EB-SA7-SB-101911(RES)	1,2,3,4,7,8,9-HPCDF	0.479 pg/L	0.479U pg/L
EB-SA7-SB-101911(RES)	1,2,3,4,7,8-HXCDF	0.302 pg/L	0.302U pg/L
EB-SA7-SB-101911(RES)	1,2,3,6,7,8-HXCDD	0.623 pg/L	0.623U pg/L
EB-SA7-SB-101911(RES)	1,2,3,6,7,8-HXCDF	0.460 pg/L	0.460U pg/L
EB-SA7-SB-101911(RES)	1,2,3,7,8,9-HXCDD	0.805 pg/L	0.805U pg/L
EB-SA7-SB-101911(RES)	1,2,3,7,8,9-HXCDF	0.426 pg/L	0.426U pg/L
EB-SA7-SB-101911(RES)	1,2,3,7,8-PECDF	0.543 pg/L	0.543U pg/L
EB-SA7-SB-101911(RES)	2,3,4,6,7,8-HXCDF	0.536 pg/L	0.536U pg/L
EB-SA7-SB-101911(RES)	2,3,4,7,8-PECDF	0.801 pg/L	0.801U pg/L
EB-SA7-SB-101911(RES)	2,3,7,8-TCDF	0.315 pg/L	0.315U pg/L
EB-SA7-SB-101911(RES)	OCDD	6.70 pg/L	6.70U pg/L

Method Blank Outlier Report

Lab Reporting Batch ID: DX150 **Laboratory: LL**

EDD Filename: DX150_v2 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA7-SB-101911(RES)	OCDF	2.49 pg/L	2.49U pg/L

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK3000B371229	10/29/2011 12:29:00 PM	1,2,3,4,6,7,8-HPCDD	0.295 ng/Kg	DUP09-SA7-QC-101311
		1,2,3,4,6,7,8-HPCDF	0.128 ng/Kg	SL-005-SA3-SB-4.0-5.0
		1,2,3,4,7,8,9-HPCDF	0.0489 ng/Kg	SL-005-SA3-SB-7.5-8.5
		1,2,3,4,7,8-HxCDD	0.0345 ng/Kg	SL-016-SA5DS-SB-4.0-5.0
		1,2,3,6,7,8-HXCDD	0.0438 ng/Kg	SL-016-SA8S-SB-4.0-5.0
		1,2,3,6,7,8-HXCDF	0.0512 ng/Kg	SL-023-SA7-SB-2.0-3.0
		1,2,3,7,8,9-HXCDD	0.0427 ng/Kg	SL-026-SA5DS-SB-4.0-5.0
		1,2,3,7,8,9-HXCDF	0.0857 ng/Kg	SL-026-SA5DS-SB-9.0-10.0
		1,2,3,7,8-PECDD	0.0804 ng/Kg	SL-040-SA5DS-SB-4.0-5.0
		1,2,3,7,8-PECDF	0.0458 ng/Kg	SL-040-SA5DS-SB-9.0-10.0
		2,3,4,6,7,8-HXCDF	0.0555 ng/Kg	SL-060-SA7-SB-2.5-3.5
		2,3,4,7,8-PECDF	0.0744 ng/Kg	SL-069-SA7-SB-2.5-3.5
		OCDD	0.493 ng/Kg	SL-089-SA7-SB-3.5-4.5
		OCDF	0.188 ng/Kg	SL-142-SA7-SB-2.0-3.0
				SL-142-SA7-SB-7.0-8.0
				SL-143-SA7-SB-5.0-6.0
				SL-143-SA7-SB-9.0-10.0
				SL-148-SA7-SB-0.0-1.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP09-SA7-QC-101311(RES)	1,2,3,4,7,8,9-HPCDF	0.111 ng/Kg	0.111U ng/Kg
DUP09-SA7-QC-101311(RES)	1,2,3,4,7,8-HxCDD	0.0729 ng/Kg	0.0729U ng/Kg
DUP09-SA7-QC-101311(RES)	1,2,3,6,7,8-HXCDD	0.188 ng/Kg	0.188U ng/Kg
DUP09-SA7-QC-101311(RES)	1,2,3,6,7,8-HXCDF	0.0971 ng/Kg	0.0971U ng/Kg
DUP09-SA7-QC-101311(RES)	1,2,3,7,8,9-HXCDD	0.150 ng/Kg	0.150U ng/Kg
DUP09-SA7-QC-101311(RES)	1,2,3,7,8,9-HXCDF	0.0436 ng/Kg	0.0436U ng/Kg
DUP09-SA7-QC-101311(RES)	1,2,3,7,8-PECDD	0.0835 ng/Kg	0.0835U ng/Kg
DUP09-SA7-QC-101311(RES)	1,2,3,7,8-PECDF	0.0785 ng/Kg	0.0785U ng/Kg
DUP09-SA7-QC-101311(RES)	2,3,4,6,7,8-HXCDF	0.153 ng/Kg	0.153U ng/Kg
DUP09-SA7-QC-101311(RES)	2,3,4,7,8-PECDF	0.128 ng/Kg	0.128U ng/Kg
SL-005-SA3-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.646 ng/Kg	0.646U ng/Kg
SL-005-SA3-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.207 ng/Kg	0.207U ng/Kg
SL-005-SA3-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0417 ng/Kg	0.0417U ng/Kg
SL-005-SA3-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.0467 ng/Kg	0.0467U ng/Kg
SL-005-SA3-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0484 ng/Kg	0.0484U ng/Kg
SL-005-SA3-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.0620 ng/Kg	0.0620U ng/Kg
SL-005-SA3-SB-4.0-5.0(RES)	1,2,3,7,8-PECDD	0.0330 ng/Kg	0.0330U ng/Kg
SL-005-SA3-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0490 ng/Kg	0.0490U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX150 **Laboratory: LL**

EDD Filename: DX150_v2 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-005-SA3-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0386 ng/Kg	0.0386U ng/Kg
SL-005-SA3-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0572 ng/Kg	0.0572U ng/Kg
SL-005-SA3-SB-4.0-5.0(RES)	OCDF	0.392 ng/Kg	0.392U ng/Kg
SL-005-SA3-SB-7.5-8.5(RES)	1,2,3,4,6,7,8-HPCDD	0.266 ng/Kg	0.266U ng/Kg
SL-005-SA3-SB-7.5-8.5(RES)	1,2,3,4,6,7,8-HPCDF	0.115 ng/Kg	0.115U ng/Kg
SL-005-SA3-SB-7.5-8.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0359 ng/Kg	0.0359U ng/Kg
SL-005-SA3-SB-7.5-8.5(RES)	1,2,3,4,7,8-HxCDD	0.0240 ng/Kg	0.0240U ng/Kg
SL-005-SA3-SB-7.5-8.5(RES)	1,2,3,6,7,8-HXCDD	0.0412 ng/Kg	0.0412U ng/Kg
SL-005-SA3-SB-7.5-8.5(RES)	1,2,3,6,7,8-HXCDF	0.0195 ng/Kg	0.0195U ng/Kg
SL-005-SA3-SB-7.5-8.5(RES)	1,2,3,7,8,9-HXCDD	0.0215 ng/Kg	0.0215U ng/Kg
SL-005-SA3-SB-7.5-8.5(RES)	1,2,3,7,8,9-HXCDF	0.0322 ng/Kg	0.0322U ng/Kg
SL-005-SA3-SB-7.5-8.5(RES)	1,2,3,7,8-PECDD	0.0472 ng/Kg	0.0472U ng/Kg
SL-005-SA3-SB-7.5-8.5(RES)	2,3,4,6,7,8-HXCDF	0.0460 ng/Kg	0.0460U ng/Kg
SL-005-SA3-SB-7.5-8.5(RES)	2,3,4,7,8-PECDF	0.0682 ng/Kg	0.0682U ng/Kg
SL-005-SA3-SB-7.5-8.5(RES)	OCDD	0.630 ng/Kg	0.630U ng/Kg
SL-005-SA3-SB-7.5-8.5(RES)	OCDF	0.159 ng/Kg	0.159U ng/Kg
SL-016-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.264 ng/Kg	0.264U ng/Kg
SL-016-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.145 ng/Kg	0.145U ng/Kg
SL-016-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0397 ng/Kg	0.0397U ng/Kg
SL-016-SA5DS-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.0801 ng/Kg	0.0801U ng/Kg
SL-016-SA5DS-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0409 ng/Kg	0.0409U ng/Kg
SL-016-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.161 ng/Kg	0.161U ng/Kg
SL-016-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.183 ng/Kg	0.183U ng/Kg
SL-016-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8-PECDD	0.0435 ng/Kg	0.0435U ng/Kg
SL-016-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0355 ng/Kg	0.0355U ng/Kg
SL-016-SA5DS-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0493 ng/Kg	0.0493U ng/Kg
SL-016-SA5DS-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0479 ng/Kg	0.0479U ng/Kg
SL-016-SA5DS-SB-4.0-5.0(RES)	OCDD	0.552 ng/Kg	0.552U ng/Kg
SL-016-SA5DS-SB-4.0-5.0(RES)	OCDF	0.164 ng/Kg	0.164U ng/Kg
SL-016-SA8S-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.314 ng/Kg	0.314U ng/Kg
SL-016-SA8S-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0831 ng/Kg	0.0831U ng/Kg
SL-016-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0335 ng/Kg	0.0335U ng/Kg
SL-016-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0230 ng/Kg	0.0230U ng/Kg
SL-016-SA8S-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0383 ng/Kg	0.0383U ng/Kg
SL-016-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.0393 ng/Kg	0.0393U ng/Kg
SL-016-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0410 ng/Kg	0.0410U ng/Kg
SL-016-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0529 ng/Kg	0.0529U ng/Kg
SL-016-SA8S-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0377 ng/Kg	0.0377U ng/Kg
SL-016-SA8S-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.134 ng/Kg	0.134U ng/Kg
SL-016-SA8S-SB-4.0-5.0(RES)	OCDD	0.618 ng/Kg	0.618U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX150 **Laboratory: LL**

EDD Filename: DX150_v2 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-016-SA8S-SB-4.0-5.0(RES)	OCDF	0.140 ng/Kg	0.140U ng/Kg
SL-023-SA7-SB-2.0-3.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0434 ng/Kg	0.0434U ng/Kg
SL-023-SA7-SB-2.0-3.0(RES)	1,2,3,4,7,8-HxCDD	0.0513 ng/Kg	0.0513U ng/Kg
SL-023-SA7-SB-2.0-3.0(RES)	1,2,3,6,7,8-HXCDD	0.199 ng/Kg	0.199U ng/Kg
SL-023-SA7-SB-2.0-3.0(RES)	1,2,3,6,7,8-HXCDF	0.0703 ng/Kg	0.0703U ng/Kg
SL-023-SA7-SB-2.0-3.0(RES)	1,2,3,7,8,9-HXCDF	0.137 ng/Kg	0.137U ng/Kg
SL-023-SA7-SB-2.0-3.0(RES)	1,2,3,7,8-PECDD	0.0570 ng/Kg	0.0570U ng/Kg
SL-023-SA7-SB-2.0-3.0(RES)	1,2,3,7,8-PECDF	0.0624 ng/Kg	0.0624U ng/Kg
SL-023-SA7-SB-2.0-3.0(RES)	2,3,4,6,7,8-HXCDF	0.0988 ng/Kg	0.0988U ng/Kg
SL-023-SA7-SB-2.0-3.0(RES)	2,3,4,7,8-PECDF	0.176 ng/Kg	0.176U ng/Kg
SL-026-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.555 ng/Kg	0.555U ng/Kg
SL-026-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.191 ng/Kg	0.191U ng/Kg
SL-026-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0221 ng/Kg	0.0221U ng/Kg
SL-026-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0419 ng/Kg	0.0419U ng/Kg
SL-026-SA5DS-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.0749 ng/Kg	0.0749U ng/Kg
SL-026-SA5DS-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0349 ng/Kg	0.0349U ng/Kg
SL-026-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.0559 ng/Kg	0.0559U ng/Kg
SL-026-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0230 ng/Kg	0.0230U ng/Kg
SL-026-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0656 ng/Kg	0.0656U ng/Kg
SL-026-SA5DS-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0370 ng/Kg	0.0370U ng/Kg
SL-026-SA5DS-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.123 ng/Kg	0.123U ng/Kg
SL-026-SA5DS-SB-4.0-5.0(RES)	OCDF	0.395 ng/Kg	0.395U ng/Kg
SL-026-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDD	0.263 ng/Kg	0.263U ng/Kg
SL-026-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0992 ng/Kg	0.0992U ng/Kg
SL-026-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0417 ng/Kg	0.0417U ng/Kg
SL-026-SA5DS-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDD	0.0734 ng/Kg	0.0734U ng/Kg
SL-026-SA5DS-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.0426 ng/Kg	0.0426U ng/Kg
SL-026-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDD	0.0487 ng/Kg	0.0487U ng/Kg
SL-026-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDF	0.0855 ng/Kg	0.0855U ng/Kg
SL-026-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8-PECDD	0.110 ng/Kg	0.110U ng/Kg
SL-026-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8-PECDF	0.159 ng/Kg	0.159U ng/Kg
SL-026-SA5DS-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.0297 ng/Kg	0.0297U ng/Kg
SL-026-SA5DS-SB-9.0-10.0(RES)	OCDD	0.667 ng/Kg	0.667U ng/Kg
SL-026-SA5DS-SB-9.0-10.0(RES)	OCDF	0.210 ng/Kg	0.210U ng/Kg
SL-040-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.186 ng/Kg	0.186U ng/Kg
SL-040-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.135 ng/Kg	0.135U ng/Kg
SL-040-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0399 ng/Kg	0.0399U ng/Kg
SL-040-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0279 ng/Kg	0.0279U ng/Kg
SL-040-SA5DS-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.0420 ng/Kg	0.0420U ng/Kg
SL-040-SA5DS-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0414 ng/Kg	0.0414U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX150 | Laboratory: LL

EDD Filename: DX150_v2 | eQAPP Name: CDM_SSFL_110509

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-040-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.0702 ng/Kg	0.0702U ng/Kg
SL-040-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0552 ng/Kg	0.0552U ng/Kg
SL-040-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8-PECDD	0.0860 ng/Kg	0.0860U ng/Kg
SL-040-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0733 ng/Kg	0.0733U ng/Kg
SL-040-SA5DS-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0383 ng/Kg	0.0383U ng/Kg
SL-040-SA5DS-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0902 ng/Kg	0.0902U ng/Kg
SL-040-SA5DS-SB-4.0-5.0(RES)	OCDD	0.582 ng/Kg	0.582U ng/Kg
SL-040-SA5DS-SB-4.0-5.0(RES)	OCDF	0.171 ng/Kg	0.171U ng/Kg
SL-040-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDD	0.245 ng/Kg	0.245U ng/Kg
SL-040-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0813 ng/Kg	0.0813U ng/Kg
SL-040-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0318 ng/Kg	0.0318U ng/Kg
SL-040-SA5DS-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDD	0.0363 ng/Kg	0.0363U ng/Kg
SL-040-SA5DS-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.0142 ng/Kg	0.0142U ng/Kg
SL-040-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDD	0.0672 ng/Kg	0.0672U ng/Kg
SL-040-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDF	0.118 ng/Kg	0.118U ng/Kg
SL-040-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8-PECDD	0.0347 ng/Kg	0.0347U ng/Kg
SL-040-SA5DS-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.0345 ng/Kg	0.0345U ng/Kg
SL-040-SA5DS-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.0293 ng/Kg	0.0293U ng/Kg
SL-040-SA5DS-SB-9.0-10.0(RES)	OCDD	0.613 ng/Kg	0.613U ng/Kg
SL-040-SA5DS-SB-9.0-10.0(RES)	OCDF	0.190 ng/Kg	0.190U ng/Kg
SL-060-SA7-SB-2.5-3.5(RES)	1,2,3,4,6,7,8-HPCDD	0.283 ng/Kg	0.283U ng/Kg
SL-060-SA7-SB-2.5-3.5(RES)	1,2,3,4,6,7,8-HPCDF	0.138 ng/Kg	0.138U ng/Kg
SL-060-SA7-SB-2.5-3.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0237 ng/Kg	0.0237U ng/Kg
SL-060-SA7-SB-2.5-3.5(RES)	1,2,3,6,7,8-HXCDD	0.0201 ng/Kg	0.0201U ng/Kg
SL-060-SA7-SB-2.5-3.5(RES)	1,2,3,7,8,9-HXCDD	0.0198 ng/Kg	0.0198U ng/Kg
SL-060-SA7-SB-2.5-3.5(RES)	1,2,3,7,8,9-HXCDF	0.0231 ng/Kg	0.0231U ng/Kg
SL-060-SA7-SB-2.5-3.5(RES)	2,3,4,6,7,8-HXCDF	0.0300 ng/Kg	0.0300U ng/Kg
SL-060-SA7-SB-2.5-3.5(RES)	2,3,4,7,8-PECDF	0.0512 ng/Kg	0.0512U ng/Kg
SL-060-SA7-SB-2.5-3.5(RES)	OCDD	1.58 ng/Kg	1.58U ng/Kg
SL-060-SA7-SB-2.5-3.5(RES)	OCDF	0.200 ng/Kg	0.200U ng/Kg
SL-069-SA7-SB-2.5-3.5(RES)	1,2,3,4,6,7,8-HPCDD	0.429 ng/Kg	0.429U ng/Kg
SL-069-SA7-SB-2.5-3.5(RES)	1,2,3,4,6,7,8-HPCDF	0.157 ng/Kg	0.157U ng/Kg
SL-069-SA7-SB-2.5-3.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0242 ng/Kg	0.0242U ng/Kg
SL-069-SA7-SB-2.5-3.5(RES)	1,2,3,6,7,8-HXCDD	0.0460 ng/Kg	0.0460U ng/Kg
SL-069-SA7-SB-2.5-3.5(RES)	1,2,3,6,7,8-HXCDF	0.0469 ng/Kg	0.0469U ng/Kg
SL-069-SA7-SB-2.5-3.5(RES)	1,2,3,7,8,9-HXCDD	0.0442 ng/Kg	0.0442U ng/Kg
SL-069-SA7-SB-2.5-3.5(RES)	1,2,3,7,8,9-HXCDF	0.0420 ng/Kg	0.0420U ng/Kg
SL-069-SA7-SB-2.5-3.5(RES)	1,2,3,7,8-PECDF	0.0351 ng/Kg	0.0351U ng/Kg
SL-069-SA7-SB-2.5-3.5(RES)	2,3,4,6,7,8-HXCDF	0.0564 ng/Kg	0.0564U ng/Kg
SL-069-SA7-SB-2.5-3.5(RES)	2,3,4,7,8-PECDF	0.0799 ng/Kg	0.0799U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX150 **Laboratory: LL**

EDD Filename: DX150_v2 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-069-SA7-SB-2.5-3.5(RES)	OCDD	2.28 ng/Kg	2.28U ng/Kg
SL-069-SA7-SB-2.5-3.5(RES)	OCDF	0.210 ng/Kg	0.210U ng/Kg
SL-089-SA7-SB-3.5-4.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0695 ng/Kg	0.0695U ng/Kg
SL-089-SA7-SB-3.5-4.5(RES)	1,2,3,4,7,8-HxCDD	0.0699 ng/Kg	0.0699U ng/Kg
SL-089-SA7-SB-3.5-4.5(RES)	1,2,3,6,7,8-HXCDF	0.0847 ng/Kg	0.0847U ng/Kg
SL-089-SA7-SB-3.5-4.5(RES)	1,2,3,7,8,9-HXCDD	0.119 ng/Kg	0.119U ng/Kg
SL-089-SA7-SB-3.5-4.5(RES)	1,2,3,7,8,9-HXCDF	0.0800 ng/Kg	0.0800U ng/Kg
SL-089-SA7-SB-3.5-4.5(RES)	1,2,3,7,8-PECDD	0.0421 ng/Kg	0.0421U ng/Kg
SL-089-SA7-SB-3.5-4.5(RES)	1,2,3,7,8-PECDF	0.0524 ng/Kg	0.0524U ng/Kg
SL-089-SA7-SB-3.5-4.5(RES)	2,3,4,6,7,8-HXCDF	0.146 ng/Kg	0.146U ng/Kg
SL-089-SA7-SB-3.5-4.5(RES)	2,3,4,7,8-PECDF	0.196 ng/Kg	0.196U ng/Kg
SL-142-SA7-SB-2.0-3.0(RES)	1,2,3,4,6,7,8-HPCDF	0.633 ng/Kg	0.633U ng/Kg
SL-142-SA7-SB-2.0-3.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0417 ng/Kg	0.0417U ng/Kg
SL-142-SA7-SB-2.0-3.0(RES)	1,2,3,4,7,8-HxCDD	0.0851 ng/Kg	0.0851U ng/Kg
SL-142-SA7-SB-2.0-3.0(RES)	1,2,3,6,7,8-HXCDD	0.182 ng/Kg	0.182U ng/Kg
SL-142-SA7-SB-2.0-3.0(RES)	1,2,3,6,7,8-HXCDF	0.0818 ng/Kg	0.0818U ng/Kg
SL-142-SA7-SB-2.0-3.0(RES)	1,2,3,7,8,9-HXCDF	0.167 ng/Kg	0.167U ng/Kg
SL-142-SA7-SB-2.0-3.0(RES)	1,2,3,7,8-PECDD	0.135 ng/Kg	0.135U ng/Kg
SL-142-SA7-SB-2.0-3.0(RES)	1,2,3,7,8-PECDF	0.137 ng/Kg	0.137U ng/Kg
SL-142-SA7-SB-2.0-3.0(RES)	2,3,4,6,7,8-HXCDF	0.0887 ng/Kg	0.0887U ng/Kg
SL-142-SA7-SB-2.0-3.0(RES)	2,3,4,7,8-PECDF	0.205 ng/Kg	0.205U ng/Kg
SL-142-SA7-SB-7.0-8.0(RES)	1,2,3,4,7,8,9-HPCDF	0.147 ng/Kg	0.147U ng/Kg
SL-142-SA7-SB-7.0-8.0(RES)	1,2,3,6,7,8-HXCDF	0.177 ng/Kg	0.177U ng/Kg
SL-142-SA7-SB-7.0-8.0(RES)	1,2,3,7,8,9-HXCDF	0.126 ng/Kg	0.126U ng/Kg
SL-142-SA7-SB-7.0-8.0(RES)	1,2,3,7,8-PECDD	0.0919 ng/Kg	0.0919U ng/Kg
SL-142-SA7-SB-7.0-8.0(RES)	1,2,3,7,8-PECDF	0.225 ng/Kg	0.225U ng/Kg
SL-142-SA7-SB-7.0-8.0(RES)	2,3,4,6,7,8-HXCDF	0.194 ng/Kg	0.194U ng/Kg
SL-143-SA7-SB-5.0-6.0(RES)	1,2,3,4,6,7,8-HPCDD	0.709 ng/Kg	0.709U ng/Kg
SL-143-SA7-SB-5.0-6.0(RES)	1,2,3,4,6,7,8-HPCDF	0.191 ng/Kg	0.191U ng/Kg
SL-143-SA7-SB-5.0-6.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0688 ng/Kg	0.0688U ng/Kg
SL-143-SA7-SB-5.0-6.0(RES)	1,2,3,4,7,8-HxCDD	0.0481 ng/Kg	0.0481U ng/Kg
SL-143-SA7-SB-5.0-6.0(RES)	1,2,3,6,7,8-HXCDD	0.0925 ng/Kg	0.0925U ng/Kg
SL-143-SA7-SB-5.0-6.0(RES)	1,2,3,6,7,8-HXCDF	0.0594 ng/Kg	0.0594U ng/Kg
SL-143-SA7-SB-5.0-6.0(RES)	1,2,3,7,8,9-HXCDD	0.0778 ng/Kg	0.0778U ng/Kg
SL-143-SA7-SB-5.0-6.0(RES)	1,2,3,7,8,9-HXCDF	0.0576 ng/Kg	0.0576U ng/Kg
SL-143-SA7-SB-5.0-6.0(RES)	1,2,3,7,8-PECDD	0.0776 ng/Kg	0.0776U ng/Kg
SL-143-SA7-SB-5.0-6.0(RES)	1,2,3,7,8-PECDF	0.103 ng/Kg	0.103U ng/Kg
SL-143-SA7-SB-5.0-6.0(RES)	2,3,4,6,7,8-HXCDF	0.0785 ng/Kg	0.0785U ng/Kg
SL-143-SA7-SB-5.0-6.0(RES)	2,3,4,7,8-PECDF	0.120 ng/Kg	0.120U ng/Kg
SL-143-SA7-SB-5.0-6.0(RES)	OCDF	0.298 ng/Kg	0.298U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX150 | Laboratory: LL

