

## Data Qualifier Summary

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>1625C</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-042-SA5DN-SS-0.0-0.5 Collected: 5/19/2011 10:10:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	411	J	308	MDL	616	PQL	ng/Kg	J	Z

Sample ID: SL-043-SA5DN-SS-0.0-0.5 Collected: 5/19/2011 9:30:00 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	57.4		19.0	MDL	38.1	PQL	ng/Kg	J	Q, FD

Sample ID: SL-045-SA5DN-SS-0.0-0.5 Collected: 5/19/2011 10:50:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	221	J	191	MDL	382	PQL	ng/Kg	J	Z

Sample ID: SL-047-SA5DN-SS-0.0-0.5 Collected: 5/19/2011 8:30:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	276	J	182	MDL	363	PQL	ng/Kg	J	Z

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8015M</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: DUP-04-SA5DN-QC-051911 Collected: 5/19/2011 9:40:00 Analysis Type: REA3 Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	6.5	J	4.7	MDL	14	PQL	mg/Kg	J	Z, FD

Sample ID: SL-030-SA5DN-SS-0.0-0.5 Collected: 5/19/2011 3:10:00 Analysis Type: REA3 Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	4.9	J	2.3	MDL	6.9	PQL	mg/Kg	J	Z

Sample ID: SL-032-SA5DN-SS-0.0-0.5 Collected: 5/19/2011 12:53:00 Analysis Type: REA3 Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	4.9	J	2.2	MDL	6.7	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8015M</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-033-SA5DN-SS-0.0-0.5      Collected: 5/19/2011 1:20:00      Analysis Type: REA3      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	6.2	J	4.7	MDL	14	PQL	mg/Kg	J	Z

Sample ID: SL-041-SA5DN-SS-0.0-0.5      Collected: 5/19/2011 10:28:00      Analysis Type: REA3      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	6.2	J	4.7	MDL	14	PQL	mg/Kg	J	Z

Sample ID: SL-042-SA5DN-SS-0.0-0.5      Collected: 5/19/2011 10:10:00      Analysis Type: REA3      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	6.9	J	3.7	MDL	11	PQL	mg/Kg	J	Z

Sample ID: SL-043-SA5DN-SS-0.0-0.5      Collected: 5/19/2011 9:30:00      Analysis Type: REA      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	5.8	U	5.8	MDL	12	PQL	mg/Kg	UJ	Q

Sample ID: SL-043-SA5DN-SS-0.0-0.5      Collected: 5/19/2011 9:30:00      Analysis Type: REA3      Dilution: 20

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	9.2	U	9.2	MDL	28	PQL	mg/Kg	UJ	FD

Sample ID: SL-045-SA5DN-SS-0.0-0.5      Collected: 5/19/2011 10:50:00      Analysis Type: REA3      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	7.5	J	4.6	MDL	14	PQL	mg/Kg	J	Z

Sample ID: SL-046-SA5DN-SS-0.0-0.5      Collected: 5/19/2011 9:15:00      Analysis Type: REA3      Dilution: 25

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	14	J	12	MDL	35	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8081A

Matrix: SO

Sample ID: DUP-04-SA5DN-QC-051911

Collected: 5/19/2011 9:40:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.22	U	0.22	MDL	0.99	PQL	ug/Kg	UJ	FD
4,4'-DDT	1.4		0.19	MDL	0.99	PQL	ug/Kg	J	L, S
Chlordane	2.5	J	2.3	MDL	9.9	PQL	ug/Kg	J	Z, S, FD

Sample ID: SL-030-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 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	1.6	J	0.92	MDL	3.9	PQL	ug/Kg	J	Z

Sample ID: SL-031-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 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
4,4'-DDD	0.077	U	0.077	MDL	0.39	PQL	ug/Kg	UJ	S
4,4'-DDE	0.15	J	0.077	MDL	0.39	PQL	ug/Kg	J	Z, S
4,4'-DDT	0.78		0.077	MDL	0.39	PQL	ug/Kg	J	L, S
ALDRIN	0.077	U	0.077	MDL	0.19	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.039	U	0.039	MDL	0.19	PQL	ug/Kg	UJ	S
BETA-BHC	0.070	U	0.070	MDL	0.19	PQL	ug/Kg	UJ	S
Chlordane	0.95	J	0.93	MDL	3.9	PQL	ug/Kg	J	Z, S
DELTA-BHC	0.042	U	0.042	MDL	0.19	PQL	ug/Kg	UJ	S
DIELDRIN	0.077	U	0.077	MDL	0.39	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.051	U	0.051	MDL	0.19	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.077	U	0.077	MDL	0.39	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.077	U	0.077	MDL	0.39	PQL	ug/Kg	UJ	S
ENDRIN	0.077	U	0.077	MDL	0.39	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.15	J	0.077	MDL	0.39	PQL	ug/Kg	J	Z, S
ENDRIN KETONE	0.077	U	0.077	MDL	0.39	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.039	U	0.039	MDL	0.19	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.070	U	0.070	MDL	0.19	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.039	U	0.039	MDL	0.19	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.39	U	0.39	MDL	1.9	PQL	ug/Kg	UJ	S
MIREX	0.12	J	0.077	MDL	0.39	PQL	ug/Kg	J	Z, S
TOXAPHENE	2.6	U	2.6	MDL	7.7	PQL	ug/Kg	UJ	S

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

Sample ID: SL-032-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 12:53:00

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	1.2		0.074	MDL	0.38	PQL	ug/Kg	J	L
Chlordane	1.5	J	0.89	MDL	3.8	PQL	ug/Kg	J	Z

Sample ID: SL-033-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 1:20:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	0.35	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z, L
MIREX	0.10	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z

Sample ID: SL-034-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 2:14:00

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 I	0.068	J	0.048	MDL	0.18	PQL	ug/Kg	J	Z

Sample ID: SL-035-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 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
4,4'-DDT	1.3		0.076	MDL	0.39	PQL	ug/Kg	J	L
Chlordane	1.3	J	0.92	MDL	3.9	PQL	ug/Kg	J	Z
DIELDRIN	0.18	J	0.076	MDL	0.39	PQL	ug/Kg	J	Z

Sample ID: SL-041-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 10:28:00

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	1.9		0.077	MDL	0.39	PQL	ug/Kg	J	L
Chlordane	2.7	J	0.93	MDL	3.9	PQL	ug/Kg	J	Z

Sample ID: SL-042-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 10:10:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	0.61	J	0.12	MDL	0.63	PQL	ug/Kg	J	Z, L
MIREX	0.28	J	0.12	MDL	0.63	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

Sample ID: SL-043-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 9:30:00

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	0.23	J	0.076	MDL	0.39	PQL	ug/Kg	J	Z, Q, Q, FD
4,4'-DDT	1.2		0.076	MDL	0.39	PQL	ug/Kg	J	Q, Q, L
Chlordane	4.6		0.92	MDL	3.9	PQL	ug/Kg	J	FD
DIELDRIN	0.076	U	0.076	MDL	0.39	PQL	ug/Kg	UJ	Q
ENDOSULFAN I	0.051	U	0.051	MDL	0.19	PQL	ug/Kg	R	Q
ENDOSULFAN II	0.076	U	0.076	MDL	0.39	PQL	ug/Kg	UJ	Q
ENDRIN KETONE	0.076	U	0.076	MDL	0.39	PQL	ug/Kg	R	Q
METHOXYCHLOR	0.39	U	0.39	MDL	1.9	PQL	ug/Kg	UJ	Q

Sample ID: SL-045-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 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
4,4'-DDE	0.31	J	0.076	MDL	0.39	PQL	ug/Kg	J	Z, S
4,4'-DDT	0.92		0.076	MDL	0.39	PQL	ug/Kg	J	L, S
Chlordane	1.0	J	0.92	MDL	3.9	PQL	ug/Kg	J	Z, S
ENDRIN KETONE	0.37	J	0.076	MDL	0.39	PQL	ug/Kg	J	Z, S
HEPTACHLOR EPOXIDE	0.083	J	0.039	MDL	0.19	PQL	ug/Kg	J	Z, S

Sample ID: SL-046-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 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'-DDT	1.8		0.076	MDL	0.39	PQL	ug/Kg	J	L
Chlordane	2.3	J	0.92	MDL	3.9	PQL	ug/Kg	J	Z
gamma-BHC (Lindane)	0.044	J	0.039	MDL	0.19	PQL	ug/Kg	J	Z

Sample ID: SL-047-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 8:30:00

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'-DDT	2.0		0.072	MDL	0.37	PQL	ug/Kg	J	L
Chlordane	2.8	J	0.87	MDL	3.7	PQL	ug/Kg	J	Z
DELTA-BHC	0.047	J	0.039	MDL	0.18	PQL	ug/Kg	J	Z
HEPTACHLOR	0.16	J	0.065	MDL	0.18	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

Sample ID: SL-048-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 8:50:00

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	2.1		0.073	MDL	0.38	PQL	ug/Kg	J	L
Chlordane	2.8	J	0.89	MDL	3.8	PQL	ug/Kg	J	Z
DELTA-BHC	0.044	J	0.040	MDL	0.18	PQL	ug/Kg	J	Z

Sample ID: SL-049-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 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
4,4'-DDD	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	R	S
4,4'-DDE	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	R	S
ALDRIN	0.073	U	0.073	MDL	0.18	PQL	ug/Kg	R	S
ALPHA-BHC	0.037	U	0.037	MDL	0.18	PQL	ug/Kg	R	S
BETA-BHC	0.066	U	0.066	MDL	0.18	PQL	ug/Kg	R	S
Chlordane	4.0		0.88	MDL	3.7	PQL	ug/Kg	J	S
DELTA-BHC	0.040	U	0.040	MDL	0.18	PQL	ug/Kg	R	S
DIELDRIN	1.1		0.073	MDL	0.37	PQL	ug/Kg	J	S
ENDOSULFAN I	0.048	U	0.048	MDL	0.18	PQL	ug/Kg	R	S
ENDOSULFAN II	1.3		0.073	MDL	0.37	PQL	ug/Kg	J	S
ENDRIN	0.16	U	0.16	MDL	0.37	PQL	ug/Kg	R	S
gamma-BHC (Lindane)	0.037	U	0.037	MDL	0.18	PQL	ug/Kg	R	S
HEPTACHLOR	0.066	U	0.066	MDL	0.18	PQL	ug/Kg	R	S
HEPTACHLOR EPOXIDE	0.068	U	0.068	MDL	0.18	PQL	ug/Kg	R	S

**Method Category:** SVOA

**Method:** 8082

**Matrix:** SO

Sample ID: DUP-04-SA5DN-QC-051911

Collected: 5/19/2011 9:40:00

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	1.1	J	0.45	MDL	2.0	PQL	ug/Kg	J	Z, FD
Aroclor 5460	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	FD

Sample ID: SL-031-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 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 1260	1.2	J	0.45	MDL	2.0	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8082

**Matrix:** SO

Sample ID: SL-032-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 12:53:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	3.5	J	2.2	MDL	7.4	PQL	ug/Kg	J	Z

Sample ID: SL-042-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 10:10:00

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 1260	1.9	J	0.72	MDL	3.1	PQL	ug/Kg	J	Z

Sample ID: SL-043-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 9:30:00

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 1260	2.5		0.45	MDL	1.9	PQL	ug/Kg	J	FD
Aroclor 5460	1.8	J	1.1	MDL	3.8	PQL	ug/Kg	J	Z, FD

Sample ID: SL-045-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 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
Aroclor 5460	2.0	J	1.2	MDL	3.8	PQL	ug/Kg	J	Z

Sample ID: SL-047-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 8:30:00

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 1260	0.45	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-048-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 8:50:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	4.9	J	2.2	MDL	7.3	PQL	ug/Kg	J	Z

**Method Category:** SVOA

**Method:** 8151A

**Matrix:** SO

Sample ID: DUP-04-SA5DN-QC-051911

Collected: 5/19/2011 9:40:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-TP (Silvex)	0.17	J	0.088	MDL	0.20	PQL	ug/Kg	J	Z, FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8151A

**Matrix:** SO

Sample ID: SL-030-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 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	0.92	U	0.92	MDL	2.8	PQL	ug/Kg	R	L

Sample ID: SL-031-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 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
DINOSEB	0.93	U	0.93	MDL	2.8	PQL	ug/Kg	R	L
MCPA	210	J	88	MDL	290	PQL	ug/Kg	J	Z

Sample ID: SL-032-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 12:53:00

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	0.10	J	0.091	MDL	0.19	PQL	ug/Kg	J	Z

Sample ID: SL-033-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 1:20:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.94	U	0.94	MDL	2.8	PQL	ug/Kg	R	L

Sample ID: SL-034-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 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
2,4,5-TP (Silvex)	0.091	J	0.082	MDL	0.19	PQL	ug/Kg	J	Z
MCPA	160	J	83	MDL	270	PQL	ug/Kg	J	Z

Sample ID: SL-035-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 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
2,4,5-TP (Silvex)	0.10	J	0.087	MDL	0.20	PQL	ug/Kg	J	Z
MCPA	160	J	88	MDL	290	PQL	ug/Kg	J	Z

Sample ID: SL-042-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 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
2,4,5-T	0.15	U	0.15	MDL	0.31	PQL	ug/Kg	UJ	H
2,4,5-TP (Silvex)	0.14	U	0.14	MDL	0.31	PQL	ug/Kg	UJ	H
2,4-D	2.2	U	2.2	MDL	6.6	PQL	ug/Kg	UJ	H

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8151A

**Matrix:** SO

**Sample ID:** SL-042-SA5DN-SS-0.0-0.5

**Collected:** 5/19/2011 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
2,4-DB	1.1	U	1.1	MDL	3.1	PQL	ug/Kg	UJ	H
DALAPON	8.1	U	8.1	MDL	17	PQL	ug/Kg	UJ	H
DICAMBA	0.74	U	0.74	MDL	2.2	PQL	ug/Kg	UJ	H
DICHLOROPROP	1.5	U	1.5	MDL	3.1	PQL	ug/Kg	UJ	H
DINOSEB	1.5	U	1.5	MDL	4.4	PQL	ug/Kg	UJ	H
MCPA	140	U	140	MDL	460	PQL	ug/Kg	UJ	H
MCP	140	U	140	MDL	460	PQL	ug/Kg	UJ	H

**Sample ID:** SL-043-SA5DN-SS-0.0-0.5

**Collected:** 5/19/2011 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
2,4,5-TP (Silvex)	0.086	U	0.086	MDL	0.19	PQL	ug/Kg	UJ	FD
DALAPON	5.0	U	5.0	MDL	10	PQL	ug/Kg	R	Q
DINOSEB	0.92	U	0.92	MDL	2.7	PQL	ug/Kg	R	L

**Sample ID:** SL-046-SA5DN-SS-0.0-0.5

**Collected:** 5/19/2011 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
MCP	170	J	87	MDL	290	PQL	ug/Kg	J	Z

**Sample ID:** SL-047-SA5DN-SS-0.0-0.5

**Collected:** 5/19/2011 8:30:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-TP (Silvex)	0.17	J	0.082	MDL	0.19	PQL	ug/Kg	J	Z, Q
DINOSEB	0.87	U	0.87	MDL	2.6	PQL	ug/Kg	R	L

**Sample ID:** SL-048-SA5DN-SS-0.0-0.5

**Collected:** 5/19/2011 8:50:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPA	110	J	84	MDL	280	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C

**Matrix:** SO

Sample ID: DUP-04-SA5DN-QC-051911

Collected: 5/19/2011 9:40:00

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	390	U	390	MDL	1200	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	22	J	19	MDL	390	PQL	ug/Kg	J	Z

Sample ID: SL-030-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 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
2,4-DINITROPHENOL	380	U	380	MDL	1100	PQL	ug/Kg	UJ	L

Sample ID: SL-031-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 2:40:00

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	390	U	390	MDL	1200	PQL	ug/Kg	UJ	L

Sample ID: SL-032-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 12:53:00

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	370	U	370	MDL	1100	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	28	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-033-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 1:20:00

Analysis Type: RES-ACID

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	390	U	390	MDL	1200	PQL	ug/Kg	UJ	L

Sample ID: SL-034-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 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
2,4-DINITROPHENOL	360	U	360	MDL	1100	PQL	ug/Kg	UJ	L

Sample ID: SL-035-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 1:50:00

Analysis Type: RES-ACID

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	380	U	380	MDL	1200	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	20	J	19	MDL	380	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C

**Matrix:** SO

Sample ID: SL-041-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 10:28:00

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	390	U	390	MDL	1200	PQL	ug/Kg	UJ	L
BENZO(B)FLUORANTHENE	20	J	19	MDL	190	PQL	ug/Kg	J	Z
CHRYSENE	24	J	19	MDL	190	PQL	ug/Kg	J	Z
FLUORANTHENE	21	J	19	MDL	190	PQL	ug/Kg	J	Z
PYRENE	26	J	19	MDL	190	PQL	ug/Kg	J	Z

Sample ID: SL-042-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 10:10:00

Analysis Type: RES-ACID

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	610	U	610	MDL	1800	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	130	J	31	MDL	610	PQL	ug/Kg	J	Z
CHRYSENE	33	J	31	MDL	310	PQL	ug/Kg	J	Z

Sample ID: SL-043-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 9:30:00

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	1200	PQL	ug/Kg	UJ	L
BENZIDINE	1300	U	1300	MDL	3800	PQL	ug/Kg	UJ	Q

Sample ID: SL-045-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 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
2,4-DINITROPHENOL	390	U	390	MDL	1200	PQL	ug/Kg	UJ	L
BENZO(G,H,I)PERYLENE	20	J	19	MDL	190	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	27	J	19	MDL	390	PQL	ug/Kg	J	Z
CHRYSENE	23	J	19	MDL	190	PQL	ug/Kg	J	Z
PYRENE	20	J	19	MDL	190	PQL	ug/Kg	J	Z

Sample ID: SL-046-SA5DN-SS-0.0-0.5

Collected: 5/19/2011 9:15:00

Analysis Type: RES-ACID

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	380	U	380	MDL	1100	PQL	ug/Kg	UJ	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8270C</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-047-SA5DN-SS-0.0-0.5			Collected: 5/19/2011 8:30:00		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	360	U	360	MDL	1100	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	23	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-048-SA5DN-SS-0.0-0.5			Collected: 5/19/2011 8:50:00		Analysis Type: RES-ACID			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	370	U	370	MDL	1100	PQL	ug/Kg	UJ	L

Sample ID: SL-049-SA5DN-SS-0.0-0.5			Collected: 5/19/2011 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
2,4-DINITROPHENOL	360	U	360	MDL	1100	PQL	ug/Kg	UJ	L
BENZO(A)ANTHRACENE	37	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	33	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	55	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	55	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	21	J	18	MDL	180	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	74	J	18	MDL	360	PQL	ug/Kg	J	Z
Butylbenzylphthalate	110	J	18	MDL	180	PQL	ug/Kg	J	Z
CHRYSENE	64	J	18	MDL	180	PQL	ug/Kg	J	Z
FLUORANTHENE	68	J	18	MDL	180	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	32	J	18	MDL	180	PQL	ug/Kg	J	Z
PHENANTHRENE	31	J	18	MDL	180	PQL	ug/Kg	J	Z
PYRENE	64	J	18	MDL	180	PQL	ug/Kg	J	Z

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8270C SIM</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: DUP-04-SA5DN-QC-051911			Collected: 5/19/2011 9:40:00		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	4.1	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z, FD
BENZO(A)PYRENE	4.8	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z, FD
BENZO(B)FLUORANTHENE	5.4	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z, FD
BENZO(G,H,I)PERYLENE	3.9	U	3.9	MDL	9.7	PQL	ug/Kg	UJ	FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8270C SIM</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: DUP-04-SA5DN-QC-051911      Collected: 5/19/2011 9:40:00      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(K)FLUORANTHENE	9.7		3.9	MDL	9.7	PQL	ug/Kg	J	FD
CHRYSENE	6.6	J	1.9	MDL	9.7	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	8.2	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z, FD
PYRENE	6.7	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z, FD

Sample ID: SL-030-SA5DN-SS-0.0-0.5      Collected: 5/19/2011 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
Butylbenzylphthalate	12	J	6.9	MDL	21	PQL	ug/Kg	J	Z
CHRYSENE	0.40	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-031-SA5DN-SS-0.0-0.5      Collected: 5/19/2011 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
Di-n-octylphthalate	8.8	J	7.0	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-032-SA5DN-SS-0.0-0.5      Collected: 5/19/2011 12:53:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.75	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.84	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
ANTHRACENE	0.58	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.6	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.3	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
Di-n-octylphthalate	8.5	J	6.6	MDL	20	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.2	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	1.4	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-033-SA5DN-SS-0.0-0.5      Collected: 5/19/2011 1:20:00      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(B)FLUORANTHENE	4.4	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	5.8	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z
Butylbenzylphthalate	36	J	35	MDL	100	PQL	ug/Kg	J	Z
CHRYSENE	5.0	J	1.9	MDL	9.7	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8270C SIM</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-033-SA5DN-SS-0.0-0.5      Collected: 5/19/2011 1:20:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORANTHENE	7.0	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z
PYRENE	4.1	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z

Sample ID: SL-034-SA5DN-SS-0.0-0.5      Collected: 5/19/2011 2:14:00      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	0.82	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.95	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.6	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	8.1	J	6.5	MDL	20	PQL	ug/Kg	J	Z
CHRYSENE	1.3	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
FLUORENE	0.85	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	1.2	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	1.5	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-035-SA5DN-SS-0.0-0.5      Collected: 5/19/2011 1:50:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(K)FLUORANTHENE	5.0	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z
CHRYSENE	3.5	J	1.9	MDL	9.5	PQL	ug/Kg	J	Z
FLUORANTHENE	5.0	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z

Sample ID: SL-041-SA5DN-SS-0.0-0.5      Collected: 5/19/2011 10:28:00      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)PYRENE	4.6	J	3.9	MDL	9.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	4.1	J	3.9	MDL	9.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	89	J	35	MDL	110	PQL	ug/Kg	J	Z
Di-n-octylphthalate	50	J	35	MDL	110	PQL	ug/Kg	J	Z

Sample ID: SL-042-SA5DN-SS-0.0-0.5      Collected: 5/19/2011 10:10:00      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	9.7	J	6.1	MDL	15	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	14	J	6.1	MDL	15	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8270C SIM</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-042-SA5DN-SS-0.0-0.5 Collected: 5/19/2011 10:10:00 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(G,H,I)PERYLENE	7.8	J	6.1	MDL	15	PQL	ug/Kg	J	Z
PYRENE	11	J	6.1	MDL	15	PQL	ug/Kg	J	Z

Sample ID: SL-043-SA5DN-SS-0.0-0.5 Collected: 5/19/2011 9:30:00 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	1.3	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z, FD
BENZO(A)PYRENE	1.9	J	0.77	MDL	1.9	PQL	ug/Kg	J	FD
BENZO(B)FLUORANTHENE	3.1		0.77	MDL	1.9	PQL	ug/Kg	J	FD
BENZO(G,H,I)PERYLENE	1.2	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z, FD
BENZO(K)FLUORANTHENE	1.1	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z, FD
BIS(2-ETHYLHEXYL)PHTHALATE	9.9	J	6.9	MDL	21	PQL	ug/Kg	J	Z
CHRYSENE	1.8	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z, FD
Di-n-butylphthalate	7.0	J	6.9	MDL	21	PQL	ug/Kg	J	Z
Di-n-octylphthalate	9.6	J	6.9	MDL	21	PQL	ug/Kg	J	Z
FLUORANTHENE	2.3		0.77	MDL	1.9	PQL	ug/Kg	J	FD
PYRENE	1.6	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z, FD

Sample ID: SL-045-SA5DN-SS-0.0-0.5 Collected: 5/19/2011 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
BENZO(A)PYRENE	5.2	J	3.9	MDL	9.6	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	7.5	J	3.9	MDL	9.6	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	7.3	J	3.9	MDL	9.6	PQL	ug/Kg	J	Z

Sample ID: SL-046-SA5DN-SS-0.0-0.5 Collected: 5/19/2011 9:15:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIBENZO(A,H)ANTHRACENE	38	J	19	MDL	48	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	35	J	19	MDL	48	PQL	ug/Kg	J	Z

Sample ID: SL-048-SA5DN-SS-0.0-0.5 Collected: 5/19/2011 8:50:00 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	7.7	J	6.6	MDL	20	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

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## Data Qualifier Summary

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8270C SIM</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-048-SA5DN-SS-0.0-0.5      Collected: 5/19/2011 8:50:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	0.43	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
Di-n-octylphthalate	8.7	J	6.6	MDL	20	PQL	ug/Kg	J	Z

<b>Method Category:</b>	<b>VOA</b>
<b>Method:</b>	<b>8015B</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-043-SA5DN-SS-0.0-0.5      Collected: 5/19/2011 9:30:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
m-Terphenyl	3.4	U	3.4	MDL	8.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-043-SA5DN-SS-0.0-0.5      Collected: 5/19/2011 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
ETHANOL	120	U	120	MDL	580	PQL	ug/Kg	R	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

### Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	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	Laboratory Triplicate Precision
E	Matrix Spike Precision

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_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	Laboratory Triplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

Q	Matrix Spike Upper Rejection
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

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE157

## QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 8151A

Preparation Method: Gen Prep

Matrix: SO

Sample ID	Type	Actual	Criteria	Units	Flag
SL-042-SA5DN-SS-0.0-0.5 (RES)	Sampling To Extraction	19.00	14.00	DAYS	J (all detects) UJ (all non-detects)

# Method Blank Outlier Report

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method: 6010B</b> <b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P14308CB222257	5/29/2011 10:57:00 PM	PHOSPHORUS TIN	1.45 mg/Kg 1.41 mg/Kg	DUP-04-SA5DN-QC-051911 SL-030-SA5DN-SS-0.0-0.5 SL-031-SA5DN-SS-0.0-0.5 SL-032-SA5DN-SS-0.0-0.5 SL-033-SA5DN-SS-0.0-0.5 SL-034-SA5DN-SS-0.0-0.5 SL-035-SA5DN-SS-0.0-0.5 SL-041-SA5DN-SS-0.0-0.5 SL-042-SA5DN-SS-0.0-0.5 SL-043-SA5DN-SS-0.0-0.5 SL-045-SA5DN-SS-0.0-0.5 SL-046-SA5DN-SS-0.0-0.5 SL-047-SA5DN-SS-0.0-0.5 SL-048-SA5DN-SS-0.0-0.5 SL-049-SA5DN-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
DUP-04-SA5DN-QC-051911(RES)	TIN	2.96 mg/Kg	2.96U mg/Kg
SL-030-SA5DN-SS-0.0-0.5(RES)	TIN	2.83 mg/Kg	2.83U mg/Kg
SL-031-SA5DN-SS-0.0-0.5(RES)	TIN	2.87 mg/Kg	2.87U mg/Kg
SL-032-SA5DN-SS-0.0-0.5(RES)	TIN	2.96 mg/Kg	2.96U mg/Kg
SL-033-SA5DN-SS-0.0-0.5(RES)	TIN	2.67 mg/Kg	2.67U mg/Kg
SL-034-SA5DN-SS-0.0-0.5(RES)	TIN	2.68 mg/Kg	2.68U mg/Kg
SL-035-SA5DN-SS-0.0-0.5(RES)	TIN	2.81 mg/Kg	2.81U mg/Kg
SL-041-SA5DN-SS-0.0-0.5(RES)	TIN	2.91 mg/Kg	2.91U mg/Kg
SL-042-SA5DN-SS-0.0-0.5(RES)	TIN	4.37 mg/Kg	4.37U mg/Kg
SL-043-SA5DN-SS-0.0-0.5(RES)	TIN	2.93 mg/Kg	2.93U mg/Kg
SL-045-SA5DN-SS-0.0-0.5(RES)	TIN	2.61 mg/Kg	2.61U mg/Kg
SL-046-SA5DN-SS-0.0-0.5(RES)	TIN	2.65 mg/Kg	2.65U mg/Kg
SL-047-SA5DN-SS-0.0-0.5(RES)	TIN	2.53 mg/Kg	2.53U mg/Kg
SL-048-SA5DN-SS-0.0-0.5(RES)	TIN	2.65 mg/Kg	2.65U mg/Kg
SL-049-SA5DN-SS-0.0-0.5(RES)	TIN	2.69 mg/Kg	2.69U mg/Kg

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## Method Blank Outlier Report

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method: 6020</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P14326BB221236A	5/24/2011 12:36:00 PM	COPPER	0.110 mg/Kg	DUP-04-SA5DN-QC-051911 SL-030-SA5DN-SS-0.0-0.5 SL-031-SA5DN-SS-0.0-0.5 SL-032-SA5DN-SS-0.0-0.5 SL-033-SA5DN-SS-0.0-0.5 SL-034-SA5DN-SS-0.0-0.5 SL-035-SA5DN-SS-0.0-0.5 SL-041-SA5DN-SS-0.0-0.5 SL-042-SA5DN-SS-0.0-0.5 SL-043-SA5DN-SS-0.0-0.5 SL-045-SA5DN-SS-0.0-0.5 SL-046-SA5DN-SS-0.0-0.5 SL-047-SA5DN-SS-0.0-0.5 SL-048-SA5DN-SS-0.0-0.5 SL-049-SA5DN-SS-0.0-0.5

<b>Method: 8151A</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P43432AB240243A	5/25/2011 2:43:00 AM	2,4-DB	0.88 ug/Kg	SL-030-SA5DN-SS-0.0-0.5 SL-031-SA5DN-SS-0.0-0.5 SL-033-SA5DN-SS-0.0-0.5 SL-043-SA5DN-SS-0.0-0.5

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 8015B

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-043-SA5DN-SS-0.0-0.5MSD (SL-043-SA5DN-SS-0.0-0.5)	Isopropanol	-	-	12.00-149.00	75 (20.00)	Isopropanol	J (all detects)
SL-043-SA5DN-SS-0.0-0.5MS SL-043-SA5DN-SS-0.0-0.5MSD (SL-043-SA5DN-SS-0.0-0.5)	ETHANOL	0	0	48.00-130.00	-	ETHANOL	J(all detects) R(all non-detects)

Method: 8151A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-043-SA5DN-SS-0.0-0.5MSD (SL-043-SA5DN-SS-0.0-0.5)	2,4,5-TP (Silvex)	-	-	24.00-141.00	56 (35.00)	2,4,5-TP (Silvex)	J(all detects)
SL-043-SA5DN-SS-0.0-0.5MS SL-043-SA5DN-SS-0.0-0.5MSD (SL-043-SA5DN-SS-0.0-0.5)	DALAPON	0	-	10.00-125.00	200 (50.00)	DALAPON	J(all detects) R(all non-detects)

Method: 8015M

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-043-SA5DN-SS-0.0-0.5MSD (SL-043-SA5DN-SS-0.0-0.5)	DIETHYLENE GLYCOL	-	57	59.00-109.00	-	DIETHYLENE GLYCOL	J(all detects) UJ(all non-detects)

Method: 8151A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-047-SA5DN-SS-0.0-0.5MS SL-047-SA5DN-SS-0.0-0.5MSD (SL-047-SA5DN-SS-0.0-0.5)	2,4,5-TP (Silvex)	19	18	24.00-141.00	-	2,4,5-TP (Silvex)	J(all detects) UJ(all non-detects)

Method: 8015M

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-043-SA5DN-SS-0.0-0.5MS SL-043-SA5DN-SS-0.0-0.5MSD (SL-043-SA5DN-SS-0.0-0.5)	EFH (C15-C20)	414	589	49.00-123.00	35 (20.00)	EFH (C15-C20)	No Qual, Diluted Out
SL-043-SA5DN-SS-0.0-0.5MS SL-043-SA5DN-SS-0.0-0.5MSD (SL-043-SA5DN-SS-0.0-0.5)	EFH (C12-C14) EFH (C21-C30) EFH (C30-C40) EFH (C8-C11)	0 -858 -5778 0	0 - -4175 0	49.00-123.00 49.00-123.00 49.00-123.00 49.00-123.00	- 41 (20.00) 21 (20.00) -	EFH (C12-C14) EFH (C21-C30) EFH (C30-C40) EFH (C8-C11)	No Qual, Diluted Out

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 8015B**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-043-SA5DN-SS-0.0-0.5MS SL-043-SA5DN-SS-0.0-0.5MSD (SL-043-SA5DN-SS-0.0-0.5)	m-Terphenyl	70	69	75.00-125.00	-	m-Terphenyl	J(all detects) UJ(all non-detects)

**Method: 8330A**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-043-SA5DN-SS-0.0-0.5MS SL-043-SA5DN-SS-0.0-0.5MSD (SL-043-SA5DN-SS-0.0-0.5)	NITROBENZENE PETN	127 126	- 123	80.00-125.00 80.00-121.00	- -	NITROBENZENE PETN	J(all detects)

**Method: 8081A**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-043-SA5DN-SS-0.0-0.5MS SL-043-SA5DN-SS-0.0-0.5MSD (SL-043-SA5DN-SS-0.0-0.5)	4,4'-DDD ALDRIN ALPHA-BHC BETA-BHC ENDOSULFAN SULFATE ENDRIN ENDRIN ALDEHYDE HEPTACHLOR HEPTACHLOR EPOXIDE	- - - - - 245 - -	- - - - - - - -	16.00-163.00 16.00-126.00 10.00-129.00 14.00-147.00 21.00-160.00 11.00-149.00 10.00-148.00 13.00-126.00 13.00-157.00	82 (50.00) 67 (50.00) 67 (50.00) 69 (50.00) 52 (50.00) 81 (50.00) 62 (35.00) 70 (50.00) 95 (50.00)	4,4'-DDD ALDRIN ALPHA-BHC BETA-BHC ENDOSULFAN SULFATE ENDRIN ENDRIN ALDEHYDE HEPTACHLOR HEPTACHLOR EPOXIDE	J(all detects)
SL-043-SA5DN-SS-0.0-0.5MS SL-043-SA5DN-SS-0.0-0.5MSD (SL-043-SA5DN-SS-0.0-0.5)	4,4'-DDE 4,4'-DDT ENDOSULFAN I ENDRIN KETONE	- - 0 0	-2 -12 0 0	18.00-161.00 10.00-176.00 16.00-137.00 22.00-165.00	84 (50.00) 72 (50.00) - -	4,4'-DDE 4,4'-DDT ENDOSULFAN I ENDRIN KETONE	J(all detects) R(all non-detects)
SL-043-SA5DN-SS-0.0-0.5MSD (SL-043-SA5DN-SS-0.0-0.5)	DIELDRIN ENDOSULFAN II METHOXYCHLOR	- - -	14 18 21	19.00-154.00 28.00-154.00 32.00-147.00	89 (50.00) 63 (50.00) 91 (50.00)	DIELDRIN ENDOSULFAN II METHOXYCHLOR	J(all detects) UJ(all non-detects)



# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_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-043-SA5DN-SS-0.0-0.5MS SL-043-SA5DN-SS-0.0-0.5MSD (DUP-04-SA5DN-QC-051911 SL-030-SA5DN-SS-0.0-0.5 SL-031-SA5DN-SS-0.0-0.5 SL-032-SA5DN-SS-0.0-0.5 SL-033-SA5DN-SS-0.0-0.5 SL-034-SA5DN-SS-0.0-0.5 SL-035-SA5DN-SS-0.0-0.5 SL-041-SA5DN-SS-0.0-0.5 SL-042-SA5DN-SS-0.0-0.5 SL-043-SA5DN-SS-0.0-0.5 SL-045-SA5DN-SS-0.0-0.5 SL-046-SA5DN-SS-0.0-0.5 SL-047-SA5DN-SS-0.0-0.5 SL-048-SA5DN-SS-0.0-0.5 SL-049-SA5DN-SS-0.0-0.5)	CADMIUM COBALT COPPER LEAD NICKEL SILVER VANADIUM	136 143 129 127 131 143 142	132 141 - - - 141 151	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	- - - - - - -	CADMIUM COBALT COPPER LEAD NICKEL SILVER VANADIUM	J(all detects) Pb, V No Qual, >4x
SL-043-SA5DN-SS-0.0-0.5MS SL-043-SA5DN-SS-0.0-0.5MSD (DUP-04-SA5DN-QC-051911 SL-030-SA5DN-SS-0.0-0.5 SL-031-SA5DN-SS-0.0-0.5 SL-032-SA5DN-SS-0.0-0.5 SL-033-SA5DN-SS-0.0-0.5 SL-034-SA5DN-SS-0.0-0.5 SL-035-SA5DN-SS-0.0-0.5 SL-041-SA5DN-SS-0.0-0.5 SL-042-SA5DN-SS-0.0-0.5 SL-043-SA5DN-SS-0.0-0.5 SL-045-SA5DN-SS-0.0-0.5 SL-046-SA5DN-SS-0.0-0.5 SL-047-SA5DN-SS-0.0-0.5 SL-048-SA5DN-SS-0.0-0.5 SL-049-SA5DN-SS-0.0-0.5)	ZINC	149	9	75.00-125.00	-	ZINC	No Qual, >4x
SL-043-SA5DN-SS-0.0-0.5MS SL-043-SA5DN-SS-0.0-0.5MSD (DUP-04-SA5DN-QC-051911 SL-030-SA5DN-SS-0.0-0.5 SL-031-SA5DN-SS-0.0-0.5 SL-032-SA5DN-SS-0.0-0.5 SL-033-SA5DN-SS-0.0-0.5 SL-034-SA5DN-SS-0.0-0.5 SL-035-SA5DN-SS-0.0-0.5 SL-041-SA5DN-SS-0.0-0.5 SL-042-SA5DN-SS-0.0-0.5 SL-043-SA5DN-SS-0.0-0.5 SL-045-SA5DN-SS-0.0-0.5 SL-046-SA5DN-SS-0.0-0.5 SL-047-SA5DN-SS-0.0-0.5 SL-048-SA5DN-SS-0.0-0.5 SL-049-SA5DN-SS-0.0-0.5)	ANTIMONY ARSENIC	64 68	60 -	75.00-125.00 75.00-125.00	- -	ANTIMONY ARSENIC	J(all detects) UJ(all non-detects) As No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_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-043-SA5DN-SS-0.0-0.5MS SL-043-SA5DN-SS-0.0-0.5MSD (DUP-04-SA5DN-QC-051911 SL-030-SA5DN-SS-0.0-0.5 SL-031-SA5DN-SS-0.0-0.5 SL-032-SA5DN-SS-0.0-0.5 SL-033-SA5DN-SS-0.0-0.5 SL-034-SA5DN-SS-0.0-0.5 SL-035-SA5DN-SS-0.0-0.5 SL-041-SA5DN-SS-0.0-0.5 SL-042-SA5DN-SS-0.0-0.5 SL-043-SA5DN-SS-0.0-0.5 SL-045-SA5DN-SS-0.0-0.5 SL-046-SA5DN-SS-0.0-0.5 SL-047-SA5DN-SS-0.0-0.5 SL-048-SA5DN-SS-0.0-0.5 SL-049-SA5DN-SS-0.0-0.5)	SELENIUM	126	128	75.00-125.00	-	SELENIUM	J(all detects)
SL-043-SA5DN-SS-0.0-0.5MS SL-043-SA5DN-SS-0.0-0.5MSD (DUP-04-SA5DN-QC-051911 SL-030-SA5DN-SS-0.0-0.5 SL-031-SA5DN-SS-0.0-0.5 SL-032-SA5DN-SS-0.0-0.5 SL-033-SA5DN-SS-0.0-0.5 SL-034-SA5DN-SS-0.0-0.5 SL-035-SA5DN-SS-0.0-0.5 SL-041-SA5DN-SS-0.0-0.5 SL-042-SA5DN-SS-0.0-0.5 SL-043-SA5DN-SS-0.0-0.5 SL-045-SA5DN-SS-0.0-0.5 SL-046-SA5DN-SS-0.0-0.5 SL-047-SA5DN-SS-0.0-0.5 SL-048-SA5DN-SS-0.0-0.5 SL-049-SA5DN-SS-0.0-0.5)	MOLYBDENUM	144	141	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-043-SA5DN-SS-0.0-0.5MS SL-043-SA5DN-SS-0.0-0.5MSD (DUP-04-SA5DN-QC-051911 SL-030-SA5DN-SS-0.0-0.5 SL-031-SA5DN-SS-0.0-0.5 SL-032-SA5DN-SS-0.0-0.5 SL-033-SA5DN-SS-0.0-0.5 SL-034-SA5DN-SS-0.0-0.5 SL-035-SA5DN-SS-0.0-0.5 SL-041-SA5DN-SS-0.0-0.5 SL-042-SA5DN-SS-0.0-0.5 SL-043-SA5DN-SS-0.0-0.5 SL-045-SA5DN-SS-0.0-0.5 SL-046-SA5DN-SS-0.0-0.5 SL-047-SA5DN-SS-0.0-0.5 SL-048-SA5DN-SS-0.0-0.5 SL-049-SA5DN-SS-0.0-0.5)	BARIUM	147	170	75.00-125.00	-	BARIUM	No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_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-043-SA5DN-SS-0.0-0.5MS SL-043-SA5DN-SS-0.0-0.5MSD (DUP-04-SA5DN-QC-051911 SL-030-SA5DN-SS-0.0-0.5 SL-031-SA5DN-SS-0.0-0.5 SL-032-SA5DN-SS-0.0-0.5 SL-033-SA5DN-SS-0.0-0.5 SL-034-SA5DN-SS-0.0-0.5 SL-035-SA5DN-SS-0.0-0.5 SL-041-SA5DN-SS-0.0-0.5 SL-042-SA5DN-SS-0.0-0.5 SL-043-SA5DN-SS-0.0-0.5 SL-045-SA5DN-SS-0.0-0.5 SL-046-SA5DN-SS-0.0-0.5 SL-047-SA5DN-SS-0.0-0.5 SL-048-SA5DN-SS-0.0-0.5 SL-049-SA5DN-SS-0.0-0.5)	ALUMINUM CALCIUM MAGNESIUM MANGANESE PHOSPHORUS POTASSIUM TITANIUM	1640 196 - - 161 130 309	3590 681 321 137 140 180 395	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	- - - - - - -	ALUMINUM CALCIUM MAGNESIUM MANGANESE PHOSPHORUS POTASSIUM TITANIUM	J(all detects) Al, Ca, Mg, Mn, Ti No Qual >4x
SL-043-SA5DN-SS-0.0-0.5MS SL-043-SA5DN-SS-0.0-0.5MSD (DUP-04-SA5DN-QC-051911 SL-030-SA5DN-SS-0.0-0.5 SL-031-SA5DN-SS-0.0-0.5 SL-032-SA5DN-SS-0.0-0.5 SL-033-SA5DN-SS-0.0-0.5 SL-034-SA5DN-SS-0.0-0.5 SL-035-SA5DN-SS-0.0-0.5 SL-041-SA5DN-SS-0.0-0.5 SL-042-SA5DN-SS-0.0-0.5 SL-043-SA5DN-SS-0.0-0.5 SL-045-SA5DN-SS-0.0-0.5 SL-046-SA5DN-SS-0.0-0.5 SL-047-SA5DN-SS-0.0-0.5 SL-048-SA5DN-SS-0.0-0.5 SL-049-SA5DN-SS-0.0-0.5)	IRON	-1268	1640	75.00-125.00	-	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-043-SA5DN-SS-0.0-0.5MS SL-043-SA5DN-SS-0.0-0.5MSD (SL-043-SA5DN-SS-0.0-0.5)	BENZIDINE	25	29	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-043-SA5DN-SS-0.0-0.5MSD (SL-043-SA5DN-SS-0.0-0.5)	Butylbenzylphthalate	-	947	57.00-173.00	160 (30.00)	Butylbenzylphthalate	J(all detects)

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_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-043-SA5DN-SS-0.0-0.5MS SL-043-SA5DN-SS-0.0-0.5MSD (SL-043-SA5DN-SS-0.0-0.5)	N-NITROSODIMETHYLAMINE	41	45	70.00-130.00	-	N-NITROSODIMETHYLAMINE	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-043-SA5DN-SS-0.0-0.5MS (SL-030-SA5DN-SS-0.0-0.5 SL-031-SA5DN-SS-0.0-0.5 SL-032-SA5DN-SS-0.0-0.5 SL-033-SA5DN-SS-0.0-0.5 SL-034-SA5DN-SS-0.0-0.5 SL-035-SA5DN-SS-0.0-0.5 SL-041-SA5DN-SS-0.0-0.5 SL-043-SA5DN-SS-0.0-0.5)	FLUORIDE	74	-	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-043-SA5DN-SS-0.0-0.5MS SL-043-SA5DN-SS-0.0-0.5MSD (DUP-04-SA5DN-QC-051911 SL-030-SA5DN-SS-0.0-0.5 SL-031-SA5DN-SS-0.0-0.5 SL-032-SA5DN-SS-0.0-0.5 SL-033-SA5DN-SS-0.0-0.5 SL-034-SA5DN-SS-0.0-0.5 SL-035-SA5DN-SS-0.0-0.5 SL-041-SA5DN-SS-0.0-0.5 SL-042-SA5DN-SS-0.0-0.5 SL-043-SA5DN-SS-0.0-0.5 SL-045-SA5DN-SS-0.0-0.5 SL-046-SA5DN-SS-0.0-0.5 SL-047-SA5DN-SS-0.0-0.5 SL-048-SA5DN-SS-0.0-0.5 SL-049-SA5DN-SS-0.0-0.5)	THALLIUM	139	152	75.00-125.00	-	THALLIUM	J(all detects)

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 300.0

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-042-SA5DN-SS-0.0-0.5DUP (DUP-04-SA5DN-QC-051911 SL -042-SA5DN-SS-0.0-0.5 SL -045-SA5DN-SS-0.0-0.5 SL -046-SA5DN-SS-0.0-0.5 SL -047-SA5DN-SS-0.0-0.5)	FLUORIDE Nitrate-NO3	22 200	20.00 20.00	No Qual, OK by difference
SL-043-SA5DN-SS-0.0-0.5DUP (SL-030-SA5DN-SS-0.0-0.5 SL -031-SA5DN-SS-0.0-0.5 SL -032-SA5DN-SS-0.0-0.5 SL -033-SA5DN-SS-0.0-0.5 SL -034-SA5DN-SS-0.0-0.5 SL -035-SA5DN-SS-0.0-0.5 SL -041-SA5DN-SS-0.0-0.5 SL -043-SA5DN-SS-0.0-0.5)	FLUORIDE	200	20.00	No Qual, OK by difference

Method: 6010B

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-043-SA5DN-SS-0.0-0.5DUP (DUP-04-SA5DN-QC-051911 SL -030-SA5DN-SS-0.0-0.5 SL -031-SA5DN-SS-0.0-0.5 SL -032-SA5DN-SS-0.0-0.5 SL -033-SA5DN-SS-0.0-0.5 SL -034-SA5DN-SS-0.0-0.5 SL -035-SA5DN-SS-0.0-0.5 SL -041-SA5DN-SS-0.0-0.5 SL -042-SA5DN-SS-0.0-0.5 SL -043-SA5DN-SS-0.0-0.5 SL -045-SA5DN-SS-0.0-0.5 SL -046-SA5DN-SS-0.0-0.5 SL -047-SA5DN-SS-0.0-0.5 SL -048-SA5DN-SS-0.0-0.5 SL -049-SA5DN-SS-0.0-0.5)	CALCIUM	34	20.00	J(all detects) UJ(all non-detects)

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 6020

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-043-SA5DN-SS-0.0-0.5DUP (DUP-04-SA5DN-QC-051911)	ANTIMONY	27	20.00	J(all detects) UJ(all non-detects) Sb, Cd, Se, Ag No Qual, OK by difference
SL-030-SA5DN-SS-0.0-0.5	ARSENIC	31	20.00	
SL-031-SA5DN-SS-0.0-0.5	BARIUM	23	20.00	
SL-032-SA5DN-SS-0.0-0.5	CADMIUM	26	20.00	
SL-033-SA5DN-SS-0.0-0.5	CHROMIUM	25	20.00	
SL-034-SA5DN-SS-0.0-0.5	COBALT	26	20.00	
SL-035-SA5DN-SS-0.0-0.5	COPPER	35	20.00	
SL-041-SA5DN-SS-0.0-0.5	MOLYBDENUM	0.3493	0.228	
SL-042-SA5DN-SS-0.0-0.5	NICKEL	31	20.00	
SL-043-SA5DN-SS-0.0-0.5	SELENIUM	39	20.00	
SL-045-SA5DN-SS-0.0-0.5	SILVER	53	20.00	
SL-046-SA5DN-SS-0.0-0.5	VANADIUM	22	20.00	
SL-047-SA5DN-SS-0.0-0.5	ZINC	22	20.00	
SL-048-SA5DN-SS-0.0-0.5				
SL-049-SA5DN-SS-0.0-0.5				

Method: 7199

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-043-SA5DN-SS-0.0-0.5DUP (DUP-04-SA5DN-QC-051911)	HEXAVALENT CHROMIUM	200	20.00	No Qual, OK by difference
SL-030-SA5DN-SS-0.0-0.5				
SL-031-SA5DN-SS-0.0-0.5				
SL-032-SA5DN-SS-0.0-0.5				
SL-033-SA5DN-SS-0.0-0.5				
SL-034-SA5DN-SS-0.0-0.5				
SL-035-SA5DN-SS-0.0-0.5				
SL-041-SA5DN-SS-0.0-0.5				
SL-042-SA5DN-SS-0.0-0.5				
SL-043-SA5DN-SS-0.0-0.5				
SL-045-SA5DN-SS-0.0-0.5				
SL-046-SA5DN-SS-0.0-0.5				
SL-047-SA5DN-SS-0.0-0.5				
SL-048-SA5DN-SS-0.0-0.5				
SL-049-SA5DN-SS-0.0-0.5				

## Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 7471A

**Matrix:** SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-043-SA5DN-SS-0.0-0.5DUP (DUP-04-SA5DN-QC-051911 SL-030-SA5DN-SS-0.0-0.5 SL-031-SA5DN-SS-0.0-0.5 SL-032-SA5DN-SS-0.0-0.5 SL-033-SA5DN-SS-0.0-0.5 SL-034-SA5DN-SS-0.0-0.5 SL-035-SA5DN-SS-0.0-0.5 SL-041-SA5DN-SS-0.0-0.5 SL-042-SA5DN-SS-0.0-0.5 SL-043-SA5DN-SS-0.0-0.5 SL-045-SA5DN-SS-0.0-0.5 SL-046-SA5DN-SS-0.0-0.5 SL-047-SA5DN-SS-0.0-0.5 SL-048-SA5DN-SS-0.0-0.5 SL-049-SA5DN-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: DE157

Laboratory: LL

EDD Filename: DE157\_v1

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
P11432AQ240311A (SL-030-SA5DN-SS-0.0-0.5 SL-031-SA5DN-SS-0.0-0.5 SL-033-SA5DN-SS-0.0-0.5 SL-043-SA5DN-SS-0.0-0.5)	DINOSEB	9	-	10.00-36.00	-	DINOSEB	J (all detects) R (all non-detects)
P11441AQ241849A (SL-047-SA5DN-SS-0.0-0.5)	DINOSEB	9	-	10.00-36.00	-	DINOSEB	J(all detects) R(all non-detects)

**Method: 8330A**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11455AQ241820A (DUP-04-SA5DN-QC-051911 SL-030-SA5DN-SS-0.0-0.5 SL-031-SA5DN-SS-0.0-0.5 SL-032-SA5DN-SS-0.0-0.5 SL-033-SA5DN-SS-0.0-0.5 SL-034-SA5DN-SS-0.0-0.5 SL-035-SA5DN-SS-0.0-0.5 SL-041-SA5DN-SS-0.0-0.5 SL-042-SA5DN-SS-0.0-0.5 SL-043-SA5DN-SS-0.0-0.5 SL-045-SA5DN-SS-0.0-0.5 SL-046-SA5DN-SS-0.0-0.5 SL-047-SA5DN-SS-0.0-0.5)	NITROBENZENE PETN	132 121	- -	80.00-120.00 80.00-120.00	- -	NITROBENZENE PETN	J(all detects)

**Method: 8081A**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11453AQ240355A (DUP-04-SA5DN-QC-051911 SL-030-SA5DN-SS-0.0-0.5 SL-031-SA5DN-SS-0.0-0.5 SL-032-SA5DN-SS-0.0-0.5 SL-033-SA5DN-SS-0.0-0.5 SL-034-SA5DN-SS-0.0-0.5 SL-035-SA5DN-SS-0.0-0.5 SL-041-SA5DN-SS-0.0-0.5 SL-042-SA5DN-SS-0.0-0.5 SL-043-SA5DN-SS-0.0-0.5 SL-045-SA5DN-SS-0.0-0.5 SL-046-SA5DN-SS-0.0-0.5 SL-047-SA5DN-SS-0.0-0.5 SL-048-SA5DN-SS-0.0-0.5 SL-049-SA5DN-SS-0.0-0.5)	4,4'-DDT METHOXYCHLOR	134 137	- -	54.00-130.00 59.00-125.00	- -	4,4'-DDT METHOXYCHLOR	J(all detects)



# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

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
P3LBLECSQ262054 (DUP-04-SA5DN-QC-051911 SL-030-SA5DN-SS-0.0-0.5 SL-031-SA5DN-SS-0.0-0.5 SL-032-SA5DN-SS-0.0-0.5 SL-033-SA5DN-SS-0.0-0.5 SL-034-SA5DN-SS-0.0-0.5 SL-035-SA5DN-SS-0.0-0.5 SL-041-SA5DN-SS-0.0-0.5 SL-042-SA5DN-SS-0.0-0.5 SL-043-SA5DN-SS-0.0-0.5 SL-045-SA5DN-SS-0.0-0.5 SL-046-SA5DN-SS-0.0-0.5 SL-047-SA5DN-SS-0.0-0.5 SL-048-SA5DN-SS-0.0-0.5 SL-049-SA5DN-SS-0.0-0.5)	2,4-DINITROPHENOL	31	-	37.00-120.00	-	2,4-DINITROPHENOL	J(all detects) UJ(all non-detects)

# Surrogate Outlier Report

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 8015B

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-046-SA5DN-SS-0.0-0.5	n-Triacontane-d62	218	50.00-150.00	All Target Analytes	No Qual, diluted out

Method: 8081A

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
DUP-04-SA5DN-QC-051911	DECACHLOROBIPHENYL	190	20.00-120.00	All Target Analytes	J (all detects)
	TETRACHLORO-M-XYLENE	156	50.00-130.00		
SL-031-SA5DN-SS-0.0-0.5	TETRACHLORO-M-XYLENE	38	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-045-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	125	20.00-120.00	All Target Analytes	J(all detects)
SL-049-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	0	20.00-120.00	All Target Analytes	J(all detects) R(all non-detects)

## Field Duplicate RPD Report

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 160.3M

**Matrix:** SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-043-SA5DN-SS-0.0-0.5	DUP-04-SA5DN-QC-051911			
MOISTURE	13.3	14.3	7		No Qualifiers Applied

**Method:** 1625C

**Matrix:** SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-043-SA5DN-SS-0.0-0.5	DUP-04-SA5DN-QC-051911			
N-NITROSODIMETHYLAMINE	57.4	242	123	50.00	J(all detects)

**Method:** 300.0

**Matrix:** SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-043-SA5DN-SS-0.0-0.5	DUP-04-SA5DN-QC-051911			
Nitrate-NO3	2.5	3.6	36	50.00	No Qualifiers Applied
FLUORIDE	1.2 U	2.3	200	50.00	J(all detects) UJ(all non-detects)

**Method:** 6010B

**Matrix:** SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-043-SA5DN-SS-0.0-0.5	DUP-04-SA5DN-QC-051911			
ALUMINUM	30200	30100	0	50.00	No Qualifiers Applied
BORON	13.6	12.6	8	50.00	
CALCIUM	11000	13300	19	50.00	
IRON	31900	32400	2	50.00	
LITHIUM	26.0	25.8	1	50.00	
MAGNESIUM	6850	6770	1	50.00	
MANGANESE	358	386	8	50.00	
PHOSPHORUS	380	428	12	50.00	
POTASSIUM	4060	4500	10	50.00	
SODIUM	137	132	4	50.00	
STRONTIUM	40.1	40.3	0	50.00	
TIN	2.93	2.96	1	50.00	
TITANIUM	1220	1280	5	50.00	
Zirconium	4.23	3.58	17	50.00	

## Field Duplicate RPD Report

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 6020

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-043-SA5DN-SS-0.0-0.5	DUP-04-SA5DN-QC-051911			
ANTIMONY	0.442	0.310	35	50.00	No Qualifiers Applied
ARSENIC	10.5	9.29	12	50.00	
BARIUM	126	196	43	50.00	
BERYLLIUM	1.22	1.25	2	50.00	
CADMIUM	0.465	0.497	7	50.00	
CHROMIUM	44.0	43.4	1	50.00	
COBALT	16.4	14.4	13	50.00	
COPPER	27.9	24.8	12	50.00	
LEAD	17.2	16.5	4	50.00	
MOLYBDENUM	0.845	0.829	2	50.00	
NICKEL	34.4	30.4	12	50.00	
SELENIUM	0.225	0.145	43	50.00	
THALLIUM	0.439	0.517	16	50.00	
VANADIUM	81.2	82.3	1	50.00	
ZINC	131	124	5	50.00	
SILVER	0.0937	0.480	135	50.00	J(all detects)

Method: 7199

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-043-SA5DN-SS-0.0-0.5	DUP-04-SA5DN-QC-051911			
HEXAVALENT CHROMIUM	0.76	1.2 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 7471A

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-043-SA5DN-SS-0.0-0.5	DUP-04-SA5DN-QC-051911			
MERCURY	0.0092	0.0197	73	50.00	J(all detects)

Method: 8015M

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-043-SA5DN-SS-0.0-0.5	DUP-04-SA5DN-QC-051911			
EFH (C21-C30)	67	54	21	50.00	No Qualifiers Applied
EFH (C30-C40)	370	230	47	50.00	
EFH (C15-C20)	28 U	6.5	200	50.00	J(all detects) UJ(all non-detects)

Method: 8081A

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-043-SA5DN-SS-0.0-0.5	DUP-04-SA5DN-QC-051911			
4,4'-DDT	1.2	1.4	15	50.00	No Qualifiers Applied

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Field Duplicate RPD Report

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8081A

**Matrix:** SO

4,4'-DDE	0.23	0.99 U	200	50.00	J(all detects)
Chlordane	4.6	2.5	59	50.00	UJ(all non-detects)

**Method:** 8082

**Matrix:** SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-043-SA5DN-SS-0.0-0.5	DUP-04-SA5DN-QC-051911			
AROCLOR 1260	2.5	1.1	78	50.00	J(all detects)
Aroclor 5460	1.8	3.8 U	200	50.00	UJ(all non-detects)

**Method:** 8151A

**Matrix:** SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-043-SA5DN-SS-0.0-0.5	DUP-04-SA5DN-QC-051911			
2,4,5-TP (Silvex)	0.19 U	0.17	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-043-SA5DN-SS-0.0-0.5	DUP-04-SA5DN-QC-051911			
BENZO(A)ANTHRACENE	1.3	4.1	104	50.00	J(all detects) UJ(all non-detects)
BENZO(A)PYRENE	1.9	4.8	87	50.00	
BENZO(B)FLUORANTHENE	3.1	5.4	54	50.00	
BENZO(G,H,I)PERYLENE	1.2	9.7 U	200	50.00	
BENZO(K)FLUORANTHENE	1.1	9.7	159	50.00	
CHRYSENE	1.8	6.6	114	50.00	
FLUORANTHENE	2.3	8.2	112	50.00	
PYRENE	1.6	6.7	123	50.00	

**Method:** 9045M

**Matrix:** SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-043-SA5DN-SS-0.0-0.5	DUP-04-SA5DN-QC-051911			
PH	7.95	8.03	1	50.00	No Qualifiers Applied

## Reporting Limit Outliers

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 1625C

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-04-SA5DN-QC-051911	N-NITROSODIMETHYLAMINE	J	242	384	PQL	ng/Kg	J (all detects)
SL-030-SA5DN-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	257	383	PQL	ng/Kg	J (all detects)
SL-031-SA5DN-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	303	385	PQL	ng/Kg	J (all detects)
SL-033-SA5DN-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	260	386	PQL	ng/Kg	J (all detects)
SL-042-SA5DN-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	411	616	PQL	ng/Kg	J (all detects)
SL-045-SA5DN-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	221	382	PQL	ng/Kg	J (all detects)
SL-047-SA5DN-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	276	363	PQL	ng/Kg	J (all detects)

**Method:** 300.0

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-030-SA5DN-SS-0.0-0.5	Nitrate-NO3	J	1.5	1.7	PQL	mg/Kg	J (all detects)
SL-041-SA5DN-SS-0.0-0.5	FLUORIDE	J	1.1	1.2	PQL	mg/Kg	J (all detects)
SL-042-SA5DN-SS-0.0-0.5	Nitrate-NO3	J	1.9	2.8	PQL	mg/Kg	J (all detects)
SL-045-SA5DN-SS-0.0-0.5	Nitrate-NO3	J	1.4	1.7	PQL	mg/Kg	J (all detects)

**Method:** 6010B

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-04-SA5DN-QC-051911	TIN	J	2.96	11.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.58	5.66	PQL	mg/Kg	
SL-030-SA5DN-SS-0.0-0.5	TIN	J	2.83	11.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.83	5.67	PQL	mg/Kg	
SL-031-SA5DN-SS-0.0-0.5	TIN	J	2.87	11.2	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.79	5.58	PQL	mg/Kg	
SL-032-SA5DN-SS-0.0-0.5	BORON	J	1.34	5.48	PQL	mg/Kg	J (all detects)
	TIN	J	2.96	11.0	PQL	mg/Kg	
	Zirconium	J	2.53	5.48	PQL	mg/Kg	
SL-033-SA5DN-SS-0.0-0.5	TIN	J	2.67	11.5	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.88	5.73	PQL	mg/Kg	
SL-034-SA5DN-SS-0.0-0.5	TIN	J	2.68	10.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.37	5.35	PQL	mg/Kg	
SL-035-SA5DN-SS-0.0-0.5	TIN	J	2.81	11.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.53	5.71	PQL	mg/Kg	
SL-041-SA5DN-SS-0.0-0.5	SODIUM	J	114	116	PQL	mg/Kg	J (all detects)
	TIN	J	2.91	11.6	PQL	mg/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 6010B**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-042-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	181	183	PQL	mg/Kg	J (all detects)
		J	4.37	18.3	PQL	mg/Kg	
		J	6.06	9.15	PQL	mg/Kg	
SL-043-SA5DN-SS-0.0-0.5	TIN Zirconium	J	2.93	11.4	PQL	mg/Kg	J (all detects)
		J	4.23	5.71	PQL	mg/Kg	
SL-045-SA5DN-SS-0.0-0.5	TIN Zirconium	J	2.61	11.3	PQL	mg/Kg	J (all detects)
		J	3.85	5.67	PQL	mg/Kg	
SL-046-SA5DN-SS-0.0-0.5	TIN Zirconium	J	2.65	11.3	PQL	mg/Kg	J (all detects)
		J	3.54	5.65	PQL	mg/Kg	
SL-047-SA5DN-SS-0.0-0.5	TIN Zirconium	J	2.53	10.6	PQL	mg/Kg	J (all detects)
		J	3.24	5.31	PQL	mg/Kg	
SL-048-SA5DN-SS-0.0-0.5	TIN Zirconium	J	2.65	11.0	PQL	mg/Kg	J (all detects)
		J	3.27	5.52	PQL	mg/Kg	
SL-049-SA5DN-SS-0.0-0.5	TIN Zirconium	J	2.69	10.9	PQL	mg/Kg	J (all detects)
		J	2.92	5.47	PQL	mg/Kg	

**Method: 6020**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-04-SA5DN-QC-051911	SELENIUM	J	0.145	0.458	PQL	mg/Kg	J (all detects)
SL-030-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.217	0.223	PQL	mg/Kg	J (all detects)
		J	0.0856	0.445	PQL	mg/Kg	
		J	0.0459	0.111	PQL	mg/Kg	
SL-031-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.0615	0.460	PQL	mg/Kg	J (all detects)
		J	0.0362	0.115	PQL	mg/Kg	
SL-032-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.137	0.447	PQL	mg/Kg	J (all detects)
		J	0.0963	0.112	PQL	mg/Kg	
SL-033-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.181	0.450	PQL	mg/Kg	J (all detects)
		J	0.0754	0.112	PQL	mg/Kg	
SL-034-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.110	0.432	PQL	mg/Kg	J (all detects)
		J	0.0730	0.108	PQL	mg/Kg	
SL-035-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.262	0.444	PQL	mg/Kg	J (all detects)
		J	0.0785	0.111	PQL	mg/Kg	
SL-041-SA5DN-SS-0.0-0.5	SELENIUM	J	0.231	0.455	PQL	mg/Kg	J (all detects)
SL-042-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.305	0.725	PQL	mg/Kg	J (all detects)
		J	0.117	0.181	PQL	mg/Kg	
SL-043-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.225	0.457	PQL	mg/Kg	J (all detects)
		J	0.0937	0.114	PQL	mg/Kg	
SL-045-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.186	0.453	PQL	mg/Kg	J (all detects)
		J	0.0509	0.113	PQL	mg/Kg	
SL-046-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.148	0.457	PQL	mg/Kg	J (all detects)
		J	0.0764	0.114	PQL	mg/Kg	
SL-047-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.181	0.424	PQL	mg/Kg	J (all detects)
		J	0.0525	0.106	PQL	mg/Kg	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6020

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-048-SA5DN-SS-0.0-0.5	SELENIUM	J	0.159	0.437	PQL	mg/Kg	J (all detects)
SL-049-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J J	0.114 0.0518	0.433 0.108	PQL PQL	mg/Kg mg/Kg	J (all detects)

**Method:** 7199

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-031-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	1.1	1.2	PQL	mg/Kg	J (all detects)
SL-032-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.58	1.1	PQL	mg/Kg	J (all detects)
SL-033-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.52	1.2	PQL	mg/Kg	J (all detects)
SL-034-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.38	1.1	PQL	mg/Kg	J (all detects)
SL-035-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.72	1.2	PQL	mg/Kg	J (all detects)
SL-041-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.57	1.2	PQL	mg/Kg	J (all detects)
SL-042-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.70	1.8	PQL	mg/Kg	J (all detects)
SL-043-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.76	1.2	PQL	mg/Kg	J (all detects)
SL-046-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.52	1.2	PQL	mg/Kg	J (all detects)
SL-047-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.74	1.1	PQL	mg/Kg	J (all detects)
SL-049-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.69	1.1	PQL	mg/Kg	J (all detects)

**Method:** 7471A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-04-SA5DN-QC-051911	MERCURY	J	0.0197	0.110	PQL	mg/Kg	J (all detects)
SL-032-SA5DN-SS-0.0-0.5	MERCURY	J	0.0116	0.107	PQL	mg/Kg	J (all detects)
SL-033-SA5DN-SS-0.0-0.5	MERCURY	J	0.0044	0.116	PQL	mg/Kg	J (all detects)
SL-041-SA5DN-SS-0.0-0.5	MERCURY	J	0.0169	0.115	PQL	mg/Kg	J (all detects)
SL-043-SA5DN-SS-0.0-0.5	MERCURY	J	0.0092	0.113	PQL	mg/Kg	J (all detects)
SL-046-SA5DN-SS-0.0-0.5	MERCURY	J	0.0105	0.111	PQL	mg/Kg	J (all detects)
SL-047-SA5DN-SS-0.0-0.5	MERCURY	J	0.0125	0.104	PQL	mg/Kg	J (all detects)
SL-048-SA5DN-SS-0.0-0.5	MERCURY	J	0.0411	0.107	PQL	mg/Kg	J (all detects)
SL-049-SA5DN-SS-0.0-0.5	MERCURY	J	0.0092	0.107	PQL	mg/Kg	J (all detects)



## Reporting Limit Outliers

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8015M

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-04-SA5DN-QC-051911	EFH (C15-C20)	J	6.5	14	PQL	mg/Kg	J (all detects)
SL-030-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	4.9	6.9	PQL	mg/Kg	J (all detects)
SL-032-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	4.9	6.7	PQL	mg/Kg	J (all detects)
SL-033-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	6.2	14	PQL	mg/Kg	J (all detects)
SL-041-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	6.2	14	PQL	mg/Kg	J (all detects)
SL-042-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	6.9	11	PQL	mg/Kg	J (all detects)
SL-045-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	7.5	14	PQL	mg/Kg	J (all detects)
SL-046-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	14	35	PQL	mg/Kg	J (all detects)

**Method:** 8081A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-04-SA5DN-QC-051911	Chlordane	J	2.5	9.9	PQL	ug/Kg	J (all detects)
SL-030-SA5DN-SS-0.0-0.5	Chlordane	J	1.6	3.9	PQL	ug/Kg	J (all detects)
SL-031-SA5DN-SS-0.0-0.5	4,4'-DDE	J	0.15	0.39	PQL	ug/Kg	J (all detects)
	Chlordane	J	0.95	3.9	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.15	0.39	PQL	ug/Kg	
	MIREX	J	0.12	0.39	PQL	ug/Kg	
SL-032-SA5DN-SS-0.0-0.5	Chlordane	J	1.5	3.8	PQL	ug/Kg	J (all detects)
SL-033-SA5DN-SS-0.0-0.5	4,4'-DDT	J	0.35	0.40	PQL	ug/Kg	J (all detects)
	MIREX	J	0.10	0.40	PQL	ug/Kg	
SL-034-SA5DN-SS-0.0-0.5	ENDOSULFAN I	J	0.068	0.18	PQL	ug/Kg	J (all detects)
SL-035-SA5DN-SS-0.0-0.5	Chlordane	J	1.3	3.9	PQL	ug/Kg	J (all detects)
	DIELDRIN	J	0.18	0.39	PQL	ug/Kg	
SL-041-SA5DN-SS-0.0-0.5	Chlordane	J	2.7	3.9	PQL	ug/Kg	J (all detects)
SL-042-SA5DN-SS-0.0-0.5	4,4'-DDT	J	0.61	0.63	PQL	ug/Kg	J (all detects)
	MIREX	J	0.28	0.63	PQL	ug/Kg	
SL-043-SA5DN-SS-0.0-0.5	4,4'-DDE	J	0.23	0.39	PQL	ug/Kg	J (all detects)
SL-045-SA5DN-SS-0.0-0.5	4,4'-DDE	J	0.31	0.39	PQL	ug/Kg	J (all detects)
	Chlordane	J	1.0	3.9	PQL	ug/Kg	
	ENDRIN KETONE	J	0.37	0.39	PQL	ug/Kg	
	HEPTACHLOR EPOXIDE	J	0.083	0.19	PQL	ug/Kg	
SL-046-SA5DN-SS-0.0-0.5	Chlordane	J	2.3	3.9	PQL	ug/Kg	J (all detects)
	gamma-BHC (Lindane)	J	0.044	0.19	PQL	ug/Kg	
SL-047-SA5DN-SS-0.0-0.5	Chlordane	J	2.8	3.7	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.047	0.18	PQL	ug/Kg	
	HEPTACHLOR	J	0.16	0.18	PQL	ug/Kg	
SL-048-SA5DN-SS-0.0-0.5	Chlordane	J	2.8	3.8	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.044	0.18	PQL	ug/Kg	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8082

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-04-SA5DN-QC-051911	AROCLOR 1260	J	1.1	2.0	PQL	ug/Kg	J (all detects)
SL-031-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.2	2.0	PQL	ug/Kg	J (all detects)
SL-032-SA5DN-SS-0.0-0.5	Aroclor 5460	J	3.5	7.4	PQL	ug/Kg	J (all detects)
SL-042-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.9	3.1	PQL	ug/Kg	J (all detects)
SL-043-SA5DN-SS-0.0-0.5	Aroclor 5460	J	1.8	3.8	PQL	ug/Kg	J (all detects)
SL-045-SA5DN-SS-0.0-0.5	Aroclor 5460	J	2.0	3.8	PQL	ug/Kg	J (all detects)
SL-047-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	0.45	1.8	PQL	ug/Kg	J (all detects)
SL-048-SA5DN-SS-0.0-0.5	Aroclor 5460	J	4.9	7.3	PQL	ug/Kg	J (all detects)

**Method:** 8151A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-04-SA5DN-QC-051911	2,4,5-TP (Silvex)	J	0.17	0.20	PQL	ug/Kg	J (all detects)
SL-031-SA5DN-SS-0.0-0.5	MCPA	J	210	290	PQL	ug/Kg	J (all detects)
SL-032-SA5DN-SS-0.0-0.5	2,4,5-T	J	0.10	0.19	PQL	ug/Kg	J (all detects)
SL-034-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.091	0.19	PQL	ug/Kg	J (all detects)
	MCPA	J	160	270	PQL	ug/Kg	
SL-035-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.10	0.20	PQL	ug/Kg	J (all detects)
	MCPA	J	160	290	PQL	ug/Kg	
SL-046-SA5DN-SS-0.0-0.5	MCPP	J	170	290	PQL	ug/Kg	J (all detects)
SL-047-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.17	0.19	PQL	ug/Kg	J (all detects)
SL-048-SA5DN-SS-0.0-0.5	MCPA	J	110	280	PQL	ug/Kg	J (all detects)

**Method:** 8270C

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-04-SA5DN-QC-051911	BIS(2-ETHYLHEXYL)PHTHALATE	J	22	390	PQL	ug/Kg	J (all detects)
SL-032-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	28	370	PQL	ug/Kg	J (all detects)
SL-035-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	20	380	PQL	ug/Kg	J (all detects)
SL-041-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	20	190	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	24	190	PQL	ug/Kg	
	FLUORANTHENE	J	21	190	PQL	ug/Kg	
	PYRENE	J	26	190	PQL	ug/Kg	
SL-042-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	130	610	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	33	310	PQL	ug/Kg	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

10/7/2011 10:41:42 AM

ADR version 1.4.0.111

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8270C

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-045-SA5DN-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	20	190	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHthalate	J	27	390	PQL	ug/Kg	
	CHRYSENE	J	23	190	PQL	ug/Kg	
	PYRENE	J	20	190	PQL	ug/Kg	
SL-047-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHthalate	J	23	360	PQL	ug/Kg	J (all detects)
SL-049-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	37	180	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	33	180	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	55	180	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	55	180	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	21	180	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHthalate	J	74	360	PQL	ug/Kg	
	Butylbenzylphthalate	J	110	180	PQL	ug/Kg	
	CHRYSENE	J	64	180	PQL	ug/Kg	
	FLUORANTHENE	J	68	180	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	32	180	PQL	ug/Kg	
	PHENANTHRENE	J	31	180	PQL	ug/Kg	
	PYRENE	J	64	180	PQL	ug/Kg	

**Method:** 8270C SIM

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-04-SA5DN-QC-051911	BENZO(A)ANTHRACENE	J	4.1	9.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	4.8	9.7	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	5.4	9.7	PQL	ug/Kg	
	CHRYSENE	J	6.6	9.7	PQL	ug/Kg	
	FLUORANTHENE	J	8.2	9.7	PQL	ug/Kg	
	PYRENE	J	6.7	9.7	PQL	ug/Kg	
SL-030-SA5DN-SS-0.0-0.5	Butylbenzylphthalate	J	12	21	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.40	1.9	PQL	ug/Kg	
SL-031-SA5DN-SS-0.0-0.5	Di-n-octylphthalate	J	8.8	21	PQL	ug/Kg	J (all detects)
SL-032-SA5DN-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.75	1.8	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	0.84	1.8	PQL	ug/Kg	
	ANTHRACENE	J	0.58	1.8	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.6	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.3	1.8	PQL	ug/Kg	
	Di-n-octylphthalate	J	8.5	20	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.2	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	1.4	1.8	PQL	ug/Kg	
SL-033-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	4.4	9.7	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	5.8	9.7	PQL	ug/Kg	
	Butylbenzylphthalate	J	36	100	PQL	ug/Kg	
	CHRYSENE	J	5.0	9.7	PQL	ug/Kg	
	FLUORANTHENE	J	7.0	9.7	PQL	ug/Kg	
	PYRENE	J	4.1	9.7	PQL	ug/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE157

Laboratory: LL

EDD Filename: DE157\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8270C SIM

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-034-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.82	1.8	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	0.95	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.6	1.8	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.1	20	PQL	ug/Kg	
	CHRYSENE	J	1.3	1.8	PQL	ug/Kg	
	FLUORENE	J	0.85	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	1.2	1.8	PQL	ug/Kg	
	PYRENE	J	1.5	1.8	PQL	ug/Kg	
SL-035-SA5DN-SS-0.0-0.5	BENZO(K)FLUORANTHENE	J	5.0	9.5	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	3.5	9.5	PQL	ug/Kg	
	FLUORANTHENE	J	5.0	9.5	PQL	ug/Kg	
SL-041-SA5DN-SS-0.0-0.5	BENZO(A)PYRENE	J	4.6	9.8	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	4.1	9.8	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	89	110	PQL	ug/Kg	
	Di-n-octylphthalate	J	50	110	PQL	ug/Kg	
SL-042-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	9.7	15	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	14	15	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	7.8	15	PQL	ug/Kg	
	PYRENE	J	11	15	PQL	ug/Kg	
SL-043-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.3	1.9	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.2	1.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.1	1.9	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.9	21	PQL	ug/Kg	
	CHRYSENE	J	1.8	1.9	PQL	ug/Kg	
	Di-n-butylphthalate	J	7.0	21	PQL	ug/Kg	
	Di-n-octylphthalate	J	9.6	21	PQL	ug/Kg	
	PYRENE	J	1.6	1.9	PQL	ug/Kg	
SL-045-SA5DN-SS-0.0-0.5	BENZO(A)PYRENE	J	5.2	9.6	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	7.5	9.6	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	7.3	9.6	PQL	ug/Kg	
SL-046-SA5DN-SS-0.0-0.5	DIBENZO(A,H)ANTHRACENE	J	38	48	PQL	ug/Kg	J (all detects)
	INDENO(1,2,3-CD)PYRENE	J	35	48	PQL	ug/Kg	
SL-048-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.7	20	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.43	1.8	PQL	ug/Kg	
	Di-n-octylphthalate	J	8.7	20	PQL	ug/Kg	

LDC #: 26275P4  
SDG #: DE157  
Laboratory: Lancaster Laboratories

# VALIDATION COMPLETENESS WORKSHEET ADR

Date: 9/29/11  
Page: 1 of 1  
Reviewer: km  
2nd Reviewer: CR

**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	A	No find.
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	Al, As, Ba, Ca, Fe, Pb, Mg, Mn, Ti, V, Zn > 4x
VII.	Duplicate Sample Analysis	SW	Sb, Cd, Hg, Se, Ag < 5x, Mo qual by difference 0.3493 (≤ 0.224 mg/kg)
VIII.	Laboratory Control Samples (LCS)	N	
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	As, Ba, Co, Cu, Pb, Ni, Zn
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-030-SA5DN-SS-0.0-0.5	11	SL-046-SA5DN-SS-0.0-0.5	21		31	
2	SL-031-SA5DN-SS-0.0-0.5	12	SL-047-SA5DN-SS-0.0-0.5	22		32	
3	SL-032-SA5DN-SS-0.0-0.5	13	SL-048-SA5DN-SS-0.0-0.5	23		33	
4	SL-033-SA5DN-SS-0.0-0.5	14	SL-049-SA5DN-SS-0.0-0.5	24		34	
5	SL-034-SA5DN-SS-0.0-0.5	15	DUP-04-SA5DN-QC-051911	25		35	
6	SL-035-SA5DN-SS-0.0-0.5	16	SL-043-SA5DN-SS-0.0-0.5MS	26		36	
7	SL-041-SA5DN-SS-0.0-0.5	17	SL-043-SA5DN-SS-0.0-0.5MSD	27		37	
8	SL-042-SA5DN-SS-0.0-0.5	18	SL-043-SA5DN-SS-0.0-0.5DUP	28		38	
9	SL-043-SA5DN-SS-0.0-0.5	19		29		39	
10	SL-045-SA5DN-SS-0.0-0.5	20		30		40	

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



QUALITY ASSURANCE SUMMARY  
FORM SA (MS/MSD)  
MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
SDG NO.: DE157  
Matrix: SOIL  
Level (low/med): LOW

Background Lab Sample ID: 6293457BKG Matrix Spike Lab Sample ID: 6293458MS Matrix Spike Duplicate Lab Sample ID: 6293459MSD  
& Solids for Sample: 86.7  
Batch ID(s): P14308C, P14326B, P14311C, P15326C

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	MSD Spike Added	Units	MS		MSD		Control Limit	
		Result	C	Result	C	Result	C				%R	Q	%R	Q	%R	RPD
Aluminum		30189.1603		33862.2188		38389.7107		223.9617	228.3965	MG/KG	1640		3590			
Antimony	121	0.4419		1.3241		1.2320		1.3841	1.3569	MG/KG	64	N	60	N	75 - 125	20P
Arsenic	75	10.5496		12.1084		12.9973		2.3068	2.2616	MG/KG	68		108			20MS
Barium	137	126.1434		143.1373		145.3626		11.5340	11.3079	MG/KG	147		170			20MS
Beryllium	9	1.2244		2.2867		2.3023		0.9227	0.9046	MG/KG	115		119		75 - 125	20MS
Boron		13.5645		238.1160		235.6424		223.9617	228.3965	MG/KG	100		97		84 - 115	20P
Cadmium	111	0.4652		2.0288		1.9608		1.1534	1.1308	MG/KG	136	N	132	N	75 - 125	20MS
Calcium		10868.3534		11844.8024		14077.6811		447.9233	456.7931	MG/KG	196		681			20P
Chromium	52	44.0349		57.8316		57.7832		11.5340	11.3079	MG/KG	120		122		75 - 125	20MS
Cobalt	59	16.3897		98.6621		96.0038		57.6701	56.5393	MG/KG	143	N	141	N	75 - 125	20MS
Copper	63	27.8644		42.6990		41.4999		11.5340	11.3079	MG/KG	129	N	121		75 - 125	20MS
Iron		31914.7453		30493.4995		33787.8196		111.9808	114.1983	MG/KG	-1269		1640			20P
Lead	208	17.2188		21.6194		21.2588		3.4602	3.3924	MG/KG	127		119			20MS
Lithium		26.0258		142.9984		144.8868		111.9808	114.1983	MG/KG	104		104		82 - 114	20P
Magnesium		6854.8357		7043.1037		7588.7275		223.9617	228.3965	MG/KG	84		321			20P
Manganese		358.4307		407.2317		436.7045		55.9904	57.0991	MG/KG	87		137			20P
Mercury		0.0092	B	0.1977		0.1985		0.1882	0.1855	MG/KG	100		102		65 - 135	20CV
Molybdenum	98	0.8446		17.4810		16.7718		11.5340	11.3079	MG/KG	144	N	141	N	75 - 125	20MS
Nickel	60	34.4194		49.5040		48.6012		11.5340	11.3079	MG/KG	131	N	125		75 - 125	20MS
Phosphorus		379.5026		560.1460		539.9112		111.9808	114.1983	MG/KG	161	N	140	N	75 - 125	20P
Potassium		4063.4988		5521.7948		6124.6269		1119.8083	1141.9827	MG/KG	130	N	180	N	75 - 125	20P
Selenium	78	0.2246	B	3.1326		3.1187		2.3068	2.2616	MG/KG	126	N	128	N	75 - 125	20MS
Silver	107	0.0937	B	16.5536		16.0888		11.5340	11.3079	MG/KG	143	N	141	N	75 - 125	20MS
Sodium		136.6063		1279.9017		1267.4147		1119.8083	1141.9827	MG/KG	102		99		75 - 125	20P
Strontium		40.0893		153.6982		155.7676		111.9808	114.1983	MG/KG	101		101		75 - 115	20P
Thallium	203	0.4385		1.0484		1.1180		0.4394	0.4479	MG/KG	139	N	152	N	75 - 125	20MS
Tin		2.9292	B	399.1042		389.0804		447.9233	456.7931	MG/KG	88		85		80 - 110	20P
Titanium		1220.5363		1566.3890		1672.0557		111.9808	114.1983	MG/KG	309		395			20P
Vanadium	51	81.2407		97.6009		98.2880		11.5340	11.3079	MG/KG	142		151			20MS
Zinc	66	131.0768		148.2122		132.0985		11.5340	11.3079	MG/KG	149		9			20MS
Zirconium		4.2288	B	109.2474		112.0491		111.9808	114.1983	MG/KG	94		94		75 - 125	20P

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



## QUALITY ASSURANCE SUMMARY

FORM 6

DUPLICATES.