EDD Filename: DX150_v2 | eQAPP Name: CDM_SSFL_110509

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-143-SA7-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDD	0.354 ng/Kg	0.354U ng/Kg
SL-143-SA7-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.217 ng/Kg	0.217U ng/Kg
SL-143-SA7-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0633 ng/Kg	0.0633U ng/Kg
SL-143-SA7-SB-9.0-10.0(RES)	1,2,3,4,7,8-HxCDD	0.0456 ng/Kg	0.0456U ng/Kg
SL-143-SA7-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDD	0.107 ng/Kg	0.107U ng/Kg
SL-143-SA7-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.0777 ng/Kg	0.0777U ng/Kg
SL-143-SA7-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDD	0.104 ng/Kg	0.104U ng/Kg
SL-143-SA7-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDF	0.0508 ng/Kg	0.0508U ng/Kg
SL-143-SA7-SB-9.0-10.0(RES)	1,2,3,7,8-PECDD	0.150 ng/Kg	0.150U ng/Kg
SL-143-SA7-SB-9.0-10.0(RES)	1,2,3,7,8-PECDF	0.159 ng/Kg	0.159U ng/Kg
SL-143-SA7-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.0847 ng/Kg	0.0847U ng/Kg
SL-143-SA7-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.158 ng/Kg	0.158U ng/Kg
SL-143-SA7-SB-9.0-10.0(RES)	OCDD	1.37 ng/Kg	1.37U ng/Kg
SL-143-SA7-SB-9.0-10.0(RES)	OCDF	0.304 ng/Kg	0.304U ng/Kg
SL-148-SA7-SB-0.0-1.0(RES)	1,2,3,4,6,7,6-HPCDF	0.437 ng/Kg	0.437U ng/Kg
SL-148-SA7-SB-0.0-1.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0671 ng/Kg	0.0671U ng/Kg
SL-148-SA7-SB-0.0-1.0(RES)	1,2,3,4,7,8-HxCDD	0.0500 ng/Kg	0.0500U ng/Kg
SL-148-SA7-SB-0.0-1.0(RES)	1,2,3,6,7,8-HXCDD	0.111 ng/Kg	0.111U ng/Kg
SL-148-SA7-SB-0.0-1.0(RES)	1,2,3,6,7,8-HXCDF	0.0770 ng/Kg	0.0770U ng/Kg
SL-148-SA7-SB-0.0-1.0(RES)	1,2,3,7,8,9-HXCDD	0.128 ng/Kg	0.128U ng/Kg
SL-148-SA7-SB-0.0-1.0(RES)	1,2,3,7,8,9-HXCDF	0.0441 ng/Kg	0.0441U ng/Kg
SL-148-SA7-SB-0.0-1.0(RES)	1,2,3,7,8-PECDD	0.0351 ng/Kg	0.0351U ng/Kg
SL-148-SA7-SB-0.0-1.0(RES)	1,2,3,7,8-PECDF	0.0730 ng/Kg	0.0730U ng/Kg
SL-148-SA7-SB-0.0-1.0(RES)	2,3,4,6,7,8-HXCDF	0.0610 ng/Kg	0.0610U ng/Kg
SL-148-SA7-SB-0.0-1.0(RES)	2,3,4,7,8-PECDF	0.108 ng/Kg	0.108U ng/Kg
SL-148-SA7-SB-0.0-1.0(RES)	OCDF	0.833 ng/Kg	0.833U ng/Kg

Field Duplicate RPD Report

Lab Reporting Batch ID: DX150 Laboratory: LL

EDD Filename: DX150_v2 eQAPP Name: CDM_SSFL_110509

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-089-SA7-SB-3.5-4.5	DUP09-SA7-QC-101311			
MOISTURE	11.8	10.8	9		No Qualifiers Applied

Method: 1613B
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-089-SA7-SB-3.5-4.5	DUP09-SA7-QC-101311			
1,2,3,4,6,7,8-HPCDD	4.64	4.45	4	50.00	No Qualifiers Applied
1,2,3,4,6,7,8-HPCDF	0.936	0.789	17	50.00	
1,2,3,4,7,8,9-HPCDF	0.0695	0.111	46	50.00	
1,2,3,4,7,8-HxCDD	0.0699	0.0729	4	50.00	
1,2,3,4,7,8-HXCDF	0.328	0.244	29	50.00	
1,2,3,6,7,8-HXCDD	0.253	0.188	29	50.00	
1,2,3,6,7,8-HXCDF	0.0847	0.0971	14	50.00	
1,2,3,7,8,9-HXCDD	0.119	0.150	23	50.00	
1,2,3,7,8-PECDF	0.0524	0.0785	40	50.00	
2,3,4,6,7,8-HXCDF	0.146	0.153	5	50.00	
2,3,4,7,8-PECDF	0.196	0.128	42	50.00	
2,3,7,8-TCDF	0.0780	0.0570	31	50.00	
OCDD	44.4	39.5	12	50.00	
OCDF	2.37	2.24	6	50.00	
1,2,3,7,8,9-HXCDF	0.0800	0.0436	59	50.00	J(all detects) UJ(all non-detects)
1,2,3,7,8-PECDD	0.0421	0.0835	66	50.00	
2,3,7,8-TCDD	1.12 U	0.0366	200	50.00	

Reporting Limit Outliers

Lab Reporting Batch ID: DX150 Laboratory: LL

EDD Filename: DX150_v2 eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-101311	1,2,3,4,6,7,8-HPCDD	JB	3.09	9.99	PQL	pg/L	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	2.11	9.99	PQL	pg/L	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.292	9.99	PQL	pg/L	
	1,2,3,4,7,8-HXCDF	JB	0.423	9.99	PQL	pg/L	
	1,2,3,6,7,8-HXCDD	JQ	0.265	9.99	PQL	pg/L	
	1,2,3,6,7,8-HXCDF	JBQ	0.458	9.99	PQL	pg/L	
	2,3,4,6,7,8-HXCDF	JB	0.416	9.99	PQL	pg/L	
	2,3,4,7,8-PECDF	JBQ	0.419	9.99	PQL	pg/L	
	OCDD	JB	6.33	20.0	PQL	pg/L	
	OCDF	JB	1.70	20.0	PQL	pg/L	
EB-SA7-SB-101911	1,2,3,4,6,7,8-HPCDD	JB	3.05	10.6	PQL	pg/L	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	2.50	10.6	PQL	pg/L	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.479	10.6	PQL	pg/L	
	1,2,3,4,7,8-HXCDF	JBQ	0.302	10.6	PQL	pg/L	
	1,2,3,6,7,8-HXCDD	JBQ	0.623	10.6	PQL	pg/L	
	1,2,3,6,7,8-HXCDF	JBQ	0.460	10.6	PQL	pg/L	
	1,2,3,7,8,9-HXCDD	JBQ	0.805	10.6	PQL	pg/L	
	1,2,3,7,8,9-HXCDF	JBQ	0.426	10.6	PQL	pg/L	
	1,2,3,7,8-PECDF	JBQ	0.543	10.6	PQL	pg/L	
	2,3,4,6,7,8-HXCDF	JBQ	0.536	10.6	PQL	pg/L	
	2,3,4,7,8-PECDF	JBQ	0.801	10.6	PQL	pg/L	
	2,3,7,8-TCDF	JBQ	0.315	2.12	PQL	pg/L	
	OCDD	JB	6.70	21.2	PQL	pg/L	
	OCDF	JBQ	2.49	21.2	PQL	pg/L	

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA7-QC-101311	1,2,3,4,6,7,8-HPCDD	JB	4.45	5.59	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.789	5.59	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.111	5.59	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0729	5.59	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JQ	0.244	5.59	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.188	5.59	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0971	5.59	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.150	5.59	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.0436	5.59	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0835	5.59	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0785	5.59	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.153	5.59	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.128	5.59	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0366	1.12	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0570	1.12	PQL	ng/Kg	
	OCDF	JB	2.24	11.2	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX150 **Laboratory: LL**

EDD Filename: DX150_v2 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-005-SA3-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.646	5.30	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.207	5.30	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0417	5.30	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JQ	0.0405	5.30	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0467	5.30	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0484	5.30	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0620	5.30	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.0330	5.30	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0490	5.30	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0386	5.30	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0572	5.30	PQL	ng/Kg	
	OCDD	JB	4.27	10.6	PQL	ng/Kg	
	OCDF	JBQ	0.392	10.6	PQL	ng/Kg	
SL-005-SA3-SB-7.5-8.5	1,2,3,4,6,7,8-HPCDD	JBQ	0.266	5.80	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.115	5.80	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0359	5.80	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0240	5.80	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.0469	5.80	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0412	5.80	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0195	5.80	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0215	5.80	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0322	5.80	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0472	5.80	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0460	5.80	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0682	5.80	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0285	1.16	PQL	ng/Kg	
	OCDD	JB	0.630	11.6	PQL	ng/Kg	
	OCDF	JBQ	0.159	11.6	PQL	ng/Kg	
SL-016-SA5DS-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.264	5.42	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.145	5.42	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0397	5.42	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.0316	5.42	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0801	5.42	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0409	5.42	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.161	5.42	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.183	5.42	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JB	0.0435	5.42	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0355	5.42	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0493	5.42	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0479	5.42	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0249	1.08	PQL	ng/Kg	
	OCDD	JBQ	0.552	10.8	PQL	ng/Kg	
	OCDF	JBQ	0.164	10.8	PQL	ng/Kg	
SL-016-SA8S-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.314	5.44	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.0831	5.44	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0335	5.44	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0230	5.44	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.0636	5.44	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0383	5.44	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0393	5.44	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.0410	5.44	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0529	5.44	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0377	5.44	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.134	5.44	PQL	ng/Kg	
	OCDD	JB	0.618	10.9	PQL	ng/Kg	
	OCDF	JB	0.140	10.9	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX150 **Laboratory: LL**

EDD Filename: DX150_v2 **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-023-SA7-SB-2.0-3.0	1,2,3,4,6,7,8-HPCDD	JB	2.55	5.15	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.653	5.15	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0434	5.15	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0513	5.15	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.462	5.15	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.199	5.15	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0703	5.15	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.310	5.15	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.137	5.15	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0570	5.15	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0624	5.15	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0988	5.15	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.176	5.15	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0490	1.03	PQL	ng/Kg	
	OCDF	JB	1.53	10.3	PQL	ng/Kg	
SL-026-SA5DS-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.555	5.27	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.191	5.27	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0221	5.27	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0419	5.27	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JQ	0.0647	5.27	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0749	5.27	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0349	5.27	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0559	5.27	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.0230	5.27	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0656	5.27	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0370	5.27	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.123	5.27	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0251	1.05	PQL	ng/Kg	
	OCDD	JB	3.60	10.5	PQL	ng/Kg	
	OCDF	JB	0.395	10.5	PQL	ng/Kg	
SL-026-SA5DS-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	0.263	5.40	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.0992	5.40	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0417	5.40	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JQ	0.0689	5.40	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0734	5.40	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0426	5.40	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0487	5.40	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.0855	5.40	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JB	0.110	5.40	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.159	5.40	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0297	5.40	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0537	1.08	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0563	1.08	PQL	ng/Kg	
	OCDD	JB	0.667	10.8	PQL	ng/Kg	
	OCDF	JB	0.210	10.8	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX150 **Laboratory: LL**

EDD Filename: DX150_v2 **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-040-SA5DS-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.186	5.40	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.135	5.40	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0399	5.40	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0279	5.40	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JQ	0.0409	5.40	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0420	5.40	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0414	5.40	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0702	5.40	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.0552	5.40	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0860	5.40	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0733	5.40	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0383	5.40	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0902	5.40	PQL	ng/Kg	
	OCDD	JB	0.582	10.8	PQL	ng/Kg	
	OCDF	JB	0.171	10.8	PQL	ng/Kg	
SL-040-SA5DS-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	0.245	5.34	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.0813	5.34	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0318	5.34	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JQ	0.0471	5.34	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0363	5.34	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0142	5.34	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0672	5.34	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.118	5.34	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0347	5.34	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0345	5.34	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0293	5.34	PQL	ng/Kg	
	OCDD	JB	0.613	10.7	PQL	ng/Kg	
	OCDF	JB	0.190	10.7	PQL	ng/Kg	
SL-060-SA7-SB-2.5-3.5	1,2,3,4,6,7,8-HPCDD	JB	0.283	5.21	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.138	5.21	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0237	5.21	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.0458	5.21	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0201	5.21	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0198	5.21	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0231	5.21	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0300	5.21	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0512	5.21	PQL	ng/Kg	
	OCDD	JB	1.58	10.4	PQL	ng/Kg	
	OCDF	JBQ	0.200	10.4	PQL	ng/Kg	
SL-069-SA7-SB-2.5-3.5	1,2,3,4,6,7,8-HPCDD	JB	0.429	5.04	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.157	5.04	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0242	5.04	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.0475	5.04	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0460	5.04	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0469	5.04	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0442	5.04	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0420	5.04	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDF	JB	0.0351	5.04	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0564	5.04	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0799	5.04	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0271	1.01	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0260	1.01	PQL	ng/Kg	
	OCDD	JB	2.28	10.1	PQL	ng/Kg	
	OCDF	JBQ	0.210	10.1	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX150 **Laboratory: LL**

EDD Filename: DX150_v2 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-089-SA7-SB-3.5-4.5	1,2,3,4,6,7,8-HPCDD	JB	4.64	5.60	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.936	5.60	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0695	5.60	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0699	5.60	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.328	5.60	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.253	5.60	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0847	5.60	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.119	5.60	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.0800	5.60	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0421	5.60	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0524	5.60	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.146	5.60	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.196	5.60	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0780	1.12	PQL	ng/Kg	
	OCDF	JB	2.37	11.2	PQL	ng/Kg	
SL-142-SA7-SB-2.0-3.0	1,2,3,4,6,7,8-HPCDD	JB	3.16	5.10	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.633	5.10	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0417	5.10	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0851	5.10	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.411	5.10	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.182	5.10	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0818	5.10	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.221	5.10	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.167	5.10	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.135	5.10	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.137	5.10	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0887	5.10	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.205	5.10	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0615	1.02	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.155	1.02	PQL	ng/Kg	
	OCDF	JB	1.31	10.2	PQL	ng/Kg	
SL-142-SA7-SB-7.0-8.0	1,2,3,4,6,7,8-HPCDF	JB	1.45	5.20	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.147	5.20	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.188	5.20	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.437	5.20	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.539	5.20	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.177	5.20	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.415	5.20	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.126	5.20	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.0919	5.20	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.225	5.20	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.194	5.20	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.336	1.04	PQL	ng/Kg	
	OCDF	JB	3.44	10.4	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX150 | Laboratory: LL

EDD Filename: DX150_v2 | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-143-SA7-SB-5.0-6.0	1,2,3,4,6,7,8-HPCDD	JB	0.709	5.30	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.191	5.30	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0688	5.30	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0481	5.30	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JQ	0.129	5.30	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0925	5.30	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0594	5.30	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0778	5.30	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0576	5.30	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0776	5.30	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.103	5.30	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0785	5.30	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.120	5.30	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0429	1.06	PQL	ng/Kg	
	OCDD	JB	4.51	10.6	PQL	ng/Kg	
	OCDF	JBQ	0.298	10.6	PQL	ng/Kg	
SL-143-SA7-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	0.354	5.05	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.217	5.05	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0633	5.05	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0456	5.05	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.0821	5.05	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.107	5.05	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0777	5.05	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.104	5.05	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0508	5.05	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.150	5.05	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.159	5.05	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0847	5.05	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.158	5.05	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0635	1.01	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.100	1.01	PQL	ng/Kg	
	OCDD	JBQ	1.37	10.1	PQL	ng/Kg	
	OCDF	JB	0.304	10.1	PQL	ng/Kg	
SL-148-SA7-SB-0.0-1.0	1,2,3,4,6,7,8-HPCDD	JB	1.84	5.22	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.437	5.22	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0671	5.22	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0500	5.22	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.110	5.22	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.111	5.22	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0770	5.22	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.128	5.22	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.0441	5.22	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0351	5.22	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0730	5.22	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0610	5.22	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.108	5.22	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0365	1.04	PQL	ng/Kg	
	OCDF	JB	0.833	10.4	PQL	ng/Kg	

SAMPLE DELIVERY GROUP

DX151

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Oct-2011	SL-034-SA5DS-SB-9.0-10.0	6439948	N	METHOD	1613B	III
17-Oct-2011	DUP03-SA5DS-QC-101711	6439950	FD	METHOD	1613B	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0	6439945	N	METHOD	1613B	III
17-Oct-2011	SL-034-SA5DS-SB-4.0-5.0MS	6439946	MS	METHOD	1613B	III
17-Oct-2011	SL-033-SA5DS-SB-2.0-3.0	6439944	N	METHOD	1613B	III
17-Oct-2011	SL-139-SA7-SB-2.0-3.0	6439943	N	METHOD	1613B	III
17-Oct-2011	SL-039-SA5DS-SB-3.0-4.0	6439949	N	METHOD	1613B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DX151 Laboratory: LL

EDD Filename: DX151_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: DUP03-SA5DS-QC-101711 *Collected:* 10/17/2011 10:44:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.254	JBQ	0.0253	MDL	5.63	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.126	JB	0.0119	MDL	5.63	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0575	JB	0.0151	MDL	5.63	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8-HxCDD	0.0475	JQ	0.0196	MDL	5.63	PQL	ng/Kg	J	Z, FD
1,2,3,4,7,8-HXCDF	0.135	JBQ	0.0228	MDL	5.63	PQL	ng/Kg	UJ	B, FD
1,2,3,6,7,8-HXCDD	0.0734	JQ	0.0196	MDL	5.63	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HXCDF	0.108	JB	0.0170	MDL	5.63	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8,9-HXCDD	0.111	JBQ	0.0194	MDL	5.63	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8,9-HXCDF	0.143	JBQ	0.0163	MDL	5.63	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.128	JQ	0.0266	MDL	5.63	PQL	ng/Kg	J	Z, FD
1,2,3,7,8-PECDF	0.190	JB	0.0157	MDL	5.63	PQL	ng/Kg	J	Z, FD
2,3,4,6,7,8-HXCDF	0.0900	JBQ	0.0157	MDL	5.63	PQL	ng/Kg	UJ	B, FD
2,3,4,7,8-PECDF	0.174	JB	0.0166	MDL	5.63	PQL	ng/Kg	UJ	B, FD
2,3,7,8-TCDD	0.0345	JQ	0.0259	MDL	1.13	PQL	ng/Kg	J	Z, FD
OCDD	0.413	JB	0.0313	MDL	11.3	PQL	ng/Kg	U	B
OCDF	0.187	JBQ	0.0318	MDL	11.3	PQL	ng/Kg	U	B

Sample ID: SL-033-SA5DS-SB-2.0-3.0 *Collected:* 10/17/2011 11:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.233	JB	0.0241	MDL	5.70	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.120	JB	0.0113	MDL	5.70	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0505	JB	0.0171	MDL	5.70	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0241	JQ	0.0176	MDL	5.70	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0449	JBQ	0.0137	MDL	5.70	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0230	JQ	0.0171	MDL	5.70	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0196	JB	0.0115	MDL	5.70	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0598	JBQ	0.0174	MDL	5.70	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0926	JB	0.0137	MDL	5.70	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0393	JQ	0.0274	MDL	5.70	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0268	JBQ	0.0168	MDL	5.70	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0437	JB	0.0122	MDL	5.70	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0522	JB	0.0159	MDL	5.70	PQL	ng/Kg	U	B
OCDD	0.626	JB	0.0318	MDL	11.4	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX151 Laboratory: LL

EDD Filename: DX151_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-033-SA5DS-SB-2.0-3.0 *Collected:* 10/17/2011 11:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
OCDF	0.225	JBQ	0.0340	MDL	11.4	PQL	ng/Kg	U	B

Sample ID: SL-034-SA5DS-SB-4.0-5.0 *Collected:* 10/17/2011 10:53:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.233	JBQ	0.0260	MDL	5.49	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.142	JB	0.0108	MDL	5.49	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0155	U	0.0155	MDL	5.49	PQL	ng/Kg	UJ	FD
1,2,3,4,7,8-HxCDD	0.0183	U	0.0183	MDL	5.49	PQL	ng/Kg	UJ	FD
1,2,3,4,7,8-HXCDF	0.0416	JBQ	0.0187	MDL	5.49	PQL	ng/Kg	UJ	B, FD
1,2,3,6,7,8-HXCDD	0.0442	JQ	0.0191	MDL	5.49	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HXCDF	0.0281	JB	0.0148	MDL	5.49	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8,9-HXCDD	0.0445	JBQ	0.0172	MDL	5.49	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8,9-HXCDF	0.107	JBQ	0.0161	MDL	5.49	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0273	U	0.0273	MDL	5.49	PQL	ng/Kg	UJ	FD
1,2,3,7,8-PECDF	0.0286	JBQ	0.0161	MDL	5.49	PQL	ng/Kg	UJ	B, FD
2,3,4,6,7,8-HXCDF	0.0515	JBQ	0.0139	MDL	5.49	PQL	ng/Kg	UJ	B, FD
2,3,4,7,8-PECDF	0.0434	JBQ	0.0158	MDL	5.49	PQL	ng/Kg	UJ	B, FD
2,3,7,8-TCDD	0.0349	U	0.0349	MDL	1.10	PQL	ng/Kg	UJ	FD
OCDD	0.630	JBQ	0.0353	MDL	11.0	PQL	ng/Kg	U	B
OCDF	0.174	JBQ	0.0374	MDL	11.0	PQL	ng/Kg	U	B

Sample ID: SL-034-SA5DS-SB-9.0-10.0 *Collected:* 10/17/2011 9:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.249	JBQ	0.0249	MDL	5.55	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.106	JB	0.0107	MDL	5.55	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0526	JB	0.0155	MDL	5.55	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0514	JBQ	0.0162	MDL	5.55	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0328	JQ	0.0190	MDL	5.55	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0409	JBQ	0.0136	MDL	5.55	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0563	JB	0.0175	MDL	5.55	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0594	JB	0.0144	MDL	5.55	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0265	JQ	0.0232	MDL	5.55	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0323	JB	0.0141	MDL	5.55	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX151 Laboratory: LL

EDD Filename: DX151_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-034-SA5DS-SB-9.0-10.0 *Collected:* 10/17/2011 9:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,4,6,7,8-HXCDF	0.0419	JBQ	0.0126	MDL	5.55	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0446	JBQ	0.0149	MDL	5.55	PQL	ng/Kg	U	B
OCDD	0.511	JB	0.0311	MDL	11.1	PQL	ng/Kg	U	B
OCDF	0.174	JBQ	0.0323	MDL	11.1	PQL	ng/Kg	U	B

Sample ID: SL-039-SA5DS-SB-3.0-4.0 *Collected:* 10/17/2011 2:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.247	JBQ	0.0257	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.155	JBQ	0.0111	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0511	JBQ	0.0149	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0298	J	0.0181	MDL	5.42	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0451	JBQ	0.0146	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0385	JQ	0.0199	MDL	5.42	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0565	JB	0.0125	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0325	JB	0.0178	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0455	JBQ	0.0120	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0475	JQ	0.0257	MDL	5.42	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0388	JBQ	0.0151	MDL	5.42	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0576	JBQ	0.0114	MDL	5.42	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0741	JB	0.0142	MDL	5.42	PQL	ng/Kg	U	B
OCDD	0.558	JB	0.0309	MDL	10.8	PQL	ng/Kg	U	B
OCDF	0.165	JB	0.0242	MDL	10.8	PQL	ng/Kg	U	B

Sample ID: SL-139-SA7-SB-2.0-3.0 *Collected:* 10/17/2011 12:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.10	JB	0.0158	MDL	5.21	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.126	JB	0.0250	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.473	JB	0.0343	MDL	5.21	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.282	J	0.0364	MDL	5.21	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0907	JBQ	0.0292	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.191	JBQ	0.0375	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0734	JBQ	0.0343	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0962	JQ	0.0287	MDL	5.21	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX151 **Laboratory:** LL

EDD Filename: DX151_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-139-SA7-SB-2.0-3.0 **Collected:** 10/17/2011 12:05:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8-PECDF	0.106	JB	0.0259	MDL	5.21	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.116	JB	0.0319	MDL	5.21	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.177	JBQ	0.0254	MDL	5.21	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0624	JQ	0.0368	MDL	1.04	PQL	ng/Kg	J	Z
OCDF	2.82	JB	0.0345	MDL	10.4	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX151 **Laboratory: LL**

EDD Filename: DX151_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
B	Method Blank Contamination
FD	Field Duplicate Precision
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DX151

Method Blank Outlier Report

Lab Reporting Batch ID: DX151 **Laboratory: LL**

EDD Filename: DX151_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK3010B371321	10/30/2011 1:21:00 PM	1,2,3,4,6,7,8-HPCDD	0.224 ng/Kg	DUP03-SA5DS-QC-101711
		1,2,3,4,6,7,8-HPCDF	0.159 ng/Kg	SL-033-SA5DS-SB-2.0-3.0
		1,2,3,4,7,8,9-HPCDF	0.0467 ng/Kg	SL-034-SA5DS-SB-4.0-5.0
		1,2,3,4,7,8-HXCDF	0.0465 ng/Kg	SL-034-SA5DS-SB-9.0-10.0
		1,2,3,6,7,8-HXCDF	0.0250 ng/Kg	SL-039-SA5DS-SB-3.0-4.0
		1,2,3,7,8,9-HXCDD	0.0409 ng/Kg	SL-139-SA7-SB-2.0-3.0
		1,2,3,7,8,9-HXCDF	0.0278 ng/Kg	
		1,2,3,7,8-PECDF	0.0229 ng/Kg	
		2,3,4,6,7,8-HXCDF	0.0347 ng/Kg	
		2,3,4,7,8-PECDF	0.0728 ng/Kg	
		OCDD	0.412 ng/Kg	
		OCDF	0.202 ng/Kg	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP03-SA5DS-QC-101711(RES)	1,2,3,4,6,7,8-HPCDD	0.254 ng/Kg	0.254U ng/Kg
DUP03-SA5DS-QC-101711(RES)	1,2,3,4,6,7,8-HPCDF	0.126 ng/Kg	0.126U ng/Kg
DUP03-SA5DS-QC-101711(RES)	1,2,3,4,7,8,9-HPCDF	0.0575 ng/Kg	0.0575U ng/Kg
DUP03-SA5DS-QC-101711(RES)	1,2,3,4,7,8-HXCDF	0.135 ng/Kg	0.135U ng/Kg
DUP03-SA5DS-QC-101711(RES)	1,2,3,6,7,8-HXCDF	0.108 ng/Kg	0.108U ng/Kg
DUP03-SA5DS-QC-101711(RES)	1,2,3,7,8,9-HXCDD	0.111 ng/Kg	0.111U ng/Kg
DUP03-SA5DS-QC-101711(RES)	2,3,4,6,7,8-HXCDF	0.0900 ng/Kg	0.0900U ng/Kg
DUP03-SA5DS-QC-101711(RES)	2,3,4,7,8-PECDF	0.174 ng/Kg	0.174U ng/Kg
DUP03-SA5DS-QC-101711(RES)	OCDD	0.413 ng/Kg	0.413U ng/Kg
DUP03-SA5DS-QC-101711(RES)	OCDF	0.187 ng/Kg	0.187U ng/Kg
SL-033-SA5DS-SB-2.0-3.0(RES)	1,2,3,4,6,7,8-HPCDD	0.233 ng/Kg	0.233U ng/Kg
SL-033-SA5DS-SB-2.0-3.0(RES)	1,2,3,4,6,7,8-HPCDF	0.120 ng/Kg	0.120U ng/Kg
SL-033-SA5DS-SB-2.0-3.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0505 ng/Kg	0.0505U ng/Kg
SL-033-SA5DS-SB-2.0-3.0(RES)	1,2,3,4,7,8-HXCDF	0.0449 ng/Kg	0.0449U ng/Kg
SL-033-SA5DS-SB-2.0-3.0(RES)	1,2,3,6,7,8-HXCDF	0.0196 ng/Kg	0.0196U ng/Kg
SL-033-SA5DS-SB-2.0-3.0(RES)	1,2,3,7,8,9-HXCDD	0.0598 ng/Kg	0.0598U ng/Kg
SL-033-SA5DS-SB-2.0-3.0(RES)	1,2,3,7,8,9-HXCDF	0.0926 ng/Kg	0.0926U ng/Kg
SL-033-SA5DS-SB-2.0-3.0(RES)	1,2,3,7,8-PECDF	0.0268 ng/Kg	0.0268U ng/Kg
SL-033-SA5DS-SB-2.0-3.0(RES)	2,3,4,6,7,8-HXCDF	0.0437 ng/Kg	0.0437U ng/Kg
SL-033-SA5DS-SB-2.0-3.0(RES)	2,3,4,7,8-PECDF	0.0522 ng/Kg	0.0522U ng/Kg
SL-033-SA5DS-SB-2.0-3.0(RES)	OCDD	0.626 ng/Kg	0.626U ng/Kg
SL-033-SA5DS-SB-2.0-3.0(RES)	OCDF	0.225 ng/Kg	0.225U ng/Kg
SL-034-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.233 ng/Kg	0.233U ng/Kg
SL-034-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.142 ng/Kg	0.142U ng/Kg
SL-034-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0416 ng/Kg	0.0416U ng/Kg
SL-034-SA5DS-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0281 ng/Kg	0.0281U ng/Kg
SL-034-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.0445 ng/Kg	0.0445U ng/Kg
SL-034-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.107 ng/Kg	0.107U ng/Kg
SL-034-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0286 ng/Kg	0.0286U ng/Kg
SL-034-SA5DS-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0515 ng/Kg	0.0515U ng/Kg
SL-034-SA5DS-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0434 ng/Kg	0.0434U ng/Kg
SL-034-SA5DS-SB-4.0-5.0(RES)	OCDD	0.630 ng/Kg	0.630U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX151 **Laboratory: LL**

EDD Filename: DX151_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-034-SA5DS-SB-4.0-5.0(RES)	OCDF	0.174 ng/Kg	0.174U ng/Kg
SL-034-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDD	0.249 ng/Kg	0.249U ng/Kg
SL-034-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.106 ng/Kg	0.106U ng/Kg
SL-034-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0526 ng/Kg	0.0526U ng/Kg
SL-034-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.0514 ng/Kg	0.0514U ng/Kg
SL-034-SA5DS-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.0409 ng/Kg	0.0409U ng/Kg
SL-034-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDD	0.0563 ng/Kg	0.0563U ng/Kg
SL-034-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDF	0.0594 ng/Kg	0.0594U ng/Kg
SL-034-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8-PECDF	0.0323 ng/Kg	0.0323U ng/Kg
SL-034-SA5DS-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.0419 ng/Kg	0.0419U ng/Kg
SL-034-SA5DS-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.0446 ng/Kg	0.0446U ng/Kg
SL-034-SA5DS-SB-9.0-10.0(RES)	OCDD	0.511 ng/Kg	0.511U ng/Kg
SL-034-SA5DS-SB-9.0-10.0(RES)	OCDF	0.174 ng/Kg	0.174U ng/Kg
SL-039-SA5DS-SB-3.0-4.0(RES)	1,2,3,4,6,7,8-HPCDD	0.247 ng/Kg	0.247U ng/Kg
SL-039-SA5DS-SB-3.0-4.0(RES)	1,2,3,4,6,7,8-HPCDF	0.155 ng/Kg	0.155U ng/Kg
SL-039-SA5DS-SB-3.0-4.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0511 ng/Kg	0.0511U ng/Kg
SL-039-SA5DS-SB-3.0-4.0(RES)	1,2,3,4,7,8-HXCDF	0.0451 ng/Kg	0.0451U ng/Kg
SL-039-SA5DS-SB-3.0-4.0(RES)	1,2,3,6,7,8-HXCDF	0.0565 ng/Kg	0.0565U ng/Kg
SL-039-SA5DS-SB-3.0-4.0(RES)	1,2,3,7,8,9-HXCDD	0.0325 ng/Kg	0.0325U ng/Kg
SL-039-SA5DS-SB-3.0-4.0(RES)	1,2,3,7,8,9-HXCDF	0.0455 ng/Kg	0.0455U ng/Kg
SL-039-SA5DS-SB-3.0-4.0(RES)	1,2,3,7,8-PECDF	0.0388 ng/Kg	0.0388U ng/Kg
SL-039-SA5DS-SB-3.0-4.0(RES)	2,3,4,6,7,8-HXCDF	0.0576 ng/Kg	0.0576U ng/Kg
SL-039-SA5DS-SB-3.0-4.0(RES)	2,3,4,7,8-PECDF	0.0741 ng/Kg	0.0741U ng/Kg
SL-039-SA5DS-SB-3.0-4.0(RES)	OCDD	0.558 ng/Kg	0.558U ng/Kg
SL-039-SA5DS-SB-3.0-4.0(RES)	OCDF	0.165 ng/Kg	0.165U ng/Kg
SL-139-SA7-SB-2.0-3.0(RES)	1,2,3,4,7,8,9-HPCDF	0.126 ng/Kg	0.126U ng/Kg
SL-139-SA7-SB-2.0-3.0(RES)	1,2,3,6,7,8-HXCDF	0.0907 ng/Kg	0.0907U ng/Kg
SL-139-SA7-SB-2.0-3.0(RES)	1,2,3,7,8,9-HXCDD	0.191 ng/Kg	0.191U ng/Kg
SL-139-SA7-SB-2.0-3.0(RES)	1,2,3,7,8,9-HXCDF	0.0734 ng/Kg	0.0734U ng/Kg
SL-139-SA7-SB-2.0-3.0(RES)	1,2,3,7,8-PECDF	0.106 ng/Kg	0.106U ng/Kg
SL-139-SA7-SB-2.0-3.0(RES)	2,3,4,6,7,8-HXCDF	0.116 ng/Kg	0.116U ng/Kg
SL-139-SA7-SB-2.0-3.0(RES)	2,3,4,7,8-PECDF	0.177 ng/Kg	0.177U ng/Kg

Field Duplicate RPD Report

Lab Reporting Batch ID: DX151 Laboratory: LL

EDD Filename: DX151_v1 eQAPP Name: CDM_SSFL_110509

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SB-4.0-5.0	DUP03-SA5DS-QC-101711			
MOISTURE	12.2	12.7	4		No Qualifiers Applied

Method: 1613B
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SB-4.0-5.0	DUP03-SA5DS-QC-101711			
1,2,3,4,6,7,8-HPCDD	0.233	0.254	9	50.00	No Qualifiers Applied
1,2,3,4,6,7,8-HPCDF	0.142	0.126	12	50.00	
1,2,3,7,8,9-HXCDF	0.107	0.143	29	50.00	
OCDD	0.630	0.413	42	50.00	
OCDF	0.174	0.187	7	50.00	
1,2,3,4,7,8,9-HPCDF	5.49 U	0.0575	200	50.00	J(all detects) UJ(all non-detects)
1,2,3,4,7,8-HxCDD	5.49 U	0.0475	200	50.00	
1,2,3,4,7,8-HXCDF	0.0416	0.135	106	50.00	
1,2,3,6,7,8-HXCDD	0.0442	0.0734	50	50.00	
1,2,3,6,7,8-HXCDF	0.0281	0.108	117	50.00	
1,2,3,7,8,9-HXCDD	0.0445	0.111	86	50.00	
1,2,3,7,8-PECDD	5.49 U	0.128	200	50.00	
1,2,3,7,8-PECDF	0.0286	0.190	148	50.00	
2,3,4,6,7,8-HXCDF	0.0515	0.0900	54	50.00	
2,3,4,7,8-PECDF	0.0434	0.174	120	50.00	
2,3,7,8-TCDD	1.10 U	0.0345	200	50.00	

Reporting Limit Outliers

Lab Reporting Batch ID: DX151 **Laboratory: LL**

EDD Filename: DX151_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
DUP03-SA5DS-QC-101711	1,2,3,4,6,7,8-HPCDD	JBQ	0.254	5.63	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.126	5.63	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0575	5.63	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0475	5.63	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.135	5.63	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.0734	5.63	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.108	5.63	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.111	5.63	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.143	5.63	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.128	5.63	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.190	5.63	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0900	5.63	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.174	5.63	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0345	1.13	PQL	ng/Kg	
	OCDD	JB	0.413	11.3	PQL	ng/Kg	
	OCDF	JBQ	0.187	11.3	PQL	ng/Kg	
SL-033-SA5DS-SB-2.0-3.0	1,2,3,4,6,7,8-HPCDD	JB	0.233	5.70	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.120	5.70	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0505	5.70	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0241	5.70	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0449	5.70	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.0230	5.70	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0196	5.70	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0598	5.70	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.0926	5.70	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0393	5.70	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0268	5.70	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0437	5.70	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0522	5.70	PQL	ng/Kg	
	OCDD	JB	0.626	11.4	PQL	ng/Kg	
	OCDF	JBQ	0.225	11.4	PQL	ng/Kg	
SL-034-SA5DS-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.233	5.49	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.142	5.49	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0416	5.49	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.0442	5.49	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0281	5.49	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0445	5.49	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.107	5.49	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0286	5.49	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0515	5.49	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0434	5.49	PQL	ng/Kg	
	OCDD	JBQ	0.630	11.0	PQL	ng/Kg	
	OCDF	JBQ	0.174	11.0	PQL	ng/Kg	
SL-034-SA5DS-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.249	5.55	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.106	5.55	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0526	5.55	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0514	5.55	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.0328	5.55	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0409	5.55	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0563	5.55	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.0594	5.55	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0265	5.55	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0323	5.55	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0419	5.55	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0446	5.55	PQL	ng/Kg	
	OCDD	JB	0.511	11.1	PQL	ng/Kg	
	OCDF	JBQ	0.174	11.1	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX151 | Laboratory: LL

EDD Filename: DX151_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-039-SA5DS-SB-3.0-4.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.247	5.42	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.155	5.42	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0511	5.42	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.0298	5.42	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0451	5.42	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	0.0385	5.42	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0565	5.42	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0325	5.42	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0455	5.42	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0475	5.42	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0388	5.42	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0576	5.42	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0741	5.42	PQL	ng/Kg	
	OCDD	JB	0.558	10.8	PQL	ng/Kg	
	OCDF	JB	0.165	10.8	PQL	ng/Kg	
SL-139-SA7-SB-2.0-3.0	1,2,3,4,6,7,8-HPCDF	JB	1.10	5.21	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.126	5.21	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.473	5.21	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.282	5.21	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0907	5.21	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.191	5.21	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0734	5.21	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JQ	0.0962	5.21	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.106	5.21	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.116	5.21	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.177	5.21	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0624	1.04	PQL	ng/Kg	
	OCDF	JB	2.82	10.4	PQL	ng/Kg	

SAMPLE DELIVERY GROUP

DE154

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Nov-2011	SL-048-SA7-SB-4.0-5.0	6460121	N	METHOD	1613B	III
02-Nov-2011	SL-048-SA7-SB-9.0-10.0	6460122	N	METHOD	1613B	III
02-Nov-2011	SL-161-SA7-SB-4.0-5.0	6460123	N	METHOD	1613B	III
03-Nov-2011	SL-108-SA7-SB-2.9-3.9	6460124	N	METHOD	1613B	III
03-Nov-2011	SL-128-SA7-SB-4.0-5.0	6460125	N	METHOD	1613B	III
03-Nov-2011	SL-128-SA7-SB-9.0-10.0	6460126	N	METHOD	1613B	III
03-Nov-2011	SL-171-SA7-SB-4.0-5.0	6460127	N	METHOD	1613B	III
03-Nov-2011	SL-171-SA7-SB-9.0-10.0	6460128	N	METHOD	1613B	III
03-Nov-2011	EB-SA7-SB-110311	6460129	EB	METHOD	1613B	III
07-Nov-2011	SL-001-SA3-SB-2.0-3.0	6462625	N	METHOD	1613B	III
07-Nov-2011	SL-010-SA3-SB-3.0-4.0	6462629	N	METHOD	1613B	III
07-Nov-2011	SL-013-SA3-SB-0.5-1.5	6462628	N	METHOD	1613B	III
07-Nov-2011	SL-004-SA3-SB-4.0-5.0	6462626	N	METHOD	1613B	III
07-Nov-2011	SL-004-SA3-SB-7.0-8.0	6462627	N	METHOD	1613B	III
08-Nov-2011	SL-010-SA5DS-SB-2.0-3.0	6463914	N	METHOD	1613B	III
08-Nov-2011	SL-019-SA5DS-SB-2.0-3.0	6463915	N	METHOD	1613B	III
09-Nov-2011	SL-021-SA5DS-SB-2.0-3.0	6465439	N	METHOD	1613B	III
09-Nov-2011	SL-022-SA5DS-SB-4.0-5.0	6465440	N	METHOD	1613B	III
09-Nov-2011	SL-005-SA5DS-SB-1.0-2.0	6465435	N	METHOD	1613B	III
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5	6465436	N	METHOD	1613B	III
09-Nov-2011	SL-006-SA5DS-SS-0.0-0.5MS	6465437	MS	METHOD	1613B	III
09-Nov-2011	DUP04-SA5DS-QC-110911	6465441	FD	METHOD	1613B	III
10-Nov-2011	EB-SA5DS-SB-111011	6466891	EB	METHOD	1613B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DX154 Laboratory: LL

EDD Filename: DX154_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** AQ

Sample ID: EB-SA5DS-SB-111011 *Collected:* 11/10/2011 1:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	4.71	JB	0.433	MDL	10.1	PQL	pg/L	U	B
1,2,3,4,6,7,8-HPCDF	3.74	JB	0.204	MDL	10.1	PQL	pg/L	U	B
1,2,3,4,7,8,9-HPCDF	0.265	JBQ	0.226	MDL	10.1	PQL	pg/L	U	B
1,2,3,4,7,8-HXCDF	0.739	JBQ	0.238	MDL	10.1	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDD	0.698	JB	0.328	MDL	10.1	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDF	0.724	JBQ	0.226	MDL	10.1	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDF	0.297	JB	0.251	MDL	10.1	PQL	pg/L	U	B
1,2,3,7,8-PECDF	0.360	JBQ	0.209	MDL	10.1	PQL	pg/L	U	B
2,3,4,6,7,8-HXCDF	0.733	JB	0.215	MDL	10.1	PQL	pg/L	U	B
2,3,4,7,8-PECDF	0.392	JBQ	0.181	MDL	10.1	PQL	pg/L	U	B
2,3,7,8-TCDF	0.363	JQ	0.329	MDL	2.01	PQL	pg/L	J	Z
OCDD	8.05	JBQ	0.431	MDL	20.1	PQL	pg/L	U	B
OCDF	3.11	JB	0.545	MDL	20.1	PQL	pg/L	U	B

Sample ID: EB-SA7-SB-110311 *Collected:* 11/3/2011 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.43	JBQ	0.204	MDL	9.84	PQL	pg/L	U	B
1,2,3,4,6,7,8-HPCDF	2.14	JBQ	0.0852	MDL	9.84	PQL	pg/L	U	B
1,2,3,4,7,8,9-HPCDF	0.222	JB	0.102	MDL	9.84	PQL	pg/L	U	B
1,2,3,4,7,8-HXCDF	0.248	JBQ	0.106	MDL	9.84	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDD	0.219	JBQ	0.169	MDL	9.84	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDF	0.262	JQ	0.103	MDL	9.84	PQL	pg/L	J	Z
1,2,3,7,8,9-HXCDD	0.285	JB	0.169	MDL	9.84	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDF	0.147	JBQ	0.105	MDL	9.84	PQL	pg/L	U	B
1,2,3,7,8-PECDF	0.151	JBQ	0.104	MDL	9.84	PQL	pg/L	U	B
2,3,4,6,7,8-HXCDF	0.474	JB	0.101	MDL	9.84	PQL	pg/L	U	B
2,3,4,7,8-PECDF	0.343	JBQ	0.0971	MDL	9.84	PQL	pg/L	U	B
2,3,7,8-TCDF	0.165	JBQ	0.138	MDL	1.97	PQL	pg/L	U	B
OCDD	4.20	JBQ	0.248	MDL	19.7	PQL	pg/L	U	B
OCDF	1.31	JBQ	0.276	MDL	19.7	PQL	pg/L	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX154 Laboratory: LL

EDD Filename: DX154_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: DUP04-SA5DS-QC-110911 *Collected:* 11/9/2011 1:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	4.28	JB	0.0345	MDL	5.52	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.991	JB	0.0167	MDL	5.52	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.117	JBQ	0.0245	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.121	JBQ	0.0317	MDL	5.52	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.321	JB	0.0243	MDL	5.52	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.974	JB	0.0339	MDL	5.52	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.217	JB	0.0226	MDL	5.52	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	1.25	JB	0.0321	MDL	5.52	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.467	JBQ	0.0274	MDL	5.52	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.209	JB	0.0385	MDL	5.52	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.407	JB	0.0305	MDL	5.52	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.230	JB	0.0230	MDL	5.52	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.503	JB	0.0303	MDL	5.52	PQL	ng/Kg	J	Z, FD
2,3,7,8-TCDD	0.0565	JQ	0.0335	MDL	1.10	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0637	U	0.0637	MDL	1.10	PQL	ng/Kg	UJ	FD
OCDF	1.85	JB	0.0275	MDL	11.0	PQL	ng/Kg	J	Z