SDG No.: DE157

Matrix: SOIL

Level (low/med): LOW

Background Lab Sample ID: 6293457BKG

% Solids for Duplicate: 85.6

Batch ID(s): P14308C, P14326B, P14311C, P15326C

Concentration Units: MG/KG

Duplicate Lab Sample ID: 6293460DUP

% Solids for Sample: 86.7

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			30189.1603		28081.7740		7		P
Antimony	121	0.2	0.4419		0.3365		27		MS
Arsenic	75		10.5496		7.7389		31	*	MS
Barium	137		126.1434		158.2158		23	*	MS
Beryllium	9		1.2244		1.0119		19		MS
Boron		5.7	13.5645		12.2080		11		P
Cadmium	111	0.1	0.4652		0.3596		26		MS
Calcium			10968.3534		15451.7052		34	*	P
Chromium	52		44.0349		34.1141		25	*	MS
Cobalt	59		16.3897		12.5965		26	*	MS
Copper	63		27.8644		19.5879		35	*	MS
Iron			31914.7453		31641.7102		1		P
Lead	208		17.2188		14.1292		20		MS
Lithium			26.0258		24.9565		4		P
Magnesium			6854.8357		6642.9507		3		P
Manganese			358.4307		377.0552		5		P
Mercury			0.0092	B	0.0034	U	200		CV
Molybdenum	98	0.1	0.8446		0.4953		52	*	MS
Nickel	60		34.4194		25.2418		31	*	MS
Phosphorus			379.5026		395.3005		4		P
Potassium			4063.4988		4281.1000		5		P
Selenium	78		0.2246	B	0.1514	B	39		MS
Silver	107		0.0937	B	0.0546	B	53		MS
Sodium		114.2	136.6063		129.9862		5		P
Strontium			40.0893		40.0389		0		P
Thallium	203	0.1	0.4385		0.4878		11		MS
Tin			2.9292	B	2.7783	B	5		P
Titanium			1220.5363		1159.4048		5		P
Vanadium	51		81.2407		65.0785		22	*	MS
Zinc	66		131.0768		104.8709		22	*	MS
Zirconium			4.2288	B	5.1428	B	20		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.

Difference  
(50, 22%)

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## 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



## QUALITY ASSURANCE SUMMARY

FORM 9

SERIAL DILUTIONS

SDG No.: DE157

Matrix: SOIL

Level (low/med): LOW

Background Lab Sample ID: 6293457BKG  
Batch ID(s): P14308C, P14326B, P15326C  
Concentration Units: UG/L

Serial Dilution Lab Sample ID: 6293457L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		264357.4200		254065.1500		4		P
Antimony	121	1.9350		1.5000	U	100		MS
Arsenic	75	46.1900		31.0000		33	E	MS
Barium	137	552.3000		625.5000		13	E	MS
Beryllium	9	5.3610		4.5305		15		MS
Boron		118.7800		138.5500	B	17		P
Cadmium	111	2.0370		1.2540	B	38		MS
Calcium		96046.5800		96142.0500		0		P
Chromium	52	192.8000		179.4500		7		MS
Cobalt	59	71.7600		47.0450		34	E	MS
Copper	63	122.0000		82.8500		32	E	MS
Iron		55893.5700		57868.7000		4		P
Lead	208	75.3900		54.2500		28	E	MS
Lithium		227.9000		228.3000		0		P
Magnesium		60025.7400		59594.7000		1		P
Manganese		3138.6700		3319.5500		6		P
Molybdenum	98	3.6980		2.6955		27		MS
Nickel	60	150.7000		108.9500		28	E	MS
Phosphorus		3323.1900		3264.2500		2		P
Potassium		35582.8400		35716.2000		0		P
Selenium	78	0.9832	B	1.0000	U	100		MS
Silver	107	0.4103	B	0.3219	B	22		MS
Sodium		1196.2200		1865.0000	U	100		P
Strontium		351.0500		357.7500		2		P
Thallium	203	1.9770		1.6945	B	14		MS
Tin		25.6500	B	50.0000	U	100		P
Titanium		10687.8700		10806.1500		1		P
Vanadium	51	355.7000		328.5000		8		MS
Zinc	66	573.9000		397.2500		31	E	MS
Zirconium		37.0300	B	42.0000	U	100		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.

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## 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



# **SAMPLE DELIVERY GROUP**

**DE158**

## **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-May-2011	SL-050-SA5DN-SS-0.0-0.5	6294846	N	3050B	6010B	IV
20-May-2011	SL-050-SA5DN-SS-0.0-0.5	6294846	N	3050B	6020	IV
20-May-2011	SL-050-SA5DN-SS-0.0-0.5	6294846	N	3060A	7199	IV
20-May-2011	SL-050-SA5DN-SS-0.0-0.5	6294846	N	3550B	8081A	IV
20-May-2011	SL-050-SA5DN-SS-0.0-0.5	6294846	N	3550B	8082	IV
20-May-2011	SL-050-SA5DN-SS-0.0-0.5	6294846	N	3550B	8151A	IV
20-May-2011	SL-050-SA5DN-SS-0.0-0.5	6294846	N	3550B	8270C	IV
20-May-2011	SL-050-SA5DN-SS-0.0-0.5	6294846	N	3550B	8270C SIM	IV
20-May-2011	SL-050-SA5DN-SS-0.0-0.5	6294846	N	METHOD	300.0	IV
20-May-2011	SL-050-SA5DN-SS-0.0-0.5	6294846	N	METHOD	314.0	IV
20-May-2011	SL-050-SA5DN-SS-0.0-0.5	6294846	N	METHOD	7471A	IV
20-May-2011	SL-051-SA5DN-SS-0.0-0.5	6294847	N	3050B	6010B	IV
20-May-2011	SL-051-SA5DN-SS-0.0-0.5	6294847	N	3050B	6020	IV
20-May-2011	SL-051-SA5DN-SS-0.0-0.5	6294847	N	3060A	7199	IV
20-May-2011	SL-051-SA5DN-SS-0.0-0.5	6294847	N	3546	1625C	IV
20-May-2011	SL-051-SA5DN-SS-0.0-0.5	6294847	N	3550B	8015B	IV
20-May-2011	SL-051-SA5DN-SS-0.0-0.5	6294847	N	3550B	8015M	IV
20-May-2011	SL-051-SA5DN-SS-0.0-0.5	6294847	N	3550B	8081A	IV
20-May-2011	SL-051-SA5DN-SS-0.0-0.5	6294847	N	3550B	8082	IV
20-May-2011	SL-051-SA5DN-SS-0.0-0.5	6294847	N	3550B	8151A	IV
20-May-2011	SL-051-SA5DN-SS-0.0-0.5	6294847	N	3550B	8270C	IV
20-May-2011	SL-051-SA5DN-SS-0.0-0.5	6294847	N	3550B	8270C SIM	IV
20-May-2011	SL-051-SA5DN-SS-0.0-0.5	6294847	N	8330	8330A	IV
20-May-2011	SL-051-SA5DN-SS-0.0-0.5	6294847	N	METHOD	300.0	IV
20-May-2011	SL-051-SA5DN-SS-0.0-0.5	6294847	N	METHOD	314.0	IV
20-May-2011	SL-051-SA5DN-SS-0.0-0.5	6294847	N	METHOD	7471A	IV

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

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-May-2011	SL-051-SA5DN-SS-0.0-0.5	6294847	N	METHOD	8015B	IV
20-May-2011	SL-051-SA5DN-SS-0.0-0.5	6294847	N	METHOD	8015M	IV
20-May-2011	SL-051-SA5DN-SS-0.0-0.5	6294847	N	METHOD	8315A	IV
20-May-2011	SL-051-SA5DN-SS-0.0-0.5	6294847	N	METHOD	9012B	IV
20-May-2011	SL-036-SA5DN-SS-0.0-0.5	6294840	N	3050B	6010B	IV
20-May-2011	SL-036-SA5DN-SS-0.0-0.5	6294840	N	3050B	6020	IV
20-May-2011	SL-036-SA5DN-SS-0.0-0.5	6294840	N	3060A	7199	IV
20-May-2011	SL-036-SA5DN-SS-0.0-0.5	6294840	N	3546	1625C	IV
20-May-2011	SL-036-SA5DN-SS-0.0-0.5	6294840	N	3550B	8015B	IV
20-May-2011	SL-036-SA5DN-SS-0.0-0.5	6294840	N	3550B	8015M	IV
20-May-2011	SL-036-SA5DN-SS-0.0-0.5	6294840	N	3550B	8081A	IV
20-May-2011	SL-036-SA5DN-SS-0.0-0.5	6294840	N	3550B	8082	IV
20-May-2011	SL-036-SA5DN-SS-0.0-0.5	6294840	N	3550B	8151A	IV
20-May-2011	SL-036-SA5DN-SS-0.0-0.5	6294840	N	3550B	8270C	IV
20-May-2011	SL-036-SA5DN-SS-0.0-0.5	6294840	N	3550B	8270C SIM	IV
20-May-2011	SL-036-SA5DN-SS-0.0-0.5	6294840	N	8330	8330A	IV
20-May-2011	SL-036-SA5DN-SS-0.0-0.5	6294840	N	METHOD	300.0	IV
20-May-2011	SL-036-SA5DN-SS-0.0-0.5	6294840	N	METHOD	314.0	IV
20-May-2011	SL-036-SA5DN-SS-0.0-0.5	6294840	N	METHOD	7471A	IV
20-May-2011	SL-036-SA5DN-SS-0.0-0.5	6294840	N	METHOD	8015B	IV
20-May-2011	SL-036-SA5DN-SS-0.0-0.5	6294840	N	METHOD	8015M	IV
20-May-2011	SL-036-SA5DN-SS-0.0-0.5	6294840	N	METHOD	8315A	IV
20-May-2011	SL-036-SA5DN-SS-0.0-0.5	6294840	N	METHOD	9012B	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5	6294843	N	3050B	6010B	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5	6294843	N	3050B	6020	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5	6294843	N	3060A	7199	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-May-2011	SL-039-SA5DN-SS-0.0-0.5	6294843	N	3546	1625C	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5	6294843	N	3550B	8015B	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5	6294843	N	3550B	8015M	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5	6294843	N	3550B	8081A	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5	6294843	N	3550B	8082	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5	6294843	N	3550B	8151A	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5	6294843	N	3550B	8270C	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5	6294843	N	3550B	8270C SIM	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5	6294843	N	8330	8330A	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5	6294843	N	METHOD	300.0	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5	6294843	N	METHOD	314.0	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5	6294843	N	METHOD	6850	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5	6294843	N	METHOD	7471A	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5	6294843	N	METHOD	8015B	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5	6294843	N	METHOD	8015M	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5	6294843	N	METHOD	8315A	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5	6294843	N	METHOD	9012B	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5DU	P294843D271335B	DUP	METHOD	300.0	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5DU	P294843D271703B	DUP	METHOD	314.0	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5DU	P294843D272033B	DUP	METHOD	9012B	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5MS	P294843R271350B	MS	METHOD	300.0	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5MS	P294843R271747B	MS	METHOD	314.0	IV
20-May-2011	SL-039-SA5DN-SS-0.0-0.5MS	P294843R272035B	MS	METHOD	9012B	IV
20-May-2011	SL-040-SA5DN-SS-0.0-0.5	6294844	N	3050B	6010B	IV
20-May-2011	SL-040-SA5DN-SS-0.0-0.5	6294844	N	3050B	6020	IV
20-May-2011	SL-040-SA5DN-SS-0.0-0.5	6294844	N	3060A	7199	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-May-2011	SL-040-SA5DN-SS-0.0-0.5	6294844	N	3546	1625C	IV
20-May-2011	SL-040-SA5DN-SS-0.0-0.5	6294844	N	3550B	8015B	IV
20-May-2011	SL-040-SA5DN-SS-0.0-0.5	6294844	N	3550B	8015M	IV
20-May-2011	SL-040-SA5DN-SS-0.0-0.5	6294844	N	3550B	8081A	IV
20-May-2011	SL-040-SA5DN-SS-0.0-0.5	6294844	N	3550B	8082	IV
20-May-2011	SL-040-SA5DN-SS-0.0-0.5	6294844	N	3550B	8151A	IV
20-May-2011	SL-040-SA5DN-SS-0.0-0.5	6294844	N	3550B	8270C	IV
20-May-2011	SL-040-SA5DN-SS-0.0-0.5	6294844	N	3550B	8270C SIM	IV
20-May-2011	SL-040-SA5DN-SS-0.0-0.5	6294844	N	8330	8330A	IV
20-May-2011	SL-040-SA5DN-SS-0.0-0.5	6294844	N	METHOD	300.0	IV
20-May-2011	SL-040-SA5DN-SS-0.0-0.5	6294844	N	METHOD	314.0	IV
20-May-2011	SL-040-SA5DN-SS-0.0-0.5	6294844	N	METHOD	7471A	IV
20-May-2011	SL-040-SA5DN-SS-0.0-0.5	6294844	N	METHOD	8015B	IV
20-May-2011	SL-040-SA5DN-SS-0.0-0.5	6294844	N	METHOD	8015M	IV
20-May-2011	SL-040-SA5DN-SS-0.0-0.5	6294844	N	METHOD	8315A	IV
20-May-2011	SL-040-SA5DN-SS-0.0-0.5	6294844	N	METHOD	9012B	IV
20-May-2011	SL-065-SA5DN-SB-4.0-5.0	6294849	N	3050B	6010B	IV
20-May-2011	SL-065-SA5DN-SB-4.0-5.0	6294849	N	3050B	6020	IV
20-May-2011	SL-065-SA5DN-SB-4.0-5.0	6294849	N	3060A	7199	IV
20-May-2011	SL-065-SA5DN-SB-4.0-5.0	6294849	N	3546	1625C	IV
20-May-2011	SL-065-SA5DN-SB-4.0-5.0	6294849	N	3550B	8015B	IV
20-May-2011	SL-065-SA5DN-SB-4.0-5.0	6294849	N	3550B	8015M	IV
20-May-2011	SL-065-SA5DN-SB-4.0-5.0	6294849	N	3550B	8082	IV
20-May-2011	SL-065-SA5DN-SB-4.0-5.0	6294849	N	3550B	8270C	IV
20-May-2011	SL-065-SA5DN-SB-4.0-5.0	6294849	N	3550B	8270C SIM	IV
20-May-2011	SL-065-SA5DN-SB-4.0-5.0	6294849	N	5035	8015M	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-May-2011	SL-065-SA5DN-SB-4.0-5.0	6294849	N	5035	8260B	IV
20-May-2011	SL-065-SA5DN-SB-4.0-5.0	6294849	N	5035	8260B SIM	IV
20-May-2011	SL-065-SA5DN-SB-4.0-5.0	6294849	N	8330	8330A	IV
20-May-2011	SL-065-SA5DN-SB-4.0-5.0	6294849	N	METHOD	300.0	IV
20-May-2011	SL-065-SA5DN-SB-4.0-5.0	6294849	N	METHOD	314.0	IV
20-May-2011	SL-065-SA5DN-SB-4.0-5.0	6294849	N	METHOD	7471A	IV
20-May-2011	SL-065-SA5DN-SB-4.0-5.0	6294849	N	METHOD	8015B	IV
20-May-2011	SL-065-SA5DN-SB-4.0-5.0	6294849	N	METHOD	8015M	IV
20-May-2011	SL-065-SA5DN-SB-4.0-5.0	6294849	N	METHOD	8315A	IV
20-May-2011	SL-065-SA5DN-SB-4.0-5.0	6294849	N	METHOD	9012B	IV
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	3050B	6010B	IV
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	3050B	6020	IV
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	3060A	7199	IV
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	3546	1625C	IV
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	3550B	8015B	IV
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	3550B	8015M	IV
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	3550B	8082	IV
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	3550B	8270C	IV
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	3550B	8270C SIM	IV
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	5035	8015M	IV
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	5035	8260B	IV
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	5035	8260B SIM	IV
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	8330	8330A	IV
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	METHOD	300.0	IV
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	METHOD	314.0	IV
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	METHOD	6850	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	METHOD	7471A	IV
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	METHOD	8015B	IV
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	METHOD	8015M	IV
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	METHOD	8315A	IV
20-May-2011	SL-065-SA5DN-SB-7.0-8.0	6294850	N	METHOD	9012B	IV
20-May-2011	SL-038-SA5DN-SS-0.0-0.5	6294842	N	3050B	6010B	IV
20-May-2011	SL-038-SA5DN-SS-0.0-0.5	6294842	N	3050B	6020	IV
20-May-2011	SL-038-SA5DN-SS-0.0-0.5	6294842	N	3060A	7199	IV
20-May-2011	SL-038-SA5DN-SS-0.0-0.5	6294842	N	3546	1625C	IV
20-May-2011	SL-038-SA5DN-SS-0.0-0.5	6294842	N	3550B	8015B	IV
20-May-2011	SL-038-SA5DN-SS-0.0-0.5	6294842	N	3550B	8015M	IV
20-May-2011	SL-038-SA5DN-SS-0.0-0.5	6294842	N	3550B	8081A	IV
20-May-2011	SL-038-SA5DN-SS-0.0-0.5	6294842	N	3550B	8082	IV
20-May-2011	SL-038-SA5DN-SS-0.0-0.5	6294842	N	3550B	8151A	IV
20-May-2011	SL-038-SA5DN-SS-0.0-0.5	6294842	N	3550B	8270C	IV
20-May-2011	SL-038-SA5DN-SS-0.0-0.5	6294842	N	3550B	8270C SIM	IV
20-May-2011	SL-038-SA5DN-SS-0.0-0.5	6294842	N	8330	8330A	IV
20-May-2011	SL-038-SA5DN-SS-0.0-0.5	6294842	N	METHOD	300.0	IV
20-May-2011	SL-038-SA5DN-SS-0.0-0.5	6294842	N	METHOD	314.0	IV
20-May-2011	SL-038-SA5DN-SS-0.0-0.5	6294842	N	METHOD	7471A	IV
20-May-2011	SL-038-SA5DN-SS-0.0-0.5	6294842	N	METHOD	8015B	IV
20-May-2011	SL-038-SA5DN-SS-0.0-0.5	6294842	N	METHOD	8015M	IV
20-May-2011	SL-038-SA5DN-SS-0.0-0.5	6294842	N	METHOD	8315A	IV
20-May-2011	SL-038-SA5DN-SS-0.0-0.5	6294842	N	METHOD	9012B	IV
20-May-2011	SL-038-SA5DN-SS-0.0-0.5MS	P294842R320104A	MS	METHOD	8015B	IV
20-May-2011	SL-037-SA5DN-SS-0.0-0.5	6294841	N	3050B	6010B	IV



## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-May-2011	SL-037-SA5DN-SS-0.0-0.5	6294841	N	3050B	6020	IV
20-May-2011	SL-037-SA5DN-SS-0.0-0.5	6294841	N	3060A	7199	IV
20-May-2011	SL-037-SA5DN-SS-0.0-0.5	6294841	N	3546	1625C	IV
20-May-2011	SL-037-SA5DN-SS-0.0-0.5	6294841	N	3550B	8015B	IV
20-May-2011	SL-037-SA5DN-SS-0.0-0.5	6294841	N	3550B	8015M	IV
20-May-2011	SL-037-SA5DN-SS-0.0-0.5	6294841	N	3550B	8081A	IV
20-May-2011	SL-037-SA5DN-SS-0.0-0.5	6294841	N	3550B	8082	IV
20-May-2011	SL-037-SA5DN-SS-0.0-0.5	6294841	N	3550B	8151A	IV
20-May-2011	SL-037-SA5DN-SS-0.0-0.5	6294841	N	3550B	8270C	IV
20-May-2011	SL-037-SA5DN-SS-0.0-0.5	6294841	N	3550B	8270C SIM	IV
20-May-2011	SL-037-SA5DN-SS-0.0-0.5	6294841	N	8330	8330A	IV
20-May-2011	SL-037-SA5DN-SS-0.0-0.5	6294841	N	METHOD	300.0	IV
20-May-2011	SL-037-SA5DN-SS-0.0-0.5	6294841	N	METHOD	314.0	IV
20-May-2011	SL-037-SA5DN-SS-0.0-0.5	6294841	N	METHOD	7471A	IV
20-May-2011	SL-037-SA5DN-SS-0.0-0.5	6294841	N	METHOD	8015B	IV
20-May-2011	SL-037-SA5DN-SS-0.0-0.5	6294841	N	METHOD	8015M	IV
20-May-2011	SL-037-SA5DN-SS-0.0-0.5	6294841	N	METHOD	8315A	IV
20-May-2011	SL-037-SA5DN-SS-0.0-0.5	6294841	N	METHOD	9012B	IV
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	3050B	6010B	IV
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	3050B	6020	IV
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	3060A	7199	IV
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	3546	1625C	IV
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	3550B	8015B	IV
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	3550B	8015M	IV
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	3550B	8082	IV
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	3550B	8270C	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	3550B	8270C SIM	IV
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	5035	8015M	IV
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	5035	8260B	IV
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	5035	8260B SIM	IV
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	8330	8330A	IV
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	METHOD	300.0	IV
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	METHOD	314.0	IV
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	METHOD	6850	IV
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	METHOD	7471A	IV
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	METHOD	8015B	IV
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	METHOD	8015M	IV
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	METHOD	8315A	IV
20-May-2011	SL-064-SA5DN-SB-4.0-5.0	6294848	N	METHOD	9012B	IV
20-May-2011	SL-026-SA5DN-SS-0.0-0.5	6294836	N	3050B	6010B	IV
20-May-2011	SL-026-SA5DN-SS-0.0-0.5	6294836	N	3050B	6020	IV
20-May-2011	SL-026-SA5DN-SS-0.0-0.5	6294836	N	3060A	7199	IV
20-May-2011	SL-026-SA5DN-SS-0.0-0.5	6294836	N	3546	1625C	IV
20-May-2011	SL-026-SA5DN-SS-0.0-0.5	6294836	N	3550B	8015B	IV
20-May-2011	SL-026-SA5DN-SS-0.0-0.5	6294836	N	3550B	8015M	IV
20-May-2011	SL-026-SA5DN-SS-0.0-0.5	6294836	N	3550B	8081A	IV
20-May-2011	SL-026-SA5DN-SS-0.0-0.5	6294836	N	3550B	8082	IV
20-May-2011	SL-026-SA5DN-SS-0.0-0.5	6294836	N	3550B	8151A	IV
20-May-2011	SL-026-SA5DN-SS-0.0-0.5	6294836	N	3550B	8270C	IV
20-May-2011	SL-026-SA5DN-SS-0.0-0.5	6294836	N	3550B	8270C SIM	IV
20-May-2011	SL-026-SA5DN-SS-0.0-0.5	6294836	N	8330	8330A	IV
20-May-2011	SL-026-SA5DN-SS-0.0-0.5	6294836	N	METHOD	300.0	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-May-2011	SL-026-SA5DN-SS-0.0-0.5	6294836	N	METHOD	314.0	IV
20-May-2011	SL-026-SA5DN-SS-0.0-0.5	6294836	N	METHOD	7471A	IV
20-May-2011	SL-026-SA5DN-SS-0.0-0.5	6294836	N	METHOD	8015B	IV
20-May-2011	SL-026-SA5DN-SS-0.0-0.5	6294836	N	METHOD	8015M	IV
20-May-2011	SL-026-SA5DN-SS-0.0-0.5	6294836	N	METHOD	8315A	IV
20-May-2011	SL-026-SA5DN-SS-0.0-0.5	6294836	N	METHOD	9012B	IV
20-May-2011	SL-025-SA5DN-SS-0.0-0.5	6294835	N	3050B	6010B	IV
20-May-2011	SL-025-SA5DN-SS-0.0-0.5	6294835	N	3050B	6020	IV
20-May-2011	SL-025-SA5DN-SS-0.0-0.5	6294835	N	3060A	7199	IV
20-May-2011	SL-025-SA5DN-SS-0.0-0.5	6294835	N	3546	1625C	IV
20-May-2011	SL-025-SA5DN-SS-0.0-0.5	6294835	N	3550B	8015B	IV
20-May-2011	SL-025-SA5DN-SS-0.0-0.5	6294835	N	3550B	8015M	IV
20-May-2011	SL-025-SA5DN-SS-0.0-0.5	6294835	N	3550B	8081A	IV
20-May-2011	SL-025-SA5DN-SS-0.0-0.5	6294835	N	3550B	8082	IV
20-May-2011	SL-025-SA5DN-SS-0.0-0.5	6294835	N	3550B	8151A	IV
20-May-2011	SL-025-SA5DN-SS-0.0-0.5	6294835	N	3550B	8270C	IV
20-May-2011	SL-025-SA5DN-SS-0.0-0.5	6294835	N	3550B	8270C SIM	IV
20-May-2011	SL-025-SA5DN-SS-0.0-0.5	6294835	N	8330	8330A	IV
20-May-2011	SL-025-SA5DN-SS-0.0-0.5	6294835	N	METHOD	300.0	IV
20-May-2011	SL-025-SA5DN-SS-0.0-0.5	6294835	N	METHOD	314.0	IV
20-May-2011	SL-025-SA5DN-SS-0.0-0.5	6294835	N	METHOD	6850	IV
20-May-2011	SL-025-SA5DN-SS-0.0-0.5	6294835	N	METHOD	7471A	IV
20-May-2011	SL-025-SA5DN-SS-0.0-0.5	6294835	N	METHOD	8015B	IV
20-May-2011	SL-025-SA5DN-SS-0.0-0.5	6294835	N	METHOD	8015M	IV
20-May-2011	SL-025-SA5DN-SS-0.0-0.5	6294835	N	METHOD	8315A	IV
20-May-2011	SL-025-SA5DN-SS-0.0-0.5	6294835	N	METHOD	9012B	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-May-2011	SL-024-SA5DN-SS-0.0-0.5	6294834	N	3050B	6010B	IV
20-May-2011	SL-024-SA5DN-SS-0.0-0.5	6294834	N	3050B	6020	IV
20-May-2011	SL-024-SA5DN-SS-0.0-0.5	6294834	N	3060A	7199	IV
20-May-2011	SL-024-SA5DN-SS-0.0-0.5	6294834	N	3546	1625C	IV
20-May-2011	SL-024-SA5DN-SS-0.0-0.5	6294834	N	3550B	8015B	IV
20-May-2011	SL-024-SA5DN-SS-0.0-0.5	6294834	N	3550B	8015M	IV
20-May-2011	SL-024-SA5DN-SS-0.0-0.5	6294834	N	3550B	8081A	IV
20-May-2011	SL-024-SA5DN-SS-0.0-0.5	6294834	N	3550B	8082	IV
20-May-2011	SL-024-SA5DN-SS-0.0-0.5	6294834	N	3550B	8151A	IV
20-May-2011	SL-024-SA5DN-SS-0.0-0.5	6294834	N	3550B	8270C	IV
20-May-2011	SL-024-SA5DN-SS-0.0-0.5	6294834	N	3550B	8270C SIM	IV
20-May-2011	SL-024-SA5DN-SS-0.0-0.5	6294834	N	8330	8330A	IV
20-May-2011	SL-024-SA5DN-SS-0.0-0.5	6294834	N	METHOD	300.0	IV
20-May-2011	SL-024-SA5DN-SS-0.0-0.5	6294834	N	METHOD	314.0	IV
20-May-2011	SL-024-SA5DN-SS-0.0-0.5	6294834	N	METHOD	7471A	IV
20-May-2011	SL-024-SA5DN-SS-0.0-0.5	6294834	N	METHOD	8015B	IV
20-May-2011	SL-024-SA5DN-SS-0.0-0.5	6294834	N	METHOD	8015M	IV
20-May-2011	SL-024-SA5DN-SS-0.0-0.5	6294834	N	METHOD	8315A	IV
20-May-2011	SL-024-SA5DN-SS-0.0-0.5	6294834	N	METHOD	9012B	IV
20-May-2011	SL-088-SA5DN-SB-4.0-5.0	6294852	N	3050B	6010B	IV
20-May-2011	SL-088-SA5DN-SB-4.0-5.0	6294852	N	3050B	6020	IV
20-May-2011	SL-088-SA5DN-SB-4.0-5.0	6294852	N	3060A	7199	IV
20-May-2011	SL-088-SA5DN-SB-4.0-5.0	6294852	N	3550B	8082	IV
20-May-2011	SL-088-SA5DN-SB-4.0-5.0	6294852	N	3550B	8270C	IV
20-May-2011	SL-088-SA5DN-SB-4.0-5.0	6294852	N	3550B	8270C SIM	IV
20-May-2011	SL-088-SA5DN-SB-4.0-5.0	6294852	N	5035	8260B	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-May-2011	SL-088-SA5DN-SB-4.0-5.0	6294852	N	5035	8260B SIM	IV
20-May-2011	SL-088-SA5DN-SB-4.0-5.0	6294852	N	8330	8330A	IV
20-May-2011	SL-088-SA5DN-SB-4.0-5.0	6294852	N	METHOD	300.0	IV
20-May-2011	SL-088-SA5DN-SB-4.0-5.0	6294852	N	METHOD	314.0	IV
20-May-2011	SL-088-SA5DN-SB-4.0-5.0	6294852	N	METHOD	6850	IV
20-May-2011	SL-088-SA5DN-SB-4.0-5.0	6294852	N	METHOD	7471A	IV
20-May-2011	SL-027-SA5DN-SS-0.0-0.5	6294837	N	3050B	6010B	IV
20-May-2011	SL-027-SA5DN-SS-0.0-0.5	6294837	N	3050B	6020	IV
20-May-2011	SL-027-SA5DN-SS-0.0-0.5	6294837	N	3060A	7199	IV
20-May-2011	SL-027-SA5DN-SS-0.0-0.5	6294837	N	3546	1625C	IV
20-May-2011	SL-027-SA5DN-SS-0.0-0.5	6294837	N	3550B	8015B	IV
20-May-2011	SL-027-SA5DN-SS-0.0-0.5	6294837	N	3550B	8015M	IV
20-May-2011	SL-027-SA5DN-SS-0.0-0.5	6294837	N	3550B	8081A	IV
20-May-2011	SL-027-SA5DN-SS-0.0-0.5	6294837	N	3550B	8082	IV
20-May-2011	SL-027-SA5DN-SS-0.0-0.5	6294837	N	3550B	8151A	IV
20-May-2011	SL-027-SA5DN-SS-0.0-0.5	6294837	N	3550B	8270C	IV
20-May-2011	SL-027-SA5DN-SS-0.0-0.5	6294837	N	3550B	8270C SIM	IV
20-May-2011	SL-027-SA5DN-SS-0.0-0.5	6294837	N	8330	8330A	IV
20-May-2011	SL-027-SA5DN-SS-0.0-0.5	6294837	N	METHOD	300.0	IV
20-May-2011	SL-027-SA5DN-SS-0.0-0.5	6294837	N	METHOD	314.0	IV
20-May-2011	SL-027-SA5DN-SS-0.0-0.5	6294837	N	METHOD	7471A	IV
20-May-2011	SL-027-SA5DN-SS-0.0-0.5	6294837	N	METHOD	8015B	IV
20-May-2011	SL-027-SA5DN-SS-0.0-0.5	6294837	N	METHOD	8015M	IV
20-May-2011	SL-027-SA5DN-SS-0.0-0.5	6294837	N	METHOD	8315A	IV
20-May-2011	SL-027-SA5DN-SS-0.0-0.5	6294837	N	METHOD	9012B	IV
20-May-2011	SL-028-SA5DN-SS-0.0-0.5	6294838	N	3050B	6010B	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-May-2011	SL-028-SA5DN-SS-0.0-0.5	6294838	N	3050B	6020	IV
20-May-2011	SL-028-SA5DN-SS-0.0-0.5	6294838	N	3060A	7199	IV
20-May-2011	SL-028-SA5DN-SS-0.0-0.5	6294838	N	3546	1625C	IV
20-May-2011	SL-028-SA5DN-SS-0.0-0.5	6294838	N	3550B	8015B	IV
20-May-2011	SL-028-SA5DN-SS-0.0-0.5	6294838	N	3550B	8015M	IV
20-May-2011	SL-028-SA5DN-SS-0.0-0.5	6294838	N	3550B	8081A	IV
20-May-2011	SL-028-SA5DN-SS-0.0-0.5	6294838	N	3550B	8082	IV
20-May-2011	SL-028-SA5DN-SS-0.0-0.5	6294838	N	3550B	8151A	IV
20-May-2011	SL-028-SA5DN-SS-0.0-0.5	6294838	N	3550B	8270C	IV
20-May-2011	SL-028-SA5DN-SS-0.0-0.5	6294838	N	3550B	8270C SIM	IV
20-May-2011	SL-028-SA5DN-SS-0.0-0.5	6294838	N	8330	8330A	IV
20-May-2011	SL-028-SA5DN-SS-0.0-0.5	6294838	N	METHOD	300.0	IV
20-May-2011	SL-028-SA5DN-SS-0.0-0.5	6294838	N	METHOD	314.0	IV
20-May-2011	SL-028-SA5DN-SS-0.0-0.5	6294838	N	METHOD	7471A	IV
20-May-2011	SL-028-SA5DN-SS-0.0-0.5	6294838	N	METHOD	8015B	IV
20-May-2011	SL-028-SA5DN-SS-0.0-0.5	6294838	N	METHOD	8015M	IV
20-May-2011	SL-028-SA5DN-SS-0.0-0.5	6294838	N	METHOD	8315A	IV
20-May-2011	SL-028-SA5DN-SS-0.0-0.5	6294838	N	METHOD	9012B	IV
20-May-2011	TB-052011	6294853	TB	5030B	8015M	IV
20-May-2011	TB-052011	6294853	TB	5030B	8260B	IV
20-May-2011	TB-052011	6294853	TB	5030B	8260B SIM	IV
20-May-2011	SL-044-SA5DN-SS-0.0-0.5	6294845	N	3050B	6010B	IV
20-May-2011	SL-044-SA5DN-SS-0.0-0.5	6294845	N	3050B	6020	IV
20-May-2011	SL-044-SA5DN-SS-0.0-0.5	6294845	N	3060A	7199	IV
20-May-2011	SL-044-SA5DN-SS-0.0-0.5	6294845	N	3546	1625C	IV
20-May-2011	SL-044-SA5DN-SS-0.0-0.5	6294845	N	3550B	8015B	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-May-2011	SL-044-SA5DN-SS-0.0-0.5	6294845	N	3550B	8015M	IV
20-May-2011	SL-044-SA5DN-SS-0.0-0.5	6294845	N	3550B	8081A	IV
20-May-2011	SL-044-SA5DN-SS-0.0-0.5	6294845	N	3550B	8082	IV
20-May-2011	SL-044-SA5DN-SS-0.0-0.5	6294845	N	3550B	8151A	IV
20-May-2011	SL-044-SA5DN-SS-0.0-0.5	6294845	N	3550B	8270C	IV
20-May-2011	SL-044-SA5DN-SS-0.0-0.5	6294845	N	3550B	8270C SIM	IV
20-May-2011	SL-044-SA5DN-SS-0.0-0.5	6294845	N	8330	8330A	IV
20-May-2011	SL-044-SA5DN-SS-0.0-0.5	6294845	N	METHOD	300.0	IV
20-May-2011	SL-044-SA5DN-SS-0.0-0.5	6294845	N	METHOD	314.0	IV
20-May-2011	SL-044-SA5DN-SS-0.0-0.5	6294845	N	METHOD	7471A	IV
20-May-2011	SL-044-SA5DN-SS-0.0-0.5	6294845	N	METHOD	8015B	IV
20-May-2011	SL-044-SA5DN-SS-0.0-0.5	6294845	N	METHOD	8015M	IV
20-May-2011	SL-044-SA5DN-SS-0.0-0.5	6294845	N	METHOD	8315A	IV
20-May-2011	SL-044-SA5DN-SS-0.0-0.5	6294845	N	METHOD	9012B	IV
20-May-2011	SL-029-SA5DN-SS-0.0-0.5	6294839	N	3050B	6010B	IV
20-May-2011	SL-029-SA5DN-SS-0.0-0.5	6294839	N	3050B	6020	IV
20-May-2011	SL-029-SA5DN-SS-0.0-0.5	6294839	N	3060A	7199	IV
20-May-2011	SL-029-SA5DN-SS-0.0-0.5	6294839	N	3546	1625C	IV
20-May-2011	SL-029-SA5DN-SS-0.0-0.5	6294839	N	3550B	8015B	IV
20-May-2011	SL-029-SA5DN-SS-0.0-0.5	6294839	N	3550B	8015M	IV
20-May-2011	SL-029-SA5DN-SS-0.0-0.5	6294839	N	3550B	8081A	IV
20-May-2011	SL-029-SA5DN-SS-0.0-0.5	6294839	N	3550B	8082	IV
20-May-2011	SL-029-SA5DN-SS-0.0-0.5	6294839	N	3550B	8151A	IV
20-May-2011	SL-029-SA5DN-SS-0.0-0.5	6294839	N	3550B	8270C	IV
20-May-2011	SL-029-SA5DN-SS-0.0-0.5	6294839	N	3550B	8270C SIM	IV
20-May-2011	SL-029-SA5DN-SS-0.0-0.5	6294839	N	8330	8330A	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-May-2011	SL-029-SA5DN-SS-0.0-0.5	6294839	N	METHOD	300.0	IV
20-May-2011	SL-029-SA5DN-SS-0.0-0.5	6294839	N	METHOD	314.0	IV
20-May-2011	SL-029-SA5DN-SS-0.0-0.5	6294839	N	METHOD	7471A	IV
20-May-2011	SL-029-SA5DN-SS-0.0-0.5	6294839	N	METHOD	8015B	IV
20-May-2011	SL-029-SA5DN-SS-0.0-0.5	6294839	N	METHOD	8015M	IV
20-May-2011	SL-029-SA5DN-SS-0.0-0.5	6294839	N	METHOD	8315A	IV
20-May-2011	SL-029-SA5DN-SS-0.0-0.5	6294839	N	METHOD	9012B	IV
20-May-2011	SL-029-SA5DN-SS-0.0-0.5DU	P294839D272024A	DUP	METHOD	9012B	IV
20-May-2011	SL-029-SA5DN-SS-0.0-0.5MS	P294839R272025A	MS	METHOD	9012B	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5	6294833	N	3050B	6010B	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5	6294833	N	3050B	6020	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5	6294833	N	3060A	7199	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5	6294833	N	3546	1625C	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5	6294833	N	3550B	8015B	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5	6294833	N	3550B	8015M	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5	6294833	N	3550B	8081A	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5	6294833	N	3550B	8082	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5	6294833	N	3550B	8151A	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5	6294833	N	3550B	8270C	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5	6294833	N	3550B	8270C SIM	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5	6294833	N	8330	8330A	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5	6294833	N	METHOD	300.0	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5	6294833	N	METHOD	314.0	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5	6294833	N	METHOD	7471A	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5	6294833	N	METHOD	8015B	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5	6294833	N	METHOD	8015M	IV



## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-May-2011	SL-020-SA5DN-SS-0.0-0.5	6294833	N	METHOD	8315A	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5	6294833	N	METHOD	9012B	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5DU	P294833D220820	DUP	3050B	6010B	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5DU	P294833D220953A	DUP	3050B	6020	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5DU	P294833D220953B	DUP	3050B	6020	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5DU	P294833D220953C	DUP	3050B	6020	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5DU	P294833D220953D	DUP	3050B	6020	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5DU	P294833D221028	DUP	3050B	6010B	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5DU	P294833D221902	DUP	METHOD	7471A	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5DU	P294833D271017A	DUP	METHOD	300.0	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5DU	P294833D271412A	DUP	3060A	7199	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5DU	P294833D272234A	DUP	METHOD	314.0	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5MS	P294833R220824	MS	3050B	6010B	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5MS	P294833R220956A	MS	3050B	6020	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5MS	P294833R220956B	MS	3050B	6020	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5MS	P294833R220956C	MS	3050B	6020	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5MS	P294833R221032	MS	3050B	6010B	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5MS	P294833R221542D	MS	3050B	6020	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5MS	P294833R221904	MS	METHOD	7471A	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5MS	P294833R240505A	MS	METHOD	8315A	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5MS	P294833R241835A	MS	8330	8330A	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5MS	P294833R241848A	MS	3550B	8081A	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5MS	P294833R241904A	MS	3550B	8082	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5MS	P294833R260322	MS	3550B	8270C	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5MS	P294833R261414	MS	3550B	8270C SIM	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5MS	P294833R261854	MS	3546	1625C	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-May-2011	SL-020-SA5DN-SS-0.0-0.5MS	P294833R271031A	MS	METHOD	300.0	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5MS	P294833R271238A	MS	METHOD	314.0	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5MS	P294833R271337A	MS	3060A	7199	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5MS	P294833R320342A	MS	3550B	8015M	IV
20-May-2011	SL-020-SA5DN-SS-0.0-0.5MS	P294833R321458A	MS	3550B	8015B	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	3050B	6010B	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	3050B	6020	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	3060A	7199	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	3546	1625C	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	3550B	8015B	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	3550B	8015M	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	3550B	8082	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	3550B	8270C	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	3550B	8270C SIM	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	5035	8015M	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	5035	8260B	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	5035	8260B SIM	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	8330	8330A	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	METHOD	300.0	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	METHOD	314.0	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	METHOD	6850	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	METHOD	7471A	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	METHOD	8015B	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	METHOD	8015M	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	METHOD	8315A	IV
20-May-2011	SL-086-SA5DN-SB-4.0-5.0	6294851	N	METHOD	9012B	IV

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>GENCHEM</b>
<b>Method:</b>	<b>300.0</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-020-SA5DN-SS-0.0-0.5      Collected: 5/20/2011 3:20:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.85	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-024-SA5DN-SS-0.0-0.5      Collected: 5/20/2011 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
FLUORIDE	1.7		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-025-SA5DN-SS-0.0-0.5      Collected: 5/20/2011 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
FLUORIDE	2.0		0.93	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.1	J	0.93	MDL	1.8	PQL	mg/Kg	J	Z

Sample ID: SL-026-SA5DN-SS-0.0-0.5      Collected: 5/20/2011 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
FLUORIDE	1.3		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-027-SA5DN-SS-0.0-0.5      Collected: 5/20/2011 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	1.9		0.93	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.1	J	0.93	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA5DN-SS-0.0-0.5      Collected: 5/20/2011 2:25:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.7		0.93	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	0.94	J	0.93	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-029-SA5DN-SS-0.0-0.5      Collected: 5/20/2011 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	2.0		0.93	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.1	J	0.93	MDL	1.7	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

Sample ID: SL-036-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
FLUORIDE	1.8		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-037-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	1.7		0.92	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	0.97	J	0.92	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-038-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
FLUORIDE	2.0		0.94	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.0	J	0.94	MDL	1.8	PQL	mg/Kg	J	Z

Sample ID: SL-039-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
FLUORIDE	1.3		0.94	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.0	J	0.94	MDL	1.8	PQL	mg/Kg	J	Z, Q

Sample ID: SL-040-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	1.6		0.93	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.1	J	0.93	MDL	1.8	PQL	mg/Kg	J	Z, Q

Sample ID: SL-044-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	1.8		0.91	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.0	J	0.91	MDL	1.7	PQL	mg/Kg	J	Z, Q

Sample ID: SL-050-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.88	U	0.88	MDL	1.1	PQL	mg/Kg	UJ	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

**Sample ID:** SL-051-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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	0.88	U	0.88	MDL	1.1	PQL	mg/Kg	UJ	Q
Nitrate-NO3	2.2		0.88	MDL	1.7	PQL	mg/Kg	J	Q

**Sample ID:** SL-064-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 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
FLUORIDE	1.6		0.93	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.2	J	0.93	MDL	1.7	PQL	mg/Kg	J	Z, Q

**Sample ID:** SL-065-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 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	5.1		0.91	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.5	J	0.91	MDL	1.7	PQL	mg/Kg	J	Z, Q

**Sample ID:** SL-065-SA5DN-SB-7.0-8.0

**Collected:** 5/20/2011 10:52:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.8		0.89	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.2	J	0.89	MDL	1.7	PQL	mg/Kg	J	Z, Q

**Sample ID:** SL-086-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 3:35:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.0		0.92	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	0.96	J	0.92	MDL	1.7	PQL	mg/Kg	J	Z, Q

**Sample ID:** SL-088-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 2:04:00

**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		0.96	MDL	1.2	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: SL-020-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 3:20:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.33	J	1.06	MDL	10.6	PQL	mg/Kg	U	B

Sample ID: SL-020-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 3:20:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3610		19.1	MDL	53.0	PQL	mg/Kg	J	Q
Zirconium	1.02	J	0.890	MDL	5.30	PQL	mg/Kg	J	Z

Sample ID: SL-024-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 1:45:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.74	J	1.15	MDL	11.5	PQL	mg/Kg	U	B

Sample ID: SL-024-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
POTASSIUM	3840		20.7	MDL	57.4	PQL	mg/Kg	J	Q
SODIUM	81.4	J	42.8	MDL	115	PQL	mg/Kg	J	Z
Zirconium	3.30	J	0.965	MDL	5.74	PQL	mg/Kg	J	Z

Sample ID: SL-025-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 1:25:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3830		20.8	MDL	57.8	PQL	mg/Kg	J	Q
TIN	3.04	J	1.16	MDL	11.6	PQL	mg/Kg	U	B

Sample ID: SL-025-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
Zirconium	3.23	J	0.972	MDL	5.78	PQL	mg/Kg	J	Z

Sample ID: SL-026-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 11:40:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	4060		20.5	MDL	57.0	PQL	mg/Kg	J	Q
TIN	2.99	J	1.14	MDL	11.4	PQL	mg/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** SL-026-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
Zirconium	2.81	J	0.957	MDL	5.70	PQL	mg/Kg	J	Z

**Sample ID:** SL-027-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
POTASSIUM	3800		20.4	MDL	56.6	PQL	mg/Kg	J	Q
TIN	2.90	J	1.13	MDL	11.3	PQL	mg/Kg	U	B

**Sample ID:** SL-027-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
Zirconium	2.99	J	0.951	MDL	5.66	PQL	mg/Kg	J	Z

**Sample ID:** SL-028-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 2:25:00

**Analysis Type:** REA

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	13800		7.03	MDL	22.9	PQL	mg/Kg	U	B
MAGNESIUM	6490		2.91	MDL	11.5	PQL	mg/Kg	U	B
POTASSIUM	3780		20.7	MDL	57.4	PQL	mg/Kg	J	Q
TIN	3.02	J	1.15	MDL	11.5	PQL	mg/Kg	U	B

**Sample ID:** SL-028-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 2:25:00

**Analysis Type:** REA2

**Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	31200		27.0	MDL	115	PQL	mg/Kg	U	B

**Sample ID:** SL-028-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 2:25:00

**Analysis Type:** REA3

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TITANIUM	1210		0.427	MDL	1.12	PQL	mg/Kg	U	B

**Sample ID:** SL-028-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 2:25:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	3.46	J	0.964	MDL	5.74	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6010B

Matrix: SO

Sample ID: SL-029-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 3:00:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3690		20.3	MDL	56.4	PQL	mg/Kg	J	Q
SODIUM	108	J	42.1	MDL	113	PQL	mg/Kg	J	Z
TIN	3.21	J	1.13	MDL	11.3	PQL	mg/Kg	U	B

Sample ID: SL-029-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
Zirconium	3.59	J	0.947	MDL	5.64	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 9:45:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3700		19.9	MDL	55.4	PQL	mg/Kg	J	Q
SODIUM	108	J	41.3	MDL	111	PQL	mg/Kg	J	Z
TIN	3.16	J	1.11	MDL	11.1	PQL	mg/Kg	U	B

Sample ID: SL-036-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
Zirconium	3.17	J	0.930	MDL	5.54	PQL	mg/Kg	J	Z

Sample ID: SL-037-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 11:15:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3860		20.0	MDL	55.5	PQL	mg/Kg	J	Q
SODIUM	99.1	J	41.4	MDL	111	PQL	mg/Kg	J	Z
TIN	2.93	J	1.11	MDL	11.1	PQL	mg/Kg	U	B

Sample ID: SL-037-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
Zirconium	2.81	J	0.932	MDL	5.55	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: SL-038-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 10:55:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3880		20.4	MDL	56.8	PQL	mg/Kg	J	Q
SODIUM	110	J	42.4	MDL	114	PQL	mg/Kg	J	Z
TIN	2.98	J	1.14	MDL	11.4	PQL	mg/Kg	U	B

Sample ID: SL-038-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
Zirconium	3.25	J	0.954	MDL	5.68	PQL	mg/Kg	J	Z

Sample ID: SL-039-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 10:10:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	4240		20.5	MDL	56.9	PQL	mg/Kg	J	Q
SODIUM	97.0	J	42.5	MDL	114	PQL	mg/Kg	J	Z
TIN	3.09	J	1.14	MDL	11.4	PQL	mg/Kg	U	B

Sample ID: SL-039-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
Zirconium	3.37	J	0.956	MDL	5.69	PQL	mg/Kg	J	Z

Sample ID: SL-040-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
POTASSIUM	3910		20.8	MDL	57.8	PQL	mg/Kg	J	Q
SODIUM	110	J	43.1	MDL	116	PQL	mg/Kg	J	Z
TIN	3.06	J	1.16	MDL	11.6	PQL	mg/Kg	U	B

Sample ID: SL-040-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
Zirconium	3.15	J	0.972	MDL	5.78	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6010B

Matrix: SO

Sample ID: SL-044-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 2:40:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3560		20.3	MDL	56.4	PQL	mg/Kg	J	Q
TIN	2.94	J	1.13	MDL	11.3	PQL	mg/Kg	U	B

Sample ID: SL-044-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
Zirconium	2.54	J	0.947	MDL	5.64	PQL	mg/Kg	J	Z

Sample ID: SL-050-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 8:45:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	4190		19.3	MDL	53.7	PQL	mg/Kg	J	Q
SODIUM	94.2	J	40.1	MDL	107	PQL	mg/Kg	J	Z
TIN	2.90	J	1.07	MDL	10.7	PQL	mg/Kg	U	B

Sample ID: SL-050-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
Zirconium	1.81	J	0.902	MDL	5.37	PQL	mg/Kg	J	Z

Sample ID: SL-051-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
POTASSIUM	4310		19.1	MDL	53.1	PQL	mg/Kg	J	Q
TIN	2.91	J	1.06	MDL	10.6	PQL	mg/Kg	U	B

Sample ID: SL-051-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
Zirconium	2.56	J	0.891	MDL	5.31	PQL	mg/Kg	J	Z

Sample ID: SL-064-SA5DN-SB-4.0-5.0

Collected: 5/20/2011 11:34:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2710		20.6	MDL	57.3	PQL	mg/Kg	J	Q
TIN	2.84	J	1.15	MDL	11.5	PQL	mg/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** SL-064-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 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
Zirconium	2.00	J	0.963	MDL	5.73	PQL	mg/Kg	J	Z

**Sample ID:** SL-065-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 10:44:00

**Analysis Type:** REA2

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3150		19.8	MDL	54.9	PQL	mg/Kg	J	Q
TIN	3.01	J	1.10	MDL	11.0	PQL	mg/Kg	U	B

**Sample ID:** SL-065-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 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
Zirconium	2.62	J	0.923	MDL	5.49	PQL	mg/Kg	J	Z

**Sample ID:** SL-065-SA5DN-SB-7.0-8.0

**Collected:** 5/20/2011 10:52:00

**Analysis Type:** REA

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2150		19.2	MDL	53.2	PQL	mg/Kg	J	Q
TIN	2.79	J	1.06	MDL	10.6	PQL	mg/Kg	U	B

**Sample ID:** SL-065-SA5DN-SB-7.0-8.0

**Collected:** 5/20/2011 10:52:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	1.77	J	0.894	MDL	5.32	PQL	mg/Kg	J	Z

**Sample ID:** SL-086-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 3:35:00

**Analysis Type:** REA

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2960		20.0	MDL	55.5	PQL	mg/Kg	J	Q
TIN	2.85	J	1.11	MDL	11.1	PQL	mg/Kg	U	B

**Sample ID:** SL-086-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 3:35:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	1.90	J	0.933	MDL	5.55	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: SL-088-SA5DN-SB-4.0-5.0

Collected: 5/20/2011 2:04:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2110		20.7	MDL	57.5	PQL	mg/Kg	J	Q
TIN	3.09	J	1.15	MDL	11.5	PQL	mg/Kg	U	B

Sample ID: SL-088-SA5DN-SB-4.0-5.0

Collected: 5/20/2011 2:04:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	1.36	J	0.966	MDL	5.75	PQL	mg/Kg	J	Z

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-020-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 3:20:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.110	J	0.0420	MDL	0.420	PQL	mg/Kg	J	Z, Q

Sample ID: SL-020-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 3:20:00

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.591		0.0524	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: SL-020-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 3:20:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.276		0.0629	MDL	0.210	PQL	mg/Kg	J	Q
ARSENIC	6.13		0.0839	MDL	0.420	PQL	mg/Kg	J	Q
BERYLLIUM	0.644		0.0168	MDL	0.105	PQL	mg/Kg	J	Q
CADMIUM	0.245		0.0420	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	27.2		0.126	MDL	0.420	PQL	mg/Kg	J	Q, A
COBALT	11.9		0.0210	MDL	0.105	PQL	mg/Kg	J	Q, A
COPPER	19.4		0.0692	MDL	0.420	PQL	mg/Kg	J	A
LEAD	12.5		0.0109	MDL	0.210	PQL	mg/Kg	J	A
NICKEL	19.2		0.105	MDL	0.420	PQL	mg/Kg	J	Q, A
SILVER	0.0532	J	0.0126	MDL	0.105	PQL	mg/Kg	J	Z, Q
THALLIUM	0.364		0.0315	MDL	0.105	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-020-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 3:20:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	71.1		0.0231	MDL	0.105	PQL	mg/Kg	J	A
ZINC	103		0.587	MDL	3.15	PQL	mg/Kg	J	A

Sample ID: SL-024-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.156	J	0.0446	MDL	0.446	PQL	mg/Kg	J	Z, Q

Sample ID: SL-024-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	1.09		0.0558	MDL	0.112	PQL	mg/Kg	J	Q

Sample ID: SL-024-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.393		0.0669	MDL	0.223	PQL	mg/Kg	J	Q
ARSENIC	7.93		0.0892	MDL	0.446	PQL	mg/Kg	J	Q
BERYLLIUM	0.993		0.0178	MDL	0.112	PQL	mg/Kg	J	Q
CADMIUM	0.473		0.0446	MDL	0.112	PQL	mg/Kg	J	Q
CHROMIUM	42.7		0.134	MDL	0.446	PQL	mg/Kg	J	Q, A
COBALT	13.8		0.0223	MDL	0.112	PQL	mg/Kg	J	Q, A
COPPER	18.9		0.0736	MDL	0.446	PQL	mg/Kg	J	A
LEAD	15.2		0.0116	MDL	0.223	PQL	mg/Kg	J	A
NICKEL	30.9		0.112	MDL	0.446	PQL	mg/Kg	J	Q, A
SILVER	0.0704	J	0.0134	MDL	0.112	PQL	mg/Kg	J	Z, Q
THALLIUM	0.469		0.0335	MDL	0.112	PQL	mg/Kg	J	Q
VANADIUM	78.1		0.0245	MDL	0.112	PQL	mg/Kg	J	A
ZINC	105		0.625	MDL	3.35	PQL	mg/Kg	J	A

Sample ID: SL-025-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.173	J	0.0454	MDL	0.454	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-025-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.600		0.0567	MDL	0.113	PQL	mg/Kg	J	Q

Sample ID: SL-025-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.362		0.0681	MDL	0.227	PQL	mg/Kg	J	Q
ARSENIC	9.10		0.0907	MDL	0.454	PQL	mg/Kg	J	Q
BERYLLIUM	1.19		0.0181	MDL	0.113	PQL	mg/Kg	J	Q
CADMIUM	0.422		0.0454	MDL	0.113	PQL	mg/Kg	J	Q
CHROMIUM	46.7		0.136	MDL	0.454	PQL	mg/Kg	J	Q, A
COBALT	15.2		0.0227	MDL	0.113	PQL	mg/Kg	J	Q, A
COPPER	19.1		0.0749	MDL	0.454	PQL	mg/Kg	J	A
LEAD	15.9		0.0118	MDL	0.227	PQL	mg/Kg	J	A
NICKEL	33.1		0.113	MDL	0.454	PQL	mg/Kg	J	Q, A
SILVER	0.0749	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z, Q
THALLIUM	0.528		0.0340	MDL	0.113	PQL	mg/Kg	J	Q
VANADIUM	88.8		0.0250	MDL	0.113	PQL	mg/Kg	J	A
ZINC	108		0.635	MDL	3.40	PQL	mg/Kg	J	A

Sample ID: SL-026-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 11:40:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.238	J	0.0456	MDL	0.456	PQL	mg/Kg	J	Z, Q

Sample ID: SL-026-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 11:40:00

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.688		0.0570	MDL	0.114	PQL	mg/Kg	J	Q

Sample ID: SL-026-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 11:40:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.347		0.0684	MDL	0.228	PQL	mg/Kg	J	Q
ARSENIC	7.98		0.0911	MDL	0.456	PQL	mg/Kg	J	Q
BERYLLIUM	1.11		0.0182	MDL	0.114	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-026-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 11:40:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.755		0.0456	MDL	0.114	PQL	mg/Kg	J	Q
CHROMIUM	44.9		0.137	MDL	0.456	PQL	mg/Kg	J	Q, A
COBALT	18.0		0.0228	MDL	0.114	PQL	mg/Kg	J	Q, A
COPPER	19.3		0.0752	MDL	0.456	PQL	mg/Kg	J	A
LEAD	16.1		0.0118	MDL	0.228	PQL	mg/Kg	J	A
NICKEL	36.4		0.114	MDL	0.456	PQL	mg/Kg	J	Q, A
SILVER	0.0617	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z, Q
THALLIUM	0.517		0.0342	MDL	0.114	PQL	mg/Kg	J	Q
VANADIUM	85.0		0.0251	MDL	0.114	PQL	mg/Kg	J	A
ZINC	110		0.638	MDL	3.42	PQL	mg/Kg	J	A

Sample ID: SL-027-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 2:05:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.145	J	0.0457	MDL	0.457	PQL	mg/Kg	J	Z, Q

Sample ID: SL-027-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
MOLYBDENUM	0.710		0.0571	MDL	0.114	PQL	mg/Kg	J	Q

Sample ID: SL-027-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.392		0.0686	MDL	0.229	PQL	mg/Kg	J	Q
ARSENIC	9.15		0.0914	MDL	0.457	PQL	mg/Kg	J	Q
BERYLLIUM	1.13		0.0183	MDL	0.114	PQL	mg/Kg	J	Q
CADMIUM	0.476		0.0457	MDL	0.114	PQL	mg/Kg	J	Q
CHROMIUM	43.7		0.137	MDL	0.457	PQL	mg/Kg	J	Q, A
COBALT	14.0		0.0229	MDL	0.114	PQL	mg/Kg	J	Q, A
COPPER	19.4		0.0754	MDL	0.457	PQL	mg/Kg	J	A
LEAD	16.5		0.0119	MDL	0.229	PQL	mg/Kg	J	A
NICKEL	33.7		0.114	MDL	0.457	PQL	mg/Kg	J	Q, A
SILVER	0.0757	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z, Q
THALLIUM	0.485		0.0343	MDL	0.114	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-027-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
VANADIUM	85.1		0.0251	MDL	0.114	PQL	mg/Kg	J	A
ZINC	120		0.640	MDL	3.43	PQL	mg/Kg	J	A

Sample ID: SL-028-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 2:25:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.146	J	0.0463	MDL	0.463	PQL	mg/Kg	J	Z, Q

Sample ID: SL-028-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 2:25:00

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.810		0.0579	MDL	0.116	PQL	mg/Kg	J	Q

Sample ID: SL-028-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 2:25:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.417		0.0695	MDL	0.232	PQL	mg/Kg	J	Q
ARSENIC	10.4		0.0927	MDL	0.463	PQL	mg/Kg	J	Q
BERYLLIUM	1.20		0.0185	MDL	0.116	PQL	mg/Kg	J	Q
CADMIUM	0.435		0.0463	MDL	0.116	PQL	mg/Kg	J	Q
CHROMIUM	46.4		0.139	MDL	0.463	PQL	mg/Kg	J	Q, A
COBALT	14.7		0.0232	MDL	0.116	PQL	mg/Kg	J	Q, A
COPPER	19.1		0.0765	MDL	0.463	PQL	mg/Kg	J	A
LEAD	19.9		0.0121	MDL	0.232	PQL	mg/Kg	J	A
NICKEL	32.4		0.116	MDL	0.463	PQL	mg/Kg	J	Q, A
SILVER	0.0668	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z, Q
THALLIUM	0.517		0.0348	MDL	0.116	PQL	mg/Kg	J	Q
VANADIUM	91.1		0.0255	MDL	0.116	PQL	mg/Kg	J	A
ZINC	137		0.649	MDL	3.48	PQL	mg/Kg	J	A

Sample ID: SL-029-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.147	J	0.0455	MDL	0.455	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-029-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 3:00:00

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.664		0.0569	MDL	0.114	PQL	mg/Kg	J	Q

Sample ID: SL-029-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.403		0.0683	MDL	0.228	PQL	mg/Kg	J	Q
ARSENIC	9.33		0.0911	MDL	0.455	PQL	mg/Kg	J	Q
BERYLLIUM	1.10		0.0182	MDL	0.114	PQL	mg/Kg	J	Q
CADMIUM	0.423		0.0455	MDL	0.114	PQL	mg/Kg	J	Q
CHROMIUM	44.3		0.137	MDL	0.455	PQL	mg/Kg	J	Q, A
COBALT	17.2		0.0228	MDL	0.114	PQL	mg/Kg	J	Q, A
COPPER	19.0		0.0752	MDL	0.455	PQL	mg/Kg	J	A
LEAD	17.4		0.0118	MDL	0.228	PQL	mg/Kg	J	A
NICKEL	32.1		0.114	MDL	0.455	PQL	mg/Kg	J	Q, A
SILVER	0.0640	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z, Q
THALLIUM	0.481		0.0342	MDL	0.114	PQL	mg/Kg	J	Q
VANADIUM	84.9		0.0251	MDL	0.114	PQL	mg/Kg	J	A
ZINC	113		0.638	MDL	3.42	PQL	mg/Kg	J	A

Sample ID: SL-036-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.165	J	0.0443	MDL	0.443	PQL	mg/Kg	J	Z, Q

Sample ID: SL-036-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 9:45:00

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.827		0.0554	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: SL-036-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.445		0.0664	MDL	0.221	PQL	mg/Kg	J	Q
ARSENIC	11.0		0.0886	MDL	0.443	PQL	mg/Kg	J	Q
BERYLLIUM	1.27		0.0177	MDL	0.111	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-036-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
CADMIUM	0.559		0.0443	MDL	0.111	PQL	mg/Kg	J	Q
CHROMIUM	55.3		0.133	MDL	0.443	PQL	mg/Kg	J	Q, A
COBALT	18.8		0.0221	MDL	0.111	PQL	mg/Kg	J	Q, A
COPPER	23.2		0.0731	MDL	0.443	PQL	mg/Kg	J	A
LEAD	21.0		0.0115	MDL	0.221	PQL	mg/Kg	J	A
NICKEL	40.7		0.111	MDL	0.443	PQL	mg/Kg	J	Q, A
SILVER	0.119		0.0133	MDL	0.111	PQL	mg/Kg	J	Q
THALLIUM	0.625		0.0332	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	100		0.0244	MDL	0.111	PQL	mg/Kg	J	A
ZINC	131		0.620	MDL	3.32	PQL	mg/Kg	J	A

Sample ID: SL-037-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.172	J	0.0457	MDL	0.457	PQL	mg/Kg	J	Z, Q

Sample ID: SL-037-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.595		0.0571	MDL	0.114	PQL	mg/Kg	J	Q

Sample ID: SL-037-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.359		0.0685	MDL	0.228	PQL	mg/Kg	J	Q
ARSENIC	6.97		0.0914	MDL	0.457	PQL	mg/Kg	J	Q
BERYLLIUM	0.975		0.0183	MDL	0.114	PQL	mg/Kg	J	Q
CADMIUM	0.410		0.0457	MDL	0.114	PQL	mg/Kg	J	Q
CHROMIUM	39.0		0.137	MDL	0.457	PQL	mg/Kg	J	Q, A
COBALT	11.6		0.0228	MDL	0.114	PQL	mg/Kg	J	Q, A
COPPER	16.6		0.0754	MDL	0.457	PQL	mg/Kg	J	A
LEAD	14.0		0.0119	MDL	0.228	PQL	mg/Kg	J	A
NICKEL	24.3		0.114	MDL	0.457	PQL	mg/Kg	J	Q, A
SILVER	0.0629	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z, Q
THALLIUM	0.420		0.0343	MDL	0.114	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-037-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
VANADIUM	74.8		0.0251	MDL	0.114	PQL	mg/Kg	J	A
ZINC	98.3		0.640	MDL	3.43	PQL	mg/Kg	J	A

Sample ID: SL-038-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 10:55:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.177	J	0.0454	MDL	0.454	PQL	mg/Kg	J	Z, Q

Sample ID: SL-038-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 10:55:00

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.709		0.0568	MDL	0.114	PQL	mg/Kg	J	Q

Sample ID: SL-038-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 10:55:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.399		0.0681	MDL	0.227	PQL	mg/Kg	J	Q
ARSENIC	8.59		0.0908	MDL	0.454	PQL	mg/Kg	J	Q
BERYLLIUM	1.10		0.0182	MDL	0.114	PQL	mg/Kg	J	Q
CADMIUM	0.427		0.0454	MDL	0.114	PQL	mg/Kg	J	Q
CHROMIUM	44.8		0.136	MDL	0.454	PQL	mg/Kg	J	Q, A
COBALT	14.3		0.0227	MDL	0.114	PQL	mg/Kg	J	Q, A
COPPER	22.9		0.0749	MDL	0.454	PQL	mg/Kg	J	A
LEAD	16.4		0.0118	MDL	0.227	PQL	mg/Kg	J	A
NICKEL	30.6		0.114	MDL	0.454	PQL	mg/Kg	J	Q, A
SILVER	0.0697	J	0.0136	MDL	0.114	PQL	mg/Kg	J	Z, Q
THALLIUM	0.508		0.0341	MDL	0.114	PQL	mg/Kg	J	Q
VANADIUM	84.9		0.0250	MDL	0.114	PQL	mg/Kg	J	A
ZINC	113		0.636	MDL	3.41	PQL	mg/Kg	J	A

Sample ID: SL-039-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 10:10:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.170	J	0.0464	MDL	0.464	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-039-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 10:10:00

**Analysis Type:** REA2

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.711		0.0580	MDL	0.116	PQL	mg/Kg	J	Q

**Sample ID:** SL-039-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 10:10:00

**Analysis Type:** RES

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.374		0.0696	MDL	0.232	PQL	mg/Kg	J	Q
ARSENIC	8.65		0.0929	MDL	0.464	PQL	mg/Kg	J	Q
BERYLLIUM	1.16		0.0186	MDL	0.116	PQL	mg/Kg	J	Q
CADMIUM	0.538		0.0464	MDL	0.116	PQL	mg/Kg	J	Q
CHROMIUM	45.7		0.139	MDL	0.464	PQL	mg/Kg	J	Q, A
COBALT	15.1		0.0232	MDL	0.116	PQL	mg/Kg	J	Q, A
COPPER	18.5		0.0766	MDL	0.464	PQL	mg/Kg	J	A
LEAD	16.9		0.0121	MDL	0.232	PQL	mg/Kg	J	A
NICKEL	31.1		0.116	MDL	0.464	PQL	mg/Kg	J	Q, A
SILVER	0.0842	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z, Q
THALLIUM	0.492		0.0348	MDL	0.116	PQL	mg/Kg	J	Q
VANADIUM	88.0		0.0255	MDL	0.116	PQL	mg/Kg	J	A
ZINC	103		0.650	MDL	3.48	PQL	mg/Kg	J	A

**Sample ID:** SL-040-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 10:40:00

**Analysis Type:** REA

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.154	J	0.0449	MDL	0.449	PQL	mg/Kg	J	Z, Q

**Sample ID:** SL-040-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
MOLYBDENUM	0.576		0.0562	MDL	0.112	PQL	mg/Kg	J	Q

**Sample ID:** SL-040-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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	0.310		0.0674	MDL	0.225	PQL	mg/Kg	J	Q
ARSENIC	7.57		0.0899	MDL	0.449	PQL	mg/Kg	J	Q
BERYLLIUM	0.965		0.0180	MDL	0.112	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-040-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
CADMIUM	0.488		0.0449	MDL	0.112	PQL	mg/Kg	J	Q
CHROMIUM	38.6		0.135	MDL	0.449	PQL	mg/Kg	J	Q, A
COBALT	13.5		0.0225	MDL	0.112	PQL	mg/Kg	J	Q, A
COPPER	16.6		0.0741	MDL	0.449	PQL	mg/Kg	J	A
LEAD	14.7		0.0117	MDL	0.225	PQL	mg/Kg	J	A
NICKEL	28.2		0.112	MDL	0.449	PQL	mg/Kg	J	Q, A
SILVER	0.0698	J	0.0135	MDL	0.112	PQL	mg/Kg	J	Z, Q
THALLIUM	0.444		0.0337	MDL	0.112	PQL	mg/Kg	J	Q
VANADIUM	73.0		0.0247	MDL	0.112	PQL	mg/Kg	J	A
ZINC	96.7		0.629	MDL	3.37	PQL	mg/Kg	J	A

Sample ID: SL-044-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.140	J	0.0447	MDL	0.447	PQL	mg/Kg	J	Z, Q

Sample ID: SL-044-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.535		0.0558	MDL	0.112	PQL	mg/Kg	J	Q

Sample ID: SL-044-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.292		0.0670	MDL	0.223	PQL	mg/Kg	J	Q
ARSENIC	7.11		0.0893	MDL	0.447	PQL	mg/Kg	J	Q
BERYLLIUM	0.926		0.0179	MDL	0.112	PQL	mg/Kg	J	Q
CADMIUM	0.358		0.0447	MDL	0.112	PQL	mg/Kg	J	Q
CHROMIUM	36.8		0.134	MDL	0.447	PQL	mg/Kg	J	Q, A
COBALT	12.0		0.0223	MDL	0.112	PQL	mg/Kg	J	Q, A
COPPER	15.2		0.0737	MDL	0.447	PQL	mg/Kg	J	A
LEAD	16.0		0.0116	MDL	0.223	PQL	mg/Kg	J	A
NICKEL	25.3		0.112	MDL	0.447	PQL	mg/Kg	J	Q, A
SILVER	0.0529	J	0.0134	MDL	0.112	PQL	mg/Kg	J	Z, Q
THALLIUM	0.435		0.0335	MDL	0.112	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-044-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
VANADIUM	71.2		0.0246	MDL	0.112	PQL	mg/Kg	J	A
ZINC	105		0.625	MDL	3.35	PQL	mg/Kg	J	A

Sample ID: SL-050-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.229	J	0.0425	MDL	0.425	PQL	mg/Kg	J	Z, Q

Sample ID: SL-050-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 8:45:00

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.976		0.0532	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-050-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.595		0.0638	MDL	0.213	PQL	mg/Kg	J	Q
ARSENIC	7.47		0.0851	MDL	0.425	PQL	mg/Kg	J	Q
BERYLLIUM	0.965		0.0170	MDL	0.106	PQL	mg/Kg	J	Q
CADMIUM	0.800		0.0425	MDL	0.106	PQL	mg/Kg	J	Q
CHROMIUM	41.2		0.128	MDL	0.425	PQL	mg/Kg	J	Q, A
COBALT	18.1		0.0213	MDL	0.106	PQL	mg/Kg	J	Q, A
COPPER	19.4		0.0702	MDL	0.425	PQL	mg/Kg	J	A
LEAD	43.6		0.0111	MDL	0.213	PQL	mg/Kg	J	A
NICKEL	32.4		0.106	MDL	0.425	PQL	mg/Kg	J	Q, A
SILVER	0.0770	J	0.0128	MDL	0.106	PQL	mg/Kg	J	Z, Q
THALLIUM	0.465		0.0319	MDL	0.106	PQL	mg/Kg	J	Q
VANADIUM	85.1		0.0234	MDL	0.106	PQL	mg/Kg	J	A
ZINC	153		0.596	MDL	3.19	PQL	mg/Kg	J	A

Sample ID: SL-051-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.192	J	0.0437	MDL	0.437	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-051-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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	0.692		0.0546	MDL	0.109	PQL	mg/Kg	J	Q

**Sample ID:** SL-051-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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	0.371		0.0656	MDL	0.219	PQL	mg/Kg	J	Q
ARSENIC	5.79		0.0874	MDL	0.437	PQL	mg/Kg	J	Q
BERYLLIUM	0.814		0.0175	MDL	0.109	PQL	mg/Kg	J	Q
CADMIUM	0.456		0.0437	MDL	0.109	PQL	mg/Kg	J	Q
CHROMIUM	32.7		0.131	MDL	0.437	PQL	mg/Kg	J	Q, A
COBALT	11.0		0.0219	MDL	0.109	PQL	mg/Kg	J	Q, A
COPPER	15.9		0.0721	MDL	0.437	PQL	mg/Kg	J	A
LEAD	21.1		0.0114	MDL	0.219	PQL	mg/Kg	J	A
NICKEL	23.2		0.109	MDL	0.437	PQL	mg/Kg	J	Q, A
SILVER	0.0586	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z, Q
THALLIUM	0.359		0.0328	MDL	0.109	PQL	mg/Kg	J	Q
VANADIUM	68.2		0.0240	MDL	0.109	PQL	mg/Kg	J	A
ZINC	107		0.612	MDL	3.28	PQL	mg/Kg	J	A

**Sample ID:** SL-064-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 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	0.121	J	0.0458	MDL	0.458	PQL	mg/Kg	J	Z, Q

**Sample ID:** SL-064-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 11:34:00

**Analysis Type:** REA2

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.581		0.0573	MDL	0.115	PQL	mg/Kg	J	Q

**Sample ID:** SL-064-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 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	0.381		0.0688	MDL	0.229	PQL	mg/Kg	J	Q
ARSENIC	10.8		0.0917	MDL	0.458	PQL	mg/Kg	J	Q
BERYLLIUM	1.22		0.0183	MDL	0.115	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-064-SA5DN-SB-4.0-5.0

Collected: 5/20/2011 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
CADMIUM	0.409		0.0458	MDL	0.115	PQL	mg/Kg	J	Q
CHROMIUM	50.7		0.138	MDL	0.458	PQL	mg/Kg	J	Q, A
COBALT	16.4		0.0229	MDL	0.115	PQL	mg/Kg	J	Q, A
COPPER	17.0		0.0756	MDL	0.458	PQL	mg/Kg	J	A
LEAD	15.9		0.0119	MDL	0.229	PQL	mg/Kg	J	A
NICKEL	35.0		0.115	MDL	0.458	PQL	mg/Kg	J	Q, A
SILVER	0.0651	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z, Q
THALLIUM	0.532		0.0344	MDL	0.115	PQL	mg/Kg	J	Q
VANADIUM	94.5		0.0252	MDL	0.115	PQL	mg/Kg	J	A
ZINC	106		0.642	MDL	3.44	PQL	mg/Kg	J	A

Sample ID: SL-065-SA5DN-SB-4.0-5.0

Collected: 5/20/2011 10:44:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0959	J	0.0444	MDL	0.444	PQL	mg/Kg	J	Z, Q

Sample ID: SL-065-SA5DN-SB-4.0-5.0

Collected: 5/20/2011 10:44:00

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.489		0.0555	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: SL-065-SA5DN-SB-4.0-5.0

Collected: 5/20/2011 10:44:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.374		0.0666	MDL	0.222	PQL	mg/Kg	J	Q
ARSENIC	8.37		0.0888	MDL	0.444	PQL	mg/Kg	J	Q
BERYLLIUM	1.12		0.0178	MDL	0.111	PQL	mg/Kg	J	Q
CADMIUM	0.311		0.0444	MDL	0.111	PQL	mg/Kg	J	Q
CHROMIUM	44.3		0.133	MDL	0.444	PQL	mg/Kg	J	Q, A
COBALT	12.8		0.0222	MDL	0.111	PQL	mg/Kg	J	Q, A
COPPER	17.9		0.0732	MDL	0.444	PQL	mg/Kg	J	A
LEAD	13.6		0.0115	MDL	0.222	PQL	mg/Kg	J	A
NICKEL	28.7		0.111	MDL	0.444	PQL	mg/Kg	J	Q, A
SILVER	0.0801	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z, Q
THALLIUM	0.475		0.0333	MDL	0.111	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-065-SA5DN-SB-4.0-5.0

Collected: 5/20/2011 10:44:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	81.6		0.0244	MDL	0.111	PQL	mg/Kg	J	A
ZINC	88.2		0.621	MDL	3.33	PQL	mg/Kg	J	A

Sample ID: SL-065-SA5DN-SB-7.0-8.0

Collected: 5/20/2011 10:52:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0514	J	0.0426	MDL	0.426	PQL	mg/Kg	J	Z, Q

Sample ID: SL-065-SA5DN-SB-7.0-8.0

Collected: 5/20/2011 10:52:00

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.472		0.0532	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-065-SA5DN-SB-7.0-8.0

Collected: 5/20/2011 10:52:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.199	J	0.0639	MDL	0.213	PQL	mg/Kg	J	Z, Q
ARSENIC	7.87		0.0852	MDL	0.426	PQL	mg/Kg	J	Q
BERYLLIUM	0.786		0.0170	MDL	0.106	PQL	mg/Kg	J	Q
CADMIUM	0.171		0.0426	MDL	0.106	PQL	mg/Kg	J	Q
CHROMIUM	27.1		0.128	MDL	0.426	PQL	mg/Kg	J	Q, A
COBALT	9.14		0.0213	MDL	0.106	PQL	mg/Kg	J	Q, A
COPPER	11.1		0.0703	MDL	0.426	PQL	mg/Kg	J	A
LEAD	9.62		0.0111	MDL	0.213	PQL	mg/Kg	J	A
NICKEL	17.0		0.106	MDL	0.426	PQL	mg/Kg	J	Q, A
SILVER	0.0484	J	0.0128	MDL	0.106	PQL	mg/Kg	J	Z, Q
THALLIUM	0.294		0.0319	MDL	0.106	PQL	mg/Kg	J	Q
VANADIUM	52.8		0.0234	MDL	0.106	PQL	mg/Kg	J	A
ZINC	60.6		0.596	MDL	3.19	PQL	mg/Kg	J	A