Sample ID: SL-001-SA3-SB-2.0-3.0 *Collected:* 11/7/2011 9:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	1.37	JB	0.0285	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.278	JBQ	0.0116	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0712	JBQ	0.0156	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.135	J	0.0297	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.211	JBQ	0.0208	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.277	JB	0.0310	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.211	JBQ	0.0189	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.449	J	0.0289	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.203	JBQ	0.0224	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.293	J	0.0323	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.362	JB	0.0157	MDL	5.09	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.143	JBQ	0.0205	MDL	5.09	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.307	JB	0.0144	MDL	5.09	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.100	JQ	0.0304	MDL	1.02	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX154 Laboratory: LL

EDD Filename: DX154_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-001-SA3-SB-2.0-3.0 *Collected:* 11/7/2011 9:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,7,8-TCDF	0.135	J	0.0262	MDL	1.02	PQL	ng/Kg	J	Z
OCDD	8.03	JB	0.0248	MDL	10.2	PQL	ng/Kg	J	Z
OCDF	0.562	JB	0.0300	MDL	10.2	PQL	ng/Kg	U	B

Sample ID: SL-004-SA3-SB-4.0-5.0 *Collected:* 11/7/2011 2:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.534	JB	0.0242	MDL	5.19	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.220	JB	0.0135	MDL	5.19	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0265	JBQ	0.0208	MDL	5.19	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0349	JB	0.0177	MDL	5.19	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.162	JBQ	0.0262	MDL	5.19	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0778	JB	0.0165	MDL	5.19	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.258	J	0.0263	MDL	5.19	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0782	JB	0.0177	MDL	5.19	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0562	J	0.0303	MDL	5.19	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0640	JBQ	0.0155	MDL	5.19	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0594	JB	0.0152	MDL	5.19	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0563	JBQ	0.0156	MDL	5.19	PQL	ng/Kg	U	B
OCDD	3.06	JB	0.0223	MDL	10.4	PQL	ng/Kg	J	Z
OCDF	0.391	JB	0.0409	MDL	10.4	PQL	ng/Kg	U	B

Sample ID: SL-004-SA3-SB-7.0-8.0 *Collected:* 11/7/2011 3:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.653	JB	0.0211	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.362	JB	0.0117	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0511	JBQ	0.0186	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0756	JBQ	0.0191	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	3.33	JB	0.0208	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.773	JB	0.0163	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	3.97	J	0.0207	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.300	JB	0.0198	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0862	JBQ	0.0130	MDL	5.28	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0969	JB	0.0157	MDL	5.28	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX154 Laboratory: LL

EDD Filename: DX154_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-004-SA3-SB-7.0-8.0 *Collected:* 11/7/2011 3:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,4,7,8-PECDF	0.0899	JB	0.0130	MDL	5.28	PQL	ng/Kg	U	B
OCDD	2.85	JB	0.0206	MDL	10.6	PQL	ng/Kg	J	Z
OCDF	0.462	JB	0.0301	MDL	10.6	PQL	ng/Kg	U	B

Sample ID: SL-005-SA5DS-SB-1.0-2.0 *Collected:* 11/9/2011 1:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.880	JB	0.0189	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.278	JB	0.00919	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0280	JB	0.0137	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0358	JB	0.0197	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0655	JB	0.0156	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.257	JB	0.0202	MDL	5.26	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0526	JB	0.0136	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.424	JB	0.0207	MDL	5.26	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.126	JB	0.0141	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0403	JBQ	0.0248	MDL	5.26	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0745	JB	0.0122	MDL	5.26	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.103	JBQ	0.0119	MDL	5.26	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0669	JB	0.0124	MDL	5.26	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0258	J	0.0243	MDL	1.05	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0475	J	0.0243	MDL	1.05	PQL	ng/Kg	J	Z
OCDD	6.06	JB	0.0266	MDL	10.5	PQL	ng/Kg	J	Z
OCDF	0.433	JB	0.0241	MDL	10.5	PQL	ng/Kg	U	B

Sample ID: SL-006-SA5DS-SS-0.0-0.5 *Collected:* 11/9/2011 1:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	4.09	JB	0.0324	MDL	5.52	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.950	JB	0.0158	MDL	5.52	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0967	JB	0.0210	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.112	JB	0.0292	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.353	JBQ	0.0208	MDL	5.52	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.903	JB	0.0293	MDL	5.52	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.215	JBQ	0.0187	MDL	5.52	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX154 Laboratory: LL

EDD Filename: DX154_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-006-SA5DS-SS-0.0-0.5 *Collected:* 11/9/2011 1:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HXCDD	1.32	JB	0.0282	MDL	5.52	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.501	JB	0.0212	MDL	5.52	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.185	JBQ	0.0337	MDL	5.52	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.293	JB	0.0260	MDL	5.52	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.240	JBQ	0.0182	MDL	5.52	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.252	JB	0.0253	MDL	5.52	PQL	ng/Kg	UJ	B, FD
2,3,7,8-TCDD	0.0534	J	0.0271	MDL	1.10	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.124	J	0.0513	MDL	1.10	PQL	ng/Kg	J	Z, FD
OCDF	1.87	JB	0.0227	MDL	11.0	PQL	ng/Kg	J	Z

Sample ID: SL-010-SA3-SB-3.0-4.0 *Collected:* 11/7/2011 11:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.603	JB	0.0439	MDL	5.22	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.424	J	0.0505	MDL	5.22	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	4.63	JB	0.0716	MDL	5.22	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	1.01	JB	0.0494	MDL	5.22	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	2.71	JB	0.0630	MDL	5.22	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.747	J	0.0510	MDL	5.22	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.654	JB	0.0715	MDL	5.22	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	4.01	JB	0.0622	MDL	5.22	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	3.95	JB	0.0732	MDL	5.22	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.102	JQ	0.0616	MDL	1.04	PQL	ng/Kg	J	Z
OCDF	6.07	JB	0.0391	MDL	10.4	PQL	ng/Kg	J	Z

Sample ID: SL-010-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 9:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.414	JB	0.0252	MDL	5.54	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.364	JB	0.0129	MDL	5.54	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0431	JB	0.0214	MDL	5.54	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0300	JQ	0.0224	MDL	5.54	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0677	JB	0.0183	MDL	5.54	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.184	JB	0.0227	MDL	5.54	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0738	JB	0.0159	MDL	5.54	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX154 Laboratory: LL

EDD Filename: DX154_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-010-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 9:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HXCDD	0.237	J	0.0241	MDL	5.54	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.222	JB	0.0184	MDL	5.54	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0832	JB	0.0127	MDL	5.54	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0747	JB	0.0153	MDL	5.54	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0688	JB	0.0130	MDL	5.54	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0274	JQ	0.0269	MDL	1.11	PQL	ng/Kg	J	Z
OCDD	1.92	JB	0.0194	MDL	11.1	PQL	ng/Kg	J	Z
OCDF	0.371	JBQ	0.0347	MDL	11.1	PQL	ng/Kg	U	B

Sample ID: SL-013-SA3-SB-0.5-1.5 *Collected:* 11/7/2011 1:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.333	JBQ	0.0413	MDL	5.00	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.153	JQ	0.0386	MDL	5.00	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.507	JB	0.0298	MDL	5.00	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.603	JB	0.0381	MDL	5.00	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.223	JB	0.0263	MDL	5.00	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.490	J	0.0368	MDL	5.00	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.219	JBQ	0.0320	MDL	5.00	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.112	JQ	0.0384	MDL	5.00	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.290	JB	0.0261	MDL	5.00	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.406	JB	0.0264	MDL	5.00	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.277	JBQ	0.0270	MDL	5.00	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.202	J	0.0498	MDL	1.00	PQL	ng/Kg	J	Z

Sample ID: SL-019-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 2:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.388	JB	0.0192	MDL	5.38	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.273	JB	0.0114	MDL	5.38	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0392	JBQ	0.0181	MDL	5.38	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0219	J	0.0198	MDL	5.38	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0668	JB	0.0149	MDL	5.38	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0582	JBQ	0.0207	MDL	5.38	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0492	JB	0.0137	MDL	5.38	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX154 Laboratory: LL

EDD Filename: DX154_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-019-SA5DS-SB-2.0-3.0 *Collected:* 11/8/2011 2:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HXCDD	0.0841	J	0.0197	MDL	5.38	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0825	JB	0.0159	MDL	5.38	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0273	JQ	0.0228	MDL	5.38	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0240	JBQ	0.0111	MDL	5.38	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0786	JB	0.0131	MDL	5.38	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0868	JBQ	0.0110	MDL	5.38	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0281	JQ	0.0190	MDL	1.08	PQL	ng/Kg	U	B
OCDD	1.25	JB	0.0210	MDL	10.8	PQL	ng/Kg	U	B
OCDF	0.236	JB	0.0306	MDL	10.8	PQL	ng/Kg	U	B

Sample ID: SL-021-SA5DS-SB-2.0-3.0 *Collected:* 11/9/2011 9:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.469	JB	0.0227	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.215	JBQ	0.0113	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0622	JB	0.0143	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0554	JB	0.0153	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0716	JB	0.0201	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0541	JB	0.0138	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.144	JBQ	0.0201	MDL	5.24	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0829	JB	0.0144	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0493	JBQ	0.0113	MDL	5.24	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0544	JB	0.0143	MDL	5.24	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0885	JB	0.0108	MDL	5.24	PQL	ng/Kg	U	B
OCDD	2.31	JB	0.0231	MDL	10.5	PQL	ng/Kg	J	Z
OCDF	0.201	JBQ	0.0233	MDL	10.5	PQL	ng/Kg	U	B

Sample ID: SL-022-SA5DS-SB-4.0-5.0 *Collected:* 11/9/2011 11:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.270	JB	0.0181	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.111	JB	0.00923	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0415	JB	0.0134	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0287	JBQ	0.0171	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0399	JBQ	0.0115	MDL	5.21	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX154 Laboratory: LL

EDD Filename: DX154_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-022-SA5DS-SB-4.0-5.0 *Collected:* 11/9/2011 11:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,6,7,8-HXCDD	0.122	JB	0.0189	MDL	5.21	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0381	JB	0.00986	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.154	JB	0.0186	MDL	5.21	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.187	JB	0.0120	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0398	JBQ	0.0207	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0359	JB	0.00997	MDL	5.21	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0439	JBQ	0.00986	MDL	5.21	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.101	JB	0.00954	MDL	5.21	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0278	JQ	0.0187	MDL	1.04	PQL	ng/Kg	J	Z
OCDD	0.810	JB	0.0216	MDL	10.4	PQL	ng/Kg	U	B
OCDF	0.159	JB	0.0246	MDL	10.4	PQL	ng/Kg	U	B

Sample ID: SL-048-SA7-SB-4.0-5.0 *Collected:* 11/2/2011 9:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.50	JB	0.0345	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.298	JB	0.0113	MDL	5.08	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0802	JB	0.0170	MDL	5.08	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0554	JB	0.0152	MDL	5.08	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.140	JB	0.0238	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0544	JBQ	0.0138	MDL	5.08	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.134	J	0.0231	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0647	JBQ	0.0159	MDL	5.08	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.105	JQ	0.0262	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.139	JB	0.0140	MDL	5.08	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0682	JB	0.0135	MDL	5.08	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.102	JB	0.0138	MDL	5.08	PQL	ng/Kg	U	B
OCDF	0.623	JB	0.0343	MDL	10.2	PQL	ng/Kg	U	B

Sample ID: SL-048-SA7-SB-9.0-10.0 *Collected:* 11/2/2011 10:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.79	JB	0.0331	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.370	JB	0.0121	MDL	5.13	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0613	JBQ	0.0191	MDL	5.13	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX154 Laboratory: LL

EDD Filename: DX154_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-048-SA7-SB-9.0-10.0 *Collected:* 11/2/2011 10:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HxCDD	0.0366	J	0.0241	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0365	JB	0.0174	MDL	5.13	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.118	JBQ	0.0256	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0367	JB	0.0152	MDL	5.13	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.140	J	0.0238	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.167	JB	0.0196	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0414	J	0.0271	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0987	JBQ	0.0142	MDL	5.13	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0292	JBQ	0.0154	MDL	5.13	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0686	JBQ	0.0139	MDL	5.13	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0278	J	0.0256	MDL	1.03	PQL	ng/Kg	U	B
OCDF	0.735	JB	0.0281	MDL	10.3	PQL	ng/Kg	J	Z

Sample ID: SL-108-SA7-SB-2.9-3.9 *Collected:* 11/3/2011 9:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	0.944	JB	0.0172	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.116	JBQ	0.0271	MDL	5.02	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.105	JBQ	0.0210	MDL	5.02	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.348	JB	0.0369	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0758	JBQ	0.0192	MDL	5.02	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.273	J	0.0334	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0911	JB	0.0227	MDL	5.02	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0740	JQ	0.0313	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.101	JBQ	0.0167	MDL	5.02	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0929	JB	0.0195	MDL	5.02	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.117	JBQ	0.0164	MDL	5.02	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0324	J	0.0302	MDL	1.00	PQL	ng/Kg	J	Z
OCDF	2.35	JB	0.0360	MDL	10.0	PQL	ng/Kg	J	Z

Sample ID: SL-128-SA7-SB-4.0-5.0 *Collected:* 11/3/2011 10:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	2.54	JB	0.0193	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.259	JB	0.0257	MDL	5.17	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX154 Laboratory: LL

EDD Filename: DX154_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-128-SA7-SB-4.0-5.0 *Collected:* 11/3/2011 10:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HxCDD	0.113	J	0.0346	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.216	JB	0.0238	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.515	JB	0.0363	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.133	JBQ	0.0214	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.285	J	0.0375	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.207	JBQ	0.0227	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0429	JQ	0.0308	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0521	JB	0.0156	MDL	5.17	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.163	JB	0.0207	MDL	5.17	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0470	JBQ	0.0153	MDL	5.17	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0324	JQ	0.0254	MDL	1.03	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0282	JQ	0.0256	MDL	1.03	PQL	ng/Kg	U	B
OCDF	5.91	JB	0.0294	MDL	10.3	PQL	ng/Kg	J	Z

Sample ID: SL-128-SA7-SB-9.0-10.0 *Collected:* 11/3/2011 10:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	0.777	JB	0.0158	MDL	5.33	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0643	JBQ	0.0223	MDL	5.33	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0793	J	0.0311	MDL	5.33	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0898	JB	0.0211	MDL	5.33	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.230	JBQ	0.0335	MDL	5.33	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.108	JB	0.0193	MDL	5.33	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.213	JQ	0.0315	MDL	5.33	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0882	JBQ	0.0226	MDL	5.33	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0671	JQ	0.0314	MDL	5.33	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0361	JB	0.0155	MDL	5.33	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0773	JBQ	0.0194	MDL	5.33	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0499	JB	0.0149	MDL	5.33	PQL	ng/Kg	U	B
OCDF	1.74	JB	0.0295	MDL	10.7	PQL	ng/Kg	J	Z

Sample ID: SL-161-SA7-SB-4.0-5.0 *Collected:* 11/2/2011 1:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.408	JB	0.0213	MDL	5.24	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX154 Laboratory: LL

EDD Filename: DX154_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-161-SA7-SB-4.0-5.0 *Collected:* 11/2/2011 1:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	0.0788	JBQ	0.00843	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0225	JB	0.0140	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0448	JBQ	0.0183	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0222	JBQ	0.00938	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0317	J	0.0182	MDL	5.24	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0479	JBQ	0.0125	MDL	5.24	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0180	JBQ	0.0105	MDL	5.24	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0209	JBQ	0.00906	MDL	5.24	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0386	JBQ	0.0102	MDL	5.24	PQL	ng/Kg	U	B
OCDD	2.87	JB	0.0192	MDL	10.5	PQL	ng/Kg	J	Z
OCDF	0.140	JB	0.0301	MDL	10.5	PQL	ng/Kg	U	B

Sample ID: SL-171-SA7-SB-4.0-5.0 *Collected:* 11/3/2011 1:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	0.873	JB	0.0149	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.108	JB	0.0194	MDL	5.15	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0612	J	0.0294	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.124	JB	0.0189	MDL	5.15	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.327	JB	0.0295	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0997	JB	0.0177	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.216	J	0.0277	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0887	JB	0.0184	MDL	5.15	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0412	JQ	0.0290	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0901	JB	0.0182	MDL	5.15	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.163	JB	0.0172	MDL	5.15	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0890	JB	0.0173	MDL	5.15	PQL	ng/Kg	U	B
OCDF	2.08	JB	0.0293	MDL	10.3	PQL	ng/Kg	J	Z

Sample ID: SL-171-SA7-SB-9.0-10.0 *Collected:* 11/3/2011 2:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.09	JB	0.0174	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0839	JB	0.0226	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.116	J	0.0353	MDL	5.28	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX154 Laboratory: LL

EDD Filename: DX154_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-171-SA7-SB-9.0-10.0 *Collected:* 11/3/2011 2:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HXCDF	0.158	JB	0.0232	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.413	JB	0.0384	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.146	JB	0.0224	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.274	J	0.0367	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.120	JBQ	0.0242	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.205	J	0.0328	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.221	JBQ	0.0192	MDL	5.28	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.139	JB	0.0210	MDL	5.28	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.271	JB	0.0173	MDL	5.28	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0554	JQ	0.0283	MDL	1.06	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0481	J	0.0275	MDL	1.06	PQL	ng/Kg	U	B
OCDF	2.45	JB	0.0282	MDL	10.6	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX154 Laboratory: LL

EDD Filename: DX154_v1. eQAPP Name: CDM_SSFL_110509

Reason Code Legend

Reason Code	*Description*
B	Method Blank Contamination
FD	Field Duplicate Precision
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DX154

Method Blank Outlier Report

Lab Reporting Batch ID: DX154 **Laboratory: LL**

EDD Filename: DX154_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK3110B371742	11/8/2011 5:42:00 PM	1,2,3,4,6,7,8-HPCDD	3.52 pg/L	EB-SA7-SB-110311
		1,2,3,4,6,7,8-HPCDF	1.93 pg/L	
		1,2,3,4,7,8,9-HPCDF	0.597 pg/L	
		1,2,3,4,7,8-HXCDF	0.775 pg/L	
		1,2,3,6,7,8-HXCDD	0.271 pg/L	
		1,2,3,7,8,9-HXCDD	0.361 pg/L	
		1,2,3,7,8,9-HXCDF	0.487 pg/L	
		1,2,3,7,8-PECDF	0.339 pg/L	
		2,3,4,6,7,8-HXCDF	0.440 pg/L	
		2,3,4,7,8-PECDF	0.366 pg/L	
		2,3,7,8-TCDD	0.411 pg/L	
		2,3,7,8-TCDF	0.269 pg/L	
		OCDD	5.78 pg/L	
		OCDF	1.71 pg/L	
BLK3190B371833	11/16/2011 6:33:00 PM	1,2,3,4,6,7,8-HPCDD	4.16 pg/L	EB-SA5DS-SB-111011
		1,2,3,4,6,7,8-HPCDF	3.59 pg/L	
		1,2,3,4,7,8,9-HPCDF	0.658 pg/L	
		1,2,3,4,7,8-HXCDF	0.729 pg/L	
		1,2,3,6,7,8-HXCDD	0.344 pg/L	
		1,2,3,6,7,8-HXCDF	0.608 pg/L	
		1,2,3,7,8,9-HXCDF	0.622 pg/L	
		1,2,3,7,8-PECDD	0.646 pg/L	
		1,2,3,7,8-PECDF	0.549 pg/L	
		2,3,4,6,7,8-HXCDF	0.972 pg/L	
		2,3,4,7,8-PECDF	0.578 pg/L	
		OCDD	5.62 pg/L	
		OCDF	2.27 pg/L	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA5DS-SB-111011(RES)	1,2,3,4,6,7,8-HPCDD	4.71 pg/L	4.71U pg/L
EB-SA5DS-SB-111011(RES)	1,2,3,4,6,7,8-HPCDF	3.74 pg/L	3.74U pg/L
EB-SA5DS-SB-111011(RES)	1,2,3,4,7,8,9-HPCDF	0.265 pg/L	0.265U pg/L
EB-SA5DS-SB-111011(RES)	1,2,3,4,7,8-HXCDF	0.739 pg/L	0.739U pg/L
EB-SA5DS-SB-111011(RES)	1,2,3,6,7,8-HXCDD	0.698 pg/L	0.698U pg/L
EB-SA5DS-SB-111011(RES)	1,2,3,6,7,8-HXCDF	0.724 pg/L	0.724U pg/L
EB-SA5DS-SB-111011(RES)	1,2,3,7,8,9-HXCDF	0.297 pg/L	0.297U pg/L
EB-SA5DS-SB-111011(RES)	1,2,3,7,8-PECDF	0.360 pg/L	0.360U pg/L
EB-SA5DS-SB-111011(RES)	2,3,4,6,7,8-HXCDF	0.733 pg/L	0.733U pg/L
EB-SA5DS-SB-111011(RES)	2,3,4,7,8-PECDF	0.392 pg/L	0.392U pg/L
EB-SA5DS-SB-111011(RES)	OCDD	8.05 pg/L	8.05U pg/L
EB-SA5DS-SB-111011(RES)	OCDF	3.11 pg/L	3.11U pg/L
EB-SA7-SB-110311(RES)	1,2,3,4,6,7,8-HPCDD	2.43 pg/L	2.43U pg/L
EB-SA7-SB-110311(RES)	1,2,3,4,6,7,8-HPCDF	2.14 pg/L	2.14U pg/L
EB-SA7-SB-110311(RES)	1,2,3,4,7,8,9-HPCDF	0.222 pg/L	0.222U pg/L
EB-SA7-SB-110311(RES)	1,2,3,4,7,8-HXCDF	0.248 pg/L	0.248U pg/L
EB-SA7-SB-110311(RES)	1,2,3,6,7,8-HXCDD	0.219 pg/L	0.219U pg/L
EB-SA7-SB-110311(RES)	1,2,3,7,8,9-HXCDD	0.285 pg/L	0.285U pg/L
EB-SA7-SB-110311(RES)	1,2,3,7,8,9-HXCDF	0.147 pg/L	0.147U pg/L

Method Blank Outlier Report

Lab Reporting Batch ID: DX154 **Laboratory: LL**

EDD Filename: DX154_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA7-SB-110311(RES)	1,2,3,7,8-PECDF	0.151 pg/L	0.151U pg/L
EB-SA7-SB-110311(RES)	2,3,4,6,7,8-HXCDF	0.474 pg/L	0.474U pg/L
EB-SA7-SB-110311(RES)	2,3,4,7,8-PECDF	0.343 pg/L	0.343U pg/L
EB-SA7-SB-110311(RES)	2,3,7,8-TCDF	0.165 pg/L	0.165U pg/L
EB-SA7-SB-110311(RES)	OCDD	4.20 pg/L	4.20U pg/L
EB-SA7-SB-110311(RES)	OCDF	1.31 pg/L	1.31U pg/L

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK3140B371629	11/14/2011 4:29:00 PM	2,3,7,8-TCDF	0.0168 ng/Kg	SL-001-SA3-SB-2.0-3.0 SL-004-SA3-SB-4.0-5.0 SL-004-SA3-SB-7.0-8.0 SL-010-SA3-SB-3.0-4.0 SL-010-SA5DS-SB-2.0-3.0 SL-013-SA3-SB-0.5-1.5 SL-019-SA5DS-SB-2.0-3.0 SL-048-SA7-SB-4.0-5.0 SL-048-SA7-SB-9.0-10.0 SL-108-SA7-SB-2.9-3.9 SL-128-SA7-SB-4.0-5.0 SL-128-SA7-SB-9.0-10.0 SL-161-SA7-SB-4.0-5.0 SL-171-SA7-SB-4.0-5.0 SL-171-SA7-SB-9.0-10.0
BLK3140B371906	11/11/2011 7:06:00 PM	1,2,3,4,6,7,8-HPCDD 1,2,3,4,6,7,8-HPCDF 1,2,3,4,7,8,9-HPCDF 1,2,3,4,7,8-HXCDF 1,2,3,6,7,8-HXCDD 1,2,3,6,7,8-HXCDF 1,2,3,7,8,9-HXCDF 1,2,3,7,8-PECDF 2,3,4,6,7,8-HXCDF 2,3,4,7,8-PECDF OCDD OCDF	0.227 ng/Kg 0.0927 ng/Kg 0.0322 ng/Kg 0.0342 ng/Kg 0.0211 ng/Kg 0.0199 ng/Kg 0.0237 ng/Kg 0.0144 ng/Kg 0.0328 ng/Kg 0.0487 ng/Kg 0.373 ng/Kg 0.140 ng/Kg	SL-001-SA3-SB-2.0-3.0 SL-004-SA3-SB-4.0-5.0 SL-004-SA3-SB-7.0-8.0 SL-010-SA3-SB-3.0-4.0 SL-010-SA5DS-SB-2.0-3.0 SL-013-SA3-SB-0.5-1.5 SL-019-SA5DS-SB-2.0-3.0 SL-048-SA7-SB-4.0-5.0 SL-048-SA7-SB-9.0-10.0 SL-108-SA7-SB-2.9-3.9 SL-128-SA7-SB-4.0-5.0 SL-128-SA7-SB-9.0-10.0 SL-161-SA7-SB-4.0-5.0 SL-171-SA7-SB-4.0-5.0 SL-171-SA7-SB-9.0-10.0

Method Blank Outlier Report

Lab Reporting Batch ID: DX154 **Laboratory: LL**

EDD Filename: DX154_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK3190B370702	11/17/2011 7:02:00 AM	1,2,3,4,6,7,8-HPCDD	0.267 ng/Kg	DUP04-SA5DS-QC-110911
		1,2,3,4,6,7,8-HPCDF	0.139 ng/Kg	SL-005-SA5DS-SB-1.0-2.0
		1,2,3,4,7,8,9-HPCDF	0.0420 ng/Kg	SL-006-SA5DS-SS-0.0-0.5
		1,2,3,4,7,8-HxCDD	0.0224 ng/Kg	SL-021-SA5DS-SB-2.0-3.0
		1,2,3,4,7,8-HXCDF	0.0400 ng/Kg	SL-022-SA5DS-SB-4.0-5.0
		1,2,3,6,7,8-HXCDD	0.0198 ng/Kg	
		1,2,3,6,7,8-HXCDF	0.0391 ng/Kg	
		1,2,3,7,8,9-HXCDD	0.0284 ng/Kg	
		1,2,3,7,8,9-HXCDF	0.0503 ng/Kg	
		1,2,3,7,8-PECDD	0.0260 ng/Kg	
		1,2,3,7,8-PECDF	0.0450 ng/Kg	
		2,3,4,6,7,8-HXCDF	0.0566 ng/Kg	
		2,3,4,7,8-PECDF	0.0512 ng/Kg	
		OCDD	0.422 ng/Kg	
		OCDF	0.183 ng/Kg	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP04-SA5DS-QC-110911(RES)	1,2,3,4,7,8,9-HPCDF	0.117 ng/Kg	0.117U ng/Kg
DUP04-SA5DS-QC-110911(RES)	2,3,4,6,7,8-HXCDF	0.230 ng/Kg	0.230U ng/Kg
SL-001-SA3-SB-2.0-3.0(RES)	1,2,3,4,6,7,8-HPCDF	0.278 ng/Kg	0.278U ng/Kg
SL-001-SA3-SB-2.0-3.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0712 ng/Kg	0.0712U ng/Kg
SL-001-SA3-SB-2.0-3.0(RES)	2,3,4,6,7,8-HXCDF	0.143 ng/Kg	0.143U ng/Kg
SL-001-SA3-SB-2.0-3.0(RES)	OCDF	0.562 ng/Kg	0.562U ng/Kg
SL-004-SA3-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.534 ng/Kg	0.534U ng/Kg
SL-004-SA3-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.220 ng/Kg	0.220U ng/Kg
SL-004-SA3-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0265 ng/Kg	0.0265U ng/Kg
SL-004-SA3-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0349 ng/Kg	0.0349U ng/Kg
SL-004-SA3-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0778 ng/Kg	0.0778U ng/Kg
SL-004-SA3-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0782 ng/Kg	0.0782U ng/Kg
SL-004-SA3-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0640 ng/Kg	0.0640U ng/Kg
SL-004-SA3-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0594 ng/Kg	0.0594U ng/Kg
SL-004-SA3-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0563 ng/Kg	0.0563U ng/Kg
SL-004-SA3-SB-4.0-5.0(RES)	OCDF	0.391 ng/Kg	0.391U ng/Kg
SL-004-SA3-SB-7.0-8.0(RES)	1,2,3,4,6,7,8-HPCDD	0.653 ng/Kg	0.653U ng/Kg
SL-004-SA3-SB-7.0-8.0(RES)	1,2,3,4,6,7,8-HPCDF	0.362 ng/Kg	0.362U ng/Kg
SL-004-SA3-SB-7.0-8.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0511 ng/Kg	0.0511U ng/Kg
SL-004-SA3-SB-7.0-8.0(RES)	1,2,3,4,7,8-HXCDF	0.0756 ng/Kg	0.0756U ng/Kg
SL-004-SA3-SB-7.0-8.0(RES)	2,3,4,6,7,8-HXCDF	0.0969 ng/Kg	0.0969U ng/Kg
SL-004-SA3-SB-7.0-8.0(RES)	2,3,4,7,8-PECDF	0.0899 ng/Kg	0.0899U ng/Kg
SL-004-SA3-SB-7.0-8.0(RES)	OCDF	0.462 ng/Kg	0.462U ng/Kg
SL-005-SA5DS-SB-1.0-2.0(RES)	1,2,3,4,6,7,8-HPCDD	0.880 ng/Kg	0.880U ng/Kg
SL-005-SA5DS-SB-1.0-2.0(RES)	1,2,3,4,6,7,8-HPCDF	0.278 ng/Kg	0.278U ng/Kg
SL-005-SA5DS-SB-1.0-2.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0280 ng/Kg	0.0280U ng/Kg
SL-005-SA5DS-SB-1.0-2.0(RES)	1,2,3,4,7,8-HxCDD	0.0358 ng/Kg	0.0358U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX154 **Laboratory: LL**

EDD Filename: DX154_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-005-SA5DS-SB-1.0-2.0(RES)	1,2,3,4,7,8-HXCDF	0.0655 ng/Kg	0.0655U ng/Kg
SL-005-SA5DS-SB-1.0-2.0(RES)	1,2,3,6,7,8-HXCDF	0.0526 ng/Kg	0.0526U ng/Kg
SL-005-SA5DS-SB-1.0-2.0(RES)	1,2,3,7,8,9-HXCDF	0.126 ng/Kg	0.126U ng/Kg
SL-005-SA5DS-SB-1.0-2.0(RES)	1,2,3,7,8-PECDD	0.0403 ng/Kg	0.0403U ng/Kg
SL-005-SA5DS-SB-1.0-2.0(RES)	1,2,3,7,8-PECDF	0.0745 ng/Kg	0.0745U ng/Kg
SL-005-SA5DS-SB-1.0-2.0(RES)	2,3,4,6,7,8-HXCDF	0.103 ng/Kg	0.103U ng/Kg
SL-005-SA5DS-SB-1.0-2.0(RES)	2,3,4,7,8-PECDF	0.0669 ng/Kg	0.0669U ng/Kg
SL-005-SA5DS-SB-1.0-2.0(RES)	OCDF	0.433 ng/Kg	0.433U ng/Kg
SL-006-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0967 ng/Kg	0.0967U ng/Kg
SL-006-SA5DS-SS-0.0-0.5(RES)	1,2,3,4,7,8-HxCDD	0.112 ng/Kg	0.112U ng/Kg
SL-006-SA5DS-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.240 ng/Kg	0.240U ng/Kg
SL-006-SA5DS-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.252 ng/Kg	0.252U ng/Kg
SL-010-SA5DS-SB-2.0-3.0(RES)	1,2,3,4,6,7,8-HPCDD	0.414 ng/Kg	0.414U ng/Kg
SL-010-SA5DS-SB-2.0-3.0(RES)	1,2,3,4,6,7,8-HPCDF	0.364 ng/Kg	0.364U ng/Kg
SL-010-SA5DS-SB-2.0-3.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0431 ng/Kg	0.0431U ng/Kg
SL-010-SA5DS-SB-2.0-3.0(RES)	1,2,3,4,7,8-HXCDF	0.0677 ng/Kg	0.0677U ng/Kg
SL-010-SA5DS-SB-2.0-3.0(RES)	1,2,3,6,7,8-HXCDF	0.0738 ng/Kg	0.0738U ng/Kg
SL-010-SA5DS-SB-2.0-3.0(RES)	2,3,4,6,7,8-HXCDF	0.0747 ng/Kg	0.0747U ng/Kg
SL-010-SA5DS-SB-2.0-3.0(RES)	2,3,4,7,8-PECDF	0.0688 ng/Kg	0.0688U ng/Kg
SL-010-SA5DS-SB-2.0-3.0(RES)	OCDF	0.371 ng/Kg	0.371U ng/Kg
SL-019-SA5DS-SB-2.0-3.0(RES)	1,2,3,4,6,7,8-HPCDD	0.388 ng/Kg	0.388U ng/Kg
SL-019-SA5DS-SB-2.0-3.0(RES)	1,2,3,4,6,7,8-HPCDF	0.273 ng/Kg	0.273U ng/Kg
SL-019-SA5DS-SB-2.0-3.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0392 ng/Kg	0.0392U ng/Kg
SL-019-SA5DS-SB-2.0-3.0(RES)	1,2,3,4,7,8-HXCDF	0.0668 ng/Kg	0.0668U ng/Kg
SL-019-SA5DS-SB-2.0-3.0(RES)	1,2,3,6,7,8-HXCDD	0.0582 ng/Kg	0.0582U ng/Kg
SL-019-SA5DS-SB-2.0-3.0(RES)	1,2,3,6,7,8-HXCDF	0.0492 ng/Kg	0.0492U ng/Kg
SL-019-SA5DS-SB-2.0-3.0(RES)	1,2,3,7,8,9-HXCDF	0.0825 ng/Kg	0.0825U ng/Kg
SL-019-SA5DS-SB-2.0-3.0(RES)	1,2,3,7,8-PECDF	0.0240 ng/Kg	0.0240U ng/Kg
SL-019-SA5DS-SB-2.0-3.0(RES)	2,3,4,6,7,8-HXCDF	0.0786 ng/Kg	0.0786U ng/Kg
SL-019-SA5DS-SB-2.0-3.0(RES)	2,3,4,7,8-PECDF	0.0868 ng/Kg	0.0868U ng/Kg
SL-019-SA5DS-SB-2.0-3.0(RES)	2,3,7,8-TCDF	0.0281 ng/Kg	0.0281U ng/Kg
SL-019-SA5DS-SB-2.0-3.0(RES)	OCDD	1.25 ng/Kg	1.25U ng/Kg
SL-019-SA5DS-SB-2.0-3.0(RES)	OCDF	0.236 ng/Kg	0.236U ng/Kg
SL-021-SA5DS-SB-2.0-3.0(RES)	1,2,3,4,6,7,8-HPCDD	0.469 ng/Kg	0.469U ng/Kg
SL-021-SA5DS-SB-2.0-3.0(RES)	1,2,3,4,6,7,8-HPCDF	0.215 ng/Kg	0.215U ng/Kg
SL-021-SA5DS-SB-2.0-3.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0622 ng/Kg	0.0622U ng/Kg
SL-021-SA5DS-SB-2.0-3.0(RES)	1,2,3,4,7,8-HXCDF	0.0554 ng/Kg	0.0554U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX154 **Laboratory: LL**

EDD Filename: DX154_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-021-SA5DS-SB-2.0-3.0(RES)	1,2,3,6,7,8-HXCDD	0.0716 ng/Kg	0.0716U ng/Kg
SL-021-SA5DS-SB-2.0-3.0(RES)	1,2,3,6,7,8-HXCDF	0.0541 ng/Kg	0.0541U ng/Kg
SL-021-SA5DS-SB-2.0-3.0(RES)	1,2,3,7,8,9-HXCDF	0.0829 ng/Kg	0.0829U ng/Kg
SL-021-SA5DS-SB-2.0-3.0(RES)	1,2,3,7,8-PECDF	0.0493 ng/Kg	0.0493U ng/Kg
SL-021-SA5DS-SB-2.0-3.0(RES)	2,3,4,6,7,8-HXCDF	0.0544 ng/Kg	0.0544U ng/Kg
SL-021-SA5DS-SB-2.0-3.0(RES)	2,3,4,7,8-PECDF	0.0885 ng/Kg	0.0885U ng/Kg
SL-021-SA5DS-SB-2.0-3.0(RES)	OCDF	0.201 ng/Kg	0.201U ng/Kg
SL-022-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.270 ng/Kg	0.270U ng/Kg
SL-022-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.111 ng/Kg	0.111U ng/Kg
SL-022-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0415 ng/Kg	0.0415U ng/Kg
SL-022-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0287 ng/Kg	0.0287U ng/Kg
SL-022-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0399 ng/Kg	0.0399U ng/Kg
SL-022-SA5DS-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0381 ng/Kg	0.0381U ng/Kg
SL-022-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.187 ng/Kg	0.187U ng/Kg
SL-022-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8-PECDD	0.0398 ng/Kg	0.0398U ng/Kg
SL-022-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0359 ng/Kg	0.0359U ng/Kg
SL-022-SA5DS-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0439 ng/Kg	0.0439U ng/Kg
SL-022-SA5DS-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.101 ng/Kg	0.101U ng/Kg
SL-022-SA5DS-SB-4.0-5.0(RES)	OCDD	0.810 ng/Kg	0.810U ng/Kg
SL-022-SA5DS-SB-4.0-5.0(RES)	OCDF	0.159 ng/Kg	0.159U ng/Kg
SL-048-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.298 ng/Kg	0.298U ng/Kg
SL-048-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0802 ng/Kg	0.0802U ng/Kg
SL-048-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0554 ng/Kg	0.0554U ng/Kg
SL-048-SA7-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0544 ng/Kg	0.0544U ng/Kg
SL-048-SA7-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0647 ng/Kg	0.0647U ng/Kg
SL-048-SA7-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0682 ng/Kg	0.0682U ng/Kg
SL-048-SA7-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.102 ng/Kg	0.102U ng/Kg
SL-048-SA7-SB-4.0-5.0(RES)	OCDF	0.623 ng/Kg	0.623U ng/Kg
SL-048-SA7-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.370 ng/Kg	0.370U ng/Kg
SL-048-SA7-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0613 ng/Kg	0.0613U ng/Kg
SL-048-SA7-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.0365 ng/Kg	0.0365U ng/Kg
SL-048-SA7-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.0367 ng/Kg	0.0367U ng/Kg
SL-048-SA7-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.0292 ng/Kg	0.0292U ng/Kg
SL-048-SA7-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.0686 ng/Kg	0.0686U ng/Kg
SL-048-SA7-SB-9.0-10.0(RES)	2,3,7,8-TCDF	0.0278 ng/Kg	0.0278U ng/Kg
SL-108-SA7-SB-2.9-3.9(RES)	1,2,3,4,7,8,9-HPCDF	0.116 ng/Kg	0.116U ng/Kg
SL-108-SA7-SB-2.9-3.9(RES)	1,2,3,4,7,8-HXCDF	0.105 ng/Kg	0.105U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX154 **Laboratory: LL**

EDD Filename: DX154_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-108-SA7-SB-2.9-3.9(RES)	1,2,3,6,7,8-HXCDF	0.0758 ng/Kg	0.0758U ng/Kg
SL-108-SA7-SB-2.9-3.9(RES)	1,2,3,7,8,9-HXCDF	0.0911 ng/Kg	0.0911U ng/Kg
SL-108-SA7-SB-2.9-3.9(RES)	2,3,4,6,7,8-HXCDF	0.0929 ng/Kg	0.0929U ng/Kg
SL-108-SA7-SB-2.9-3.9(RES)	2,3,4,7,8-PECDF	0.117 ng/Kg	0.117U ng/Kg
SL-128-SA7-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0521 ng/Kg	0.0521U ng/Kg
SL-128-SA7-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.163 ng/Kg	0.163U ng/Kg
SL-128-SA7-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0470 ng/Kg	0.0470U ng/Kg
SL-128-SA7-SB-4.0-5.0(RES)	2,3,7,8-TCDF	0.0282 ng/Kg	0.0282U ng/Kg
SL-128-SA7-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0643 ng/Kg	0.0643U ng/Kg
SL-128-SA7-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.0898 ng/Kg	0.0898U ng/Kg
SL-128-SA7-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDF	0.0882 ng/Kg	0.0882U ng/Kg
SL-128-SA7-SB-9.0-10.0(RES)	1,2,3,7,8-PECDF	0.0361 ng/Kg	0.0361U ng/Kg
SL-128-SA7-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.0773 ng/Kg	0.0773U ng/Kg
SL-128-SA7-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.0499 ng/Kg	0.0499U ng/Kg
SL-161-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.408 ng/Kg	0.408U ng/Kg
SL-161-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0788 ng/Kg	0.0788U ng/Kg
SL-161-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0225 ng/Kg	0.0225U ng/Kg
SL-161-SA7-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.0448 ng/Kg	0.0448U ng/Kg
SL-161-SA7-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0222 ng/Kg	0.0222U ng/Kg
SL-161-SA7-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0479 ng/Kg	0.0479U ng/Kg
SL-161-SA7-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0180 ng/Kg	0.0180U ng/Kg
SL-161-SA7-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0209 ng/Kg	0.0209U ng/Kg
SL-161-SA7-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0386 ng/Kg	0.0386U ng/Kg
SL-161-SA7-SB-4.0-5.0(RES)	OCDF	0.140 ng/Kg	0.140U ng/Kg
SL-171-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.108 ng/Kg	0.108U ng/Kg
SL-171-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.124 ng/Kg	0.124U ng/Kg
SL-171-SA7-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0887 ng/Kg	0.0887U ng/Kg
SL-171-SA7-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.163 ng/Kg	0.163U ng/Kg
SL-171-SA7-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0890 ng/Kg	0.0890U ng/Kg
SL-171-SA7-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0839 ng/Kg	0.0839U ng/Kg
SL-171-SA7-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.158 ng/Kg	0.158U ng/Kg
SL-171-SA7-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.139 ng/Kg	0.139U ng/Kg
SL-171-SA7-SB-9.0-10.0(RES)	2,3,7,8-TCDF	0.0481 ng/Kg	0.0481U ng/Kg

Field Duplicate RPD Report

Lab Reporting Batch ID: DX154 Laboratory: LL

EDD Filename: DX154_v1. eQAPP Name: CDM_SSFL_110509

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-006-SA5DS-SS-0.0-0.5	DUP04-SA5DS-QC-110911			
MOISTURE	10.3	10.7	4		No Qualifiers Applied

Method: 1613B
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-006-SA5DS-SS-0.0-0.5	DUP04-SA5DS-QC-110911			
1,2,3,4,6,7,8-HPCDD	4.09	4.28	5	50.00	
1,2,3,4,6,7,8-HPCDF	0.950	0.991	4	50.00	
1,2,3,4,7,8,9-HPCDF	0.0967	0.117	19	50.00	
1,2,3,4,7,8-HxCDD	0.112	0.121	8	50.00	
1,2,3,4,7,8-HXCDF	0.353	0.321	9	50.00	
1,2,3,6,7,8-HXCDD	0.903	0.974	8	50.00	
1,2,3,6,7,8-HXCDF	0.215	0.217	1	50.00	
1,2,3,7,8,9-HXCDD	1.32	1.25	5	50.00	No Qualifiers Applied
1,2,3,7,8,9-HXCDF	0.501	0.467	7	50.00	
1,2,3,7,8-PECDD	0.185	0.209	12	50.00	
1,2,3,7,8-PECDF	0.293	0.407	33	50.00	
2,3,4,6,7,8-HXCDF	0.240	0.230	4	50.00	
2,3,7,8-TCDD	0.0534	0.0565	6	50.00	
OCDD	38.5	39.2	2	50.00	
OCDF	1.87	1.85	1	50.00	
2,3,4,7,8-PECDF	0.252	0.503	66	50.00	J(all detects)
2,3,7,8-TCDF	0.124	1.10 U	200	50.00	UJ(all non-detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DX154 Laboratory: LL

EDD Filename: DX154_v1. eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA5DS-SB-111011	1,2,3,4,6,7,8-HPCDD	JB	4.71	10.1	PQL	pg/L	
	1,2,3,4,6,7,8-HPCDF	JB	3.74	10.1	PQL	pg/L	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.265	10.1	PQL	pg/L	
	1,2,3,4,7,8-HXCDF	JBQ	0.739	10.1	PQL	pg/L	
	1,2,3,6,7,8-HXCDD	JB	0.698	10.1	PQL	pg/L	
	1,2,3,6,7,8-HXCDF	JBQ	0.724	10.1	PQL	pg/L	
	1,2,3,7,8,9-HXCDF	JB	0.297	10.1	PQL	pg/L	J (all detects)
	1,2,3,7,8-PECDF	JBQ	0.360	10.1	PQL	pg/L	
	2,3,4,6,7,8-HXCDF	JB	0.733	10.1	PQL	pg/L	
	2,3,4,7,8-PECDF	JBQ	0.392	10.1	PQL	pg/L	
	2,3,7,8-TCDF	JQ	0.363	2.01	PQL	pg/L	
	OCDD	JBQ	8.05	20.1	PQL	pg/L	
	OCDF	JB	3.11	20.1	PQL	pg/L	
EB-SA7-SB-110311	1,2,3,4,6,7,8-HPCDD	JBQ	2.43	9.84	PQL	pg/L	
	1,2,3,4,6,7,8-HPCDF	JBQ	2.14	9.84	PQL	pg/L	
	1,2,3,4,7,8,9-HPCDF	JB	0.222	9.84	PQL	pg/L	
	1,2,3,4,7,8-HXCDF	JBQ	0.248	9.84	PQL	pg/L	
	1,2,3,6,7,8-HXCDD	JBQ	0.219	9.84	PQL	pg/L	
	1,2,3,6,7,8-HXCDF	JQ	0.262	9.84	PQL	pg/L	
	1,2,3,7,8,9-HXCDD	JB	0.285	9.84	PQL	pg/L	
	1,2,3,7,8,9-HXCDF	JBQ	0.147	9.84	PQL	pg/L	J (all detects)
	1,2,3,7,8-PECDF	JBQ	0.151	9.84	PQL	pg/L	
	2,3,4,6,7,8-HXCDF	JB	0.474	9.84	PQL	pg/L	
	2,3,4,7,8-PECDF	JBQ	0.343	9.84	PQL	pg/L	
	2,3,7,8-TCDF	JBQ	0.165	1.97	PQL	pg/L	
	OCDD	JBQ	4.20	19.7	PQL	pg/L	
	OCDF	JBQ	1.31	19.7	PQL	pg/L	