Sample ID: SL-086-SA5DN-SB-4.0-5.0

Collected: 5/20/2011 3:35:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0673	J	0.0453	MDL	0.453	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-086-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 3:35:00

**Analysis Type:** REA2

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.331		0.0566	MDL	0.113	PQL	mg/Kg	J	Q

**Sample ID:** SL-086-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 3:35:00

**Analysis Type:** RES

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.220	J	0.0680	MDL	0.227	PQL	mg/Kg	J	Z, Q
ARSENIC	7.80		0.0906	MDL	0.453	PQL	mg/Kg	J	Q
BERYLLIUM	0.803		0.0181	MDL	0.113	PQL	mg/Kg	J	Q
CADMIUM	0.320		0.0453	MDL	0.113	PQL	mg/Kg	J	Q
CHROMIUM	34.3		0.136	MDL	0.453	PQL	mg/Kg	J	Q, A
COBALT	8.97		0.0227	MDL	0.113	PQL	mg/Kg	J	Q, A
COPPER	12.6		0.0748	MDL	0.453	PQL	mg/Kg	J	A
LEAD	10.3		0.0118	MDL	0.227	PQL	mg/Kg	J	A
NICKEL	20.9		0.113	MDL	0.453	PQL	mg/Kg	J	Q, A
SILVER	0.0401	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z, Q
THALLIUM	0.367		0.0340	MDL	0.113	PQL	mg/Kg	J	Q
VANADIUM	67.5		0.0249	MDL	0.113	PQL	mg/Kg	J	A
ZINC	64.5		0.634	MDL	3.40	PQL	mg/Kg	J	A

**Sample ID:** SL-088-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 2:04:00

**Analysis Type:** REA

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0625	J	0.0469	MDL	0.469	PQL	mg/Kg	J	Z, Q

**Sample ID:** SL-088-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 2:04:00

**Analysis Type:** REA2

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.626		0.0586	MDL	0.117	PQL	mg/Kg	J	Q

**Sample ID:** SL-088-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 2:04:00

**Analysis Type:** RES

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.206	J	0.0704	MDL	0.235	PQL	mg/Kg	J	Z, Q
ARSENIC	8.58		0.0938	MDL	0.469	PQL	mg/Kg	J	Q
BERYLLIUM	0.949		0.0188	MDL	0.117	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-088-SA5DN-SB-4.0-5.0

Collected: 5/20/2011 2:04:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.0535	J	0.0469	MDL	0.117	PQL	mg/Kg	J	Z, Q
CHROMIUM	30.2		0.141	MDL	0.469	PQL	mg/Kg	J	Q, A
COBALT	6.76		0.0235	MDL	0.117	PQL	mg/Kg	J	Q, A
COPPER	10.4		0.0774	MDL	0.469	PQL	mg/Kg	J	A
LEAD	9.38		0.0122	MDL	0.235	PQL	mg/Kg	J	A
NICKEL	15.7		0.117	MDL	0.469	PQL	mg/Kg	J	Q, A
SILVER	0.0357	J	0.0141	MDL	0.117	PQL	mg/Kg	J	Z, Q
THALLIUM	0.352		0.0352	MDL	0.117	PQL	mg/Kg	J	Q
VANADIUM	56.9		0.0258	MDL	0.117	PQL	mg/Kg	J	A
ZINC	58.7		0.657	MDL	3.52	PQL	mg/Kg	J	A

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

Sample ID: SL-020-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 3:20:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.56	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-024-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.59	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-025-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
HEXAVALENT CHROMIUM	0.66	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-026-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
HEXAVALENT CHROMIUM	0.76	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 7199

Matrix: SO

Sample ID: SL-028-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 2:25:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.73	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-029-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
HEXAVALENT CHROMIUM	0.77	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.94	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-037-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.70	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-038-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
HEXAVALENT CHROMIUM	0.85	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-039-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
HEXAVALENT CHROMIUM	0.64	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-040-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.95	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-044-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.80	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

**Sample ID:** SL-050-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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	1.0	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

**Sample ID:** SL-051-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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	1.0	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

**Sample ID:** SL-065-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 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
HEXAVALENT CHROMIUM	0.71	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

**Sample ID:** SL-088-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 2:04:00

**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	0.24	MDL	1.2	PQL	mg/Kg	J	Z

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

**Sample ID:** SL-020-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 3:20:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0127	J	0.0029	MDL	0.100	PQL	mg/Kg	J	Z

**Sample ID:** SL-024-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
MERCURY	0.0275	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z

**Sample ID:** SL-025-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
MERCURY	0.0055	J	0.0033	MDL	0.115	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 7471A

Matrix: SO

Sample ID: SL-027-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
MERCURY	0.0263	J	0.0033	MDL	0.116	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.0235	J	0.0033	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-037-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
MERCURY	0.0065	J	0.0031	MDL	0.109	PQL	mg/Kg	J	Z

Sample ID: SL-038-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
MERCURY	0.0095	J	0.0033	MDL	0.116	PQL	mg/Kg	J	Z

Sample ID: SL-039-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
MERCURY	0.0098	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z

Sample ID: SL-044-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.0059	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-050-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.0232	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z

Sample ID: SL-051-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.0051	J	0.0031	MDL	0.109	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

**Sample ID:** SL-064-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 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
MERCURY	0.0069	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z

**Sample ID:** SL-065-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 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
MERCURY	0.0069	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z

**Sample ID:** SL-065-SA5DN-SB-7.0-8.0

**Collected:** 5/20/2011 10:52:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0184	J	0.0032	MDL	0.110	PQL	mg/Kg	J	Z

**Method Category:** SVOA

**Method:** 1625C

**Matrix:** SO

**Sample ID:** SL-020-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 3:20:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	99.2		17.6	MDL	35.2	PQL	ng/Kg	UJ	Q, B

**Sample ID:** SL-024-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
N-NITROSODIMETHYLAMINE	58.9		19.3	MDL	38.5	PQL	ng/Kg	U	B

**Sample ID:** SL-025-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
N-NITROSODIMETHYLAMINE	24.5	J	19.3	MDL	38.6	PQL	ng/Kg	U	B

**Sample ID:** SL-026-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 11:40:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	24.9	J	19.2	MDL	38.4	PQL	ng/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>1625C</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-027-SA5DN-SS-0.0-0.5 Collected: 5/20/2011 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
N-NITROSODIMETHYLAMINE	63.0		19.2	MDL	38.5	PQL	ng/Kg	U	B

Sample ID: SL-028-SA5DN-SS-0.0-0.5 Collected: 5/20/2011 2:25:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	63.9		19.3	MDL	38.5	PQL	ng/Kg	U	B

Sample ID: SL-029-SA5DN-SS-0.0-0.5 Collected: 5/20/2011 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
N-NITROSODIMETHYLAMINE	68.3		19.1	MDL	38.2	PQL	ng/Kg	U	B

Sample ID: SL-036-SA5DN-SS-0.0-0.5 Collected: 5/20/2011 9:45:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	52.0		18.9	MDL	37.9	PQL	ng/Kg	U	B

Sample ID: SL-037-SA5DN-SS-0.0-0.5 Collected: 5/20/2011 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
N-NITROSODIMETHYLAMINE	50.4		19.0	MDL	38.1	PQL	ng/Kg	U	B

Sample ID: SL-038-SA5DN-SS-0.0-0.5 Collected: 5/20/2011 10:55:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	64.1		19.3	MDL	38.6	PQL	ng/Kg	U	B

Sample ID: SL-039-SA5DN-SS-0.0-0.5 Collected: 5/20/2011 10:10:00 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	51.8		19.5	MDL	39.1	PQL	ng/Kg	U	B

Sample ID: SL-040-SA5DN-SS-0.0-0.5 Collected: 5/20/2011 10:40:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	37.7	J	19.3	MDL	38.6	PQL	ng/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 1625C

**Matrix:** SO

**Sample ID:** SL-044-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 2:40:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	252	J	188	MDL	376	PQL	ng/Kg	U	B

**Sample ID:** SL-051-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
N-NITROSODIMETHYLAMINE	57.3		18.2	MDL	36.3	PQL	ng/Kg	U	B

**Sample ID:** SL-064-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 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
N-NITROSODIMETHYLAMINE	53.6		19.2	MDL	38.3	PQL	ng/Kg	U	B

**Sample ID:** SL-065-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 10:44:00

**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	30.4	J	18.9	MDL	37.8	PQL	ng/Kg	U	B

**Sample ID:** SL-086-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 3:35:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	30.7	J	18.9	MDL	37.9	PQL	ng/Kg	U	B

**Method Category:** SVOA

**Method:** 8015M

**Matrix:** SO

**Sample ID:** SL-020-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 3:20:00

**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)	5.8	J	2.1	MDL	6.4	PQL	mg/Kg	J	Z

**Sample ID:** SL-024-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 1:45:00

**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)	4.4	J	2.3	MDL	7.0	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8015M</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-026-SA5DN-SS-0.0-0.5			Collected: 5/20/2011 11:40:00		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)	4.3	J	2.3	MDL	6.9	PQL	mg/Kg	J	Z

Sample ID: SL-027-SA5DN-SS-0.0-0.5			Collected: 5/20/2011 2:05:00		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)	5.2	J	2.3	MDL	7.0	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA5DN-SS-0.0-0.5			Collected: 5/20/2011 2:25:00		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)	4.5	J	2.3	MDL	7.0	PQL	mg/Kg	J	Z

Sample ID: SL-029-SA5DN-SS-0.0-0.5			Collected: 5/20/2011 3:00:00		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)	5.9	J	2.3	MDL	7.0	PQL	mg/Kg	J	Z

Sample ID: SL-037-SA5DN-SS-0.0-0.5			Collected: 5/20/2011 11:15:00		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)	6.1	J	2.3	MDL	6.9	PQL	mg/Kg	J	Z

Sample ID: SL-040-SA5DN-SS-0.0-0.5			Collected: 5/20/2011 10:40:00		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)	6.8	J	2.3	MDL	7.0	PQL	mg/Kg	J	Z

Sample ID: SL-044-SA5DN-SS-0.0-0.5			Collected: 5/20/2011 2:40:00		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)	6.5	J	2.3	MDL	6.8	PQL	mg/Kg	J	Z

Sample ID: SL-051-SA5DN-SS-0.0-0.5				Collected: 5/20/2011 9:15:00		Analysis Type: REA2		Dilution: 50	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	33	J	22	MDL	66	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8015M

**Matrix:** SO

**Sample ID:** SL-086-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 3:35:00

**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)	0.48	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

**Sample ID:** SL-024-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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	0.28	J	0.076	MDL	0.39	PQL	ug/Kg	J	Z
DIELDRIN	0.26	J	0.076	MDL	0.39	PQL	ug/Kg	J	Z, *XIII
ENDRIN ALDEHYDE	0.082	J	0.076	MDL	0.39	PQL	ug/Kg	J	Z, *XIII
MIREX	0.19	J	0.076	MDL	0.39	PQL	ug/Kg	J	Z

**Sample ID:** SL-025-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
DIELDRIN	0.11	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z

**Sample ID:** SL-027-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
Chlordane	1.5	J	0.93	MDL	3.9	PQL	ug/Kg	J	Z, *XIII

**Sample ID:** SL-028-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 2:25:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.076	U	0.076	MDL	0.39	PQL	ug/Kg	UJ	C
4,4'-DDE	0.076	U	0.076	MDL	0.39	PQL	ug/Kg	UJ	C
4,4'-DDT	0.80		0.076	MDL	0.39	PQL	ug/Kg	J	C
ALDRIN	0.076	U	0.076	MDL	0.19	PQL	ug/Kg	UJ	C
DIELDRIN	0.076	U	0.076	MDL	0.39	PQL	ug/Kg	UJ	C
ENDOSULFAN I	0.051	U	0.051	MDL	0.19	PQL	ug/Kg	UJ	C
ENDOSULFAN II	0.14	U	0.14	MDL	0.39	PQL	ug/Kg	UJ	C
ENDOSULFAN SULFATE	0.076	U	0.076	MDL	0.39	PQL	ug/Kg	UJ	C
ENDRIN	0.076	U	0.076	MDL	0.39	PQL	ug/Kg	UJ	C

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

**Sample ID:** SL-028-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 2:25:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN ALDEHYDE	0.10	U	0.10	MDL	0.39	PQL	ug/Kg	UJ	C
ENDRIN KETONE	0.076	U	0.076	MDL	0.39	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.039	U	0.039	MDL	0.19	PQL	ug/Kg	UJ	C
METHOXYCHLOR	0.39	U	0.39	MDL	1.9	PQL	ug/Kg	UJ	C
MIREX	0.27	U	0.27	MDL	0.39	PQL	ug/Kg	UJ	C
TOXAPHENE	2.5	U	2.5	MDL	7.6	PQL	ug/Kg	UJ	C

**Sample ID:** SL-029-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
4,4'-DDD	0.076	U	0.076	MDL	0.39	PQL	ug/Kg	UJ	C
4,4'-DDE	0.32	U	0.32	MDL	0.39	PQL	ug/Kg	UJ	C
4,4'-DDT	1.4		0.076	MDL	0.39	PQL	ug/Kg	J	C
ALDRIN	0.076	U	0.076	MDL	0.19	PQL	ug/Kg	UJ	C
Chlordane	2.8	J	0.27	MDL	3.9	PQL	ug/Kg	J	Z, *XIII
DIELDRIN	0.076	U	0.076	MDL	0.39	PQL	ug/Kg	UJ	C
ENDOSULFAN I	0.051	U	0.051	MDL	0.19	PQL	ug/Kg	UJ	C
ENDOSULFAN II	0.20	U	0.20	MDL	0.39	PQL	ug/Kg	UJ	C
ENDOSULFAN SULFATE	0.076	U	0.076	MDL	0.39	PQL	ug/Kg	UJ	C
ENDRIN	0.076	U	0.076	MDL	0.39	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.28	U	0.28	MDL	0.39	PQL	ug/Kg	UJ	C
ENDRIN KETONE	0.076	U	0.076	MDL	0.39	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.064	U	0.064	MDL	0.19	PQL	ug/Kg	UJ	C
METHOXYCHLOR	0.39	U	0.39	MDL	1.9	PQL	ug/Kg	UJ	C
MIREX	0.32	U	0.32	MDL	0.39	PQL	ug/Kg	UJ	C
TOXAPHENE	2.5	U	2.5	MDL	7.6	PQL	ug/Kg	UJ	C

**Sample ID:** SL-036-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 9:45:00

**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'-DDD	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	C
4,4'-DDE	0.10	U	0.10	MDL	0.39	PQL	ug/Kg	UJ	C
4,4'-DDT	0.95		0.075	MDL	0.39	PQL	ug/Kg	J	C
ALDRIN	0.075	U	0.075	MDL	0.19	PQL	ug/Kg	UJ	C
DIELDRIN	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	C

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8081A

Matrix: SO

Sample ID: SL-036-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 9:45:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDOSULFAN I	0.050	U	0.050	MDL	0.19	PQL	ug/Kg	UJ	C
ENDOSULFAN II	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	C
ENDOSULFAN SULFATE	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	C
ENDRIN	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.12	U	0.12	MDL	0.39	PQL	ug/Kg	UJ	C
ENDRIN KETONE	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.039	U	0.039	MDL	0.19	PQL	ug/Kg	UJ	C
METHOXYCHLOR	0.39	U	0.39	MDL	1.9	PQL	ug/Kg	UJ	C
MIREX	0.13	U	0.13	MDL	0.39	PQL	ug/Kg	UJ	C
TOXAPHENE	2.5	U	2.5	MDL	7.5	PQL	ug/Kg	UJ	C

Sample ID: SL-037-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
4,4'-DDD	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	C
4,4'-DDE	0.12	U	0.12	MDL	0.39	PQL	ug/Kg	UJ	C
4,4'-DDT	1.4		0.075	MDL	0.39	PQL	ug/Kg	J	C
ALDRIN	0.075	U	0.075	MDL	0.19	PQL	ug/Kg	UJ	C
Chlordane	1.8	J	0.92	MDL	3.9	PQL	ug/Kg	J	Z
DIELDRIN	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	C
ENDOSULFAN I	0.050	U	0.050	MDL	0.19	PQL	ug/Kg	UJ	C
ENDOSULFAN II	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	C
ENDOSULFAN SULFATE	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	C
ENDRIN	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.21	U	0.21	MDL	0.39	PQL	ug/Kg	UJ	C
ENDRIN KETONE	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.039	U	0.039	MDL	0.19	PQL	ug/Kg	UJ	C
METHOXYCHLOR	0.39	U	0.39	MDL	1.9	PQL	ug/Kg	UJ	C
MIREX	0.22	U	0.22	MDL	0.39	PQL	ug/Kg	UJ	C
TOXAPHENE	2.5	U	2.5	MDL	7.5	PQL	ug/Kg	UJ	C

Sample ID: SL-038-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 10:55:00

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'-DDD	0.077	U	0.077	MDL	0.40	PQL	ug/Kg	UJ	C

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8081A

Matrix: SO

Sample ID: SL-038-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 10:55:00

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	0.077	U	0.077	MDL	0.40	PQL	ug/Kg	UJ	C
4,4'-DDT	0.88		0.077	MDL	0.40	PQL	ug/Kg	J	C
ALDRIN	0.077	U	0.077	MDL	0.19	PQL	ug/Kg	UJ	C
Chlordane	4.4		0.93	MDL	4.0	PQL	ug/Kg	J	*#
DIELDRIN	0.11	U	0.11	MDL	0.40	PQL	ug/Kg	UJ	C
ENDOSULFAN I	0.051	U	0.051	MDL	0.19	PQL	ug/Kg	UJ	C
ENDOSULFAN II	0.077	U	0.077	MDL	0.40	PQL	ug/Kg	UJ	C
ENDOSULFAN SULFATE	0.077	U	0.077	MDL	0.40	PQL	ug/Kg	UJ	C
ENDRIN	0.077	U	0.077	MDL	0.40	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.077	U	0.077	MDL	0.40	PQL	ug/Kg	UJ	C
ENDRIN KETONE	0.077	U	0.077	MDL	0.40	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.040	U	0.040	MDL	0.19	PQL	ug/Kg	UJ	C
METHOXYCHLOR	0.40	U	0.40	MDL	1.9	PQL	ug/Kg	UJ	C
MIREX	0.22	U	0.22	MDL	0.40	PQL	ug/Kg	UJ	C
TOXAPHENE	2.6	U	2.6	MDL	7.7	PQL	ug/Kg	UJ	C

Sample ID: SL-039-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 10:10:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.077	U	0.077	MDL	0.40	PQL	ug/Kg	UJ	C
4,4'-DDE	0.10	U	0.10	MDL	0.40	PQL	ug/Kg	UJ	C
4,4'-DDT	0.86		0.077	MDL	0.40	PQL	ug/Kg	J	C
ALDRIN	0.077	U	0.077	MDL	0.19	PQL	ug/Kg	UJ	C
Chlordane	1.3	J	0.93	MDL	4.0	PQL	ug/Kg	J	Z
DIELDRIN	0.077	U	0.077	MDL	0.40	PQL	ug/Kg	UJ	C
ENDOSULFAN I	0.051	U	0.051	MDL	0.19	PQL	ug/Kg	UJ	C
ENDOSULFAN II	0.16	U	0.16	MDL	0.40	PQL	ug/Kg	UJ	C
ENDOSULFAN SULFATE	0.077	U	0.077	MDL	0.40	PQL	ug/Kg	UJ	C
ENDRIN	0.077	U	0.077	MDL	0.40	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.077	U	0.077	MDL	0.40	PQL	ug/Kg	UJ	C
ENDRIN KETONE	0.077	U	0.077	MDL	0.40	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.040	U	0.040	MDL	0.19	PQL	ug/Kg	UJ	C
METHOXYCHLOR	0.40	U	0.40	MDL	1.9	PQL	ug/Kg	UJ	C
MIREX	0.12	U	0.12	MDL	0.40	PQL	ug/Kg	UJ	C

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8081A

Matrix: SO

Sample ID: SL-039-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 10:10:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	2.6	U	2.6	MDL	7.7	PQL	ug/Kg	UJ	C

Sample ID: SL-040-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 10:40:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.077	U	0.077	MDL	0.40	PQL	ug/Kg	UJ	C
4,4'-DDE	0.11	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z, C, *XIII
4,4'-DDT	0.56		0.077	MDL	0.40	PQL	ug/Kg	J	C
ALDRIN	0.077	U	0.077	MDL	0.19	PQL	ug/Kg	UJ	C
DIELDRIN	0.077	U	0.077	MDL	0.40	PQL	ug/Kg	UJ	C
ENDOSULFAN I	0.051	U	0.051	MDL	0.19	PQL	ug/Kg	UJ	C
ENDOSULFAN II	0.077	U	0.077	MDL	0.40	PQL	ug/Kg	UJ	C
ENDOSULFAN SULFATE	0.077	U	0.077	MDL	0.40	PQL	ug/Kg	UJ	C
ENDRIN	0.077	U	0.077	MDL	0.40	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.11	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z, C
ENDRIN KETONE	0.077	U	0.077	MDL	0.40	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.043	J	0.039	MDL	0.19	PQL	ug/Kg	J	Z, C, *XIII
METHOXYCHLOR	0.40	U	0.40	MDL	1.9	PQL	ug/Kg	UJ	C
MIREX	0.19	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z, C
TOXAPHENE	2.6	U	2.6	MDL	7.7	PQL	ug/Kg	UJ	C

Sample ID: SL-044-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
4,4'-DDD	0.075	U	0.075	MDL	0.38	PQL	ug/Kg	UJ	C
4,4'-DDE	0.075	U	0.075	MDL	0.38	PQL	ug/Kg	UJ	C
4,4'-DDT	0.32	J	0.075	MDL	0.38	PQL	ug/Kg	J	Z, C
ALDRIN	0.075	U	0.075	MDL	0.19	PQL	ug/Kg	UJ	C
DIELDRIN	0.075	U	0.075	MDL	0.38	PQL	ug/Kg	UJ	C
ENDOSULFAN I	0.050	U	0.050	MDL	0.19	PQL	ug/Kg	UJ	C
ENDOSULFAN II	0.075	U	0.075	MDL	0.38	PQL	ug/Kg	UJ	C
ENDOSULFAN SULFATE	0.075	U	0.075	MDL	0.38	PQL	ug/Kg	UJ	C
ENDRIN	0.075	U	0.075	MDL	0.38	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.075	U	0.075	MDL	0.38	PQL	ug/Kg	UJ	C
ENDRIN KETONE	0.075	U	0.075	MDL	0.38	PQL	ug/Kg	UJ	C

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8081A

Matrix: SO

Sample ID: SL-044-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
HEPTACHLOR EPOXIDE	0.038	U	0.038	MDL	0.19	PQL	ug/Kg	UJ	C
METHOXYCHLOR	0.38	U	0.38	MDL	1.9	PQL	ug/Kg	UJ	C
MIREX	0.19	J	0.075	MDL	0.38	PQL	ug/Kg	J	Z, C
TOXAPHENE	2.5	U	2.5	MDL	7.5	PQL	ug/Kg	UJ	C

Sample ID: SL-050-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
4,4'-DDD	0.18	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z, C
4,4'-DDE	2.2		0.073	MDL	0.37	PQL	ug/Kg	J	C
4,4'-DDT	1.7		0.073	MDL	0.37	PQL	ug/Kg	J	C
ALDRIN	0.073	U	0.073	MDL	0.18	PQL	ug/Kg	UJ	C
DIELDRIN	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	C
ENDOSULFAN I	0.049	U	0.049	MDL	0.18	PQL	ug/Kg	UJ	C
ENDOSULFAN II	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	C
ENDOSULFAN SULFATE	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	C
ENDRIN	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	C
ENDRIN KETONE	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.037	U	0.037	MDL	0.18	PQL	ug/Kg	UJ	C
METHOXYCHLOR	0.37	U	0.37	MDL	1.8	PQL	ug/Kg	UJ	C
MIREX	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	C
TOXAPHENE	2.4	U	2.4	MDL	7.3	PQL	ug/Kg	UJ	C

Sample ID: SL-051-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	C
4,4'-DDE	0.84		0.073	MDL	0.37	PQL	ug/Kg	J	C
4,4'-DDT	0.55		0.073	MDL	0.37	PQL	ug/Kg	J	C, *XIII
ALDRIN	0.073	U	0.073	MDL	0.18	PQL	ug/Kg	UJ	C
BETA-BHC	0.10	J	0.066	MDL	0.18	PQL	ug/Kg	J	Z
DIELDRIN	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	C
ENDOSULFAN I	0.048	U	0.048	MDL	0.18	PQL	ug/Kg	UJ	C
ENDOSULFAN II	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	C

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

**Sample ID:** SL-051-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
ENDOSULFAN SULFATE	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	C
ENDRIN	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	C
ENDRIN KETONE	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.037	U	0.037	MDL	0.18	PQL	ug/Kg	UJ	C
METHOXYCHLOR	0.37	U	0.37	MDL	1.8	PQL	ug/Kg	UJ	C
MIREX	0.074	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z, C, *XIII
TOXAPHENE	2.4	U	2.4	MDL	7.3	PQL	ug/Kg	UJ	C

**Method Category:** SVOA

**Method:** 8082

**Matrix:** SO

**Sample ID:** SL-020-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 3:20:00

**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	0.60	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5442	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	C
Aroclor 5460	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	C

**Sample ID:** SL-024-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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 1260	0.91	J	0.45	MDL	2.0	PQL	ug/Kg	J	Z
Aroclor 5442	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	C
Aroclor 5460	1.3	J	1.2	MDL	3.8	PQL	ug/Kg	J	Z, C

**Sample ID:** SL-025-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
Aroclor 5442	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	C
Aroclor 5460	5.1		1.2	MDL	3.8	PQL	ug/Kg	J	C

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8082

Matrix: SO

Sample ID: SL-026-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 11:40:00

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	6.0		0.45	MDL	1.9	PQL	ug/Kg	J	*XIII
Aroclor 5442	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	C
Aroclor 5460	8.4		1.1	MDL	3.8	PQL	ug/Kg	J	C

Sample ID: SL-027-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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 5442	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	C
Aroclor 5460	2.6	J	1.2	MDL	3.8	PQL	ug/Kg	J	Z, C

Sample ID: SL-028-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 2:25:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5442	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	C
Aroclor 5460	2.0	J	1.2	MDL	3.8	PQL	ug/Kg	J	Z, C

Sample ID: SL-029-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
Aroclor 5442	2.3	U	2.3	MDL	7.6	PQL	ug/Kg	UJ	C
Aroclor 5460	2.3	U	2.3	MDL	7.6	PQL	ug/Kg	UJ	C

Sample ID: SL-036-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 9:45:00

Analysis Type: RES

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5442	5.7	U	5.7	MDL	19	PQL	ug/Kg	UJ	C
Aroclor 5460	9.5	J	5.7	MDL	19	PQL	ug/Kg	J	Z, C

Sample ID: SL-037-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
Aroclor 5442	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	C
Aroclor 5460	4.3		1.1	MDL	3.8	PQL	ug/Kg	J	C

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8082

**Matrix:** SO

**Sample ID:** SL-038-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
Aroclor 5442	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	C
Aroclor 5460	5.9		1.2	MDL	3.8	PQL	ug/Kg	J	C

**Sample ID:** SL-039-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 10:10:00

**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 1260	1.3	J	0.46	MDL	2.0	PQL	ug/Kg	J	Z
Aroclor 5442	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	C
Aroclor 5460	1.7	J	1.2	MDL	3.9	PQL	ug/Kg	J	Z, C

**Sample ID:** SL-040-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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 5442	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	C
Aroclor 5460	3.3	J	1.2	MDL	3.8	PQL	ug/Kg	J	Z, C

**Sample ID:** SL-044-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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 1260	1.5	J	0.44	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	C
Aroclor 5460	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	C

**Sample ID:** SL-050-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	C
Aroclor 5460	3.5	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z, C

**Sample ID:** SL-051-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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	3.0		0.36	MDL	1.9	PQL	ug/Kg	J	*XIII
AROCLOR 1260	1.6	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z, *XIII
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	C

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8082

Matrix: SO

Sample ID: SL-051-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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	1.4	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z, C

Sample ID: SL-064-SA5DN-SB-4.0-5.0

Collected: 5/20/2011 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
Aroclor 5442	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	C
Aroclor 5460	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	C

Sample ID: SL-065-SA5DN-SB-4.0-5.0

Collected: 5/20/2011 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
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	C
Aroclor 5460	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	C

Sample ID: SL-065-SA5DN-SB-7.0-8.0

Collected: 5/20/2011 10:52:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	C
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	C

Sample ID: SL-086-SA5DN-SB-4.0-5.0

Collected: 5/20/2011 3:35:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5442	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	C
Aroclor 5460	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	C

Sample ID: SL-088-SA5DN-SB-4.0-5.0

Collected: 5/20/2011 2:04:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5442	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	C
Aroclor 5460	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	C

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8151A

**Matrix:** SO

**Sample ID:** SL-020-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 3:20:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.85	U	0.85	MDL	2.5	PQL	ug/Kg	R	L

**Sample ID:** SL-024-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
DINOSEB	0.93	U	0.93	MDL	2.8	PQL	ug/Kg	R	L

**Sample ID:** SL-025-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
DINOSEB	0.93	U	0.93	MDL	2.8	PQL	ug/Kg	R	L
MCPA	310		89	MDL	290	PQL	ug/Kg	J	*IX

**Sample ID:** SL-026-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 11:40:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.91	U	0.91	MDL	2.7	PQL	ug/Kg	R	L

**Sample ID:** SL-027-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
DINOSEB	0.93	U	0.93	MDL	2.8	PQL	ug/Kg	R	L

**Sample ID:** SL-028-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 2:25:00

**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	0.92	U	0.92	MDL	2.8	PQL	ug/Kg	R	L

**Sample ID:** SL-029-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
DINOSEB	0.92	U	0.92	MDL	2.8	PQL	ug/Kg	R	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8151A

**Matrix:** SO

**Sample ID:** SL-036-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
2,4-DB	1.5	J	0.70	MDL	1.9	PQL	ug/Kg	J	Z, *IX
DINOSEB	0.91	U	0.91	MDL	2.7	PQL	ug/Kg	R	L

**Sample ID:** SL-037-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
2,4-DB	3.6		0.71	MDL	2.0	PQL	ug/Kg	J	*IX
DINOSEB	0.92	U	0.92	MDL	2.8	PQL	ug/Kg	R	L

**Sample ID:** SL-038-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 10:55:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.93	U	0.93	MDL	2.8	PQL	ug/Kg	R	L

**Sample ID:** SL-039-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
2,4-D	2.2	J	1.4	MDL	4.2	PQL	ug/Kg	J	Z, *IX
DINOSEB	0.93	U	0.93	MDL	2.8	PQL	ug/Kg	R	L
MCPA	150	J	88	MDL	290	PQL	ug/Kg	J	Z, *IX

**Sample ID:** SL-040-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
2,4-D	2.4	J	1.4	MDL	4.2	PQL	ug/Kg	J	Z
DINOSEB	0.93	U	0.93	MDL	2.8	PQL	ug/Kg	R	L

**Sample ID:** SL-044-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
2,4-DB	1.7	J	0.70	MDL	1.9	PQL	ug/Kg	J	Z, *IX
DINOSEB	0.91	U	0.91	MDL	2.7	PQL	ug/Kg	R	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8151A</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-050-SA5DN-SS-0.0-0.5 Collected: 5/20/2011 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
DINOSEB	0.88	U	0.88	MDL	2.6	PQL	ug/Kg	R	L

Sample ID: SL-051-SA5DN-SS-0.0-0.5 Collected: 5/20/2011 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
2,4-DB	6.9		0.68	MDL	1.9	PQL	ug/Kg	J	*IX
DICAMBA	0.49	J	0.44	MDL	1.3	PQL	ug/Kg	J	Z, *IX
DINOSEB	7.0	U	7.0	MDL	7.0	PQL	ug/Kg	R	L

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8270C</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-020-SA5DN-SS-0.0-0.5 Collected: 5/20/2011 3:20:00 Analysis Type: RES-ACID Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	350	U	350	MDL	1000	PQL	ug/Kg	UJ	Q, L

Sample ID: SL-025-SA5DN-SS-0.0-0.5 Collected: 5/20/2011 1:25:00 Analysis Type: RES-ACID Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	390	U	390	MDL	1200	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	40	J	19	MDL	390	PQL	ug/Kg	J	Z, L

Sample ID: SL-026-SA5DN-SS-0.0-0.5 Collected: 5/20/2011 11:40:00 Analysis Type: RES-ACID Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-NITROPHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
4-BROMOPHENYL-PHENYLETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
HEXACHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
HEXACHLOROBUTADIENE	75	U	75	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-027-SA5DN-SS-0.0-0.5 Collected: 5/20/2011 2:05:00 Analysis Type: RES-ACID Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	380	U	380	MDL	1100	PQL	ug/Kg	UJ	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C

Matrix: SO

Sample ID: SL-027-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
BIS(2-ETHYLHEXYL)PHthalate	33	J	19	MDL	380	PQL	ug/Kg	J	Z, L

Sample ID: SL-028-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 2:25:00

Analysis Type: RES-ACID

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	380	U	380	MDL	1200	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHthalate	23	J	19	MDL	380	PQL	ug/Kg	J	Z, L

Sample ID: SL-029-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 3:00:00

Analysis Type: RES-ACID

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	390	U	390	MDL	1200	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHthalate	37	J	19	MDL	390	PQL	ug/Kg	J	Z, L

Sample ID: SL-036-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 9:45:00

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	L
BIS(2-ETHYLHEXYL)PHthalate	39	J	19	MDL	380	PQL	ug/Kg	J	Z, L

Sample ID: SL-037-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 11:15:00

Analysis Type: RES-ACID

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	380	U	380	MDL	1200	PQL	ug/Kg	UJ	L
BENZO(A)PYRENE	22	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	23	J	19	MDL	190	PQL	ug/Kg	J	Z
CHRYSENE	26	J	19	MDL	190	PQL	ug/Kg	J	Z
FLUORANTHENE	24	J	19	MDL	190	PQL	ug/Kg	J	Z
PYRENE	29	J	19	MDL	190	PQL	ug/Kg	J	Z

Sample ID: SL-038-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 10:55:00

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	390	U	390	MDL	1200	PQL	ug/Kg	UJ	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C

Matrix: SO

Sample ID: SL-039-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 10:10:00

Analysis Type: RES-ACID

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	390	U	390	MDL	1200	PQL	ug/Kg	UJ	L
ACENAPHTHENE	35	J	19	MDL	190	PQL	ug/Kg	J	Z
ANTHRACENE	48	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	140	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	150	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	75	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	72	J	19	MDL	190	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	54	J	19	MDL	390	PQL	ug/Kg	J	Z, L
CARBAZOLE	27	J	19	MDL	190	PQL	ug/Kg	J	Z
FLUORENE	21	J	19	MDL	190	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	89	J	19	MDL	190	PQL	ug/Kg	J	Z

Sample ID: SL-040-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 10:40:00

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	390	U	390	MDL	1200	PQL	ug/Kg	UJ	L

Sample ID: SL-044-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 2:40:00

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	L
BIS(2-ETHYLHEXYL)PHTHALATE	43	J	19	MDL	380	PQL	ug/Kg	J	Z, L

Sample ID: SL-050-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 8:45:00

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	370	U	370	MDL	1100	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	26	J	18	MDL	370	PQL	ug/Kg	J	Z, L

Sample ID: SL-051-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 9:15:00

Analysis Type: RES-ACID

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	360	U	360	MDL	1100	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	60	J	18	MDL	360	PQL	ug/Kg	J	Z, L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C

**Matrix:** SO

**Sample ID:** SL-064-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 11:34:00

**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	L
BIS(2-ETHYLHEXYL)PHTHALATE	27	J	19	MDL	380	PQL	ug/Kg	J	Z, L

**Sample ID:** SL-065-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 10:44:00

**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	L
BIS(2-ETHYLHEXYL)PHTHALATE	30	J	19	MDL	380	PQL	ug/Kg	J	Z, L

**Sample ID:** SL-065-SA5DN-SB-7.0-8.0

**Collected:** 5/20/2011 10:52:00

**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	360	U	360	MDL	1100	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	20	J	18	MDL	360	PQL	ug/Kg	J	Z, L

**Sample ID:** SL-086-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 3:35:00

**Analysis Type:** RES-ACID

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	380	U	380	MDL	1100	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	22	J	19	MDL	380	PQL	ug/Kg	J	Z, L

**Sample ID:** SL-088-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 2:04:00

**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	390	U	390	MDL	1200	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	22	J	20	MDL	390	PQL	ug/Kg	J	Z, L

**Method Category:** SVOA

**Method:** 8270C SIM

**Matrix:** SO

**Sample ID:** SL-020-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 3:20:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	2.7	J	1.7	MDL	8.7	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	5.6	J	3.5	MDL	8.7	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C SIM

**Matrix:** SO

**Sample ID:** SL-025-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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(A)ANTHRACENE	1.0	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	1.6	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z
FLUORANTHENE	1.7	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.1	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	1.5	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z

**Sample ID:** SL-026-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 11:40:00

**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	1.4	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.3	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.2	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	0.95	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.2	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

**Sample ID:** SL-027-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
ANTHRACENE	0.58	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.1	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	0.86	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

**Sample ID:** SL-028-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 2:25:00

**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(A)ANTHRACENE	0.98	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
Diethylphthalate	7.1	J	6.9	MDL	21	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.1	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	0.98	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.2	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

**Sample ID:** SL-029-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
CHRYSENE	0.49	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C SIM

**Matrix:** SO

**Sample ID:** SL-029-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
Diethylphthalate	9.6	J	6.9	MDL	21	PQL	ug/Kg	J	Z
Di-n-butylphthalate	9.7	J	6.9	MDL	21	PQL	ug/Kg	J	Z

**Sample ID:** SL-036-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 9:45:00

**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)PYRENE	4.1	J	3.8	MDL	9.4	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	8.3	J	3.8	MDL	9.4	PQL	ug/Kg	J	Z
CHRYSENE	3.3	J	1.9	MDL	9.4	PQL	ug/Kg	J	Z
Di-n-butylphthalate	71	J	34	MDL	100	PQL	ug/Kg	J	Z

**Sample ID:** SL-037-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 11:15:00

**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	5.2	J	3.8	MDL	9.6	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	7.1	J	3.8	MDL	9.6	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHthalate	91	J	35	MDL	100	PQL	ug/Kg	J	Z

**Sample ID:** SL-038-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 10:55:00

**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	0.85	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.7	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-butylphthalate	8.1	J	6.9	MDL	21	PQL	ug/Kg	J	Z
Di-n-octylphthalate	19	J	6.9	MDL	21	PQL	ug/Kg	J	Z

**Sample ID:** SL-040-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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-METHYLNAPHTHALENE	0.82	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.91	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
ANTHRACENE	0.77	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.5	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C SIM

**Matrix:** SO

**Sample ID:** SL-044-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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(B)FLUORANTHENE	1.3	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.78	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	0.68	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-octylphthalate	8.6	J	6.7	MDL	20	PQL	ug/Kg	J	Z
FLUORANTHENE	0.78	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	0.77	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

**Sample ID:** SL-050-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 8:45:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIBENZO(A,H)ANTHRACENE	6.7	J	3.6	MDL	9.1	PQL	ug/Kg	J	Z

**Sample ID:** SL-051-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 9:15:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	4.5	J	1.8	MDL	9.1	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	7.9	J	3.6	MDL	9.1	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	8.2	J	3.6	MDL	9.1	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	4.2	J	3.6	MDL	9.1	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	6.3	J	3.6	MDL	9.1	PQL	ug/Kg	J	Z
NAPHTHALENE	4.6	J	3.6	MDL	9.1	PQL	ug/Kg	J	Z

**Method Category:** SVOA

**Method:** 8330A

**Matrix:** SO

**Sample ID:** SL-020-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 3:20:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,3,5-TRINITROBENZENE	42	U	42	MDL	130	PQL	ug/Kg	UJ	Q
HMX	110	U	110	MDL	320	PQL	ug/Kg	UJ	L
Nitroglycerin	850	U	850	MDL	2500	PQL	ug/Kg	UJ	Q, L
RDX	53	U	53	MDL	130	PQL	ug/Kg	UJ	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8330A

Matrix: SO

Sample ID: SL-024-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
HMX	110	U	110	MDL	340	PQL	ug/Kg	UJ	L
Nitroglycerin	910	U	910	MDL	2700	PQL	ug/Kg	UJ	L

Sample ID: SL-025-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
HMX	110	U	110	MDL	340	PQL	ug/Kg	UJ	L
Nitroglycerin	920	U	920	MDL	2700	PQL	ug/Kg	UJ	L

Sample ID: SL-026-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
HMX	120	U	120	MDL	350	PQL	ug/Kg	UJ	L
Nitroglycerin	920	U	920	MDL	2800	PQL	ug/Kg	UJ	L

Sample ID: SL-027-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
HMX	120	U	120	MDL	350	PQL	ug/Kg	UJ	L
Nitroglycerin	930	U	930	MDL	2800	PQL	ug/Kg	UJ	L

Sample ID: SL-028-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 2:25:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HMX	120	U	120	MDL	350	PQL	ug/Kg	UJ	L
Nitroglycerin	930	U	930	MDL	2800	PQL	ug/Kg	UJ	L

Sample ID: SL-029-SA5DN-SS-0.0-0.5

Collected: 5/20/2011 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
HMX	120	U	120	MDL	350	PQL	ug/Kg	UJ	L
Nitroglycerin	930	U	930	MDL	2800	PQL	ug/Kg	UJ	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8330A

**Matrix:** SO

**Sample ID:** SL-036-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
HMX	110	U	110	MDL	320	PQL	ug/Kg	UJ	L
Nitroglycerin	840	U	840	MDL	2500	PQL	ug/Kg	UJ	L

**Sample ID:** SL-037-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
HMX	110	U	110	MDL	330	PQL	ug/Kg	UJ	L
Nitroglycerin	890	U	890	MDL	2700	PQL	ug/Kg	UJ	L

**Sample ID:** SL-038-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
HMX	110	U	110	MDL	320	PQL	ug/Kg	UJ	L
Nitroglycerin	870	U	870	MDL	2600	PQL	ug/Kg	UJ	L

**Sample ID:** SL-039-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
HMX	110	U	110	MDL	330	PQL	ug/Kg	UJ	L
Nitroglycerin	870	U	870	MDL	2600	PQL	ug/Kg	UJ	L

**Sample ID:** SL-040-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
HMX	110	U	110	MDL	340	PQL	ug/Kg	UJ	L
Nitroglycerin	900	U	900	MDL	2700	PQL	ug/Kg	UJ	L

**Sample ID:** SL-044-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
HMX	110	U	110	MDL	320	PQL	ug/Kg	UJ	L
Nitroglycerin	860	U	860	MDL	2600	PQL	ug/Kg	UJ	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8330A

**Matrix:** SO

**Sample ID:** SL-051-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 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
HMX	100	U	100	MDL	310	PQL	ug/Kg	UJ	L
Nitroglycerin	820	U	820	MDL	2500	PQL	ug/Kg	UJ	L

**Sample ID:** SL-064-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 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
HMX	110	U	110	MDL	340	PQL	ug/Kg	UJ	L
Nitroglycerin	910	U	910	MDL	2700	PQL	ug/Kg	UJ	L

**Sample ID:** SL-065-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 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
HMX	110	U	110	MDL	340	PQL	ug/Kg	UJ	L
Nitroglycerin	910	U	910	MDL	2700	PQL	ug/Kg	UJ	L

**Sample ID:** SL-065-SA5DN-SB-7.0-8.0

**Collected:** 5/20/2011 10:52:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HMX	110	U	110	MDL	330	PQL	ug/Kg	UJ	L
Nitroglycerin	890	U	890	MDL	2700	PQL	ug/Kg	UJ	L

**Sample ID:** SL-086-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 3:35:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HMX	110	U	110	MDL	340	PQL	ug/Kg	UJ	L
Nitroglycerin	900	U	900	MDL	2700	PQL	ug/Kg	UJ	L

**Sample ID:** SL-088-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 2:04:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HMX	110	U	110	MDL	330	PQL	ug/Kg	UJ	L
Nitroglycerin	890	U	890	MDL	2700	PQL	ug/Kg	UJ	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** VOA

**Method:** 8015B

**Matrix:** SO

**Sample ID:** SL-051-SA5DN-SS-0.0-0.5

**Collected:** 5/20/2011 9:15:00

**Analysis Type:** REA3

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
m-Terphenyl	1.7	U	1.7	MDL	3.9	PQL	mg/Kg	UJ	S
O-TERPHENYL	1.7	U	1.7	MDL	3.9	PQL	mg/Kg	UJ	S
p-Terphenyl	1.7	U	1.7	MDL	3.9	PQL	mg/Kg	UJ	S

**Method Category:** VOA

**Method:** 8260B

**Matrix:** AQ

**Sample ID:** TB-052011

**Collected:** 5/20/2011 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
TRICHLOROFLUOROMETHANE	2	U	2	MDL	5	PQL	ug/L	UJ	C

**Method Category:** VOA

**Method:** 8260B

**Matrix:** SO

**Sample ID:** SL-064-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 11:34:00

**Analysis Type:** RES

**Dilution:** 0.93

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-Chloro-1,1,1-trifluoroethane	0.54	U	0.54	MDL	5.4	PQL	ug/Kg	UJ	L
2-HEXANONE	1.7	U	1.7	MDL	8.6	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.42	U	0.42	MDL	8.6	PQL	ug/Kg	UJ	C
ACETONE	9.9		7.2	MDL	8.6	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.0	J	0.26	MDL	4.3	PQL	ug/Kg	U	B

**Sample ID:** SL-065-SA5DN-SB-4.0-5.0

**Collected:** 5/20/2011 10:44:00

**Analysis Type:** RES

**Dilution:** 0.9

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-Chloro-1,1,1-trifluoroethane	0.51	U	0.51	MDL	5.1	PQL	ug/Kg	UJ	L
2-HEXANONE	1.6	U	1.6	MDL	8.2	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.40	U	0.40	MDL	8.2	PQL	ug/Kg	UJ	C
ACETONE	8.8		6.9	MDL	8.2	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	0.82	J	0.25	MDL	4.1	PQL	ug/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: VOA

Method: 8260B

Matrix: SO

Sample ID: SL-065-SA5DN-SB-7.0-8.0

Collected: 5/20/2011 10:52:00

Analysis Type: RES

Dilution: 0.93

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-Chloro-1,1,1-trifluoroethane	0.51	U	0.51	MDL	5.1	PQL	ug/Kg	UJ	L
2-HEXANONE	1.6	U	1.6	MDL	8.2	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.40	U	0.40	MDL	8.2	PQL	ug/Kg	UJ	C
ACETONE	8.6		6.9	MDL	8.2	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	0.81	J	0.25	MDL	4.1	PQL	ug/Kg	U	B

Sample ID: SL-086-SA5DN-SB-4.0-5.0

Collected: 5/20/2011 3:35:00

Analysis Type: RES

Dilution: 0.98

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	L
2-HEXANONE	1.8	U	1.8	MDL	9.0	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.44	U	0.44	MDL	9.0	PQL	ug/Kg	UJ	C
ACETONE	9.1		7.5	MDL	9.0	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	0.92	J	0.27	MDL	4.5	PQL	ug/Kg	U	B

Sample ID: SL-088-SA5DN-SB-4.0-5.0

Collected: 5/20/2011 2:04:00

Analysis Type: RES

Dilution: 0.96

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-Chloro-1,1,1-trifluoroethane	0.57	U	0.57	MDL	5.7	PQL	ug/Kg	UJ	L
2-HEXANONE	1.8	U	1.8	MDL	9.1	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.45	U	0.45	MDL	9.1	PQL	ug/Kg	UJ	C
ACETONE	11		7.7	MDL	9.1	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.6	J	0.27	MDL	4.6	PQL	ug/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

### Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
*IX, *XIII	Compound Quantitation and CRQL
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
C	Initial Calibration Verification Percent Recovery Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## ***Data Qualifier Summary***

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

E	Matrix Spike Precision
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

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## ***Data Qualifier Summary***

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: PrepDE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Q	Matrix Spike Upper Rejection
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

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE158



# Method Blank Outlier Report

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: DE158\_v2

eQAPP Name: CDM\_SSFL\_110509

<b>Method: 1625C</b> <b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLI14B261029	6/3/2011 10:29:00 AM	N-NITROSODIMETHYLAMINE	24.7 ng/Kg	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-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
SL-020-SA5DN-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	99.2 ng/Kg	99.2U ng/Kg
SL-024-SA5DN-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	58.9 ng/Kg	58.9U ng/Kg
SL-025-SA5DN-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	24.5 ng/Kg	38.6U ng/Kg
SL-026-SA5DN-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	24.9 ng/Kg	38.4U ng/Kg
SL-027-SA5DN-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	63.0 ng/Kg	63.0U ng/Kg
SL-028-SA5DN-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	63.9 ng/Kg	63.9U ng/Kg
SL-029-SA5DN-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	68.3 ng/Kg	68.3U ng/Kg
SL-036-SA5DN-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	52.0 ng/Kg	52.0U ng/Kg
SL-037-SA5DN-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	50.4 ng/Kg	50.4U ng/Kg
SL-038-SA5DN-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	64.1 ng/Kg	64.1U ng/Kg
SL-039-SA5DN-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	51.8 ng/Kg	51.8U ng/Kg
SL-040-SA5DN-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	37.7 ng/Kg	38.6U ng/Kg
SL-044-SA5DN-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	252 ng/Kg	376U ng/Kg
SL-051-SA5DN-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	57.3 ng/Kg	57.3U ng/Kg
SL-064-SA5DN-SB-4.0-5.0(RES)	N-NITROSODIMETHYLAMINE	53.6 ng/Kg	53.6U ng/Kg
SL-065-SA5DN-SB-4.0-5.0(RES)	N-NITROSODIMETHYLAMINE	30.4 ng/Kg	37.8U ng/Kg
SL-086-SA5DN-SB-4.0-5.0(RES)	N-NITROSODIMETHYLAMINE	30.7 ng/Kg	37.9U ng/Kg

# Method Blank Outlier Report

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: DE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6010B  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P14708AB220801	6/1/2011 8:01:00 AM	ALUMINUM BORON CALCIUM PHOSPHORUS STRONTIUM	6.44 mg/Kg 0.910 mg/Kg 13.9 mg/Kg 1.20 mg/Kg 0.0710 mg/Kg	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0
P14708AB221535	6/2/2011 3:35:00 PM	TIN	1.48 mg/Kg	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-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
SL-020-SA5DN-SS-0.0-0.5(REA)	TIN	2.33 mg/Kg	2.33U mg/Kg
SL-024-SA5DN-SS-0.0-0.5(REA)	TIN	2.74 mg/Kg	2.74U mg/Kg
SL-025-SA5DN-SS-0.0-0.5(REA)	TIN	3.04 mg/Kg	3.04U mg/Kg
SL-026-SA5DN-SS-0.0-0.5(REA)	TIN	2.99 mg/Kg	2.99U mg/Kg
SL-027-SA5DN-SS-0.0-0.5(REA)	TIN	2.90 mg/Kg	2.90U mg/Kg
SL-028-SA5DN-SS-0.0-0.5(REA)	TIN	3.02 mg/Kg	3.02U mg/Kg
SL-029-SA5DN-SS-0.0-0.5(REA)	TIN	3.21 mg/Kg	3.21U mg/Kg
SL-036-SA5DN-SS-0.0-0.5(REA)	TIN	3.16 mg/Kg	3.16U mg/Kg
SL-037-SA5DN-SS-0.0-0.5(REA)	TIN	2.93 mg/Kg	2.93U mg/Kg
SL-038-SA5DN-SS-0.0-0.5(REA2)	TIN	2.98 mg/Kg	2.98U mg/Kg
SL-039-SA5DN-SS-0.0-0.5(REA)	TIN	3.09 mg/Kg	3.09U mg/Kg
SL-040-SA5DN-SS-0.0-0.5(REA)	TIN	3.06 mg/Kg	3.06U mg/Kg
SL-044-SA5DN-SS-0.0-0.5(REA)	TIN	2.94 mg/Kg	2.94U mg/Kg
SL-050-SA5DN-SS-0.0-0.5(REA)	TIN	2.90 mg/Kg	2.90U mg/Kg

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: DE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 6010B

Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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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-051-SA5DN-SS-0.0-0.5(REA)	TIN	2.91 mg/Kg	2.91U mg/Kg
SL-064-SA5DN-SB-4.0-5.0(REA)	TIN	2.84 mg/Kg	2.84U mg/Kg
SL-065-SA5DN-SB-4.0-5.0(REA2)	TIN	3.01 mg/Kg	3.01U mg/Kg
SL-065-SA5DN-SB-7.0-8.0(REA)	TIN	2.79 mg/Kg	2.79U mg/Kg
SL-086-SA5DN-SB-4.0-5.0(REA)	TIN	2.85 mg/Kg	2.85U mg/Kg
SL-088-SA5DN-SB-4.0-5.0(REA)	TIN	3.09 mg/Kg	3.09U mg/Kg

Method: 6020

Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P14726AB220940A	6/6/2011 9:40:00 AM	COPPER	0.0695 mg/Kg	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0

Method: 8260B

Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB67B211316A	5/27/2011 1:16:00 PM	ACETONE METHYLENE CHLORIDE	9.6 ug/Kg 1.1 ug/Kg	SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-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
SL-064-SA5DN-SB-4.0-5.0(RES)	ACETONE	9.9 ug/Kg	9.9U ug/Kg
SL-064-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.0 ug/Kg	4.3U ug/Kg

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: DE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8260B  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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*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-065-SA5DN-SB-4.0-5.0(RES)	ACETONE	8.8 ug/Kg	8.8U ug/Kg
SL-065-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.82 ug/Kg	4.1U ug/Kg
SL-065-SA5DN-SB-7.0-8.0(RES)	ACETONE	8.6 ug/Kg	8.6U ug/Kg
SL-065-SA5DN-SB-7.0-8.0(RES)	METHYLENE CHLORIDE	0.81 ug/Kg	4.1U ug/Kg
SL-086-SA5DN-SB-4.0-5.0(RES)	ACETONE	9.1 ug/Kg	9.1U ug/Kg
SL-086-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.92 ug/Kg	4.5U ug/Kg
SL-088-SA5DN-SB-4.0-5.0(RES)	ACETONE	11 ug/Kg	11U ug/Kg
SL-088-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.6 ug/Kg	4.6U ug/Kg

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLC14B260203	6/1/2011 2:03:00 AM	Di-n-butylphthalate	17 ug/Kg	SL-020-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0
PLKLE15B260616	6/4/2011 6:16:00 AM	BIS(2-ETHYLHEXYL)PHTHALATE Diethylphthalate Di-n-butylphthalate	19 ug/Kg 25 ug/Kg 19 ug/Kg	SL-024-SA5DN-SS-0.0-0.5

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: DE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 8330A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-020-SA5DN-SS-0.0-0.5MSD (SL-020-SA5DN-SS-0.0-0.5)	1,3,5-TRINITROBENZENE	-	79	82.00-126.00	-	1,3,5-TRINITROBENZENE	J (all detects)
	Nitroglycerin	-	78	80.00-120.00	-	Nitroglycerin	UJ (all non-detects)
	RDX	-	74	75.00-129.00	-	RDX	

Method: 8015M

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-020-SA5DN-SS-0.0-0.5MSD	EFH (C12-C14)	0	0	49.00-123.00	-	EFH (C12-C14)	No Qual, Diluted Out
SL-020-SA5DN-SS-0.0-0.5MSD	EFH (C15-C20)	-54	-133	49.00-123.00	23 (20.00)	EFH (C15-C20)	
SL-020-SA5DN-SS-0.0-0.5)	EFH (C21-C30)	-184	-237	49.00-123.00	-	EFH (C21-C30)	
	EFH (C30-C40)	-2679	-2328	49.00-123.00	-	EFH (C30-C40)	
	EFH (C8-C11)	0	0	49.00-123.00	-	EFH (C8-C11)	

Method: 8270C

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-020-SA5DN-SS-0.0-0.5MSD (SL-020-SA5DN-SS-0.0-0.5)	4,6-DINITRO-2-METHYLPHENOL	-	-	24.00-116.00	43 (30.00)	4,6-DINITRO-2-METHYLPHEN	J(all detects)
SL-020-SA5DN-SS-0.0-0.5MSD (SL-020-SA5DN-SS-0.0-0.5)	2,4-DINITROPHENOL	-	18	20.00-143.00	63 (30.00)	2,4-DINITROPHENOL	J(all detects) UJ(all non-detects)

Method: 1625C

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-020-SA5DN-SS-0.0-0.5MSD (SL-020-SA5DN-SS-0.0-0.5)	N-NITROSODIMETHYLAMINE	-	69	70.00-130.00	-	N-NITROSODIMETHYLAMINE	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-020-SA5DN-SS-0.0-0.5MSD (SL-020-SA5DN-SS-0.0-0.5)	ACENAPHTHYLENE	-	-	67.00-114.00	31 (30.00)	ACENAPHTHYLENE	No Qual, Diluted Out
	Di-n-butylphthalate	-	211	65.00-148.00	68 (30.00)	Di-n-butylphthalate	
	INDENO(1,2,3-CD)PYRENE	-	-	21.00-143.00	38 (30.00)	INDENO(1,2,3-CD)PYRENE	
	PHENANTHRENE	-	-	12.00-165.00	50 (30.00)	PHENANTHRENE	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Matrix Spike/Matrix Spike Duplicate Outlier Report

**Lab Reporting Batch ID: DE158**

Laboratory: LL

EDD Filename: DE158 v2

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-020-SA5DN-SS-0.0-0.5MS	BENZO(A)ANTHRACENE	-4	-	59.00-128.00	56 (30.00)	BENZO(A)ANTHRACENE	No Qual, Diluted Out
SL-020-SA5DN-SS-0.0-0.5MSD	BENZO(A)PYRENE	-15	-	45.00-138.00	63 (30.00)	BENZO(A)PYRENE	
(SL-020-SA5DN-SS-0.0-0.5)	BENZO(B)FLUORANTHENE	-73	-	43.00-155.00	64 (30.00)	BENZO(B)FLUORANTHENE	
	CHRYSENE	-41	-	48.00-134.00	71 (30.00)	CHRYSENE	
	Dimethylphthalate	0	-	74.00-118.00	200 (30.00)	Dimethylphthalate	
	FLUORANTHENE	-106	-	26.00-166.00	88 (30.00)	FLUORANTHENE	
	PYRENE	-117	-	15.00-153.00	86 (30.00)	PYRENE	
SL-020-SA5DN-SS-0.0-0.5MS	BENZO(G,H,I)PERYLENE	23	-	33.00-141.00	-	BENZO(G,H,I)PERYLENE	No Qual, Diluted Out
SL-020-SA5DN-SS-0.0-0.5MSD	BENZO(K)FLUORANTHENE	32	-	42.00-144.00	56 (30.00)	BENZO(K)FLUORANTHENE	
(SL-020-SA5DN-SS-0.0-0.5)							

**Method: 6020**

Matrix: SO

[illegible]

**Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling**

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: DE158\_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-020-SA5DN-SS-0.0-0.5MSD (SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0)	SELENIUM	-	145	75.00-125.00	-	SELENIUM	J(all detects)
SL-020-SA5DN-SS-0.0-0.5MS SL-020-SA5DN-SS-0.0-0.5MSD (SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0)	MOLYBDENUM	143	165	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-020-SA5DN-SS-0.0-0.5MSD (SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0)	BARIUM	-	4	75.00-125.00	-	BARIUM	No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: DE158\_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-020-SA5DN-SS-0.0-0.5MS	ALUMINUM	2091	1485	75.00-125.00	-	ALUMINUM	J(all detects)
SL-020-SA5DN-SS-0.0-0.5MSD	CALCIUM	317	130	75.00-125.00	-	CALCIUM	
(SL-020-SA5DN-SS-0.0-0.5	IRON	2128	145	75.00-125.00	-	IRON	
SL-024-SA5DN-SS-0.0-0.5	MAGNESIUM	403	228	75.00-125.00	-	MAGNESIUM	
SL-025-SA5DN-SS-0.0-0.5	PHOSPHORUS	172	-	75.00-125.00	-	PHOSPHORUS	
SL-026-SA5DN-SS-0.0-0.5	POTASSIUM	135	-	75.00-125.00	-	POTASSIUM	Al, Ca, Fe, Mg, P, No Qual, >4x
SL-027-SA5DN-SS-0.0-0.5							
SL-028-SA5DN-SS-0.0-0.5							
SL-029-SA5DN-SS-0.0-0.5							
SL-036-SA5DN-SS-0.0-0.5							
SL-037-SA5DN-SS-0.0-0.5							
SL-038-SA5DN-SS-0.0-0.5							
SL-039-SA5DN-SS-0.0-0.5							
SL-040-SA5DN-SS-0.0-0.5							
SL-044-SA5DN-SS-0.0-0.5							
SL-050-SA5DN-SS-0.0-0.5							
SL-051-SA5DN-SS-0.0-0.5							
SL-064-SA5DN-SB-4.0-5.0							
SL-065-SA5DN-SB-4.0-5.0							
SL-065-SA5DN-SB-7.0-8.0							
SL-086-SA5DN-SB-4.0-5.0							
SL-088-SA5DN-SB-4.0-5.0)							

Method: 300.0

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-020-SA5DN-SS-0.0-0.5MS	FLUORIDE	57	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
(SL-020-SA5DN-SS-0.0-0.5							
SL-024-SA5DN-SS-0.0-0.5							
SL-025-SA5DN-SS-0.0-0.5							
SL-026-SA5DN-SS-0.0-0.5							
SL-027-SA5DN-SS-0.0-0.5							
SL-028-SA5DN-SS-0.0-0.5							
SL-029-SA5DN-SS-0.0-0.5							
SL-036-SA5DN-SS-0.0-0.5							J(all detects) UJ(all non-detects)
SL-037-SA5DN-SS-0.0-0.5							
SL-038-SA5DN-SS-0.0-0.5)							
SL-039-SA5DN-SS-0.0-0.5MS	FLUORIDE	68	-	80.00-120.00	-	FLUORIDE	
(SL-039-SA5DN-SS-0.0-0.5	Nitrate-NO3	78	-	80.00-120.00	-	Nitrate-NO3	
SL-040-SA5DN-SS-0.0-0.5							
SL-044-SA5DN-SS-0.0-0.5							
SL-050-SA5DN-SS-0.0-0.5							
SL-051-SA5DN-SS-0.0-0.5							
SL-064-SA5DN-SB-4.0-5.0							
SL-065-SA5DN-SB-4.0-5.0							
SL-065-SA5DN-SB-7.0-8.0							
SL-086-SA5DN-SB-4.0-5.0							
SL-088-SA5DN-SB-4.0-5.0)							



# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: DE158\_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-020-SA5DN-SS-0.0-0.5MS SL-020-SA5DN-SS-0.0-0.5MSD (SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0)	TITANIUM	303	270	75.00-125.00	-	TITANIUM	No Qual,>4x

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: DE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 300.0  
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-020-SA5DN-SS-0.0-0.5DUP (SL-020-SA5DN-SS-0.0-0.5 SL -024-SA5DN-SS-0.0-0.5 SL -025-SA5DN-SS-0.0-0.5 SL -026-SA5DN-SS-0.0-0.5 SL -027-SA5DN-SS-0.0-0.5 SL -028-SA5DN-SS-0.0-0.5 SL -029-SA5DN-SS-0.0-0.5 SL -036-SA5DN-SS-0.0-0.5 SL -037-SA5DN-SS-0.0-0.5 SL -038-SA5DN-SS-0.0-0.5)	FLUORIDE	36	20.00	No Qual, OK by Difference

Method: 6010B  
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-020-SA5DN-SS-0.0-0.5DUP (SL-020-SA5DN-SS-0.0-0.5 SL -024-SA5DN-SS-0.0-0.5 SL -025-SA5DN-SS-0.0-0.5 SL -026-SA5DN-SS-0.0-0.5 SL -027-SA5DN-SS-0.0-0.5 SL -028-SA5DN-SS-0.0-0.5 SL -029-SA5DN-SS-0.0-0.5 SL -036-SA5DN-SS-0.0-0.5 SL -037-SA5DN-SS-0.0-0.5 SL -038-SA5DN-SS-0.0-0.5 SL -039-SA5DN-SS-0.0-0.5 SL -040-SA5DN-SS-0.0-0.5 SL -044-SA5DN-SS-0.0-0.5 SL -050-SA5DN-SS-0.0-0.5 SL -051-SA5DN-SS-0.0-0.5 SL -064-SA5DN-SB-4.0-5.0 SL -065-SA5DN-SB-4.0-5.0 SL -065-SA5DN-SB-7.0-8.0 SL -086-SA5DN-SB-4.0-5.0 SL -088-SA5DN-SB-4.0-5.0)	Zirconium	200	20.00	No Qual, OK by Difference

## Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: DE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 6020

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-020-SA5DN-SS-0.0-0.5DUP (SL-020-SA5DN-SS-0.0-0.5 SL -024-SA5DN-SS-0.0-0.5 SL -025-SA5DN-SS-0.0-0.5 SL -026-SA5DN-SS-0.0-0.5 SL -027-SA5DN-SS-0.0-0.5 SL -028-SA5DN-SS-0.0-0.5 SL -029-SA5DN-SS-0.0-0.5 SL -036-SA5DN-SS-0.0-0.5 SL -037-SA5DN-SS-0.0-0.5 SL -038-SA5DN-SS-0.0-0.5 SL -039-SA5DN-SS-0.0-0.5 SL -040-SA5DN-SS-0.0-0.5 SL -044-SA5DN-SS-0.0-0.5 SL -050-SA5DN-SS-0.0-0.5 SL -051-SA5DN-SS-0.0-0.5 SL -064-SA5DN-SB-4.0-5.0 SL -065-SA5DN-SB-4.0-5.0 SL -065-SA5DN-SB-7.0-8.0 SL -086-SA5DN-SB-4.0-5.0 SL -088-SA5DN-SB-4.0-5.0)	MOLYBDENUM SELENIUM	30 26	20.00 20.00	No Qual, OK by Difference

Method: 7471A

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-020-SA5DN-SS-0.0-0.5DUP (SL-020-SA5DN-SS-0.0-0.5 SL -024-SA5DN-SS-0.0-0.5 SL -025-SA5DN-SS-0.0-0.5 SL -026-SA5DN-SS-0.0-0.5 SL -027-SA5DN-SS-0.0-0.5 SL -028-SA5DN-SS-0.0-0.5 SL -029-SA5DN-SS-0.0-0.5 SL -036-SA5DN-SS-0.0-0.5 SL -037-SA5DN-SS-0.0-0.5 SL -038-SA5DN-SS-0.0-0.5 SL -039-SA5DN-SS-0.0-0.5 SL -040-SA5DN-SS-0.0-0.5 SL -044-SA5DN-SS-0.0-0.5 SL -050-SA5DN-SS-0.0-0.5 SL -051-SA5DN-SS-0.0-0.5 SL -064-SA5DN-SB-4.0-5.0 SL -065-SA5DN-SB-4.0-5.0 SL -065-SA5DN-SB-7.0-8.0 SL -086-SA5DN-SB-4.0-5.0 SL -088-SA5DN-SB-4.0-5.0)	MERCURY	53	20.00	No Qual, OK by Difference

## Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: DE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 300.0

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-039-SA5DN-SS-0.0-0.5DUP (SL-039-SA5DN-SS-0.0-0.5 SL -040-SA5DN-SS-0.0-0.5 SL -044-SA5DN-SS-0.0-0.5 SL -050-SA5DN-SS-0.0-0.5 SL -051-SA5DN-SS-0.0-0.5 SL -064-SA5DN-SB-4.0-5.0 SL -065-SA5DN-SB-4.0-5.0 SL -065-SA5DN-SB-7.0-8.0 SL -086-SA5DN-SB-4.0-5.0 SL -088-SA5DN-SB-4.0-5.0)	FLUORIDE	200	20.00	No Qual OK by Difference

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: DE158\_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
P11441AQ241849A (SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5)	DINOSEB	9	-	10.00-36.00	-	DINOSEB	J (all detects) R (all non-detects)

Method: 8330A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11464AQ240841A (SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0)	HMX Nitroglycerin	69 75	- -	74.00-130.00 80.00-120.00	- -	HMX Nitroglycerin	J(all detects) UJ(all non-detects)

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: DE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 8081A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11463AQ241713A (SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5)	METHOXYCHLOR	135	-	59.00-125.00	-	METHOXYCHLOR	J(all detects)

Method: 8270C

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P3LCLCSQ260229 (SL-020-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0)	BIS(2-ETHYLHEXYL)PHTHALAT Butylbenzylphthalate	122 118	- -	75.00-117.00 75.00-115.00	- -	BIS(2-ETHYLHEXYL)PHTHALA Butylbenzylphthalate	J(all detects)
P3LCLCSQ260229 (SL-020-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0)	2,4-DINITROPHENOL	33	-	37.00-120.00	-	2,4-DINITROPHENOL	J(all detects) UJ(all non-detects)

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: DE158\_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
P5LDLCSQ260325 (SL-026-SA5DN-SS-0.0-0.5)	2-NITROPHENOL 4-BROMOPHENYL-PHENYLETH HEXACHLOROBENZENE HEXACHLOROBUTADIENE	80 75 75 66	- - - -	81.00-114.00 79.00-117.00 78.00-116.00 70.00-112.00	- - - -	2-NITROPHENOL 4-BROMOPHENYL-PHENYLET HEXACHLOROBENZENE HEXACHLOROBUTADIENE	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
P14708AQ220804 (SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0)	ALUMINUM	79	-	80.00-120.00	-	ALUMINUM	No Qual, SRM Within QC Limits

Method: 8270C

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P2LELCSQ260642 (SL-024-SA5DN-SS-0.0-0.5)	BIS(2-ETHYLHEXYL)PHTHALAT	118	-	75.00-117.00	-	BIS(2-ETHYLHEXYL)PHTHALA	J(all detects)

Method: 8260B

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCS1B67Q211231A LCS1B67Y211254A (SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0)	2-Chloro-1,1,1-trifluoroethane	77	77	78.00-120.00	-	2-Chloro-1,1,1-trifluoroethane	J(all detects) UJ(all non-detects)

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# Surrogate Outlier Report

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: DE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 8015B

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-051-SA5DN-SS-0.0-0.5	n-Triacontane-d62	16	50.00-150.00	All Target Analytes	J(all detects) UJ(all non-detects)

Method: 8315A

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-024-SA5DN-SS-0.0-0.5	Butyraldehyde	128	64.00-126.00	All Target Analytes	J (all detects)



# Reporting Limit Outliers

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: DE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method: 1625C**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-025-SA5DN-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	24.5	38.6	PQL	ng/Kg	J (all detects)
SL-026-SA5DN-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	24.9	38.4	PQL	ng/Kg	J (all detects)
SL-040-SA5DN-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	37.7	38.6	PQL	ng/Kg	J (all detects)
SL-044-SA5DN-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	252	376	PQL	ng/Kg	J (all detects)
SL-065-SA5DN-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	30.4	37.8	PQL	ng/Kg	J (all detects)
SL-086-SA5DN-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	30.7	37.9	PQL	ng/Kg	J (all detects)

**Method: 300.0**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-025-SA5DN-SS-0.0-0.5	Nitrate-NO3	J	1.1	1.8	PQL	mg/Kg	J (all detects)
SL-027-SA5DN-SS-0.0-0.5	Nitrate-NO3	J	1.1	1.7	PQL	mg/Kg	J (all detects)
SL-028-SA5DN-SS-0.0-0.5	Nitrate-NO3	J	0.94	1.7	PQL	mg/Kg	J (all detects)
SL-029-SA5DN-SS-0.0-0.5	Nitrate-NO3	J	1.1	1.7	PQL	mg/Kg	J (all detects)
SL-037-SA5DN-SS-0.0-0.5	Nitrate-NO3	J	0.97	1.7	PQL	mg/Kg	J (all detects)
SL-038-SA5DN-SS-0.0-0.5	Nitrate-NO3	J	1.0	1.8	PQL	mg/Kg	J (all detects)
SL-039-SA5DN-SS-0.0-0.5	Nitrate-NO3	J	1.0	1.8	PQL	mg/Kg	J (all detects)
SL-040-SA5DN-SS-0.0-0.5	Nitrate-NO3	J	1.1	1.8	PQL	mg/Kg	J (all detects)
SL-044-SA5DN-SS-0.0-0.5	Nitrate-NO3	J	1.0	1.7	PQL	mg/Kg	J (all detects)
SL-064-SA5DN-SB-4.0-5.0	Nitrate-NO3	J	1.2	1.7	PQL	mg/Kg	J (all detects)
SL-065-SA5DN-SB-4.0-5.0	Nitrate-NO3	J	1.5	1.7	PQL	mg/Kg	J (all detects)
SL-065-SA5DN-SB-7.0-8.0	Nitrate-NO3	J	1.2	1.7	PQL	mg/Kg	J (all detects)
SL-086-SA5DN-SB-4.0-5.0	Nitrate-NO3	J	0.96	1.7	PQL	mg/Kg	J (all detects)

**Method: 6010B**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-020-SA5DN-SS-0.0-0.5	TIN	J	2.33	10.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.02	5.30	PQL	mg/Kg	
SL-024-SA5DN-SS-0.0-0.5	SODIUM	J	81.4	115	PQL	mg/Kg	J (all detects)
	TIN	J	2.74	11.5	PQL	mg/Kg	
	Zirconium	J	3.30	5.74	PQL	mg/Kg	
SL-025-SA5DN-SS-0.0-0.5	TIN	J	3.04	11.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.23	5.78	PQL	mg/Kg	
SL-026-SA5DN-SS-0.0-0.5	TIN	J	2.99	11.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.81	5.70	PQL	mg/Kg	
SL-027-SA5DN-SS-0.0-0.5	TIN	J	2.90	11.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.99	5.66	PQL	mg/Kg	

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# Reporting Limit Outliers

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: DE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-028-SA5DN-SS-0.0-0.5	TIN	J	3.02	11.5	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.46	5.74	PQL	mg/Kg	
SL-029-SA5DN-SS-0.0-0.5	SODIUM	J	108	113	PQL	mg/Kg	J (all detects)
	TIN	J	3.21	11.3	PQL	mg/Kg	
	Zirconium	J	3.59	5.64	PQL	mg/Kg	
SL-036-SA5DN-SS-0.0-0.5	SODIUM	J	108	111	PQL	mg/Kg	J (all detects)
	TIN	J	3.16	11.1	PQL	mg/Kg	
	Zirconium	J	3.17	5.54	PQL	mg/Kg	
SL-037-SA5DN-SS-0.0-0.5	SODIUM	J	99.1	111	PQL	mg/Kg	J (all detects)
	TIN	J	2.93	11.1	PQL	mg/Kg	
	Zirconium	J	2.81	5.55	PQL	mg/Kg	
SL-038-SA5DN-SS-0.0-0.5	SODIUM	J	110	114	PQL	mg/Kg	J (all detects)
	TIN	J	2.98	11.4	PQL	mg/Kg	
	Zirconium	J	3.25	5.68	PQL	mg/Kg	
SL-039-SA5DN-SS-0.0-0.5	SODIUM	J	97.0	114	PQL	mg/Kg	J (all detects)
	TIN	J	3.09	11.4	PQL	mg/Kg	
	Zirconium	J	3.37	5.69	PQL	mg/Kg	
SL-040-SA5DN-SS-0.0-0.5	SODIUM	J	110	116	PQL	mg/Kg	J (all detects)
	TIN	J	3.06	11.6	PQL	mg/Kg	
	Zirconium	J	3.15	5.78	PQL	mg/Kg	
SL-044-SA5DN-SS-0.0-0.5	TIN	J	2.94	11.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.54	5.64	PQL	mg/Kg	
SL-050-SA5DN-SS-0.0-0.5	SODIUM	J	94.2	107	PQL	mg/Kg	J (all detects)
	TIN	J	2.90	10.7	PQL	mg/Kg	
	Zirconium	J	1.81	5.37	PQL	mg/Kg	
SL-051-SA5DN-SS-0.0-0.5	TIN	J	2.91	10.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.56	5.31	PQL	mg/Kg	
SL-064-SA5DN-SB-4.0-5.0	TIN	J	2.84	11.5	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.00	5.73	PQL	mg/Kg	
SL-065-SA5DN-SB-4.0-5.0	TIN	J	3.01	11.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.62	5.49	PQL	mg/Kg	
SL-065-SA5DN-SB-7.0-8.0	TIN	J	2.79	10.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.77	5.32	PQL	mg/Kg	
SL-086-SA5DN-SB-4.0-5.0	TIN	J	2.85	11.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.90	5.55	PQL	mg/Kg	
SL-088-SA5DN-SB-4.0-5.0	TIN	J	3.09	11.5	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.36	5.75	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-020-SA5DN-SS-0.0-0.5	SELENIUM	J	0.110	0.420	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0532	0.105	PQL	mg/Kg	
SL-024-SA5DN-SS-0.0-0.5	SELENIUM	J	0.156	0.446	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0704	0.112	PQL	mg/Kg	
SL-025-SA5DN-SS-0.0-0.5	SELENIUM	J	0.173	0.454	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0749	0.113	PQL	mg/Kg	
SL-026-SA5DN-SS-0.0-0.5	SELENIUM	J	0.238	0.456	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0617	0.114	PQL	mg/Kg	

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# Reporting Limit Outliers

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: DE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-027-SA5DN-SS-0.0-0.5	SELENIUM	J	0.145	0.457	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0757	0.114	PQL	mg/Kg	
SL-028-SA5DN-SS-0.0-0.5	SELENIUM	J	0.146	0.463	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0668	0.116	PQL	mg/Kg	
SL-029-SA5DN-SS-0.0-0.5	SELENIUM	J	0.147	0.455	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0640	0.114	PQL	mg/Kg	
SL-036-SA5DN-SS-0.0-0.5	SELENIUM	J	0.165	0.443	PQL	mg/Kg	J (all detects)
SL-037-SA5DN-SS-0.0-0.5	SELENIUM	J	0.172	0.457	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0629	0.114	PQL	mg/Kg	
SL-038-SA5DN-SS-0.0-0.5	SELENIUM	J	0.177	0.454	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0697	0.114	PQL	mg/Kg	
SL-039-SA5DN-SS-0.0-0.5	SELENIUM	J	0.170	0.464	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0842	0.116	PQL	mg/Kg	
SL-040-SA5DN-SS-0.0-0.5	SELENIUM	J	0.154	0.449	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0698	0.112	PQL	mg/Kg	
SL-044-SA5DN-SS-0.0-0.5	SELENIUM	J	0.140	0.447	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0529	0.112	PQL	mg/Kg	
SL-050-SA5DN-SS-0.0-0.5	SELENIUM	J	0.229	0.425	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0770	0.106	PQL	mg/Kg	
SL-051-SA5DN-SS-0.0-0.5	SELENIUM	J	0.192	0.437	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0586	0.109	PQL	mg/Kg	
SL-064-SA5DN-SB-4.0-5.0	SELENIUM	J	0.121	0.458	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0651	0.115	PQL	mg/Kg	
SL-065-SA5DN-SB-4.0-5.0	SELENIUM	J	0.0959	0.444	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0801	0.111	PQL	mg/Kg	
SL-065-SA5DN-SB-7.0-8.0	ANTIMONY	J	0.199	0.213	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0514	0.426	PQL	mg/Kg	
	SILVER	J	0.0484	0.106	PQL	mg/Kg	
SL-086-SA5DN-SB-4.0-5.0	ANTIMONY	J	0.220	0.227	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0673	0.453	PQL	mg/Kg	
	SILVER	J	0.0401	0.113	PQL	mg/Kg	
SL-088-SA5DN-SB-4.0-5.0	ANTIMONY	J	0.206	0.235	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0535	0.117	PQL	mg/Kg	
	SELENIUM	J	0.0625	0.469	PQL	mg/Kg	
	SILVER	J	0.0357	0.117	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-020-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.56	1.1	PQL	mg/Kg	J (all detects)
SL-024-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.59	1.2	PQL	mg/Kg	J (all detects)
SL-025-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.66	1.2	PQL	mg/Kg	J (all detects)
SL-026-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.76	1.2	PQL	mg/Kg	J (all detects)
SL-028-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.73	1.2	PQL	mg/Kg	J (all detects)
SL-029-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.77	1.2	PQL	mg/Kg	J (all detects)

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# Reporting Limit Outliers

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Laboratory: LL

EDD Filename: DE158\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-036-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.94	1.1	PQL	mg/Kg	J (all detects)
SL-037-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.70	1.2	PQL	mg/Kg	J (all detects)
SL-038-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.85	1.2	PQL	mg/Kg	J (all detects)
SL-039-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.64	1.2	PQL	mg/Kg	J (all detects)
SL-040-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.95	1.2	PQL	mg/Kg	J (all detects)
SL-044-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.80	1.1	PQL	mg/Kg	J (all detects)
SL-050-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	1.0	1.1	PQL	mg/Kg	J (all detects)
SL-051-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	1.0	1.1	PQL	mg/Kg	J (all detects)
SL-065-SA5DN-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.71	1.1	PQL	mg/Kg	J (all detects)
SL-088-SA5DN-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.65	1.2	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-020-SA5DN-SS-0.0-0.5	MERCURY	J	0.0127	0.100	PQL	mg/Kg	J (all detects)
SL-024-SA5DN-SS-0.0-0.5	MERCURY	J	0.0275	0.112	PQL	mg/Kg	J (all detects)
SL-025-SA5DN-SS-0.0-0.5	MERCURY	J	0.0055	0.115	PQL	mg/Kg	J (all detects)
SL-027-SA5DN-SS-0.0-0.5	MERCURY	J	0.0263	0.116	PQL	mg/Kg	J (all detects)
SL-036-SA5DN-SS-0.0-0.5	MERCURY	J	0.0235	0.114	PQL	mg/Kg	J (all detects)
SL-037-SA5DN-SS-0.0-0.5	MERCURY	J	0.0065	0.109	PQL	mg/Kg	J (all detects)
SL-038-SA5DN-SS-0.0-0.5	MERCURY	J	0.0095	0.116	PQL	mg/Kg	J (all detects)
SL-039-SA5DN-SS-0.0-0.5	MERCURY	J	0.0098	0.111	PQL	mg/Kg	J (all detects)
SL-044-SA5DN-SS-0.0-0.5	MERCURY	J	0.0059	0.107	PQL	mg/Kg	J (all detects)
SL-050-SA5DN-SS-0.0-0.5	MERCURY	J	0.0232	0.105	PQL	mg/Kg	J (all detects)
SL-051-SA5DN-SS-0.0-0.5	MERCURY	J	0.0051	0.109	PQL	mg/Kg	J (all detects)
SL-064-SA5DN-SB-4.0-5.0	MERCURY	J	0.0069	0.112	PQL	mg/Kg	J (all detects)
SL-065-SA5DN-SB-4.0-5.0	MERCURY	J	0.0069	0.111	PQL	mg/Kg	J (all detects)
SL-065-SA5DN-SB-7.0-8.0	MERCURY	J	0.0184	0.110	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-020-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	5.8	6.4	PQL	mg/Kg	J (all detects)
SL-024-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	4.4	7.0	PQL	mg/Kg	J (all detects)
SL-026-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	4.3	6.9	PQL	mg/Kg	J (all detects)

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# Reporting Limit Outliers

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eQAPP Name: CDM\_SSFL\_110509

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-027-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	5.2	7.0	PQL	mg/Kg	J (all detects)
SL-028-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	4.5	7.0	PQL	mg/Kg	J (all detects)
SL-029-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	5.9	7.0	PQL	mg/Kg	J (all detects)
SL-037-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	6.1	6.9	PQL	mg/Kg	J (all detects)
SL-040-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	6.8	7.0	PQL	mg/Kg	J (all detects)
SL-044-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	6.5	6.8	PQL	mg/Kg	J (all detects)
SL-051-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	33	66	PQL	mg/Kg	J (all detects)
SL-086-SA5DN-SB-4.0-5.0	EFH (C21-C30)	J	0.48	1.4	PQL	mg/Kg	J (all detects)

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-024-SA5DN-SS-0.0-0.5	4,4'-DDE	J	0.28	0.39	PQL	ug/Kg	J (all detects)
	DIELDRIN	J	0.26	0.39	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.082	0.39	PQL	ug/Kg	
	MIREX	J	0.19	0.39	PQL	ug/Kg	
SL-025-SA5DN-SS-0.0-0.5	DIELDRIN	J	0.11	0.40	PQL	ug/Kg	J (all detects)
SL-027-SA5DN-SS-0.0-0.5	Chlordane	J	1.5	3.9	PQL	ug/Kg	J (all detects)
SL-029-SA5DN-SS-0.0-0.5	Chlordane	J	2.8	3.9	PQL	ug/Kg	J (all detects)
SL-037-SA5DN-SS-0.0-0.5	Chlordane	J	1.8	3.9	PQL	ug/Kg	J (all detects)
SL-039-SA5DN-SS-0.0-0.5	Chlordane	J	1.3	4.0	PQL	ug/Kg	J (all detects)
SL-040-SA5DN-SS-0.0-0.5	4,4'-DDE	J	0.11	0.40	PQL	ug/Kg	J (all detects)
	ENDRIN ALDEHYDE	J	0.11	0.40	PQL	ug/Kg	
	HEPTACHLOR EPOXIDE	J	0.043	0.19	PQL	ug/Kg	
	MIREX	J	0.19	0.40	PQL	ug/Kg	
SL-044-SA5DN-SS-0.0-0.5	4,4'-DDT	J	0.32	0.38	PQL	ug/Kg	J (all detects)
	MIREX	J	0.19	0.38	PQL	ug/Kg	
SL-050-SA5DN-SS-0.0-0.5	4,4'-DDD	J	0.18	0.37	PQL	ug/Kg	J (all detects)
SL-051-SA5DN-SS-0.0-0.5	BETA-BHC	J	0.10	0.18	PQL	ug/Kg	J (all detects)
	MIREX	J	0.074	0.37	PQL	ug/Kg	

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-020-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	0.60	1.8	PQL	ug/Kg	J (all detects)
SL-024-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	0.91	2.0	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	1.3	3.8	PQL	ug/Kg	
SL-027-SA5DN-SS-0.0-0.5	Aroclor 5460	J	2.6	3.8	PQL	ug/Kg	J (all detects)
SL-028-SA5DN-SS-0.0-0.5	Aroclor 5460	J	2.0	3.8	PQL	ug/Kg	J (all detects)

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eQAPP Name: CDM\_SSFL\_110509

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-036-SA5DN-SS-0.0-0.5	Aroclor 5460	J	9.5	19	PQL	ug/Kg	J (all detects)
SL-039-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.3	2.0	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	1.7	3.9	PQL	ug/Kg	
SL-040-SA5DN-SS-0.0-0.5	Aroclor 5460	J	3.3	3.8	PQL	ug/Kg	J (all detects)
SL-044-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.5	1.9	PQL	ug/Kg	J (all detects)
SL-050-SA5DN-SS-0.0-0.5	Aroclor 5460	J	3.5	3.6	PQL	ug/Kg	J (all detects)
SL-051-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.6	1.9	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	1.4	3.6	PQL	ug/Kg	

Method: 8151A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-036-SA5DN-SS-0.0-0.5	2,4-DB	J	1.5	1.9	PQL	ug/Kg	J (all detects)
SL-039-SA5DN-SS-0.0-0.5	2,4-D	J	2.2	4.2	PQL	ug/Kg	J (all detects)
	MCPA	J	150	290	PQL	ug/Kg	
SL-040-SA5DN-SS-0.0-0.5	2,4-D	J	2.4	4.2	PQL	ug/Kg	J (all detects)
SL-044-SA5DN-SS-0.0-0.5	2,4-DB	J	1.7	1.9	PQL	ug/Kg	J (all detects)
SL-051-SA5DN-SS-0.0-0.5	DICAMBA	J	0.49	1.3	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-064-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.0	4.3	PQL	ug/Kg	J (all detects)
SL-065-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.82	4.1	PQL	ug/Kg	J (all detects)
SL-065-SA5DN-SB-7.0-8.0	METHYLENE CHLORIDE	J	0.81	4.1	PQL	ug/Kg	J (all detects)
SL-086-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.92	4.5	PQL	ug/Kg	J (all detects)
SL-088-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.6	4.6	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-025-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHthalate	J	40	390	PQL	ug/Kg	J (all detects)
SL-027-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHthalate	J	33	380	PQL	ug/Kg	J (all detects)
SL-028-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHthalate	J	23	380	PQL	ug/Kg	J (all detects)
SL-029-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHthalate	J	37	390	PQL	ug/Kg	J (all detects)
SL-036-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHthalate	J	39	380	PQL	ug/Kg	J (all detects)

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# Reporting Limit Outliers

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eQAPP Name: CDM\_SSFL\_110509

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-037-SA5DN-SS-0.0-0.5	BENZO(A)PYRENE	J	22	190	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	23	190	PQL	ug/Kg	
	CHRYSENE	J	26	190	PQL	ug/Kg	
	FLUORANTHENE	J	24	190	PQL	ug/Kg	
	PYRENE	J	29	190	PQL	ug/Kg	
SL-039-SA5DN-SS-0.0-0.5	ACENAPHTHENE	J	35	190	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	48	190	PQL	ug/Kg	
	BENZO(A)PYRENE	J	140	190	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	150	190	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	75	190	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	72	190	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	54	390	PQL	ug/Kg	
	CARBAZOLE	J	27	190	PQL	ug/Kg	
	FLUORENE	J	21	190	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	89	190	PQL	ug/Kg	
SL-044-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	43	380	PQL	ug/Kg	J (all detects)
SL-050-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	26	370	PQL	ug/Kg	J (all detects)
SL-051-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	60	360	PQL	ug/Kg	J (all detects)
SL-064-SA5DN-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	27	380	PQL	ug/Kg	J (all detects)
SL-065-SA5DN-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	30	380	PQL	ug/Kg	J (all detects)
SL-065-SA5DN-SB-7.0-8.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	20	360	PQL	ug/Kg	J (all detects)
SL-086-SA5DN-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	22	380	PQL	ug/Kg	J (all detects)
SL-088-SA5DN-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	22	390	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-020-SA5DN-SS-0.0-0.5	ANTHRACENE	J	2.7	8.7	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	5.6	8.7	PQL	ug/Kg	
SL-025-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.0	1.9	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	1.6	1.9	PQL	ug/Kg	
	FLUORANTHENE	J	1.7	1.9	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.9	PQL	ug/Kg	
	PYRENE	J	1.5	1.9	PQL	ug/Kg	
SL-026-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.4	1.9	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.3	1.9	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.2	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	0.95	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.2	1.9	PQL	ug/Kg	
SL-027-SA5DN-SS-0.0-0.5	ANTHRACENE	J	0.58	1.9	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	1.1	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	0.86	1.9	PQL	ug/Kg	
SL-028-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.98	1.9	PQL	ug/Kg	J (all detects)
	Diethylphthalate	J	7.1	21	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	0.98	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.2	1.9	PQL	ug/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE158

Laboratory: LL

EDD Filename: DE158\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8270C SIM

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-029-SA5DN-SS-0.0-0.5	CHRYSENE	J	0.49	1.9	PQL	ug/Kg	J (all detects)
	Diethylphthalate	J	9.6	21	PQL	ug/Kg	
	Di-n-butylphthalate	J	9.7	21	PQL	ug/Kg	
SL-036-SA5DN-SS-0.0-0.5	BENZO(A)PYRENE	J	4.1	9.4	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	8.3	9.4	PQL	ug/Kg	
	CHRYSENE	J	3.3	9.4	PQL	ug/Kg	
	Di-n-butylphthalate	J	71	100	PQL	ug/Kg	
SL-037-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	5.2	9.6	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	7.1	9.6	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	91	100	PQL	ug/Kg	
SL-038-SA5DN-SS-0.0-0.5	ANTHRACENE	J	0.85	1.9	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	1.7	1.9	PQL	ug/Kg	
	Di-n-butylphthalate	J	8.1	21	PQL	ug/Kg	
	Di-n-octylphthalate	J	19	21	PQL	ug/Kg	
SL-040-SA5DN-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.82	1.9	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	0.91	1.9	PQL	ug/Kg	
	ANTHRACENE	J	0.77	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.5	1.9	PQL	ug/Kg	
SL-044-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.3	1.9	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	0.78	1.9	PQL	ug/Kg	
	CHRYSENE	J	0.68	1.9	PQL	ug/Kg	
	Di-n-octylphthalate	J	8.6	20	PQL	ug/Kg	
	FLUORANTHENE	J	0.78	1.9	PQL	ug/Kg	
	PYRENE	J	0.77	1.9	PQL	ug/Kg	
SL-050-SA5DN-SS-0.0-0.5	DIBENZO(A,H)ANTHRACENE	J	6.7	9.1	PQL	ug/Kg	J (all detects)
SL-051-SA5DN-SS-0.0-0.5	ANTHRACENE	J	4.5	9.1	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	7.9	9.1	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	8.2	9.1	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	4.2	9.1	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	6.3	9.1	PQL	ug/Kg	
	NAPHTHALENE	J	4.6	9.1	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:** May 20, 2011

**LDC Report Date:** September 30, 2011

**Matrix:** Soil/Water

**Parameters:** Volatiles

**Validation Level:** Level IV

**Laboratory:** Lancaster Laboratories

**Sample Delivery Group (SDG):** DE158

**Sample Identification**

SL-064-SA5DN-SB-4.0-5.0  
SL-065-SA5DN-SB-4.0-5.0  
SL-065-SA5DN-SB-7.0-8.0  
SL-086-SA5DN-SB-4.0-5.0  
SL-088-SA5DN-SB-4.0-5.0  
TB-052011

## Introduction

This data review covers 5 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 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
5/27/11	4-Methyl-2-pentanone 2-Hexanone	27 36	All soil samples in SDG DE158	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A
5/24/11	Trichlorofluoromethane	26	All water samples in SDG DE158	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
VBLKB67	5/27/11	Acetone Methylene chloride	9.6 ug/Kg 1.1 ug/Kg	All soil samples in SDG DE158

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-064-SA5DN-SB-4.0-5.0	Acetone Methylene chloride	9.9 ug/Kg 1.0 ug/Kg	9.9U ug/Kg 4.3U ug/Kg
SL-065-SA5DN-SB-4.0-5.0	Acetone Methylene chloride	8.8 ug/Kg 0.82 ug/Kg	8.8U ug/Kg 4.1U ug/Kg
SL-065-SA5DN-SB-7.0-8.0	Acetone Methylene chloride	8.6 ug/Kg 0.81 ug/Kg	8.6U ug/Kg 4.1U ug/Kg
SL-086-SA5DN-SB-4.0-5.0	Acetone Methylene chloride	9.1 ug/Kg 0.92 ug/Kg	9.1U ug/Kg 4.5U ug/Kg
SL-088-SA5DN-SB-4.0-5.0	Acetone Methylene chloride	11 ug/Kg 1.6 ug/Kg	11U ug/Kg 4.6U ug/Kg

Sample TB-052011 was identified as a trip blank. No volatile 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

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 1867 (All soil samples in SDG DE158)	Freon-133a	77 (78-120)	77 (78-120)	-	J (all detects) UJ (all non-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 DE158	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 DE158**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE158	SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0	4-Methyl-2-pentanone  2-Hexanone	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE158	TB-052011	Trichlorofluoromethane	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE158	SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0	Freon-133a	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R) (L)
DE158	SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0 TB-052011	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 DE158**

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE158	SL-064-SA5DN-SB-4.0-5.0	Acetone Methylene chloride	9.9U ug/Kg 4.3U ug/Kg	A	B
DE158	SL-065-SA5DN-SB-4.0-5.0	Acetone Methylene chloride	8.8U ug/Kg 4.1U ug/Kg	A	B
DE158	SL-065-SA5DN-SB-7.0-8.0	Acetone Methylene chloride	8.6U ug/Kg 4.1U ug/Kg	A	B
DE158	SL-086-SA5DN-SB-4.0-5.0	Acetone Methylene chloride	9.1U ug/Kg 4.5U ug/Kg	A	B
DE158	SL-088-SA5DN-SB-4.0-5.0	Acetone Methylene chloride	11U ug/Kg 4.6U ug/Kg	A	B

**Santa Susana Field Laboratory**  
**Volatiles - Field Blank Data Qualification Summary - SDG DE158**

No Sample Data Qualified in this SDG



**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	$\Delta$	Sampling dates: 5/20/11
II.	GC/MS Instrument performance check	$\Delta$	
III.	Initial calibration	A	% PSD $\leq 30$ , $r^2$
IV.	Continuing calibration/ICV	SW	ICV/CCV $\leq 25$
V.	Blanks	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	SW	LOD
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	$\Delta$	
XI.	Target compound identification	$\Delta$	
XII.	Compound quantitation (RV)/LOQ/LODs	$\Delta$	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	$\Delta$	
XV.	Overall assessment of data	$\Delta$	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = 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-064-SA5DN-SB-4.0-5.0	11	VBLK B67	21		31	
2	SL-065-SA5DN-SB-4.0-5.0	12	VBLK L65	22		32	
3	SL-065-SA5DN-SB-7.0-8.0	13		23		33	
4	SL-086-SA5DN-SB-4.0-5.0	14		24		34	
5	SL-088-SA5DN-SB-4.0-5.0	15		25		35	
6	TB-052011 W	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
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. GC/MS instrument performance checks</b>				
Were the BFB performance results reviewed and found to be within the specified criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples analyzed within the 12 hour clock criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of $\geq 0.990$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) $\leq 30\%$ and relative response factors (RRF) $> 0.05$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) $\leq 25\%$ and relative response factors (RRF) $\geq 0.05$ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>X Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>X Internal Standards</b>				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were retention times within + 30 seconds of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII Compound quantitation/CRQLs</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII Tentatively identified compounds (TICs)</b>				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were relative intensities of the major ions within $\pm$ 20% between the sample and the reference spectra?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XIV System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XVI Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XVII Field blanks</b>				
Field blanks were identified in this SDG.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

# 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 chloride**	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropane	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-Dichloroethane, 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. Trichloroethane	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBB. tert-Amyl methyl ether	VVV.

\* = System performance check compounds (SPCC) for RRF ; \*\* = Calibration check compounds (CCC) for %RSD.

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

## Continuing Calibration

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

Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's?

Were all %D and RRFs within the validation criteria of  $\leq 25\%$  D and  $\geq 0.05$  RRF?  $\checkmark$

[illegible]

LDC #: 262750/a

## VALIDATION FINDINGS WORKSHEET

## Blanks

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

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: 5/27/11

Conc. units: ug/kg

Associated Samples: All 5.0Ls

Compound	Blank ID	107	Sample Identification				
	YPRXB67		1	2	3	4	5
F	9.6	96	9.9/4	8.8/4	8.6/4	9.1/4	11/4
E	1.1	11	1.0/4.3/4	0.82/4.1/4	0.81/4.1/4	0.92/4.5/4	1.6/4.6/4
CROI							

Blank analysis date: \_\_\_\_\_

Conc. units: \_\_\_\_\_

Associated Samples: \_\_\_\_\_

Compound	Blank ID	Sample Identification				
CROI						

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".

**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".

Was a LCS required?  
Were the LCS percent

**Was a LCS required?**

Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

[illegible]

LDC #: 262750/2

# VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

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

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 following calculations:

$RRF = (A_x)(C_b)/(A_b)(C_x)$   
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

$A_b$  = Area of associated internal standard  
 $C_b$  = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	RRF (std)		RRF (50 std)		Average RRF (Initial)		%RSD	
				Reported	Recalculated	Reported	Recalculated	Reported	Recalculated	Reported	Recalculated
1	ICAL-S	5/24/11	C (1st internal standard)	0.3569	0.3569	0.3517	0.3517	7	7		
			CC (2nd internal standard)	0.9017	0.9017	0.8572	0.8572	5	5		
			BB (3rd internal standard)	0.6558	0.6558	0.6887	0.6887	7	7		
			(4th internal standard)								
2	ICAL-W	4/21/11	C (1st internal standard)	0.3956	0.3956	0.4093	0.4093	4	4		
			CC (2nd internal standard)	1.0098	1.0098	1.0092	1.0092	2	2		
			BB (3rd internal standard)	1.1471	1.1471	1.1204	1.1204	3	3		
			(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 recalculated results.



LDC #: 262758/a

# VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

Page: 16 of 17  
Reviewer: FT  
2nd Reviewer: C

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 compounds identified below using the following calculation:

$$\% \text{ Difference} = 100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$$

$$\text{RRF} = (A_x / C_x) / (A_b / C_b)$$

Where: ave. RRF = initial calibration average RRF  
RRF = continuing calibration RRF

$A_x$  = Area of compound,  
 $C_x$  = Concentration of compound,  
 $A_b$  = Area of associated internal standard  
 $C_b$  = 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	6427003	5/27/11	C	0.3517	0.3004	0.3004	15	15
	10:06		CC	0.8572	0.8349	0.8349	3	3
			BB	0.6887	0.7093	0.7093	3	3
2	1424001	5/24/11	C	0.4093	0.4694	0.4696	15	15
			CC	1.0092	1.0237	1.0237	1	1
			BB	1.1204	1.2222	1.2222	9	9
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 #: 26275 Q/aVALIDATION FINDINGS WORKSHEET  
Surrogate Results VerificationPage: 1 of 1Reviewer: FT2nd reviewer: C

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 SpikedSample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane	50	50.319	101	101	0
1,2-Dichloroethane-d4		50.225	101	101	
Toluene-d8	↓	49.589	99	99	↓
Bromofluorobenzene	↓	47.747	95	95	↓

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					

[illegible]

LCSC.LS

LDC #: 262756/a

## VALIDATION FINDINGS WORKSHEET

### Sample Calculation Verification

Page:    of   

Reviewer: FT

2nd reviewer: <sup>A</sup>

**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?

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

$A_x$  = 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, E:

$$\text{Conc.} = \frac{(4235)(50)(5)}{(968157)(0.2290)(5.38)(0.86)}$$
[illegible]

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Santa Susana Field Laboratory

**Collection Date:** May 20, 2011

**LDC Report Date:** September 30, 2011

**Matrix:** Soil/Water

**Parameters:** 1,4-Dioxane

**Validation Level:** Level IV

**Laboratory:** Lancaster Laboratories

**Sample Delivery Group (SDG):** DE158

**Sample Identification**

SL-064-SA5DN-SB-4.0-5.0

SL-065-SA5DN-SB-4.0-5.0

SL-065-SA5DN-SB-7.0-8.0

SL-086-SA5DN-SB-4.0-5.0

SL-088-SA5DN-SB-4.0-5.0

TB-052011

## Introduction

This data review covers 5 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 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-052011 was identified as a trip 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 DE158	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 DE158**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE158	SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0 TB-052011	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 DE158**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory**  
**1,4-Dioxane - Field Blank Data Qualification Summary - SDG DE158**

No Sample Data Qualified in this SDG

LDC #: 26275Q1b **VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE158

Level IV

Laboratory: Lancaster Laboratories

Date: 9/29/11

Page: 6 of 7

Reviewer: [Signature]

2nd Reviewer: [Signature]

**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	$\Delta$	Sampling dates: 5/20/11
II.	GC/MS Instrument performance check	$\Delta$	
III.	Initial calibration	$\Delta$	% RSD $\leq 20$
IV.	Continuing calibration/ICV	A	ICV $\leq 25$
V.	Blanks	$\Delta$	
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	$\Delta$	
XI.	Target compound identification	$\Delta$	
XII.	Compound quantitation (R)/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	$\Delta$	
XV.	Overall assessment of data	$\Delta$	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = 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-064-SA5DN-SB-4.0-5.0	11	YBLKE40	21		31	
2	SL-065-SA5DN-SB-4.0-5.0	12	2-YBLKE38	22		32	
3	SL-065-SA5DN-SB-7.0-8.0	13		23		33	
4	SL-086-SA5DN-SB-4.0-5.0	14		24		34	
5	SL-088-SA5DN-SB-4.0-5.0	15		25		35	
6	TB-052011 W	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 262752 16

## VALIDATION FINDINGS CHECKLIST

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

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. GC/MS instrument performance check</b>				
Were the BFB performance results reviewed and found to be within the specified criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples analyzed within the 12 hour clock criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of $> 0.990$ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were all percent relative standard deviations (%RSD) $\leq 30\%$ and relative response factors (RRF) $> 0.05$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were all percent differences (%D) $\leq 25\%$ and relative response factors (RRF) $\geq 0.05$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>X. Internal Standards</b>				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were retention times within + 30 seconds of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. Compound quantitation/CRQLs</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Tentatively identified compounds (TICs)</b>				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were relative intensities of the major ions within $\pm 20\%$ between the sample and the reference spectra?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XIV. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XVI. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XVII. Field blanks</b>				
Field blanks were identified in this SDG.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

# 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 chloride**	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropane	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. Tetrachloroethane	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethane**	BB. 1,1,2,2-Tetrachloroethane*	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethane	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane*	CC. Toluene**	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethane	KKKK. Propionitrile
J. 1,2-Dichloroethane, 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. Trichloroethane	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBB. tert-Amyl methyl ether	VVV.

\* = System performance check compounds (SPCC) for RRF ; \*\* = Calibration check compounds (CCC) for %RSD.

LDC #: 26255016VALIDATION FINDINGS WORKSHEET  
Initial Calibration Calculation VerificationPage: 1 of 1  
Reviewer: FT  
2nd Reviewer: C

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 following calculations:

$$RRF = (A_s)(C_{is}) / (A_{is})(C_s)$$

average RRF = sum of the RRFs/number of standards

$$\%RSD = 100 * (S/X)$$

 $A_s$  = Area of compound, $C_s$  = 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)	RRF (5 <sup>th</sup> std)		RRF (5 <sup>th</sup> std)		Average RRF (Initial)		Average RRF (Initial)		%RSD	
				Reported	Recalculated	Reported	Recalculated	Reported	Recalculated	Reported	Recalculated	Reported	Recalculated
1	1CAL-S	11/7/10	1,4-Dioxane (1st internal standard)	1.3539	1.3539	1.3396	1.3396	1.3396	1.3396	2	2	2	2
			(2nd internal standard)										
			(3rd internal standard)										
			(4th internal standard)										
2	1CAL-W	11/01/10	1 (1st internal standard)	1.3359	1.3359	1.3219	1.3219	1.3219	1.3219	1	1	1	1
			(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 recalculated results.

LDC #: 26275016

# VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

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

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 compounds identified below using the following calculation:

$$\% \text{ Difference} = 100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$$

$$\text{RRF} = (A_x / C_x) / (A_{is} / C_{is})$$

Where: ave. RRF = initial calibration average RRF

RRF = continuing calibration RRF

A<sub>x</sub> = Area of compound,

C<sub>x</sub> = Concentration of compound,

A<sub>is</sub> = Area of associated internal standard

C<sub>is</sub> = 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	ey24001	5/24/11	1,4-Dioxane (1st internal standard)	1.3396	1.4848	1.4848	11	11
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
2	ey23001	5/23/11	↓ (1st internal standard)	1.3219	1.5063	1.5063	14	14
			(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 the recalculated results.



LDC #: 26275 616VALIDATION FINDINGS WORKSHEET  
Surrogate Results VerificationPage: 1 of 1  
Reviewer: FT  
2nd reviewer: C

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:  $SF/SS \times 100$ Where: SF = Surrogate Found  
SS = Surrogate SpikedSample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8	10	9.669	97	97	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					

VALIDATION FINDINGS WORKSHEET  
Laboratory Control Sample Results Verification

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

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

% Recovery =  $100 \times \text{SSC}/\text{SA}$       Where: SSC = Spiked sample concentration  
SA = Spike added

RPD =  $100 \times (\text{LCS} - \text{LCSD}) / ((\text{LCS} + \text{LCSD}) / 2)$

LCS = Laboratory control sample percent recovery

LCSD = Laboratory control sample duplicate percent recovery

LCS ID: 105/D E40

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS		LCSD		Percent Recovery		Percent Recovery		RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalc	Reported	Recalc	Reported	Recalc
1,1-Dichloroethene														
Trichloroethene														
Benzene														
Toluene														
Chlorobenzene														
1,4-Dioxane	125	125	133.3	142.87	107	107	114	114	7	7				

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.

## VALIDATION FINDINGS WORKSHEET

### Sample Calculation Verification

**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?
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$$\text{Concentration} = \frac{(A_s)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$$

$A_x$  = 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. =  $\frac{(\quad)(\quad)(\quad)}{(\quad)(\quad)(\quad)}$

MD

[illegible]

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory

**Collection Date:** May 20, 2011

**LDC Report Date:** September 30, 2011

**Matrix:** Soil

**Parameters:** Semivolatiles

**Validation Level:** Level IV

**Laboratory:** Lancaster Laboratories

**Sample Delivery Group (SDG):** DE158

### Sample Identification

SL-020-SA5DN-SS-0.0-0.5	SL-020-SA5DN-SS-0.0-0.5MS
SL-024-SA5DN-SS-0.0-0.5	SL-020-SA5DN-SS-0.0-0.5MSD
SL-025-SA5DN-SS-0.0-0.5	
SL-026-SA5DN-SS-0.0-0.5	
SL-027-SA5DN-SS-0.0-0.5	
SL-028-SA5DN-SS-0.0-0.5	
SL-029-SA5DN-SS-0.0-0.5	
SL-036-SA5DN-SS-0.0-0.5	
SL-037-SA5DN-SS-0.0-0.5	
SL-038-SA5DN-SS-0.0-0.5	
SL-039-SA5DN-SS-0.0-0.5	
SL-040-SA5DN-SS-0.0-0.5	
SL-044-SA5DN-SS-0.0-0.5	
SL-050-SA5DN-SS-0.0-0.5	
SL-051-SA5DN-SS-0.0-0.5	
SL-064-SA5DN-SB-4.0-5.0	
SL-065-SA5DN-SB-4.0-5.0	
SL-065-SA5DN-SB-7.0-8.0	
SL-086-SA5DN-SB-4.0-5.0	
SL-088-SA5DN-SB-4.0-5.0	

## Introduction

This data review covers 22 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.

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
SBLKLE152	6/2/11	Diethylphthalate Di-n-butylphthalate Bis(2-ethylhexyl)phthalate	25 ug/Kg 19 ug/Kg 19 ug/Kg	SL-024-SA5DN-SS-0.0-0.5
SBLKLC143	5/24/11	Di-n-butylphthalate	17 ug/Kg	SL-020-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5

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.

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-020-SA5DN-SS-0.0-0.5MS/MSD (SL-020-SA5DN-SS-0.0-0.5)	2,4-Dinitrophenol	-	18 (20-143)	63 (≤30)	J (all detects) UJ (all non-detects)	A
SL-020-SA5DN-SS-0.0-0.5MS/MSD (SL-020-SA5DN-SS-0.0-0.5)	4,6-Dinitro-2-methylphenol	-	-	43 (≤30)	J (all detects)	A

#### VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
145LDLCS	2-Nitrophenol Hexachlorobutadiene 4-Bromophenyl-phenyl ether Hexachlorobenzene	80 (81-114) 66 (70-112) 75 (79-117) 75 (78-116)	SL-026-SA5DN-SS-0.0-0.5 SBLKLD145	J (all detects) UJ (all non-detects)	P
152LELCS	Bis(2-ethylhexyl)phthalate	118 (75-117)	SL-024-SA5DN-SS-0.0-0.5 SBLKLE152	J (all detects)	P
143LCLCS	Butylbenzylphthalate	118 (75-115)	SL-020-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SBLKLC143	J (all detects)	P
143LCLCS	Bis(2-ethylhexyl)phthalate	122 (75-117)	SL-020-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0 SBLKLC143	J (all detects)	P
143LCLCS	2,4-Dinitrophenol	33 (37-120)	SL-020-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0 SBLKLC143	J (all detects) UJ (all non-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 DE158	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 DE158**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE158	SL-020-SA5DN-SS-0.0-0.5	2,4-Dinitrophenol	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (Q)
DE158	SL-020-SA5DN-SS-0.0-0.5	4,6-Dinitro-2-methylphenol	J (all detects)	A	Matrix spike/Matrix spike duplicate (RPD) (Q)
DE158	SL-026-SA5DN-SS-0.0-0.5	2-Nitrophenol Hexachlorobutadiene 4-Bromophenyl-phenyl ether Hexachlorobenzene	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R) (L)
DE158	SL-024-SA5DN-SS-0.0-0.5 SL-020-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0	Bis(2-ethylhexyl)phthalate	J (all detects)	P	Laboratory control samples (%R) (L)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5	Butylbenzylphthalate	J (all detects)	P	Laboratory control samples (%R) (L)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0	2,4-Dinitrophenol	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R) (L)

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0	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 DE158**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory**

**Semivolatiles - Field Blank Data Qualification Summary - SDG DE158**

No Sample Data Qualified in this SDG

**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	$\Delta$	Sampling dates: 5/20/11
II.	GC/MS Instrument performance check	$\Delta$	
III.	Initial calibration	$\Delta$	% PSD $\leq 30$ , $r^2$
IV.	Continuing calibration/ICV	$\Delta$	ICV/CCV $\leq 25$
V.	Blanks	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	SW	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	$\Delta$	
XI.	Target compound identification	$\Delta$	
XII.	Compound quantitation/R <sub>1</sub> /LOQ/LODs	$\Delta$	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	$\Delta$	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
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:

1	SL-020-SA5DN-SS-0.0-0.5	11	SL-039-SA5DN-SS-0.0-0.5	21	SBLKLC143	31	
2	SL-024-SA5DN-SS-0.0-0.5	12	SL-040-SA5DN-SS-0.0-0.5	22	SBLKLD145	32	
3	SL-025-SA5DN-SS-0.0-0.5	13	SL-044-SA5DN-SS-0.0-0.5	23	SBLKLE152	33	
4	SL-026-SA5DN-SS-0.0-0.5	14	SL-050-SA5DN-SS-0.0-0.5	24	#1MS	34	
5	SL-027-SA5DN-SS-0.0-0.5	15	SL-051-SA5DN-SS-0.0-0.5	25	#1MSD	35	
6	SL-028-SA5DN-SS-0.0-0.5	16	SL-064-SA5DN-SB-4.0-5.0	26		36	
7	SL-029-SA5DN-SS-0.0-0.5	17	SL-065-SA5DN-SB-4.0-5.0	27		37	
8	SL-036-SA5DN-SS-0.0-0.5	18	SL-065-SA5DN-SB-7.0-8.0	28		38	
9	SL-037-SA5DN-SS-0.0-0.5	19	SL-086-SA5DN-SB-4.0-5.0	29		39	
10	SL-038-SA5DN-SS-0.0-0.5	20	SL-088-SA5DN-SB-4.0-5.0	30		40	

## Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. GC/MS instrument performance</b>				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples analyzed within the 12 hour clock criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of $\geq 0.990$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) $\leq 30\%$ and relative response factors (RRF) $> 0.05$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) $\leq 25\%$ and relative response factors (RRF) $\geq 0.05$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate recovery</b>				
Were all surrogate %R within QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike and duplicate</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. LCS</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>X-Regional Quality Assurance Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>X-Internal Standards</b>				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were retention times within + 30 seconds from the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>X-Relative Retention Times</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>X-Internal Standard</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>X-Reference Spectra</b>				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were relative intensities of the major ions within $\pm$ 20% between the sample and the reference spectra?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>X-System Performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>X-Overall Assessment</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>X-Field Duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>X-Field Blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

# 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.







2nd Reviewer: CA

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

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?

[illegible]

# VALIDATION FINDINGS WORKSHEET Laboratory Control Samples (LCS)

**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".

Was a LCS required?

Y/N

Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

Y/N

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		143 L9A LCS	AAA	118 (75-115)	( )	( )	SBLKLE143, 4	JW/A
			EEF	122 (75-117)	( )	( )	1, 3, 5 → 20	
			HH	33 (37-120)	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
		145 LD LCS	N	80 (81-114)	( )	( )	SBLKLE145, 4	JW/P (L)
			U	66 (70-112)	( )	( )		
			RR	75 (79-117)	( )	( )		
			SS	75 (78-116)	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
		152 LE LCS	EEF	118 (75-117)	( )	( )	SBLKLE152, 2	JW/P (L)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
		143 LE LCS	AAA	118 (75-115)	( )	( )	SBLKLE143, 4	JW/P (L)
			EEF	122 (75-117)	( )	( )	1, 3, 5 → 20	
			HH	33 (37-120)	( )	( )	1, 3, 5 → 20	JW/P
				( )	( )	( )		
				( )	( )	( )		

# VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

**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:

$$RRF = (A_x/C_x)/(A_{is}/C_{is})$$

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		Recalculated		Reported		Recalculated	
				RRF (50 std)	RRF (50 std)	RRF (50 std)	RRF (50 std)	Average RRF (initial)	%RSD	Average RRF (initial)	%RSD
1	1CAL	5/31/11	Phenol (1st internal standard) <del>Phenol (1st internal standard)</del> <del>Naphthalene (2nd internal standard)</del> <del>Fluorene (3rd internal standard)</del> <del>Pentachlorophenol (4th internal standard)</del> <del>Bis(2-ethylhexyl)phthalate (5th internal standard)</del> <del>Benzo(a)pyrene (6th internal standard)</del>	2.394	2.394	2.394	2.394	2.513	5	2.313	5
				0.516	0.516	0.516	0.516	0.517	3	0.517	3
				0.328	0.328	0.328	0.328	0.323	4	0.323	4
				0.143	0.143	0.143	0.143	0.135	10	0.135	10
				0.423	0.423	0.423	0.423	0.411	12	0.411	12
				1.708	1.708	1.708	1.708	1.525	21	1.525	21
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.

# VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

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:

$$\% \text{ Difference} = 100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$$

$$\text{RRF} = (A_x / C_x) / (A_b / C_b)$$

Where:

ave. RRF = initial calibration average RRF

RRF = continuing calibration RRF

A<sub>x</sub> = Area of compound,

C<sub>x</sub> = Concentration of compound,

A<sub>b</sub> = Area of associated internal standard

C<sub>b</sub> = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (Initial)	Reported		Recalculated		Reported	Recalculated
					RRF (CC)	%D	RRF (CC)	%D		
1	PF006	6/01/11	Phenol (1st internal standard)	2.513	2.594	3	2.594	3	3	3
			Naphthalene (2nd internal standard)	0.517	0.497	4	0.497	4	4	4
			Fluorene (3rd internal standard)	0.323	0.324	3	0.334	3	3	3
			Pentachlorophenol (4th internal standard)	0.135	0.143	6	0.143	6	6	6
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.411	0.448	9	0.448	9	9	9
			Benzo(a)pyrene (6th internal standard)	1.525	1.912	7	1.912	7	7	7
2	FF012	6/02/11	Phenol (1st internal standard)		2.919	16	2.919	16	16	16
			Naphthalene (2nd internal standard)		0.517	0	0.517	0	0	0
			Fluorene (3rd internal standard)		0.388	20	0.388	20	20	20
			Pentachlorophenol (4th internal standard)		0.141	4	0.141	4	4	4
			Bis(2-ethylhexyl)phthalate (5th internal standard)		0.468	14	0.468	14	14	14
			Benzo(a)pyrene (6th internal standard)		1.678	2	1.678	2	2	2
3	FF026	6/04/11	Phenol (1st internal standard)		2.581	3	2.581	3	3	3
			Naphthalene (2nd internal standard)		0.523	1	0.523	1	1	1
			Fluorene (3rd internal standard)		0.358	11	0.358	11	11	11
			Pentachlorophenol (4th internal standard)		0.136	1	0.136	1	1	1
			Bis(2-ethylhexyl)phthalate (5th internal standard)		0.445	11	0.445	11	11	11
			Benzo(a)pyrene (6th internal standard)		1.850	7	1.850	7	7	7

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

**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:  $SF/SS \times 100$

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	73.925	74	74	0
2-Fluorobiphenyl	↓	79.658	80	80	↓
Terphenyl-d14	↓	79.761	80	80	↓
Phenol-d5	200	166.156	83	83	↓
2-Fluorophenol	↓	162.790	81	81	↓
2,4,6-Tribromophenol	↓	178.985	89	89	↓
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					

Matrix Spike/Matrix Spike Duplicates Results Verification**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      SC = Sample concentration  
SA = Spike added

RPD =  $100 * MSC - MSC / (MSC + MSDC)$       MSC = Matrix spike concentration      MSDC = Matrix spike duplicate concentration

MS/MSD samples: 24 + 25

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	1667.03	1666.65	101	101	100	100	0	0
N-Nitroso-di-n-propylamine				1637.89	1635.94	99	99	98	98	0	0
4-Chloro-3-methylphenol				1665.22	1777.28	101	101	107	107	7	7
Acenaphthene				1546.98	1503.71	93	93	90	90	3	3
Pentachlorophenol				1351.2	1106.57	82	82	66	66	20	20
Pyrene				1776.85	1671.29	107	107	100	100	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.

**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:

$$\% \text{ Recovery} = 100 * (\text{SC/SA})$$

Where: SSC = Spike concentration  
SA = Spike added

$$RPD = |LCSC - LCSDC| * 2 / (LCSC + LCSDC)$$

LCSC = Laboratory control sample duplicate concentration

LCS/LCSD samples: 143 LCL5

[illegible]

Comments: Refer to 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 #: 26275429

## VALIDATION FINDINGS WORKSHEET

### Sample Calculation Verification

Page: 7 of 7

Reviewer: FT

2nd reviewer: A

**METHOD:** GC/MS BNA (EPA SW 846 Method 8270)

Were all reported results recalculated and verified for all level IV samples?

Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

$$\text{Concentration} = \frac{(A_s)(I_s)(V_s)(DF)(2.0)}{(A_r)(RRF)(V_r)(V_i)(\%S)}$$

$A_x$  = 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. #3, EEI.

$$\text{Conc.} = \frac{7402 \times 40 \times 1000}{364047 \times 0.75 \times 30 \times 0.86}$$

$$= 40 \text{ ug/kg}$$

[illegible]

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory

**Collection Date:** May 20, 2011

**LDC Report Date:** September 30, 2011

**Matrix:** Soil

**Parameters:** Semivolatiles

**Validation Level:** Level IV

**Laboratory:** Lancaster laboratories

**Sample Delivery Group (SDG):** DE158

### Sample Identification

SL-020-SA5DN-SS-0.0-0.5	SL-020-SA5DN-SS-0.0-0.5MS
SL-024-SA5DN-SS-0.0-0.5	SL-020-SA5DN-SS-0.0-0.5MSD
SL-025-SA5DN-SS-0.0-0.5	
SL-026-SA5DN-SS-0.0-0.5	
SL-027-SA5DN-SS-0.0-0.5	
SL-028-SA5DN-SS-0.0-0.5	
SL-029-SA5DN-SS-0.0-0.5	
SL-036-SA5DN-SS-0.0-0.5	
SL-037-SA5DN-SS-0.0-0.5	
SL-038-SA5DN-SS-0.0-0.5	
SL-039-SA5DN-SS-0.0-0.5	
SL-040-SA5DN-SS-0.0-0.5	
SL-044-SA5DN-SS-0.0-0.5	
SL-050-SA5DN-SS-0.0-0.5	
SL-051-SA5DN-SS-0.0-0.5	
SL-064-SA5DN-SB-4.0-5.0	
SL-065-SA5DN-SB-4.0-5.0	
SL-065-SA5DN-SB-7.0-8.0	
SL-086-SA5DN-SB-4.0-5.0	
SL-088-SA5DN-SB-4.0-5.0	

## Introduction

This data review covers 22 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 semivolatiles 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 not within the QC limits. Since the samples were diluted out, no data were qualified.

## **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 DE158	All compounds reported below the RL.	J (all detects)	A

## **XIII. Tentatively Identified Compounds (TICs)**

All tentatively identified compounds were within validation criteria.

## **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 DE158**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0	All TCL compounds	J (all detects)	A	Compound quantitation and RLs (Z)

**Santa Susana Field Laboratory**  
**Semivolatiles - Laboratory Blank Data Qualification Summary - SDG DE158**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory**  
**Semivolatiles - Field Blank Data Qualification Summary - SDG DE158**

No Sample Data Qualified in this SDG

LDC #: 26275Q2b **VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE158

Level IV

Laboratory: Lancaster Laboratories

Date: 9/29/11

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

**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: 5/20/11
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	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/RI/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	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-020-SA5DN-SS-0.0-0.5	11	SL-039-SA5DN-SS-0.0-0.5	21	SBLKLE/45	31	
2	SL-024-SA5DN-SS-0.0-0.5	12	SL-040-SA5DN-SS-0.0-0.5	22	#1 MS	32	
3	SL-025-SA5DN-SS-0.0-0.5	13	SL-044-SA5DN-SS-0.0-0.5	23	#1 MSD	33	
4	SL-026-SA5DN-SS-0.0-0.5	14	SL-050-SA5DN-SS-0.0-0.5	24		34	
5	SL-027-SA5DN-SS-0.0-0.5	15	SL-051-SA5DN-SS-0.0-0.5	25		35	
6	SL-028-SA5DN-SS-0.0-0.5	16	SL-064-SA5DN-SB-4.0-5.0	26		36	
7	SL-029-SA5DN-SS-0.0-0.5	17	SL-065-SA5DN-SB-4.0-5.0	27		37	
8	SL-036-SA5DN-SS-0.0-0.5	18	SL-065-SA5DN-SB-7.0-8.0	28		38	
9	SL-037-SA5DN-SS-0.0-0.5	19	SL-086-SA5DN-SB-4.0-5.0	29		39	
10	SL-038-SA5DN-SS-0.0-0.5	20	SL-088-SA5DN-SB-4.0-5.0	30		40	



## Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	/			
Cooler temperature criteria was met.	/			
<b>II. GC/MS instrument performance</b>				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	/			
Were all samples analyzed within the 12 hour clock criteria?	/			
<b>III. Calibration</b>				
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?	NA	/		
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) $> 0.05$ ?	/			
<b>IV. Continuing Calibration</b>				
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) $\geq 0.05$ ?	/			
<b>V. Blanks</b>				
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.		/		
<b>VI. Surrogate Recovery</b>				
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?			/	
<b>VII. Matrix Spike</b>				
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?		/		
<b>VIII. LCS</b>				
Was an LCS analyzed for this SDG?	/			

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>			
<b>Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?			<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?			<input checked="" type="checkbox"/>	
<b>Internal Standards</b>				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	<input checked="" type="checkbox"/>			
Were retention times within + 30 seconds from the associated calibration standard?	<input checked="" type="checkbox"/>			
<b>Retention Times</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input checked="" type="checkbox"/>			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input checked="" type="checkbox"/>			
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>			
<b>Internal Standards</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	<input checked="" type="checkbox"/>			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>			
<b>Reference Spectra</b>				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			<input checked="" type="checkbox"/>	
Were relative intensities of the major ions within $\pm 20\%$ between the sample and the reference spectra?			<input checked="" type="checkbox"/>	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			<input checked="" type="checkbox"/>	
<b>System Performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>			
<b>Overall Assessment</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>			
<b>Field Duplicates</b>				
Field duplicate pairs were identified in this SDG.		<input checked="" type="checkbox"/>		
Target compounds were detected in the field duplicates.			<input checked="" type="checkbox"/>	
<b>Field Blanks</b>				
Field blanks were identified in this SDG.		<input checked="" type="checkbox"/>		
Target compounds were detected in the field blanks.			<input checked="" type="checkbox"/>	

# 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.



# VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

Page: 61  
Reviewer: FT  
2nd Reviewer: C

**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:

$RRF = (A_s/C_s)/(A_{is}/C_{is})$   
average RRF = sum of the RRFs/number of standards  
%RSD =  $100 * (S/X)$

$A_s$  = Area of compound,  
 $C_s$  = 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		Recalculated		Reported		Recalculated	
				(	/ std)	RRF	(	std)	Average RRF (initial)	Average RRF (initial)	%RSD
1	1CAL	5/31/11	Phenol (1st internal standard)								
			Naphthalene (2nd internal standard)	0.978		0.978	0.978		0.967	0.967	3
			Fluorene (3rd internal standard)	1.206		1.206	1.206		1.178	1.178	5
			Anthracene (4th internal standard)	1.033		1.033	1.033		0.989	0.989	9
			Pentachlorophenol (5th internal standard)	1.113		1.113	1.113		1.086	1.086	3
			Bis(2-ethylhexyl)phthalate (6th internal standard)	0.957		0.957	0.957		0.923	0.923	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.

# VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

**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:

$$\% \text{ Difference} = 100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$$

$$\text{RRF} = (A_x / C_x) / (A_{\text{std}} / C_{\text{std}})$$

Where:

ave. RRF = initial calibration average RRF

RRF = continuing calibration RRF

$A_x$  = Area of compound,

$A_{\text{std}}$  = Area of associated internal standard

$C_x$  = Concentration of compound,

$C_{\text{std}}$  = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (Initial)	Reported		Recalculated	
					RRF (CC)	%D	RRF (CC)	%D
1	110001	6/01/11	Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)	0.967	0.970	0	0.970	0
			Fluorene (3rd internal standard)	1.178	1.210	3	1.210	3
			Anthracene (4th internal standard)	0.989	1.041	5	1.041	5
			Benzofluoranthene (5th internal standard)	1.086	1.106	2	1.106	2
			Benz(a)pyrene (6th internal standard)	0.923	0.994	8	0.994	8
2	110021	6/2/11	Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)		0.911	5.0	0.911	5.0
			Fluorene (3rd internal standard)		1.153	2	1.153	2
			Anthracene (4th internal standard)		1.007	2	1.007	2
			Benzofluoranthene (5th internal standard)		1.040	4	1.040	4
			Benz(a)pyrene (6th internal standard)		0.946	3	0.946	3
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.

LDC #: 26 275026**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Results Verification**Page: 1 of 1Reviewer: FT2nd 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:  $SF/SS \times 100$ Where: SF = Surrogate Found  
SS = Surrogate SpikedSample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	0.20	0.220	110	110	0
2-Fluorobiphenyl	↓	0.209	104	104	↓
Terphenyl-d14		0.223	112	112	↓
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					

VALIDATION FINDINGS WORKSHEET  
Matrix Spike/Matrix Spike Duplicates Results VerificationPage: 1 of 1  
Reviewer: FT  
2nd Reviewer: C

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 =  $100 * ((SC - SC)/SA)$  Where: SSC = Spiked sample concentration SC = Sample concentration  
SA = Spike addedRPD =  $100 * ((MSC - MSC) / ((MSC + MSC) / 2))$  MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD samples: 22 + 23

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	33.11	33.11	ND	26.43	33.5	80	80	100	100	24	24
Pentachlorophenol											
Pyrene	↓	↓	70.64	31.48	78.8	-117	-117	24	24	86	86

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.



**METHOD:** GC/MS BNA (EPA SW 846 Method 8270)

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

$$\% \text{ Recovery} = 100 * (\text{SC/SA})$$

Where: SSC = Spike concentration  
SA = Spike added

$$RPD = |LCSC - LCSDC| * 2 / (LCSC + LCSDC)$$

LCSC = Laboratory control sample duplicate concentration  
LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: 11145 SLE-026

[illegible]

Comments: Refer to 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.



**Laboratory Data Consultants, Inc.**  
**Data Validation Report**

**Project/Site Name:** Santa Susana Field Laboratory

**Collection Date:** May 20, 2011

**LDC Report Date:** September 30, 2011

**Matrix:** Soil

**Parameters:** N-Nitrosodimethylamine

**Validation Level:** Level IV

**Laboratory:** Lancaster Laboratories

**Sample Delivery Group (SDG):** DE158

**Sample Identification**

SL-020-SA5DN-SS-0.0-0.5  
SL-024-SA5DN-SS-0.0-0.5  
SL-025-SA5DN-SS-0.0-0.5  
SL-026-SA5DN-SS-0.0-0.5  
SL-027-SA5DN-SS-0.0-0.5  
SL-028-SA5DN-SS-0.0-0.5  
SL-029-SA5DN-SS-0.0-0.5  
SL-036-SA5DN-SS-0.0-0.5  
SL-037-SA5DN-SS-0.0-0.5  
SL-038-SA5DN-SS-0.0-0.5  
SL-039-SA5DN-SS-0.0-0.5  
SL-040-SA5DN-SS-0.0-0.5  
SL-044-SA5DN-SS-0.0-0.5  
SL-051-SA5DN-SS-0.0-0.5  
SL-064-SA5DN-SB-4.0-5.0  
SL-065-SA5DN-SB-4.0-5.0  
SL-065-SA5DN-SB-7.0-8.0  
SL-086-SA5DN-SB-4.0-5.0  
SL-020-SA5DN-SS-0.0-0.5MS  
SL-020-SA5DN-SS-0.0-0.5MSD

## Introduction

This data review covers 20 soil 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% for calibration all compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 30.0% for all compounds.

## 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
SBLKI143	5/24/11	N-Nitrosodimethylamine	24.70 ng/Kg	All samples in SDG DE158

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
SL-020-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	99.2 ng/Kg	99.2U ng/Kg

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
SL-024-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	58.9 ng/Kg	58.9U ng/Kg
SL-025-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	24.5 ng/Kg	38.6U ng/Kg
SL-026-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	24.9 ng/Kg	38.4U ng/Kg
SL-027-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	63.0 ng/Kg	63.0U ng/Kg
SL-028-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	63.9 ng/Kg	63.9U ng/Kg
SL-029-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	68.3 ng/Kg	68.3U ng/Kg
SL-036-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	52.0 ng/Kg	52.0U ng/Kg
SL-037-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	50.4 ng/Kg	50.4U ng/Kg
SL-038-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	64.1 ng/Kg	64.1U ng/Kg
SL-039-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	51.8 ng/Kg	51.8U ng/Kg
SL-040-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	37.7 ng/Kg	38.6U ng/Kg
SL-044-SA5DN-SS-0.0-0.5 (10X)	N-Nitrosodimethylamine	252 ng/Kg	376U ng/Kg
SL-051-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	57.3 ng/Kg	57.3U ng/Kg
SL-064-SA5DN-SB-4.0-5.0	N-Nitrosodimethylamine	53.6 ng/Kg	53.6U ng/Kg
SL-065-SA5DN-SB-4.0-5.0	N-Nitrosodimethylamine	30.4 ng/Kg	37.8U ng/Kg
SL-086-SA5DN-SB-4.0-5.0	N-Nitrosodimethylamine	30.7 ng/Kg	37.9U ng/Kg

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-020-SA5DN-SS-0.0-0.5MS/MSD (SL-020-SA5DN-SS-0.0-0.5)	N-Nitrosodimethylamine	-	69 (70-130)	-	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) 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 DE158	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 DE158**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE158	SL-020-SA5DN-SS-0.0-0.5	N-nitrosodimethylamine	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0	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 DE158**

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE158	SL-020-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	99.2U ng/Kg	A	B
DE158	SL-024-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	58.9U ng/Kg	A	B
DE158	SL-025-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	38.6U ng/Kg	A	B
DE158	SL-026-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	38.4U ng/Kg	A	B
DE158	SL-027-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	63.0U ng/Kg	A	B
DE158	SL-028-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	63.9U ng/Kg	A	B
DE158	SL-029-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	68.3U ng/Kg	A	B
DE158	SL-036-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	52.0U ng/Kg	A	B
DE158	SL-037-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine	50.4U ng/Kg	A	B

**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: 5/20/11
II.	GC/MS Instrument performance check	N	not required
III.	Initial calibration	A	% PSD ≤ 30
IV.	Continuing calibration/ICV	A	CCV ≤ 20 ICV ≤ 30
V.	Blanks	SW	
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 (RI)/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	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:

5012

1	SL-020-SA5DN-SS-0.0-0.5	11	SL-039-SA5DN-SS-0.0-0.5	21	SBLKLI 143	31	
2	SL-024-SA5DN-SS-0.0-0.5	12	SL-040-SA5DN-SS-0.0-0.5	22		32	
3	SL-025-SA5DN-SS-0.0-0.5	13	SL-044-SA5DN-SS-0.0-0.5	23		33	
4	SL-026-SA5DN-SS-0.0-0.5	14	SL-051-SA5DN-SS-0.0-0.5	24		34	
5	SL-027-SA5DN-SS-0.0-0.5	15	SL-064-SA5DN-SB-4.0-5.0	25		35	
6	SL-028-SA5DN-SS-0.0-0.5	16	SL-065-SA5DN-SB-4.0-5.0	26		36	
7	SL-029-SA5DN-SS-0.0-0.5	17	SL-065-SA5DN-SB-7.0-8.0	27		37	
8	SL-036-SA5DN-SS-0.0-0.5	18	SL-086-SA5DN-SB-4.0-5.0	28		38	
9	SL-037-SA5DN-SS-0.0-0.5	19	#1 MS	29		39	
10	SL-038-SA5DN-SS-0.0-0.5	20	#1 MSD	30		40	

**Method:** Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical Holding Times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. GC/MS Instrument Performance</b>				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were all samples analyzed within the 12 hour clock criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>III. Calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of $> 0.990$ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were all percent relative standard deviations (%RSD) $\leq 30\%$ and relative response factors (RRF) $> 0.05$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Calibration Standards</b>				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were all percent differences (%D) $\leq 25\%$ and relative response factors (RRF) $\geq 0.05$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Method Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate Standards</b>				
Were all surrogate %R within QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix Spike (MS) and Matrix Spike Duplicate (MSD)</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory Control Sample (LCS)</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>X. Internal Standards</b>				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were retention times within + 30 seconds from the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Relative Retention Times and Spectra</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. Quantitation and CRQLs</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Reference Spectra</b>				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were relative intensities of the major ions within $\pm$ 20% between the sample and the reference spectra?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XIV. System Performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV. Overall Assessment</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XVI. Field Duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XVII. Field Blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

# 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.



**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".

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?
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Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

Y	N	N/A
---	---	-----

MSD.2S

VALIDATION FINDINGS WORKSHEET  
Initial Calibration Calculation Verification

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:

$$RRF = (A_x/C_x)/(A_{is}/C_{is})$$

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		Recalculated		Reported		Recalculated	
				RRF (25 std)	RRF (25 std)	RRF (25 std)	RRF (25 std)	Average RRF (initial)	Average RRF (initial)	%RSD	%RSD
1	1CAL	6/2/11	Phenol (1st internal standard) NDVA	1.282	1.282	1.282	1.282	1.198	1.198	5	5
			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			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.



# VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

**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:

$$\% \text{ Difference} = 100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$$

$$\text{RRF} = (A_x / C_x) / (A_{is} / C_{is})$$

Where:

ave. RRF = initial calibration average RRF

RRF = continuing calibration RRF

$A_x$  = Area of compound,

$C_x$  = Concentration of compound,

$A_{is}$  = Area of associated internal standard

$C_{is}$  = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (Initial)	Reported		Recalculated	
					RRF (CC)	%D	RRF (CC)	%D
1	05118	6/4/11	Phenol (1st internal standard)	1.19767	1.25691	4.94639	1.25691	4.946
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
2	05129	6/4/11	<del>Benzo(a)pyrene (6th internal standard)</del>	↓	1.25568	4.84328	1.25568	4.84328
			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
05153		6/6/11	Bis(2-ethylhexyl)phthalate (5th internal standard)	↓	1.15567	3.507	1.15567	3.507
			<del>Benzo(a)pyrene (6th internal standard)</del>					
			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
05068		6/3/11	<del>Benzo(a)pyrene (6th internal standard)</del>	↓	1.27994	6.867	1.27994	6.867
			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			<del>Benzo(a)pyrene (6th internal standard)</del>					
			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd 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.

LDC #: 26275 Q2C

# **VALIDATION FINDINGS WORKSHEET** **Surrogate Results Verification**

Page: 1 of 1Reviewer: FT2nd reviewer: E**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 SpikedSample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
<u>N- NDMA - d6</u> Nitrobenzene-d5	<u>75</u>	<u>21.649</u>	<u>87</u>	<u>87</u>	<u>0</u>
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					

**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:

$$\% \text{ Recovery} = 100 * (\text{SSC} - \text{SC}) / \text{SA}$$

Where: SSC = Spiked sample concentration  
SA = Spike added

SC = Sample concentration

$$RPD = |MSC - MSC| * 2 / (MSC + MSC)$$

**MSC = Matrix spike concentration**

MSDC = Matrix spike duplicate concentration

MS/MSD samples: 19 + 20[illegible]

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.

**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:

$$\% \text{ Recovery} = 100 * (\text{SC/SA})$$

Where: SSC = Spike concentration  
SA = Spike added

$$RPD = LCSC - LCSDC + 2/(LCSC + LCSDC)$$

LCSC = Laboratory control sample concentration    LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: 14365

[illegible]

Comments: Refer to 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.

## VALIDATION FINDINGS WORKSHEET

### Sample Calculation Verification

**METHOD:** GC/MS BNA (EPA SW 846 Method 8270)

Y	N	N/A
Y	N	N/A

Were all reported results recalculated and verified for all level IV samples?

Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

$$\text{Concentration} = \frac{(A_s)(I_s)(V_i)(DF)(2.0)}{(A_{ir})(RRF)(V_o)(V_i)(\%S)}$$

$A_x$  = 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, NDMPA

$$\text{Conc.} = \frac{(77368) \times 25 \times 1000}{572957 \times 1.19767 \times 30 \times 0.94}$$

$$= 99. \text{ ug/kg}$$

[illegible]

## **Laboratory Data Consultants, Inc. Data Validation Report**

**Project/Site Name:** Santa Susana Field Laboratory

**Collection Date:** May 20, 2011

**LDC Report Date:** October 3, 2011

**Matrix:** Soil

**Parameters:** Chlorinated Pesticides

**Validation Level:** Level IV

**Laboratory:** Lancaster Laboratories

**Sample Delivery Group (SDG):** DE158

### **Sample Identification**

SL-020-SA5DN-SS-0.0-0.5  
SL-024-SA5DN-SS-0.0-0.5  
SL-025-SA5DN-SS-0.0-0.5  
SL-026-SA5DN-SS-0.0-0.5  
SL-027-SA5DN-SS-0.0-0.5  
SL-028-SA5DN-SS-0.0-0.5  
SL-029-SA5DN-SS-0.0-0.5  
SL-036-SA5DN-SS-0.0-0.5  
SL-037-SA5DN-SS-0.0-0.5  
SL-038-SA5DN-SS-0.0-0.5  
SL-039-SA5DN-SS-0.0-0.5  
SL-040-SA5DN-SS-0.0-0.5  
SL-044-SA5DN-SS-0.0-0.5  
SL-050-SA5DN-SS-0.0-0.5  
SL-051-SA5DN-SS-0.0-0.5  
SL-020-SA5DN-SS-0.0-0.5MS  
SL-020-SA5DN-SS-0.0-0.5MSD

## Introduction

This data review covers 17 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

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 single compounds was performed for the primary (quantitation) column and confirmation column as required by this 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 with the following exceptions:

Date	Standard	Column	Compound	%D	Associated Samples	Flag	A or P
6/2/11	CCV (21:33)	RTX-CLPI	Aldrin Heptachlor epoxide 4,4'-DDE Endosulfan I Dieldrin Endrin 4,4'-DDD 4,4'-DDT Endrin aldehyde Endosulfan sulfate Endrin ketone	23.7 29.9 24.3 31.0 26.3 29.1 23.1 26.6 24.2 22.6 22.2	SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5	J (all detects) UJ (all non-detects)	P
6/2/11	CCV (21:46)	RTX-CLPI	Mirex	29.3	SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5	J (all detects) UJ (all non-detects)	A



Date	Standard	Column	Compound	%D	Associated Samples	Flag	A or P
6/2/11	CCV (21:59)	RTX-CLPI	Toxaphene	28.5	SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5	J (all detects) UJ (all non-detects)	A
6/2/11	CCV (21:33)	RTX-CLPII	Endosulfan I Dieldrin Endrin Endosulfan II 4,4'-DDT Endrin aldehyde Endosulfan sulfate Methoxychlor Endrin ketone	24.2 22.5 24.7 23.1 27.5 26.7 25.8 26.3 33.1	SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5	J (all detects) UJ (all non-detects)	A
6/2/11	CCV (21:46)	RTX-CLPII	Mirex	36.7	SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5	J (all detects) UJ (all non-detects)	A
6/2/11	CCV (21:59)	RTX-CLPII	Mirex	23.3	SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5	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.

The individual 4,4'-DDT and Endrin breakdowns (%BD) were less than or equal to 15.0% .

## V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide 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 limit.

## **VIII. Laboratory Control Samples (LCS)**

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
LCS23146	Methoxychlor	135 (59-125)	All samples in SDG DE158	J (all detects)	P

## **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-024-SA5DN-SS-0.0-0.5	Dieldrin Endrin aldehyde	43.30 87.89	J (all detects) J (all detects)	A
SL-027-SA5DN-SS-0.0-0.5	Chlordane (Technical)	58.44	J (all detects)	A
SL-029-SA5DN-SS-0.0-0.5	Chlordane (Technical)	124.78	J (all detects)	A
SL-038-SA5DN-SS-0.0-0.5	Chlordane (Technical)	84.94	J (all detects)	A
SL-040-SA5DN-SS-0.0-0.5	Heptachlor epoxide 4,4'-DDE	51.30 69.02	J (all detects) J (all detects)	A
SL-051-SA5DN-SS-0.0-0.5	4,4'-DDT Mirex	66.24 66.85	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 DE158	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**  
**Chlorinated Pesticides - Data Qualification Summary - SDG DE158**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE158	SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5	Aldrin Heptachlor epoxide 4,4'-DDE Endosulfan I Dieldrin Endrin 4,4'-DDD 4,4'-DDT Endrin aldehyde Endosulfan sulfate Endrin ketone	J (all detects) UJ (all non-detects)	P	Continuing calibration (%D) (C)
DE158	SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5	Mirex Toxaphene Endosulfan I Dieldrin Endrin Endosulfan II 4,4'-DDT Endrin aldehyde Endosulfan sulfate Methoxychlor Endrin ketone	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5	Methoxychlor	J (all detects)	P	Laboratory control samples (%R) (L)
DE158	SL-024-SA5DN-SS-0.0-0.5	Dieldrin Endrin aldehyde	J (all detects) J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE158	SL-027-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5	Chlordane (Technical)	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE158	SL-040-SA5DN-SS-0.0-0.5	Heptachlor epoxide 4,4'-DDE	J (all detects) J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE158	SL-051-SA5DN-SS-0.0-0.5	4,4'-DDT Mirex	J (all detects) J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

**Santa Susana Field Laboratory**  
**Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG DE158**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory**  
**Chlorinated Pesticides - Field Blank Data Qualification Summary - SDG DE158**

No Sample Data Qualified in this SDG

LDC #: 26275Q3a **VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE158

Level IV

Laboratory: Lancaster Laboratories

Date: 10/02/11

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** GC Chlorinated Pesticides (EPA SW846 Method 8081A)

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: 5/20/11
II.	GC/ECD Instrument Performance Check	A	
III.	Initial calibration	A	% RSD ≤ 20
IV.	Continuing calibration/ICV	SW	ICV/CCV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	SW	LCS
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	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-020-SA5DN-SS-0.0-0.5	11	SL-039-SA5DN-SS-0.0-0.5	21	PB LK 23146	31	
2	SL-024-SA5DN-SS-0.0-0.5	12	SL-040-SA5DN-SS-0.0-0.5	22		32	
3	SL-025-SA5DN-SS-0.0-0.5	13	SL-044-SA5DN-SS-0.0-0.5	23		33	
4	SL-026-SA5DN-SS-0.0-0.5	14	SL-050-SA5DN-SS-0.0-0.5	24		34	
5	SL-027-SA5DN-SS-0.0-0.5	15	SL-051-SA5DN-SS-0.0-0.5	25		35	
6	SL-028-SA5DN-SS-0.0-0.5	16	#1 MS	26		36	
7	SL-029-SA5DN-SS-0.0-0.5	17	#1 MS	27		37	
8	SL-036-SA5DN-SS-0.0-0.5	18		28		38	
9	SL-037-SA5DN-SS-0.0-0.5	19		29		39	
10	SL-038-SA5DN-SS-0.0-0.5	20		30		40	

Notes: \_\_\_\_\_

LDC #: 26275 Q3a  
 SDG #: su coney

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
 Reviewer: F7  
 2nd Reviewer: CA

Method: Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. GC/ECD instrument performance check</b>				
Was the instrument performance found to be acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) $\leq 20\%$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the required standard concentrations analyzed in the initial calibration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
What type of continuing calibration calculation was performed? <u>    </u> %D or <u>    </u> %R	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were Evaluation mix standards analyzed prior to the initial calibration and sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were endrin and 4,4'-DDT breakdowns $\leq 15\%$ for individual breakdown in the Evaluation mix standards?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) $\leq 45\%$ or percent recoveries <u>80-120</u> <del>85-115</del> %?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were extract cleanup blanks analyzed with every batch requiring clean-up?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was there contamination in the method blanks or clean-up blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 2627563a  
SDG #: per cones

# VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
Reviewer: PN  
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions, dry weight factors, and clean-up activities applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	



# VALIDATION FINDINGS WORKSHEET

METHOD: Pesticide/PCBs (EPASW 846 Method 8081/8082)

A. alpha-BHC	I. Dieldrin	Q. Endrin ketone	Y. Aroclor-1242	GG.
B. beta-BHC	J. 4,4'-DDE	R. Endrin aldehyde	Z. Aroclor-1248	HH.
C. delta-BHC	K. Endrin	S. alpha-Chlordane	AA. Aroclor-1254	II.
D. gamma-BHC	L. Endosulfan II	T. gamma-Chlordane	BB. Aroclor-1260	JJ.
E. Heptachlor	M. 4,4'-DDD	U. Toxaphene	CC. DB 608	KK.
F. Aldrin	N. Endosulfan sulfate	V. Aroclor-1016	DD. DB 1701	LL.
G. Heptachlor epoxide	O. 4,4'-DDT	W. Aroclor-1221	EE.	MM.
H. Endosulfan I	P. Methoxychlor	X. Aroclor-1232	FF.	NN.

Notes:

LDC #: 26 2756 39

# VALIDATION FINDINGS WORKSHEET Continuing Calibration

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

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  $\leq 20.0\%$ ?

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 $\leq 20.0$ )	RT (limit)	Associated Samples	Qualifications
	<u>6/2/11</u>	<u>ccv</u>	<u>RTX-urp1</u>	<u>F</u>	<u>23.7</u>	( )	<u>6-9 15</u>	<u>J/WJP (C)</u>
	<u>2/1/33</u>			<u>G</u>	<u>29.9</u>	( )		
				<u>J</u>	<u>24.3</u>	( )		
				<u>H</u>	<u>31.0</u>	( )		
				<u>I</u>	<u>26.3</u>	( )		
				<u>K</u>	<u>29.1</u>	( )		
				<u>M</u>	<u>23.1</u>	( )		
				<u>O</u>	<u>26.6</u>	( )		
				<u>R</u>	<u>24.2</u>	( )		
				<u>N</u>	<u>22.6</u>	( )		
				<u>Q</u>	<u>22.2</u>	( )		<u>↓</u>
						( )		
	<u>6/2/11</u>	<u>ccv</u>	<u>↓</u>	<u>Mirex</u>	<u>29.3</u>	( )		<u>J/WJP/A (C)</u>
	<u>2/1/46</u>					( )		
						( )		
						( )		
	<u>6/2/11</u>	<u>ccv</u>	<u>↓</u>	<u>U</u>	<u>28.5</u>	( )	<u>↓</u>	<u>J/WJP/A (C)</u>
	<u>2/1/59</u>					( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		



**METHOD:** GC / HPLC

Y N N/A  
Y N N/A

Level IV/D Only	Was an LCS analyzed every 20 samples for each matrix or whenever a sample extraction was performed?
Y/N	N/A

[illegible]

LDC #: 26275 & 3a  
SDG #: 4u coner

VALIDATION FINDINGS WORKSHEET  
Compound Quantitation and Reported CRQLs

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".

Level IV/D Only

Were CRQLs adjusted for sample dilutions, dry weight factors, etc.?

Did the reported results for detected target compounds agree within 10.0% of the recalculated results?

#	Compound Name	%RPD Bet 20/	Finding $\pm$ 4D	Associated Samples	Qualifications
	I		43.30	2	J/A det (4 x 111)
	R		87.89		
	Chlordane (Technical)		58.44	5	↓
	↓		124.78	7	↓
	↓		84.94	10	↓
	G		51.30	12	↓
	J		69.02		
	θ		66.24	15	↓
	Mirex		66.85		

Comments: See sample calculation verification worksheet for recalculations

LDC #: 26275635

SDG #: per conch

VALIDATION FINDINGS WORKSHEET  
Initial Calibration Calculation Verification

Page: 1 of 1

Reviewer: YFE2nd 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 =  $100 \cdot (S/X)$ 

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	
				CF (10.0 std)	CF (12.0 std)	CF (12.0 std)	Average CF (Initial)	Average CF (Initial)	%RSD	Average CF (Initial)	%RSD
1	1CAL	6/2/11	endosulfan 1	5.38 X 10 <sup>3</sup>	5.38 X 10 <sup>3</sup>	5.38 X 10 <sup>3</sup>	5.48 X 10 <sup>3</sup>	5.48 X 10 <sup>3</sup>	6.7	5.48 X 10 <sup>3</sup>	6.7
			methoxychlor	1.73 X 10 <sup>3</sup>	1.73 X 10 <sup>3</sup>	1.73 X 10 <sup>3</sup>	1.85 X 10 <sup>3</sup>	1.85 X 10 <sup>3</sup>	5.7	1.85 X 10 <sup>3</sup>	5.7
2			↓	4.46 X 10 <sup>3</sup>	4.46 X 10 <sup>3</sup>	4.46 X 10 <sup>3</sup>	4.58 X 10 <sup>3</sup>	4.58 X 10 <sup>3</sup>	11.1	4.58 X 10 <sup>3</sup>	11.1
				1.70 X 10 <sup>3</sup>	1.70 X 10 <sup>3</sup>	1.70 X 10 <sup>3</sup>	1.67 X 10 <sup>3</sup>	1.67 X 10 <sup>3</sup>	4.0	1.67 X 10 <sup>3</sup>	4.0
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 #: 26275 &amp; 39

SDG #: per cover

# VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

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

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 =  $100 \times (\text{ave. CF} - \text{CF}) / \text{ave. CF}$   
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 (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	1P10153.58	6/2/11	endosulfan 1	10.0	6.90	31.0	6.90	31.0
		2/1/33	methoxychlor	100.00	84.33	15.7	84.33	15.7
2			↓		7.58	24.2	7.58	24.2
			RTXCLP1		73.65	26.3	73.65	26.3
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 #: 26275 Q35SDG #: per cover

# VALIDATION FINDINGS WORKSHEET Surrogate Results Verification

Page: 1 of 1Reviewer:   2nd reviewer:   

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery:  $SF/SS \times 100$ Where: SF = Surrogate Found  
SS = Surrogate SpikedSample ID: #1

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetrachloro-m-xylene						
Tetrachloro-m-xylene	<u>2XCLP1</u>	<u>1.03</u>	<u>81</u> <sup>0.834%</sup>	<u>81</u>	<u>81</u>	<u>0</u>
Decachlorobiphenyl	<u>↓</u>	<u>1.03</u>	<u>88</u> <sup>0.914%</sup>	<u>88</u>	<u>88</u>	<u>0</u>
Decachlorobiphenyl						

Sample ID:   

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetrachloro-m-xylene						
Tetrachloro-m-xylene						
Decachlorobiphenyl						
Decachlorobiphenyl						

Sample ID:   

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetrachloro-m-xylene						
Tetrachloro-m-xylene						
Decachlorobiphenyl						
Decachlorobiphenyl						

Sample ID:   

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetrachloro-m-xylene						
Tetrachloro-m-xylene						
Decachlorobiphenyl						
Decachlorobiphenyl						

Notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



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:

SC = Concentration

MSD = Matrix spike duplicate percent recovery

[illegible]

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.

Page: 1 of 1  
Reviewer: PS  
2nd Reviewer: CA

**METHOD:** GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

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:

$$\% \text{ Recovery} = 100 \times (\text{SSC-SC})/\text{SA}$$

Where: SSC = Spiked sample concentration  
SA = Spike added

SC = Concentration

$$RPD = |LCS - LCD| \cdot 2 / (LCS + LCD)$$

LCS = Laboratory control sample percent recovery

LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: 10523146

[illegible]

Comments: Refer to 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 #: 26275639  
SDG #: pu cover

VALIDATION FINDINGS WORKSHEET  
Sample Calculation Verification

Page: 1 of 1  
Reviewer: PN  
2nd reviewer: EC

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Y N N/A  
Y N N/A

Were all reported results recalculated and verified for all level IV samples?

Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Example:

Sample I.D. #2 4,4'-PDE

$$\text{Conc.} = \frac{(18763)(10)(0.4)}{(5100)(60.5)(0.862)}$$

=

0.28 ug/kg

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

Note: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory

**Collection Date:** May 20, 2011

**LDC Report Date:** October 3, 2011

**Matrix:** Soil

**Parameters:** Polychlorinated Biphenyls

**Validation Level:** Level IV

**Laboratory:** Lancaster Laboratories

**Sample Delivery Group (SDG):** DE158

### Sample Identification

SL-020-SA5DN-SS-0.0-0.5	SL-020-SA5DN-SS-0.0-0.5MS
SL-024-SA5DN-SS-0.0-0.5	SL-020-SA5DN-SS-0.0-0.5MSD
SL-025-SA5DN-SS-0.0-0.5	
SL-026-SA5DN-SS-0.0-0.5	
SL-027-SA5DN-SS-0.0-0.5	
SL-028-SA5DN-SS-0.0-0.5	
SL-029-SA5DN-SS-0.0-0.5	
SL-036-SA5DN-SS-0.0-0.5	
SL-037-SA5DN-SS-0.0-0.5	
SL-038-SA5DN-SS-0.0-0.5	
SL-039-SA5DN-SS-0.0-0.5	
SL-040-SA5DN-SS-0.0-0.5	
SL-044-SA5DN-SS-0.0-0.5	
SL-050-SA5DN-SS-0.0-0.5	
SL-051-SA5DN-SS-0.0-0.5	
SL-064-SA5DN-SB-4.0-5.0	
SL-065-SA5DN-SB-4.0-5.0	
SL-065-SA5DN-SB-7.0-8.0	
SL-086-SA5DN-SB-4.0-5.0	
SL-088-SA5DN-SB-4.0-5.0	

## Introduction

This data review covers 22 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.

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 with the following exceptions:

Date	Standard	Column	Compound	%D	Associated Samples	Affected Compound	Flag	A or P
6/2/11	CCV (15:59)	ZBMultiR2	Aroclor-5460	35.6	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-020-SA5DN-SS-0.0-0.5MS SL-020-SA5DN-SS-0.0-0.5MSD PBLK22146	Aroclor-5460	J (all detects) UJ (all non-detects)	A

Date	Standard	Column	Compound	%D	Associated Samples	Affected Compound	Flag	A or P
6/2/11	CCV (16:67)	ZBMultiR2	Aroclor-5442	24.9	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-020-SA5DN-SS-0.0-0.5MS SL-020-SA5DN-SS-0.0-0.5MSD PBLK22146	Aroclor-5442	J (all detects) UJ (all non-detects)	A
6/2/11	CCV (23:23)	ZBMultiR2	Aroclor-5460	32.6	SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0	Aroclor-5460	J (all detects) UJ (all non-detects)	A
6/2/11	CCV (23:41)	ZBMultiR2	Aroclor-5442	23.0	SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0	Aroclor-5442	J (all detects) UJ (all non-detects)	A

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-026-SA5DN-SS-0.0-0.5	Aroclor-1260	41.90	J (all detects)	A
SL-051-SA5DN-SS-0.0-0.5	Aroclor-1254 Aroclor-1260	68.76 62.95	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 DE158	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 DE158**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0	Aroclor-5460  Aroclor-5442	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE158	SL-026-SA5DN-SS-0.0-0.5	Aroclor-1260	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE158	SL-051-SA5DN-SS-0.0-0.5	Aroclor-1254 Aroclor-1260	J (all detects) J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0	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 DE158**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory**

**Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG DE158**

No Sample Data Qualified in this SDG

**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: 5/20/11
II.	GC/ECD Instrument Performance Check	ND	
III.	Initial calibration	A	% RSD $\leq 20$
IV.	Continuing calibration/ICV	SW	100/CCV $\leq 20$
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	res 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/RI/LOQ/LODs	SW	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	N	
XVI.	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-020-SA5DN-SS-0.0-0.5	11	SL-039-SA5DN-SS-0.0-0.5	21	PBLK22146	31	
2	SL-024-SA5DN-SS-0.0-0.5	12	SL-040-SA5DN-SS-0.0-0.5	22		32	
3	SL-025-SA5DN-SS-0.0-0.5	13	SL-044-SA5DN-SS-0.0-0.5	23	#1 MS	33	
4	SL-026-SA5DN-SS-0.0-0.5	14	SL-050-SA5DN-SS-0.0-0.5	24	#1 MSD	34	
5	SL-027-SA5DN-SS-0.0-0.5	15	SL-051-SA5DN-SS-0.0-0.5	25		35	
6	SL-028-SA5DN-SS-0.0-0.5	16	SL-064-SA5DN-SB-4.0-5.0	26		36	
7	SL-029-SA5DN-SS-0.0-0.5	17	SL-065-SA5DN-SB-4.0-5.0	27		37	
8	SL-036-SA5DN-SS-0.0-0.5	18	SL-065-SA5DN-SB-7.0-8.0	28		38	
9	SL-037-SA5DN-SS-0.0-0.5	19	SL-086-SA5DN-SB-4.0-5.0	29		39	
10	SL-038-SA5DN-SS-0.0-0.5	20	SL-088-SA5DN-SB-4.0-5.0	30		40	

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DC #: 20275636  
 IDG #: per owner

# VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
 Reviewer: FN  
 2nd Reviewer: [Signature]

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

DC #: 26275636  
SDG #: per contract

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
Reviewer: FJ  
2nd Reviewer: [signature]

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.			/	

# VALIDATION FINDINGS WORKSHEET

METHOD: Pesticide/PCBs (EPASW 846 Method 8081/8082)

A. alpha-BHC	I. Dieldrin	Q. Endrin ketone	Y. Aroclor-1242	GG.
B. beta-BHC	J. 4,4'-DDE	R. Endrin aldehyde	Z. Aroclor-1248	HH.
C. delta-BHC	K. Endrin	S. alpha-Chlordane	AA. Aroclor-1254	II.
D. gamma-BHC	L. Endosulfan II	T. gamma-Chlordane	BB. Aroclor-1260	JJ.
E. Heptachlor	M. 4,4'-DDD	U. Toxaphene	CC. DB 608	KK.
F. Aldrin	N. Endosulfan sulfate	V. Aroclor-1016	DD. DB 1701	LL.
G. Heptachlor epoxide	O. 4,4'-DDT	W. Aroclor-1221	EE.	MM.
H. Endosulfan I	P. Methoxychlor	X. Aroclor-1232	FF.	NN.