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP04-SA5DS-QC-110911	1,2,3,4,6,7,8-HPCDD	JB	4.28	5.52	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.991	5.52	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.117	5.52	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.121	5.52	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.321	5.52	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.974	5.52	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.217	5.52	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	1.25	5.52	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.467	5.52	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.209	5.52	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.407	5.52	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.230	5.52	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.503	5.52	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0565	1.10	PQL	ng/Kg	
	OCDF	JB	1.85	11.0	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX154 Laboratory: LL

EDD Filename: DX154_v1. eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA3-SB-2.0-3.0	1,2,3,4,6,7,8-HPCDD	JB	1.37	5.09	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.278	5.09	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0712	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.135	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.211	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.277	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.211	5.09	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.449	5.09	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.203	5.09	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	0.293	5.09	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.362	5.09	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.143	5.09	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.307	5.09	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.100	1.02	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.135	1.02	PQL	ng/Kg	
	OCDD	JB	8.03	10.2	PQL	ng/Kg	
	OCDF	JB	0.562	10.2	PQL	ng/Kg	
SL-004-SA3-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.534	5.19	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.220	5.19	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0265	5.19	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0349	5.19	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.162	5.19	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0778	5.19	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.258	5.19	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.0782	5.19	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	0.0562	5.19	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0640	5.19	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0594	5.19	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0563	5.19	PQL	ng/Kg	
	OCDD	JB	3.06	10.4	PQL	ng/Kg	
	OCDF	JB	0.391	10.4	PQL	ng/Kg	
SL-004-SA3-SB-7.0-8.0	1,2,3,4,6,7,8-HPCDD	JB	0.653	5.28	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.362	5.28	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0511	5.28	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0756	5.28	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	3.33	5.28	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.773	5.28	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	3.97	5.28	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.300	5.28	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0862	5.28	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0969	5.28	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0899	5.28	PQL	ng/Kg	
	OCDD	JB	2.85	10.6	PQL	ng/Kg	
	OCDF	JB	0.462	10.6	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX154 Laboratory: LL

EDD Filename: DX154_v1. eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-005-SA5DS-SB-1.0-2.0	1,2,3,4,6,7,8-HPCDD	JB	0.880	5.26	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.278	5.26	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0280	5.26	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0358	5.26	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0655	5.26	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.257	5.26	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0526	5.26	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.424	5.26	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.126	5.26	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.0403	5.26	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0745	5.26	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.103	5.26	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0669	5.26	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0258	1.05	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0475	1.05	PQL	ng/Kg	
	OCDD	JB	6.06	10.5	PQL	ng/Kg	
	OCDF	JB	0.433	10.5	PQL	ng/Kg	
SL-006-SA5DS-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	4.09	5.52	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.950	5.52	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0967	5.52	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.112	5.52	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.353	5.52	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.903	5.52	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.215	5.52	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	1.32	5.52	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.501	5.52	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.185	5.52	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.293	5.52	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.240	5.52	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.252	5.52	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0534	1.10	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.124	1.10	PQL	ng/Kg	
	OCDF	JB	1.87	11.0	PQL	ng/Kg	
SL-010-SA3-SB-3.0-4.0	1,2,3,4,7,8,9-HPCDF	JB	0.603	5.22	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.424	5.22	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	4.63	5.22	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	1.01	5.22	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	2.71	5.22	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.747	5.22	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.654	5.22	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	4.01	5.22	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	3.95	5.22	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.102	1.04	PQL	ng/Kg	
	OCDF	JB	6.07	10.4	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX154 Laboratory: LL

EDD Filename: DX154_v1. eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-010-SA5DS-SB-2.0-3.0	1,2,3,4,6,7,8-HPCDD	JB	0.414	5.54	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.364	5.54	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0431	5.54	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0300	5.54	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0677	5.54	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.184	5.54	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0738	5.54	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.237	5.54	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.222	5.54	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0832	5.54	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0747	5.54	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0688	5.54	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0274	1.11	PQL	ng/Kg	
	OCDD	JB	1.92	11.1	PQL	ng/Kg	
	OCDF	JBQ	0.371	11.1	PQL	ng/Kg	
SL-013-SA3-SB-0.5-1.5	1,2,3,4,7,8,9-HPCDF	JBQ	0.333	5.00	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8-HxCDD	JQ	0.153	5.00	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.507	5.00	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.603	5.00	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.223	5.00	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.490	5.00	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.219	5.00	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.112	5.00	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.290	5.00	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.406	5.00	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.277	5.00	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.202	1.00	PQL	ng/Kg	
SL-019-SA5DS-SB-2.0-3.0	1,2,3,4,6,7,8-HPCDD	JB	0.388	5.38	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.273	5.38	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0392	5.38	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.0219	5.38	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0668	5.38	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0582	5.38	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0492	5.38	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.0841	5.38	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.0825	5.38	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0273	5.38	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0240	5.38	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0786	5.38	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0868	5.38	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0281	1.08	PQL	ng/Kg	
	OCDD	JB	1.25	10.8	PQL	ng/Kg	
	OCDF	JB	0.236	10.8	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX154 Laboratory: LL

EDD Filename: DX154_v1. eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-021-SA5DS-SB-2.0-3.0	1,2,3,4,6,7,8-HPCDD	JB	0.469	5.24	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.215	5.24	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0622	5.24	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0554	5.24	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0716	5.24	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0541	5.24	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.144	5.24	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.0829	5.24	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0493	5.24	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0544	5.24	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0885	5.24	PQL	ng/Kg	
	OCDD	JB	2.31	10.5	PQL	ng/Kg	
	OCDF	JBQ	0.201	10.5	PQL	ng/Kg	
SL-022-SA5DS-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.270	5.21	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.111	5.21	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0415	5.21	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0287	5.21	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0399	5.21	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.122	5.21	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0381	5.21	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.154	5.21	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.187	5.21	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0398	5.21	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0359	5.21	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0439	5.21	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.101	5.21	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0278	1.04	PQL	ng/Kg	
	OCDD	JB	0.810	10.4	PQL	ng/Kg	
	OCDF	JB	0.159	10.4	PQL	ng/Kg	
SL-048-SA7-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	2.50	5.08	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.298	5.08	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0802	5.08	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0554	5.08	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.140	5.08	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0544	5.08	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.134	5.08	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0647	5.08	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.105	5.08	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.139	5.08	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0682	5.08	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.102	5.08	PQL	ng/Kg	
	OCDF	JB	0.623	10.2	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX154 | Laboratory: LL

EDD Filename: DX154_v1. | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-048-SA7-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	2.79	5.13	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.370	5.13	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0613	5.13	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.0366	5.13	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0365	5.13	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.118	5.13	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0367	5.13	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.140	5.13	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.167	5.13	PQL	ng/Kg	
	1,2,3,7,8-PECDD	J	0.0414	5.13	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0987	5.13	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0292	5.13	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0686	5.13	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0278	1.03	PQL	ng/Kg	
	OCDF	JB	0.735	10.3	PQL	ng/Kg	
SL-108-SA7-SB-2.9-3.9	1,2,3,4,6,7,8-HPCDF	JB	0.944	5.02	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.116	5.02	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.105	5.02	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.348	5.02	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0758	5.02	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.273	5.02	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.0911	5.02	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JQ	0.0740	5.02	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.101	5.02	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0929	5.02	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.117	5.02	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0324	1.00	PQL	ng/Kg	
	OCDF	JB	2.35	10.0	PQL	ng/Kg	
SL-128-SA7-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDF	JB	2.54	5.17	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.259	5.17	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.113	5.17	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.216	5.17	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.515	5.17	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.133	5.17	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.285	5.17	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.207	5.17	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JQ	0.0429	5.17	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0521	5.17	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.163	5.17	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0470	5.17	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0324	1.03	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0282	1.03	PQL	ng/Kg	
	OCDF	JB	5.91	10.3	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX154 **Laboratory: LL**

EDD Filename: DX154_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-128-SA7-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDF	JB	0.777	5.33	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0643	5.33	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.0793	5.33	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0898	5.33	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.230	5.33	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.108	5.33	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	0.213	5.33	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0882	5.33	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0671	5.33	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0361	5.33	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0773	5.33	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0499	5.33	PQL	ng/Kg	
	OCDF	JB	1.74	10.7	PQL	ng/Kg	
SL-161-SA7-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.408	5.24	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0788	5.24	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0225	5.24	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0448	5.24	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0222	5.24	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.0317	5.24	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0479	5.24	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDF	JBQ	0.0180	5.24	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0209	5.24	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0386	5.24	PQL	ng/Kg	
	OCDD	JB	2.87	10.5	PQL	ng/Kg	
	OCDF	JB	0.140	10.5	PQL	ng/Kg	
SL-171-SA7-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDF	JB	0.873	5.15	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.108	5.15	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.0612	5.15	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.124	5.15	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.327	5.15	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0997	5.15	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.216	5.15	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.0887	5.15	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0412	5.15	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0901	5.15	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.163	5.15	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0890	5.15	PQL	ng/Kg	
	OCDF	JB	2.08	10.3	PQL	ng/Kg	
SL-171-SA7-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDF	JB	1.09	5.28	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0839	5.28	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.116	5.28	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.158	5.28	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.413	5.28	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.146	5.28	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.274	5.28	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.120	5.28	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	0.205	5.28	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.221	5.28	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.139	5.28	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.271	5.28	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0554	1.06	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0481	1.06	PQL	ng/Kg	
	OCDF	JB	2.45	10.6	PQL	ng/Kg	

SAMPLE DELIVERY GROUP

DX155

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
11-Nov-2011	SL-029-SA5DS-SB-3.5-4.5	6467997	N	METHOD	1613B	III
11-Nov-2011	SL-028-SA5DS-SB-1.9-2.9	6467996	N	METHOD	1613B	III
14-Nov-2011	SL-002-SA5DS-SB-1.8-2.8	6470172	N	METHOD	1613B	III
14-Nov-2011	SL-031-SA5DS-SB-4.0-5.0	6470173	N	METHOD	1613B	III
14-Nov-2011	SL-031-SA5DS-SB-9.0-10.0	6470174	N	METHOD	1613B	III
14-Nov-2011	SL-013-SA8S-SB-4.0-5.0	6470175	N	METHOD	1613B	III
15-Nov-2011	SL-007-SA8S-SB-4.0-5.0	6473897	N	METHOD	1613B	III
15-Nov-2011	SL-005-SA8S-SB-3.5-4.5	6473898	N	METHOD	1613B	III
16-Nov-2011	SL-024-SA8S-SB-4.0-5.0	6473901	N	METHOD	1613B	III
16-Nov-2011	SL-024-SA8S-SB-7.0-8.0	6473902	N	METHOD	1613B	III
16-Nov-2011	SL-009-SA8S-SB-4.0-5.0	6473899	N	METHOD	1613B	III
16-Nov-2011	SL-009-SA8S-SB-7.0-8.0	6473900	N	METHOD	1613B	III
16-Nov-2011	SL-010-SA8S-SB-4.0-5.0	6475871	N	METHOD	1613B	III
16-Nov-2011	SL-010-SA8S-SB-8.5-9.5	6475872	N	METHOD	1613B	III
17-Nov-2011	SL-008-SA8S-SB-2.0-3.0	6475873	N	METHOD	1613B	III
17-Nov-2011	SL-011-SA8S-SB-4.0-5.0	6475874	N	METHOD	1613B	III
17-Nov-2011	EB-SA8S-SB-111711	6475875	EB	METHOD	1613B	III
18-Nov-2011	SL-012-SA8S-SB-4.0-5.0	6477493	N	METHOD	1613B	III
18-Nov-2011	SL-001-SA8S-SB-4.0-5.0	6477492	N	METHOD	1613B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA
Method: 1613B **Matrix:** AQ

Sample ID: EB-SA8S-SB-111711 *Collected:* 11/17/2011 2:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.67	JBQ	0.221	MDL	10.5	PQL	pg/L	U	B
1,2,3,4,6,7,8-HPCDF	2.66	JB	0.133	MDL	10.5	PQL	pg/L	U	B
1,2,3,4,7,8,9-HPCDF	0.168	JBQ	0.123	MDL	10.5	PQL	pg/L	U	B
1,2,3,4,7,8-HxCDD	0.362	JBQ	0.188	MDL	10.5	PQL	pg/L	U	B
1,2,3,4,7,8-HXCDF	0.384	JBQ	0.147	MDL	10.5	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDD	0.199	JBQ	0.186	MDL	10.5	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDF	0.473	JBQ	0.150	MDL	10.5	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDD	0.416	JBQ	0.178	MDL	10.5	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDF	0.276	JQ	0.103	MDL	10.5	PQL	pg/L	J	Z
1,2,3,7,8-PECDD	0.347	JQ	0.248	MDL	10.5	PQL	pg/L	J	Z
1,2,3,7,8-PECDF	0.181	JBQ	0.115	MDL	10.5	PQL	pg/L	U	B
2,3,4,6,7,8-HXCDF	0.655	JBQ	0.0926	MDL	10.5	PQL	pg/L	U	B
2,3,4,7,8-PECDF	0.432	JBQ	0.0966	MDL	10.5	PQL	pg/L	U	B
OCDD	6.54	JBQ	0.226	MDL	20.9	PQL	pg/L	U	B
OCDF	1.73	JBQ	0.337	MDL	20.9	PQL	pg/L	U	B

Method Category: SVOA
Method: 1613B **Matrix:** SO

Sample ID: SL-001-SA8S-SB-4.0-5.0 *Collected:* 11/18/2011 10:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.334	JBQ	0.0189	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0761	JB	0.00694	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0133	JBQ	0.0120	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0477	JB	0.0185	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.105	JB	0.0124	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0609	JBQ	0.0187	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0364	JBQ	0.00996	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0531	JBQ	0.0195	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0227	JB	0.0138	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0784	JQ	0.0306	MDL	5.58	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.106	JB	0.0153	MDL	5.58	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0599	JBQ	0.0101	MDL	5.58	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-001-SA8S-SB-4.0-5.0 *Collected:* 11/18/2011 10:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,4,7,8-PECDF	0.107	JB	0.0148	MDL	5.58	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0547	JQ	0.0372	MDL	1.12	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0395	JQ	0.0260	MDL	1.12	PQL	ng/Kg	J	Z
OCDD	0.761	JBQ	0.0224	MDL	11.2	PQL	ng/Kg	U	B
OCDF	0.145	JB	0.0342	MDL	11.2	PQL	ng/Kg	U	B

Sample ID: SL-002-SA5DS-SB-1.8-2.8 *Collected:* 11/14/2011 9:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.901	JB	0.0237	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.164	JBQ	0.0101	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0264	JBQ	0.0143	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0257	JBQ	0.0231	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.204	JBQ	0.0241	MDL	5.21	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0626	JB	0.0147	MDL	5.21	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.410	JB	0.0241	MDL	5.21	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.354	JB	0.0188	MDL	5.21	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0570	J	0.0355	MDL	5.21	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0775	JB	0.0198	MDL	5.21	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0647	JBQ	0.0141	MDL	5.21	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0966	JBQ	0.0197	MDL	5.21	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0477	JQ	0.0424	MDL	1.04	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0565	J	0.0426	MDL	1.04	PQL	ng/Kg	J	Z
OCDD	4.74	JB	0.0219	MDL	10.4	PQL	ng/Kg	J	Z
OCDF	0.323	JB	0.0266	MDL	10.4	PQL	ng/Kg	U	B

Sample ID: SL-005-SA8S-SB-3.5-4.5 *Collected:* 11/15/2011 1:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.256	JBQ	0.0245	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.106	JB	0.00932	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0196	JB	0.0159	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0612	JBQ	0.0167	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0238	JBQ	0.0228	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0489	JBQ	0.0136	MDL	5.53	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-005-SA8S-SB-3.5-4.5 *Collected:* 11/15/2011 1:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HXCDD	0.0450	JBQ	0.0212	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0553	JB	0.0159	MDL	5.53	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.112	JB	0.0187	MDL	5.53	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0651	JB	0.0128	MDL	5.53	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.124	JBQ	0.0181	MDL	5.53	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0502	J	0.0448	MDL	1.11	PQL	ng/Kg	J	Z
OCDD	0.479	JB	0.0201	MDL	11.1	PQL	ng/Kg	U	B
OCDF	0.150	JB	0.0341	MDL	11.1	PQL	ng/Kg	U	B

Sample ID: SL-007-SA8S-SB-4.0-5.0 *Collected:* 11/15/2011 9:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.348	JB	0.0239	MDL	5.62	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0733	JBQ	0.0111	MDL	5.62	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0488	JBQ	0.0171	MDL	5.62	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0298	JBQ	0.0210	MDL	5.62	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0394	JBQ	0.0167	MDL	5.62	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0331	JBQ	0.0223	MDL	5.62	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0425	JBQ	0.0143	MDL	5.62	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0478	JBQ	0.0234	MDL	5.62	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0361	JBQ	0.0184	MDL	5.62	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0204	JBQ	0.0127	MDL	5.62	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0590	JBQ	0.0178	MDL	5.62	PQL	ng/Kg	U	B
OCDD	0.665	JB	0.0227	MDL	11.2	PQL	ng/Kg	U	B
OCDF	0.0860	JB	0.0378	MDL	11.2	PQL	ng/Kg	U	B

Sample ID: SL-008-SA8S-SB-2.0-3.0 *Collected:* 11/17/2011 9:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.306	JB	0.0215	MDL	5.36	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.108	JBQ	0.0102	MDL	5.36	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0293	JB	0.0163	MDL	5.36	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0205	JBQ	0.0140	MDL	5.36	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0356	JBQ	0.0228	MDL	5.36	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0469	JBQ	0.0117	MDL	5.36	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-008-SA8S-SB-2.0-3.0 *Collected:* 11/17/2011 9:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HXCDF	0.0215	JBQ	0.0136	MDL	5.36	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0295	JB	0.0144	MDL	5.36	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0267	JBQ	0.0110	MDL	5.36	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0712	JBQ	0.0141	MDL	5.36	PQL	ng/Kg	U	B
OCDD	1.01	JB	0.0248	MDL	10.7	PQL	ng/Kg	U	B
OCDF	0.0850	JB	0.0302	MDL	10.7	PQL	ng/Kg	U	B

Sample ID: SL-009-SA8S-SB-4.0-5.0 *Collected:* 11/16/2011 11:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.256	JB	0.0223	MDL	5.45	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.102	JB	0.0112	MDL	5.45	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0695	JBQ	0.0188	MDL	5.45	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0457	JB	0.0263	MDL	5.45	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0610	JB	0.0183	MDL	5.45	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0370	JBQ	0.0251	MDL	5.45	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0734	JB	0.0166	MDL	5.45	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0817	JB	0.0249	MDL	5.45	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.108	JB	0.0174	MDL	5.45	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0806	JQ	0.0320	MDL	5.45	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0721	JBQ	0.0161	MDL	5.45	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0889	JBQ	0.0160	MDL	5.45	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0796	JB	0.0155	MDL	5.45	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0695	JQ	0.0392	MDL	1.09	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0375	JQ	0.0305	MDL	1.09	PQL	ng/Kg	J	Z
OCDD	0.706	JBQ	0.0204	MDL	10.9	PQL	ng/Kg	U	B
OCDF	0.128	JB	0.0328	MDL	10.9	PQL	ng/Kg	U	B

Sample ID: SL-009-SA8S-SB-7.0-8.0 *Collected:* 11/16/2011 12:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.298	JB	0.0247	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0934	JB	0.0111	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0277	JB	0.0160	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0311	JB	0.0202	MDL	5.35	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-009-SA8S-SB-7.0-8.0 *Collected:* 11/16/2011 12:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HXCDF	0.0320	JBQ	0.0159	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0305	JB	0.0210	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0297	JBQ	0.0141	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0524	JB	0.0202	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0332	JBQ	0.0160	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0378	JBQ	0.0175	MDL	5.35	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0535	JBQ	0.0136	MDL	5.35	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0493	JB	0.0158	MDL	5.35	PQL	ng/Kg	U	B
OCDD	0.646	JB	0.0195	MDL	10.7	PQL	ng/Kg	U	B
OCDF	0.104	JB	0.0362	MDL	10.7	PQL	ng/Kg	U	B

Sample ID: SL-010-SA8S-SB-4.0-5.0 *Collected:* 11/16/2011 3:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.664	JBQ	0.0256	MDL	5.65	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.158	JBQ	0.0115	MDL	5.65	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0486	JBQ	0.0182	MDL	5.65	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0252	JBQ	0.0236	MDL	5.65	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0574	JBQ	0.0170	MDL	5.65	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0682	JB	0.0240	MDL	5.65	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0414	JBQ	0.0146	MDL	5.65	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0696	JB	0.0225	MDL	5.65	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0375	JQ	0.0316	MDL	5.65	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0336	JBQ	0.0184	MDL	5.65	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0483	JBQ	0.0151	MDL	5.65	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.101	JB	0.0179	MDL	5.65	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0471	JQ	0.0374	MDL	1.13	PQL	ng/Kg	J	Z
OCDD	3.28	JB	0.0244	MDL	11.3	PQL	ng/Kg	J	Z
OCDF	0.292	JB	0.0307	MDL	11.3	PQL	ng/Kg	U	B

Sample ID: SL-010-SA8S-SB-8.5-9.5 *Collected:* 11/16/2011 3:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.352	JB	0.0235	MDL	5.60	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0906	JBQ	0.0108	MDL	5.60	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-010-SA8S-SB-8.5-9.5 *Collected:* 11/16/2011 3:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.0242	JB	0.0162	MDL	5.60	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0233	JBQ	0.0226	MDL	5.60	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0559	JB	0.0176	MDL	5.60	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0397	JB	0.0226	MDL	5.60	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0443	JBQ	0.0160	MDL	5.60	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0427	JBQ	0.0123	MDL	5.60	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0595	JBQ	0.0159	MDL	5.60	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0390	JQ	0.0332	MDL	1.12	PQL	ng/Kg	J	Z
OCDD	1.20	JB	0.0184	MDL	11.2	PQL	ng/Kg	U	B
OCDF	0.174	JB	0.0302	MDL	11.2	PQL	ng/Kg	U	B

Sample ID: SL-011-SA8S-SB-4.0-5.0 *Collected:* 11/17/2011 10:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.408	JB	0.0235	MDL	5.55	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0614	JBQ	0.0102	MDL	5.55	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0575	JBQ	0.0171	MDL	5.55	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0398	JB	0.0224	MDL	5.55	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0367	JBQ	0.0167	MDL	5.55	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0757	JB	0.0228	MDL	5.55	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0348	JBQ	0.0138	MDL	5.55	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0462	JBQ	0.0228	MDL	5.55	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0854	JBQ	0.0172	MDL	5.55	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0432	JBQ	0.0143	MDL	5.55	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0337	JB	0.0167	MDL	5.55	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0609	JQ	0.0362	MDL	1.11	PQL	ng/Kg	J	Z
OCDD	1.60	JB	0.0268	MDL	11.1	PQL	ng/Kg	U	B
OCDF	0.178	JB	0.0327	MDL	11.1	PQL	ng/Kg	U	B