Notes:

LDC #: 26275636

## VALIDATION FINDINGS WORKSHEET

Continuing CalibrationPage: 1 of 2Reviewer: FTMETHOD: GC HPLC2nd Reviewer: ✓

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? Y %D or N/A RPDY N/A Were continuing calibration standards analyzed at the required frequencies?Y N/A Did the continuing calibration standards meet the %D / RPD validation criteria of ≤20.0%?

Level IV Only

Y N/A Were the retention times for all calibrated compounds within their respective acceptance windows?

#	Date	Standard ID	Detector/ Column	Compound	%D / RPD (Limit ≤ 20.0)	RT (limit)	Associated Samples	Qualifications
	<u>6/2/11</u>	<u>CCN</u>	<u>2B multi R2</u>	<u>Aroclor 5460</u>	<u>35.6</u>	( )	<u>PB 22146</u>	<u>J/W/A (C)</u>
	<u>15:59</u>					( )	<u>1-12, 23, 24</u>	<u>qual 5460 only</u>
						( )		
						( )		
	<u>6/2/11</u>	<u>CCN</u>	<u>2B multi R2</u>	<u>Aroclor 5442</u>	<u>24.9</u>	( )	<u>↓</u>	<u>↓</u>
	<u>16:67</u>					( )		<u>qual 5442 only</u>
						( )		
						( )		
	<u>6/2/11</u>	<u>CCN</u>	<u>2B multi R2</u>	<u>Aroclor 5460</u>	<u>32.6</u>	( )	<u>13-20</u>	<u>J/W/A (C)</u>
	<u>23:23</u>					( )		<u>qual 5460 only</u>
						( )		
						( )		
	<u>6/2/11</u>	<u>CCN</u>	<u>↓</u>	<u>Aroclor 5442</u>	<u>23.0</u>	( )	<u>13-20</u>	<u>J/W/A (C)</u>
	<u>23:41</u>					( )		<u>qual 5442 only</u>
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		



## VALIDATION FINDINGS WORKSHEET

### Compound Quantitation and Reported CRQLs

Page: 1 of 1  
 Reviewer: F7  
 2nd Reviewer: C

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

Y N N/A

Y/N	N/A	Did the reported results for detected target compounds agree within 10.0% of the recalculated results?

[illegible]

Comments: See sample calculation verification worksheet for recalculations

LDC #: 26275636  
SDG #: mu wau

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 =  $100 \cdot (S/X)$   
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	
				CF (20V std)	CF (200 std)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD	Average CF (Initial)	%RSD
1	1 CAL	5/24/11	Arachlor 1260-1 ZB multi-R1	34	36	37	37	9.3	9.3	37	9.3
2	↓	✓	Arachlor 1260-1 ZB multi-R2	212	212	219	219	7.6	7.6	219	7.6
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 #: 1  
SDG #: per cover

VALIDATION FINDINGS WORKSHEET  
Continuing Calibration Results Verification

Page: 1 of 2  
Reviewer: FE  
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 =  $100 \times (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  Where: ave. CF = Initial calibration average CF  
CF = A/C CF = continuing calibration CF  
A = Area of compound  
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	cen	6/2/11 15:41	Amor 126 J ZBR/ ZBR2	200 200	211.09 184.74	5.5 7.6	211.09 184.74	5.5 7.6
2	cen	6/2/11 23:00	↓ ↓	200 ↓	208.09 178.60	4.0 10.7	208.09 178.60	4.0 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.

VALIDATION FINDINGS WORKSHEET  
Surrogate Results Verification

LVL #: 20220301  
SDG #: see cover  
METHOD: GC HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery:  $SF/SS \times 100$   
Where: SF = Surrogate Found  
SS = Surrogate Spiked  
Sample ID: # /

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
TCMX	2Bmuthi P/	1.02	1.229065	119	119	0
PCB	↓	↓	1.10542	107	107	↓

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 #: for coner

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 =  $100 \cdot (SSC - SC) / SA$       Where      SSC = Spiked sample concentration      SC = Sample concentration  
SA = Spike added      MSD = Matrix spike duplicate

RPD =  $\frac{((SSCMS - SSCMSD) \cdot 2) / (SSCMS + SSCMSD)}{100}$

MS/MSD samples: 23 + 24

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		Matrix spike		Matrix Spike Duplicate		MS/MSD	
	MS	MSD		MS	MSD	Percent Recovery	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-126C	16.53	16.53	0.52	16.52	16.72	97	77	98	95	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.

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: Aroclor 5442

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS		LCSD		Percent Recovery		Percent Recovery		Percent Recovery		RPD	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	LCS	LCSD	Reported	Recalc.	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)																
Aroclor 5442	16.67	16.67	13.71	13.61	82	82	82	82	82	82	82	82	82	82	1	1

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.

METHOD: GC HPLC

$$\frac{Y \ N \ N/A}{Y \ N \ N/A}$$

Were all reported results recalculated and verified for all level IV samples?  
Were all recalculated results for detected target compounds within 10% of the reported results?

$$\text{Concentration} = \frac{(A)(Fv)(Df)}{(Rf)(Vs \text{ or } Ws)(\%S/100)}$$

**Example:**

Sample ID. #/

Compound Name

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

$V_s$ = Initial volume of the sample

**Ws= Initial weight of the sample**

%S= Percent Solid

$$= 0.596 \text{ ug/kg}$$

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications
	Arado 1260-1 =	630.134521 (g)	= 0.56	1260-1 = 0.56	
		(37.7)(60.5)		2 = 0.84244	
				3 = 0.556029	
				4 = 0.447414	
				5 = 0.560159	
				6 = 0.41661	
				<u>0.5627</u>	

**Comments:**

**Laboratory Data Consultants, Inc.**  
**Data Validation Report**

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** May 20, 2011  
**LDC Report Date:** September 29, 2011  
**Matrix:** Soil  
**Parameters:** Metals  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE158

**Sample Identification**

SL-020-SA5DN-SS-0.0-0.5	SL-020-SA5DN-SS-0.0-0.5MS
SL-024-SA5DN-SS-0.0-0.5	SL-020-SA5DN-SS-0.0-0.5MSD
SL-025-SA5DN-SS-0.0-0.5	SL-020-SA5DN-SS-0.0-0.5DUP
SL-026-SA5DN-SS-0.0-0.5	
SL-027-SA5DN-SS-0.0-0.5	
SL-028-SA5DN-SS-0.0-0.5	
SL-029-SA5DN-SS-0.0-0.5	
SL-036-SA5DN-SS-0.0-0.5	
SL-037-SA5DN-SS-0.0-0.5	
SL-038-SA5DN-SS-0.0-0.5	
SL-039-SA5DN-SS-0.0-0.5	
SL-040-SA5DN-SS-0.0-0.5	
SL-044-SA5DN-SS-0.0-0.5	
SL-050-SA5DN-SS-0.0-0.5	
SL-051-SA5DN-SS-0.0-0.5	
SL-064-SA5DN-SB-4.0-5.0	
SL-065-SA5DN-SB-4.0-5.0	
SL-065-SA5DN-SB-7.0-8.0	
SL-086-SA5DN-SB-4.0-5.0	
SL-088-SA5DN-SB-4.0-5.0	



## Introduction

This data review covers 23 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010B, 6020, and 7471A 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 Boron Calcium Copper Phosphorus Strontium Tin	6.439 mg/Kg 0.910 mg/Kg 13.915 mg/Kg 0.069 mg/Kg 1.204 mg/Kg 0.071 mg/Kg 1.482 mg/Kg	All samples in SDG DE158
ICB/CCB	Titanium	0.94 ug/L	All samples in SDG DE158
ICB/CCB	Calcium Iron Magnesium	296 ug/L 129 ug/L 291 ug/L	SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5
ICB/CCB	Calcium Magnesium	72.6 ug/L 48.2 ug/L	SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
ICB/CCB	Calcium Magnesium	252 ug/L 250 ug/L	SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0
ICB/CCB	Iron	144 ug/L	SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-065-SA5DN-SB-4.0-5.0

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-020-SA5DN-SS-0.0-0.5	Tin	2.3 mg/Kg	2.3U mg/Kg
SL-024-SA5DN-SS-0.0-0.5	Tin	2.7 mg/Kg	2.7U mg/Kg
SL-025-SA5DN-SS-0.0-0.5	Tin	3.0 mg/Kg	3.0U mg/Kg
SL-026-SA5DN-SS-0.0-0.5	Tin	3.0 mg/Kg	3.0U mg/Kg
SL-027-SA5DN-SS-0.0-0.5	Tin	2.9 mg/Kg	2.9U mg/Kg
SL-028-SA5DN-SS-0.0-0.5	Tin	3.0 mg/Kg	3.0U mg/Kg
SL-029-SA5DN-SS-0.0-0.5	Tin	3.2 mg/Kg	3.2U mg/Kg
SL-036-SA5DN-SS-0.0-0.5	Tin	3.2 mg/Kg	3.2U mg/Kg
SL-037-SA5DN-SS-0.0-0.5	Tin	2.9 mg/Kg	2.9U mg/Kg
SL-038-SA5DN-SS-0.0-0.5	Tin	3.0 mg/Kg	3.0U mg/Kg
SL-039-SA5DN-SS-0.0-0.5	Tin	3.1 mg/Kg	3.1U mg/Kg
SL-040-SA5DN-SS-0.0-0.5	Tin	3.1 mg/Kg	3.1U mg/Kg

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-044-SA5DN-SS-0.0-0.5	Tin	2.9 mg/Kg	2.9U mg/Kg
SL-050-SA5DN-SS-0.0-0.5	Tin	2.9 mg/Kg	2.9U mg/Kg
SL-051-SA5DN-SS-0.0-0.5	Tin	2.9 mg/Kg	2.9U mg/Kg
SL-064-SA5DN-SB-4.0-5.0	Tin	2.8 mg/Kg	2.8U mg/Kg
SL-065-SA5DN-SB-4.0-5.0	Tin	3.0 mg/Kg	3.0U mg/Kg
SL-065-SA5DN-SB-7.0-8.0	Tin	2.8 mg/Kg	2.8U mg/Kg
SL-086-SA5DN-SB-4.0-5.0	Tin	2.9 mg/Kg	2.9U mg/Kg
SL-088-SA5DN-SB-4.0-5.0	Tin	3.1 mg/Kg	3.1U 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-020-SA5DN-SS-0.0-0.5MS/MSD (All samples in SDG DE158)	Antimony	55 (75-125)	70 (75-125)	-	J (all detects) UJ (all non-detects)	A
SL-020-SA5DN-SS-0.0-0.5MS/MSD (All samples in SDG DE158)	Arsenic	-	162 (75-125)	-	J (all detects)	A
	Beryllium	-	135 (75-125)	-	J (all detects)	
	Cadmium	141 (75-125)	167 (75-125)	-	J (all detects)	
	Chromium	-	141 (75-125)	-	J (all detects)	
	Cobalt	133 (75-125)	153 (75-125)	-	J (all detects)	
	Molybdenum	143 (75-125)	165 (75-125)	-	J (all detects)	
	Nickel	-	151 (75-125)	-	J (all detects)	
	Potassium	135 (75-125)	-	-	J (all detects)	
	Selenium	-	145 (75-125)	-	J (all detects)	
	Silver	143 (75-125)	157 (75-125)	-	J (all detects)	
	Thallium	149 (75-125)	162 (75-125)	-	J (all detects)	

## VII. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results 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. 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-020-SA5DN-SS-0.0-0.5	Chromium Cobalt Copper Lead Nickel Vanadium Zinc	19 ( $\leq 10$ ) 27 ( $\leq 10$ ) 12 ( $\leq 10$ ) 26 ( $\leq 10$ ) 28 ( $\leq 10$ ) 20 ( $\leq 10$ ) 25 ( $\leq 10$ )	All samples in SDG DE158	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 DE158	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 DE158**

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0	Antimony	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0	Arsenic Beryllium Cadmium Chromium Cobalt Molybdenum Nickel Potassium Selenium Silver Thallium	J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) 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)

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0	Chromium Cobalt Copper Lead Nickel Vanadium Zinc	J (all detects) UJ (all non-detects)	A	ICP serial dilution (%D) (A)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0	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 DE158**

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE158	SL-020-SA5DN-SS-0.0-0.5	Tin	2.3U mg/Kg	A	B
DE158	SL-024-SA5DN-SS-0.0-0.5	Tin	2.7U mg/Kg	A	B
DE158	SL-025-SA5DN-SS-0.0-0.5	Tin	3.0U mg/Kg	A	B
DE158	SL-026-SA5DN-SS-0.0-0.5	Tin	3.0U mg/Kg	A	B
DE158	SL-027-SA5DN-SS-0.0-0.5	Tin	2.9U mg/Kg	A	B



SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE158	SL-028-SA5DN-SS-0.0-0.5	Tin	3.0U mg/Kg	A	B
DE158	SL-029-SA5DN-SS-0.0-0.5	Tin	3.2U mg/Kg	A	B
DE158	SL-036-SA5DN-SS-0.0-0.5	Tin	3.2U mg/Kg	A	B
DE158	SL-037-SA5DN-SS-0.0-0.5	Tin	2.9U mg/Kg	A	B
DE158	SL-038-SA5DN-SS-0.0-0.5	Tin	3.0U mg/Kg	A	B
DE158	SL-039-SA5DN-SS-0.0-0.5	Tin	3.1U mg/Kg	A	B
DE158	SL-040-SA5DN-SS-0.0-0.5	Tin	3.1U mg/Kg	A	B
DE158	SL-044-SA5DN-SS-0.0-0.5	Tin	2.9U mg/Kg	A	B
DE158	SL-050-SA5DN-SS-0.0-0.5	Tin	2.9U mg/Kg	A	B
DE158	SL-051-SA5DN-SS-0.0-0.5	Tin	2.9U mg/Kg	A	B
DE158	SL-064-SA5DN-SB-4.0-5.0	Tin	2.8U mg/Kg	A	B
DE158	SL-065-SA5DN-SB-4.0-5.0	Tin	3.0U mg/Kg	A	B
DE158	SL-065-SA5DN-SB-7.0-8.0	Tin	2.8U mg/Kg	A	B
DE158	SL-086-SA5DN-SB-4.0-5.0	Tin	2.9U mg/Kg	A	B
DE158	SL-088-SA5DN-SB-4.0-5.0	Tin	3.1U mg/Kg	A	B

**Santa Susana Field Laboratory**  
**Metals - Field Blank Data Qualification Summary - SDG DE158**

No Sample Data Qualified in this SDG

LDC #: 26275Q4 **VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE158

Level IV

Laboratory: Lancaster Laboratories

Date: 9-29-11

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** Metals (EPA SW 846 Method 6010B/6020A/7000) 7471A

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: 5/20/11
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	BA	DP
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	SW	
XII.	Sample Result Verification	A	
XIII.	Overall Assessment of Data	A	
XIV.	Field Duplicates	N	
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-020-SA5DN-SS-0.0-0.5	11	SL-039-SA5DN-SS-0.0-0.5	21	(X1) MS	31	
2	SL-024-SA5DN-SS-0.0-0.5	12	SL-040-SA5DN-SS-0.0-0.5	22	MSD	32	
3	SL-025-SA5DN-SS-0.0-0.5	13	SL-044-SA5DN-SS-0.0-0.5	23	DP	33	
4	SL-026-SA5DN-SS-0.0-0.5	14	SL-050-SA5DN-SS-0.0-0.5	24		34	
5	SL-027-SA5DN-SS-0.0-0.5	15	SL-051-SA5DN-SS-0.0-0.5	25		35	
6	SL-028-SA5DN-SS-0.0-0.5	16	SL-064-SA5DN-SB-4.0-5.0	26		36	
7	SL-029-SA5DN-SS-0.0-0.5	17	SL-065-SA5DN-SB-4.0-5.0	27		37	
8	SL-036-SA5DN-SS-0.0-0.5	18	SL-065-SA5DN-SB-7.0-8.0	28		38	
9	SL-037-SA5DN-SS-0.0-0.5	19	SL-086-SA5DN-SB-4.0-5.0	29		39	
10	SL-038-SA5DN-SS-0.0-0.5	20	SL-088-SA5DN-SB-4.0-5.0	30		40	

Notes: \_\_\_\_\_

Method: Metals (EPA SW 846 Method 6010B/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. ICP/MS Tune</b>				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were %RSD of isotopes in the tuning solution $\leq 5\%$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Calibration</b>				
Were all instruments calibrated daily, each set-up time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the proper number of standards used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all initial calibration correlation coefficients $> 0.995$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. ICP Interference Check Sample</b>				
Were ICP interference check samples performed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD or duplicate relative percent differences (RPD) $\leq 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\pm 2 \times \text{RL}$ ( $\pm 2 \times \text{RL}$ for soil) was used for samples that were $\leq 5 \times \text{RL}$ , including when only one of the duplicate sample values were $\leq 5 \times \text{RL}$ .	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Validation Area	Yes	No	NA	Findings/Comments
<b>VIII. Furnace Atomic Absorption QC</b>				
If MSA was performed, was the correlation coefficients > 0.995?			/	
Do all applicable analyses 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?			/	
<b>IX. ICP Serial Dilution</b>				
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.		/		
<b>X. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)</b>				
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?	/			
<b>XI. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?		/		
Were the performance evaluation (PE) samples within the acceptance limits?		/		
<b>XII. Sample Result Verification</b>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	/			
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.		/		
Target analytes were detected in the field duplicates.		/		
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.		/		
Target analytes were detected in the field blanks.		/		

## VALIDATION FINDINGS WORKSHEET

### Sample Specific Element Reference

All circled elements are applicable to each sample.

[illegible]

Comments: Mercury by CVAA if performed

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: All

2nd Reviewer: [Signature]

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	1	2	3	4	5	6	7	8	9	10					
Al	6.439			32.2															
B	0.910			4.55															
Ca	13.915			69.58															
Cu	0.069			0.345															
P	1.204			6.02															
Sr	0.071			0.355															
Sn	1.482			7.41	2.3	2.7	3.0	3.0	2.9	3.0	3.2	3.2	2.9	3.0					
Ti			0.94	0.47															
Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	11	12	13	14	15	16	17	18	19	20					
Al	6.439			32.2															
B	0.910			4.55															
Ca	13.915			69.58															
Cu	0.069			0.345															
P	1.204			6.02															
Sr	0.071			0.355															
Sn	1.482			7.41	3.1	3.1	2.9	2.9	2.9	2.8	3.0	2.8	2.9	3.1					
Ti			0.94	0.47															

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	No Qualifiers (>5x)								
Ca			296	148									
Fe			129	322.5									
Mg			291	145.5									

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 5-16

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	No Qualifiers (>5x)								
Ca			72.6	36.3									
Mg			48.2	24.1									

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 17-20

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	No Qualifiers (>5x)								
Ca			252	126									
Mg			250	125									

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 6-12, 17

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	No Qualifiers (>5x)								
Fe			144	360									

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.

# VALIDATION FINDINGS WORKSHEET

## ICP Interference Check Sample

**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".

Were ICP interference check samples performed as required?

Were the AB solution percent recoveries (%R) within the control limits of 80-120%?

Y/N N/A

**LEVEL IV ONLY:**

Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

[illegible]

Comments: Fe 790%



## **VALIDATION FINDINGS WORKSHEET**

### **Matrix Spike/Matrix Spike Duplicates**

Page: 1 of 1  
 Reviewer: OR  
 2nd Reviewer: ts

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

Was a matrix spike analyzed for each matrix in this SDG?

Y N N/A

Y(N) N/A	Were matrix spike percent recoveries (%R) within the contr

of 4 or more, no action was taken.

Were all duplicate sample relative percent differences (RPD) Y/N N/A

**LEVEL IV ONLY:**

Y/N N/A

[illegible]

Comments: \_\_\_\_\_

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

☒ N N/A If analyte concentrations were > 50X the MDL (ICP), or >100X the MDL (ICP/MS), was a serial dilution analyzed?

☐ N N/A Were ICP serial dilution percent differences (%D) ≤10%?

☐ N N/A Is there evidence of negative interference? If yes, professional judgement will be used to qualify the data.

Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

[illegible]

Comments:

LDC #: 282544

VALIDATION FINDINGS WORKSHEET  
Initial and Continuing Calibration Calculation Verification

Page: 1 of 1  
Reviewer: CS  
2nd Reviewer: W

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:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$
  
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		Reported	Acceptable (Y/N)
					%R	%R		
ICV	ICP (Initial calibration)	Al	28410.42	30000	94.7	94.7	94.7	Y
ICV	ICP/MS (Initial calibration)	As	475.80	500	95.2	95.2	95.2	Y
ICV	CVA (Initial calibration)	Hg	2.31	2.5	92.4	92.4	92.4	Y
CCV (08/10)	ICP (Continuing calibration)	Li	595.29	600	99.2	99.2	99.2	Y
CCV (08/15)	ICP/MS (Continuing calibration)	Pb	<del>502468</del>	25	98.7	98.7	98.7	Y
CCV (09/10)	CVA (Continuing calibration)	Hg	1.03	1	103	103	103	Y
	GFAA (Initial calibration)							
	GFAA (Continuing calibration)							

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 #: 2022547

VALIDATION FINDINGS WORKSHEET  
Level IV Recalculation Worksheet

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

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:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$

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) $\mu\text{g/L}$	True / D / SDR (units) $\mu\text{g/L}$	Recalculated		Reported		Acceptable (Y/N)
					%R / RPD / %D	%R / RPD / %D	%R / RPD / %D	%R / RPD / %D	
ICSPB	ICP interference check	Ag	20 $\mu\text{g/L}$	20 $\mu\text{g/L}$	100		100		Y
LC5	Laboratory control sample	Zn	1033 $\mu\text{g/L}$	1000 $\mu\text{g/L}$	103		103		Y
21	Matrix spike	Se	(SSR-SR) 2,5339	2,0771	122		122		Y
23	Duplicate	Ni	19,2272	16,5254	15		15		Y
1	ICP serial dilution	Ti	1267.11 $\mu\text{g/L}$	13184.15 $\mu\text{g/L}$	6		6		Y

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 #:

2679504

## VALIDATION FINDINGS WORKSHEET

## Sample Calculation Verification

Page: 1 of 3

Reviewer: CR

2nd reviewer: W

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 \_\_\_\_\_ were recalculated and verified using the following equation:

Concentration =  $\frac{(RD)(FV)(Dil)}{(In. Vol.)}$ 

Recalculation:

RD = Raw data concentration  
 FV = Final volume (ml)  
 In. Vol. = Initial volume (ml) or weight (G)  
 Dil = Dilution factor

$$\frac{100\text{mL} (6.6343\text{mg/L})}{0.944\text{ (1.0g)}} = 702.8\text{mg/kg}$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	1	Al	14000	14000	Y
		Sb	0.28	0.28	Y
		As	6.1	6.1	Y
		Br	151	151	Y
		Be	0.64	0.64	Y
		B	11.5	11.5	Y
		Cd	0.24	0.24	Y
		Ca	5770	5770	Y
		Cr	27.2	27.2	Y
		Co	11.9	11.9	Y
		Cu	19.4	19.4	Y
		Fe	22400	22400	Y
		Pb	12.5	12.5	Y
		Li	13.9	13.9	Y
		Mg	5580	5580	Y
		Mn	342	342	Y
		Hg	0.013	0.013	Y
		Mo	0.59	0.59	Y
		Ni	19.2	19.2	Y
		P	703	703	Y

Note:

LDC #: 2679504VALIDATION FINDINGS WORKSHEET  
Sample Calculation VerificationPage 2 of 3  
Reviewer: CR  
2nd reviewer: h

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 AS were recalculated and verified using the following equation:Concentration =  $\frac{(RD)(FV)(Dil)}{(In. Vol.)}$ 

Recalculation:

RD = Raw data concentration  
FV = Final volume (ml)  
In. Vol. = Initial volume (ml) or weight (G)  
Dil = Dilution factor

$$II = \frac{(100ml)(2) 37.27 \mu g/L}{0.853(1.0g)(1000)} = 8.65 \text{ mg/Kg}$$

#	Sample ID	Analyte	Reported Concentration (mg/Kg)	Calculated Concentration (mg/Kg)	Acceptable (Y/N)
	I	K	3610	3610	Y
		Se	0.11	0.11	Y
		Pb	0.053	0.053	Y
		Mn	137	137	Y
		Sr	33.2	33.2	Y
		Tl	0.36	0.36	Y
		Sn	2.3	2.3	Y
		Ti	1300	1300	Y
		V	71.1	71.1	Y
		Zn	103	103	Y
		Zr	1.0	1.0	Y
	II	Al	26400	26400	Y
		Sb	0.37	0.37	Y
		As	8.7	8.7	Y
		Ba	159	159	Y
		Be	1.2	1.2	Y
		B	17.9	17.9	Y
		Cd	0.54	0.54	Y
		Ca	9210	9210	Y

ote:

LDC #: 2679504VALIDATION FINDINGS WORKSHEET  
Sample Calculation VerificationPage: 3 of 3  
Reviewer: CR  
2nd reviewer: h

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 \_\_\_\_\_ were recalculated and verified using the following equation:

Concentration =  $\frac{(RD)(FV)(Dil)}{(In. Vol.)}$ 

Recalculation:

RD	=	Raw data concentration
FV	=	Final volume (ml)
In. Vol.	=	Initial volume (ml) or weight (G)
Dil	=	Dilution factor

See Previous Page

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	11	Cr	45.7	45.7	Y
		Co	15.1	15.1	Y
		Cu	18.5	18.5	Y
		Fe	31900	31900	Y
		Pb	16.9	16.9	Y
		Li	23.5	23.5	Y
		Mg	6660	6660	Y
		Mn	375	375	Y
		Hg	0.0098	0.0098	Y
		Mo	0.71	0.71	Y
		Ni	31.1	31.1	Y
		P	363	363	Y
		K	4240	4240	Y
		Se	0.17	0.17	Y
		As	0.084	0.084	Y
		Na	97.0	97.0	Y
		Sr	40.4	40.4	Y
		Tl	0.49	0.49	Y
		Sn	3.1	3.1	Y
		Ti	1170	1170	Y
		V	88.0	88.0	Y
		Zn	103	103	Y
		Zr	3.4	3.4	Y

ote:

## **Laboratory Data Consultants, Inc. Data Validation Report**

**Project/Site Name:** Santa Susana Field Laboratory

**Collection Date:** May 20, 2011

**LDC Report Date:** October 3, 2011

**Matrix:** Soil

**Parameters:** Herbicides

**Validation Level:** Level IV

**Laboratory:** Lancaster Laboratories

**Sample Delivery Group (SDG):** DE158

### **Sample Identification**

SL-020-SA5DN-SS-0.0-0.5  
SL-024-SA5DN-SS-0.0-0.5  
SL-025-SA5DN-SS-0.0-0.5  
SL-026-SA5DN-SS-0.0-0.5  
SL-027-SA5DN-SS-0.0-0.5  
SL-028-SA5DN-SS-0.0-0.5  
SL-029-SA5DN-SS-0.0-0.5  
SL-036-SA5DN-SS-0.0-0.5  
SL-037-SA5DN-SS-0.0-0.5  
SL-038-SA5DN-SS-0.0-0.5  
SL-039-SA5DN-SS-0.0-0.5  
SL-040-SA5DN-SS-0.0-0.5  
SL-044-SA5DN-SS-0.0-0.5  
SL-050-SA5DN-SS-0.0-0.5  
SL-051-SA5DN-SS-0.0-0.5



## Introduction

This data review covers 15 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8151A for Herbicides.

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 this 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 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 herbicide 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) Duplicate

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 with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
LCS21144	Dinoseb	9 (10-36)	All samples in SDG DE158	J (all detects) R (all non-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.

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-025-SA5DN-SS-0.0-0.5	MCPA	90	J (all detects)	A
SL-036-SA5DN-SS-0.0-0.5	2,4-DB	94	J (all detects)	A
SL-037-SA5DN-SS-0.0-0.5	2,4-DB	80	J (all detects)	A
SL-039-SA5DN-SS-0.0-0.5	MCPA 2,4-D	97 63	J (all detects) J (all detects)	A
SL-044-SA5DN-SS-0.0-0.5	2,4-DB	81	J (all detects)	A
SL-051-SA5DN-SS-0.0-0.5	Dicamba 2,4-DB	46 146	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 DE158	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**  
**Herbicides - Data Qualification Summary - SDG DE158**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5	Dinoseb	J (all detects) R (all non-detects)	P	Laboratory control samples (%R) (L)
DE158	SL-025-SA5DN-SS-0.0-0.5	MCPA	J (all detects)	A	Compound quantitation and RLs (RPD) (*IX)
DE158	SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5	2,4-DB	J (all detects)	A	Compound quantitation and RLs (RPD) (*IX)
DE158	SL-039-SA5DN-SS-0.0-0.5	MCPA 2,4-D	J (all detects) J (all detects)	A	Compound quantitation and RLs (RPD) (*IX)
DE158	SL-051-SA5DN-SS-0.0-0.5	Dicamba 2,4-DB	J (all detects) J (all detects)	A	Compound quantitation and RLs (RPD) (*IX)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

**Santa Susana Field Laboratory**  
**Herbicides - Laboratory Blank Data Qualification Summary - SDG DE158**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory**  
**Herbicides - Field Blank Data Qualification Summary - SDG DE158**

No Sample Data Qualified in this SDG

LDC #: 26275Q5 **VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE158

Level IV

Laboratory: Lancaster Laboratories

Date: 10/2/11

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** GC Herbicides (EPA SW 846 Method 8151A)

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: 5/20/11
II.	Initial calibration	A	9% PSD $\leq 20$ , $r^2$
III.	Calibration verification/ICV	A	ICV/CCV $\leq 20$
IV.	Blanks	A	
V.	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	SW	LCS
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	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-020-SA5DN-SS-0.0-0.5	11	SL-039-SA5DN-SS-0.0-0.5	21	PBLK21144	31	
2	SL-024-SA5DN-SS-0.0-0.5	12	SL-040-SA5DN-SS-0.0-0.5	22		32	
3	SL-025-SA5DN-SS-0.0-0.5	13	SL-044-SA5DN-SS-0.0-0.5	23		33	
4	SL-026-SA5DN-SS-0.0-0.5	14	SL-050-SA5DN-SS-0.0-0.5	24		34	
5	SL-027-SA5DN-SS-0.0-0.5	15	SL-051-SA5DN-SS-0.0-0.5	25		35	
6	SL-028-SA5DN-SS-0.0-0.5	16		26		36	
7	SL-029-SA5DN-SS-0.0-0.5	17		27		37	
8	SL-036-SA5DN-SS-0.0-0.5	18		28		38	
9	SL-037-SA5DN-SS-0.0-0.5	19		29		39	
10	SL-038-SA5DN-SS-0.0-0.5	20		30		40	

Notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20% or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike/duplicates</b>				
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	



DC #: 262505  
 IDG #: per count


# VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: F7  
 2nd Reviewer: C

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

# VALIDATION FINDINGS WORKSHEET

## Laboratory Control Samples (LCS)

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

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

Was a LCS required?

Was a LCS required?  
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

[illegible]

**VALIDATION FINDINGS WORKSHEET**  
**Compound Quantitation and Reported CRQLs**

LDC #: 2627565  
 SDG #: for cover

Page: 1 of 2  
 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".

Level I/IV/D Only

Y N N/A

Y N N/A

Were CRQLs adjusted for sample dilutions, dry weight factors, etc.?

Did the reported results for detected target compounds agree within 10.0% of the recalculated results?

(\*IX)

#	Compound Name	Finding	Associated Samples	Qualifications
		<u>1. RPD Bat 201</u>		
	<u>MCPA</u>	<u>90</u>	<u>3</u>	<u>N/A det</u>
	<u>2,4-DB</u>	<u>94</u>	<u>8</u>	<u>↓</u>
	<u>↓</u>	<u>80</u>	<u>9</u>	<u>↓</u>
	<u>MCPA</u>	<u>97</u>	<u>11</u>	<u>↓</u>
	<u>2,4-D</u>	<u>63</u>		
	<u>2,4-DB</u>	<u>81</u>	<u>13</u>	<u>↓</u>

Comments: See sample calculation verification worksheet for recalculations

## **VALIDATION FINDINGS WORKSHEET**

### **Compound Quantitation and Reported CRQLs**

METHOD: GC HPLC

Level IV/D Only	
Y	N/A
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".	
Y	N/A
Were CRQLs adjusted for sample dilutions, dry weight factors, etc.?	
Y	N/A
Did the reported results for detected target compounds agree within 10.0% of the recalculated results?	

[illegible]

Comments: See sample calculation verification worksheet for recalculations

LDC #: 2627565  
 SDG #: ju wach

# VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

Page: 1 of 1  
 Reviewer: FJ  
 2nd Reviewer: C

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 =  $100 \cdot (S/X)$   
 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	
				CF	std	CF	std	Average CF (Initial)	%RSD	Average CF (Initial)	%RSD
1	1CAL	5/20/11	Dalapon	410.4	2.00 x 10 <sup>-1</sup>	410.4	2.0 x 10 <sup>-1</sup>	1.95 x 10 <sup>-1</sup>	14.0	1.95 x 10 <sup>-1</sup>	14.0
			Dicamba	5.86 x 10 <sup>-1</sup>	5.86 x 10 <sup>-1</sup>	5.86	5.86 x 10 <sup>-1</sup>	5.8 / x 10 <sup>-1</sup>	9.0	5.8 / x 10 <sup>-1</sup>	9.0
2	1CAL	5/20/11	RTX cup2	1.90 x 10 <sup>-1</sup>	1.90 x 10 <sup>-1</sup>	1.90 x 10 <sup>-1</sup>	1.90 x 10 <sup>-1</sup>	1.87 x 10 <sup>-1</sup>	14.3	1.87 x 10 <sup>-1</sup>	14.3
				5.28 x 10 <sup>-1</sup>	5.28 x 10 <sup>-1</sup>	5.28 x 10 <sup>-1</sup>	5.28 x 10 <sup>-1</sup>	5.20 x 10 <sup>-1</sup>	7.3	5.20 x 10 <sup>-1</sup>	7.3
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.

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

LDC #: 26275 & 5  
 SDG #: per cover

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 =  $100 \times (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  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 (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	3H15_04R	5/25/11 17:26	Dalapon RTX cul	820.80	774.64	5.6	774.64	5.6
			Dicamba	40.04	37.44	6.5	37.44	6.5
			↓ RTX cul II		782.99	4.6	782.99	4.6
2	2-16R	5/25/11 17:57	↓		37.41	1.6	37.41	1.6
	16R		↓	820.80	784.90	4.4	784.90	4.4
			↓	402.04	37.90	5.3	37.90	5.3
3			↓		769.44	6.3	769.44	6.3
					3900	2.6	3900	2.6
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.

VALIDATION FINDINGS WORKSHEET  
Surrogate Results Verification

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery:  $SF/SS \times 100$  Where: SF = Surrogate Found  
Sample ID: # 1 SS = Surrogate Spiked

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
2,4-DCA	RTX cap II	6.6829	6.415652	96	96	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	

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 =  $100 \times \frac{(SSC-SC)/SA}{RPD}$   
RPD =  $1 \text{ LCS} - \text{LCSD} \times \frac{2}{(1 \text{ LCS} + \text{LCSD})}$   
Where: SSC = Spiked sample concentration  
SA = Spike added  
LCS = Laboratory control sample percent recovery  
LCSD = Laboratory control sample duplicate percent recovery  
SC = Concentration

LCS/LCSD samples: LCS 2/144

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS		LCSD		Percent Recovery		LCS		Percent Recovery		LCS		Percent Recovery		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)																				
Diesel (8015)																				
Benzene (8021B)																				
Methane (RSK-175)																				
2,4-D (8151)	8.33	NA	7.86	NA	94	94														
Dinoseb (8151)	14.2	↓	1.34	↓	9	9														
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.



METHOD: GC HPLC

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?	Y	N	N/A

$$\text{Concentration} = \frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$$

**Example:**

Sample ID. #15  
Compound Name 2, 4-D13

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

**$V_s$ = Initial volume of the sample**

**Ws= Initial weight of the sample**

**%S= Percent Solid.**

$$\text{Concentration} = \frac{(9747) (0.2) (2000)}{(72317) (0.0718) (60.4) (0.906) (2)}$$

6.9 km 57/1

[illegible]

Comments:

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** May 20, 2011  
**LDC Report Date:** October 17, 2011  
**Matrix:** Soil  
**Parameters:** Wet Chemistry  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE158

### Sample Identification

SL-020-SA5DN-SS-0.0-0.5	SL-020-SA5DN-SS-0.0-0.5MS
SL-024-SA5DN-SS-0.0-0.5	SL-020-SA5DN-SS-0.0-0.5DUP
SL-025-SA5DN-SS-0.0-0.5	SL-039-SA5DN-SS-0.0-0.5MS
SL-026-SA5DN-SS-0.0-0.5	SL-039-SA5DN-SS-0.0-0.5DUP
SL-027-SA5DN-SS-0.0-0.5	SL-029-SA5DN-SS-0.0-0.5MS
SL-028-SA5DN-SS-0.0-0.5	SL-029-SA5DN-SS-0.0-0.5DUP
SL-029-SA5DN-SS-0.0-0.5	
SL-036-SA5DN-SS-0.0-0.5	
SL-037-SA5DN-SS-0.0-0.5	
SL-038-SA5DN-SS-0.0-0.5	
SL-039-SA5DN-SS-0.0-0.5	
SL-040-SA5DN-SS-0.0-0.5	
SL-044-SA5DN-SS-0.0-0.5	
SL-050-SA5DN-SS-0.0-0.5	
SL-051-SA5DN-SS-0.0-0.5	
SL-064-SA5DN-SB-4.0-5.0	
SL-065-SA5DN-SB-4.0-5.0	
SL-065-SA5DN-SB-7.0-8.0	
SL-086-SA5DN-SB-4.0-5.0	
SL-088-SA5DN-SB-4.0-5.0	

## Introduction

This data review covers 26 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-020-SA5DN-SS-0.0-0.5MS (SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5)	Fluoride	57 (80-120)	J (all detects) UJ (all non-detects)	A
SL-039-SA5DN-SS-0.0-0.5MS (SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0)	Fluoride  Nitrate as N	68 (80-120)  78 (80-120)	J (all detects) UJ (all non-detects) 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 were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG DE158	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 DE158**

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5	Fluoride	J (all detects) UJ (all non-detects)	A	Matrix spike analysis (%R) (Q)
DE158	SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0	Fluoride  Nitrate as N	J (all detects) UJ (all non-detects)  J (all detects) UJ (all non-detects)	A	Matrix spike analysis (%R) (Q)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-050-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0	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 DE158**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory**  
**Wet Chemistry - Field Blank Data Qualification Summary - SDG DE158**

No Sample Data Qualified in this SDG

LDC #: 26275Q6  
 SDG #: DE158  
 Laboratory: Lancaster Laboratories

# VALIDATION COMPLETENESS WORKSHEET

Level IV

Date: 9-29-11  
 Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**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: 5/20/11
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	N	
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-020-SA5DN-SS-0.0-0.5	11	SL-039-SA5DN-SS-0.0-0.5	21	(#1) MS	31	
2	SL-024-SA5DN-SS-0.0-0.5	12	SL-040-SA5DN-SS-0.0-0.5	22	↓ Dup	32	
3	SL-025-SA5DN-SS-0.0-0.5	13	SL-044-SA5DN-SS-0.0-0.5	23	(#12) MS	33	
4	SL-026-SA5DN-SS-0.0-0.5	14	SL-050-SA5DN-SS-0.0-0.5	24	↓ Dup	34	
5	SL-027-SA5DN-SS-0.0-0.5	15	SL-051-SA5DN-SS-0.0-0.5	25	(#7) (#7) MS	35	
6	SL-028-SA5DN-SS-0.0-0.5	16	SL-064-SA5DN-SB-4.0-5.0	26	(#7) (#7) Dup	36	
7	SL-029-SA5DN-SS-0.0-0.5	17	SL-065-SA5DN-SB-4.0-5.0	27		37	
8	SL-036-SA5DN-SS-0.0-0.5	18	SL-065-SA5DN-SB-7.0-8.0	28		38	
9	SL-037-SA5DN-SS-0.0-0.5	19	SL-086-SA5DN-SB-4.0-5.0	29		39	
10	SL-038-SA5DN-SS-0.0-0.5	20	SL-088-SA5DN-SB-4.0-5.0	30		40	

Notes:

Method: Inorganics (EPA Method See cover)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	/			
Cooler temperature criteria was met.	/			
<b>II. Calibration</b>				
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)			/	
<b>III. Blanks</b>				
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.		/		
<b>IV. Matrix spike/Matrix spike duplicates and Duplicates</b>				
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) $\leq 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\leq \text{CRDL}$ ( $\leq 2 \times \text{CRDL}$ for soil) was used for samples that were $\leq 5 \times$ the CRDL, including when only one of the duplicate sample values were $< 5 \times$ the CRDL.	/			
<b>V. Laboratory control samples</b>				
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 80-120% (85-115% for Method 300.0) QC limits?	/			
<b>VI. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?		/		
Were the performance evaluation (PE) samples within the acceptance limits?		/		



Validation Area	Yes	No	NA	Findings/Comments
<i>VII. Sample Result Verification</i>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were detection limits < RL?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>VIII. Overall assessment of data</i>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>IX. Field duplicates</i>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target analytes were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>X. Field blanks</i>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target analytes were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	



Page: 11 of 11  
Reviewer: OR  
2nd Reviewer: CS

METHOD: Inorganics, Method See call

$$\frac{N/A}{N/A}$$

Y/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.

Y N N/A

Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

[illegible]

\_\_\_\_\_

LDC #: 2627560

**Validation Findings Worksheet**  
**Initial and Continuing Calibration Calculation Verification**

Page: 1 of       
Reviewer:       
2nd Reviewer:     

**Method:** Inorganics, Method      See Cover     

The correlation coefficient (r) for the calibration of Cr<sup>6+</sup> was recalculated. Calibration date: 5/27/11

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	Reported	Acceptable (Y/N)
					r or r <sup>2</sup>	r or r <sup>2</sup>	
Initial calibration	Cr <sup>6+</sup>	s1	0	0	0.9996	0.9995	Y
		s2	50	0.5839			
		s3	100	1.3782			
		s4	200	2.7422			
		s5	300	4.0719			
Calibration verification	F	CCV	1.5	1.3554	90	90	Y
Calibration verification	NO <sub>3</sub>	↓	↓	1.3553	90	90	Y
Calibration verification	CN	↓	0.15	0.14990	100	100	Y

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.

METHOD: Inorganics, Method SEE COVER

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$
 Where, Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, 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

Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	Recalculated		Acceptable (Y/N)
					%R / RPD	%R / RPD	
LCS	Laboratory control sample	Cd	106	100	106	106	Y
23	Matrix spike sample	CN	(SSR-SR) 39.67	40.2	99	99	Y
22	Duplicate sample	NO3	3.4	3.8	11	11	Y

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 #:

## 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 NO<sub>3</sub><sup>-</sup> / C<sup>-</sup> reported with a positive detect were recalculated and verified using the following equation:

Concentration =

Concentration =  $\text{NO}_3^-$   $y = 0,3295x - 0,0098$

Recalculation:

Recalculation:

$$1. \text{ NO}_3 = \left( \frac{0.103 + 0.0098}{0.3295} \right) \times \frac{50 \text{ mL}}{5.055(0.944)} = 36 \text{ mg/kg}$$

$$Q^{st}: y = 0.0137x - 0.0325$$

$$11: C_{O_2} = \left( \frac{0.1289 + 0.0305}{0.0137} \right) \times \frac{100 \text{ mL}}{2.539(0.853)(1000)} = 0.54 \text{ mg/kg}$$

#	Sample ID	Analyte	Reported Concentration (mg/L)	Calculated Concentration (mg/L)	Acceptable (Y/N)
0944	I	F	1.6	1.6	Y
		NO <sub>3</sub>	3.6	3.6	
		Ca <sup>2+</sup>	0.56	0.57 <sup>0.57</sup>	
0953	II	F	1.3	1.3	
		NO <sub>3</sub>	1.0	1.0	
		Ca <sup>2+</sup>	0.64	0.64 <sup>0.54</sup>	Y

Note: \_\_\_\_\_

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** May 20, 2011  
**LDC Report Date:** October 3, 2011  
**Matrix:** Soil/Water  
**Parameters:** Total Petroleum Hydrocarbons as Gasoline  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE158

**Sample Identification**

SL-064-SA5DN-SB-4.0-5.0  
SL-065-SA5DN-SB-4.0-5.0  
SL-065-SA5DN-SB-7.0-8.0  
SL-086-SA5DN-SB-4.0-5.0  
TB-052011

## 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 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-052011 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.

**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: 5/20/11
II.	Initial calibration	A	% RSD ≤ 20
III.	Calibration verification/ICV	A	% LCV/CCV ≤ 20
IV.	Blanks	D	
V.	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS 10
VIII.	Target compound identification	A	
IX.	Compound quantitation/R/LQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	N	TB = 5

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 + water

1	SL-064-SA5DN-SB-4.0-5.0	11	BLKCL	21		31	
2	SL-065-SA5DN-SB-4.0-5.0	12	BLKE9	22		32	
3	SL-065-SA5DN-SB-7.0-8.0	13		23		33	
4	SL-086-SA5DN-SB-4.0-5.0	14		24		34	
5	TB-052011	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 #: 2627507  
SDG #: per owner

# VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
Reviewer: FJ  
2nd Reviewer: J

Method: ☒ GC ☐ HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20% or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VII. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

DC #: 262507  
SDG #: per conel

# VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
Reviewer: F2  
2nd Reviewer: [Signature]

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 #: 2627567  
 SDG #: per work

# VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

Page: 1 of 1  
 Reviewer: FD  
 2nd Reviewer: JS

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	
				CF (2nd std)	CF (2nd std)	CF (2nd std)	CF (2nd std)	Average CF (Initial)	%RSD	Average CF (Initial)	%RSD
1	1 CAL	11/29/10	GRU	35488	35188	35188	35188	37329	12.7	37329	12.7
2	1 CAL	5/14/10	GRU	8420	8420	8420	8420	8050	5.2	8050	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 #: 2627507SDG #: 100 CompVALIDATION FINDINGS WORKSHEET  
Continuing Calibration Results VerificationPage: 1 of 7Reviewer: FE2nd Reviewer: REMETHOD: 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 =  $100 \times (\text{ave. CF} - \text{CF}) / \text{ave. CF}$   
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 (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	CEV	5/23/11	GRD	220.00	191.63	10.9	191.63	10.9
	12:07							
2	CEV	5/26/11	GRD	550.00	541.67	1.5	541.67	1.5
	21:49							
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.

VALIDATION FINDINGS WORKSHEET  
Surrogate Results Verification

LDC #: 1000000000 /  
SDG #: see cover  
METHOD: GC HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery:  $SF/SS \times 100$   
Where: SF = Surrogate Found  
SS = Surrogate Spiked

Sample ID: # /

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
1	N7	631	460.85723	73	73	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	

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:

$$\% \text{ Recovery} = 100 \times \frac{(\text{SSC} - \text{SC}) / \text{SA}}{\text{RPD} = 1 \text{ LCS} - \text{LCSD} \times \frac{1}{2} (\text{LCS} + \text{LCSD})}$$

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: 1059 / 1050

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS		LCSD		Percent Recovery		LCS		Percent Recovery		LCS		Percent Recovery		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)	11	11	786	799	71	71	73	73	73	73	73	73	73	73	73	73	73	73	73	73
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.



METHOD: GC HPLC

Were all reported results recalculated and verified for all level IV samples?

$$\text{Concentration} = \frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$$

**Example:**

Sample ID. \_\_\_\_\_

Concentration =

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

[illegible]

Comments:

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** May 20, 2011  
**LDC Report Date:** September 30, 2011  
**Matrix:** Soil  
**Parameters:** Total Petroleum Hydrocarbons as Extractables  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE158

**Sample Identification**

SL-020-SA5DN-SS-0.0-0.5  
SL-024-SA5DN-SS-0.0-0.5  
SL-025-SA5DN-SS-0.0-0.5  
SL-026-SA5DN-SS-0.0-0.5  
SL-027-SA5DN-SS-0.0-0.5  
SL-028-SA5DN-SS-0.0-0.5  
SL-029-SA5DN-SS-0.0-0.5  
SL-036-SA5DN-SS-0.0-0.5  
SL-037-SA5DN-SS-0.0-0.5  
SL-038-SA5DN-SS-0.0-0.5  
SL-039-SA5DN-SS-0.0-0.5  
SL-040-SA5DN-SS-0.0-0.5  
SL-044-SA5DN-SS-0.0-0.5  
SL-051-SA5DN-SS-0.0-0.5  
SL-064-SA5DN-SB-4.0-5.0  
SL-065-SA5DN-SB-4.0-5.0  
SL-065-SA5DN-SB-7.0-8.0  
SL-086-SA5DN-SB-4.0-5.0  
SL-020-SA5DN-SS-0.0-0.5MS  
SL-020-SA5DN-SS-0.0-0.5MSD

## Introduction

This data review covers 20 soil 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 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**

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 not within QC limits. Since the samples were diluted out, no data were qualified.

## **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 DE158	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 DE158**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0	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 DE158**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory**  
**Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification**  
**Summary - SDG DE158**

No Sample Data Qualified in this SDG

LDC #: 26275Q8 **VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE158

Level IV

Laboratory: Lancaster Laboratories

Date: 9/30/11

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

**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: 5/20/11
II.	Initial calibration	A	% PSD $\leq 20$
III.	Calibration verification/ICV	A	ICV/CCV $\leq 20$
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	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:

2011

1	SL-020-SA5DN-SS-0.0-0.5	11	SL-039-SA5DN-SS-0.0-0.5	21	PBLK0247	31	
2	SL-024-SA5DN-SS-0.0-0.5	12	SL-040-SA5DN-SS-0.0-0.5	22		32	
3	SL-025-SA5DN-SS-0.0-0.5	13	SL-044-SA5DN-SS-0.0-0.5	23		33	
4	SL-026-SA5DN-SS-0.0-0.5	14	SL-051-SA5DN-SS-0.0-0.5	24		34	
5	SL-027-SA5DN-SS-0.0-0.5	15	SL-064-SA5DN-SB-4.0-5.0	25		35	
6	SL-028-SA5DN-SS-0.0-0.5	16	SL-065-SA5DN-SB-4.0-5.0	26		36	
7	SL-029-SA5DN-SS-0.0-0.5	17	SL-065-SA5DN-SB-7.0-8.0	27		37	
8	SL-036-SA5DN-SS-0.0-0.5	18	SL-086-SA5DN-SB-4.0-5.0	28		38	
9	SL-037-SA5DN-SS-0.0-0.5	19	# / MS	29		39	
10	SL-038-SA5DN-SS-0.0-0.5	20	# / MSD	30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

DC #: 26275 68  
 IDG #: per owner

# VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
 Reviewer: FJ  
 2nd Reviewer: g

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>V. Surrogate/spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VI. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	



DC #: 2627528  
 SDG #: per count

# VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: FJ  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

MSDNew.wpd

LDC #: 2627588  
SDG #: per warr

Page: 1 of 1  
 Reviewer: PF  
 2nd Reviewer: 8

HPLC

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

[illegible]

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.

# VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

Page: 1 of 7  
Reviewer: P7  
2nd Reviewer: R

LDC #: 2627508  
SDG #: 2000000

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 =  $100 \times (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  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 (lcal) / CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	J149-70	5/30/11 2308	28-40	143.99	151.1457	5.6	151.1457	5.0
2	J149-84	5/31/11 4:52	↓	288.02	288.25	0.1	288.25	0.1
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.

SDG #: see cover

Reviewer: FT

2nd reviewer: R

METHOD: GC HPLC

VALIDATION FINDINGS WORKSHEET  
Surrogate Results Verification

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: # /

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
chlorobenzene	NS	1.0	0.9728	97	97	0
ortho-terphenyl	↓	1.0	1.1006	110	110	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	

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 =  $100 \cdot ((SSC - SC)/SA)$  Where SSC = Spiked sample concentration SA = Spike added

RPD =  $((SSCMS - SSCMSD) \cdot 2) / ((SSCMS + SSCMSD)) \cdot 100$  MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 19-20-20

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	
	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)											
EF4 (830-440)	2.5	2.5	176.67	103.43	118.22	26.79	28.79	23.28	23.28	8	8

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.

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 =  $100 \times (\text{SSC} - \text{SC}) / \text{SA}$

RPD =  $100 \times (\text{LCS} - \text{LCSD}) / ((\text{LCS} + \text{LCSD}) / 2)$

Where: SSC = Spiked sample concentration

SA = Spike added

LCS = Laboratory control sample percent recovery

LCSD = Laboratory control sample duplicate percent recovery

SC = Concentration

LCS/LCSD samples: LC502147

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS		LCSD		Percent Recovery		LCS		Percent Recovery		LCS		Percent Recovery		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	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 C30-40	2.51	NA	2.1	NA	8.4	8.4														

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.

METHOD: GC HPLC

Were all reported results recalculated and verified for all level IV samples?  
Were all recalculated results for detected target compounds within 10% of the reported results?

$$\text{Concentration} = \frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$$

**Example:**

Sample ID. #/  
Compound Name c30 - c40

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**

$V_s$ = Initial volume of the sample

**Ws= Initial weight of the sample**

**%S= Percent Solid.**

$$\text{Concentration} = \frac{4383097 (100) (5)}{20671.85 (60) (0.944) (1000)}$$

187 mg/kg

[illegible]

**Comments:**



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory

**Collection Date:** May 20, 2011

**LDC Report Date:** October 3, 2011

**Matrix:** Soil

**Parameters:** Explosives

**Validation Level:** Level IV

**Laboratory:** Lancaster Laboratories

**Sample Delivery Group (SDG):** DE158

### Sample Identification

SL-020-SA5DN-SS-0.0-0.5	SL-020-SA5DN-SS-0.0-0.5MSD
SL-024-SA5DN-SS-0.0-0.5	
SL-025-SA5DN-SS-0.0-0.5	
SL-026-SA5DN-SS-0.0-0.5	
SL-027-SA5DN-SS-0.0-0.5	
SL-028-SA5DN-SS-0.0-0.5	
SL-029-SA5DN-SS-0.0-0.5	
SL-036-SA5DN-SS-0.0-0.5	
SL-037-SA5DN-SS-0.0-0.5	
SL-038-SA5DN-SS-0.0-0.5	
SL-039-SA5DN-SS-0.0-0.5	
SL-040-SA5DN-SS-0.0-0.5	
SL-044-SA5DN-SS-0.0-0.5	
SL-051-SA5DN-SS-0.0-0.5	
SL-064-SA5DN-SB-4.0-5.0	
SL-065-SA5DN-SB-4.0-5.0	
SL-065-SA5DN-SB-7.0-8.0	
SL-086-SA5DN-SB-4.0-5.0	
SL-088-SA5DN-SB-4.0-5.0	
SL-020-SA5DN-SS-0.0-0.5MS	

## Introduction

This data review covers 21 soil samples 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.

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**

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-020-SA5DN-SS-0.0-0.5MS/MSD (SL-020-SA5DN-SS-0.0-0.5)	RDX 1,3,5-Trinitrobenzene Nitroglycerin	- - -	74 (75-129) 79 (82-126) 78 (80-120)	- - -	J (all detects) UJ (all non-detects)	A

## VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
LCS04146	HMX  Nitroglycerin	69 (74-130)  75 (80-120)	All samples in SDG DE158	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-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 DE158	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 DE158**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE158	SL-020-SA5DN-SS-0.0-0.5	RDX 1,3,5-Trinitrobenzene Nitroglycerin	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0	HMX  Nitroglycerin	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R) (L)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0	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 DE158**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory**  
**Explosives - Field Blank Data Qualification Summary - SDG DE158**

No Sample Data Qualified in this SDG

**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: 5/20/11
II.	Initial calibration	A	% PSD $\leq 20$ , $r^2$
III.	Calibration verification/ICV	A	100/CCV $\leq 20$
IV.	Blanks	A	
V.	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	SW	
VII.	Laboratory control samples	SW	100
VIII.	Target compound identification	A	
IX.	Compound quantitation/R <sub>1</sub> /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-020-SA5DN-SS-0.0-0.5	11	SL-039-SA5DN-SS-0.0-0.5	21	PBLK04146	31	
2	SL-024-SA5DN-SS-0.0-0.5	12	SL-040-SA5DN-SS-0.0-0.5	22		32	
3	SL-025-SA5DN-SS-0.0-0.5	13	SL-044-SA5DN-SS-0.0-0.5	23	#1MS	33	
4	SL-026-SA5DN-SS-0.0-0.5	14	SL-051-SA5DN-SS-0.0-0.5	24	#1MSD	34	
5	SL-027-SA5DN-SS-0.0-0.5	15	SL-064-SA5DN-SB-4.0-5.0	25		35	
6	SL-028-SA5DN-SS-0.0-0.5	16	SL-065-SA5DN-SB-4.0-5.0	26		36	
7	SL-029-SA5DN-SS-0.0-0.5	17	SL-065-SA5DN-SB-7.0-8.0	27		37	
8	SL-036-SA5DN-SS-0.0-0.5	18	SL-086-SA5DN-SB-4.0-5.0	28		38	
9	SL-037-SA5DN-SS-0.0-0.5	19	SL-088-SA5DN-SB-4.0-5.0	29		39	
10	SL-038-SA5DN-SS-0.0-0.5	20		30		40	

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DC #: 26275040  
SDG #: per owner

# VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
Reviewer: FJ  
2nd Reviewer: g

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of $\geq 0.990$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20% or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

DC #: 26275041  
 IDG #: per count

# VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: F2  
 2nd Reviewer: J

Validation Area	Yes	No	NA	Findings/Comments
<b>X Target compound identification</b>				
Were the retention times of reported detects within the RT windows?				
<b>XI Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>			
<b>XII System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>			
<b>XIII Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>			
<b>XIV Field duplicates</b>				
Field duplicate pairs were identified in this SDG.		<input checked="" type="checkbox"/>		
Target compounds were detected in the field duplicates.				
<b>XV Field blanks</b>				
Field blanks were identified in this SDG.		<input checked="" type="checkbox"/>		
Target compounds were detected in the field blanks.			<input checked="" type="checkbox"/>	



# VALIDATION FINDINGS WORKSHEET

METHOD: GC HPLC

8310	8330	8151	8141	8141(Cont'd)	8021B
A. Acenaphthene	A. HMX	A. 2,4-D.	A. Dichlorvos	V. Fensulfothion	V. Benzene
B. Acenaphthylene	B. RDX	B. 2,4-DB	B. Mevinphos	W. Bolstar	CC. Toluene
C. Anthracene	C. 1,3,5-Trinitrobenzene	C. 2,4,6-T	C. Demeton-O	X. EPN	EE. Ethyl Benzene
D. Benzo(a)anthracene	D. 1,3-Dinitrobenzene	D. 2,4,6-TP	D. Demeton-S	Y. Azinphos-methyl	SSS. O-Xylene
E. Benzo(e)pyrene	E. Tetral	E. Dinoseb	E. Ethoprop	Z. Coumaphos	RRR. MP-Xylene
F. Benzo(b)fluoranthene	F. Nitrobenzene	F. Dichlorprop	F. Naled	AA. Parathion	GG. Total Xylene
G. Benzo(g,h,i)perylene	G. 2,4,6-Trinitrotoluene	G. Dicamba	G. Sulfotep	BB. Trichloronate	
H. Benzo(k)fluoranthene	H. 4-Amino-2,6-dinitrotoluene	H. Dalapon	H. Phorate	CC. Trichlorinate	
I. Chrysene	I. 2-Amino-4,6-dinitrotoluene	I. MCPP	I. Dimethoate	DD. Trifluralin	
J. Dibenz(a,h)anthracene	J. 2,4-Dinitrotoluene	J. MCPA	J. Diazinon	EE. Def	
K. Fluoranthene	K. 2,6-Dinitrotoluene	K. Pentachlorophenol	K. Disulfoton	FF. Prowl	
L. Fluorene	L. 2-Nitrotoluene	L. 2,4,6-TP (allvax)	L. Parathion-methyl	GG. Ethion	
M. Indeno(1,2,3-cd)pyrene	M. 2-Nitrotoluene	M. Silvex	M. Ronnel	HH. Tetrachlorvinphos	
N. Naphthalene	N. 4-Nitrotoluene		N. Malathion	II. Sulprofos	
O. Phenanthrene	O. Nitroglycerin		O. Chlorpyrifos		
P. Pyrene	P.		P. Fenthion		
Q.	Q		Q. Parathion-ethyl		
R.			R. Trichloronate		
S.			S. Mephos		
			T. Sulfotol		
			U. Tokutimon		

Notes:

MSDNew.wpd

## VALIDATION FINDINGS WORKSHEET

### Laboratory Control Samples (LCS)

Page: 7 of 7  
 Reviewer: FT  
 2nd Reviewer: [Signature]

## HPLC

 ~~$\frac{Y}{Y} \frac{N}{N} \frac{A}{A}$~~ 

~~Level IV/D~~  
Y N N/A

**Was an LCS analyzed every 20 samples for each matrix or whenever a sample extraction was performed?**

[illegible]

LDC #: 26275 Q40  
 SDG #: pk wavy

# VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

Page: 1 of 1  
 Reviewer: FP  
 2nd Reviewer: Q

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 =  $100 \cdot (S/X)$   
 A = Area of compound,  
 C = Concentration of compound,  
 S = Standard deviation of the CF  
 X = Mean of the CFs

Level 3

#	Standard ID	Calibration Date	Compound	Reported Average CF (Initial)	Recalculated Average CF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL Chromapack	5/31/11	BOX 1,3,5-TNB 4- Nitrotoluene	494/501 301/497 8.77 x 10 <sup>1</sup>	494/501 301/497 8.77 x 10 <sup>1</sup>	13.7	12.7
				1.97 x 10 <sup>2</sup>	1.97 x 10 <sup>2</sup>	0.8	0.8
				9.58 x 10 <sup>1</sup>	9.58 x 10 <sup>1</sup>	2.3	2.3
2	ICAL CAPCELL	5/31/11	↓	3.31 x 10 <sup>2</sup>	3.31 x 10 <sup>2</sup>	7.0	7.0
				1.89 x 10 <sup>2</sup>	1.89 x 10 <sup>2</sup>	9.3	9.3
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 #: 26275640SDG #: per coverVALIDATION FINDINGS WORKSHEET  
Continuing Calibration Results VerificationPage: 1 of 2  
Reviewer: FE  
2nd Reviewer: gMETHOD: GC HPLE

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 =  $100 \times (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  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 (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	cen	6/01/11	1,3,5-7NB	502.50	503.41	0.6	503.41	0.6
	15:03	chrompack	4-115 to toluene	497.50	494.61	0.6	494.61	0.6
2	cen	6/01/11	↓	1001.00	1013.59	1.3	1013.59	1.3
	23:33	chrompack	↓	995.00	992.14	0.3	992.14	0.3
3	cen	6/8/11	↓	502.50	503.59	0.6	503.59	0.6
	19:08	capu11		497.50	471.19	5.3	471.19	5.3
4	cen	6/9/11	↓	1001.00	1048.10	4.7	1048.10	4.7
	3:37	capu11		1014.00	967.05	4.6	967.05	4.6

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.

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery:  $SF/SS \times 100$  Where: SF = Surrogate Found  
Sample ID: / SS = Surrogate Spiked

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
2-Nitro-m-xylene	chrompack	2000	1808	90	90	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	



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:

 $\% \text{ Recovery} = 100 \times (\text{SSC} - \text{SC}) / \text{SA}$  $\text{RPD} = | \text{LCS} - \text{LCSD} | \times 2 / (\text{LCS} + \text{LCSD})$ 

Where: SSC = Spiked sample concentration

SA = Spike added

SC = Concentration

LCS = Laboratory control sample percent recovery

LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: 103 504/46

Compound	Spike Added (ug/Kg)		Spiked Sample Concentration (ug/Kg)		LCS		LCSD		Percent Recovery		LCS		Percent Recovery		LCS		Percent Recovery		RPD	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	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	1375.91	NA	69	69	69	69	69	69	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene (8330)	1999.2	↓	1684.8	↓	84	84	84	84	84	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	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.



METHOD: GC MPLC

Y N N/A  
Y N N/A  
Were all reported results recalculated and verified for all level IV samples?  
Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration = (A)(Fv)(Df) / (RF)(Vs or Ws)(%S/100)  
Example: Sample ID: Compound Name

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

Concentration =

MP

#	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:** May 20, 2011

**LDC Report Date:** October 4, 2011

**Matrix:** Soil

**Parameters:** Terphenyls

**Validation Level:** Level IV

**Laboratory:** Lancaster Laboratories

**Sample Delivery Group (SDG):** DE158

### Sample Identification

SL-020-SA5DN-SS-0.0-0.5

SL-024-SA5DN-SS-0.0-0.5

SL-025-SA5DN-SS-0.0-0.5

SL-026-SA5DN-SS-0.0-0.5

SL-027-SA5DN-SS-0.0-0.5

SL-028-SA5DN-SS-0.0-0.5

SL-029-SA5DN-SS-0.0-0.5

SL-036-SA5DN-SS-0.0-0.5

SL-037-SA5DN-SS-0.0-0.5

SL-038-SA5DN-SS-0.0-0.5

SL-039-SA5DN-SS-0.0-0.5

SL-040-SA5DN-SS-0.0-0.5

SL-044-SA5DN-SS-0.0-0.5

SL-051-SA5DN-SS-0.0-0.5

SL-064-SA5DN-SB-4.0-5.0

SL-065-SA5DN-SB-4.0-5.0

SL-065-SA5DN-SB-7.0-8.0

SL-086-SA5DN-SB-4.0-5.0

SL-020-SA5DN-SS-0.0-0.5MS

SL-020-SA5DN-SS-0.0-0.5MSD

## Introduction

This data review covers 20 soil samples 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.

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 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 with the following exceptions:

Sample	Surrogate	%R (Limits)	Compound	Flag	A or P
SL-051-SA5DN-SS-0.0-0.5	n-Triacontane	16 (50-150)	All TCL compounds	J (all detects) UJ (all non-detects)	P

## 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 DE158	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 DE158**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE158	SL-051-SA5DN-SS-0.0-0.5	All TCL compounds	J (all detects) UJ (all non-detects)	P	Surrogate spikes (%R) (S)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0	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 DE158**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory**  
**Terphenyls - Field Blank Data Qualification Summary - SDG DE158**

No Sample Data Qualified in this SDG

**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: 5/20/11
II.	Initial calibration	A	% RSD $\leq 20$
III.	Calibration verification/ICV	A	ICV/CCV $\leq 20$
IV.	Blanks	A	
V.	Surrogate recovery	SW	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LC5
VIII.	Target compound identification	A	
IX.	Compound quantitation/RJ/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:

50/L

1	SL-020-SA5DN-SS-0.0-0.5	11	SL-039-SA5DN-SS-0.0-0.5	21	PBLK29146	31	
2	SL-024-SA5DN-SS-0.0-0.5	12	SL-040-SA5DN-SS-0.0-0.5	22		32	
3	SL-025-SA5DN-SS-0.0-0.5	13	SL-044-SA5DN-SS-0.0-0.5	23		33	
4	SL-026-SA5DN-SS-0.0-0.5	14	SL-051-SA5DN-SS-0.0-0.5	24		34	
5	SL-027-SA5DN-SS-0.0-0.5	15	SL-064-SA5DN-SB-4.0-5.0	25		35	
6	SL-028-SA5DN-SS-0.0-0.5	16	SL-065-SA5DN-SB-4.0-5.0	26		36	
7	SL-029-SA5DN-SS-0.0-0.5	17	SL-065-SA5DN-SB-7.0-8.0	27		37	
8	SL-036-SA5DN-SS-0.0-0.5	18	SL-086-SA5DN-SB-4.0-5.0	28		38	
9	SL-037-SA5DN-SS-0.0-0.5	19	# / MS	29		39	
10	SL-038-SA5DN-SS-0.0-0.5	20	# / MSP	30		40	

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DC #: 26275 Q41  
 SDG #: per owner

# VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
 Reviewer: F1  
 2nd Reviewer: g

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike/duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	



DC #: 26275641  
SDG #: per count

# VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
Reviewer: F7  
2nd Reviewer: g

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?			<input checked="" type="checkbox"/>	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>			
XII. System performance				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		<input checked="" type="checkbox"/>		
Target compounds were detected in the field duplicates.			<input checked="" type="checkbox"/>	
XV. Field blanks				
Field blanks were identified in this SDG.		<input checked="" type="checkbox"/>		
Target compounds were detected in the field blanks.			<input checked="" type="checkbox"/>	



LDC #: 26275641  
SDG #: JLV

VALIDATION FINDINGS WORKSHEET  
Initial Calibration Calculation Verification

Page: 1 of 1  
Reviewer: PJ  
2nd Reviewer: R

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 =  $100 \times (S/X)$   
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	
				CF	(std)	CF	(std)	Average CF (Initial)	%RSD	Average CF (Initial)	%RSD
1	1CAL	5/24/11	o-Terphenyl	35.482		35.482		2.18X10 <sup>4</sup>	1.6	2.18X10 <sup>4</sup>	1.6
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 #: 76275 &amp; 47

SDG #: per cover

# VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

Page: 1 of 7

Reviewer: P7

2nd Reviewer: R

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 =  $100 \times (\text{ave. CF} - \text{CF}) / \text{ave. CF}$   
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 (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	R151-13R	6/01/11 4:34	0- Terphenyl	35.48	35.25	0.7	35.25	0.7
2	R151-24R	6/01/11 12:44	↓	↓	34.48	2.8	34.48	2.8
3	R151-35R	6/01/11 20:57	↓	↓	34.38	3.1	34.38	3.1
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.

VALIDATION FINDINGS WORKSHEET 1

Surrogate Results Verification

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery:  $SF/SS \times 100$       Where: SF = Surrogate Found  
Sample ID: # /      SS = Surrogate Spiked

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
n-Trigontane - 162	MS	0.333	0.33665	101	101	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	

## Matrix Spike/Matrix Spike Duplicates Results Verification

METHOD: GC HPLC

The percent recoveries ( $\overline{\%R}$ ) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

SSC = Spiked sample concentration  
SC = Sample concentration

SA = Spike added

MSD = Matrix spike duplicate

$$RPD = ((SSCMS - SSCMSD) * 2) / (SSCMS + SSCMSD)) * 100$$
MS/MSD samples: 19 + 20[illegible]

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.

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:

$$\% \text{ Recovery} = 100 \cdot (\text{SSC} - \text{SC}) / \text{SA}$$
$$\text{RPD} = | \text{LCS} - \text{LCSD} | \cdot 2 / (\text{LCS} + \text{LCSD})$$

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 29146

Compound	Spiked Sample Concentration (mg/kg)		LCS		LCSD		Percent Recovery		LCS		Percent Recovery		LCS		Percent Recovery		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	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	1.67	NA	1.4	NA			84	84										

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.

METHOD: ~~GC~~ HPLC

Were all reported results recalculated and verified for all level IV samples?  
Were all recalculated results for detected target compounds within 10% of the reported results?

$$\text{Concentration} = \frac{(A)(FV)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$$

**Example:**

Sample ID, \_\_\_\_\_

Compound Name \_\_\_\_\_

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

$V_s$ = Initial volume of the sample

**Ws= Initial weight of the sample**

%S= Percent Solid.

Ch

[illegible]

Comments:



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory

**Collection Date:** May 20, 2011

**LDC Report Date:** October 4, 2011

**Matrix:** Soil

**Parameters:** Alcohols

**Validation Level:** Level IV

**Laboratory:** Lancaster Laboratories

**Sample Delivery Group (SDG):** DE158

### Sample Identification

SL-020-SA5DN-SS-0.0-0.5

SL-024-SA5DN-SS-0.0-0.5

SL-025-SA5DN-SS-0.0-0.5

SL-026-SA5DN-SS-0.0-0.5

SL-027-SA5DN-SS-0.0-0.5

SL-028-SA5DN-SS-0.0-0.5

SL-029-SA5DN-SS-0.0-0.5

SL-036-SA5DN-SS-0.0-0.5

SL-037-SA5DN-SS-0.0-0.5

SL-038-SA5DN-SS-0.0-0.5

SL-039-SA5DN-SS-0.0-0.5

SL-040-SA5DN-SS-0.0-0.5

SL-044-SA5DN-SS-0.0-0.5

SL-051-SA5DN-SS-0.0-0.5

SL-064-SA5DN-SB-4.0-5.0

SL-065-SA5DN-SB-4.0-5.0

SL-065-SA5DN-SB-7.0-8.0

SL-086-SA5DN-SB-4.0-5.0

SL-038-SA5DN-SS-0.0-0.5MS

SL-038-SA5DN-SS-0.0-0.5MSD

## Introduction

This data review covers 20 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 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.

**Santa Susana Field Laboratory**  
**Alcohols - Data Qualification Summary - SDG DE158**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0	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 DE158**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory**  
**Alcohols - Field Blank Data Qualification Summary - SDG DE158**

No Sample Data Qualified in this SDG

LDC #: 26275Q43 **VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE158

Level IV

Laboratory: Lancaster Laboratories

Date: 9/30/11

Page: 1 of 1

Reviewer: F7

2nd Reviewer: 9

**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: 5/20/11
II.	Initial calibration	Δ	1/2 PSD ≤ 20
III.	Calibration verification/ICV	Δ	104/100 ≤ 20
IV.	Blanks	A	
V.	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	10 >
VIII.	Target compound identification	Δ	
IX.	Compound quantitation (RI/LOQ/LODs)	A	
X.	System Performance	Δ	
XI.	Overall assessment of data	Δ	
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-020-SA5DN-SS-0.0-0.5	11	SL-039-SA5DN-SS-0.0-0.5	21	PBLK 43/44	31	
2	SL-024-SA5DN-SS-0.0-0.5	12	SL-040-SA5DN-SS-0.0-0.5	22		32	
3	SL-025-SA5DN-SS-0.0-0.5	13	SL-044-SA5DN-SS-0.0-0.5	23		33	
4	SL-026-SA5DN-SS-0.0-0.5	14	SL-051-SA5DN-SS-0.0-0.5	24		34	
5	SL-027-SA5DN-SS-0.0-0.5	15	SL-064-SA5DN-SB-4.0-5.0	25		35	
6	SL-028-SA5DN-SS-0.0-0.5	16	SL-065-SA5DN-SB-4.0-5.0	26		36	
7	SL-029-SA5DN-SS-0.0-0.5	17	SL-065-SA5DN-SB-7.0-8.0	27		37	
8	SL-036-SA5DN-SS-0.0-0.5	18	SL-086-SA5DN-SB-4.0-5.0	28		38	
9	SL-037-SA5DN-SS-0.0-0.5	19	#10 MS	29		39	
10	SL-038-SA5DN-SS-0.0-0.5	20	#10 MSD	30		40	

Notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

DC #: 26275043  
 DG #: per owner

# VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
 Reviewer: FI  
 2nd Reviewer: g

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

DC #: 26275243  
SDG #: per canal

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
Reviewer: FJ  
2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
XII. System performance				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
XV. Field blanks				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	





LDC #: 26225643

SDG #: per work

# VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

Page: 1 of 1  
Reviewer: FP  
2nd Reviewer: Q

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 =  $100 \cdot (S/X)$ 

A = Area of compound,  
C = Concentration of compound,  
S = Standard deviation of the CF  
X = Mean of the CFs

3

#	Standard ID	Calibration Date	Compound	Reported		Recalculated		Reported		Recalculated	
				CF (SDG Std)	CF (SDG Std)	CF (SDG Std)	CF (SDG Std)	Average CF (Initial)	%RSD	Average CF (Initial)	%RSD
1	1CAL	5/19/11	Methanol	282.110°	2.82			2.95	10.3	2.95	10.3
2	1CAL	5/20/11	↓	6.74	6.74			8.14	12.2	8.14	12.2
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 #: 26275643SDG #: pu coverVALIDATION FINDINGS WORKSHEET  
Continuing Calibration Results VerificationPage: 1 of 2Reviewer: FD2nd Reviewer: RMETHOD: 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 =  $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  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 (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	CCV-0003	5/24/11 2:06	methano /	10000	9831.50	1.7	9831.50	1.7
	00016	5/25/11 0:20	↓	10000	9873.18	1.3	9873.18	1.3
2								
	0003	5/25/11 15:17	↓	10000	10293.71	2.9	10293.71	2.9
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.

VALIDATION FINDINGS WORKSHEET  
Surrogate Results Verification

LDC #:   
SDG #: see cover  
METHOD: GC HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery:  $SF/SS \times 100$   
Where: SF = Surrogate Found  
SS = Surrogate Spiked

Sample ID: 41

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Acetone	MS	250	1990479	80	80	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	

**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 =  $100 \times ((SSC - SC)/SA)$  Where SSC = Spiked sample concentration SA = Spike added MS = Matrix spike

RPD =  $((SSCMS - SSCMSD) \times 2) / ((SSCMS + SSCMSD)) \times 100$

MS/MSD samples: 19 + 20

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		Matrix spike		Matrix Spike Duplicate		MS/MSD	
	MS	MSD		MS	MSD	Percent Recovery	Recalc.	Percent Recovery	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	1718.42	1644.91	69	69	66	66	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.

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 =  $100 \times \frac{SSC-SC}{SA}$

RPD =  $100 \times \frac{LCS - LCSD}{LCS + LCSD}$

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 43144

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS		LCSD		Percent Recovery		LCS		Percent Recovery		LCS		Percent Recovery		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	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	7500	NA	2249.07	NA	90	90	NA	NA	90	90	NA	NA	NA	NA	NA	NA	NA	NA	NA	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.

METHOD: ☒ GC ☐ HPLC

Y	N	N/A
Y	N	N/A
Y	N	N/A

Concentration =  $\frac{(A)(Fv)(Df)}{(Rf)(Vs \text{ or } Ws)(\%S/100)}$

Example: \_\_\_\_\_

Sample ID: \_\_\_\_\_

Compound Name \_\_\_\_\_

Concentration = \_\_\_\_\_

21

[illegible]

Comments: \_\_\_\_\_

## **Laboratory Data Consultants, Inc. Data Validation Report**

**Project/Site Name:** Santa Susana Field Laboratory

**Collection Date:** May 20, 2011

**LDC Report Date:** September 30, 2011

**Matrix:** Soil

**Parameters:** Glycols

**Validation Level:** Level IV

**Laboratory:** Lancaster Laboratories

**Sample Delivery Group (SDG):** DE158

### **Sample Identification**

SL-020-SA5DN-SS-0.0-0.5  
SL-024-SA5DN-SS-0.0-0.5  
SL-025-SA5DN-SS-0.0-0.5  
SL-026-SA5DN-SS-0.0-0.5  
SL-027-SA5DN-SS-0.0-0.5  
SL-028-SA5DN-SS-0.0-0.5  
SL-029-SA5DN-SS-0.0-0.5  
SL-036-SA5DN-SS-0.0-0.5  
SL-037-SA5DN-SS-0.0-0.5  
SL-038-SA5DN-SS-0.0-0.5  
SL-039-SA5DN-SS-0.0-0.5  
SL-040-SA5DN-SS-0.0-0.5  
SL-044-SA5DN-SS-0.0-0.5  
SL-051-SA5DN-SS-0.0-0.5  
SL-064-SA5DN-SB-4.0-5.0  
SL-065-SA5DN-SB-4.0-5.0  
SL-065-SA5DN-SB-7.0-8.0  
SL-086-SA5DN-SB-4.0-5.0

## Introduction

This data review covers 18 soil 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.

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 DE158	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 DE158**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0	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 DE158**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory**  
**Glycols - Field Blank Data Qualification Summary - SDG DE158**

No Sample Data Qualified in this SDG

**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: 5/20/11
II.	Initial calibration	A	0% PSD $\leq 20$
III.	Calibration verification/ICV	A	ICV/CCV $\leq 20$
IV.	Blanks	A	
V.	Surrogate recovery	$\Delta$	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCs
VIII.	Target compound identification	$\Delta$	
IX.	Compound quantitation (R)/LOQ/LODs	A	
X.	System Performance	$\Delta$	
XI.	Overall assessment of data	$\Delta$	
XII.	Field duplicates	N	
XIII.	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:

5014

1	SL-020-SA5DN-SS-0.0-0.5	11	SL-039-SA5DN-SS-0.0-0.5	21	PBLK03144	31	
2	SL-024-SA5DN-SS-0.0-0.5	12	SL-040-SA5DN-SS-0.0-0.5	22	PBLK01145	32	
3	SL-025-SA5DN-SS-0.0-0.5	13	SL-044-SA5DN-SS-0.0-0.5	23		33	
4	SL-026-SA5DN-SS-0.0-0.5	14	SL-051-SA5DN-SS-0.0-0.5	24		34	
5	SL-027-SA5DN-SS-0.0-0.5	15	SL-064-SA5DN-SB-4.0-5.0	25		35	
6	SL-028-SA5DN-SS-0.0-0.5	16	SL-065-SA5DN-SB-4.0-5.0	26		36	
7	SL-029-SA5DN-SS-0.0-0.5	17	SL-065-SA5DN-SB-7.0-8.0	27		37	
8	SL-036-SA5DN-SS-0.0-0.5	18	SL-086-SA5DN-SB-4.0-5.0	28		38	
9	SL-037-SA5DN-SS-0.0-0.5	19		29		39	
10	SL-038-SA5DN-SS-0.0-0.5	20		30		40	

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DC #: 26275 045  
 SDG #: per water

# VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
 Reviewer: F  
 2nd Reviewer: Q

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical/holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of $\geq 0.990$ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20%, 0 or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>V. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VI. Matrix spike/Matrix spike duplicates</b>				
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

DC #: 262756.45  
 SDG #: per count

# VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: F2  
 2nd Reviewer: J

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?			<input checked="" type="checkbox"/>	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>			
<b>XII. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>			
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>			
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.		<input checked="" type="checkbox"/>		
Target compounds were detected in the field duplicates.			<input checked="" type="checkbox"/>	
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.		<input checked="" type="checkbox"/>		
Target compounds were detected in the field blanks.		<input checked="" type="checkbox"/>		

LDC #: 26275945  
SDG #: pk warts

VALIDATION FINDINGS WORKSHEET  
Initial Calibration Calculation Verification

Page: 1 of 1  
Reviewer: FJ  
2nd Reviewer: R

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)	Recalculated CF (std)	Reported Average CF (Initial)	Recalculated Average CF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	5/23/11	Propylene Glycol	4.71 x 10 <sup>2</sup>	471.49	460 x 10 <sup>2</sup>	460 x 10 <sup>2</sup>	5.0	5.0
2	ICAL	5/26/11	↓	4.56 x 10 <sup>2</sup>	4.56 x 10 <sup>2</sup>	4.35 x 10 <sup>2</sup>	4.35 x 10 <sup>2</sup>	8.0	8.0
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 #: 26275645SDG #: 200000VALIDATION FINDINGS WORKSHEET  
Continuing Calibration Results VerificationPage: 1 of 7Reviewer: FE2nd Reviewer: REMETHOD: 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 =  $100 \times (\text{ave. CF} - \text{CF}) / \text{ave. CF}$   
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 (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	F144.0052	5/24/11	Propylene Glycol	95.84	100.73	5.1	100.73	5.1
	F144.0064	↓	↓	95.84	106.07	10.7	106.07	10.7
2	F144.0076	↓	↓	95.84	97.11	1.3	97.11	1.3
3	F147.0012	5/26/11	↓	305.07	322.75	5.8	322.75	5.8
	F147.0023	5/26/11	↓	101.49	100.84	0.6	100.84	0.6
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.



The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery:  $SF/SS \times 100$  Where: SF = Surrogate Found  
Sample ID: #1 SS = Surrogate Spiked

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery Recalculated	Percent Difference
Tetramethylene glycol	MS	177.75	179.950424	91	91	0

Sample ID: \_\_\_\_\_

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery Recalculated	Percent Difference

Sample ID: \_\_\_\_\_

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery Recalculated	Percent Difference

LDC #: 26275045

SDG #: 44 coney

## VALIDATION FINDINGS WORKSHEET

## Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 2

Reviewer: B

2nd Reviewer: R

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 =  $100 \times \frac{SSC-SC}{SA}$   
RPD =  $100 \times \frac{LCS - LCSD}{\frac{LCS + LCSD}{2}}$

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: LC503144

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS		LCSD		Percent Recovery		Percent Recovery		RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	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)														
Epikylas Glyco	225.43	NA	19451	NA	86	86	NA	NA	NA	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.

METHOD: GC — HPLC

Were all reported results recalculated and verified for all level IV samples?

Were all recalculated results for detected target compounds within 10% of the reported results?

$$\text{Concentration} = \frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$$

**Example:**

Sample ID. \_\_\_\_\_

Compound Name \_\_\_\_\_

**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

$V_s$ = Initial volume of the sample

**Ws= Initial weight of the sample**

%S= Percent Solid.

[illegible]

**Comments:**

**Laboratory Data Consultants, Inc.**  
**Data Validation Report**

**Project/Site Name:** Santa Susana Field Laboratory

**Collection Date:** May 20, 2011

**LDC Report Date:** October 3, 2011

**Matrix:** Soil

**Parameters:** Formaldehyde

**Validation Level:** Level IV

**Laboratory:** Lancaster Laboratories

**Sample Delivery Group (SDG):** DE158

**Sample Identification**

SL-020-SA5DN-SS-0.0-0.5  
SL-024-SA5DN-SS-0.0-0.5  
SL-025-SA5DN-SS-0.0-0.5  
SL-026-SA5DN-SS-0.0-0.5  
SL-027-SA5DN-SS-0.0-0.5  
SL-028-SA5DN-SS-0.0-0.5  
SL-029-SA5DN-SS-0.0-0.5  
SL-036-SA5DN-SS-0.0-0.5  
SL-037-SA5DN-SS-0.0-0.5  
SL-038-SA5DN-SS-0.0-0.5  
SL-039-SA5DN-SS-0.0-0.5  
SL-040-SA5DN-SS-0.0-0.5  
SL-044-SA5DN-SS-0.0-0.5  
SL-051-SA5DN-SS-0.0-0.5  
SL-064-SA5DN-SB-4.0-5.0  
SL-065-SA5DN-SB-4.0-5.0  
SL-065-SA5DN-SB-7.0-8.0  
SL-086-SA5DN-SB-4.0-5.0  
SL-020-SA5DN-SS-0.0-0.5MS  
SL-020-SA5DN-SS-0.0-0.5MSD

## Introduction

This data review covers 20 soil samples 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.

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 with the following exceptions:

Sample	Column	Surrogate	%R (Limits)	Compound	Flag	A or P
SL-024-SA5DN-SS-0.0-0.5	Not specified	Butyraldehyde	128 (64-126)	All TCL compounds	J (all detects)	P

## 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.

**Santa Susana Field Laboratory**  
**Formaldehyde - Data Qualification Summary - SDG DE158**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE158	SL-024-SA5DN-SS-0.0-0.5	All TCL compounds	J (all detects)	P	Surrogate spikes (%R) (S)
DE158	SL-020-SA5DN-SS-0.0-0.5 SL-024-SA5DN-SS-0.0-0.5 SL-025-SA5DN-SS-0.0-0.5 SL-026-SA5DN-SS-0.0-0.5 SL-027-SA5DN-SS-0.0-0.5 SL-028-SA5DN-SS-0.0-0.5 SL-029-SA5DN-SS-0.0-0.5 SL-036-SA5DN-SS-0.0-0.5 SL-037-SA5DN-SS-0.0-0.5 SL-038-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-040-SA5DN-SS-0.0-0.5 SL-044-SA5DN-SS-0.0-0.5 SL-051-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0	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 DE158**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory**  
**Formaldehyde - Field Blank Data Qualification Summary - SDG DE158**

No Sample Data Qualified in this SDG

LDC #: 26275Q71 **VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE158

Level IV

Laboratory: Lancaster Laboratories

Date: 10/2/11

Page: 1 of 1

Reviewer: FJ

2nd Reviewer: J

**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: 5/20/11
II.	Initial calibration	A	% PSD $\leq 20$ $r^2$
III.	Calibration verification/IDV	A	CCV $\leq 20$
IV.	Blanks	A	
V.	Surrogate recovery	SW	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound quantitation/RI/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-020-SA5DN-SS-0.0-0.5	11	SL-039-SA5DN-SS-0.0-0.5	21	PB LK 02145	31	
2	SL-024-SA5DN-SS-0.0-0.5	12	SL-040-SA5DN-SS-0.0-0.5	22		32	
3	SL-025-SA5DN-SS-0.0-0.5	13	SL-044-SA5DN-SS-0.0-0.5	23		33	
4	SL-026-SA5DN-SS-0.0-0.5	14	SL-051-SA5DN-SS-0.0-0.5	24		34	
5	SL-027-SA5DN-SS-0.0-0.5	15	SL-064-SA5DN-SB-4.0-5.0	25		35	
6	SL-028-SA5DN-SS-0.0-0.5	16	SL-065-SA5DN-SB-4.0-5.0	26		36	
7	SL-029-SA5DN-SS-0.0-0.5	17	SL-065-SA5DN-SB-7.0-8.0	27		37	
8	SL-036-SA5DN-SS-0.0-0.5	18	SL-086-SA5DN-SB-4.0-5.0	28		38	
9	SL-037-SA5DN-SS-0.0-0.5	19	#1 MS	29		39	
10	SL-038-SA5DN-SS-0.0-0.5	20	#1 MS 17	30		40	

Notes:

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DC #: 26275871  
 SDG #: per owner

# VALIDATION FINDINGS CHECKLIST

Page: / of 2  
 Reviewer: F1  
 2nd Reviewer: g

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20%, 0 or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

DC #: 70275271  
SDG #: per count

# VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
Reviewer: F7  
2nd Reviewer: 9

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
XII. System performance				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
XV. Field blanks				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

## VALIDATION FINDINGS WORKSHEET

## Surrogate Recovery

**METHOD:** GC HPLC

Are surrogates required by the method? Yes \_\_\_ or No \_\_\_

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

Were surrogates spiked into all samples and blanks?

Y/N	W/A	Did all surrogate recoveries (%R) meet the QC limits?
Y	N	W/A

#	Sample ID	Detector/ Column	Surrogate Compound	%R (Limits)		Qualifications
2		NS	Butyraldehyde	128	(64-126)	J/Pdet (S)
				( )	( )	
				( )	( )	
				( )	( )	
				( )	( )	
				( )	( )	
				( )	( )	
				( )	( )	
				( )	( )	
				( )	( )	
				( )	( )	
				( )	( )	
				( )	( )	
				( )	( )	
				( )	( )	
				( )	( )	
				( )	( )	
				( )	( )	
				( )	( )	
A	Chlorobenzene (CBZ)	G	Octacosane	M	S	Tetrachloro-m-xylene
B	4-Bromofluorobenzene (BFB)	H	Ortho-Terphenyl	N	T	
C	a,a-a-Trifluorotoluene	I	Fluorobenzene (Fbz)	O	U	Triphenyltin
D	Bromo-chlorobenene	J	n-Triacontane	P	V	Tri-n-propyllin
E	1,4-Dichlorobutane	K	Hexacosane	Q	W	Tributyl Phosphate
F	1,4-Difluorobenzene (DFB)	L	Bromobenzene	R	X	Triphenyl Phosphate

LDC #: 26275071  
SDG #: JMC

VALIDATION FINDINGS WORKSHEET  
Initial Calibration Calculation Verification

Page: 1 of 1  
Reviewer: PJ  
2nd Reviewer: R

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 =  $100 \cdot (S/X)$   
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	
				2002 CF (std)	2002 CF (std)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD	Average CF (Initial)	%RSD
1	5/26/11 1CAL	5/26/11	Formaldehyde	7.74 x 10 <sup>-1</sup>	7.74 x 10 <sup>-1</sup>	8.19 x 10 <sup>-1</sup>	8.19 x 10 <sup>-1</sup>	8.5	8.5	8.19 x 10 <sup>-1</sup>	8.5
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.

# VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

LDC #: 26275671  
SDG #: 20 Conn

Page: 1 of 7  
Reviewer: FP  
2nd Reviewer: R

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 =  $100 \times (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  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 (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	1F4146.31	5/27/11	formaldehyde	2002.00	1821.88	9.0	1821.88	9.0
	1F4146.42	5/27/11	↓	✓	1868.05	6.7	1868.05	6.7
2	1F4146.53	5/27/11	↓	✓	1779.34	11.1	1779.34	11.1
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.

VALIDATION FINDINGS WORKSHEET I  
Surrogate Results Verification

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery:  $SF/SS \times 100$   
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	1000	4762.77	120	119	1

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	

### Matrix Spike/Matrix Spike Duplicates Results Verification

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:

$$\% \text{Recovery} = 100 \cdot (\text{SSC} - \text{SC}) / \text{SA}$$
 Where  
 SSC = Spiked sample concentration  
 SA = Spike added  

$$\text{RPD} = (((\text{SSCMS} \cdot \text{SSCMSD}) \cdot 2) / (\text{SSCMS} + \text{SSCMSD}))^{1/2} \cdot 100$$
 MS = Matrix spike  
 MSD = Matrix spike duplicate  
 SC = Sample concentration  
 SSC = Sample concentration

MS/MSD samples: 19 &amp; 20

[illegible]

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.

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 =  $100 \times (SSC - SC) / SA$   
RPD =  $100 \times |LCS - LCSD| / ((LCS + LCSD) / 2)$

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: LCS02/45

Compound	Spike Added Concentration (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS		LCSD		Percent Recovery		LCS		Percent Recovery		LCS		Percent Recovery		LCS		Percent Recovery		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	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	5010	NA	4453.72	NA	89	89	NA	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.



METHOD: GC HPLC

Were all reported results recalculated and verified for all level IV samples?

X/A	Z/A
Z	Z
Y	Y

$$\text{Concentration} = \frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$$

**Example:**

Sample ID. \_\_\_\_\_  
Compound Name \_\_\_\_\_

A= Area or height of the compound to be measured  
FV= Final Volume of extract  
Df= Dilution Factor

Concentration = \_\_\_\_\_

**VS=** Initial volume of the sample  
**WS=** Initial weight of the sample  
**%S=** Percent Solid

24

[illegible]Comments:  
  
\_\_\_\_\_  
\_\_\_\_\_

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Santa Susana Field Laboratory

**Collection Date:** May 20, 2011

**LDC Report Date:** September 30, 2011

**Matrix:** Soil

**Parameters:** Perchlorate

**Validation Level:** Level IV

**Laboratory:** Lancaster Laboratories

**Sample Delivery Group (SDG):** DE158

**Sample Identification**

SL-025-SA5DN-SS-0.0-0.5  
SL-039-SA5DN-SS-0.0-0.5  
SL-064-SA5DN-SB-4.0-5.0  
SL-065-SA5DN-SB-7.0-8.0  
SL-086-SA5DN-SB-4.0-5.0  
SL-088-SA5DN-SB-4.0-5.0

## **Introduction**

This data review covers 6 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6850 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 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.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination ( $r^2$ ) was greater than or equal to 0.990 .

## **IV. Continuing Calibration**

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 15.0% for unlabeled compounds and less than or equal to 50.0% for labeled compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 15.0% for unlabeled compounds and less than or equal to 50.0% for labeled compounds.

The percent differences (%D) of the limit of detection verification (LODV) calibration standard were less than or equal to 50.0% for perchlorate.

## **V. Blanks**

Method blanks were reviewed for each matrix as applicable. No perchlorate was found in the method blanks.

No field blanks were identified in this SDG.

## **VI. Surrogate Spikes**

Surrogate spikes were not required by the method.

## **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) 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 DE158	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**  
**Perchlorate - Data Qualification Summary - SDG DE158**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE158	SL-025-SA5DN-SS-0.0-0.5 SL-039-SA5DN-SS-0.0-0.5 SL-064-SA5DN-SB-4.0-5.0 SL-065-SA5DN-SB-7.0-8.0 SL-086-SA5DN-SB-4.0-5.0 SL-088-SA5DN-SB-4.0-5.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

**Santa Susana Field Laboratory**  
**Perchlorate - Laboratory Blank Data Qualification Summary - SDG DE158**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory**  
**Perchlorate - Field Blank Data Qualification Summary - SDG DE158**

No Sample Data Qualified in this SDG

**METHOD:** LC/MS Perchlorate (EPA SW846 Method 6850)

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: 5/20/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	
IV.	Continuing calibration/ICV	A	$r^2_{ICV} \geq 0.95$ / $CV \leq 15/50$ $LODV \leq 50$
V.	Blanks	A	
VI.	Surrogate spikes	N	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LC5
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	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:

8012

1	SL-025-SA5DN-SS-0.0-0.5	11	PB LK 24143	21		31	
2	SL-039-SA5DN-SS-0.0-0.5	12		22		32	
3	SL-064-SA5DN-SB-4.0-5.0	13		23		33	
4	SL-065-SA5DN-SB-7.0-8.0	14		24		34	
5	SL-086-SA5DN-SB-4.0-5.0	15		25		35	
6	SL-088-SA5DN-SB-4.0-5.0	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	



LDC #: 2625687

## VALIDATION FINDINGS CHECKLIST

Page: 1 of 2

Reviewer: FT

2nd Reviewer: J

Perchlorate

Method 685D

Method: Semivolatiles (EPA SW-846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	/			
Cooler temperature criteria was met.	/			
<b>II. CCMS instrument performance</b>				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	/			
Were all samples analyzed within the 12 hour clock criteria?	/			
<b>III. Initial calibration</b>				
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) $> 0.05$ ?			/	
<b>IV. Continuing calibration</b>				
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) $\geq 0.05$ ?	/			15/20
<b>V. Blanks</b>				
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.			/	
<b>VI. Surrogate recovery</b>				
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?				
<b>VII. Matrix spike and duplicate</b>				
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?			/	
<b>VIII. LCS</b>				
Was an LCS analyzed for this SDG?	/			

LDC #: 26275687

## VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
Reviewer: FT  
2nd Reviewer: J

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?	/			
<b>IX. Regional Quality Assurance for Quality Control</b>				
Were performance evaluation (PE) samples performed?			/	
Were the performance evaluation (PE) samples within the acceptance limits?			/	
<b>X. Internal Standards</b>				
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?	/			
<b>XI. Spectra Comparisons</b>				
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?	/			
<b>XII. Quantitation</b>				
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?	/			
<b>XIII. Reference Spectra</b>				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			/	
Were relative intensities of the major ions within $\pm$ 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)?			/	
<b>System Performance</b>				
System performance was found to be acceptable.	/			
<b>Overall Assessment</b>				
Overall assessment of data was found to be acceptable.	/			
<b>Field Duplicates</b>				
Field duplicate pairs were identified in this SDG.		/		
Target compounds were detected in the field duplicates.			/	
<b>Field Blanks</b>				
Field blanks were identified in this SDG.		/		
Target compounds were detected in the field blanks.			/	

LDC # 26275087  
SDG# per coner

**VALIDATION FINDINGS WORKSHEET**  
**Initial Calibration Calculation Verification**

Page: 6 of 1  
Reviewer: per  
2nd Reviewer: per

**METHOD:** Method 6850

**Parameter:** perchlorate

Date	Column	Compound	y	x
05/27/2011	LCMS	perchlorate	0.0197	0.020
			0.0417	0.040
			0.1006	0.100
			0.2118	0.200
			0.4205	0.400
			1.0531	1.000
			2.6124	2.500

Regression Output:		Regression Output:	Reported
Constant		0.00064	6.4288E-004
Std Err of Y Est		0.00411	
R Squared		0.99998	0.99999
No. of Observations		7.00000	
Degrees of Freedom		5.00000	
X Coefficient(s)	1.046E+000		0.10460
Std Err of Coef.	0.001861	0.04	

LDC #: 26275687

# VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

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

**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:

$$\% \text{ Difference} = 100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$$

$$\text{RRF} = (A_x / C_x) / (A_{is} / C_{is})$$

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		Recalculated	
					RRF (CC)	%D	RRF (CC)	%D
1	MS-1010	5/26/11	Phenol (1st internal standard) <del>Perchlorate</del>	4	4.2	5	4.2	5
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
	MS-1021	↓	Pentachlorophenol (4th internal standard) ↓	0.4	0.42	5	0.42	5
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			<del>Benzo(a)pyrene (6th internal standard)</del>					
2	MS-1032	↓	Phenol (1st internal standard) ↓	4	4.1	2	4.1	2
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			<del>Benzo(a)pyrene (6th internal standard)</del>					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			<del>Benzo(a)pyrene (6th internal standard)</del>					

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.

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification**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:

$$\% \text{ Recovery} = 100 * (\text{SC}/\text{SA})$$

Where: SSC = Spike concentration  
SA = Spike added

$$\text{RPD} = | \text{LCSC} - \text{LCSDC} | * 2 / (\text{LCSC} + \text{LCSDC})$$

LCSC = Laboratory control sample concentration    LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LC5 24143

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS		LCSD		Percent Recovery		LCS		Percent Recovery		LCS		Percent Recovery		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Phenol																				
N-Nitroso-di-n-propylamine																				
4-Chloro-3-methylphenol																				
Acenaphthene																				
Pentachlorophenol																				
Pyrene																				
Perchlorate	100	NA	104	NA					104	104										

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 #: 26275987

## VALIDATION FINDINGS WORKSHEET

### Sample Calculation Verification

Page: 1 of 1

Reviewer: FT

2nd reviewer: A

**METHOD:** GC/MS BNA (EPA SW 846 Method 8270)

Y N ~~N/A~~

Y	N	N/A
---	---	-----

Were all reported results recalculated and verified for all level IV samples?

Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

$$\text{Concentration} = \frac{(A_x)(I_s)(V_i)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$$

$A_x$  = 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. \_\_\_\_\_, \_\_\_\_\_:

$$\text{Conc.} = \frac{(\quad)(\quad)(\quad)(\quad)}{(\quad)(\quad)(\quad)(\quad)}$$

7

[illegible]

# **SAMPLE DELIVERY GROUP**

**DE160**

## **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-May-2011	SL-018-SA5DN-SS-0.0-0.5	6297559	N	3050B	6010B	III
23-May-2011	SL-018-SA5DN-SS-0.0-0.5	6297559	N	3050B	6020	III
23-May-2011	SL-018-SA5DN-SS-0.0-0.5	6297559	N	3060A	7199	III
23-May-2011	SL-018-SA5DN-SS-0.0-0.5	6297559	N	3546	1625C	III
23-May-2011	SL-018-SA5DN-SS-0.0-0.5	6297559	N	3550B	8015B	III
23-May-2011	SL-018-SA5DN-SS-0.0-0.5	6297559	N	3550B	8015M	III
23-May-2011	SL-018-SA5DN-SS-0.0-0.5	6297559	N	3550B	8081A	III
23-May-2011	SL-018-SA5DN-SS-0.0-0.5	6297559	N	3550B	8082	III
23-May-2011	SL-018-SA5DN-SS-0.0-0.5	6297559	N	3550B	8151A	III
23-May-2011	SL-018-SA5DN-SS-0.0-0.5	6297559	N	3550B	8270C	III
23-May-2011	SL-018-SA5DN-SS-0.0-0.5	6297559	N	3550B	8270C SIM	III
23-May-2011	SL-018-SA5DN-SS-0.0-0.5	6297559	N	8330	8330A	III
23-May-2011	SL-018-SA5DN-SS-0.0-0.5	6297559	N	METHOD	300.0	III
23-May-2011	SL-018-SA5DN-SS-0.0-0.5	6297559	N	METHOD	314.0	III
23-May-2011	SL-018-SA5DN-SS-0.0-0.5	6297559	N	METHOD	6850	III
23-May-2011	SL-018-SA5DN-SS-0.0-0.5	6297559	N	METHOD	7471A	III
23-May-2011	SL-018-SA5DN-SS-0.0-0.5	6297559	N	METHOD	8015B	III
23-May-2011	SL-018-SA5DN-SS-0.0-0.5	6297559	N	METHOD	8015M	III
23-May-2011	SL-018-SA5DN-SS-0.0-0.5	6297559	N	METHOD	8315A	III
23-May-2011	SL-018-SA5DN-SS-0.0-0.5	6297559	N	METHOD	9012B	III
23-May-2011	SL-014-SA5DN-SS-0.0-0.5	6297558	N	3050B	6010B	III
23-May-2011	SL-014-SA5DN-SS-0.0-0.5	6297558	N	3050B	6020	III
23-May-2011	SL-014-SA5DN-SS-0.0-0.5	6297558	N	3060A	7199	III
23-May-2011	SL-014-SA5DN-SS-0.0-0.5	6297558	N	3546	1625C	III
23-May-2011	SL-014-SA5DN-SS-0.0-0.5	6297558	N	3550B	8015B	III
23-May-2011	SL-014-SA5DN-SS-0.0-0.5	6297558	N	3550B	8015M	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-May-2011	SL-014-SA5DN-SS-0.0-0.5	6297558	N	3550B	8081A	III
23-May-2011	SL-014-SA5DN-SS-0.0-0.5	6297558	N	3550B	8082	III
23-May-2011	SL-014-SA5DN-SS-0.0-0.5	6297558	N	3550B	8151A	III
23-May-2011	SL-014-SA5DN-SS-0.0-0.5	6297558	N	3550B	8270C	III
23-May-2011	SL-014-SA5DN-SS-0.0-0.5	6297558	N	3550B	8270C SIM	III
23-May-2011	SL-014-SA5DN-SS-0.0-0.5	6297558	N	8330	8330A	III
23-May-2011	SL-014-SA5DN-SS-0.0-0.5	6297558	N	METHOD	300.0	III
23-May-2011	SL-014-SA5DN-SS-0.0-0.5	6297558	N	METHOD	314.0	III
23-May-2011	SL-014-SA5DN-SS-0.0-0.5	6297558	N	METHOD	6850	III
23-May-2011	SL-014-SA5DN-SS-0.0-0.5	6297558	N	METHOD	7471A	III
23-May-2011	SL-014-SA5DN-SS-0.0-0.5	6297558	N	METHOD	8015B	III
23-May-2011	SL-014-SA5DN-SS-0.0-0.5	6297558	N	METHOD	8015M	III
23-May-2011	SL-014-SA5DN-SS-0.0-0.5	6297558	N	METHOD	8315A	III
23-May-2011	SL-014-SA5DN-SS-0.0-0.5	6297558	N	METHOD	9012B	III
23-May-2011	SL-013-SA5DN-SS-0.0-0.5	6297557	N	3050B	6010B	III
23-May-2011	SL-013-SA5DN-SS-0.0-0.5	6297557	N	3050B	6020	III
23-May-2011	SL-013-SA5DN-SS-0.0-0.5	6297557	N	3060A	7199	III
23-May-2011	SL-013-SA5DN-SS-0.0-0.5	6297557	N	3546	1625C	III
23-May-2011	SL-013-SA5DN-SS-0.0-0.5	6297557	N	3550B	8015B	III
23-May-2011	SL-013-SA5DN-SS-0.0-0.5	6297557	N	3550B	8015M	III
23-May-2011	SL-013-SA5DN-SS-0.0-0.5	6297557	N	3550B	8081A	III
23-May-2011	SL-013-SA5DN-SS-0.0-0.5	6297557	N	3550B	8082	III
23-May-2011	SL-013-SA5DN-SS-0.0-0.5	6297557	N	3550B	8151A	III
23-May-2011	SL-013-SA5DN-SS-0.0-0.5	6297557	N	3550B	8270C	III
23-May-2011	SL-013-SA5DN-SS-0.0-0.5	6297557	N	3550B	8270C SIM	III
23-May-2011	SL-013-SA5DN-SS-0.0-0.5	6297557	N	8330	8330A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-May-2011	SL-013-SA5DN-SS-0.0-0.5	6297557	N	METHOD	300.0	III
23-May-2011	SL-013-SA5DN-SS-0.0-0.5	6297557	N	METHOD	314.0	III
23-May-2011	SL-013-SA5DN-SS-0.0-0.5	6297557	N	METHOD	6850	III
23-May-2011	SL-013-SA5DN-SS-0.0-0.5	6297557	N	METHOD	7471A	III
23-May-2011	SL-013-SA5DN-SS-0.0-0.5	6297557	N	METHOD	8015B	III
23-May-2011	SL-013-SA5DN-SS-0.0-0.5	6297557	N	METHOD	8015M	III
23-May-2011	SL-013-SA5DN-SS-0.0-0.5	6297557	N	METHOD	8315A	III
23-May-2011	SL-013-SA5DN-SS-0.0-0.5	6297557	N	METHOD	9012B	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5	6297556	N	3050B	6010B	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5	6297556	N	3050B	6020	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5	6297556	N	3060A	7199	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5	6297556	N	3546	1625C	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5	6297556	N	3550B	8015B	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5	6297556	N	3550B	8015M	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5	6297556	N	3550B	8081A	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5	6297556	N	3550B	8082	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5	6297556	N	3550B	8151A	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5	6297556	N	3550B	8270C	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5	6297556	N	3550B	8270C SIM	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5	6297556	N	8330	8330A	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5	6297556	N	METHOD	300.0	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5	6297556	N	METHOD	314.0	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5	6297556	N	METHOD	6850	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5	6297556	N	METHOD	7471A	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5	6297556	N	METHOD	8015B	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5	6297556	N	METHOD	8015M	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-May-2011	SL-012-SA5DN-SS-0.0-0.5	6297556	N	METHOD	8315A	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5	6297556	N	METHOD	9012B	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5DU	P297556D270850A	DUP	METHOD	9012B	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5MS	P297556R261327	MS	3546	1625C	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5MS	P297556R270851A	MS	METHOD	9012B	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5MS	P297556R320027A	MS	METHOD	8015M	III
23-May-2011	SL-012-SA5DN-SS-0.0-0.5MS	P297556R320029A	MS	3550B	8015M	III
23-May-2011	SL-011-SA5DN-SS-0.0-0.5	6297555	N	3050B	6010B	III
23-May-2011	SL-011-SA5DN-SS-0.0-0.5	6297555	N	3050B	6020	III
23-May-2011	SL-011-SA5DN-SS-0.0-0.5	6297555	N	3060A	7199	III
23-May-2011	SL-011-SA5DN-SS-0.0-0.5	6297555	N	3550B	8081A	III
23-May-2011	SL-011-SA5DN-SS-0.0-0.5	6297555	N	3550B	8082	III
23-May-2011	SL-011-SA5DN-SS-0.0-0.5	6297555	N	3550B	8151A	III
23-May-2011	SL-011-SA5DN-SS-0.0-0.5	6297555	N	3550B	8270C	III
23-May-2011	SL-011-SA5DN-SS-0.0-0.5	6297555	N	3550B	8270C SIM	III
23-May-2011	SL-011-SA5DN-SS-0.0-0.5	6297555	N	METHOD	300.0	III
23-May-2011	SL-011-SA5DN-SS-0.0-0.5	6297555	N	METHOD	314.0	III
23-May-2011	SL-011-SA5DN-SS-0.0-0.5	6297555	N	METHOD	7471A	III
23-May-2011	SL-010-SA5DN-SS-0.0-0.5	6297554	N	3050B	6010B	III
23-May-2011	SL-010-SA5DN-SS-0.0-0.5	6297554	N	3050B	6020	III
23-May-2011	SL-010-SA5DN-SS-0.0-0.5	6297554	N	3060A	7199	III
23-May-2011	SL-010-SA5DN-SS-0.0-0.5	6297554	N	3550B	8081A	III
23-May-2011	SL-010-SA5DN-SS-0.0-0.5	6297554	N	3550B	8082	III
23-May-2011	SL-010-SA5DN-SS-0.0-0.5	6297554	N	3550B	8151A	III
23-May-2011	SL-010-SA5DN-SS-0.0-0.5	6297554	N	3550B	8270C	III
23-May-2011	SL-010-SA5DN-SS-0.0-0.5	6297554	N	3550B	8270C SIM	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

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-May-2011	SL-010-SA5DN-SS-0.0-0.5	6297554	N	METHOD	300.0	III
23-May-2011	SL-010-SA5DN-SS-0.0-0.5	6297554	N	METHOD	314.0	III
23-May-2011	SL-010-SA5DN-SS-0.0-0.5	6297554	N	METHOD	7471A	III
23-May-2011	SL-010-SA5DN-SS-0.0-0.5DU	P297554D220506	DUP	3050B	6010B	III
23-May-2011	SL-010-SA5DN-SS-0.0-0.5MS	P297554R220639	MS	3050B	6010B	III
23-May-2011	SL-010-SA5DN-SS-0.0-0.5MS	P297554R240624A	MS	3550B	8151A	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5	6297552	N	3050B	6010B	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5	6297552	N	3050B	6020	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5	6297552	N	3060A	7199	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5	6297552	N	3550B	8081A	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5	6297552	N	3550B	8082	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5	6297552	N	3550B	8151A	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5	6297552	N	3550B	8270C	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5	6297552	N	3550B	8270C SIM	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5	6297552	N	METHOD	300.0	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5	6297552	N	METHOD	314.0	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5	6297552	N	METHOD	7471A	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5DU	P297552D220229	DUP	3050B	6010B	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5DU	P297552D221512	DUP	METHOD	7471A	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5DU	P297552D221534A	DUP	3050B	6020	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5DU	P297552D221534B	DUP	3050B	6020	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5DU	P297552D221534C	DUP	3050B	6020	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5DU	P297552D221534D	DUP	3050B	6020	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5DU	P297552D270125A	DUP	METHOD	300.0	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5DU	P297552D270940A	DUP	METHOD	314.0	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5DU	P297552D272100A	DUP	3060A	7199	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-May-2011	SL-008-SA5DN-SS-0.0-0.5MS	P297552M221540D	MS	3050B	6020	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5MS	P297552M221921A	MS	3050B	6020	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5MS	P297552M241919A	MS	3550B	8082	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5MS	P297552M260109	MS	3550B	8270C SIM	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5MS	P297552M260146	MS	3550B	8270C	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5MS	P297552R220234	MS	3050B	6010B	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5MS	P297552R221513	MS	METHOD	7471A	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5MS	P297552R221537B	MS	3050B	6020	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5MS	P297552R221537C	MS	3050B	6020	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5MS	P297552R270208A	MS	METHOD	300.0	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5MS	P297552R271002A	MS	METHOD	314.0	III
23-May-2011	SL-008-SA5DN-SS-0.0-0.5MS	P297552R272014A	MS	3060A	7199	III
23-May-2011	SL-009-SA5DN-SS-0.0-0.5	6297553	N	3050B	6010B	III
23-May-2011	SL-009-SA5DN-SS-0.0-0.5	6297553	N	3050B	6020	III
23-May-2011	SL-009-SA5DN-SS-0.0-0.5	6297553	N	3060A	7199	III
23-May-2011	SL-009-SA5DN-SS-0.0-0.5	6297553	N	3550B	8081A	III
23-May-2011	SL-009-SA5DN-SS-0.0-0.5	6297553	N	3550B	8082	III
23-May-2011	SL-009-SA5DN-SS-0.0-0.5	6297553	N	3550B	8151A	III
23-May-2011	SL-009-SA5DN-SS-0.0-0.5	6297553	N	3550B	8270C	III
23-May-2011	SL-009-SA5DN-SS-0.0-0.5	6297553	N	3550B	8270C SIM	III
23-May-2011	SL-009-SA5DN-SS-0.0-0.5	6297553	N	METHOD	300.0	III
23-May-2011	SL-009-SA5DN-SS-0.0-0.5	6297553	N	METHOD	314.0	III
23-May-2011	SL-009-SA5DN-SS-0.0-0.5	6297553	N	METHOD	7471A	III
23-May-2011	SL-009-SA5DN-SS-0.0-0.5MS	P297553R241752A	MS	3550B	8081A	III
24-May-2011	SL-198-SA5DN-SS-0.0-0.5	6297571	N	3050B	6010B	III
24-May-2011	SL-198-SA5DN-SS-0.0-0.5	6297571	N	3050B	6020	III

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MSD = Matrix Spike Duplicate

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-May-2011	SL-198-SA5DN-SS-0.0-0.5	6297571	N	3060A	7199	III
24-May-2011	SL-198-SA5DN-SS-0.0-0.5	6297571	N	3546	1625C	III
24-May-2011	SL-198-SA5DN-SS-0.0-0.5	6297571	N	3550B	8015B	III
24-May-2011	SL-198-SA5DN-SS-0.0-0.5	6297571	N	3550B	8015M	III
24-May-2011	SL-198-SA5DN-SS-0.0-0.5	6297571	N	3550B	8081A	III
24-May-2011	SL-198-SA5DN-SS-0.0-0.5	6297571	N	3550B	8082	III
24-May-2011	SL-198-SA5DN-SS-0.0-0.5	6297571	N	3550B	8151A	III
24-May-2011	SL-198-SA5DN-SS-0.0-0.5	6297571	N	3550B	8270C	III
24-May-2011	SL-198-SA5DN-SS-0.0-0.5	6297571	N	3550B	8270C SIM	III
24-May-2011	SL-198-SA5DN-SS-0.0-0.5	6297571	N	8330	8330A	III
24-May-2011	SL-198-SA5DN-SS-0.0-0.5	6297571	N	METHOD	300.0	III
24-May-2011	SL-198-SA5DN-SS-0.0-0.5	6297571	N	METHOD	314.0	III
24-May-2011	SL-198-SA5DN-SS-0.0-0.5	6297571	N	METHOD	7471A	III
24-May-2011	SL-198-SA5DN-SS-0.0-0.5	6297571	N	METHOD	8015B	III
24-May-2011	SL-198-SA5DN-SS-0.0-0.5	6297571	N	METHOD	8015M	III
24-May-2011	SL-198-SA5DN-SS-0.0-0.5	6297571	N	METHOD	8315A	III
24-May-2011	SL-198-SA5DN-SS-0.0-0.5	6297571	N	METHOD	9012B	III
24-May-2011	SL-196-SA5DN-SS-0.0-0.5	6297569	N	3050B	6010B	III
24-May-2011	SL-196-SA5DN-SS-0.0-0.5	6297569	N	3050B	6020	III
24-May-2011	SL-196-SA5DN-SS-0.0-0.5	6297569	N	3060A	7199	III
24-May-2011	SL-196-SA5DN-SS-0.0-0.5	6297569	N	3550B	8081A	III
24-May-2011	SL-196-SA5DN-SS-0.0-0.5	6297569	N	3550B	8082	III
24-May-2011	SL-196-SA5DN-SS-0.0-0.5	6297569	N	3550B	8151A	III
24-May-2011	SL-196-SA5DN-SS-0.0-0.5	6297569	N	3550B	8270C	III
24-May-2011	SL-196-SA5DN-SS-0.0-0.5	6297569	N	3550B	8270C SIM	III
24-May-2011	SL-196-SA5DN-SS-0.0-0.5	6297569	N	METHOD	300.0	III

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MSD = Matrix Spike Duplicate

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-May-2011	SL-196-SA5DN-SS-0.0-0.5	6297569	N	METHOD	314.0	III
24-May-2011	SL-196-SA5DN-SS-0.0-0.5	6297569	N	METHOD	7471A	III
24-May-2011	SL-197-SA5DN-SS-0.0-0.5	6297570	N	3050B	6010B	III
24-May-2011	SL-197-SA5DN-SS-0.0-0.5	6297570	N	3050B	6020	III
24-May-2011	SL-197-SA5DN-SS-0.0-0.5	6297570	N	3060A	7199	III
24-May-2011	SL-197-SA5DN-SS-0.0-0.5	6297570	N	3546	1625C	III
24-May-2011	SL-197-SA5DN-SS-0.0-0.5	6297570	N	3550B	8015B	III
24-May-2011	SL-197-SA5DN-SS-0.0-0.5	6297570	N	3550B	8015M	III
24-May-2011	SL-197-SA5DN-SS-0.0-0.5	6297570	N	3550B	8081A	III
24-May-2011	SL-197-SA5DN-SS-0.0-0.5	6297570	N	3550B	8082	III
24-May-2011	SL-197-SA5DN-SS-0.0-0.5	6297570	N	3550B	8151A	III
24-May-2011	SL-197-SA5DN-SS-0.0-0.5	6297570	N	3550B	8270C	III
24-May-2011	SL-197-SA5DN-SS-0.0-0.5	6297570	N	3550B	8270C SIM	III
24-May-2011	SL-197-SA5DN-SS-0.0-0.5	6297570	N	8330	8330A	III
24-May-2011	SL-197-SA5DN-SS-0.0-0.5	6297570	N	METHOD	300.0	III
24-May-2011	SL-197-SA5DN-SS-0.0-0.5	6297570	N	METHOD	314.0	III
24-May-2011	SL-197-SA5DN-SS-0.0-0.5	6297570	N	METHOD	7471A	III
24-May-2011	SL-197-SA5DN-SS-0.0-0.5	6297570	N	METHOD	8015B	III
24-May-2011	SL-197-SA5DN-SS-0.0-0.5	6297570	N	METHOD	8015M	III
24-May-2011	SL-197-SA5DN-SS-0.0-0.5	6297570	N	METHOD	8315A	III
24-May-2011	SL-197-SA5DN-SS-0.0-0.5	6297570	N	METHOD	9012B	III
24-May-2011	SL-195-SA5DN-SS-0.0-0.5	6297568	N	3050B	6010B	III
24-May-2011	SL-195-SA5DN-SS-0.0-0.5	6297568	N	3050B	6020	III
24-May-2011	SL-195-SA5DN-SS-0.0-0.5	6297568	N	3060A	7199	III
24-May-2011	SL-195-SA5DN-SS-0.0-0.5	6297568	N	3550B	8081A	III
24-May-2011	SL-195-SA5DN-SS-0.0-0.5	6297568	N	3550B	8082	III



## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-May-2011	SL-195-SA5DN-SS-0.0-0.5	6297568	N	3550B	8151A	III
24-May-2011	SL-195-SA5DN-SS-0.0-0.5	6297568	N	3550B	8270C	III
24-May-2011	SL-195-SA5DN-SS-0.0-0.5	6297568	N	3550B	8270C SIM	III
24-May-2011	SL-195-SA5DN-SS-0.0-0.5	6297568	N	METHOD	300.0	III
24-May-2011	SL-195-SA5DN-SS-0.0-0.5	6297568	N	METHOD	314.0	III
24-May-2011	SL-195-SA5DN-SS-0.0-0.5	6297568	N	METHOD	7471A	III
24-May-2011	SL-191-SA5DN-SS-0.0-0.5	6297564	N	3050B	6010B	III
24-May-2011	SL-191-SA5DN-SS-0.0-0.5	6297564	N	3050B	6020	III
24-May-2011	SL-191-SA5DN-SS-0.0-0.5	6297564	N	3060A	7199	III
24-May-2011	SL-191-SA5DN-SS-0.0-0.5	6297564	N	3546	1625C	III
24-May-2011	SL-191-SA5DN-SS-0.0-0.5	6297564	N	3550B	8015B	III
24-May-2011	SL-191-SA5DN-SS-0.0-0.5	6297564	N	3550B	8015M	III
24-May-2011	SL-191-SA5DN-SS-0.0-0.5	6297564	N	3550B	8081A	III
24-May-2011	SL-191-SA5DN-SS-0.0-0.5	6297564	N	3550B	8082	III
24-May-2011	SL-191-SA5DN-SS-0.0-0.5	6297564	N	3550B	8151A	III
24-May-2011	SL-191-SA5DN-SS-0.0-0.5	6297564	N	3550B	8270C	III
24-May-2011	SL-191-SA5DN-SS-0.0-0.5	6297564	N	3550B	8270C SIM	III
24-May-2011	SL-191-SA5DN-SS-0.0-0.5	6297564	N	8330	8330A	III
24-May-2011	SL-191-SA5DN-SS-0.0-0.5	6297564	N	METHOD	300.0	III
24-May-2011	SL-191-SA5DN-SS-0.0-0.5	6297564	N	METHOD	314.0	III
24-May-2011	SL-191-SA5DN-SS-0.0-0.5	6297564	N	METHOD	7471A	III
24-May-2011	SL-191-SA5DN-SS-0.0-0.5	6297564	N	METHOD	8015B	III
24-May-2011	SL-191-SA5DN-SS-0.0-0.5	6297564	N	METHOD	8015M	III
24-May-2011	SL-191-SA5DN-SS-0.0-0.5	6297564	N	METHOD	8315A	III
24-May-2011	SL-191-SA5DN-SS-0.0-0.5	6297564	N	METHOD	9012B	III
24-May-2011	SL-192-SA5DN-SS-0.0-0.5	6297565	N	3050B	6010B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-May-2011	SL-192-SA5DN-SS-0.0-0.5	6297565	N	3050B	6020	III
24-May-2011	SL-192-SA5DN-SS-0.0-0.5	6297565	N	3060A	7199	III
24-May-2011	SL-192-SA5DN-SS-0.0-0.5	6297565	N	3546	1625C	III
24-May-2011	SL-192-SA5DN-SS-0.0-0.5	6297565	N	3550B	8015B	III
24-May-2011	SL-192-SA5DN-SS-0.0-0.5	6297565	N	3550B	8015M	III
24-May-2011	SL-192-SA5DN-SS-0.0-0.5	6297565	N	3550B	8081A	III
24-May-2011	SL-192-SA5DN-SS-0.0-0.5	6297565	N	3550B	8082	III
24-May-2011	SL-192-SA5DN-SS-0.0-0.5	6297565	N	3550B	8151A	III
24-May-2011	SL-192-SA5DN-SS-0.0-0.5	6297565	N	3550B	8270C	III
24-May-2011	SL-192-SA5DN-SS-0.0-0.5	6297565	N	3550B	8270C SIM	III
24-May-2011	SL-192-SA5DN-SS-0.0-0.5	6297565	N	8330	8330A	III
24-May-2011	SL-192-SA5DN-SS-0.0-0.5	6297565	N	METHOD	300.0	III
24-May-2011	SL-192-SA5DN-SS-0.0-0.5	6297565	N	METHOD	314.0	III
24-May-2011	SL-192-SA5DN-SS-0.0-0.5	6297565	N	METHOD	7471A	III
24-May-2011	SL-192-SA5DN-SS-0.0-0.5	6297565	N	METHOD	8015B	III
24-May-2011	SL-192-SA5DN-SS-0.0-0.5	6297565	N	METHOD	8015M	III
24-May-2011	SL-192-SA5DN-SS-0.0-0.5	6297565	N	METHOD	8315A	III
24-May-2011	SL-192-SA5DN-SS-0.0-0.5	6297565	N	METHOD	9012B	III
24-May-2011	SL-189-SA5DN-SS-0.0-0.5	6297563	N	3050B	6010B	III
24-May-2011	SL-189-SA5DN-SS-0.0-0.5	6297563	N	3050B	6020	III
24-May-2011	SL-189-SA5DN-SS-0.0-0.5	6297563	N	3060A	7199	III
24-May-2011	SL-189-SA5DN-SS-0.0-0.5	6297563	N	3550B	8081A	III
24-May-2011	SL-189-SA5DN-SS-0.0-0.5	6297563	N	3550B	8082	III
24-May-2011	SL-189-SA5DN-SS-0.0-0.5	6297563	N	3550B	8151A	III
24-May-2011	SL-189-SA5DN-SS-0.0-0.5	6297563	N	3550B	8270C	III
24-May-2011	SL-189-SA5DN-SS-0.0-0.5	6297563	N	3550B	8270C SIM	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-May-2011	SL-189-SA5DN-SS-0.0-0.5	6297563	N	METHOD	300.0	III
24-May-2011	SL-189-SA5DN-SS-0.0-0.5	6297563	N	METHOD	314.0	III
24-May-2011	SL-189-SA5DN-SS-0.0-0.5	6297563	N	METHOD	7471A	III
24-May-2011	SL-193-SA5DN-SS-0.0-0.5	6297566	N	3050B	6010B	III
24-May-2011	SL-193-SA5DN-SS-0.0-0.5	6297566	N	3050B	6020	III
24-May-2011	SL-193-SA5DN-SS-0.0-0.5	6297566	N	3060A	7199	III
24-May-2011	SL-193-SA5DN-SS-0.0-0.5	6297566	N	3550B	8081A	III
24-May-2011	SL-193-SA5DN-SS-0.0-0.5	6297566	N	3550B	8082	III
24-May-2011	SL-193-SA5DN-SS-0.0-0.5	6297566	N	3550B	8151A	III
24-May-2011	SL-193-SA5DN-SS-0.0-0.5	6297566	N	3550B	8270C	III
24-May-2011	SL-193-SA5DN-SS-0.0-0.5	6297566	N	3550B	8270C SIM	III
24-May-2011	SL-193-SA5DN-SS-0.0-0.5	6297566	N	METHOD	300.0	III
24-May-2011	SL-193-SA5DN-SS-0.0-0.5	6297566	N	METHOD	314.0	III
24-May-2011	SL-193-SA5DN-SS-0.0-0.5	6297566	N	METHOD	7471A	III
24-May-2011	SL-194-SA5DN-SS-0.0-0.5	6297567	N	3050B	6010B	III
24-May-2011	SL-194-SA5DN-SS-0.0-0.5	6297567	N	3050B	6020	III
24-May-2011	SL-194-SA5DN-SS-0.0-0.5	6297567	N	3060A	7199	III
24-May-2011	SL-194-SA5DN-SS-0.0-0.5	6297567	N	3550B	8081A	III
24-May-2011	SL-194-SA5DN-SS-0.0-0.5	6297567	N	3550B	8082	III
24-May-2011	SL-194-SA5DN-SS-0.0-0.5	6297567	N	3550B	8151A	III
24-May-2011	SL-194-SA5DN-SS-0.0-0.5	6297567	N	3550B	8270C	III
24-May-2011	SL-194-SA5DN-SS-0.0-0.5	6297567	N	3550B	8270C SIM	III
24-May-2011	SL-194-SA5DN-SS-0.0-0.5	6297567	N	METHOD	300.0	III
24-May-2011	SL-194-SA5DN-SS-0.0-0.5	6297567	N	METHOD	314.0	III
24-May-2011	SL-194-SA5DN-SS-0.0-0.5	6297567	N	METHOD	7471A	III
24-May-2011	SL-188-SA5DN-SS-0.0-0.5	6297562	N	3050B	6010B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-May-2011	SL-188-SA5DN-SS-0.0-0.5	6297562	N	3050B	6020	III
24-May-2011	SL-188-SA5DN-SS-0.0-0.5	6297562	N	3060A	7199	III
24-May-2011	SL-188-SA5DN-SS-0.0-0.5	6297562	N	3550B	8081A	III
24-May-2011	SL-188-SA5DN-SS-0.0-0.5	6297562	N	3550B	8082	III
24-May-2011	SL-188-SA5DN-SS-0.0-0.5	6297562	N	3550B	8151A	III
24-May-2011	SL-188-SA5DN-SS-0.0-0.5	6297562	N	3550B	8270C	III
24-May-2011	SL-188-SA5DN-SS-0.0-0.5	6297562	N	3550B	8270C SIM	III
24-May-2011	SL-188-SA5DN-SS-0.0-0.5	6297562	N	METHOD	300.0	III
24-May-2011	SL-188-SA5DN-SS-0.0-0.5	6297562	N	METHOD	314.0	III
24-May-2011	SL-188-SA5DN-SS-0.0-0.5	6297562	N	METHOD	7471A	III
24-May-2011	SL-188-SA5DN-SS-0.0-0.5DU	P297562D270513B	DUP	METHOD	300.0	III
24-May-2011	SL-188-SA5DN-SS-0.0-0.5DU	P297562D271857B	DUP	METHOD	314.0	III
24-May-2011	SL-188-SA5DN-SS-0.0-0.5MS	P297562R270527B	MS	METHOD	300.0	III
24-May-2011	SL-188-SA5DN-SS-0.0-0.5MS	P297562R271919B	MS	METHOD	314.0	III
24-May-2011	SL-186-SA5DN-SS-0.0-0.5	6297560	N	3050B	6010B	III
24-May-2011	SL-186-SA5DN-SS-0.0-0.5	6297560	N	3050B	6020	III
24-May-2011	SL-186-SA5DN-SS-0.0-0.5	6297560	N	3060A	7199	III
24-May-2011	SL-186-SA5DN-SS-0.0-0.5	6297560	N	3546	1625C	III
24-May-2011	SL-186-SA5DN-SS-0.0-0.5	6297560	N	3550B	8015B	III
24-May-2011	SL-186-SA5DN-SS-0.0-0.5	6297560	N	3550B	8015M	III
24-May-2011	SL-186-SA5DN-SS-0.0-0.5	6297560	N	3550B	8081A	III
24-May-2011	SL-186-SA5DN-SS-0.0-0.5	6297560	N	3550B	8082	III
24-May-2011	SL-186-SA5DN-SS-0.0-0.5	6297560	N	3550B	8151A	III
24-May-2011	SL-186-SA5DN-SS-0.0-0.5	6297560	N	3550B	8270C	III
24-May-2011	SL-186-SA5DN-SS-0.0-0.5	6297560	N	3550B	8270C SIM	III
24-May-2011	SL-186-SA5DN-SS-0.0-0.5	6297560	N	8330	8330A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-May-2011	SL-186-SA5DN-SS-0.0-0.5	6297560	N	METHOD	300.0	III
24-May-2011	SL-186-SA5DN-SS-0.0-0.5	6297560	N	METHOD	314.0	III
24-May-2011	SL-186-SA5DN-SS-0.0-0.5	6297560	N	METHOD	7471A	III
24-May-2011	SL-186-SA5DN-SS-0.0-0.5	6297560	N	METHOD	8015B	III
24-May-2011	SL-186-SA5DN-SS-0.0-0.5	6297560	N	METHOD	8015M	III
24-May-2011	SL-186-SA5DN-SS-0.0-0.5	6297560	N	METHOD	8315A	III
24-May-2011	SL-186-SA5DN-SS-0.0-0.5	6297560	N	METHOD	9012B	III
24-May-2011	SL-187-SA5DN-SS-0.0-0.5	6297561	N	3050B	6010B	III
24-May-2011	SL-187-SA5DN-SS-0.0-0.5	6297561	N	3050B	6020	III
24-May-2011	SL-187-SA5DN-SS-0.0-0.5	6297561	N	3060A	7199	III
24-May-2011	SL-187-SA5DN-SS-0.0-0.5	6297561	N	3550B	8081A	III
24-May-2011	SL-187-SA5DN-SS-0.0-0.5	6297561	N	3550B	8082	III
24-May-2011	SL-187-SA5DN-SS-0.0-0.5	6297561	N	3550B	8151A	III
24-May-2011	SL-187-SA5DN-SS-0.0-0.5	6297561	N	3550B	8270C	III
24-May-2011	SL-187-SA5DN-SS-0.0-0.5	6297561	N	3550B	8270C SIM	III
24-May-2011	SL-187-SA5DN-SS-0.0-0.5	6297561	N	METHOD	300.0	III
24-May-2011	SL-187-SA5DN-SS-0.0-0.5	6297561	N	METHOD	314.0	III
24-May-2011	SL-187-SA5DN-SS-0.0-0.5	6297561	N	METHOD	7471A	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>GENCHEM</b>
<b>Method:</b>	<b>300.0</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-008-SA5DN-SS-0.0-0.5      Collected: 5/23/2011 5:00:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.5		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-009-SA5DN-SS-0.0-0.5      Collected: 5/23/2011 5:20:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2	J	1.1	MDL	1.3	PQL	mg/Kg	J	Z, Q

Sample ID: SL-010-SA5DN-SS-0.0-0.5      Collected: 5/23/2011 4:40:00      Analysis Type: RES      Dilution: 1

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

Sample ID: SL-011-SA5DN-SS-0.0-0.5      Collected: 5/23/2011 4:22:00      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		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-012-SA5DN-SS-0.0-0.5      Collected: 5/23/2011 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
FLUORIDE	7.7		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-013-SA5DN-SS-0.0-0.5      Collected: 5/23/2011 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
FLUORIDE	2.5		0.83	MDL	1.0	PQL	mg/Kg	J	Q
Nitrate-NO3	1.2	J	0.83	MDL	1.6	PQL	mg/Kg	J	Z

Sample ID: SL-014-SA5DN-SS-0.0-0.5      Collected: 5/23/2011 2:55:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.4		0.89	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.4	J	0.89	MDL	1.7	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: GENCHEM

Method: 300.0

Matrix: SO

Sample ID: SL-018-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 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	4.1		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-186-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 2:48:00

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		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-187-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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	1.9		1.0	MDL	1.3	PQL	mg/Kg	J	Q

Sample ID: SL-188-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
FLUORIDE	2.4		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-189-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
FLUORIDE	1.2		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-191-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
FLUORIDE	1.5		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-192-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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	1.2	J	0.98	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-193-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
FLUORIDE	1.2		0.87	MDL	1.1	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

Sample ID: SL-194-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
FLUORIDE	1.6		1.0	MDL	1.3	PQL	mg/Kg	J	Q

Sample ID: SL-195-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 9:44:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.0	U	1.0	MDL	1.3	PQL	mg/Kg	UJ	Q

Sample ID: SL-196-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
FLUORIDE	2.2		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-197-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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	1.4		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-198-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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	1.1	J	0.88	MDL	1.1	PQL	mg/Kg	J	Q

**Method Category:** GENCHEM

**Method:** 9012B

**Matrix:** SO

Sample ID: SL-192-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
CYANIDE	0.23	J	0.21	MDL	0.59	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: SL-008-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 5:00:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TITANIUM	1420		0.399	MDL	1.05	PQL	mg/Kg	J	E

Sample ID: SL-008-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 5:00:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.49	J	1.04	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	3.47	J	0.874	MDL	5.20	PQL	mg/Kg	J	Z

Sample ID: SL-009-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 5:20:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TITANIUM	1500		0.499	MDL	1.31	PQL	mg/Kg	J	E

Sample ID: SL-009-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 5:20:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	111	J	47.6	MDL	128	PQL	mg/Kg	J	Z
TIN	3.35	J	1.28	MDL	12.8	PQL	mg/Kg	U	B
Zirconium	2.84	J	1.07	MDL	6.38	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 4:40:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TITANIUM	1530		0.383	MDL	1.01	PQL	mg/Kg	J	E

Sample ID: SL-010-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 4:40:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.92	J	0.896	MDL	5.04	PQL	mg/Kg	J	Z
TIN	2.21	J	1.01	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: SL-011-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 4:22:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TITANIUM	1420		0.428	MDL	1.13	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6010B

Matrix: SO

Sample ID: SL-011-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 4:22:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.62	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	3.22	J	0.918	MDL	5.47	PQL	mg/Kg	J	Z

Sample ID: SL-012-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 3:45:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TITANIUM	1190		0.419	MDL	1.10	PQL	mg/Kg	J	E

Sample ID: SL-012-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 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
TIN	2.89	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	2.78	J	0.908	MDL	5.40	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 3:25:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TITANIUM	1310		0.386	MDL	1.02	PQL	mg/Kg	J	E

Sample ID: SL-013-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 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
TIN	2.31	J	1.01	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	1.71	J	0.846	MDL	5.04	PQL	mg/Kg	J	Z

Sample ID: SL-014-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 2:55:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TITANIUM	1510		0.405	MDL	1.06	PQL	mg/Kg	J	E

Sample ID: SL-014-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 2:55:00

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	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	4.20	J	0.894	MDL	5.32	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6010B

Matrix: SO

Sample ID: SL-018-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 2:35:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TITANIUM	1520		0.405	MDL	1.07	PQL	mg/Kg	J	E

Sample ID: SL-018-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 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
TIN	2.99	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	3.65	J	0.905	MDL	5.39	PQL	mg/Kg	J	Z

Sample ID: SL-186-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 2:48:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TITANIUM	1480		0.430	MDL	1.13	PQL	mg/Kg	J	E

Sample ID: SL-186-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 2:48:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	103	J	42.2	MDL	113	PQL	mg/Kg	J	Z
TIN	2.96	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	2.59	J	0.950	MDL	5.66	PQL	mg/Kg	J	Z

Sample ID: SL-187-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 3:08:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TITANIUM	1510		0.480	MDL	1.26	PQL	mg/Kg	J	E

Sample ID: SL-187-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
SODIUM	123	J	47.1	MDL	126	PQL	mg/Kg	J	Z
TIN	3.32	J	1.26	MDL	12.6	PQL	mg/Kg	U	B
Zirconium	3.18	J	1.06	MDL	6.31	PQL	mg/Kg	J	Z

Sample ID: SL-188-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 2:20:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TITANIUM	1550		0.429	MDL	1.13	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** SL-188-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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
SODIUM	82.0	J	41.3	MDL	111	PQL	mg/Kg	J	Z
TIN	3.06	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	3.35	J	0.929	MDL	5.53	PQL	mg/Kg	J	Z

**Sample ID:** SL-189-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 11:35:00

**Analysis Type:** REA2

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TITANIUM	1540		0.429	MDL	1.13	PQL	mg/Kg	J	E

**Sample ID:** SL-189-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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
SODIUM	94.9	J	42.6	MDL	114	PQL	mg/Kg	J	Z
TIN	2.91	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	2.88	J	0.958	MDL	5.70	PQL	mg/Kg	J	Z

**Sample ID:** SL-191-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 10:30:00

**Analysis Type:** REA2

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TITANIUM	1260		0.407	MDL	1.07	PQL	mg/Kg	J	E

**Sample ID:** SL-191-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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
SODIUM	86.1	J	40.3	MDL	108	PQL	mg/Kg	J	Z
TIN	2.93	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	1.78	J	0.908	MDL	5.40	PQL	mg/Kg	J	Z

**Sample ID:** SL-192-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 11:00:00

**Analysis Type:** REA2

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TITANIUM	1350		0.454	MDL	1.19	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** SL-192-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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	88.3	J	44.1	MDL	118	PQL	mg/Kg	J	Z
TIN	3.07	J	1.18	MDL	11.8	PQL	mg/Kg	U	B
Zirconium	2.88	J	0.993	MDL	5.91	PQL	mg/Kg	J	Z

**Sample ID:** SL-193-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 1:45:00

**Analysis Type:** REA2

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TITANIUM	1280		0.410	MDL	1.08	PQL	mg/Kg	J	E

**Sample ID:** SL-193-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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	87.7	J	39.5	MDL	106	PQL	mg/Kg	J	Z
TIN	3.03	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	2.08	J	0.889	MDL	5.29	PQL	mg/Kg	J	Z

**Sample ID:** SL-194-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 2:00:00

**Analysis Type:** REA2

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TITANIUM	1440		0.472	MDL	1.24	PQL	mg/Kg	J	E

**Sample ID:** SL-194-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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
SODIUM	74.0	J	46.3	MDL	124	PQL	mg/Kg	J	Z
TIN	3.19	J	1.24	MDL	12.4	PQL	mg/Kg	U	B
Zirconium	3.93	J	1.04	MDL	6.21	PQL	mg/Kg	J	Z

**Sample ID:** SL-195-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 9:44:00

**Analysis Type:** REA2

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TITANIUM	1200		0.460	MDL	1.21	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** SL-195-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 9:44:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	90.1	J	46.0	MDL	123	PQL	mg/Kg	J	Z
TIN	3.26	J	1.23	MDL	12.3	PQL	mg/Kg	U	B
Zirconium	1.69	J	1.04	MDL	6.17	PQL	mg/Kg	J	Z

**Sample ID:** SL-196-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 9:05:00

**Analysis Type:** REA2

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TITANIUM	1490		0.439	MDL	1.15	PQL	mg/Kg	J	E

**Sample ID:** SL-196-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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
SODIUM	92.1	J	41.8	MDL	112	PQL	mg/Kg	J	Z
TIN	3.08	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	2.41	J	0.942	MDL	5.61	PQL	mg/Kg	J	Z

**Sample ID:** SL-197-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 9:20:00

**Analysis Type:** REA2

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TITANIUM	1430		0.439	MDL	1.15	PQL	mg/Kg	J	E

**Sample ID:** SL-197-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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
SODIUM	81.0	J	43.0	MDL	115	PQL	mg/Kg	J	Z
TIN	3.17	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	3.34	J	0.969	MDL	5.77	PQL	mg/Kg	J	Z

**Sample ID:** SL-198-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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
TITANIUM	1240		0.415	MDL	1.09	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** SL-198-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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
TIN	3.15	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	1.34	J	0.891	MDL	5.30	PQL	mg/Kg	J	Z

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-008-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 5:00:00

**Analysis Type:** REA

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.510		0.0173	MDL	0.108	PQL	mg/Kg	J	Q

**Sample ID:** SL-008-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 5:00:00

**Analysis Type:** REA3

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.178	J	0.0433	MDL	0.433	PQL	mg/Kg	J	Z

**Sample ID:** SL-008-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 5:00:00

**Analysis Type:** REA5

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	85.0		0.117	MDL	0.433	PQL	mg/Kg	J	E, A

**Sample ID:** SL-008-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 5:00:00

**Analysis Type:** RES

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.103	J	0.0649	MDL	0.216	PQL	mg/Kg	J	Z, Q
ARSENIC	4.26		0.0866	MDL	0.433	PQL	mg/Kg	J	Q
CHROMIUM	21.3		0.130	MDL	0.433	PQL	mg/Kg	J	Q, A
COBALT	6.96		0.0216	MDL	0.108	PQL	mg/Kg	J	E, A
COPPER	10.8		0.0714	MDL	0.433	PQL	mg/Kg	J	Q, E, A
LEAD	7.36		0.0113	MDL	0.216	PQL	mg/Kg	J	Q, E, A
NICKEL	13.6		0.108	MDL	0.433	PQL	mg/Kg	J	Q, E, A
SILVER	0.0289	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z
VANADIUM	40.7		0.0238	MDL	0.108	PQL	mg/Kg	J	Q, A
ZINC	52.1		0.606	MDL	3.25	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-009-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 5:20:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.584		0.0202	MDL	0.126	PQL	mg/Kg	J	Q

Sample ID: SL-009-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 5:20:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.219	J	0.0505	MDL	0.505	PQL	mg/Kg	J	Z

Sample ID: SL-009-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 5:20:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	134		0.136	MDL	0.505	PQL	mg/Kg	J	E, A

Sample ID: SL-009-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 5:20:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.286		0.0758	MDL	0.253	PQL	mg/Kg	J	Q
ARSENIC	7.21		0.101	MDL	0.505	PQL	mg/Kg	J	Q
CHROMIUM	30.1		0.152	MDL	0.505	PQL	mg/Kg	J	Q, A
COBALT	9.94		0.0253	MDL	0.126	PQL	mg/Kg	J	E, A
COPPER	16.3		0.0834	MDL	0.505	PQL	mg/Kg	J	Q, E, A
LEAD	13.8		0.0131	MDL	0.253	PQL	mg/Kg	J	Q, E, A
NICKEL	19.5		0.126	MDL	0.505	PQL	mg/Kg	J	Q, E, A
SILVER	0.0445	J	0.0152	MDL	0.126	PQL	mg/Kg	J	Z
VANADIUM	57.3		0.0278	MDL	0.126	PQL	mg/Kg	J	Q, A
ZINC	123		0.708	MDL	3.79	PQL	mg/Kg	J	E

Sample ID: SL-010-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 4:40:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.143		0.0155	MDL	0.0969	PQL	mg/Kg	J	Q

Sample ID: SL-010-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 4:40:00

Analysis Type: REA5

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	142		0.262	MDL	0.969	PQL	mg/Kg	J	E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-010-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 4:40:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0581	U	0.0581	MDL	0.194	PQL	mg/Kg	UJ	Q
ARSENIC	1.72		0.0775	MDL	0.388	PQL	mg/Kg	J	Q
CADMIUM	0.0697	J	0.0388	MDL	0.0969	PQL	mg/Kg	J	Z
CHROMIUM	21.5		0.116	MDL	0.388	PQL	mg/Kg	J	Q, A
COBALT	7.34		0.0194	MDL	0.0969	PQL	mg/Kg	J	E, A
COPPER	14.8		0.0639	MDL	0.388	PQL	mg/Kg	J	Q, E, A
LEAD	3.17		0.0101	MDL	0.194	PQL	mg/Kg	J	Q, E, A
NICKEL	9.04		0.0969	MDL	0.388	PQL	mg/Kg	J	Q, E, A
VANADIUM	41.8		0.0213	MDL	0.0969	PQL	mg/Kg	J	Q, A
ZINC	61.0		0.543	MDL	2.91	PQL	mg/Kg	J	E

Sample ID: SL-011-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 4:22:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.551		0.0177	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: SL-011-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 4:22:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.207	J	0.0442	MDL	0.442	PQL	mg/Kg	J	Z

Sample ID: SL-011-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 4:22:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	138		0.119	MDL	0.442	PQL	mg/Kg	J	E, A

Sample ID: SL-011-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 4:22:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.171	J	0.0662	MDL	0.221	PQL	mg/Kg	J	Z, Q
ARSENIC	6.38		0.0883	MDL	0.442	PQL	mg/Kg	J	Q
CHROMIUM	30.4		0.132	MDL	0.442	PQL	mg/Kg	J	Q, A
COBALT	10.5		0.0221	MDL	0.110	PQL	mg/Kg	J	E, A
COPPER	15.9		0.0729	MDL	0.442	PQL	mg/Kg	J	Q, E, A
LEAD	11.5		0.0115	MDL	0.221	PQL	mg/Kg	J	Q, E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-011-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 4:22:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NICKEL	19.8		0.110	MDL	0.442	PQL	mg/Kg	J	Q, E, A
SILVER	0.0310	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z
VANADIUM	59.3		0.0243	MDL	0.110	PQL	mg/Kg	J	Q, A
ZINC	77.9		0.618	MDL	3.31	PQL	mg/Kg	J	E

Sample ID: SL-012-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 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
BERYLLIUM	0.763		0.0180	MDL	0.112	PQL	mg/Kg	J	Q

Sample ID: SL-012-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 3:45:00

Analysis Type: REA2

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	181		1.57	MDL	8.43	PQL	mg/Kg	J	E

Sample ID: SL-012-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 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
SELENIUM	0.148	J	0.0449	MDL	0.449	PQL	mg/Kg	J	Z

Sample ID: SL-012-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 3:45:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	184		0.121	MDL	0.449	PQL	mg/Kg	J	E, A

Sample ID: SL-012-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 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	0.160	J	0.0674	MDL	0.225	PQL	mg/Kg	J	Z, Q
ARSENIC	7.34		0.0899	MDL	0.449	PQL	mg/Kg	J	Q
CHROMIUM	32.7		0.135	MDL	0.449	PQL	mg/Kg	J	Q, A
COBALT	9.76		0.0225	MDL	0.112	PQL	mg/Kg	J	E, A
COPPER	19.9		0.0742	MDL	0.449	PQL	mg/Kg	J	Q, E, A
LEAD	13.1		0.0117	MDL	0.225	PQL	mg/Kg	J	Q, E, A
NICKEL	22.7		0.112	MDL	0.449	PQL	mg/Kg	J	Q, E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-012-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 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	0.0568	J	0.0135	MDL	0.112	PQL	mg/Kg	J	Z
VANADIUM	58.7		0.0247	MDL	0.112	PQL	mg/Kg	J	Q, A

Sample ID: SL-013-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 3:25:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.295		0.0164	MDL	0.103	PQL	mg/Kg	J	Q

Sample ID: SL-013-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 3:25:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	150		0.111	MDL	0.411	PQL	mg/Kg	J	E, A

Sample ID: SL-013-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 3:25:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0962	J	0.0616	MDL	0.205	PQL	mg/Kg	J	Z, Q
ARSENIC	3.56		0.0822	MDL	0.411	PQL	mg/Kg	J	Q
CHROMIUM	17.8		0.123	MDL	0.411	PQL	mg/Kg	J	Q, A
COBALT	7.38		0.0205	MDL	0.103	PQL	mg/Kg	J	E, A
COPPER	15.4		0.0678	MDL	0.411	PQL	mg/Kg	J	Q, E, A
LEAD	7.54		0.0107	MDL	0.205	PQL	mg/Kg	J	Q, E, A
NICKEL	12.2		0.103	MDL	0.411	PQL	mg/Kg	J	Q, E, A
SILVER	0.0320	J	0.0123	MDL	0.103	PQL	mg/Kg	J	Z
VANADIUM	38.7		0.0226	MDL	0.103	PQL	mg/Kg	J	Q, A
ZINC	62.7		0.575	MDL	3.08	PQL	mg/Kg	J	E

Sample ID: SL-014-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 2:55:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.773		0.0170	MDL	0.106	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-014-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 2:55:00

**Analysis Type:** REA3

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.144	J	0.0426	MDL	0.426	PQL	mg/Kg	J	Z

**Sample ID:** SL-014-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 2:55:00

**Analysis Type:** REA5

**Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	150		0.288	MDL	1.06	PQL	mg/Kg	J	E, A

**Sample ID:** SL-014-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 2:55:00

**Analysis Type:** RES

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.172	J	0.0639	MDL	0.213	PQL	mg/Kg	J	Z, Q
ARSENIC	7.98		0.0852	MDL	0.426	PQL	mg/Kg	J	Q
CHROMIUM	39.5		0.128	MDL	0.426	PQL	mg/Kg	J	Q, A
COBALT	13.6		0.0213	MDL	0.106	PQL	mg/Kg	J	E, A
COPPER	21.5		0.0703	MDL	0.426	PQL	mg/Kg	J	Q, E, A
LEAD	14.5		0.0111	MDL	0.213	PQL	mg/Kg	J	Q, E, A
NICKEL	27.5		0.106	MDL	0.426	PQL	mg/Kg	J	Q, E, A
SILVER	0.0625	J	0.0128	MDL	0.106	PQL	mg/Kg	J	Z
VANADIUM	74.3		0.0234	MDL	0.106	PQL	mg/Kg	J	Q, A
ZINC	99.5		0.596	MDL	3.19	PQL	mg/Kg	J	E

**Sample ID:** SL-018-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 2:35:00

**Analysis Type:** REA

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.733		0.0172	MDL	0.108	PQL	mg/Kg	J	Q

**Sample ID:** SL-018-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 2:35:00

**Analysis Type:** REA3

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.225	J	0.0431	MDL	0.431	PQL	mg/Kg	J	Z

**Sample ID:** SL-018-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 2:35:00

**Analysis Type:** REA5

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	184		0.116	MDL	0.431	PQL	mg/Kg	J	E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-018-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 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	0.231		0.0646	MDL	0.215	PQL	mg/Kg	J	Q
ARSENIC	7.96		0.0862	MDL	0.431	PQL	mg/Kg	J	Q
CHROMIUM	37.3		0.129	MDL	0.431	PQL	mg/Kg	J	Q, A
COBALT	14.7		0.0215	MDL	0.108	PQL	mg/Kg	J	E, A
COPPER	20.9		0.0711	MDL	0.431	PQL	mg/Kg	J	Q, E, A
LEAD	21.8		0.0112	MDL	0.215	PQL	mg/Kg	J	Q, E, A
NICKEL	26.5		0.108	MDL	0.431	PQL	mg/Kg	J	Q, E, A
SILVER	0.0631	J	0.0129	MDL	0.108	PQL	mg/Kg	J	Z
VANADIUM	68.6		0.0237	MDL	0.108	PQL	mg/Kg	J	Q, A
ZINC	116		0.603	MDL	3.23	PQL	mg/Kg	J	E

Sample ID: SL-186-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 2:48:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.703		0.0178	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: SL-186-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 2:48:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.287	J	0.0444	MDL	0.444	PQL	mg/Kg	J	Z

Sample ID: SL-186-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 2:48:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	154		0.120	MDL	0.444	PQL	mg/Kg	J	E, A

Sample ID: SL-186-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 2:48:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.208	J	0.0666	MDL	0.222	PQL	mg/Kg	J	Z, Q
ARSENIC	7.54		0.0888	MDL	0.444	PQL	mg/Kg	J	Q
CHROMIUM	36.8		0.133	MDL	0.444	PQL	mg/Kg	J	Q, A
COBALT	12.7		0.0222	MDL	0.111	PQL	mg/Kg	J	E, A
COPPER	23.1		0.0732	MDL	0.444	PQL	mg/Kg	J	Q, E, A
LEAD	16.5		0.0115	MDL	0.222	PQL	mg/Kg	J	Q, E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-186-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 2:48:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NICKEL	26.1		0.111	MDL	0.444	PQL	mg/Kg	J	Q, E, A
SILVER	0.0583	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z
VANADIUM	69.3		0.0244	MDL	0.111	PQL	mg/Kg	J	Q, A
ZINC	101		0.621	MDL	3.33	PQL	mg/Kg	J	E

Sample ID: SL-187-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
BERYLLIUM	0.726		0.0198	MDL	0.124	PQL	mg/Kg	J	Q

Sample ID: SL-187-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 3:08:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.324	J	0.0495	MDL	0.495	PQL	mg/Kg	J	Z

Sample ID: SL-187-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 3:08:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	173		0.134	MDL	0.495	PQL	mg/Kg	J	E, A

Sample ID: SL-187-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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	0.243	J	0.0743	MDL	0.248	PQL	mg/Kg	J	Z, Q
ARSENIC	7.81		0.0991	MDL	0.495	PQL	mg/Kg	J	Q
CHROMIUM	37.7		0.149	MDL	0.495	PQL	mg/Kg	J	Q, A
COBALT	13.9		0.0248	MDL	0.124	PQL	mg/Kg	J	E, A
COPPER	25.5		0.0817	MDL	0.495	PQL	mg/Kg	J	Q, E, A
LEAD	20.3		0.0129	MDL	0.248	PQL	mg/Kg	J	Q, E, A
NICKEL	28.0		0.124	MDL	0.495	PQL	mg/Kg	J	Q, E, A
SILVER	0.0616	J	0.0149	MDL	0.124	PQL	mg/Kg	J	Z
VANADIUM	70.5		0.0272	MDL	0.124	PQL	mg/Kg	J	Q, A
ZINC	128		0.693	MDL	3.72	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-188-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
BERYLLIUM	0.773		0.0182	MDL	0.114	PQL	mg/Kg	J	Q

Sample ID: SL-188-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
SELENIUM	0.247	J	0.0456	MDL	0.456	PQL	mg/Kg	J	Z

Sample ID: SL-188-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 2:20:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	151		0.123	MDL	0.456	PQL	mg/Kg	J	E, A

Sample ID: SL-188-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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	0.133	J	0.0684	MDL	0.228	PQL	mg/Kg	J	Z, Q
ARSENIC	6.79		0.0911	MDL	0.456	PQL	mg/Kg	J	Q
CHROMIUM	31.6		0.137	MDL	0.456	PQL	mg/Kg	J	Q, A
COBALT	11.6		0.0228	MDL	0.114	PQL	mg/Kg	J	E, A
COPPER	19.4		0.0752	MDL	0.456	PQL	mg/Kg	J	Q, E, A
LEAD	14.1		0.0118	MDL	0.228	PQL	mg/Kg	J	Q, E, A
NICKEL	22.9		0.114	MDL	0.456	PQL	mg/Kg	J	Q, E, A
SILVER	0.0410	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z
VANADIUM	60.7		0.0251	MDL	0.114	PQL	mg/Kg	J	Q, A
ZINC	86.1		0.638	MDL	3.42	PQL	mg/Kg	J	E

Sample ID: SL-189-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 11:35:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.781		0.0188	MDL	0.118	PQL	mg/Kg	J	Q

Sample ID: SL-189-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 11:35:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.360	J	0.0470	MDL	0.470	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-189-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 11:35:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	162		0.127	MDL	0.470	PQL	mg/Kg	J	E, A

Sample ID: SL-189-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 11:35:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.204	J	0.0705	MDL	0.235	PQL	mg/Kg	J	Z, Q
ARSENIC	8.13		0.0940	MDL	0.470	PQL	mg/Kg	J	Q
CHROMIUM	41.2		0.141	MDL	0.470	PQL	mg/Kg	J	Q, A
COBALT	13.7		0.0235	MDL	0.118	PQL	mg/Kg	J	E, A
COPPER	24.2		0.0776	MDL	0.470	PQL	mg/Kg	J	Q, E, A
LEAD	18.4		0.0122	MDL	0.235	PQL	mg/Kg	J	Q, E, A
NICKEL	27.5		0.118	MDL	0.470	PQL	mg/Kg	J	Q, E, A
SILVER	0.0572	J	0.0141	MDL	0.118	PQL	mg/Kg	J	Z
VANADIUM	78.2		0.0259	MDL	0.118	PQL	mg/Kg	J	Q, A
ZINC	128		0.658	MDL	3.53	PQL	mg/Kg	J	E

Sample ID: SL-191-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 10:30:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.606		0.0170	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-191-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 10:30:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.327	J	0.0424	MDL	0.424	PQL	mg/Kg	J	Z

Sample ID: SL-191-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 10:30:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	135		0.114	MDL	0.424	PQL	mg/Kg	J	E, A

Sample ID: SL-191-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 10:30:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.250		0.0636	MDL	0.212	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-191-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 10:30:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	7.81		0.0848	MDL	0.424	PQL	mg/Kg	J	Q
CHROMIUM	31.7		0.127	MDL	0.424	PQL	mg/Kg	J	Q, A
COBALT	11.1		0.0212	MDL	0.106	PQL	mg/Kg	J	E, A
COPPER	23.8		0.0700	MDL	0.424	PQL	mg/Kg	J	Q, E, A
LEAD	17.6		0.0110	MDL	0.212	PQL	mg/Kg	J	Q, E, A
NICKEL	23.5		0.106	MDL	0.424	PQL	mg/Kg	J	Q, E, A
VANADIUM	57.2		0.0233	MDL	0.106	PQL	mg/Kg	J	Q, A
ZINC	101		0.594	MDL	3.18	PQL	mg/Kg	J	E

Sample ID: SL-192-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
BERYLLIUM	0.660		0.0189	MDL	0.118	PQL	mg/Kg	J	Q