Sample ID: SL-012-SA8S-SB-4.0-5.0 *Collected:* 11/18/2011 9:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.225	JBQ	0.0212	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0805	JB	0.00853	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0159	JBQ	0.0147	MDL	5.52	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-012-SA8S-SB-4.0-5.0 *Collected:* 11/18/2011 9:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HxCDD	0.0292	JBQ	0.0207	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0423	JBQ	0.0160	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0165	JB	0.0128	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0428	JB	0.0195	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0401	JB	0.0162	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0619	JQ	0.0334	MDL	5.52	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0756	JB	0.0158	MDL	5.52	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0570	JBQ	0.0119	MDL	5.52	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.113	JB	0.0157	MDL	5.52	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0343	JQ	0.0301	MDL	1.10	PQL	ng/Kg	J	Z
OCDD	0.588	JB	0.0223	MDL	11.0	PQL	ng/Kg	U	B
OCDF	0.161	JB	0.0338	MDL	11.0	PQL	ng/Kg	U	B

Sample ID: SL-013-SA8S-SB-4.0-5.0 *Collected:* 11/14/2011 2:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.375	JB	0.0294	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0864	JBQ	0.0100	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0659	JBQ	0.0150	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0533	JBQ	0.0138	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0431	JBQ	0.0215	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0159	JBQ	0.0128	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0383	JB	0.0211	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0524	JBQ	0.0148	MDL	5.35	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0400	JBQ	0.0117	MDL	5.35	PQL	ng/Kg	U	B
OCDD	1.47	JB	0.0227	MDL	10.7	PQL	ng/Kg	U	B
OCDF	0.223	JBQ	0.0379	MDL	10.7	PQL	ng/Kg	U	B

Sample ID: SL-024-SA8S-SB-4.0-5.0 *Collected:* 11/16/2011 9:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.296	JBQ	0.0198	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.113	JBQ	0.00955	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0211	JBQ	0.0155	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0239	JBQ	0.0231	MDL	5.52	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-024-SA8S-SB-4.0-5.0 *Collected:* 11/16/2011 9:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HXCDF	0.0503	JBQ	0.0128	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0333	JB	0.0226	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0331	JBQ	0.0108	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0303	JBQ	0.0140	MDL	5.52	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0207	JB	0.0152	MDL	5.52	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0263	JB	0.0115	MDL	5.52	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0530	JB	0.0147	MDL	5.52	PQL	ng/Kg	U	B
OCDD	1.01	JB	0.0211	MDL	11.0	PQL	ng/Kg	U	B
OCDF	0.174	JBQ	0.0308	MDL	11.0	PQL	ng/Kg	U	B

Sample ID: SL-024-SA8S-SB-7.0-8.0 *Collected:* 11/16/2011 10:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.307	JBQ	0.0258	MDL	5.62	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0804	JBQ	0.00745	MDL	5.62	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0496	JBQ	0.0124	MDL	5.62	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0325	JB	0.0221	MDL	5.62	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0260	JBQ	0.0143	MDL	5.62	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0358	JBQ	0.0229	MDL	5.62	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0409	JBQ	0.0237	MDL	5.62	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0164	JBQ	0.0147	MDL	5.62	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0333	JB	0.0124	MDL	5.62	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0338	JBQ	0.0144	MDL	5.62	PQL	ng/Kg	U	B
OCDD	0.810	JB	0.0197	MDL	11.2	PQL	ng/Kg	U	B
OCDF	0.196	JB	0.0315	MDL	11.2	PQL	ng/Kg	U	B

Sample ID: SL-028-SA5DS-SB-1.9-2.9 *Collected:* 11/11/2011 11:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.955	JB	0.0359	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.316	JB	0.0136	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0568	JBQ	0.0159	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0798	JBQ	0.0295	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.145	JBQ	0.0234	MDL	5.40	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.122	JBQ	0.0298	MDL	5.40	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-028-SA5DS-SB-1.9-2.9 *Collected:* 11/11/2011 11:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,6,7,8-HXCDF	0.116	JB	0.0222	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.138	JBQ	0.0294	MDL	5.40	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0553	JBQ	0.0237	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.176	JQ	0.0378	MDL	5.40	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.262	JB	0.0343	MDL	5.40	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.127	JBQ	0.0207	MDL	5.40	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.160	JB	0.0320	MDL	5.40	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.242	J	0.0688	MDL	1.08	PQL	ng/Kg	J	Z
OCDD	5.55	JB	0.0276	MDL	10.8	PQL	ng/Kg	J	Z
OCDF	0.383	JB	0.0338	MDL	10.8	PQL	ng/Kg	U	B

Sample ID: SL-029-SA5DS-SB-3.5-4.5 *Collected:* 11/11/2011 9:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.402	JB	0.0276	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.108	JBQ	0.0118	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0224	JB	0.0178	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0278	JBQ	0.0218	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0588	JBQ	0.0174	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0510	JBQ	0.0230	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0267	JBQ	0.0156	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0529	JBQ	0.0219	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0364	JBQ	0.0196	MDL	5.44	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0593	JBQ	0.0205	MDL	5.44	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0423	JBQ	0.0141	MDL	5.44	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0955	JB	0.0201	MDL	5.44	PQL	ng/Kg	U	B
OCDD	1.69	JB	0.0224	MDL	10.9	PQL	ng/Kg	U	B
OCDF	0.158	JBQ	0.0313	MDL	10.9	PQL	ng/Kg	U	B

Sample ID: SL-031-SA5DS-SB-4.0-5.0 *Collected:* 11/14/2011 10:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.865	JB	0.0281	MDL	5.36	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.129	JB	0.0107	MDL	5.36	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0387	JBQ	0.0164	MDL	5.36	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-031-SA5DS-SB-4.0-5.0 *Collected:* 11/14/2011 10:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HXCDF	0.0385	JBQ	0.0155	MDL	5.36	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.250	JBQ	0.0280	MDL	5.36	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0170	JBQ	0.0136	MDL	5.36	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.174	JBQ	0.0279	MDL	5.36	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0673	JBQ	0.0165	MDL	5.36	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.101	JQ	0.0339	MDL	5.36	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0297	JBQ	0.0172	MDL	5.36	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0427	JBQ	0.0128	MDL	5.36	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0469	JBQ	0.0165	MDL	5.36	PQL	ng/Kg	U	B
OCDD	2.31	JB	0.0202	MDL	10.7	PQL	ng/Kg	J	Z
OCDF	0.179	JB	0.0281	MDL	10.7	PQL	ng/Kg	U	B

Sample ID: SL-031-SA5DS-SB-9.0-10.0 *Collected:* 11/14/2011 11:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.450	JBQ	0.0249	MDL	5.57	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.113	JBQ	0.0115	MDL	5.57	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0445	JBQ	0.0173	MDL	5.57	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0458	JB	0.0257	MDL	5.57	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0401	JBQ	0.0143	MDL	5.57	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0913	JBQ	0.0262	MDL	5.57	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0350	JBQ	0.0127	MDL	5.57	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0672	JB	0.0262	MDL	5.57	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0350	JBQ	0.0148	MDL	5.57	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0519	JB	0.0170	MDL	5.57	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0548	JB	0.0117	MDL	5.57	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0422	JB	0.0164	MDL	5.57	PQL	ng/Kg	U	B
OCDD	2.45	JB	0.0235	MDL	11.1	PQL	ng/Kg	J	Z
OCDF	0.229	JB	0.0324	MDL	11.1	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Reason Code Legend

Reason Code	*Description*
B	Method Blank Contamination
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

DX155

Method Blank Outlier Report

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method: 1613B
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK3260B371826	11/23/2011 6:26:00 PM	1,2,3,4,6,7,8-HPCDD	4.66 pg/L	EB-SA8S-SB-111711
		1,2,3,4,6,7,8-HPCDF	1.94 pg/L	
		1,2,3,4,7,8,9-HPCDF	0.617 pg/L	
		1,2,3,4,7,8-HxCDD	0.486 pg/L	
		1,2,3,4,7,8-HXCDF	0.618 pg/L	
		1,2,3,6,7,8-HXCDD	0.713 pg/L	
		1,2,3,6,7,8-HXCDF	0.222 pg/L	
		1,2,3,7,8,9-HXCDD	0.574 pg/L	
		1,2,3,7,8-PECDF	0.553 pg/L	
		2,3,4,6,7,8-HXCDF	0.306 pg/L	
		2,3,4,7,8-PECDF	0.487 pg/L	
		OCDD	7.85 pg/L	
		OCDF	1.85 pg/L	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-SA8S-SB-111711(RES)	1,2,3,4,6,7,8-HPCDD	2.67 pg/L	2.67U pg/L
EB-SA8S-SB-111711(RES)	1,2,3,4,6,7,8-HPCDF	2.66 pg/L	2.66U pg/L
EB-SA8S-SB-111711(RES)	1,2,3,4,7,8,9-HPCDF	0.168 pg/L	0.168U pg/L
EB-SA8S-SB-111711(RES)	1,2,3,4,7,8-HxCDD	0.362 pg/L	0.362U pg/L
EB-SA8S-SB-111711(RES)	1,2,3,4,7,8-HXCDF	0.384 pg/L	0.384U pg/L
EB-SA8S-SB-111711(RES)	1,2,3,6,7,8-HXCDD	0.199 pg/L	0.199U pg/L
EB-SA8S-SB-111711(RES)	1,2,3,6,7,8-HXCDF	0.473 pg/L	0.473U pg/L
EB-SA8S-SB-111711(RES)	1,2,3,7,8,9-HXCDD	0.416 pg/L	0.416U pg/L
EB-SA8S-SB-111711(RES)	1,2,3,7,8-PECDF	0.181 pg/L	0.181U pg/L
EB-SA8S-SB-111711(RES)	2,3,4,6,7,8-HXCDF	0.655 pg/L	0.655U pg/L
EB-SA8S-SB-111711(RES)	2,3,4,7,8-PECDF	0.432 pg/L	0.432U pg/L
EB-SA8S-SB-111711(RES)	OCDD	6.54 pg/L	6.54U pg/L
EB-SA8S-SB-111711(RES)	OCDF	1.73 pg/L	1.73U pg/L

Method Blank Outlier Report

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK3260B371417	11/29/2011 2:17:00 PM	1,2,3,4,6,7,8-HPCDD	0.234 ng/Kg	SL-001-SA8S-SB-4.0-5.0
		1,2,3,4,6,7,8-HPCDF	0.104 ng/Kg	SL-002-SA5DS-SB-1.8-2.8
		1,2,3,4,7,8,9-HPCDF	0.0229 ng/Kg	SL-005-SA8S-SB-3.5-4.5
		1,2,3,4,7,8-HxCDD	0.0393 ng/Kg	SL-007-SA8S-SB-4.0-5.0
		1,2,3,4,7,8-HXCDF	0.0287 ng/Kg	SL-008-SA8S-SB-2.0-3.0
		1,2,3,6,7,8-HXCDD	0.0367 ng/Kg	SL-009-SA8S-SB-4.0-5.0
		1,2,3,6,7,8-HXCDF	0.0276 ng/Kg	SL-009-SA8S-SB-7.0-8.0
		1,2,3,7,8,9-HXCDD	0.0256 ng/Kg	SL-010-SA8S-SB-4.0-5.0
		1,2,3,7,8,9-HXCDF	0.0277 ng/Kg	SL-010-SA8S-SB-8.5-9.5
		1,2,3,7,8-PECDF	0.0345 ng/Kg	SL-011-SA8S-SB-4.0-5.0
		2,3,4,6,7,8-HXCDF	0.0408 ng/Kg	SL-012-SA8S-SB-4.0-5.0
		2,3,4,7,8-PECDF	0.0494 ng/Kg	SL-013-SA8S-SB-4.0-5.0
		OCDD	0.377 ng/Kg	SL-024-SA8S-SB-4.0-5.0
		OCDF	0.106 ng/Kg	SL-024-SA8S-SB-7.0-8.0
				SL-028-SA5DS-SB-1.9-2.9
				SL-029-SA5DS-SB-3.5-4.5
				SL-031-SA5DS-SB-4.0-5.0
				SL-031-SA5DS-SB-9.0-10.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-001-SA8S-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.334 ng/Kg	0.334U ng/Kg
SL-001-SA8S-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0761 ng/Kg	0.0761U ng/Kg
SL-001-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0133 ng/Kg	0.0133U ng/Kg
SL-001-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0477 ng/Kg	0.0477U ng/Kg
SL-001-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.105 ng/Kg	0.105U ng/Kg
SL-001-SA8S-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.0609 ng/Kg	0.0609U ng/Kg
SL-001-SA8S-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0364 ng/Kg	0.0364U ng/Kg
SL-001-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.0531 ng/Kg	0.0531U ng/Kg
SL-001-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0227 ng/Kg	0.0227U ng/Kg
SL-001-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.106 ng/Kg	0.106U ng/Kg
SL-001-SA8S-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0599 ng/Kg	0.0599U ng/Kg
SL-001-SA8S-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.107 ng/Kg	0.107U ng/Kg
SL-001-SA8S-SB-4.0-5.0(RES)	OCDD	0.761 ng/Kg	0.761U ng/Kg
SL-001-SA8S-SB-4.0-5.0(RES)	OCDF	0.145 ng/Kg	0.145U ng/Kg
SL-002-SA5DS-SB-1.8-2.8(RES)	1,2,3,4,6,7,8-HPCDD	0.901 ng/Kg	0.901U ng/Kg
SL-002-SA5DS-SB-1.8-2.8(RES)	1,2,3,4,6,7,8-HPCDF	0.164 ng/Kg	0.164U ng/Kg
SL-002-SA5DS-SB-1.8-2.8(RES)	1,2,3,4,7,8,9-HPCDF	0.0264 ng/Kg	0.0264U ng/Kg
SL-002-SA5DS-SB-1.8-2.8(RES)	1,2,3,4,7,8-HxCDD	0.0257 ng/Kg	0.0257U ng/Kg
SL-002-SA5DS-SB-1.8-2.8(RES)	1,2,3,6,7,8-HXCDF	0.0626 ng/Kg	0.0626U ng/Kg
SL-002-SA5DS-SB-1.8-2.8(RES)	1,2,3,7,8-PECDF	0.0775 ng/Kg	0.0775U ng/Kg
SL-002-SA5DS-SB-1.8-2.8(RES)	2,3,4,6,7,8-HXCDF	0.0647 ng/Kg	0.0647U ng/Kg
SL-002-SA5DS-SB-1.8-2.8(RES)	2,3,4,7,8-PECDF	0.0966 ng/Kg	0.0966U ng/Kg
SL-002-SA5DS-SB-1.8-2.8(RES)	OCDF	0.323 ng/Kg	0.323U ng/Kg
SL-005-SA8S-SB-3.5-4.5(RES)	1,2,3,4,6,7,8-HPCDD	0.256 ng/Kg	0.256U ng/Kg
SL-005-SA8S-SB-3.5-4.5(RES)	1,2,3,4,6,7,8-HPCDF	0.106 ng/Kg	0.106U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-005-SA8S-SB-3.5-4.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0196 ng/Kg	0.0196U ng/Kg
SL-005-SA8S-SB-3.5-4.5(RES)	1,2,3,4,7,8-HXCDF	0.0612 ng/Kg	0.0612U ng/Kg
SL-005-SA8S-SB-3.5-4.5(RES)	1,2,3,6,7,8-HXCDD	0.0238 ng/Kg	0.0238U ng/Kg
SL-005-SA8S-SB-3.5-4.5(RES)	1,2,3,6,7,8-HXCDF	0.0489 ng/Kg	0.0489U ng/Kg
SL-005-SA8S-SB-3.5-4.5(RES)	1,2,3,7,8,9-HXCDD	0.0450 ng/Kg	0.0450U ng/Kg
SL-005-SA8S-SB-3.5-4.5(RES)	1,2,3,7,8,9-HXCDF	0.0553 ng/Kg	0.0553U ng/Kg
SL-005-SA8S-SB-3.5-4.5(RES)	1,2,3,7,8-PECDF	0.112 ng/Kg	0.112U ng/Kg
SL-005-SA8S-SB-3.5-4.5(RES)	2,3,4,6,7,8-HXCDF	0.0651 ng/Kg	0.0651U ng/Kg
SL-005-SA8S-SB-3.5-4.5(RES)	2,3,4,7,8-PECDF	0.124 ng/Kg	0.124U ng/Kg
SL-005-SA8S-SB-3.5-4.5(RES)	OCDD	0.479 ng/Kg	0.479U ng/Kg
SL-005-SA8S-SB-3.5-4.5(RES)	OCDF	0.150 ng/Kg	0.150U ng/Kg
SL-007-SA8S-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.348 ng/Kg	0.348U ng/Kg
SL-007-SA8S-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0733 ng/Kg	0.0733U ng/Kg
SL-007-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0488 ng/Kg	0.0488U ng/Kg
SL-007-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0298 ng/Kg	0.0298U ng/Kg
SL-007-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0394 ng/Kg	0.0394U ng/Kg
SL-007-SA8S-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.0331 ng/Kg	0.0331U ng/Kg
SL-007-SA8S-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0425 ng/Kg	0.0425U ng/Kg
SL-007-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.0478 ng/Kg	0.0478U ng/Kg
SL-007-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0361 ng/Kg	0.0361U ng/Kg
SL-007-SA8S-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0204 ng/Kg	0.0204U ng/Kg
SL-007-SA8S-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0590 ng/Kg	0.0590U ng/Kg
SL-007-SA8S-SB-4.0-5.0(RES)	OCDD	0.665 ng/Kg	0.665U ng/Kg
SL-007-SA8S-SB-4.0-5.0(RES)	OCDF	0.0860 ng/Kg	0.0860U ng/Kg
SL-008-SA8S-SB-2.0-3.0(RES)	1,2,3,4,6,7,8-HPCDD	0.306 ng/Kg	0.306U ng/Kg
SL-008-SA8S-SB-2.0-3.0(RES)	1,2,3,4,6,7,8-HPCDF	0.108 ng/Kg	0.108U ng/Kg
SL-008-SA8S-SB-2.0-3.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0293 ng/Kg	0.0293U ng/Kg
SL-008-SA8S-SB-2.0-3.0(RES)	1,2,3,4,7,8-HXCDF	0.0205 ng/Kg	0.0205U ng/Kg
SL-008-SA8S-SB-2.0-3.0(RES)	1,2,3,6,7,8-HXCDD	0.0356 ng/Kg	0.0356U ng/Kg
SL-008-SA8S-SB-2.0-3.0(RES)	1,2,3,6,7,8-HXCDF	0.0469 ng/Kg	0.0469U ng/Kg
SL-008-SA8S-SB-2.0-3.0(RES)	1,2,3,7,8,9-HXCDF	0.0215 ng/Kg	0.0215U ng/Kg
SL-008-SA8S-SB-2.0-3.0(RES)	1,2,3,7,8-PECDF	0.0295 ng/Kg	0.0295U ng/Kg
SL-008-SA8S-SB-2.0-3.0(RES)	2,3,4,6,7,8-HXCDF	0.0267 ng/Kg	0.0267U ng/Kg
SL-008-SA8S-SB-2.0-3.0(RES)	2,3,4,7,8-PECDF	0.0712 ng/Kg	0.0712U ng/Kg
SL-008-SA8S-SB-2.0-3.0(RES)	OCDD	1.01 ng/Kg	1.01U ng/Kg
SL-008-SA8S-SB-2.0-3.0(RES)	OCDF	0.0850 ng/Kg	0.0850U ng/Kg
SL-009-SA8S-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.256 ng/Kg	0.256U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-009-SA8S-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.102 ng/Kg	0.102U ng/Kg
SL-009-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0695 ng/Kg	0.0695U ng/Kg
SL-009-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0457 ng/Kg	0.0457U ng/Kg
SL-009-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0610 ng/Kg	0.0610U ng/Kg
SL-009-SA8S-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.0370 ng/Kg	0.0370U ng/Kg
SL-009-SA8S-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0734 ng/Kg	0.0734U ng/Kg
SL-009-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.0817 ng/Kg	0.0817U ng/Kg
SL-009-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.108 ng/Kg	0.108U ng/Kg
SL-009-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0721 ng/Kg	0.0721U ng/Kg
SL-009-SA8S-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0889 ng/Kg	0.0889U ng/Kg
SL-009-SA8S-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0796 ng/Kg	0.0796U ng/Kg
SL-009-SA8S-SB-4.0-5.0(RES)	OCDD	0.706 ng/Kg	0.706U ng/Kg
SL-009-SA8S-SB-4.0-5.0(RES)	OCDF	0.128 ng/Kg	0.128U ng/Kg
SL-009-SA8S-SB-7.0-8.0(RES)	1,2,3,4,6,7,8-HPCDD	0.298 ng/Kg	0.298U ng/Kg
SL-009-SA8S-SB-7.0-8.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0934 ng/Kg	0.0934U ng/Kg
SL-009-SA8S-SB-7.0-8.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0277 ng/Kg	0.0277U ng/Kg
SL-009-SA8S-SB-7.0-8.0(RES)	1,2,3,4,7,8-HxCDD	0.0311 ng/Kg	0.0311U ng/Kg
SL-009-SA8S-SB-7.0-8.0(RES)	1,2,3,4,7,8-HXCDF	0.0320 ng/Kg	0.0320U ng/Kg
SL-009-SA8S-SB-7.0-8.0(RES)	1,2,3,6,7,8-HXCDD	0.0305 ng/Kg	0.0305U ng/Kg
SL-009-SA8S-SB-7.0-8.0(RES)	1,2,3,6,7,8-HXCDF	0.0297 ng/Kg	0.0297U ng/Kg
SL-009-SA8S-SB-7.0-8.0(RES)	1,2,3,7,8,9-HXCDD	0.0524 ng/Kg	0.0524U ng/Kg
SL-009-SA8S-SB-7.0-8.0(RES)	1,2,3,7,8,9-HXCDF	0.0332 ng/Kg	0.0332U ng/Kg
SL-009-SA8S-SB-7.0-8.0(RES)	1,2,3,7,8-PECDF	0.0378 ng/Kg	0.0378U ng/Kg
SL-009-SA8S-SB-7.0-8.0(RES)	2,3,4,6,7,8-HXCDF	0.0535 ng/Kg	0.0535U ng/Kg
SL-009-SA8S-SB-7.0-8.0(RES)	2,3,4,7,8-PECDF	0.0493 ng/Kg	0.0493U ng/Kg
SL-009-SA8S-SB-7.0-8.0(RES)	OCDD	0.646 ng/Kg	0.646U ng/Kg
SL-009-SA8S-SB-7.0-8.0(RES)	OCDF	0.104 ng/Kg	0.104U ng/Kg
SL-010-SA8S-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.664 ng/Kg	0.664U ng/Kg
SL-010-SA8S-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.158 ng/Kg	0.158U ng/Kg
SL-010-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0486 ng/Kg	0.0486U ng/Kg
SL-010-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0252 ng/Kg	0.0252U ng/Kg
SL-010-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0574 ng/Kg	0.0574U ng/Kg
SL-010-SA8S-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.0682 ng/Kg	0.0682U ng/Kg
SL-010-SA8S-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0414 ng/Kg	0.0414U ng/Kg
SL-010-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.0696 ng/Kg	0.0696U ng/Kg
SL-010-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0336 ng/Kg	0.0336U ng/Kg
SL-010-SA8S-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0483 ng/Kg	0.0483U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-010-SA8S-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.101 ng/Kg	0.101U ng/Kg
SL-010-SA8S-SB-4.0-5.0(RES)	OCDF	0.292 ng/Kg	0.292U ng/Kg
SL-010-SA8S-SB-8.5-9.5(RES)	1,2,3,4,6,7,8-HPCDD	0.352 ng/Kg	0.352U ng/Kg
SL-010-SA8S-SB-8.5-9.5(RES)	1,2,3,4,6,7,8-HPCDF	0.0906 ng/Kg	0.0906U ng/Kg
SL-010-SA8S-SB-8.5-9.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0242 ng/Kg	0.0242U ng/Kg
SL-010-SA8S-SB-8.5-9.5(RES)	1,2,3,4,7,8-HxCDD	0.0233 ng/Kg	0.0233U ng/Kg
SL-010-SA8S-SB-8.5-9.5(RES)	1,2,3,4,7,8-HXCDF	0.0559 ng/Kg	0.0559U ng/Kg
SL-010-SA8S-SB-8.5-9.5(RES)	1,2,3,7,8,9-HXCDD	0.0397 ng/Kg	0.0397U ng/Kg
SL-010-SA8S-SB-8.5-9.5(RES)	1,2,3,7,8,9-HXCDF	0.0443 ng/Kg	0.0443U ng/Kg
SL-010-SA8S-SB-8.5-9.5(RES)	2,3,4,6,7,8-HXCDF	0.0427 ng/Kg	0.0427U ng/Kg
SL-010-SA8S-SB-8.5-9.5(RES)	2,3,4,7,8-PECDF	0.0595 ng/Kg	0.0595U ng/Kg
SL-010-SA8S-SB-8.5-9.5(RES)	OCDD	1.20 ng/Kg	1.20U ng/Kg
SL-010-SA8S-SB-8.5-9.5(RES)	OCDF	0.174 ng/Kg	0.174U ng/Kg
SL-011-SA8S-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.408 ng/Kg	0.408U ng/Kg
SL-011-SA8S-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0614 ng/Kg	0.0614U ng/Kg
SL-011-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0575 ng/Kg	0.0575U ng/Kg
SL-011-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0398 ng/Kg	0.0398U ng/Kg
SL-011-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0367 ng/Kg	0.0367U ng/Kg
SL-011-SA8S-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.0757 ng/Kg	0.0757U ng/Kg
SL-011-SA8S-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0348 ng/Kg	0.0348U ng/Kg
SL-011-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.0462 ng/Kg	0.0462U ng/Kg
SL-011-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0854 ng/Kg	0.0854U ng/Kg
SL-011-SA8S-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0432 ng/Kg	0.0432U ng/Kg
SL-011-SA8S-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0337 ng/Kg	0.0337U ng/Kg
SL-011-SA8S-SB-4.0-5.0(RES)	OCDD	1.60 ng/Kg	1.60U ng/Kg
SL-011-SA8S-SB-4.0-5.0(RES)	OCDF	0.178 ng/Kg	0.178U ng/Kg
SL-012-SA8S-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.225 ng/Kg	0.225U ng/Kg
SL-012-SA8S-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0805 ng/Kg	0.0805U ng/Kg
SL-012-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0159 ng/Kg	0.0159U ng/Kg
SL-012-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0292 ng/Kg	0.0292U ng/Kg
SL-012-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0423 ng/Kg	0.0423U ng/Kg
SL-012-SA8S-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0165 ng/Kg	0.0165U ng/Kg
SL-012-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.0428 ng/Kg	0.0428U ng/Kg
SL-012-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0401 ng/Kg	0.0401U ng/Kg
SL-012-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0756 ng/Kg	0.0756U ng/Kg
SL-012-SA8S-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0570 ng/Kg	0.0570U ng/Kg
SL-012-SA8S-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.113 ng/Kg	0.113U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-012-SA8S-SB-4.0-5.0(RES)	OCDD	0.588 ng/Kg	0.588U ng/Kg
SL-012-SA8S-SB-4.0-5.0(RES)	OCDF	0.161 ng/Kg	0.161U ng/Kg
SL-013-SA8S-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.375 ng/Kg	0.375U ng/Kg
SL-013-SA8S-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0864 ng/Kg	0.0864U ng/Kg
SL-013-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0659 ng/Kg	0.0659U ng/Kg
SL-013-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0533 ng/Kg	0.0533U ng/Kg
SL-013-SA8S-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.0431 ng/Kg	0.0431U ng/Kg
SL-013-SA8S-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0159 ng/Kg	0.0159U ng/Kg
SL-013-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.0383 ng/Kg	0.0383U ng/Kg
SL-013-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0524 ng/Kg	0.0524U ng/Kg
SL-013-SA8S-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0400 ng/Kg	0.0400U ng/Kg
SL-013-SA8S-SB-4.0-5.0(RES)	OCDD	1.47 ng/Kg	1.47U ng/Kg
SL-013-SA8S-SB-4.0-5.0(RES)	OCDF	0.223 ng/Kg	0.223U ng/Kg
SL-024-SA8S-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.296 ng/Kg	0.296U ng/Kg
SL-024-SA8S-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.113 ng/Kg	0.113U ng/Kg
SL-024-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0211 ng/Kg	0.0211U ng/Kg
SL-024-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0239 ng/Kg	0.0239U ng/Kg
SL-024-SA8S-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0503 ng/Kg	0.0503U ng/Kg
SL-024-SA8S-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.0333 ng/Kg	0.0333U ng/Kg
SL-024-SA8S-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0331 ng/Kg	0.0331U ng/Kg
SL-024-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0303 ng/Kg	0.0303U ng/Kg
SL-024-SA8S-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0207 ng/Kg	0.0207U ng/Kg
SL-024-SA8S-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0263 ng/Kg	0.0263U ng/Kg
SL-024-SA8S-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0530 ng/Kg	0.0530U ng/Kg
SL-024-SA8S-SB-4.0-5.0(RES)	OCDD	1.01 ng/Kg	1.01U ng/Kg
SL-024-SA8S-SB-4.0-5.0(RES)	OCDF	0.174 ng/Kg	0.174U ng/Kg
SL-024-SA8S-SB-7.0-8.0(RES)	1,2,3,4,6,7,8-HPCDD	0.307 ng/Kg	0.307U ng/Kg
SL-024-SA8S-SB-7.0-8.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0804 ng/Kg	0.0804U ng/Kg
SL-024-SA8S-SB-7.0-8.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0496 ng/Kg	0.0496U ng/Kg
SL-024-SA8S-SB-7.0-8.0(RES)	1,2,3,4,7,8-HxCDD	0.0325 ng/Kg	0.0325U ng/Kg
SL-024-SA8S-SB-7.0-8.0(RES)	1,2,3,4,7,8-HXCDF	0.0260 ng/Kg	0.0260U ng/Kg
SL-024-SA8S-SB-7.0-8.0(RES)	1,2,3,6,7,8-HXCDD	0.0358 ng/Kg	0.0358U ng/Kg
SL-024-SA8S-SB-7.0-8.0(RES)	1,2,3,7,8,9-HXCDD	0.0409 ng/Kg	0.0409U ng/Kg
SL-024-SA8S-SB-7.0-8.0(RES)	1,2,3,7,8,9-HXCDF	0.0164 ng/Kg	0.0164U ng/Kg
SL-024-SA8S-SB-7.0-8.0(RES)	2,3,4,6,7,8-HXCDF	0.0333 ng/Kg	0.0333U ng/Kg
SL-024-SA8S-SB-7.0-8.0(RES)	2,3,4,7,8-PECDF	0.0338 ng/Kg	0.0338U ng/Kg
SL-024-SA8S-SB-7.0-8.0(RES)	OCDD	0.810 ng/Kg	0.810U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-024-SA8S-SB-7.0-8.0(RES)	OCDF	0.196 ng/Kg	0.196U ng/Kg
SL-028-SA5DS-SB-1.9-2.9(RES)	1,2,3,4,6,7,8-HPCDD	0.955 ng/Kg	0.955U ng/Kg
SL-028-SA5DS-SB-1.9-2.9(RES)	1,2,3,4,6,7,8-HPCDF	0.316 ng/Kg	0.316U ng/Kg
SL-028-SA5DS-SB-1.9-2.9(RES)	1,2,3,4,7,8,9-HPCDF	0.0568 ng/Kg	0.0568U ng/Kg
SL-028-SA5DS-SB-1.9-2.9(RES)	1,2,3,4,7,8-HxCDD	0.0798 ng/Kg	0.0798U ng/Kg
SL-028-SA5DS-SB-1.9-2.9(RES)	1,2,3,6,7,8-HXCDD	0.122 ng/Kg	0.122U ng/Kg
SL-028-SA5DS-SB-1.9-2.9(RES)	1,2,3,6,7,8-HXCDF	0.116 ng/Kg	0.116U ng/Kg
SL-028-SA5DS-SB-1.9-2.9(RES)	1,2,3,7,8,9-HXCDF	0.0553 ng/Kg	0.0553U ng/Kg
SL-028-SA5DS-SB-1.9-2.9(RES)	2,3,4,6,7,8-HXCDF	0.127 ng/Kg	0.127U ng/Kg
SL-028-SA5DS-SB-1.9-2.9(RES)	2,3,4,7,8-PECDF	0.160 ng/Kg	0.160U ng/Kg
SL-028-SA5DS-SB-1.9-2.9(RES)	OCDF	0.383 ng/Kg	0.383U ng/Kg
SL-029-SA5DS-SB-3.5-4.5(RES)	1,2,3,4,6,7,8-HPCDD	0.402 ng/Kg	0.402U ng/Kg
SL-029-SA5DS-SB-3.5-4.5(RES)	1,2,3,4,6,7,8-HPCDF	0.108 ng/Kg	0.108U ng/Kg
SL-029-SA5DS-SB-3.5-4.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0224 ng/Kg	0.0224U ng/Kg
SL-029-SA5DS-SB-3.5-4.5(RES)	1,2,3,4,7,8-HxCDD	0.0278 ng/Kg	0.0278U ng/Kg
SL-029-SA5DS-SB-3.5-4.5(RES)	1,2,3,4,7,8-HXCDF	0.0588 ng/Kg	0.0588U ng/Kg
SL-029-SA5DS-SB-3.5-4.5(RES)	1,2,3,6,7,8-HXCDD	0.0510 ng/Kg	0.0510U ng/Kg
SL-029-SA5DS-SB-3.5-4.5(RES)	1,2,3,6,7,8-HXCDF	0.0267 ng/Kg	0.0267U ng/Kg
SL-029-SA5DS-SB-3.5-4.5(RES)	1,2,3,7,8,9-HXCDD	0.0529 ng/Kg	0.0529U ng/Kg
SL-029-SA5DS-SB-3.5-4.5(RES)	1,2,3,7,8,9-HXCDF	0.0364 ng/Kg	0.0364U ng/Kg
SL-029-SA5DS-SB-3.5-4.5(RES)	1,2,3,7,8-PECDF	0.0593 ng/Kg	0.0593U ng/Kg
SL-029-SA5DS-SB-3.5-4.5(RES)	2,3,4,6,7,8-HXCDF	0.0423 ng/Kg	0.0423U ng/Kg
SL-029-SA5DS-SB-3.5-4.5(RES)	2,3,4,7,8-PECDF	0.0955 ng/Kg	0.0955U ng/Kg
SL-029-SA5DS-SB-3.5-4.5(RES)	OCDD	1.69 ng/Kg	1.69U ng/Kg
SL-029-SA5DS-SB-3.5-4.5(RES)	OCDF	0.158 ng/Kg	0.158U ng/Kg
SL-031-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.865 ng/Kg	0.865U ng/Kg
SL-031-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.129 ng/Kg	0.129U ng/Kg
SL-031-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0387 ng/Kg	0.0387U ng/Kg
SL-031-SA5DS-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0385 ng/Kg	0.0385U ng/Kg
SL-031-SA5DS-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0170 ng/Kg	0.0170U ng/Kg
SL-031-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0673 ng/Kg	0.0673U ng/Kg
SL-031-SA5DS-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0297 ng/Kg	0.0297U ng/Kg
SL-031-SA5DS-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0427 ng/Kg	0.0427U ng/Kg
SL-031-SA5DS-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0469 ng/Kg	0.0469U ng/Kg
SL-031-SA5DS-SB-4.0-5.0(RES)	OCDF	0.179 ng/Kg	0.179U ng/Kg
SL-031-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDD	0.450 ng/Kg	0.450U ng/Kg
SL-031-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.113 ng/Kg	0.113U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-031-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0445 ng/Kg	0.0445U ng/Kg
SL-031-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,7,8-HxCDD	0.0458 ng/Kg	0.0458U ng/Kg
SL-031-SA5DS-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.0401 ng/Kg	0.0401U ng/Kg
SL-031-SA5DS-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDD	0.0913 ng/Kg	0.0913U ng/Kg
SL-031-SA5DS-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.0350 ng/Kg	0.0350U ng/Kg
SL-031-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDD	0.0672 ng/Kg	0.0672U ng/Kg
SL-031-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDF	0.0350 ng/Kg	0.0350U ng/Kg
SL-031-SA5DS-SB-9.0-10.0(RES)	1,2,3,7,8-PECDF	0.0519 ng/Kg	0.0519U ng/Kg
SL-031-SA5DS-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.0548 ng/Kg	0.0548U ng/Kg
SL-031-SA5DS-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.0422 ng/Kg	0.0422U ng/Kg
SL-031-SA5DS-SB-9.0-10.0(RES)	OCDF	0.229 ng/Kg	0.229U ng/Kg