Sample ID: SL-192-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
SELENIUM	0.230	J	0.0473	MDL	0.473	PQL	mg/Kg	J	Z

Sample ID: SL-192-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 11:00:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	149		0.128	MDL	0.473	PQL	mg/Kg	J	E, A

Sample ID: SL-192-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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	0.248		0.0710	MDL	0.237	PQL	mg/Kg	J	Q
ARSENIC	6.31		0.0946	MDL	0.473	PQL	mg/Kg	J	Q
CHROMIUM	29.9		0.142	MDL	0.473	PQL	mg/Kg	J	Q, A
COBALT	11.5		0.0237	MDL	0.118	PQL	mg/Kg	J	E, A
COPPER	19.4		0.0781	MDL	0.473	PQL	mg/Kg	J	Q, E, A
LEAD	11.6		0.0123	MDL	0.237	PQL	mg/Kg	J	Q, E, A
NICKEL	21.2		0.118	MDL	0.473	PQL	mg/Kg	J	Q, E, A
SILVER	0.0815	J	0.0142	MDL	0.118	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-192-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
VANADIUM	56.7		0.0260	MDL	0.118	PQL	mg/Kg	J	Q, A
ZINC	89.4		0.662	MDL	3.55	PQL	mg/Kg	J	E

Sample ID: SL-193-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
BERYLLIUM	0.589		0.0174	MDL	0.109	PQL	mg/Kg	J	Q

Sample ID: SL-193-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 1:45:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.200	J	0.0436	MDL	0.436	PQL	mg/Kg	J	Z

Sample ID: SL-193-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 1:45:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	126		0.118	MDL	0.436	PQL	mg/Kg	J	E, A

Sample ID: SL-193-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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	0.145	J	0.0654	MDL	0.218	PQL	mg/Kg	J	Z, Q
ARSENIC	6.95		0.0872	MDL	0.436	PQL	mg/Kg	J	Q
CHROMIUM	35.1		0.131	MDL	0.436	PQL	mg/Kg	J	Q, A
COBALT	10.3		0.0218	MDL	0.109	PQL	mg/Kg	J	E, A
COPPER	27.8		0.0720	MDL	0.436	PQL	mg/Kg	J	Q, E, A
LEAD	16.7		0.0113	MDL	0.218	PQL	mg/Kg	J	Q, E, A
NICKEL	37.5		0.109	MDL	0.436	PQL	mg/Kg	J	Q, E, A
VANADIUM	49.3		0.0240	MDL	0.109	PQL	mg/Kg	J	Q, A
ZINC	88.8		0.611	MDL	3.27	PQL	mg/Kg	J	E

Sample ID: SL-194-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 2:00:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.693		0.0195	MDL	0.122	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-194-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 2:00:00

Analysis Type: REA2

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	122		0.0317	MDL	0.609	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-194-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 2:00:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.302	J	0.0487	MDL	0.487	PQL	mg/Kg	J	Z

Sample ID: SL-194-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 2:00:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	164		0.132	MDL	0.487	PQL	mg/Kg	J	E, A

Sample ID: SL-194-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 2:00:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	41.4		0.0731	MDL	0.244	PQL	mg/Kg	J	Q
ARSENIC	6.50		0.0975	MDL	0.487	PQL	mg/Kg	J	Q
CHROMIUM	33.6		0.146	MDL	0.487	PQL	mg/Kg	J	Q, A
COBALT	11.9		0.0244	MDL	0.122	PQL	mg/Kg	J	E, A
COPPER	23.0		0.0804	MDL	0.487	PQL	mg/Kg	J	Q, E, A
NICKEL	23.6		0.122	MDL	0.487	PQL	mg/Kg	J	Q, E, A
SILVER	0.0541	J	0.0146	MDL	0.122	PQL	mg/Kg	J	Z
VANADIUM	61.8		0.0268	MDL	0.122	PQL	mg/Kg	J	Q, A
ZINC	96.7		0.682	MDL	3.65	PQL	mg/Kg	J	E

Sample ID: SL-195-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 9:44:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.718		0.0195	MDL	0.122	PQL	mg/Kg	J	Q

Sample ID: SL-195-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 9:44:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.236	J	0.0488	MDL	0.488	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-195-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 9:44:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	152		0.132	MDL	0.488	PQL	mg/Kg	J	E, A

Sample ID: SL-195-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 9:44:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.273		0.0733	MDL	0.244	PQL	mg/Kg	J	Q
ARSENIC	9.55		0.0977	MDL	0.488	PQL	mg/Kg	J	Q
CHROMIUM	29.7		0.147	MDL	0.488	PQL	mg/Kg	J	Q, A
COBALT	13.3		0.0244	MDL	0.122	PQL	mg/Kg	J	E, A
COPPER	24.1		0.0806	MDL	0.488	PQL	mg/Kg	J	Q, E, A
LEAD	18.5		0.0127	MDL	0.244	PQL	mg/Kg	J	Q, E, A
NICKEL	29.1		0.122	MDL	0.488	PQL	mg/Kg	J	Q, E, A
VANADIUM	51.3		0.0269	MDL	0.122	PQL	mg/Kg	J	Q, A
ZINC	112		0.684	MDL	3.66	PQL	mg/Kg	J	E

Sample ID: SL-196-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
BERYLLIUM	0.742		0.0179	MDL	0.112	PQL	mg/Kg	J	Q

Sample ID: SL-196-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
SELENIUM	0.291	J	0.0448	MDL	0.448	PQL	mg/Kg	J	Z

Sample ID: SL-196-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 9:05:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	190		0.121	MDL	0.448	PQL	mg/Kg	J	E, A

Sample ID: SL-196-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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	0.195	J	0.0673	MDL	0.224	PQL	mg/Kg	J	Z, Q
ARSENIC	7.41		0.0897	MDL	0.448	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-196-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
CHROMIUM	39.4		0.135	MDL	0.448	PQL	mg/Kg	J	Q, A
COBALT	14.2		0.0224	MDL	0.112	PQL	mg/Kg	J	E, A
COPPER	24.5		0.0740	MDL	0.448	PQL	mg/Kg	J	Q, E, A
LEAD	16.9		0.0117	MDL	0.224	PQL	mg/Kg	J	Q, E, A
NICKEL	28.1		0.112	MDL	0.448	PQL	mg/Kg	J	Q, E, A
SILVER	0.109	J	0.0135	MDL	0.112	PQL	mg/Kg	J	Z
VANADIUM	72.8		0.0247	MDL	0.112	PQL	mg/Kg	J	Q, A
ZINC	108		0.628	MDL	3.36	PQL	mg/Kg	J	E

Sample ID: SL-197-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
BERYLLIUM	0.738		0.0178	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: SL-197-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 9:20:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.348	J	0.0444	MDL	0.444	PQL	mg/Kg	J	Z

Sample ID: SL-197-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 9:20:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	167		0.120	MDL	0.444	PQL	mg/Kg	J	E, A

Sample ID: SL-197-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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	0.180	J	0.0666	MDL	0.222	PQL	mg/Kg	J	Z, Q
ARSENIC	7.77		0.0888	MDL	0.444	PQL	mg/Kg	J	Q
CHROMIUM	37.6		0.133	MDL	0.444	PQL	mg/Kg	J	Q, A
COBALT	13.2		0.0222	MDL	0.111	PQL	mg/Kg	J	E, A
COPPER	24.0		0.0733	MDL	0.444	PQL	mg/Kg	J	Q, E, A
LEAD	17.8		0.0115	MDL	0.222	PQL	mg/Kg	J	Q, E, A
NICKEL	26.6		0.111	MDL	0.444	PQL	mg/Kg	J	Q, E, A
VANADIUM	71.0		0.0244	MDL	0.111	PQL	mg/Kg	J	Q, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-197-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
ZINC	110		0.622	MDL	3.33	PQL	mg/Kg	J	E

Sample ID: SL-198-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
BERYLLIUM	0.567		0.0173	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-198-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 8:40:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.133	J	0.0432	MDL	0.432	PQL	mg/Kg	J	Z

Sample ID: SL-198-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 8:40:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	148		0.117	MDL	0.432	PQL	mg/Kg	J	E, A

Sample ID: SL-198-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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	0.167	J	0.0649	MDL	0.216	PQL	mg/Kg	J	Z, Q
ARSENIC	6.55		0.0865	MDL	0.432	PQL	mg/Kg	J	Q
CHROMIUM	26.9		0.130	MDL	0.432	PQL	mg/Kg	J	Q, A
COBALT	8.31		0.0216	MDL	0.108	PQL	mg/Kg	J	E, A
COPPER	20.4		0.0713	MDL	0.432	PQL	mg/Kg	J	Q, E, A
LEAD	12.6		0.0112	MDL	0.216	PQL	mg/Kg	J	Q, E, A
NICKEL	22.6		0.108	MDL	0.432	PQL	mg/Kg	J	Q, E, A
VANADIUM	42.8		0.0238	MDL	0.108	PQL	mg/Kg	J	Q, A
ZINC	142		0.605	MDL	3.24	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

Sample ID: SL-008-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 5:00:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.55	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-009-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 5:20:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.65	J	0.26	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-011-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 4:22:00

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	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-012-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 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	0.64	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 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
HEXAVALENT CHROMIUM	0.58	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-018-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 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
HEXAVALENT CHROMIUM	0.56	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-186-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 2:48:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.75	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-191-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
HEXAVALENT CHROMIUM	0.69	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

**Sample ID:** SL-192-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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	0.78	J	0.25	MDL	1.2	PQL	mg/Kg	J	Z

**Sample ID:** SL-194-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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
HEXAVALENT CHROMIUM	0.60	J	0.25	MDL	1.3	PQL	mg/Kg	J	Z

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

**Sample ID:** SL-013-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 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
MERCURY	0.0034	J	0.0028	MDL	0.0985	PQL	mg/Kg	J	Z

**Sample ID:** SL-187-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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
MERCURY	0.0084	J	0.0036	MDL	0.126	PQL	mg/Kg	J	Z

**Sample ID:** SL-191-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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
MERCURY	0.0376	J	0.0031	MDL	0.106	PQL	mg/Kg	J	Z

**Sample ID:** SL-195-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 9:44:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0415	J	0.0035	MDL	0.122	PQL	mg/Kg	J	Z

**Sample ID:** SL-197-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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	0.0083	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>1625C</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-012-SA5DN-SS-0.0-0.5 Collected: 5/23/2011 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
N-NITROSODIMETHYLAMINE	21.5	J	18.7	MDL	37.5	PQL	ng/Kg	J	Z

Sample ID: SL-013-SA5DN-SS-0.0-0.5 Collected: 5/23/2011 3:25:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	18.4	J	17.3	MDL	34.6	PQL	ng/Kg	J	Z

Sample ID: SL-018-SA5DN-SS-0.0-0.5 Collected: 5/23/2011 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
N-NITROSODIMETHYLAMINE	32.1	J	18.3	MDL	36.6	PQL	ng/Kg	J	Z

Sample ID: SL-198-SA5DN-SS-0.0-0.5 Collected: 5/24/2011 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
N-NITROSODIMETHYLAMINE	21.3	J	18.4	MDL	36.8	PQL	ng/Kg	J	Z

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8015M</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-012-SA5DN-SS-0.0-0.5 Collected: 5/23/2011 3:45:00 Analysis Type: REA Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	5.6	U	5.6	MDL	11	PQL	mg/Kg	UJ	Q

Sample ID: SL-012-SA5DN-SS-0.0-0.5 Collected: 5/23/2011 3:45:00 Analysis Type: REA2 Dilution: 25

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C12-C14)	11	U	11	MDL	34	PQL	mg/Kg	R	Q
EFH (C15-C20)	11	U	11	MDL	34	PQL	mg/Kg	R	Q
EFH (C8-C11)	11	U	11	MDL	34	PQL	mg/Kg	R	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8015M</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-013-SA5DN-SS-0.0-0.5			Collected: 5/23/2011 3:25:00		Analysis Type: REA2			Dilution: 50	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	350		21	MDL	62	PQL	mg/Kg	U	B

Sample ID: SL-186-SA5DN-SS-0.0-0.5			Collected: 5/24/2011 2:48:00		Analysis Type: REA2			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C8-C11)	0.63	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-191-SA5DN-SS-0.0-0.5			Collected: 5/24/2011 10:30:00		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)	0.98	J	0.44	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-197-SA5DN-SS-0.0-0.5			Collected: 5/24/2011 9:20:00		Analysis Type: REA2			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C8-C11)	1.9	J	0.93	MDL	2.8	PQL	mg/Kg	J	Z

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8081A</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-008-SA5DN-SS-0.0-0.5			Collected: 5/23/2011 5:00:00		Analysis Type: RES-BASE/NEUTRAL			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDOSULFAN II	0.40	U	0.40	MDL	0.40	PQL	ug/Kg	UJ	L

Sample ID: SL-009-SA5DN-SS-0.0-0.5			Collected: 5/23/2011 5:20:00		Analysis Type: RES-BASE/NEUTRAL			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.47		0.087	MDL	0.45	PQL	ug/Kg	J	Q, Q
4,4'-DDT	1.8		0.087	MDL	0.45	PQL	ug/Kg	J	Q
BETA-BHC	0.23		0.079	MDL	0.22	PQL	ug/Kg	J	Q, Q
DELTA-BHC	0.13	J	0.047	MDL	0.22	PQL	ug/Kg	J	Z
ENDOSULFAN II	0.37	U	0.37	MDL	0.45	PQL	ug/Kg	UJ	L
ENDRIN	0.087	U	0.087	MDL	0.45	PQL	ug/Kg	R	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

**Sample ID:** SL-010-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 4:40:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDOSULFAN II	0.067	U	0.067	MDL	0.34	PQL	ug/Kg	UJ	L
ENDRIN KETONE	0.087	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z

**Sample ID:** SL-011-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 4:22:00

**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	2.1	J	0.90	MDL	3.8	PQL	ug/Kg	J	Z
DELTA-BHC	0.11	J	0.040	MDL	0.19	PQL	ug/Kg	J	Z
ENDOSULFAN II	0.26	U	0.26	MDL	0.38	PQL	ug/Kg	UJ	L
gamma-BHC (Lindane)	0.13	J	0.038	MDL	0.19	PQL	ug/Kg	J	Z

**Sample ID:** SL-012-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 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
4,4'-DDT	0.17	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z
ENDOSULFAN II	0.074	U	0.074	MDL	0.38	PQL	ug/Kg	UJ	L

**Sample ID:** SL-013-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 3:25:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDOSULFAN II	0.15	U	0.15	MDL	0.35	PQL	ug/Kg	UJ	L

**Sample ID:** SL-014-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 2:55:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BETA-BHC	0.15	J	0.066	MDL	0.18	PQL	ug/Kg	J	Z
Chlordane	1.9	J	0.88	MDL	3.8	PQL	ug/Kg	J	Z
ENDOSULFAN II	0.073	U	0.073	MDL	0.38	PQL	ug/Kg	UJ	L

**Sample ID:** SL-018-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 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
Chlordane	2.6	J	0.88	MDL	3.7	PQL	ug/Kg	J	Z
ENDOSULFAN II	0.072	U	0.072	MDL	0.37	PQL	ug/Kg	UJ	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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### Data Qualifier Summary

**Lab Reporting Batch ID: DE160**

Laboratory: LL

EDD Filename: PrepDE160 v1

eQAPP Name: CDM SSFL 110509

Method Category: SVOA

**Method:** 8081A

Matrix: SO

**Sample ID:** SL-186-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 2:48:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution: 1**

<i>Analyte</i>	<i>Lab Result</i>	<i>Lab Qual</i>	<i>DL</i>	<i>DL Type</i>	<i>RL</i>	<i>RL Type</i>	<i>Units</i>	<i>Data Review Qual</i>	<i>Reason Code</i>
ENDOSULFAN II	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	L

**Sample ID:** SL-187-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 3:08:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution: 1**

<i>Analyte</i>	<i>Lab Result</i>	<i>Lab Qual</i>	<i>DL</i>	<i>DL Type</i>	<i>RL</i>	<i>RL Type</i>	<i>Units</i>	<i>Data Review Qual</i>	<i>Reason Code</i>
Chlordane	4.3		1.0	MDL	4.3	PQL	ug/Kg	J	S
DELTA-BHC	0.27		0.046	MDL	0.21	PQL	ug/Kg	J	S
DIELDRIN	2.0		0.084	MDL	0.43	PQL	ug/Kg	J	S
ENDOSULFAN II	1.5	U	1.5	MDL	1.5	PQL	ug/Kg	UJ	L

**Sample ID:** SL-188-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 2:20:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution: 1**

<i>Analyte</i>	<i>Lab Result</i>	<i>Lab Qual</i>	<i>DL</i>	<i>DL Type</i>	<i>RL</i>	<i>RL Type</i>	<i>Units</i>	<i>Data Review Qual</i>	<i>Reason Code</i>
Chlordane	1.9	J	0.92	MDL	3.9	PQL	ug/Kg	J	Z
ENDOSULFAN II	0.076	U	0.076	MDL	0.39	PQL	ug/Kg	UJ	L
MIREX	0.22	J	0.076	MDL	0.39	PQL	ug/Kg	J	Z

**Sample ID: SL-189-SA5DN-SS-0.0-0.5**

Collected: 5/24/2011 11:35:00

**Analysis Type: RES-BASE/NEUTRAL**

**Dilution: 1**

<i>Analyte</i>	<i>Lab Result</i>	<i>Lab Qual</i>	<i>DL</i>	<i>DL Type</i>	<i>RL</i>	<i>RL Type</i>	<i>Units</i>	<i>Data Review Qual</i>	<i>Reason Code</i>
Chlordane	1.5	J	0.94	MDL	4.0	PQL	ug/Kg	J	Z
ENDOSULFAN II	0.21	U	0.21	MDL	0.40	PQL	ug/Kg	UJ	L

**Sample ID: SL-191-SA5DN-SS-0.0-0.5**

Collected: 5/24/2011 10:30:00

**Analysis Type: RES-BASE/NEUTRAL**

**Dilution: 1**

<i>Analyte</i>	<i>Lab Result</i>	<i>Lab Qual</i>	<i>DL</i>	<i>DL Type</i>	<i>RL</i>	<i>RL Type</i>	<i>Units</i>	<i>Data Review Qual</i>	<i>Reason Code</i>
4,4'-DDE	0.33	J	0.072	MDL	0.37	PQL	ug/Kg	J	Z
DELTA-BHC	0.056	J	0.039	MDL	0.18	PQL	ug/Kg	J	Z
ENDOSULFAN II	0.39	U	0.39	MDL	0.39	PQL	ug/Kg	UJ	L

**Sample ID: SL-192-SA5DN-SS-0.0-0.5**

Collected: 5/24/2011 11:00:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution: 1**

<i>Analyte</i>	<i>Lab Result</i>	<i>Lab Qual</i>	<i>DL</i>	<i>DL Type</i>	<i>RL</i>	<i>RL Type</i>	<i>Units</i>	<i>Data Review Qual</i>	<i>Reason Code</i>
Chlordane	3.4	J	0.98	MDL	4.2	PQL	ug/Kg	J	Z
ENDOSULFAN II	0.081	U	0.081	MDL	0.42	PQL	ug/Kg	UJ	L

\* denotes a non-reportable result

**Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling**

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8081A</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-192-SA5DN-SS-0.0-0.5 Collected: 5/24/2011 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
gamma-BHC (Lindane)	0.080	J	0.042	MDL	0.20	PQL	ug/Kg	J	Z

Sample ID: SL-193-SA5DN-SS-0.0-0.5 Collected: 5/24/2011 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
DELTA-BHC	0.060	J	0.039	MDL	0.18	PQL	ug/Kg	J	Z
ENDOSULFAN II	0.45	U	0.45	MDL	0.45	PQL	ug/Kg	UJ	L
HEPTACHLOR EPOXIDE	0.14	J	0.037	MDL	0.18	PQL	ug/Kg	J	Z

Sample ID: SL-194-SA5DN-SS-0.0-0.5 Collected: 5/24/2011 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
Chlordane	3.8	J	1.0	MDL	4.3	PQL	ug/Kg	J	Z
ENDOSULFAN II	0.095	U	0.095	MDL	0.43	PQL	ug/Kg	UJ	L

Sample ID: SL-195-SA5DN-SS-0.0-0.5 Collected: 5/24/2011 9:44:00 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 II	0.97	U	0.97	MDL	0.97	PQL	ug/Kg	UJ	L

Sample ID: SL-196-SA5DN-SS-0.0-0.5 Collected: 5/24/2011 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
ENDOSULFAN II	0.076	U	0.076	MDL	0.39	PQL	ug/Kg	UJ	L
ENDRIN ALDEHYDE	0.32	J	0.076	MDL	0.39	PQL	ug/Kg	J	Z
gamma-BHC (Lindane)	0.12	J	0.039	MDL	0.19	PQL	ug/Kg	J	Z
HEPTACHLOR EPOXIDE	0.069	J	0.039	MDL	0.19	PQL	ug/Kg	J	Z

Sample ID: SL-197-SA5DN-SS-0.0-0.5 Collected: 5/24/2011 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
Chlordane	2.3	J	0.93	MDL	3.9	PQL	ug/Kg	J	Z
DELTA-BHC	0.059	J	0.042	MDL	0.19	PQL	ug/Kg	J	Z
ENDOSULFAN II	0.15	J	0.077	MDL	0.39	PQL	ug/Kg	J	Z, L
gamma-BHC (Lindane)	0.077	J	0.039	MDL	0.19	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8081A</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-197-SA5DN-SS-0.0-0.5      Collected: 5/24/2011 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
MIREX	0.18	J	0.077	MDL	0.39	PQL	ug/Kg	J	Z

Sample ID: SL-198-SA5DN-SS-0.0-0.5      Collected: 5/24/2011 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
ENDOSULFAN II	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	L

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8082</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-008-SA5DN-SS-0.0-0.5      Collected: 5/23/2011 5:00:00      Analysis Type: RES      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	15	J	11	MDL	36	PQL	ug/Kg	J	Z

Sample ID: SL-186-SA5DN-SS-0.0-0.5      Collected: 5/24/2011 2:48:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	2.1	J	1.1	MDL	3.8	PQL	ug/Kg	J	Z

Sample ID: SL-187-SA5DN-SS-0.0-0.5      Collected: 5/24/2011 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 5460	2.6	J	1.3	MDL	4.2	PQL	ug/Kg	J	Z

Sample ID: SL-188-SA5DN-SS-0.0-0.5      Collected: 5/24/2011 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 1260	1.8	J	0.45	MDL	2.0	PQL	ug/Kg	J	Z
Aroclor 5460	1.7	J	1.2	MDL	3.8	PQL	ug/Kg	J	Z

Sample ID: SL-189-SA5DN-SS-0.0-0.5      Collected: 5/24/2011 11:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	7.0	J	1.9	MDL	10	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8082</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-189-SA5DN-SS-0.0-0.5			Collected: 5/24/2011 11:35:00		Analysis Type: RES-BASE/NEUTRAL			Dilution: 5	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	3.6	J	2.3	MDL	10	PQL	ug/Kg	J	Z

Sample ID: SL-191-SA5DN-SS-0.0-0.5			Collected: 5/24/2011 10:30:00		Analysis Type: RES			Dilution: 5	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	10	J	5.5	MDL	18	PQL	ug/Kg	J	Z

Sample ID: SL-192-SA5DN-SS-0.0-0.5			Collected: 5/24/2011 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	1.8	J	0.41	MDL	2.1	PQL	ug/Kg	J	Z
AROCLOR 1260	1.1	J	0.48	MDL	2.1	PQL	ug/Kg	J	Z
Aroclor 5460	1.4	J	1.2	MDL	4.1	PQL	ug/Kg	J	Z

Sample ID: SL-193-SA5DN-SS-0.0-0.5			Collected: 5/24/2011 1:45:00		Analysis Type: RES-BASE/NEUTRAL			Dilution: 5	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	4.1	J	2.1	MDL	9.3	PQL	ug/Kg	J	Z

Sample ID: SL-194-SA5DN-SS-0.0-0.5			Collected: 5/24/2011 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
AROCLOR 1254	1.1	J	0.41	MDL	2.1	PQL	ug/Kg	J	Z
AROCLOR 1260	0.66	J	0.49	MDL	2.1	PQL	ug/Kg	J	Z

Sample ID: SL-195-SA5DN-SS-0.0-0.5			Collected: 5/24/2011 9:44:00		Analysis Type: RES			Dilution: 5	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	11	J	6.3	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-197-SA5DN-SS-0.0-0.5			Collected: 5/24/2011 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
AROCLOR 1260	2.3		0.45	MDL	2.0	PQL	ug/Kg	J	S
Aroclor 5460	3.6	J	1.2	MDL	3.8	PQL	ug/Kg	J	Z, S

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>								
<b>Method:</b>	<b>8082</b>	<b>Matrix:</b>	<b>SO</b>						

Sample ID: SL-198-SA5DN-SS-0.0-0.5 Collected: 5/24/2011 8:40:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 100

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCOR 1260	170	J	43	MDL	190	PQL	ug/Kg	J	Z

<b>Method Category:</b>	<b>SVOA</b>								
<b>Method:</b>	<b>8151A</b>	<b>Matrix:</b>	<b>SO</b>						

Sample ID: SL-009-SA5DN-SS-0.0-0.5 Collected: 5/23/2011 5:20:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPA	200	J	100	MDL	330	PQL	ug/Kg	J	Z

Sample ID: SL-010-SA5DN-SS-0.0-0.5 Collected: 5/23/2011 4:40:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-TP (Silvex)	0.11	J	0.076	MDL	0.17	PQL	ug/Kg	J	Z
MCPA	200	J	77	MDL	250	PQL	ug/Kg	J	Z

Sample ID: SL-012-SA5DN-SS-0.0-0.5 Collected: 5/23/2011 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
MCPA	160	J	85	MDL	280	PQL	ug/Kg	J	Z

Sample ID: SL-192-SA5DN-SS-0.0-0.5 Collected: 5/24/2011 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
DICAMBA	0.55	J	0.49	MDL	1.5	PQL	ug/Kg	J	Z
DICHLOROPROP	1.3	J	0.98	MDL	2.1	PQL	ug/Kg	J	Z

Sample ID: SL-193-SA5DN-SS-0.0-0.5 Collected: 5/24/2011 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-D	1.8	J	1.3	MDL	3.9	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C

**Matrix:** SO

**Sample ID:** SL-012-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 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
CARBAZOLE	26	J	19	MDL	190	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	29	J	19	MDL	190	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	78	J	19	MDL	190	PQL	ug/Kg	J	Z

**Sample ID:** SL-013-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 3:25:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Butylbenzylphthalate	78	J	17	MDL	170	PQL	ug/Kg	J	Z

**Sample ID:** SL-014-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 2:55:00

**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	29	J	18	MDL	370	PQL	ug/Kg	J	Z

**Sample ID:** SL-018-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 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(G,H,I)PERYLENE	19	J	18	MDL	180	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHthalate	30	J	18	MDL	360	PQL	ug/Kg	J	Z
Di-n-butylphthalate	19	J	18	MDL	180	PQL	ug/Kg	J	Z

**Sample ID:** SL-186-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 2:48:00

**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	55	J	19	MDL	380	PQL	ug/Kg	J	Z
CHRYSENE	38	J	19	MDL	190	PQL	ug/Kg	J	Z

**Sample ID:** SL-187-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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
ACENAPHTHENE	49	J	21	MDL	210	PQL	ug/Kg	J	Z
ANTHRACENE	150	J	21	MDL	210	PQL	ug/Kg	J	Z
CARBAZOLE	130	J	21	MDL	210	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C

**Matrix:** SO

**Sample ID:** SL-188-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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
BIS(2-ETHYLHEXYL)PHthalate	360	J	19	MDL	380	PQL	ug/Kg	J	Z
FLUORANTHENE	22	J	19	MDL	190	PQL	ug/Kg	J	Z
PYRENE	25	J	19	MDL	190	PQL	ug/Kg	J	Z

**Sample ID:** SL-189-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 11:35:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHthalate	34	J	19	MDL	390	PQL	ug/Kg	J	Z

**Sample ID:** SL-191-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 10:30:00

**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	33	J	18	MDL	360	PQL	ug/Kg	J	Z

**Sample ID:** SL-192-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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	38	J	20	MDL	410	PQL	ug/Kg	J	Z

**Sample ID:** SL-194-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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
BIS(2-ETHYLHEXYL)PHthalate	49	J	21	MDL	410	PQL	ug/Kg	J	Z

**Sample ID:** SL-195-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 9:44:00

**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	58	J	21	MDL	420	PQL	ug/Kg	J	Z

**Sample ID:** SL-196-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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	250	J	19	MDL	380	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C

**Matrix:** SO

**Sample ID:** SL-197-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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
ACENAPHTHYLENE	45	J	19	MDL	190	PQL	ug/Kg	J	Z
ANTHRACENE	110	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	87	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	89	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	89	J	19	MDL	190	PQL	ug/Kg	J	Z
CARBAZOLE	130	J	19	MDL	190	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	30	J	19	MDL	190	PQL	ug/Kg	J	Z
Di-n-octylphthalate	25	J	19	MDL	190	PQL	ug/Kg	J	Z
FLUORANTHENE	75	J	19	MDL	190	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	88	J	19	MDL	190	PQL	ug/Kg	J	Z
PHENANTHRENE	21	J	19	MDL	190	PQL	ug/Kg	J	Z
PYRENE	150	J	19	MDL	190	PQL	ug/Kg	J	Z

**Sample ID:** SL-198-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 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(B)FLUORANTHENE	29	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	25	J	18	MDL	180	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	88	J	18	MDL	370	PQL	ug/Kg	J	Z
CHRYSENE	34	J	18	MDL	180	PQL	ug/Kg	J	Z
FLUORANTHENE	19	J	18	MDL	180	PQL	ug/Kg	J	Z
PYRENE	25	J	18	MDL	180	PQL	ug/Kg	J	Z

**Method Category:** SVOA

**Method:** 8270C SIM

**Matrix:** SO

**Sample ID:** SL-008-SA5DN-SS-0.0-0.5

**Collected:** 5/23/2011 5:00:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.95	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.5	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	4.2		0.72	MDL	1.8	PQL	ug/Kg	J	L
INDENO(1,2,3-CD)PYRENE	1.2	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z, Q
NAPHTHALENE	0.95	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8270C SIM</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-008-SA5DN-SS-0.0-0.5 Collected: 5/23/2011 5:00:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHENANTHRENE	1.1	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-009-SA5DN-SS-0.0-0.5 Collected: 5/23/2011 5:20:00 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(B)FLUORANTHENE	93		4.4	MDL	11	PQL	ug/Kg	J	L
Di-n-octylphthalate	51	J	39	MDL	120	PQL	ug/Kg	J	Z

Sample ID: SL-011-SA5DN-SS-0.0-0.5 Collected: 5/23/2011 4:22:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	2.7	J	1.9	MDL	9.4	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	18		3.8	MDL	9.4	PQL	ug/Kg	J	L
BENZO(K)FLUORANTHENE	3.8	J	3.8	MDL	9.4	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	4.1	J	3.8	MDL	9.4	PQL	ug/Kg	J	Z

Sample ID: SL-012-SA5DN-SS-0.0-0.5 Collected: 5/23/2011 3:45:00 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(B)FLUORANTHENE	340		3.7	MDL	9.4	PQL	ug/Kg	J	L

Sample ID: SL-013-SA5DN-SS-0.0-0.5 Collected: 5/23/2011 3:25:00 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(B)FLUORANTHENE	20		3.5	MDL	8.6	PQL	ug/Kg	J	L
BENZO(K)FLUORANTHENE	8.4	J	3.5	MDL	8.6	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	50	J	31	MDL	93	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	3.7	J	3.5	MDL	8.6	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	7.0	J	3.5	MDL	8.6	PQL	ug/Kg	J	Z
PHENANTHRENE	4.0	J	3.5	MDL	8.6	PQL	ug/Kg	J	Z

Sample ID: SL-014-SA5DN-SS-0.0-0.5 Collected: 5/23/2011 2:55:00 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(B)FLUORANTHENE	22		3.7	MDL	9.2	PQL	ug/Kg	J	L

\* denotes a non-reportable result

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-014-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 2:55:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
INDENO(1,2,3-CD)PYRENE	7.8	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
PHENANTHRENE	5.4	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z

Sample ID: SL-018-SA5DN-SS-0.0-0.5

Collected: 5/23/2011 2:35:00

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	6.0	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	8.6	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	11		3.7	MDL	9.2	PQL	ug/Kg	J	L
BENZO(K)FLUORANTHENE	5.8	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	3.7	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	6.7	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
PHENANTHRENE	5.6	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z

Sample ID: SL-186-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 2:48:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.80	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.4	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
ACENAPHTHENE	0.82	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	16		0.76	MDL	1.9	PQL	ug/Kg	J	L
Butylbenzylphthalate	11	J	6.9	MDL	21	PQL	ug/Kg	J	Z
Di-n-butylphthalate	11	J	6.9	MDL	21	PQL	ug/Kg	J	Z, L
FLUORENE	1.3	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.6	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-187-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 3:08:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	5.9	J	4.3	MDL	11	PQL	ug/Kg	J	Z
FLUORENE	7.3	J	4.3	MDL	11	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-188-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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-METHYLNAPHTHALENE	0.81	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.5	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
ANTHRACENE	0.48	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.7	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	4.1		0.77	MDL	1.9	PQL	ug/Kg	J	L
BENZO(K)FLUORANTHENE	1.7	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-189-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 11:35:00

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	1.2	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
ANTHRACENE	0.41	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.3	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.3	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	2.9		0.78	MDL	2.0	PQL	ug/Kg	J	L
BENZO(K)FLUORANTHENE	0.99	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
CHRYSENE	1.7	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.6	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
NAPHTHALENE	1.6	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-191-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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-METHYLNAPHTHALENE	0.96	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.5	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
ANTHRACENE	0.70	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	6.9		0.73	MDL	1.8	PQL	ug/Kg	J	L
DIBENZO(A,H)ANTHRACENE	1.1	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	1.6	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-192-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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-METHYLNAPHTHALENE	1.6	J	0.82	MDL	2.1	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.46	J	0.41	MDL	2.1	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-192-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
ANTHRACENE	1.1	J	0.41	MDL	2.1	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	7.6		0.82	MDL	2.1	PQL	ug/Kg	J	L
DIBENZO(A,H)ANTHRACENE	1.1	J	0.82	MDL	2.1	PQL	ug/Kg	J	Z
FLUORENE	2.0	J	0.82	MDL	2.1	PQL	ug/Kg	J	Z

Sample ID: SL-193-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 1:45:00

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(B)FLUORANTHENE	4.1	J	3.6	MDL	9.1	PQL	ug/Kg	J	Z, L
BENZO(G,H,I)PERYLENE	3.7	J	3.6	MDL	9.1	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHthalate	61	J	33	MDL	98	PQL	ug/Kg	J	Z
CHRYSENE	3.5	J	1.8	MDL	9.1	PQL	ug/Kg	J	Z
FLUORANTHENE	4.4	J	3.6	MDL	9.1	PQL	ug/Kg	J	Z
PYRENE	4.8	J	3.6	MDL	9.1	PQL	ug/Kg	J	Z

Sample ID: SL-194-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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-METHYLNAPHTHALENE	1.2	J	0.84	MDL	2.1	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.8	J	0.84	MDL	2.1	PQL	ug/Kg	J	Z
ANTHRACENE	0.87	J	0.42	MDL	2.1	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	16		0.84	MDL	2.1	PQL	ug/Kg	J	L
DIBENZO(A,H)ANTHRACENE	1.6	J	0.84	MDL	2.1	PQL	ug/Kg	J	Z
Di-n-butylphthalate	8.6	J	7.5	MDL	23	PQL	ug/Kg	J	Z, L
FLUORENE	1.5	J	0.84	MDL	2.1	PQL	ug/Kg	J	Z

Sample ID: SL-195-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 9:44:00

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	4.4	J	4.2	MDL	10	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	5.3	J	4.2	MDL	10	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	10	J	4.2	MDL	10	PQL	ug/Kg	J	L
CHRYSENE	7.3	J	2.1	MDL	10	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	5.4	J	4.2	MDL	10	PQL	ug/Kg	J	Z
PHENANTHRENE	5.0	J	4.2	MDL	10	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C SIM

**Matrix:** SO

Sample ID: SL-195-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 9:44:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PYRENE	9.0	J	4.2	MDL	10	PQL	ug/Kg	J	Z

Sample ID: SL-196-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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-METHYLNAPHTHALENE	0.82	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.3	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
ANTHRACENE	1.5	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	14		0.77	MDL	1.9	PQL	ug/Kg	J	L
DIBENZO(A,H)ANTHRACENE	1.7	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-butylphthalate	7.6	J	6.9	MDL	21	PQL	ug/Kg	J	Z, L
FLUORENE	1.0	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.8	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-197-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 9:20:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	6.7	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z

Sample ID: SL-198-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 8:40:00

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	8.0	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	6.3	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
PHENANTHRENE	5.9	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z

**Method Category:** SVOA

**Method:** 8330A

**Matrix:** SO

Sample ID: SL-191-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 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
RDX	68	J	55	MDL	130	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

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## ***Data Qualifier Summary***

Lab Reporting Batch ID: DE160  
EDD Filename: PrepDE160\_v1

Laboratory: LL  
eQAPP Name: CDM\_SSFL\_110509

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

### Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
C	Initial Calibration Verification Percent Recovery Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

E	Matrix Spike Precision
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

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: PrepDE160\_v1

eQAPP Name: CDM\_SSFL\_110509

Q	Matrix Spike Upper Rejection
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

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE160



# Method Blank Outlier Report

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method: 6010B</b> <b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15108EB220209	6/2/2011 2:09:00 AM	CALCIUM PHOSPHORUS TIN	6.51 mg/Kg 1.32 mg/Kg 1.56 mg/Kg	SL-008-SA5DN-SS-0.0-0.5 SL-009-SA5DN-SS-0.0-0.5 SL-010-SA5DN-SS-0.0-0.5 SL-011-SA5DN-SS-0.0-0.5 SL-012-SA5DN-SS-0.0-0.5 SL-013-SA5DN-SS-0.0-0.5 SL-014-SA5DN-SS-0.0-0.5 SL-018-SA5DN-SS-0.0-0.5 SL-186-SA5DN-SS-0.0-0.5 SL-187-SA5DN-SS-0.0-0.5 SL-188-SA5DN-SS-0.0-0.5 SL-189-SA5DN-SS-0.0-0.5 SL-191-SA5DN-SS-0.0-0.5 SL-192-SA5DN-SS-0.0-0.5 SL-193-SA5DN-SS-0.0-0.5 SL-194-SA5DN-SS-0.0-0.5 SL-195-SA5DN-SS-0.0-0.5 SL-196-SA5DN-SS-0.0-0.5 SL-197-SA5DN-SS-0.0-0.5 SL-198-SA5DN-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-008-SA5DN-SS-0.0-0.5(RES)	TIN	2.49 mg/Kg	2.49U mg/Kg
SL-009-SA5DN-SS-0.0-0.5(RES)	TIN	3.35 mg/Kg	3.35U mg/Kg
SL-010-SA5DN-SS-0.0-0.5(RES)	TIN	2.21 mg/Kg	2.21U mg/Kg
SL-011-SA5DN-SS-0.0-0.5(RES)	TIN	2.62 mg/Kg	2.62U mg/Kg
SL-012-SA5DN-SS-0.0-0.5(RES)	TIN	2.89 mg/Kg	2.89U mg/Kg
SL-013-SA5DN-SS-0.0-0.5(RES)	TIN	2.31 mg/Kg	2.31U mg/Kg
SL-014-SA5DN-SS-0.0-0.5(RES)	TIN	2.77 mg/Kg	2.77U mg/Kg
SL-018-SA5DN-SS-0.0-0.5(RES)	TIN	2.99 mg/Kg	2.99U mg/Kg
SL-186-SA5DN-SS-0.0-0.5(RES)	TIN	2.96 mg/Kg	2.96U mg/Kg
SL-187-SA5DN-SS-0.0-0.5(RES)	TIN	3.32 mg/Kg	3.32U mg/Kg
SL-188-SA5DN-SS-0.0-0.5(RES)	TIN	3.06 mg/Kg	3.06U mg/Kg
SL-189-SA5DN-SS-0.0-0.5(RES)	TIN	2.91 mg/Kg	2.91U mg/Kg
SL-191-SA5DN-SS-0.0-0.5(RES)	TIN	2.93 mg/Kg	2.93U mg/Kg
SL-192-SA5DN-SS-0.0-0.5(RES)	TIN	3.07 mg/Kg	3.07U mg/Kg
SL-193-SA5DN-SS-0.0-0.5(RES)	TIN	3.03 mg/Kg	3.03U mg/Kg
SL-194-SA5DN-SS-0.0-0.5(RES)	TIN	3.19 mg/Kg	3.19U mg/Kg
SL-195-SA5DN-SS-0.0-0.5(RES)	TIN	3.26 mg/Kg	3.26U mg/Kg
SL-196-SA5DN-SS-0.0-0.5(RES)	TIN	3.08 mg/Kg	3.08U mg/Kg
SL-197-SA5DN-SS-0.0-0.5(RES)	TIN	3.17 mg/Kg	3.17U mg/Kg
SL-198-SA5DN-SS-0.0-0.5(RES)	TIN	3.15 mg/Kg	3.15U mg/Kg

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method: 6020</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15726AB221522A	6/7/2011 3:22:00 PM	LEAD	0.0120 mg/Kg	SL-008-SA5DN-SS-0.0-0.5 SL-009-SA5DN-SS-0.0-0.5 SL-010-SA5DN-SS-0.0-0.5 SL-011-SA5DN-SS-0.0-0.5 SL-012-SA5DN-SS-0.0-0.5 SL-013-SA5DN-SS-0.0-0.5 SL-014-SA5DN-SS-0.0-0.5 SL-018-SA5DN-SS-0.0-0.5 SL-186-SA5DN-SS-0.0-0.5 SL-187-SA5DN-SS-0.0-0.5 SL-188-SA5DN-SS-0.0-0.5 SL-189-SA5DN-SS-0.0-0.5 SL-191-SA5DN-SS-0.0-0.5 SL-192-SA5DN-SS-0.0-0.5 SL-193-SA5DN-SS-0.0-0.5 SL-194-SA5DN-SS-0.0-0.5 SL-195-SA5DN-SS-0.0-0.5 SL-196-SA5DN-SS-0.0-0.5 SL-197-SA5DN-SS-0.0-0.5 SL-198-SA5DN-SS-0.0-0.5

<b>Method: 8015M</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P48483AB321813A	6/4/2011 6:13:00 PM	EFH (C30-C40)	1.4 mg/Kg	SL-012-SA5DN-SS-0.0-0.5 SL-013-SA5DN-SS-0.0-0.5 SL-014-SA5DN-SS-0.0-0.5 SL-018-SA5DN-SS-0.0-0.5 SL-186-SA5DN-SS-0.0-0.5 SL-191-SA5DN-SS-0.0-0.5 SL-192-SA5DN-SS-0.0-0.5 SL-197-SA5DN-SS-0.0-0.5 SL-198-SA5DN-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-013-SA5DN-SS-0.0-0.5(REA2)	EFH (C30-C40)	350 mg/Kg	350U mg/Kg

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_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-012-SA5DN-SS-0.0-0.5MS SL-012-SA5DN-SS-0.0-0.5MSD (SL-012-SA5DN-SS-0.0-0.5)	DIETHYLENE GLYCOL	58	47	59.00-109.00	21 (20.00)	DIETHYLENE GLYCOL	J (all detects) UJ (all non-detects)

**Method: 8082**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-008-SA5DN-SS-0.0-0.5MS SL-008-SA5DN-SS-0.0-0.5MSD (SL-008-SA5DN-SS-0.0-0.5)	AROCLOR 1016 AROCLOR 1260	269 -	357 224	29.00-146.00 39.00-149.00	- -	AROCLOR 1016, 1221, 1232 AROCLOR 1242, 1248, 1254, 1260	No Qual, Diluted Out

**Method: 8081A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-009-SA5DN-SS-0.0-0.5MSD (SL-009-SA5DN-SS-0.0-0.5)	DIELDRIN	-	-	19.00-154.00	96 (50.00)	DIELDRIN	J(all detects)
SL-009-SA5DN-SS-0.0-0.5MS SL-009-SA5DN-SS-0.0-0.5MSD (SL-009-SA5DN-SS-0.0-0.5)	4,4'-DDT BETA-BHC ENDRIN	- 0 0	-34 - -	10.00-176.00 14.00-147.00 11.00-149.00	- 200 (50.00) 200 (50.00)	4,4'-DDT BETA-BHC ENDRIN	J(all detects) R(all non-detects)
SL-009-SA5DN-SS-0.0-0.5MSD (SL-009-SA5DN-SS-0.0-0.5)	4,4'-DDE	-	6	18.00-161.00	74 (50.00)	4,4'-DDE	J(all detects) UJ(all non-detects)

**Method: 8015M**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-012-SA5DN-SS-0.0-0.5MS SL-012-SA5DN-SS-0.0-0.5MSD (SL-012-SA5DN-SS-0.0-0.5)	EFH (C21-C30) EFH (C30-C40)	- 391	1202 3019	49.00-123.00 49.00-123.00	34 (20.00) 28 (20.00)	EFH (C21-C30) EFH (C30-C40)	No Qual, Diluted Out
SL-012-SA5DN-SS-0.0-0.5MS SL-012-SA5DN-SS-0.0-0.5MSD (SL-012-SA5DN-SS-0.0-0.5)	EFH (C12-C14) EFH (C15-C20) EFH (C8-C11)	0 0 0	0 0 0	49.00-123.00 49.00-123.00 49.00-123.00	- - -	EFH (C12-C14) EFH (C15-C20) EFH (C8-C11)	No Qual, Diluted Out

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-010-SA5DN-SS-0.0-0.5MSD (SL-010-SA5DN-SS-0.0-0.5)	2,4-D	-	-	17.00-180.00	52 (35.00)	2,4-D	J(all detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 8082**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-008-SA5DN-SS-0.0-0.5MS SL-008-SA5DN-SS-0.0-0.5MSD (SL-008-SA5DN-SS-0.0-0.5)	AROCLOR 1260	-5	0	39.00-149.00	-	AROCLOR 1242, 1248, 1254, 1260	No Qual Diluted Out

**Method: 8270C SIM**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-008-SA5DN-SS-0.0-0.5MS (SL-008-SA5DN-SS-0.0-0.5)	DIBENZO(A,H)ANTHRACENE INDENO(1,2,3-CD)PYRENE	153 152	- -	22.00-133.00 21.00-143.00	- -	DIBENZO(A,H)ANTHRACENE INDENO(1,2,3-CD)PYRENE	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-008-SA5DN-SS-0.0-0.5MS SL-008-SA5DN-SS-0.0-0.5MSD (SL-008-SA5DN-SS-0.0-0.5) SL-009-SA5DN-SS-0.0-0.5 SL-010-SA5DN-SS-0.0-0.5 SL-011-SA5DN-SS-0.0-0.5 SL-012-SA5DN-SS-0.0-0.5 SL-013-SA5DN-SS-0.0-0.5 SL-014-SA5DN-SS-0.0-0.5 SL-018-SA5DN-SS-0.0-0.5 SL-186-SA5DN-SS-0.0-0.5 SL-187-SA5DN-SS-0.0-0.5 SL-188-SA5DN-SS-0.0-0.5 SL-189-SA5DN-SS-0.0-0.5 SL-191-SA5DN-SS-0.0-0.5 SL-192-SA5DN-SS-0.0-0.5 SL-193-SA5DN-SS-0.0-0.5 SL-194-SA5DN-SS-0.0-0.5 SL-195-SA5DN-SS-0.0-0.5 SL-196-SA5DN-SS-0.0-0.5 SL-197-SA5DN-SS-0.0-0.5 SL-198-SA5DN-SS-0.0-0.5)	ALUMINUM CALCIUM IRON MAGNESIUM POTASSIUM	1579 351 726 210 148	2154 174 1181 233 155	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - -	ALUMINUM CALCIUM IRON MAGNESIUM POTASSIUM	NoQual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_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-008-SA5DN-SS-0.0-0.5MS (SL-008-SA5DN-SS-0.0-0.5 SL-009-SA5DN-SS-0.0-0.5 SL-010-SA5DN-SS-0.0-0.5 SL-011-SA5DN-SS-0.0-0.5 SL-012-SA5DN-SS-0.0-0.5 SL-013-SA5DN-SS-0.0-0.5 SL-014-SA5DN-SS-0.0-0.5 SL-018-SA5DN-SS-0.0-0.5 SL-186-SA5DN-SS-0.0-0.5 SL-187-SA5DN-SS-0.0-0.5)	FLUORIDE	69	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
SL-188-SA5DN-SS-0.0-0.5MS (SL-188-SA5DN-SS-0.0-0.5 SL-189-SA5DN-SS-0.0-0.5 SL-191-SA5DN-SS-0.0-0.5 SL-192-SA5DN-SS-0.0-0.5 SL-193-SA5DN-SS-0.0-0.5 SL-194-SA5DN-SS-0.0-0.5 SL-195-SA5DN-SS-0.0-0.5 SL-196-SA5DN-SS-0.0-0.5 SL-197-SA5DN-SS-0.0-0.5 SL-198-SA5DN-SS-0.0-0.5)	FLUORIDE	47	-	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-010-SA5DN-SS-0.0-0.5MS SL-010-SA5DN-SS-0.0-0.5MSD (SL-008-SA5DN-SS-0.0-0.5 SL-009-SA5DN-SS-0.0-0.5 SL-010-SA5DN-SS-0.0-0.5 SL-011-SA5DN-SS-0.0-0.5 SL-012-SA5DN-SS-0.0-0.5 SL-013-SA5DN-SS-0.0-0.5 SL-014-SA5DN-SS-0.0-0.5 SL-018-SA5DN-SS-0.0-0.5 SL-186-SA5DN-SS-0.0-0.5 SL-187-SA5DN-SS-0.0-0.5 SL-188-SA5DN-SS-0.0-0.5 SL-189-SA5DN-SS-0.0-0.5 SL-191-SA5DN-SS-0.0-0.5 SL-192-SA5DN-SS-0.0-0.5 SL-193-SA5DN-SS-0.0-0.5 SL-194-SA5DN-SS-0.0-0.5 SL-195-SA5DN-SS-0.0-0.5 SL-196-SA5DN-SS-0.0-0.5 SL-197-SA5DN-SS-0.0-0.5 SL-198-SA5DN-SS-0.0-0.5)	TITANIUM	472	486	75.00-125.00	-	TITANIUM	No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_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-008-SA5DN-SS-0.0-0.5MSD (SL-008-SA5DN-SS-0.0-0.5 SL-009-SA5DN-SS-0.0-0.5 SL-010-SA5DN-SS-0.0-0.5 SL-011-SA5DN-SS-0.0-0.5 SL-012-SA5DN-SS-0.0-0.5 SL-013-SA5DN-SS-0.0-0.5 SL-014-SA5DN-SS-0.0-0.5 SL-018-SA5DN-SS-0.0-0.5 SL-186-SA5DN-SS-0.0-0.5 SL-187-SA5DN-SS-0.0-0.5 SL-188-SA5DN-SS-0.0-0.5 SL-189-SA5DN-SS-0.0-0.5 SL-191-SA5DN-SS-0.0-0.5 SL-192-SA5DN-SS-0.0-0.5 SL-193-SA5DN-SS-0.0-0.5 SL-194-SA5DN-SS-0.0-0.5 SL-195-SA5DN-SS-0.0-0.5 SL-196-SA5DN-SS-0.0-0.5 SL-197-SA5DN-SS-0.0-0.5 SL-198-SA5DN-SS-0.0-0.5)	ARSENIC CHROMIUM VANADIUM	- - -	151 162 223	75.00-125.00 75.00-125.00 75.00-125.00	- - -	ARSENIC CHROMIUM VANADIUM	J(all detects)
SL-008-SA5DN-SS-0.0-0.5MS SL-008-SA5DN-SS-0.0-0.5MSD (SL-008-SA5DN-SS-0.0-0.5 SL-009-SA5DN-SS-0.0-0.5 SL-010-SA5DN-SS-0.0-0.5 SL-011-SA5DN-SS-0.0-0.5 SL-012-SA5DN-SS-0.0-0.5 SL-013-SA5DN-SS-0.0-0.5 SL-014-SA5DN-SS-0.0-0.5 SL-018-SA5DN-SS-0.0-0.5 SL-186-SA5DN-SS-0.0-0.5 SL-187-SA5DN-SS-0.0-0.5 SL-188-SA5DN-SS-0.0-0.5 SL-189-SA5DN-SS-0.0-0.5 SL-191-SA5DN-SS-0.0-0.5 SL-192-SA5DN-SS-0.0-0.5 SL-193-SA5DN-SS-0.0-0.5 SL-194-SA5DN-SS-0.0-0.5 SL-195-SA5DN-SS-0.0-0.5 SL-196-SA5DN-SS-0.0-0.5 SL-197-SA5DN-SS-0.0-0.5 SL-198-SA5DN-SS-0.0-0.5)	ANTIMONY BERYLLIUM COBALT COPPER LEAD NICKEL ZINC	30 71 - - - - 45	35 - - 130 180 138 175	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	- - 25 (20.00) 23 (20.00) 21 (20.00) 21 (20.00) 21 (20.00)	ANTIMONY BERYLLIUM COBALT COPPER LEAD NICKEL ZINC	J(all detects) UJ(all non-detects) Zn No Qual based on %R, >4x
SL-008-SA5DN-SS-0.0-0.5MSD (SL-008-SA5DN-SS-0.0-0.5 SL-009-SA5DN-SS-0.0-0.5 SL-010-SA5DN-SS-0.0-0.5 SL-011-SA5DN-SS-0.0-0.5 SL-012-SA5DN-SS-0.0-0.5 SL-013-SA5DN-SS-0.0-0.5 SL-014-SA5DN-SS-0.0-0.5 SL-018-SA5DN-SS-0.0-0.5 SL-186-SA5DN-SS-0.0-0.5 SL-187-SA5DN-SS-0.0-0.5 SL-188-SA5DN-SS-0.0-0.5 SL-189-SA5DN-SS-0.0-0.5 SL-191-SA5DN-SS-0.0-0.5 SL-192-SA5DN-SS-0.0-0.5 SL-193-SA5DN-SS-0.0-0.5 SL-194-SA5DN-SS-0.0-0.5 SL-195-SA5DN-SS-0.0-0.5 SL-196-SA5DN-SS-0.0-0.5 SL-197-SA5DN-SS-0.0-0.5 SL-198-SA5DN-SS-0.0-0.5)	BARIUM	-	398	75.00-125.00	26 (20.00)	BARIUM	J(all detects) UJ(all non-detects) No Qual based on %R, >4x

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 6010B

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-008-SA5DN-SS-0.0-0.5DUP (SL-008-SA5DN-SS-0.0-0.5 SL -009-SA5DN-SS-0.0-0.5 SL -010-SA5DN-SS-0.0-0.5 SL -011-SA5DN-SS-0.0-0.5 SL -012-SA5DN-SS-0.0-0.5 SL -013-SA5DN-SS-0.0-0.5 SL -014-SA5DN-SS-0.0-0.5 SL -018-SA5DN-SS-0.0-0.5 SL -186-SA5DN-SS-0.0-0.5 SL -187-SA5DN-SS-0.0-0.5 SL -188-SA5DN-SS-0.0-0.5 SL -189-SA5DN-SS-0.0-0.5 SL -191-SA5DN-SS-0.0-0.5 SL -192-SA5DN-SS-0.0-0.5 SL -193-SA5DN-SS-0.0-0.5 SL -194-SA5DN-SS-0.0-0.5 SL -195-SA5DN-SS-0.0-0.5 SL -196-SA5DN-SS-0.0-0.5 SL -197-SA5DN-SS-0.0-0.5 SL -198-SA5DN-SS-0.0-0.5)	Zirconium	21	20.00	No Qual, OK by difference

Method: 7199

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-008-SA5DN-SS-0.0-0.5DUP (SL-008-SA5DN-SS-0.0-0.5 SL -009-SA5DN-SS-0.0-0.5 SL -010-SA5DN-SS-0.0-0.5 SL -011-SA5DN-SS-0.0-0.5 SL -012-SA5DN-SS-0.0-0.5 SL -013-SA5DN-SS-0.0-0.5 SL -014-SA5DN-SS-0.0-0.5 SL -018-SA5DN-SS-0.0-0.5 SL -186-SA5DN-SS-0.0-0.5 SL -187-SA5DN-SS-0.0-0.5 SL -188-SA5DN-SS-0.0-0.5 SL -189-SA5DN-SS-0.0-0.5 SL -191-SA5DN-SS-0.0-0.5 SL -192-SA5DN-SS-0.0-0.5 SL -193-SA5DN-SS-0.0-0.5 SL -194-SA5DN-SS-0.0-0.5 SL -195-SA5DN-SS-0.0-0.5 SL -196-SA5DN-SS-0.0-0.5 SL -197-SA5DN-SS-0.0-0.5 SL -198-SA5DN-SS-0.0-0.5)	HEXAVALENT CHROMIUM	74	20.00	No Qual, OK by difference

## Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 6010B

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-010-SA5DN-SS-0.0-0.5DUP (SL-008-SA5DN-SS-0.0-0.5 SL -009-SA5DN-SS-0.0-0.5 SL -010-SA5DN-SS-0.0-0.5 SL -011-SA5DN-SS-0.0-0.5 SL -012-SA5DN-SS-0.0-0.5 SL -013-SA5DN-SS-0.0-0.5 SL -014-SA5DN-SS-0.0-0.5 SL -018-SA5DN-SS-0.0-0.5 SL -186-SA5DN-SS-0.0-0.5 SL -187-SA5DN-SS-0.0-0.5 SL -188-SA5DN-SS-0.0-0.5 SL -189-SA5DN-SS-0.0-0.5 SL -191-SA5DN-SS-0.0-0.5 SL -192-SA5DN-SS-0.0-0.5 SL -193-SA5DN-SS-0.0-0.5 SL -194-SA5DN-SS-0.0-0.5 SL -195-SA5DN-SS-0.0-0.5 SL -196-SA5DN-SS-0.0-0.5 SL -197-SA5DN-SS-0.0-0.5 SL -198-SA5DN-SS-0.0-0.5)	TITANIUM	23	20.00	J(all detects) UJ(all non-detects)



# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_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
P11470AQ240232A P11470AY240250A (SL-011-SA5DN-SS-0.0-0.5)	AROCLOR 1016 Aroclor 5442	154 -	- 113	72.00-120.00 36.00-106.00	- -	AROCLOR 1016 Aroclor 5432, Aroclor 5442 Aroclor 5460	J (all detects)

**Method: 8081A**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11475AQ241656A (SL-008-SA5DN-SS-0.0-0.5 SL-009-SA5DN-SS-0.0-0.5 SL-010-SA5DN-SS-0.0-0.5 SL-011-SA5DN-SS-0.0-0.5 SL-012-SA5DN-SS-0.0-0.5 SL-013-SA5DN-SS-0.0-0.5 SL-014-SA5DN-SS-0.0-0.5 SL-018-SA5DN-SS-0.0-0.5 SL-186-SA5DN-SS-0.0-0.5 SL-187-SA5DN-SS-0.0-0.5 SL-188-SA5DN-SS-0.0-0.5 SL-189-SA5DN-SS-0.0-0.5 SL-191-SA5DN-SS-0.0-0.5 SL-192-SA5DN-SS-0.0-0.5 SL-193-SA5DN-SS-0.0-0.5 SL-194-SA5DN-SS-0.0-0.5 SL-195-SA5DN-SS-0.0-0.5 SL-196-SA5DN-SS-0.0-0.5 SL-197-SA5DN-SS-0.0-0.5 SL-198-SA5DN-SS-0.0-0.5)	ENDOSULFAN II	57	-	63.00-127.00	-	ENDOSULFAN II	J(all detects) UJ(all non-detects)

**Method: 8270C SIM**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P8LALCSQ262333 (SL-008-SA5DN-SS-0.0-0.5 SL-009-SA5DN-SS-0.0-0.5 SL-010-SA5DN-SS-0.0-0.5 SL-011-SA5DN-SS-0.0-0.5 SL-012-SA5DN-SS-0.0-0.5 SL-013-SA5DN-SS-0.0-0.5 SL-014-SA5DN-SS-0.0-0.5 SL-018-SA5DN-SS-0.0-0.5 SL-186-SA5DN-SS-0.0-0.5 SL-187-SA5DN-SS-0.0-0.5 SL-188-SA5DN-SS-0.0-0.5 SL-189-SA5DN-SS-0.0-0.5 SL-191-SA5DN-SS-0.0-0.5 SL-192-SA5DN-SS-0.0-0.5 SL-193-SA5DN-SS-0.0-0.5 SL-194-SA5DN-SS-0.0-0.5 SL-195-SA5DN-SS-0.0-0.5 SL-196-SA5DN-SS-0.0-0.5 SL-197-SA5DN-SS-0.0-0.5 SL-198-SA5DN-SS-0.0-0.5)	BENZO(B)FLUORANTHENE Di-n-butylphthalate	148 133	- -	63.00-143.00 84.00-132.00	- -	BENZO(B)FLUORANTHENE Di-n-butylphthalate	J(all detects)

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# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_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
P15726AQ221525A (SL-008-SA5DN-SS-0.0-0.5 SL-009-SA5DN-SS-0.0-0.5 SL-010-SA5DN-SS-0.0-0.5 SL-011-SA5DN-SS-0.0-0.5 SL-012-SA5DN-SS-0.0-0.5 SL-013-SA5DN-SS-0.0-0.5 SL-014-SA5DN-SS-0.0-0.5 SL-018-SA5DN-SS-0.0-0.5 SL-186-SA5DN-SS-0.0-0.5 SL-187-SA5DN-SS-0.0-0.5 SL-188-SA5DN-SS-0.0-0.5 SL-189-SA5DN-SS-0.0-0.5 SL-191-SA5DN-SS-0.0-0.5 SL-192-SA5DN-SS-0.0-0.5 SL-193-SA5DN-SS-0.0-0.5 SL-194-SA5DN-SS-0.0-0.5 SL-195-SA5DN-SS-0.0-0.5 SL-196-SA5DN-SS-0.0-0.5 SL-197-SA5DN-SS-0.0-0.5 SL-198-SA5DN-SS-0.0-0.5)	ANTIMONY	72	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within limits

# Surrogate Outlier Report

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 1625C  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-197-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine-d6	1015	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-187-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	279	20.00-120.00	All Target Analytes	J(all detects)

**Method:** 8082  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-191-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	310	45.00-120.00	All Target Analytes	No Qual, diluted out
SL-197-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	125	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-192-SA5DN-SS-0.0-0.5	Nitrobenzene-d5	132	40.00-130.00	No Affected Compounds	J(all detects)

**Method:** 8315A  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-012-SA5DN-SS-0.0-0.5	Butyraldehyde	134	64.00-126.00	All Target Analytes	J (all detects)
SL-013-SA5DN-SS-0.0-0.5	Butyraldehyde	133	64.00-126.00	All Target Analytes	J(all detects)
SL-014-SA5DN-SS-0.0-0.5	Butyraldehyde	128	64.00-126.00	All Target Analytes	J(all detects)
SL-018-SA5DN-SS-0.0-0.5	Butyraldehyde	134	64.00-126.00	All Target Analytes	J(all detects)
SL-186-SA5DN-SS-0.0-0.5	Butyraldehyde	132	64.00-126.00	All Target Analytes	J(all detects)
SL-192-SA5DN-SS-0.0-0.5	Butyraldehyde	128	64.00-126.00	All Target Analytes	J(all detects)
SL-197-SA5DN-SS-0.0-0.5	Butyraldehyde	128	64.00-126.00	All Target Analytes	J(all detects)
SL-198-SA5DN-SS-0.0-0.5	Butyraldehyde	132	64.00-126.00	All Target Analytes	J(all detects)

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 1625C

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-012-SA5DN-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	21.5	37.5	PQL	ng/Kg	J (all detects)
SL-013-SA5DN-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	18.4	34.6	PQL	ng/Kg	J (all detects)
SL-018-SA5DN-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	32.1	36.6	PQL	ng/Kg	J (all detects)
SL-198-SA5DN-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	21.3	36.8	PQL	ng/Kg	J (all detects)

**Method:** 300.0

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-009-SA5DN-SS-0.0-0.5	FLUORIDE	J	1.2	1.3	PQL	mg/Kg	J (all detects)
SL-013-SA5DN-SS-0.0-0.5	Nitrate-NO3	J	1.2	1.6	PQL	mg/Kg	J (all detects)
SL-014-SA5DN-SS-0.0-0.5	Nitrate-NO3	J	1.4	1.7	PQL	mg/Kg	J (all detects)

**Method:** 6010B

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA5DN-SS-0.0-0.5	TIN Zirconium	J	2.49	10.4	PQL	mg/Kg	J (all detects)
		J	3.47	5.20	PQL	mg/Kg	
SL-009-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	111	128	PQL	mg/Kg	J (all detects)
		J	3.35	12.8	PQL	mg/Kg	
		J	2.84	6.38	PQL	mg/Kg	
SL-010-SA5DN-SS-0.0-0.5	BORON TIN	J	3.92	5.04	PQL	mg/Kg	J (all detects)
		J	2.21	10.1	PQL	mg/Kg	
SL-011-SA5DN-SS-0.0-0.5	TIN Zirconium	J	2.62	10.9	PQL	mg/Kg	J (all detects)
		J	3.22	5.47	PQL	mg/Kg	
SL-012-SA5DN-SS-0.0-0.5	TIN Zirconium	J	2.89	10.8	PQL	mg/Kg	J (all detects)
		J	2.78	5.40	PQL	mg/Kg	
SL-013-SA5DN-SS-0.0-0.5	TIN Zirconium	J	2.31	10.1	PQL	mg/Kg	J (all detects)
		J	1.71	5.04	PQL	mg/Kg	
SL-014-SA5DN-SS-0.0-0.5	TIN Zirconium	J	2.77	10.6	PQL	mg/Kg	J (all detects)
		J	4.20	5.32	PQL	mg/Kg	
SL-018-SA5DN-SS-0.0-0.5	TIN Zirconium	J	2.99	10.8	PQL	mg/Kg	J (all detects)
		J	3.65	5.39	PQL	mg/Kg	
SL-186-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	103	113	PQL	mg/Kg	J (all detects)
		J	2.96	11.3	PQL	mg/Kg	
		J	2.59	5.66	PQL	mg/Kg	
SL-187-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	123	126	PQL	mg/Kg	J (all detects)
		J	3.32	12.6	PQL	mg/Kg	
		J	3.18	6.31	PQL	mg/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-188-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	82.0	111	PQL	mg/Kg	J (all detects)
		J	3.06	11.1	PQL	mg/Kg	
		J	3.35	5.53	PQL	mg/Kg	
SL-189-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	94.9	114	PQL	mg/Kg	J (all detects)
		J	2.91	11.4	PQL	mg/Kg	
		J	2.88	5.70	PQL	mg/Kg	
SL-191-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	86.1	108	PQL	mg/Kg	J (all detects)
		J	2.93	10.8	PQL	mg/Kg	
		J	1.78	5.40	PQL	mg/Kg	
SL-192-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	88.3	118	PQL	mg/Kg	J (all detects)
		J	3.07	11.8	PQL	mg/Kg	
		J	2.88	5.91	PQL	mg/Kg	
SL-193-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	87.7	106	PQL	mg/Kg	J (all detects)
		J	3.03	10.6	PQL	mg/Kg	
		J	2.08	5.29	PQL	mg/Kg	
SL-194-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	74.0	124	PQL	mg/Kg	J (all detects)
		J	3.19	12.4	PQL	mg/Kg	
		J	3.93	6.21	PQL	mg/Kg	
SL-195-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	90.1	123	PQL	mg/Kg	J (all detects)
		J	3.26	12.3	PQL	mg/Kg	
		J	1.69	6.17	PQL	mg/Kg	
SL-196-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	92.1	112	PQL	mg/Kg	J (all detects)
		J	3.08	11.2	PQL	mg/Kg	
		J	2.41	5.61	PQL	mg/Kg	
SL-197-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	81.0	115	PQL	mg/Kg	J (all detects)
		J	3.17	11.5	PQL	mg/Kg	
		J	3.34	5.77	PQL	mg/Kg	
SL-198-SA5DN-SS-0.0-0.5	TIN Zirconium	J	3.15	10.6	PQL	mg/Kg	J (all detects)
		J	1.34	5.30	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.103	0.216	PQL	mg/Kg	J (all detects)
		J	0.178	0.433	PQL	mg/Kg	
		J	0.0289	0.108	PQL	mg/Kg	
SL-009-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.219	0.505	PQL	mg/Kg	J (all detects)
		J	0.0445	0.126	PQL	mg/Kg	
SL-010-SA5DN-SS-0.0-0.5	CADMIUM	J	0.0697	0.0969	PQL	mg/Kg	J (all detects)
SL-011-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.171	0.221	PQL	mg/Kg	J (all detects)
		J	0.207	0.442	PQL	mg/Kg	
		J	0.0310	0.110	PQL	mg/Kg	
SL-012-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.160	0.225	PQL	mg/Kg	J (all detects)
		J	0.148	0.449	PQL	mg/Kg	
		J	0.0568	0.112	PQL	mg/Kg	

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6020

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-013-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.0962	0.205	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0320	0.103	PQL	mg/Kg	
SL-014-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.172	0.213	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.144	0.426	PQL	mg/Kg	
	SILVER	J	0.0625	0.106	PQL	mg/Kg	
SL-018-SA5DN-SS-0.0-0.5	SELENIUM	J	0.225	0.431	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0631	0.108	PQL	mg/Kg	
SL-186-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.208	0.222	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.287	0.444	PQL	mg/Kg	
	SILVER	J	0.0583	0.111	PQL	mg/Kg	
SL-187-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.243	0.248	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.324	0.495	PQL	mg/Kg	
	SILVER	J	0.0616	0.124	PQL	mg/Kg	
SL-188-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.133	0.228	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.247	0.456	PQL	mg/Kg	
	SILVER	J	0.0410	0.114	PQL	mg/Kg	
SL-189-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.204	0.235	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.360	0.470	PQL	mg/Kg	
	SILVER	J	0.0572	0.118	PQL	mg/Kg	
SL-191-SA5DN-SS-0.0-0.5	SELENIUM	J	0.327	0.424	PQL	mg/Kg	J (all detects)
SL-192-SA5DN-SS-0.0-0.5	SELENIUM	J	0.230	0.473	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0815	0.118	PQL	mg/Kg	
SL-193-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.145	0.218	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.200	0.436	PQL	mg/Kg	
SL-194-SA5DN-SS-0.0-0.5	SELENIUM	J	0.302	0.487	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0541	0.122	PQL	mg/Kg	
SL-195-SA5DN-SS-0.0-0.5	SELENIUM	J	0.236	0.488	PQL	mg/Kg	J (all detects)
SL-196-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.195	0.224	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.291	0.448	PQL	mg/Kg	
	SILVER	J	0.109	0.112	PQL	mg/Kg	
SL-197-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.180	0.222	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.348	0.444	PQL	mg/Kg	
SL-198-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.167	0.216	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.133	0.432	PQL	mg/Kg	

**Method:** 7199

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.55	1.1	PQL	mg/Kg	J (all detects)
SL-009-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.65	1.3	PQL	mg/Kg	J (all detects)
SL-011-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.67	1.1	PQL	mg/Kg	J (all detects)
SL-012-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.64	1.1	PQL	mg/Kg	J (all detects)
SL-013-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.58	1.0	PQL	mg/Kg	J (all detects)

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 7199

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-018-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.56	1.1	PQL	mg/Kg	J (all detects)
SL-186-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.75	1.1	PQL	mg/Kg	J (all detects)
SL-191-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.69	1.1	PQL	mg/Kg	J (all detects)
SL-192-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.78	1.2	PQL	mg/Kg	J (all detects)
SL-194-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.60	1.3	PQL	mg/Kg	J (all detects)

**Method:** 7471A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-013-SA5DN-SS-0.0-0.5	MERCURY	J	0.0034	0.0985	PQL	mg/Kg	J (all detects)
SL-187-SA5DN-SS-0.0-0.5	MERCURY	J	0.0084	0.126	PQL	mg/Kg	J (all detects)
SL-191-SA5DN-SS-0.0-0.5	MERCURY	J	0.0376	0.106	PQL	mg/Kg	J (all detects)
SL-195-SA5DN-SS-0.0-0.5	MERCURY	J	0.0415	0.122	PQL	mg/Kg	J (all detects)
SL-197-SA5DN-SS-0.0-0.5	MERCURY	J	0.0083	0.111	PQL	mg/Kg	J (all detects)

**Method:** 8015M

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-186-SA5DN-SS-0.0-0.5	EFH (C8-C11)	J	0.63	1.4	PQL	mg/Kg	J (all detects)
SL-191-SA5DN-SS-0.0-0.5	EFH (C12-C14)	J	0.98	1.3	PQL	mg/Kg	J (all detects)
SL-197-SA5DN-SS-0.0-0.5	EFH (C8-C11)	J	1.9	2.8	PQL	mg/Kg	J (all detects)

**Method:** 8081A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-009-SA5DN-SS-0.0-0.5	DELTA-BHC	J	0.13	0.22	PQL	ug/Kg	J (all detects)
SL-010-SA5DN-SS-0.0-0.5	ENDRIN KETONE	J	0.087	0.34	PQL	ug/Kg	J (all detects)
SL-011-SA5DN-SS-0.0-0.5	Chlordane	J	2.1	3.8	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.11	0.19	PQL	ug/Kg	
	gamma-BHC (Lindane)	J	0.13	0.19	PQL	ug/Kg	
SL-012-SA5DN-SS-0.0-0.5	4,4'-DDT	J	0.17	0.38	PQL	ug/Kg	J (all detects)
SL-014-SA5DN-SS-0.0-0.5	BETA-BHC	J	0.15	0.18	PQL	ug/Kg	J (all detects)
	Chlordane	J	1.9	3.8	PQL	ug/Kg	

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8081A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-018-SA5DN-SS-0.0-0.5	Chlordane	J	2.6	3.7	PQL	ug/Kg	J (all detects)
SL-188-SA5DN-SS-0.0-0.5	Chlordane MIREX	J	1.9	3.9	PQL	ug/Kg	J (all detects)
		J	0.22	0.39	PQL	ug/Kg	
SL-189-SA5DN-SS-0.0-0.5	Chlordane	J	1.5	4.0	PQL	ug/Kg	J (all detects)
SL-191-SA5DN-SS-0.0-0.5	4,4'-DDE DELTA-BHC	J	0.33	0.37	PQL	ug/Kg	J (all detects)
		J	0.056	0.18	PQL	ug/Kg	
SL-192-SA5DN-SS-0.0-0.5	Chlordane gamma-BHC (Lindane)	J	3.4	4.2	PQL	ug/Kg	J (all detects)
		J	0.080	0.20	PQL	ug/Kg	
SL-193-SA5DN-SS-0.0-0.5	DELTA-BHC HEPTACHLOR EPOXIDE	J	0.060	0.18	PQL	ug/Kg	J (all detects)
		J	0.14	0.18	PQL	ug/Kg	
SL-194-SA5DN-SS-0.0-0.5	Chlordane	J	3.8	4.3	PQL	ug/Kg	J (all detects)
SL-196-SA5DN-SS-0.0-0.5	ENDRIN ALDEHYDE gamma-BHC (Lindane) HEPTACHLOR EPOXIDE	J	0.32	0.39	PQL	ug/Kg	J (all detects)
		J	0.12	0.19	PQL	ug/Kg	
		J	0.069	0.19	PQL	ug/Kg	
SL-197-SA5DN-SS-0.0-0.5	Chlordane DELTA-BHC ENDOSULFAN II gamma-BHC (Lindane) MIREX	J	2.3	3.9	PQL	ug/Kg	J (all detects)
		J	0.059	0.19	PQL	ug/Kg	
		J	0.15	0.39	PQL	ug/Kg	
		J	0.077	0.19	PQL	ug/Kg	
		J	0.18	0.39	PQL	ug/Kg	

**Method:** 8082

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA5DN-SS-0.0-0.5	Aroclor 5460	J	15	36	PQL	ug/Kg	J (all detects)
SL-186-SA5DN-SS-0.0-0.5	Aroclor 5460	J	2.1	3.8	PQL	ug/Kg	J (all detects)
SL-187-SA5DN-SS-0.0-0.5	Aroclor 5460	J	2.6	4.2	PQL	ug/Kg	J (all detects)
SL-188-SA5DN-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J	1.8	2.0	PQL	ug/Kg	J (all detects)
		J	1.7	3.8	PQL	ug/Kg	
SL-189-SA5DN-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260	J	7.0	10	PQL	ug/Kg	J (all detects)
		J	3.6	10	PQL	ug/Kg	
SL-191-SA5DN-SS-0.0-0.5	Aroclor 5460	J	10	18	PQL	ug/Kg	J (all detects)
SL-192-SA5DN-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260 Aroclor 5460	J	1.8	2.1	PQL	ug/Kg	J (all detects)
		J	1.1	2.1	PQL	ug/Kg	
		J	1.4	4.1	PQL	ug/Kg	
SL-193-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	4.1	9.3	PQL	ug/Kg	J (all detects)
SL-194-SA5DN-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260	J	1.1	2.1	PQL	ug/Kg	J (all detects)
		J	0.66	2.1	PQL	ug/Kg	
SL-195-SA5DN-SS-0.0-0.5	Aroclor 5460	J	11	21	PQL	ug/Kg	J (all detects)
SL-197-SA5DN-SS-0.0-0.5	Aroclor 5460	J	3.6	3.8	PQL	ug/Kg	J (all detects)
SL-198-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	170	190	PQL	ug/Kg	J (all detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8151A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-009-SA5DN-SS-0.0-0.5	MCPA	J	200	330	PQL	ug/Kg	J (all detects)
SL-010-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.11	0.17	PQL	ug/Kg	J (all detects)
	MCPA	J	200	250	PQL	ug/Kg	
SL-012-SA5DN-SS-0.0-0.5	MCPA	J	160	280	PQL	ug/Kg	J (all detects)
SL-192-SA5DN-SS-0.0-0.5	DICAMBA	J	0.55	1.5	PQL	ug/Kg	J (all detects)
	DICHLOROPROP	J	1.3	2.1	PQL	ug/Kg	
SL-193-SA5DN-SS-0.0-0.5	2,4-D	J	1.8	3.9	PQL	ug/Kg	J (all detects)
SL-194-SA5DN-SS-0.0-0.5	2,4-D	J	2.3	4.5	PQL	ug/Kg	J (all detects)
SL-196-SA5DN-SS-0.0-0.5	2,4-D	J	1.9	4.1	PQL	ug/Kg	J (all detects)
SL-198-SA5DN-SS-0.0-0.5	MCPA	J	100	280	PQL	ug/Kg	J (all detects)

**Method:** 8270C

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	35	360	PQL	ug/Kg	J (all detects)
SL-009-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	61	440	PQL	ug/Kg	J (all detects)
SL-011-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	90	370	PQL	ug/Kg	J (all detects)
SL-012-SA5DN-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	85	190	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	37	370	PQL	ug/Kg	
	CARBAZOLE	J	26	190	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	29	190	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	78	190	PQL	ug/Kg	
SL-013-SA5DN-SS-0.0-0.5	Butylbenzylphthalate	J	78	170	PQL	ug/Kg	J (all detects)
SL-014-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	29	370	PQL	ug/Kg	J (all detects)
SL-018-SA5DN-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	19	180	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	30	360	PQL	ug/Kg	
	Di-n-butylphthalate	J	19	180	PQL	ug/Kg	
SL-186-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	55	380	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	38	190	PQL	ug/Kg	
SL-187-SA5DN-SS-0.0-0.5	ACENAPHTHENE	J	49	210	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	150	210	PQL	ug/Kg	
	CARBAZOLE	J	130	210	PQL	ug/Kg	
SL-188-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	360	380	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	22	190	PQL	ug/Kg	
	PYRENE	J	25	190	PQL	ug/Kg	
SL-189-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	34	390	PQL	ug/Kg	J (all detects)
SL-191-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	33	360	PQL	ug/Kg	J (all detects)
SL-192-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	38	410	PQL	ug/Kg	J (all detects)
SL-194-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	49	410	PQL	ug/Kg	J (all detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8270C

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-195-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHthalate	J	58	420	PQL	ug/Kg	J (all detects)
SL-196-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHthalate	J	250	380	PQL	ug/Kg	J (all detects)
SL-197-SA5DN-SS-0.0-0.5	ACENAPHTHYLENE	J	45	190	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	110	190	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	87	190	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	89	190	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	89	190	PQL	ug/Kg	
	CARBAZOLE	J	130	190	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	30	190	PQL	ug/Kg	
	Di-n-octylphthalate	J	25	190	PQL	ug/Kg	
	FLUORANTHENE	J	75	190	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	88	190	PQL	ug/Kg	
	PHENANTHRENE	J	21	190	PQL	ug/Kg	
	PYRENE	J	150	190	PQL	ug/Kg	
SL-198-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	29	180	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	25	180	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHthalate	J	88	370	PQL	ug/Kg	
	CHRYSENE	J	34	180	PQL	ug/Kg	
	FLUORANTHENE	J	19	180	PQL	ug/Kg	
	PYRENE	J	25	180	PQL	ug/Kg	