Reporting Limit Outliers

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA8S-SB-111711	1,2,3,4,6,7,8-HPCDD	JBQ	2.67	10.5	PQL	pg/L	
	1,2,3,4,6,7,8-HPCDF	JB	2.66	10.5	PQL	pg/L	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.168	10.5	PQL	pg/L	
	1,2,3,4,7,8-HxCDD	JBQ	0.362	10.5	PQL	pg/L	
	1,2,3,4,7,8-HXCDF	JBQ	0.384	10.5	PQL	pg/L	
	1,2,3,6,7,8-HXCDD	JBQ	0.199	10.5	PQL	pg/L	
	1,2,3,6,7,8-HXCDF	JBQ	0.473	10.5	PQL	pg/L	
	1,2,3,7,8,9-HXCDD	JBQ	0.416	10.5	PQL	pg/L	J (all detects)
	1,2,3,7,8,9-HXCDF	JQ	0.276	10.5	PQL	pg/L	
	1,2,3,7,8-PECDD	JQ	0.347	10.5	PQL	pg/L	
	1,2,3,7,8-PECDF	JBQ	0.181	10.5	PQL	pg/L	
	2,3,4,6,7,8-HXCDF	JBQ	0.655	10.5	PQL	pg/L	
	2,3,4,7,8-PECDF	JBQ	0.432	10.5	PQL	pg/L	
	OCDD	JBQ	6.54	20.9	PQL	pg/L	
	OCDF	JBQ	1.73	20.9	PQL	pg/L	

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA8S-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.334	5.58	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.0761	5.58	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0133	5.58	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0477	5.58	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.105	5.58	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0609	5.58	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0364	5.58	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0531	5.58	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.0227	5.58	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JQ	0.0784	5.58	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.106	5.58	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0599	5.58	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.107	5.58	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0547	1.12	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0395	1.12	PQL	ng/Kg	
	OCDD	JBQ	0.761	11.2	PQL	ng/Kg	
	OCDF	JB	0.145	11.2	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-002-SA5DS-SB-1.8-2.8	1,2,3,4,6,7,8-HPCDD	JB	0.901	5.21	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.164	5.21	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0264	5.21	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0257	5.21	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.204	5.21	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0626	5.21	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.410	5.21	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.354	5.21	PQL	ng/Kg	
	1,2,3,7,8-PECDD	J	0.0570	5.21	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0775	5.21	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0647	5.21	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0966	5.21	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0477	1.04	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0565	1.04	PQL	ng/Kg	
	OCDD	JB	4.74	10.4	PQL	ng/Kg	
	OCDF	JB	0.323	10.4	PQL	ng/Kg	
SL-005-SA8S-SB-3.5-4.5	1,2,3,4,6,7,8-HPCDD	JBQ	0.256	5.53	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.106	5.53	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0196	5.53	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0612	5.53	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0238	5.53	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0489	5.53	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0450	5.53	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.0553	5.53	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.112	5.53	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0651	5.53	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.124	5.53	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0502	1.11	PQL	ng/Kg	
	OCDD	JB	0.479	11.1	PQL	ng/Kg	
	OCDF	JB	0.150	11.1	PQL	ng/Kg	
SL-007-SA8S-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.348	5.62	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0733	5.62	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0488	5.62	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0298	5.62	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0394	5.62	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0331	5.62	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0425	5.62	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0478	5.62	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0361	5.62	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0204	5.62	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0590	5.62	PQL	ng/Kg	
	OCDD	JB	0.665	11.2	PQL	ng/Kg	
	OCDF	JB	0.0860	11.2	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX155 | Laboratory: LL

EDD Filename: DX155_v1. | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA8S-SB-2.0-3.0	1,2,3,4,6,7,8-HPCDD	JB	0.306	5.36	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.108	5.36	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0293	5.36	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0205	5.36	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0356	5.36	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0469	5.36	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0215	5.36	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0295	5.36	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0267	5.36	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0712	5.36	PQL	ng/Kg	
	OCDD	JB	1.01	10.7	PQL	ng/Kg	
	OCDF	JB	0.0850	10.7	PQL	ng/Kg	
SL-009-SA8S-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.256	5.45	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.102	5.45	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0695	5.45	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0457	5.45	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0610	5.45	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0370	5.45	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0734	5.45	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0817	5.45	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.108	5.45	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0806	5.45	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0721	5.45	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0889	5.45	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0796	5.45	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0695	1.09	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0375	1.09	PQL	ng/Kg	
	OCDD	JBQ	0.706	10.9	PQL	ng/Kg	
	OCDF	JB	0.128	10.9	PQL	ng/Kg	
SL-009-SA8S-SB-7.0-8.0	1,2,3,4,6,7,8-HPCDD	JB	0.298	5.35	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.0934	5.35	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0277	5.35	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0311	5.35	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0320	5.35	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0305	5.35	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0297	5.35	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0524	5.35	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0332	5.35	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0378	5.35	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0535	5.35	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0493	5.35	PQL	ng/Kg	
	OCDD	JB	0.646	10.7	PQL	ng/Kg	
	OCDF	JB	0.104	10.7	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX155 **Laboratory: LL**

EDD Filename: DX155_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-010-SA8S-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.664	5.65	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.158	5.65	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0486	5.65	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0252	5.65	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0574	5.65	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0682	5.65	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0414	5.65	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0696	5.65	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0375	5.65	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0336	5.65	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0483	5.65	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.101	5.65	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0471	1.13	PQL	ng/Kg	
	OCDD	JB	3.28	11.3	PQL	ng/Kg	
	OCDF	JB	0.292	11.3	PQL	ng/Kg	
SL-010-SA8S-SB-8.5-9.5	1,2,3,4,6,7,8-HPCDD	JB	0.352	5.60	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0906	5.60	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0242	5.60	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0233	5.60	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0559	5.60	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0397	5.60	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0443	5.60	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0427	5.60	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0595	5.60	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0390	1.12	PQL	ng/Kg	
	OCDD	JB	1.20	11.2	PQL	ng/Kg	
	OCDF	JB	0.174	11.2	PQL	ng/Kg	
SL-011-SA8S-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.408	5.55	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0614	5.55	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0575	5.55	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0398	5.55	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0367	5.55	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0757	5.55	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0348	5.55	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0462	5.55	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0854	5.55	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0432	5.55	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0337	5.55	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0609	1.11	PQL	ng/Kg	
	OCDD	JB	1.60	11.1	PQL	ng/Kg	
	OCDF	JB	0.178	11.1	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX155 Laboratory: LL

EDD Filename: DX155_v1. eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-012-SA8S-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.225	5.52	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.0805	5.52	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0159	5.52	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0292	5.52	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0423	5.52	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0165	5.52	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0428	5.52	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.0401	5.52	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JQ	0.0619	5.52	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0756	5.52	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0570	5.52	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.113	5.52	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0343	1.10	PQL	ng/Kg	
	OCDD	JB	0.588	11.0	PQL	ng/Kg	
	OCDF	JB	0.161	11.0	PQL	ng/Kg	
SL-013-SA8S-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.375	5.35	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0864	5.35	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0659	5.35	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0533	5.35	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0431	5.35	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0159	5.35	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDD	JB	0.0383	5.35	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0524	5.35	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0400	5.35	PQL	ng/Kg	
	OCDD	JB	1.47	10.7	PQL	ng/Kg	
	OCDF	JBQ	0.223	10.7	PQL	ng/Kg	
SL-024-SA8S-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.296	5.52	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.113	5.52	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0211	5.52	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0239	5.52	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0503	5.52	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0333	5.52	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0331	5.52	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0303	5.52	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0207	5.52	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0263	5.52	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0530	5.52	PQL	ng/Kg	
	OCDD	JB	1.01	11.0	PQL	ng/Kg	
	OCDF	JBQ	0.174	11.0	PQL	ng/Kg	
SL-024-SA8S-SB-7.0-8.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.307	5.62	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0804	5.62	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0496	5.62	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0325	5.62	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0260	5.62	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0358	5.62	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0409	5.62	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0164	5.62	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0333	5.62	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0338	5.62	PQL	ng/Kg	
	OCDD	JB	0.810	11.2	PQL	ng/Kg	
	OCDF	JB	0.196	11.2	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX155 | Laboratory: LL

EDD Filename: DX155_v1. | eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-028-SA5DS-SB-1.9-2.9	1,2,3,4,6,7,8-HPCDD	JB	0.955	5.40	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.316	5.40	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0568	5.40	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0798	5.40	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.145	5.40	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.122	5.40	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.116	5.40	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.138	5.40	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0553	5.40	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.176	5.40	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.262	5.40	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.127	5.40	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.160	5.40	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.242	1.08	PQL	ng/Kg	
	OCDD	JB	5.55	10.8	PQL	ng/Kg	
	OCDF	JB	0.383	10.8	PQL	ng/Kg	
SL-029-SA5DS-SB-3.5-4.5	1,2,3,4,6,7,8-HPCDD	JB	0.402	5.44	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.108	5.44	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0224	5.44	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0278	5.44	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0588	5.44	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0510	5.44	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0267	5.44	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0529	5.44	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0364	5.44	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0593	5.44	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0423	5.44	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0955	5.44	PQL	ng/Kg	
	OCDD	JB	1.69	10.9	PQL	ng/Kg	
	OCDF	JBQ	0.158	10.9	PQL	ng/Kg	
SL-031-SA5DS-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.865	5.36	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.129	5.36	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0387	5.36	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0385	5.36	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.250	5.36	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0170	5.36	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.174	5.36	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0673	5.36	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.101	5.36	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0297	5.36	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0427	5.36	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0469	5.36	PQL	ng/Kg	
	OCDD	JB	2.31	10.7	PQL	ng/Kg	
	OCDF	JB	0.179	10.7	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX155 **Laboratory:** LL

EDD Filename: DX155_v1. **eQAPP Name:** CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-031-SA5DS-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.450	5.57	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.113	5.57	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0445	5.57	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0458	5.57	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0401	5.57	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0913	5.57	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0350	5.57	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0672	5.57	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0350	5.57	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0519	5.57	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0548	5.57	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0422	5.57	PQL	ng/Kg	
	OCDD	JB	2.45	11.1	PQL	ng/Kg	
	OCDF	JB	0.229	11.1	PQL	ng/Kg	