**Method:** 8270C SIM

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA5DN-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.95	1.8	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	1.5	1.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.2	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	0.95	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	1.1	1.8	PQL	ug/Kg	
SL-009-SA5DN-SS-0.0-0.5	Di-n-octylphthalate	J	51	120	PQL	ug/Kg	J (all detects)
SL-011-SA5DN-SS-0.0-0.5	ANTHRACENE	J	2.7	9.4	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	3.8	9.4	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	4.1	9.4	PQL	ug/Kg	
SL-013-SA5DN-SS-0.0-0.5	BENZO(K)FLUORANTHENE	J	8.4	8.6	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHthalate	J	50	93	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	3.7	8.6	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	7.0	8.6	PQL	ug/Kg	
	PHENANTHRENE	J	4.0	8.6	PQL	ug/Kg	
SL-014-SA5DN-SS-0.0-0.5	INDENO(1,2,3-CD)PYRENE	J	7.8	9.2	PQL	ug/Kg	J (all detects)
	PHENANTHRENE	J	5.4	9.2	PQL	ug/Kg	
SL-018-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	6.0	9.2	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	8.6	9.2	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	5.8	9.2	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	3.7	9.2	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	6.7	9.2	PQL	ug/Kg	
	PHENANTHRENE	J	5.6	9.2	PQL	ug/Kg	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Reporting Limit Outliers

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-186-SA5DN-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.80	1.9	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.4	1.9	PQL	ug/Kg	
	ACENAPHTHENE	J	0.82	1.9	PQL	ug/Kg	
	Butylbenzylphthalate	J	11	21	PQL	ug/Kg	
	Di-n-butylphthalate	J	11	21	PQL	ug/Kg	
	FLUORENE	J	1.3	1.9	PQL	ug/Kg	
SL-187-SA5DN-SS-0.0-0.5	NAPHTHALENE	J	1.6	1.9	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	5.9	11	PQL	ug/Kg	
SL-188-SA5DN-SS-0.0-0.5	FLUORENE	J	7.3	11	PQL	ug/Kg	J (all detects)
	1-METHYLNAPHTHALENE	J	0.81	1.9	PQL	ug/Kg	
	2-METHYLNAPHTHALENE	J	1.5	1.9	PQL	ug/Kg	
	ANTHRACENE	J	0.48	1.9	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.7	1.9	PQL	ug/Kg	
SL-189-SA5DN-SS-0.0-0.5	BENZO(K)FLUORANTHENE	J	1.7	1.9	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.2	2.0	PQL	ug/Kg	
	ANTHRACENE	J	0.41	2.0	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.3	2.0	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.3	2.0	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.99	2.0	PQL	ug/Kg	
	CHRYSENE	J	1.7	2.0	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.6	2.0	PQL	ug/Kg	
SL-191-SA5DN-SS-0.0-0.5	NAPHTHALENE	J	1.6	2.0	PQL	ug/Kg	J (all detects)
	1-METHYLNAPHTHALENE	J	0.96	1.8	PQL	ug/Kg	
	2-METHYLNAPHTHALENE	J	1.5	1.8	PQL	ug/Kg	
	ANTHRACENE	J	0.70	1.8	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.1	1.8	PQL	ug/Kg	
SL-192-SA5DN-SS-0.0-0.5	NAPHTHALENE	J	1.6	1.8	PQL	ug/Kg	J (all detects)
	1-METHYLNAPHTHALENE	J	1.6	2.1	PQL	ug/Kg	
	ACENAPHTHYLENE	J	0.46	2.1	PQL	ug/Kg	
	ANTHRACENE	J	1.1	2.1	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.1	2.1	PQL	ug/Kg	
SL-193-SA5DN-SS-0.0-0.5	FLUORENE	J	2.0	2.1	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	4.1	9.1	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	3.7	9.1	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	61	98	PQL	ug/Kg	
	CHRYSENE	J	3.5	9.1	PQL	ug/Kg	
	FLUORANTHENE	J	4.4	9.1	PQL	ug/Kg	
SL-194-SA5DN-SS-0.0-0.5	PYRENE	J	4.8	9.1	PQL	ug/Kg	J (all detects)
	1-METHYLNAPHTHALENE	J	1.2	2.1	PQL	ug/Kg	
	2-METHYLNAPHTHALENE	J	1.8	2.1	PQL	ug/Kg	
	ANTHRACENE	J	0.87	2.1	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.6	2.1	PQL	ug/Kg	
	Di-n-butylphthalate	J	8.6	23	PQL	ug/Kg	
SL-195-SA5DN-SS-0.0-0.5	FLUORENE	J	1.5	2.1	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	4.4	10	PQL	ug/Kg	
	BENZO(A)PYRENE	J	5.3	10	PQL	ug/Kg	
	CHRYSENE	J	7.3	10	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	5.4	10	PQL	ug/Kg	
	PHENANTHRENE	J	5.0	10	PQL	ug/Kg	
	PYRENE	J	9.0	10	PQL	ug/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8270C SIM

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-196-SA5DN-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.82	1.9	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.3	1.9	PQL	ug/Kg	
	ANTHRACENE	J	1.5	1.9	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.7	1.9	PQL	ug/Kg	
	Di-n-butylphthalate	J	7.6	21	PQL	ug/Kg	
	FLUORENE	J	1.0	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.8	1.9	PQL	ug/Kg	
SL-197-SA5DN-SS-0.0-0.5	NAPHTHALENE	J	6.7	9.7	PQL	ug/Kg	J (all detects)
SL-198-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	8.0	9.2	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	6.3	9.2	PQL	ug/Kg	
	PHENANTHRENE	J	5.9	9.2	PQL	ug/Kg	

**Method:** 8330A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-191-SA5DN-SS-0.0-0.5	RDX	J	68	130	PQL	ug/Kg	J (all detects)

**Method:** 9012B

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-192-SA5DN-SS-0.0-0.5	CYANIDE	J	0.23	0.59	PQL	mg/Kg	J (all detects)

LDC #: 26275R4

## VALIDATION COMPLETENESS WORKSHEET

Date: 9/29/11

SDG #: DE160

ADR

Page: 1 of 1

Laboratory: Lancaster Laboratories

Reviewer: MN

2nd Reviewer: CS

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	A	No fuel
V.	ICP Interference Check Sample (ICS) Analysis	N	RPD out
VI.	Matrix Spike Analysis	SW	Al, Ba, Ca, Fe, Mg, K, Zn, Ti > 4X, No fuel for 2R.
VII.	Duplicate Sample Analysis	SW	Zr < 5X, (Ti 5/11)
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, Co, Cu, Pb, Ni, V
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	N	
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-008-SA5DN-SS-0.0-0.5	11	SL-188-SA5DN-SS-0.0-0.5	21	#1 MS (2up/1up)	31	TUP
2	SL-009-SA5DN-SS-0.0-0.5	12	SL-189-SA5DN-SS-0.0-0.5	22	↓ MS	32	
3	SL-010-SA5DN-SS-0.0-0.5	13	SL-191-SA5DN-SS-0.0-0.5	23	↓ Dup	33	
4	SL-011-SA5DN-SS-0.0-0.5	14	SL-192-SA5DN-SS-0.0-0.5	24	#3 MS (2up/1up)	34	
5	SL-012-SA5DN-SS-0.0-0.5	15	SL-193-SA5DN-SS-0.0-0.5	25	↓ MS (#1)	35	
6	SL-013-SA5DN-SS-0.0-0.5	16	SL-194-SA5DN-SS-0.0-0.5	26	↓ Dup	36	
7	SL-014-SA5DN-SS-0.0-0.5	17	SL-195-SA5DN-SS-0.0-0.5	27		37	
8	SL-018-SA5DN-SS-0.0-0.5	18	SL-196-SA5DN-SS-0.0-0.5	28		38	
9	SL-186-SA5DN-SS-0.0-0.5	19	SL-197-SA5DN-SS-0.0-0.5	29		39	
10	SL-187-SA5DN-SS-0.0-0.5	20	SL-198-SA5DN-SS-0.0-0.5	30		40	

Notes:



QUALITY ASSURANCE SUMMARY  
FORM 5A (MS/MSD)  
MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
SDG No.: DE160  
Matrix: SOIL  
Level (low/med): LOW

Background Lab Sample ID: 6297552BKG Matrix Spike Lab Sample ID: 6297552MS Matrix Spike Duplicate Lab Sample ID: 6297552MSD  
Batch ID(s): P15108E, P15726A, P15111D

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	Units	MS		MSD		RPD Q	Control Limit	
		Result	C	Result	C	Result	C			\$R	Q	\$R	Q		\$R	RPD M
Aluminum		23169.1923		26486.3994		27831.9805		210.1458	MG/KG	1579		2154		5		20P
Antimony	121	0.1029 B		0.4944		0.5415		1.2987	MG/KG	30 N		35 N		9	75 - 125	20MS
Arsenic	75	4.2554		6.2229		7.3593		2.1645	MG/KG	91		151 N		17	75 - 125	20MS
Barium	137	84.9784		97.4675		125.9946		10.8225	MG/KG	115		398		26 *		20MS
Beryllium	9	0.5102		1.1249		1.1253		0.8658	MG/KG	71 N		75		0	75 - 125	20MS
Boron		12.1264		222.5203		231.7706		210.1458	MG/KG	100		101		4	84 - 115	20P
Cadmium	111	0.2212		1.2433		1.4451		1.0823	MG/KG	94		119		15	75 - 125	20MS
Calcium		37795.7938		39269.1653		38548.5216		420.2917	MG/KG	351		174		2		20P
Chromium	52	21.3463		31.0606		38.0128		10.8225	MG/KG	90		162 N		20	75 - 125	20MS
Cobalt	59	6.9610		53.8528		69.1404		54.1126	MG/KG	87		121		25 *	75 - 125	20MS
Copper	63	10.7900		19.2121		24.2218		10.8225	MG/KG	78		130 N		23 *	75 - 125	20MS
Iron		24105.9160		24868.7503		25384.5087		105.0729	MG/KG	726		1181		2		20P
Lead	208	7.3571		10.4978		12.9169		3.2468	MG/KG	97		180 N		21 *	75 - 125	20MS
Lithium		20.8812		129.1987		133.4329		105.0729	MG/KG	103		104		3	82 - 114	20P
Magnesium		6203.1094		6643.7324		6706.3799		210.1458	MG/KG	210		233		1		20P
Manganese		355.8379		412.9145		412.7814		52.5365	MG/KG	109		105		0		20P
Mercury		0.0032 U		0.1564		0.1548		0.1730	MG/KG	90		91		1	65 - 135	20CV
Molybdenum	98	0.3152		9.7359		11.9522		10.8225	MG/KG	87		113		20	75 - 125	20MS
Nickel	60	13.5649		22.5108		27.7881		10.8225	MG/KG	83		138 N		21 *	75 - 125	20MS
Phosphorus		476.4163		580.0971		595.2121		105.0729	MG/KG	99		110		3		20P
Potassium		4812.0692		6367.9202		6488.6775		1050.7292	MG/KG	148		155		2		20P
Selenium	78	0.1781 B		2.0827		2.1645		2.1645	MG/KG	88		96		4	75 - 125	20MS
Silver	107	0.0289 B		10.4156		11.2039		10.8225	MG/KG	96		108		7	75 - 125	20MS
Sodium		125.8596		1177.2013		1219.6082		1050.7292	MG/KG	100		101		4	75 - 125	20P
Strontium		76.9376		182.2626		185.5455		105.0729	MG/KG	100		100		2	75 - 115	20P
Thallium	203	0.2708		0.6883		0.7714		0.4329	MG/KG	96		121		11	75 - 125	20MS
Tin		2.4902 B		368.7650		386.2468		420.2917	MG/KG	87		89		5	80 - 110	20P
Vanadium	51	40.6926		52.4026		63.6570		10.8225	MG/KG	108		223 N		19	75 - 125	20MS
Zinc	66	52.1429		57.0563		70.1711		10.8225	MG/KG	45		175		21 *		20MS
Zirconium		3.4736 B		100.9257		104.9881		105.0729	MG/KG	93		94		4	75 - 125	20P

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	



QUALITY ASSURANCE SUMMARY  
FORM 5A(MS/MSD)  
MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
SDG No.: DE160  
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6297554BKG Matrix Spike Lab Sample ID: 6297554MS Matrix Spike Duplicate Lab Sample ID: 6297554MSD  
& Solids for Sample: 98.3  
Batch Id(s): P15408A

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	MSD Spike Added	Units	MS		MSD		Control Limit	
		Result	C	Result	C	Result	C				%R	Q	%R	Q	%R	RPD
Titanium		1527.7701		1994.3940		2022.0122		98.7664	101.7294	MG/KG	472		486		1	20P

DE160

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
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## QUALITY ASSURANCE SUMMARY

FORM 9

SERIAL DILUTIONS

SDG No.: DE160

Matrix: SOIL

Level (low/med): LOW

Background Lab Sample ID: 6297552BKG

Serial Dilution Lab Sample ID: 6297552L

Batch ID(s): P15108E, P15726A

Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		222646.6700		215021.5000		3		P
Antimony	121	0.4756	B	1.5000	U	100		MS
Arsenic	75	19.6600		29.0100		48		MS
Barium	137	392.6000		558.5000		42	E	MS
Beryllium	9	2.3570		2.8225		20		MS
Boron		116.5300		141.6500	B	22		P
Cadmium	111	1.0220		2.0675	B	102		MS
Calcium		363202.4600		374002.3000		3		P
Chromium	52	98.6200		152.1500		54	E	MS
Cobalt	59	32.1600		65.3500		103	E	MS
Copper	63	49.8500		74.5000		49	E	MS
Iron		231648.2100		237103.6500		2		P
Lead	208	33.9900		48.1000		42	E	MS
Lithium		200.6600		215.2500		7		P
Magnesium		59609.4000		60585.3000		2		P
Manganese		3419.4600		3635.5000		6		P
Molybdenum	98	1.4560		5.3550		268		MS
Nickel	60	62.6700		89.0500		42	E	MS
Phosphorus		4578.1700		4614.4000		1		P
Potassium		46242.0600		46706.1000		1		P
Selenium	78	0.8227	B	2.0945	B	155		MS
Silver	107	0.1334	B	3.7330		2698		MS
Sodium		1209.4600		1865.0000	U	100		P
Strontium		739.3400		759.7500		3		P
Thallium	203	1.2510		1.6835	B	35		MS
Tin		23.9300	B	50.0000	U	100		P
Vanadium	51	188.0000		280.4000		49	E	MS
Zinc	66	240.9000		334.4500		39		MS
Zirconium		33.3800	B	42.0000	U	100		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:

DE160 4769

U= Below MDL

B= Below LOQ

## FLAGS:

E = Matrix Effects exist as proven by  
Serial Dilution or Spiked Dilution



# **SAMPLE DELIVERY GROUP**

**DE161**

## **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-May-2011	EB05-SA5DN-SS-052311	6297649	EB	Gen Prep	8015B	III
23-May-2011	EB05-SA5DN-SS-052311	6297649	EB	Gen Prep	8015M	III
24-May-2011	TB-052411	6297647	TB	5030B	8015M	III
24-May-2011	TB-052411	6297647	TB	5030B	8260B	III
24-May-2011	TB-052411	6297647	TB	5030B	8260B SIM	III
24-May-2011	SL-203-SA5DN-SS-0.0-0.5	6297641	N	3050B	6010B	III
24-May-2011	SL-203-SA5DN-SS-0.0-0.5	6297641	N	3050B	6020	III
24-May-2011	SL-203-SA5DN-SS-0.0-0.5	6297641	N	3060A	7199	III
24-May-2011	SL-203-SA5DN-SS-0.0-0.5	6297641	N	3550B	8081A	III
24-May-2011	SL-203-SA5DN-SS-0.0-0.5	6297641	N	3550B	8082	III
24-May-2011	SL-203-SA5DN-SS-0.0-0.5	6297641	N	3550B	8151A	III
24-May-2011	SL-203-SA5DN-SS-0.0-0.5	6297641	N	3550B	8270C	III
24-May-2011	SL-203-SA5DN-SS-0.0-0.5	6297641	N	3550B	8270C SIM	III
24-May-2011	SL-203-SA5DN-SS-0.0-0.5	6297641	N	METHOD	300.0	III
24-May-2011	SL-203-SA5DN-SS-0.0-0.5	6297641	N	METHOD	314.0	III
24-May-2011	SL-203-SA5DN-SS-0.0-0.5	6297641	N	METHOD	7471A	III
24-May-2011	SL-203-SA5DN-SS-0.0-0.5DU	P297641D270858A	DUP	METHOD	314.0	III
24-May-2011	SL-203-SA5DN-SS-0.0-0.5DU	P297641D271210A	DUP	METHOD	300.0	III
24-May-2011	SL-203-SA5DN-SS-0.0-0.5MS	P297641R270240A	MS	METHOD	314.0	III
24-May-2011	SL-203-SA5DN-SS-0.0-0.5MS	P297641R271225A	MS	METHOD	300.0	III
24-May-2011	SL-204-SA5DN-SS-0.0-0.5	6297642	N	3050B	6010B	III
24-May-2011	SL-204-SA5DN-SS-0.0-0.5	6297642	N	3050B	6020	III
24-May-2011	SL-204-SA5DN-SS-0.0-0.5	6297642	N	3060A	7199	III
24-May-2011	SL-204-SA5DN-SS-0.0-0.5	6297642	N	3550B	8081A	III
24-May-2011	SL-204-SA5DN-SS-0.0-0.5	6297642	N	3550B	8082	III
24-May-2011	SL-204-SA5DN-SS-0.0-0.5	6297642	N	3550B	8151A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-May-2011	SL-204-SA5DN-SS-0.0-0.5	6297642	N	3550B	8270C	III
24-May-2011	SL-204-SA5DN-SS-0.0-0.5	6297642	N	3550B	8270C SIM	III
24-May-2011	SL-204-SA5DN-SS-0.0-0.5	6297642	N	METHOD	300.0	III
24-May-2011	SL-204-SA5DN-SS-0.0-0.5	6297642	N	METHOD	314.0	III
24-May-2011	SL-204-SA5DN-SS-0.0-0.5	6297642	N	METHOD	7471A	III
24-May-2011	SL-139-SA5DN-SB-2.0-3.0	6297643	N	3050B	6010B	III
24-May-2011	SL-139-SA5DN-SB-2.0-3.0	6297643	N	3050B	6020	III
24-May-2011	SL-139-SA5DN-SB-2.0-3.0	6297643	N	3060A	7199	III
24-May-2011	SL-139-SA5DN-SB-2.0-3.0	6297643	N	3546	1625C	III
24-May-2011	SL-139-SA5DN-SB-2.0-3.0	6297643	N	3550B	8015B	III
24-May-2011	SL-139-SA5DN-SB-2.0-3.0	6297643	N	3550B	8015M	III
24-May-2011	SL-139-SA5DN-SB-2.0-3.0	6297643	N	3550B	8082	III
24-May-2011	SL-139-SA5DN-SB-2.0-3.0	6297643	N	3550B	8270C	III
24-May-2011	SL-139-SA5DN-SB-2.0-3.0	6297643	N	3550B	8270C SIM	III
24-May-2011	SL-139-SA5DN-SB-2.0-3.0	6297643	N	5035	8015M	III
24-May-2011	SL-139-SA5DN-SB-2.0-3.0	6297643	N	5035	8260B	III
24-May-2011	SL-139-SA5DN-SB-2.0-3.0	6297643	N	5035	8260B SIM	III
24-May-2011	SL-139-SA5DN-SB-2.0-3.0	6297643	N	8330	8330A	III
24-May-2011	SL-139-SA5DN-SB-2.0-3.0	6297643	N	METHOD	300.0	III
24-May-2011	SL-139-SA5DN-SB-2.0-3.0	6297643	N	METHOD	314.0	III
24-May-2011	SL-139-SA5DN-SB-2.0-3.0	6297643	N	METHOD	7471A	III
24-May-2011	SL-139-SA5DN-SB-2.0-3.0	6297643	N	METHOD	8015B	III
24-May-2011	SL-139-SA5DN-SB-2.0-3.0	6297643	N	METHOD	8015M	III
24-May-2011	SL-139-SA5DN-SB-2.0-3.0	6297643	N	METHOD	8315A	III
24-May-2011	SL-139-SA5DN-SB-2.0-3.0	6297643	N	METHOD	9012B	III
24-May-2011	SL-145-SA5DN-SB-2.0-3.0	6297644	N	3050B	6010B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-May-2011	SL-145-SA5DN-SB-2.0-3.0	6297644	N	3050B	6020	III
24-May-2011	SL-145-SA5DN-SB-2.0-3.0	6297644	N	3060A	7199	III
24-May-2011	SL-145-SA5DN-SB-2.0-3.0	6297644	N	3550B	8082	III
24-May-2011	SL-145-SA5DN-SB-2.0-3.0	6297644	N	3550B	8270C	III
24-May-2011	SL-145-SA5DN-SB-2.0-3.0	6297644	N	3550B	8270C SIM	III
24-May-2011	SL-145-SA5DN-SB-2.0-3.0	6297644	N	5035	8260B	III
24-May-2011	SL-145-SA5DN-SB-2.0-3.0	6297644	N	5035	8260B SIM	III
24-May-2011	SL-145-SA5DN-SB-2.0-3.0	6297644	N	METHOD	300.0	III
24-May-2011	SL-145-SA5DN-SB-2.0-3.0	6297644	N	METHOD	314.0	III
24-May-2011	SL-145-SA5DN-SB-2.0-3.0	6297644	N	METHOD	7471A	III
24-May-2011	SL-145-SA5DN-SB-2.0-3.0MS	P297644R242345A	MS	3550B	8082	III
24-May-2011	EB06-SA5DN-SS-052411	6297648	EB	3005A	6010B	III
24-May-2011	EB06-SA5DN-SS-052411	6297648	EB	3020A	6020	III
24-May-2011	EB06-SA5DN-SS-052411	6297648	EB	3510C	8081A	III
24-May-2011	EB06-SA5DN-SS-052411	6297648	EB	3510C	8082	III
24-May-2011	EB06-SA5DN-SS-052411	6297648	EB	3510C	8270C	III
24-May-2011	EB06-SA5DN-SS-052411	6297648	EB	3510C	8270C SIM	III
24-May-2011	EB06-SA5DN-SS-052411	6297648	EB	Gen Prep	300.0	III
24-May-2011	EB06-SA5DN-SS-052411	6297648	EB	Gen Prep	314.0	III
24-May-2011	EB06-SA5DN-SS-052411	6297648	EB	Gen Prep	7199	III
24-May-2011	EB06-SA5DN-SS-052411	6297648	EB	METHOD	7470A	III
24-May-2011	EB06-SA5DN-SS-052411	6297648	EB	METHOD	8151A	III
24-May-2011	SL-146-SA5DN-SB-2.0-3.0	6297645	N	3050B	6010B	III
24-May-2011	SL-146-SA5DN-SB-2.0-3.0	6297645	N	3050B	6020	III
24-May-2011	SL-146-SA5DN-SB-2.0-3.0	6297645	N	3060A	7199	III
24-May-2011	SL-146-SA5DN-SB-2.0-3.0	6297645	N	3550B	8082	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-May-2011	SL-146-SA5DN-SB-2.0-3.0	6297645	N	3550B	8270C	III
24-May-2011	SL-146-SA5DN-SB-2.0-3.0	6297645	N	3550B	8270C SIM	III
24-May-2011	SL-146-SA5DN-SB-2.0-3.0	6297645	N	5035	8260B	III
24-May-2011	SL-146-SA5DN-SB-2.0-3.0	6297645	N	5035	8260B SIM	III
24-May-2011	SL-146-SA5DN-SB-2.0-3.0	6297645	N	METHOD	300.0	III
24-May-2011	SL-146-SA5DN-SB-2.0-3.0	6297645	N	METHOD	314.0	III
24-May-2011	SL-146-SA5DN-SB-2.0-3.0	6297645	N	METHOD	7471A	III
24-May-2011	SL-150-SA5DN-SB-4.0-5.0	6297646	N	3050B	6010B	III
24-May-2011	SL-150-SA5DN-SB-4.0-5.0	6297646	N	3050B	6020	III
24-May-2011	SL-150-SA5DN-SB-4.0-5.0	6297646	N	3060A	7199	III
24-May-2011	SL-150-SA5DN-SB-4.0-5.0	6297646	N	3550B	8082	III
24-May-2011	SL-150-SA5DN-SB-4.0-5.0	6297646	N	3550B	8270C	III
24-May-2011	SL-150-SA5DN-SB-4.0-5.0	6297646	N	3550B	8270C SIM	III
24-May-2011	SL-150-SA5DN-SB-4.0-5.0	6297646	N	5035	8260B	III
24-May-2011	SL-150-SA5DN-SB-4.0-5.0	6297646	N	5035	8260B SIM	III
24-May-2011	SL-150-SA5DN-SB-4.0-5.0	6297646	N	METHOD	300.0	III
24-May-2011	SL-150-SA5DN-SB-4.0-5.0	6297646	N	METHOD	314.0	III
24-May-2011	SL-150-SA5DN-SB-4.0-5.0	6297646	N	METHOD	7471A	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_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-012-SA5DN-SS-0.0-0.5MS SL-012-SA5DN-SS-0.0-0.5MSD (SL-012-SA5DN-SS-0.0-0.5)	DIETHYLENE GLYCOL	58	47	59.00-109.00	21 (20.00)	DIETHYLENE GLYCOL	J (all detects) UJ (all non-detects)

**Method: 8082**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-008-SA5DN-SS-0.0-0.5MS SL-008-SA5DN-SS-0.0-0.5MSD (SL-008-SA5DN-SS-0.0-0.5)	AROCLOR 1016 AROCLOR 1260	269 -	357 224	29.00-146.00 39.00-149.00	- -	AROCLOR 1016, 1221, 1232 AROCLOR 1242, 1248, 1254, 1260	J(all detects)

**Method: 8081A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-009-SA5DN-SS-0.0-0.5MSD (SL-009-SA5DN-SS-0.0-0.5)	DIELDRIN	-	-	19.00-154.00	96 (50.00)	DIELDRIN	J(all detects)
SL-009-SA5DN-SS-0.0-0.5MS SL-009-SA5DN-SS-0.0-0.5MSD (SL-009-SA5DN-SS-0.0-0.5)	4,4'-DDT BETA-BHC ENDRIN	- 0 0	-34 - -	10.00-176.00 14.00-147.00 11.00-149.00	- 200 (50.00) 200 (50.00)	4,4'-DDT BETA-BHC ENDRIN	J(all detects) R(all non-detects)
SL-009-SA5DN-SS-0.0-0.5MSD (SL-009-SA5DN-SS-0.0-0.5)	4,4'-DDE	-	6	18.00-161.00	74 (50.00)	4,4'-DDE	J(all detects) UJ(all non-detects)

**Method: 8015M**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-012-SA5DN-SS-0.0-0.5MS SL-012-SA5DN-SS-0.0-0.5MSD (SL-012-SA5DN-SS-0.0-0.5)	EFH (C21-C30) EFH (C30-C40)	- 391	1202 3019	49.00-123.00 49.00-123.00	34 (20.00) 28 (20.00)	EFH (C21-C30) EFH (C30-C40)	No Qual, Diluted Out
SL-012-SA5DN-SS-0.0-0.5MS SL-012-SA5DN-SS-0.0-0.5MSD (SL-012-SA5DN-SS-0.0-0.5)	EFH (C12-C14) EFH (C15-C20) EFH (C8-C11)	0 0 0	0 0 0	49.00-123.00 49.00-123.00 49.00-123.00	- - -	EFH (C12-C14) EFH (C15-C20) EFH (C8-C11)	No Qual, Diluted Out

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-010-SA5DN-SS-0.0-0.5MSD (SL-010-SA5DN-SS-0.0-0.5)	2,4-D	-	-	17.00-180.00	52 (35.00)	2,4-D	J(all detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE160

Laboratory: LL

EDD Filename: DE160\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 8082

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-008-SA5DN-SS-0.0-0.5MS SL-008-SA5DN-SS-0.0-0.5MSD (SL-008-SA5DN-SS-0.0-0.5)	AROCLOR 1260	-5	0	39.00-149.00	-	AROCLOR 1242, 1248, 1254, 1260	J(all detects) R(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-008-SA5DN-SS-0.0-0.5MS (SL-008-SA5DN-SS-0.0-0.5)	DIBENZO(A,H)ANTHRACENE INDENO(1,2,3-CD)PYRENE	153 152	- -	22.00-133.00 21.00-143.00	- -	DIBENZO(A,H)ANTHRACENE INDENO(1,2,3-CD)PYRENE	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-008-SA5DN-SS-0.0-0.5MS SL-008-SA5DN-SS-0.0-0.5MSD (SL-008-SA5DN-SS-0.0-0.5)	ALUMINUM	1579	2154	75.00-125.00	-	ALUMINUM	NoQual, >4x
SL-009-SA5DN-SS-0.0-0.5	CALCIUM	351	174	75.00-125.00	-	CALCIUM	
SL-009-SA5DN-SS-0.0-0.5	IRON	726	1181	75.00-125.00	-	IRON	
SL-010-SA5DN-SS-0.0-0.5	MAGNESIUM	210	233	75.00-125.00	-	MAGNESIUM	
SL-011-SA5DN-SS-0.0-0.5	POTASSIUM	148	155	75.00-125.00	-	POTASSIUM	
SL-012-SA5DN-SS-0.0-0.5							
SL-013-SA5DN-SS-0.0-0.5							
SL-014-SA5DN-SS-0.0-0.5							
SL-018-SA5DN-SS-0.0-0.5							
SL-186-SA5DN-SS-0.0-0.5							
SL-187-SA5DN-SS-0.0-0.5							
SL-188-SA5DN-SS-0.0-0.5							
SL-189-SA5DN-SS-0.0-0.5							
SL-191-SA5DN-SS-0.0-0.5							
SL-192-SA5DN-SS-0.0-0.5							
SL-193-SA5DN-SS-0.0-0.5							
SL-194-SA5DN-SS-0.0-0.5							
SL-195-SA5DN-SS-0.0-0.5							
SL-196-SA5DN-SS-0.0-0.5							
SL-197-SA5DN-SS-0.0-0.5							
SL-198-SA5DN-SS-0.0-0.5							

# Data Qualifier Summary

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: PrepDE161\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

Sample ID: SL-139-SA5DN-SB-2.0-3.0

Collected: 5/24/2011 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	2.3		0.89	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.3	J	0.89	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-145-SA5DN-SB-2.0-3.0

Collected: 5/24/2011 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
FLUORIDE	1.8		0.85	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-146-SA5DN-SB-2.0-3.0

Collected: 5/24/2011 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	2.4		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-150-SA5DN-SB-4.0-5.0

Collected: 5/24/2011 3:35:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.1		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-203-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 8:50:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.9		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-204-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 10:08:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.6		0.94	MDL	1.2	PQL	mg/Kg	J	Q

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: SL-139-SA5DN-SB-2.0-3.0

Collected: 5/24/2011 10:45:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	23200		5.50	MDL	21.9	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: PrepDE161\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** SL-139-SA5DN-SB-2.0-3.0

**Collected:** 5/24/2011 10:45:00

**Analysis Type:** REA

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3710		6.71	MDL	21.9	PQL	mg/Kg	J	A
MAGNESIUM	6320		2.78	MDL	10.9	PQL	mg/Kg	J	A
MANGANESE	428		0.0853	MDL	0.547	PQL	mg/Kg	J	A
POTASSIUM	2230		19.7	MDL	54.7	PQL	mg/Kg	J	Q
STRONTIUM	26.9		0.0678	MDL	0.547	PQL	mg/Kg	J	A
TIN	2.82	J	1.09	MDL	10.9	PQL	mg/Kg	U	B

**Sample ID:** SL-145-SA5DN-SB-2.0-3.0

**Collected:** 5/24/2011 12:20:00

**Analysis Type:** REA

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	23200		5.33	MDL	21.2	PQL	mg/Kg	J	A
CALCIUM	3360		6.50	MDL	21.2	PQL	mg/Kg	J	A
MAGNESIUM	6150		2.69	MDL	10.6	PQL	mg/Kg	J	A
MANGANESE	438		0.0827	MDL	0.530	PQL	mg/Kg	J	A
POTASSIUM	2700		19.1	MDL	53.0	PQL	mg/Kg	J	Q
STRONTIUM	24.8		0.0657	MDL	0.530	PQL	mg/Kg	J	A
TIN	2.75	J	1.06	MDL	10.6	PQL	mg/Kg	U	B

**Sample ID:** SL-146-SA5DN-SB-2.0-3.0

**Collected:** 5/24/2011 2:40:00

**Analysis Type:** REA

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	21200		5.65	MDL	22.5	PQL	mg/Kg	J	A
CALCIUM	5150		6.89	MDL	22.5	PQL	mg/Kg	J	A
MAGNESIUM	7070		2.85	MDL	11.2	PQL	mg/Kg	J	A
MANGANESE	311		0.0876	MDL	0.562	PQL	mg/Kg	J	A
POTASSIUM	2490		20.2	MDL	56.2	PQL	mg/Kg	J	Q
STRONTIUM	28.4		0.0696	MDL	0.562	PQL	mg/Kg	J	A
TIN	2.96	J	1.12	MDL	11.2	PQL	mg/Kg	U	B

**Sample ID:** SL-150-SA5DN-SB-4.0-5.0

**Collected:** 5/24/2011 3:35:00

**Analysis Type:** REA

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	19700		5.24	MDL	20.8	PQL	mg/Kg	J	A
CALCIUM	4130		6.39	MDL	20.8	PQL	mg/Kg	J	A
MAGNESIUM	6940		2.65	MDL	10.4	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: PrepDE161\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** SL-150-SA5DN-SB-4.0-5.0

**Collected:** 5/24/2011 3:35:00

**Analysis Type:** REA

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	356		0.0813	MDL	0.521	PQL	mg/Kg	J	A
POTASSIUM	4150		18.8	MDL	52.1	PQL	mg/Kg	J	Q
STRONTIUM	25.5		0.0646	MDL	0.521	PQL	mg/Kg	J	A
TIN	2.89	J	1.04	MDL	10.4	PQL	mg/Kg	U	B

**Sample ID:** SL-203-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 8:50:00

**Analysis Type:** REA

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	27500		5.80	MDL	23.1	PQL	mg/Kg	J	A
CALCIUM	6760		7.07	MDL	23.1	PQL	mg/Kg	J	A
MAGNESIUM	6380		2.93	MDL	11.5	PQL	mg/Kg	J	A
MANGANESE	468		0.0900	MDL	0.577	PQL	mg/Kg	J	A
POTASSIUM	7390		20.8	MDL	57.7	PQL	mg/Kg	J	Q
SODIUM	79.5	J	43.0	MDL	115	PQL	mg/Kg	J	Z
STRONTIUM	33.4		0.0715	MDL	0.577	PQL	mg/Kg	J	A
TIN	2.70	J	1.15	MDL	11.5	PQL	mg/Kg	U	B

**Sample ID:** SL-204-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 10:08:00

**Analysis Type:** REA

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	34700		5.90	MDL	23.4	PQL	mg/Kg	J	A
CALCIUM	13100		7.19	MDL	23.4	PQL	mg/Kg	J	A
MAGNESIUM	7950		2.98	MDL	11.7	PQL	mg/Kg	J	A
MANGANESE	513		0.0914	MDL	0.586	PQL	mg/Kg	J	A
POTASSIUM	6760		21.1	MDL	58.6	PQL	mg/Kg	J	Q
SODIUM	103	J	43.7	MDL	117	PQL	mg/Kg	J	Z
STRONTIUM	40.3		0.0727	MDL	0.586	PQL	mg/Kg	J	A
TIN	2.85	J	1.17	MDL	11.7	PQL	mg/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: PrepDE161\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** AQ

**Sample ID:** EB06-SA5DN-SS-052411

**Collected:** 5/24/2011 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
LEAD	0.00017	J	0.00005 2	MDL	0.0010	PQL	mg/L	U	B

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-139-SA5DN-SB-2.0-3.0

**Collected:** 5/24/2011 10:45:00

**Analysis Type:** REA5

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0795	J	0.0670	MDL	0.223	PQL	mg/Kg	J	Z, Q
ARSENIC	12.3		0.0893	MDL	0.446	PQL	mg/Kg	J	E, A
BERYLLIUM	0.881		0.0179	MDL	0.112	PQL	mg/Kg	J	Q, E
CADMIUM	0.105	J	0.0446	MDL	0.112	PQL	mg/Kg	J	Z
CHROMIUM	28.8		0.134	MDL	0.446	PQL	mg/Kg	J	Q, E, A
COBALT	7.94		0.0223	MDL	0.112	PQL	mg/Kg	J	E, E, A
COPPER	9.94		0.0737	MDL	0.446	PQL	mg/Kg	J	Q, E, A
LEAD	8.13		0.0116	MDL	0.223	PQL	mg/Kg	J	Q, E, A
NICKEL	18.9		0.112	MDL	0.446	PQL	mg/Kg	J	Q, E, A
SILVER	0.0829	J	0.0134	MDL	0.112	PQL	mg/Kg	J	Z
VANADIUM	48.6		0.0246	MDL	0.112	PQL	mg/Kg	J	E, A
ZINC	52.2		0.625	MDL	3.35	PQL	mg/Kg	J	A

**Sample ID:** SL-139-SA5DN-SB-2.0-3.0

**Collected:** 5/24/2011 10:45:00

**Analysis Type:** REA6

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.127	J	0.0446	MDL	0.446	PQL	mg/Kg	J	Z

**Sample ID:** SL-139-SA5DN-SB-2.0-3.0

**Collected:** 5/24/2011 10:45:00

**Analysis Type:** REA8

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	115		0.121	MDL	0.446	PQL	mg/Kg	J	A, E

**Sample ID:** SL-145-SA5DN-SB-2.0-3.0

**Collected:** 5/24/2011 12:20:00

**Analysis Type:** REA5

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0743	J	0.0636	MDL	0.212	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: PrepDE161\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-145-SA5DN-SB-2.0-3.0

Collected: 5/24/2011 12:20:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	10.6		0.0848	MDL	0.424	PQL	mg/Kg	J	E, A
BERYLLIUM	0.674		0.0170	MDL	0.106	PQL	mg/Kg	J	Q, E
CHROMIUM	24.6		0.127	MDL	0.424	PQL	mg/Kg	J	Q, E, A
COBALT	7.60		0.0212	MDL	0.106	PQL	mg/Kg	J	E, E, A
COPPER	9.77		0.0700	MDL	0.424	PQL	mg/Kg	J	Q, E, A
LEAD	6.42		0.0110	MDL	0.212	PQL	mg/Kg	J	Q, E, A
NICKEL	17.3		0.106	MDL	0.424	PQL	mg/Kg	J	Q, E, A
SILVER	0.0523	J	0.0127	MDL	0.106	PQL	mg/Kg	J	Z
VANADIUM	46.0		0.0233	MDL	0.106	PQL	mg/Kg	J	E, A
ZINC	55.0		0.594	MDL	3.18	PQL	mg/Kg	J	A

Sample ID: SL-145-SA5DN-SB-2.0-3.0

Collected: 5/24/2011 12:20:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.135	J	0.0424	MDL	0.424	PQL	mg/Kg	J	Z

Sample ID: SL-145-SA5DN-SB-2.0-3.0

Collected: 5/24/2011 12:20:00

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	119		0.115	MDL	0.424	PQL	mg/Kg	J	A, E

Sample ID: SL-146-SA5DN-SB-2.0-3.0

Collected: 5/24/2011 2:40:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0701	U	0.0701	MDL	0.234	PQL	mg/Kg	UJ	Q
ARSENIC	15.1		0.0935	MDL	0.467	PQL	mg/Kg	J	E, A
BERYLLIUM	0.998		0.0187	MDL	0.117	PQL	mg/Kg	J	Q, E
CADMIUM	0.0604	J	0.0467	MDL	0.117	PQL	mg/Kg	J	Z
CHROMIUM	47.5		0.140	MDL	0.467	PQL	mg/Kg	J	Q, E, A
COBALT	10.0		0.0234	MDL	0.117	PQL	mg/Kg	J	E, E, A
COPPER	20.1		0.0771	MDL	0.467	PQL	mg/Kg	J	Q, E, A
LEAD	7.90		0.0121	MDL	0.234	PQL	mg/Kg	J	Q, E, A
NICKEL	24.3		0.117	MDL	0.467	PQL	mg/Kg	J	Q, E, A
VANADIUM	51.9		0.0257	MDL	0.117	PQL	mg/Kg	J	E, A
ZINC	74.5		0.654	MDL	3.50	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: PrepDE161\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-146-SA5DN-SB-2.0-3.0

Collected: 5/24/2011 2:40:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0909	J	0.0467	MDL	0.467	PQL	mg/Kg	J	Z

Sample ID: SL-146-SA5DN-SB-2.0-3.0

Collected: 5/24/2011 2:40:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.103	J	0.0584	MDL	0.117	PQL	mg/Kg	J	Z

Sample ID: SL-146-SA5DN-SB-2.0-3.0

Collected: 5/24/2011 2:40:00

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	170		0.126	MDL	0.467	PQL	mg/Kg	J	A, E

Sample ID: SL-150-SA5DN-SB-4.0-5.0

Collected: 5/24/2011 3:35:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.103	J	0.0631	MDL	0.210	PQL	mg/Kg	J	Z, Q
ARSENIC	7.91		0.0841	MDL	0.421	PQL	mg/Kg	J	E, A
BERYLLIUM	0.503		0.0168	MDL	0.105	PQL	mg/Kg	J	Q, E
CADMIUM	0.0932	J	0.0421	MDL	0.105	PQL	mg/Kg	J	Z
CHROMIUM	28.6		0.126	MDL	0.421	PQL	mg/Kg	J	Q, E, A
COBALT	9.22		0.0210	MDL	0.105	PQL	mg/Kg	J	E, E, A
COPPER	15.8		0.0694	MDL	0.421	PQL	mg/Kg	J	Q, E, A
LEAD	5.23		0.0109	MDL	0.210	PQL	mg/Kg	J	Q, E, A
NICKEL	22.5		0.105	MDL	0.421	PQL	mg/Kg	J	Q, E, A
VANADIUM	37.8		0.0231	MDL	0.105	PQL	mg/Kg	J	E, A
ZINC	63.8		0.589	MDL	3.16	PQL	mg/Kg	J	A

Sample ID: SL-150-SA5DN-SB-4.0-5.0

Collected: 5/24/2011 3:35:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.126	J	0.0421	MDL	0.421	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: PrepDE161\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-150-SA5DN-SB-4.0-5.0

**Collected:** 5/24/2011 3:35:00

**Analysis Type:** REA8

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	127		0.114	MDL	0.421	PQL	mg/Kg	J	A, E

**Sample ID:** SL-203-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 8:50:00

**Analysis Type:** REA5

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.254		0.0692	MDL	0.231	PQL	mg/Kg	J	Q
ARSENIC	3.97		0.0923	MDL	0.461	PQL	mg/Kg	J	E, A
BERYLLIUM	0.546		0.0185	MDL	0.115	PQL	mg/Kg	J	Q, E
CHROMIUM	21.8		0.138	MDL	0.461	PQL	mg/Kg	J	Q, E, A
COBALT	7.63		0.0231	MDL	0.115	PQL	mg/Kg	J	E, E, A
COPPER	13.7		0.0761	MDL	0.461	PQL	mg/Kg	J	Q, E, A
LEAD	10.3		0.0120	MDL	0.231	PQL	mg/Kg	J	Q, E, A
NICKEL	14.9		0.115	MDL	0.461	PQL	mg/Kg	J	Q, E, A
SILVER	0.0372	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z
VANADIUM	41.2		0.0254	MDL	0.115	PQL	mg/Kg	J	E, A
ZINC	59.3		0.646	MDL	3.46	PQL	mg/Kg	J	A

**Sample ID:** SL-203-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 8:50:00

**Analysis Type:** REA6

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.168	J	0.0461	MDL	0.461	PQL	mg/Kg	J	Z

**Sample ID:** SL-203-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 8:50:00

**Analysis Type:** REA8

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	95.5		0.125	MDL	0.461	PQL	mg/Kg	J	A, E

**Sample ID:** SL-204-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 10:08:00

**Analysis Type:** REA5

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.143	J	0.0696	MDL	0.232	PQL	mg/Kg	J	Z, Q
ARSENIC	6.36		0.0929	MDL	0.464	PQL	mg/Kg	J	E, A
BERYLLIUM	0.834		0.0186	MDL	0.116	PQL	mg/Kg	J	Q, E
CHROMIUM	34.0		0.139	MDL	0.464	PQL	mg/Kg	J	Q, E, A
COBALT	11.3		0.0232	MDL	0.116	PQL	mg/Kg	J	E, E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: PrepDE161\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-204-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 10:08:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	18.1		0.0766	MDL	0.464	PQL	mg/Kg	J	Q, E, A
LEAD	10.9		0.0121	MDL	0.232	PQL	mg/Kg	J	Q, E, A
NICKEL	22.6		0.116	MDL	0.464	PQL	mg/Kg	J	Q, E, A
SILVER	0.0635	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z
VANADIUM	64.0		0.0255	MDL	0.116	PQL	mg/Kg	J	E, A
ZINC	79.4		0.650	MDL	3.48	PQL	mg/Kg	J	A

Sample ID: SL-204-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 10:08:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.173	J	0.0464	MDL	0.464	PQL	mg/Kg	J	Z

Sample ID: SL-204-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 10:08:00

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	152		0.125	MDL	0.464	PQL	mg/Kg	J	A, E

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

Sample ID: SL-139-SA5DN-SB-2.0-3.0

Collected: 5/24/2011 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
HEXAVALENT CHROMIUM	0.93	J	0.22	MDL	1.1	PQL	mg/Kg	U	B

Sample ID: SL-145-SA5DN-SB-2.0-3.0

Collected: 5/24/2011 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
HEXAVALENT CHROMIUM	0.69	J	0.21	MDL	1.1	PQL	mg/Kg	U	B

Sample ID: SL-146-SA5DN-SB-2.0-3.0

Collected: 5/24/2011 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	0.62	J	0.23	MDL	1.2	PQL	mg/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: PrepDE161\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

**Sample ID:** SL-150-SA5DN-SB-4.0-5.0

**Collected:** 5/24/2011 3:35:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.54	J	0.22	MDL	1.1	PQL	mg/Kg	U	B

**Sample ID:** SL-203-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 8:50:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.86	J	0.24	MDL	1.2	PQL	mg/Kg	U	B

**Sample ID:** SL-204-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 10:08:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.69	J	0.23	MDL	1.2	PQL	mg/Kg	U	B

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

**Sample ID:** SL-139-SA5DN-SB-2.0-3.0

**Collected:** 5/24/2011 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	0.0072	J	0.0032	MDL	0.110	PQL	mg/Kg	J	Z

**Sample ID:** SL-146-SA5DN-SB-2.0-3.0

**Collected:** 5/24/2011 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	0.0051	J	0.0031	MDL	0.110	PQL	mg/Kg	J	Z

**Sample ID:** SL-203-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 8:50:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0114	J	0.0033	MDL	0.116	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: PrepDE161\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8015M

**Matrix:** SO

**Sample ID:** SL-139-SA5DN-SB-2.0-3.0

**Collected:** 5/24/2011 10:45:00

**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)	0.49	J	0.45	MDL	1.3	PQL	mg/Kg	J	Z
EFH (C21-C30)	0.70	J	0.45	MDL	1.3	PQL	mg/Kg	J	Z
EFH (C30-C40)	1.3	J	0.45	MDL	1.3	PQL	mg/Kg	U	B

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

**Sample ID:** SL-203-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 8:50:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
gamma-BHC (Lindane)	0.15	J	0.040	MDL	0.19	PQL	ug/Kg	J	Z

**Sample ID:** SL-204-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 10:08:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.31	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z
4,4'-DDT	0.17	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z

**Method Category:** SVOA

**Method:** 8082

**Matrix:** SO

**Sample ID:** SL-139-SA5DN-SB-2.0-3.0

**Collected:** 5/24/2011 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
AROCOR 1254	0.78	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z

**Method Category:** SVOA

**Method:** 8151A

**Matrix:** SO

**Sample ID:** SL-203-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 8:50:00

**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	0.93	U	0.93	MDL	2.8	PQL	ug/Kg	R	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: PrepDE161\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>								
<b>Method:</b>	<b>8151A</b>	<b>Matrix:</b>	<b>SO</b>						

Sample ID: SL-204-SA5DN-SS-0.0-0.5      Collected: 5/24/2011 10:08:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.94	U	0.94	MDL	2.8	PQL	ug/Kg	R	L

<b>Method Category:</b>	<b>SVOA</b>								
<b>Method:</b>	<b>8270C</b>	<b>Matrix:</b>	<b>AQ</b>						

Sample ID: EB06-SA5DN-SS-052411      Collected: 5/24/2011 12:30:00      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

<b>Method Category:</b>	<b>SVOA</b>								
<b>Method:</b>	<b>8270C</b>	<b>Matrix:</b>	<b>SO</b>						

Sample ID: SL-139-SA5DN-SB-2.0-3.0      Collected: 5/24/2011 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
BIS(2-ETHYLHEXYL)PHthalate	20	J	19	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-203-SA5DN-SS-0.0-0.5      Collected: 5/24/2011 8:50:00      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	53	J	20	MDL	390	PQL	ug/Kg	J	Z

Sample ID: SL-204-SA5DN-SS-0.0-0.5      Collected: 5/24/2011 10:08:00      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	58	J	20	MDL	390	PQL	ug/Kg	J	Z

<b>Method Category:</b>	<b>SVOA</b>								
<b>Method:</b>	<b>8270C SIM</b>	<b>Matrix:</b>	<b>AQ</b>						

Sample ID: EB06-SA5DN-SS-052411      Collected: 5/24/2011 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-METHYLNAPHTHALENE	0.019	J	0.010	MDL	0.052	PQL	ug/L	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: PrepDE161\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C SIM

**Matrix:** AQ

Sample ID: EB06-SA5DN-SS-052411

Collected: 5/24/2011 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
2-METHYLNAPHTHALENE	0.019	J	0.010	MDL	0.052	PQL	ug/L	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	0.20	J	0.052	MDL	1.0	PQL	ug/L	J	Z

**Method Category:** SVOA

**Method:** 8270C SIM

**Matrix:** SO

Sample ID: SL-203-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 8:50:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.1	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.3	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	77		0.78	MDL	2.0	PQL	ug/Kg	J	L
BENZO(K)FLUORANTHENE	49		0.78	MDL	2.0	PQL	ug/Kg	J	L

Sample ID: SL-204-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 10:08:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.2	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	4.2		0.78	MDL	2.0	PQL	ug/Kg	J	L
CHRYSENE	0.89	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
NAPHTHALENE	1.1	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
PHENANTHRENE	1.1	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
PYRENE	1.0	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z

**Method Category:** VOA

**Method:** 8260B

**Matrix:** SO

Sample ID: SL-139-SA5DN-SB-2.0-3.0

Collected: 5/24/2011 10:45:00

Analysis Type: RES

Dilution: 1.04

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	L
ACETONE	11		7.8	MDL	9.3	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.3	J	0.28	MDL	4.7	PQL	ug/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: PrepDE161\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** VOA

**Method:** 8260B

**Matrix:** SO

**Sample ID:** SL-145-SA5DN-SB-2.0-3.0

**Collected:** 5/24/2011 12:20:00

**Analysis Type:** RES

**Dilution:** 0.97

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-Chloro-1,1,1-trifluoroethane	0.51	U	0.51	MDL	5.1	PQL	ug/Kg	UJ	L
ACETONE	7.8	J	6.9	MDL	8.2	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.0	J	0.25	MDL	4.1	PQL	ug/Kg	U	B

**Sample ID:** SL-146-SA5DN-SB-2.0-3.0

**Collected:** 5/24/2011 2:40:00

**Analysis Type:** RES

**Dilution:** 0.94

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-Chloro-1,1,1-trifluoroethane	0.55	U	0.55	MDL	5.5	PQL	ug/Kg	UJ	L
ACETONE	8.5	J	7.4	MDL	8.8	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.2	J	0.26	MDL	4.4	PQL	ug/Kg	U	B

**Sample ID:** SL-150-SA5DN-SB-4.0-5.0

**Collected:** 5/24/2011 3:35:00

**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	0.57	U	0.57	MDL	5.7	PQL	ug/Kg	UJ	L
ACETONE	9.1		7.6	MDL	9.1	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.0	J	0.27	MDL	4.5	PQL	ug/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: PrepDE161\_v1

eQAPP Name: CDM\_SSFL\_110509

### Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
C	Initial Calibration Verification Percent Recovery Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## ***Data Qualifier Summary***

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: PrepDE161\_v1

eQAPP Name: CDM\_SSFL\_110509

E	Matrix Spike Precision
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

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## ***Data Qualifier Summary***

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: PrepDE161\_v1

eQAPP Name: CDM\_SSFL\_110509

Q	Matrix Spike Upper Rejection
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

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE161

# Method Blank Outlier Report

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: DE161\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method: 6010B</b>				
<b>Matrix: AQ</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P14748CB222255	5/31/2011 10:55:00 PM	MAGNESIUM	0.0211 mg/L	EB06-SA5DN-SS-052411

<b>Method: 6010B</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15208AB220406	6/2/2011 4:06:00 AM	ALUMINUM CALCIUM PHOSPHORUS TIN	6.00 mg/Kg 8.24 mg/Kg 0.998 mg/Kg 1.17 mg/Kg	SL-139-SA5DN-SB-2.0-3.0 SL-145-SA5DN-SB-2.0-3.0 SL-146-SA5DN-SB-2.0-3.0 SL-150-SA5DN-SB-4.0-5.0 SL-203-SA5DN-SS-0.0-0.5 SL-204-SA5DN-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-139-SA5DN-SB-2.0-3.0(REA)	TIN	2.82 mg/Kg	2.82U mg/Kg
SL-145-SA5DN-SB-2.0-3.0(REA)	TIN	2.75 mg/Kg	2.75U mg/Kg
SL-146-SA5DN-SB-2.0-3.0(REA)	TIN	2.96 mg/Kg	2.96U mg/Kg
SL-150-SA5DN-SB-4.0-5.0(REA)	TIN	2.89 mg/Kg	2.89U mg/Kg
SL-203-SA5DN-SS-0.0-0.5(REA)	TIN	2.70 mg/Kg	2.70U mg/Kg
SL-204-SA5DN-SS-0.0-0.5(REA)	TIN	2.85 mg/Kg	2.85U mg/Kg

<b>Method: 6020</b>				
<b>Matrix: AQ</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P14750CB220953A	6/1/2011 9:53:00 AM	LEAD	0.000055 mg/L	EB06-SA5DN-SS-052411

*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
EB06-SA5DN-SS-052411(RES)	LEAD	0.00017 mg/L	0.00017U mg/L

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: DE161\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method: 6020</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15726BB221044A	6/7/2011 10:44:00 AM	COPPER	0.107 mg/Kg	SL-139-SA5DN-SB-2.0-3.0 SL-145-SA5DN-SB-2.0-3.0 SL-146-SA5DN-SB-2.0-3.0 SL-150-SA5DN-SB-4.0-5.0 SL-203-SA5DN-SS-0.0-0.5 SL-204-SA5DN-SS-0.0-0.5

<b>Method: 7199</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P14843AB271310A	6/1/2011 1:10:00 PM	HEXAVALENT CHROMIUM	0.26 mg/Kg	SL-139-SA5DN-SB-2.0-3.0 SL-145-SA5DN-SB-2.0-3.0 SL-146-SA5DN-SB-2.0-3.0 SL-150-SA5DN-SB-4.0-5.0 SL-203-SA5DN-SS-0.0-0.5 SL-204-SA5DN-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-139-SA5DN-SB-2.0-3.0(RES)	HEXAVALENT CHROMIUM	0.93 mg/Kg	0.93U mg/Kg
SL-145-SA5DN-SB-2.0-3.0(RES)	HEXAVALENT CHROMIUM	0.69 mg/Kg	0.69U mg/Kg
SL-146-SA5DN-SB-2.0-3.0(RES)	HEXAVALENT CHROMIUM	0.62 mg/Kg	0.62U mg/Kg
SL-150-SA5DN-SB-4.0-5.0(RES)	HEXAVALENT CHROMIUM	0.54 mg/Kg	0.54U mg/Kg
SL-203-SA5DN-SS-0.0-0.5(RES)	HEXAVALENT CHROMIUM	0.86 mg/Kg	0.86U mg/Kg
SL-204-SA5DN-SS-0.0-0.5(RES)	HEXAVALENT CHROMIUM	0.69 mg/Kg	0.69U mg/Kg

<b>Method: 8015M</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P48483AB321813A	6/4/2011 6:13:00 PM	EFH (C30-C40)	1.4 mg/Kg	SL-139-SA5DN-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
SL-139-SA5DN-SB-2.0-3.0(REA2)	EFH (C30-C40)	1.3 mg/Kg	1.3U mg/Kg

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: DE161\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method: 8081A</b>				
<b>Matrix: AQ</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P46460AB240550A	6/3/2011 5:50:00 AM	ENDOSULFAN II	0.59 ug/L	EB06-SA5DN-SS-052411

<b>Method: 8260B</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB67B211316A	5/27/2011 1:16:00 PM	ACETONE METHYLENE CHLORIDE	9.6 ug/Kg 1.1 ug/Kg	SL-139-SA5DN-SB-2.0-3.0 SL-145-SA5DN-SB-2.0-3.0 SL-146-SA5DN-SB-2.0-3.0 SL-150-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
SL-139-SA5DN-SB-2.0-3.0(RES)	ACETONE	11 ug/Kg	11U ug/Kg
SL-139-SA5DN-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	1.3 ug/Kg	4.7U ug/Kg
SL-145-SA5DN-SB-2.0-3.0(RES)	ACETONE	7.8 ug/Kg	8.2U ug/Kg
SL-145-SA5DN-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	1.0 ug/Kg	4.1U ug/Kg
SL-146-SA5DN-SB-2.0-3.0(RES)	ACETONE	8.5 ug/Kg	8.8U ug/Kg
SL-146-SA5DN-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	1.2 ug/Kg	4.4U ug/Kg
SL-150-SA5DN-SB-4.0-5.0(RES)	ACETONE	9.1 ug/Kg	9.1U ug/Kg
SL-150-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.0 ug/Kg	4.5U ug/Kg

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: DE161\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 300.0**

**Matrix: SO**

<i>QC Sample ID (Associated Samples)</i>	<i>Compound</i>	<i>MS %R</i>	<i>MSD %R</i>	<i>%R Limits</i>	<i>RPD (Limits)</i>	<i>Affected Compounds</i>	<i>Flag</i>
SL-203-SA5DN-SS-0.0-0.5MS (SL-139-SA5DN-SB-2.0-3.0 SL-145-SA5DN-SB-2.0-3.0 SL-146-SA5DN-SB-2.0-3.0 SL-150-SA5DN-SB-4.0-5.0 SL-203-SA5DN-SS-0.0-0.5 SL-204-SA5DN-SS-0.0-0.5)	FLUORIDE	52	-	80.00-120.00	-	FLUORIDE	J (all detects) UJ (all non-detects)

## Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: DE161\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 300.0

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-203-SA5DN-SS-0.0-0.5DUP (SL-139-SA5DN-SB-2.0-3.0 SL -145-SA5DN-SB-2.0-3.0 SL -146-SA5DN-SB-2.0-3.0 SL -150-SA5DN-SB-4.0-5.0 SL -203-SA5DN-SS-0.0-0.5 SL -204-SA5DN-SS-0.0-0.5)	Nitrate-NO3	25	20.00	No Qual, OK by difference

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: DE161\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 8081A**

**Matrix: AQ**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11460AY240614A (EB06-SA5DN-SS-052411)	HEPTACHLOR	-	130	57.00-126.00	-	HEPTACHLOR	J(all detects)

**Method: 8270C**

**Matrix: AQ**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P6WDLCSY262341 (EB06-SA5DN-SS-052411)	BENZOIC ACID	-	-	10.00-69.00	51 (30.00)	BENZOIC ACID	J(all detects) UJ(all non-detects)

**Method: 8151A**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11450AQ240729A (SL-203-SA5DN-SS-0.0-0.5 SL-204-SA5DN-SS-0.0-0.5)	DINOSEB	8	-	10.00-36.00	-	DINOSEB	J (all detects) R (all non-detects)

**Method: 8081A**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11463AQ241713A (SL-203-SA5DN-SS-0.0-0.5 SL-204-SA5DN-SS-0.0-0.5)	METHOXYCHLOR	135	-	59.00-125.00	-	METHOXYCHLOR	J(all detects)

**Method: 8270C SIM**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P6LBLCSQ260724 (SL-139-SA5DN-SB-2.0-3.0 SL-145-SA5DN-SB-2.0-3.0 SL-146-SA5DN-SB-2.0-3.0 SL-150-SA5DN-SB-4.0-5.0 SL-203-SA5DN-SS-0.0-0.5 SL-204-SA5DN-SS-0.0-0.5)	BENZO(A)PYRENE BENZO(K)FLUORANTHENE	131 141	- -	58.00-129.00 66.00-137.00	- -	BENZO(A)PYRENE BENZO(K)FLUORANTHENE	J(all detects)

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: DE161\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 8260B

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCS1B67Q211231A LCS1B67Y211254A (SL-139-SA5DN-SB-2.0-3.0 SL-145-SA5DN-SB-2.0-3.0 SL-146-SA5DN-SB-2.0-3.0 SL-150-SA5DN-SB-4.0-5.0)	2-Chloro-1,1,1-trifluoroethane	77	77	78.00-120.00	-	2-Chloro-1,1,1-trifluoroethane	J(all detects) UJ(all non-detects)

## Reporting Limit Outliers

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: DE161\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6020

**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB06-SA5DN-SS-052411	LEAD	J	0.00017	0.0010	PQL	mg/L	J (all detects)

**Method:** 8270C SIM

**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB06-SA5DN-SS-052411	1-METHYLNAPHTHALENE	J	0.019	0.052	PQL	ug/L	J (all detects)
	2-METHYLNAPHTHALENE	J	0.019	0.052	PQL	ug/L	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.20	1.0	PQL	ug/L	

**Method:** 300.0

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-139-SA5DN-SB-2.0-3.0	Nitrate-NO3	J	1.3	1.7	PQL	mg/Kg	J (all detects)

**Method:** 6010B

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-139-SA5DN-SB-2.0-3.0	TIN	J	2.82	10.9	PQL	mg/Kg	J (all detects)
SL-145-SA5DN-SB-2.0-3.0	TIN	J	2.75	10.6	PQL	mg/Kg	J (all detects)
SL-146-SA5DN-SB-2.0-3.0	TIN	J	2.96	11.2	PQL	mg/Kg	J (all detects)
SL-150-SA5DN-SB-4.0-5.0	TIN	J	2.89	10.4	PQL	mg/Kg	J (all detects)
SL-203-SA5DN-SS-0.0-0.5	SODIUM	J	79.5	115	PQL	mg/Kg	J (all detects)
	TIN	J	2.70	11.5	PQL	mg/Kg	
SL-204-SA5DN-SS-0.0-0.5	SODIUM	J	103	117	PQL	mg/Kg	J (all detects)
	TIN	J	2.85	11.7	PQL	mg/Kg	

**Method:** 6020

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-139-SA5DN-SB-2.0-3.0	ANTIMONY	J	0.0795	0.223	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.105	0.112	PQL	mg/Kg	
	SELENIUM	J	0.127	0.446	PQL	mg/Kg	
	SILVER	J	0.0829	0.112	PQL	mg/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: DE161\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6020

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-145-SA5DN-SB-2.0-3.0	ANTIMONY SELENIUM SILVER	J	0.0743	0.212	PQL	mg/Kg	J (all detects)
		J	0.135	0.424	PQL	mg/Kg	
		J	0.0523	0.106	PQL	mg/Kg	
SL-146-SA5DN-SB-2.0-3.0	CADMIUM MOLYBDENUM SELENIUM	J	0.0604	0.117	PQL	mg/Kg	J (all detects)
		J	0.103	0.117	PQL	mg/Kg	
		J	0.0909	0.467	PQL	mg/Kg	
SL-150-SA5DN-SB-4.0-5.0	ANTIMONY CADMIUM SELENIUM	J	0.103	0.210	PQL	mg/Kg	J (all detects)
		J	0.0932	0.105	PQL	mg/Kg	
		J	0.126	0.421	PQL	mg/Kg	
SL-203-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.168	0.461	PQL	mg/Kg	J (all detects)
		J	0.0372	0.115	PQL	mg/Kg	
SL-204-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.143	0.232	PQL	mg/Kg	J (all detects)
		J	0.173	0.464	PQL	mg/Kg	
		J	0.0635	0.116	PQL	mg/Kg	

**Method:** 7199

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-139-SA5DN-SB-2.0-3.0	HEXAVALENT CHROMIUM	J	0.93	1.1	PQL	mg/Kg	J (all detects)
SL-145-SA5DN-SB-2.0-3.0	HEXAVALENT CHROMIUM	J	0.69	1.1	PQL	mg/Kg	J (all detects)
SL-146-SA5DN-SB-2.0-3.0	HEXAVALENT CHROMIUM	J	0.62	1.2	PQL	mg/Kg	J (all detects)
SL-150-SA5DN-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.54	1.1	PQL	mg/Kg	J (all detects)
SL-203-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.86	1.2	PQL	mg/Kg	J (all detects)
SL-204-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.69	1.2	PQL	mg/Kg	J (all detects)

**Method:** 7471A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-139-SA5DN-SB-2.0-3.0	MERCURY	J	0.0072	0.110	PQL	mg/Kg	J (all detects)
SL-146-SA5DN-SB-2.0-3.0	MERCURY	J	0.0051	0.110	PQL	mg/Kg	J (all detects)
SL-203-SA5DN-SS-0.0-0.5	MERCURY	J	0.0114	0.116	PQL	mg/Kg	J (all detects)

**Method:** 8015M

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-139-SA5DN-SB-2.0-3.0	EFH (C15-C20)	J	0.49	1.3	PQL	mg/Kg	J (all detects)
	EFH (C21-C30)	J	0.70	1.3	PQL	mg/Kg	

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: DE161\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8081A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-203-SA5DN-SS-0.0-0.5	gamma-BHC (Lindane)	J	0.15	0.19	PQL	ug/Kg	J (all detects)
SL-204-SA5DN-SS-0.0-0.5	4,4'-DDE	J	0.31	0.40	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	0.17	0.40	PQL	ug/Kg	

**Method:** 8082

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-139-SA5DN-SB-2.0-3.0	AROCLOR 1254	J	0.78	1.9	PQL	ug/Kg	J (all detects)

**Method:** 8260B

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-139-SA5DN-SB-2.0-3.0	METHYLENE CHLORIDE	J	1.3	4.7	PQL	ug/Kg	J (all detects)
SL-145-SA5DN-SB-2.0-3.0	ACETONE	J	7.8	8.2	PQL	ug/Kg	J (all detects)
	METHYLENE CHLORIDE	J	1.0	4.1	PQL	ug/Kg	
SL-146-SA5DN-SB-2.0-3.0	ACETONE	J	8.5	8.8	PQL	ug/Kg	J (all detects)
	METHYLENE CHLORIDE	J	1.2	4.4	PQL	ug/Kg	
SL-150-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.0	4.5	PQL	ug/Kg	J (all detects)

**Method:** 8270C

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-139-SA5DN-SB-2.0-3.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	20	370	PQL	ug/Kg	J (all detects)
SL-203-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	53	390	PQL	ug/Kg	J (all detects)
SL-204-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	58	390	PQL	ug/Kg	J (all detects)

**Method:** 8270C SIM

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-203-SA5DN-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	1.1	2.0	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.3	2.0	PQL	ug/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE161

Laboratory: LL

EDD Filename: DE161\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8270C SIM

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-204-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.2	2.0	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.89	2.0	PQL	ug/Kg	
	NAPHTHALENE	J	1.1	2.0	PQL	ug/Kg	
	PHENANTHRENE	J	1.1	2.0	PQL	ug/Kg	
	PYRENE	J	1.0	2.0	PQL	ug/Kg	

LDC #: 26275S4      **VALIDATION COMPLETENESS WORKSHEET**  
SDG #: DE161      ADR  
Laboratory: Lancaster Laboratories

Date: 9/29/11  
Page: 1 of 1  
Reviewer: MM  
2nd Reviewer: JR

**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	A	No qual
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	2075/b2
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	N	
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Ca, Al, As, Ba, Cr, Co, Cu, Pb, Mg, Mn, Ni, Sr, V, Zn
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	N	
XV.	Field Blanks	SW	EB27 (No qual. 75X)

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-203-SA5DN-SS-0.0-0.5	11		21		31	
2	SL-204-SA5DN-SS-0.0-0.5	12		22		32	
3	SL-139-SA5DN-SS-2.0-3.0	13		23		33	
4	SL-145-SA5DN-SS-2.0-3.0	14		24		34	
5	SL-146-SA5DN-SS-2.0-3.0	15		25		35	
6	SL-150-SA5DN-SS-4.0-5.0	16		26		36	
7	EB06-SA5DN-SS-052411	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# **SAMPLE DELIVERY GROUP**

**DE162**



## **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
25-May-2011	TB-052511	6298878	TB	5030B	8015M	III
25-May-2011	TB-052511	6298878	TB	5030B	8260B	III
25-May-2011	TB-052511	6298878	TB	5030B	8260B SIM	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0	6298873	N	3050B	6010B	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0	6298873	N	3050B	6020	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0	6298873	N	3060A	7199	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0	6298873	N	3550B	8082	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0	6298873	N	3550B	8270C	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0	6298873	N	3550B	8270C SIM	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0	6298873	N	5035	8260B	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0	6298873	N	5035	8260B SIM	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0	6298873	N	METHOD	300.0	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0	6298873	N	METHOD	314.0	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0	6298873	N	METHOD	7471A	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0MS	6298874	MS	3050B	6010B	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0MS	6298874	MS	3050B	6020	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0MS	6298874	MS	3060A	7199	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0MS	6298874	MS	3550B	8082	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0MS	6298874	MS	3550B	8270C	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0MS	6298874	MS	3550B	8270C SIM	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0MS	6298874	MS	5035	8260B	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0MS	6298874	MS	5035	8260B SIM	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0MS	6298874	MS	METHOD	300.0	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0MS	6298874	MS	METHOD	314.0	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0MS	6298874	MS	METHOD	7471A	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0DU	6298876	DUP	3050B	6010B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-May-2011	SL-144-SA5DN-SB-2.0-3.0DU	6298876	DUP	3050B	6020	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0DU	6298876	DUP	3060A	7199	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0DU	6298876	DUP	METHOD	300.0	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0DU	6298876	DUP	METHOD	314.0	III
25-May-2011	SL-144-SA5DN-SB-2.0-3.0DU	6298876	DUP	METHOD	7471A	III
25-May-2011	DUP07-SA5DN-QC-052511	6298877	FD	3050B	6010B	III
25-May-2011	DUP07-SA5DN-QC-052511	6298877	FD	3050B	6020	III
25-May-2011	DUP07-SA5DN-QC-052511	6298877	FD	3060A	7199	III
25-May-2011	DUP07-SA5DN-QC-052511	6298877	FD	3550B	8082	III
25-May-2011	DUP07-SA5DN-QC-052511	6298877	FD	3550B	8270C	III
25-May-2011	DUP07-SA5DN-QC-052511	6298877	FD	3550B	8270C SIM	III
25-May-2011	DUP07-SA5DN-QC-052511	6298877	FD	5035	8260B	III
25-May-2011	DUP07-SA5DN-QC-052511	6298877	FD	5035	8260B SIM	III
25-May-2011	DUP07-SA5DN-QC-052511	6298877	FD	METHOD	300.0	III
25-May-2011	DUP07-SA5DN-QC-052511	6298877	FD	METHOD	314.0	III
25-May-2011	DUP07-SA5DN-QC-052511	6298877	FD	METHOD	7471A	III
25-May-2011	SL-142-SA5DN-SB-2.0-3.0	6298872	N	3050B	6010B	III
25-May-2011	SL-142-SA5DN-SB-2.0-3.0	6298872	N	3050B	6020	III
25-May-2011	SL-142-SA5DN-SB-2.0-3.0	6298872	N	3060A	7199	III
25-May-2011	SL-142-SA5DN-SB-2.0-3.0	6298872	N	3550B	8082	III
25-May-2011	SL-142-SA5DN-SB-2.0-3.0	6298872	N	3550B	8270C	III
25-May-2011	SL-142-SA5DN-SB-2.0-3.0	6298872	N	3550B	8270C SIM	III
25-May-2011	SL-142-SA5DN-SB-2.0-3.0	6298872	N	5035	8260B	III
25-May-2011	SL-142-SA5DN-SB-2.0-3.0	6298872	N	5035	8260B SIM	III
25-May-2011	SL-142-SA5DN-SB-2.0-3.0	6298872	N	METHOD	300.0	III
25-May-2011	SL-142-SA5DN-SB-2.0-3.0	6298872	N	METHOD	314.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-May-2011	SL-142-SA5DN-SB-2.0-3.0	6298872	N	METHOD	7471A	III
25-May-2011	SL-140-SA5DN-SB-2.0-3.0	6298871	N	3050B	6010B	III
25-May-2011	SL-140-SA5DN-SB-2.0-3.0	6298871	N	3050B	6020	III
25-May-2011	SL-140-SA5DN-SB-2.0-3.0	6298871	N	3060A	7199	III
25-May-2011	SL-140-SA5DN-SB-2.0-3.0	6298871	N	3546	1625C	III
25-May-2011	SL-140-SA5DN-SB-2.0-3.0	6298871	N	3550B	8015B	III
25-May-2011	SL-140-SA5DN-SB-2.0-3.0	6298871	N	3550B	8015M	III
25-May-2011	SL-140-SA5DN-SB-2.0-3.0	6298871	N	3550B	8082	III
25-May-2011	SL-140-SA5DN-SB-2.0-3.0	6298871	N	3550B	8270C	III
25-May-2011	SL-140-SA5DN-SB-2.0-3.0	6298871	N	3550B	8270C SIM	III
25-May-2011	SL-140-SA5DN-SB-2.0-3.0	6298871	N	5035	8015M	III
25-May-2011	SL-140-SA5DN-SB-2.0-3.0	6298871	N	5035	8260B	III
25-May-2011	SL-140-SA5DN-SB-2.0-3.0	6298871	N	5035	8260B SIM	III
25-May-2011	SL-140-SA5DN-SB-2.0-3.0	6298871	N	8330	8330A	III
25-May-2011	SL-140-SA5DN-SB-2.0-3.0	6298871	N	METHOD	300.0	III
25-May-2011	SL-140-SA5DN-SB-2.0-3.0	6298871	N	METHOD	314.0	III
25-May-2011	SL-140-SA5DN-SB-2.0-3.0	6298871	N	METHOD	7471A	III
25-May-2011	SL-140-SA5DN-SB-2.0-3.0	6298871	N	METHOD	8015B	III
25-May-2011	SL-140-SA5DN-SB-2.0-3.0	6298871	N	METHOD	8015M	III
25-May-2011	SL-140-SA5DN-SB-2.0-3.0	6298871	N	METHOD	8315A	III
25-May-2011	SL-140-SA5DN-SB-2.0-3.0	6298871	N	METHOD	9012B	III
25-May-2011	SL-133-SA5DN-SB-4.0-5.0	6298870	N	3050B	6010B	III
25-May-2011	SL-133-SA5DN-SB-4.0-5.0	6298870	N	3050B	6020	III
25-May-2011	SL-133-SA5DN-SB-4.0-5.0	6298870	N	3060A	7199	III
25-May-2011	SL-133-SA5DN-SB-4.0-5.0	6298870	N	3546	1625C	III
25-May-2011	SL-133-SA5DN-SB-4.0-5.0	6298870	N	3550B	8015B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-May-2011	SL-133-SA5DN-SB-4.0-5.0	6298870	N	3550B	8015M	III
25-May-2011	SL-133-SA5DN-SB-4.0-5.0	6298870	N	3550B	8082	III
25-May-2011	SL-133-SA5DN-SB-4.0-5.0	6298870	N	3550B	8270C	III
25-May-2011	SL-133-SA5DN-SB-4.0-5.0	6298870	N	3550B	8270C SIM	III
25-May-2011	SL-133-SA5DN-SB-4.0-5.0	6298870	N	5035	8015M	III
25-May-2011	SL-133-SA5DN-SB-4.0-5.0	6298870	N	5035	8260B	III
25-May-2011	SL-133-SA5DN-SB-4.0-5.0	6298870	N	5035	8260B SIM	III
25-May-2011	SL-133-SA5DN-SB-4.0-5.0	6298870	N	8330	8330A	III
25-May-2011	SL-133-SA5DN-SB-4.0-5.0	6298870	N	METHOD	300.0	III
25-May-2011	SL-133-SA5DN-SB-4.0-5.0	6298870	N	METHOD	314.0	III
25-May-2011	SL-133-SA5DN-SB-4.0-5.0	6298870	N	METHOD	7471A	III
25-May-2011	SL-133-SA5DN-SB-4.0-5.0	6298870	N	METHOD	8015B	III
25-May-2011	SL-133-SA5DN-SB-4.0-5.0	6298870	N	METHOD	8015M	III
25-May-2011	SL-133-SA5DN-SB-4.0-5.0	6298870	N	METHOD	8315A	III
25-May-2011	SL-133-SA5DN-SB-4.0-5.0	6298870	N	METHOD	9012B	III
25-May-2011	SL-130-SA5DN-SB-4.0-5.0	6298869	N	3050B	6010B	III
25-May-2011	SL-130-SA5DN-SB-4.0-5.0	6298869	N	3050B	6020	III
25-May-2011	SL-130-SA5DN-SB-4.0-5.0	6298869	N	3060A	7199	III
25-May-2011	SL-130-SA5DN-SB-4.0-5.0	6298869	N	3550B	8082	III
25-May-2011	SL-130-SA5DN-SB-4.0-5.0	6298869	N	3550B	8270C	III
25-May-2011	SL-130-SA5DN-SB-4.0-5.0	6298869	N	3550B	8270C SIM	III
25-May-2011	SL-130-SA5DN-SB-4.0-5.0	6298869	N	5035	8260B	III
25-May-2011	SL-130-SA5DN-SB-4.0-5.0	6298869	N	5035	8260B SIM	III
25-May-2011	SL-130-SA5DN-SB-4.0-5.0	6298869	N	METHOD	300.0	III
25-May-2011	SL-130-SA5DN-SB-4.0-5.0	6298869	N	METHOD	314.0	III
25-May-2011	SL-130-SA5DN-SB-4.0-5.0	6298869	N	METHOD	7471A	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: DE162

Laboratory: LL

EDD Filename: DE162\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

**Sample ID:** DUP07-SA5DN-QC-052511

**Collected:** 5/25/2011 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
FLUORIDE	3.4		0.86	MDL	1.1	PQL	mg/Kg	J	FD

**Sample ID:** SL-140-SA5DN-SB-2.0-3.0

**Collected:** 5/25/2011 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
Nitrate-NO3	1.5	J	0.85	MDL	1.6	PQL	mg/Kg	J	Z

**Sample ID:** SL-144-SA5DN-SB-2.0-3.0

**Collected:** 5/25/2011 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	8.3		0.88	MDL	1.1	PQL	mg/Kg	J	FD

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** DUP07-SA5DN-QC-052511

**Collected:** 5/25/2011 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
ALUMINUM	18800		5.22	MDL	20.8	PQL	mg/Kg	J	A
CALCIUM	3950		6.37	MDL	20.8	PQL	mg/Kg	J	A
MAGNESIUM	6270		2.64	MDL	10.4	PQL	mg/Kg	J	A
MANGANESE	277		0.0810	MDL	0.519	PQL	mg/Kg	J	A
POTASSIUM	2410		18.7	MDL	51.9	PQL	mg/Kg	J	Q
SODIUM	216		38.7	MDL	104	PQL	mg/Kg	J	FD
STRONTIUM	27.3		0.0644	MDL	0.519	PQL	mg/Kg	J	A
TIN	2.88	J	1.04	MDL	10.4	PQL	mg/Kg	U	B

**Sample ID:** SL-130-SA5DN-SB-4.0-5.0

**Collected:** 5/25/2011 4:15:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	20300		5.49	MDL	21.8	PQL	mg/Kg	J	A
CALCIUM	3390		6.69	MDL	21.8	PQL	mg/Kg	J	A
MAGNESIUM	5640		2.77	MDL	10.9	PQL	mg/Kg	J	A
MANGANESE	369		0.0851	MDL	0.546	PQL	mg/Kg	J	A
POTASSIUM	1950		19.6	MDL	54.6	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

10/5/2011 9:07:20 AM

ADR version 1.4.0.111

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# Data Qualifier Summary

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: SL-130-SA5DN-SB-4.0-5.0

Collected: 5/25/2011 4:15:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
STRONTIUM	23.9		0.0677	MDL	0.546	PQL	mg/Kg	J	A
TIN	2.79	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	4.74	J	0.917	MDL	5.46	PQL	mg/Kg	J	Z

Sample ID: SL-133-SA5DN-SB-4.0-5.0

Collected: 5/25/2011 12:00:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	24300		5.42	MDL	21.5	PQL	mg/Kg	J	A
CALCIUM	3420		6.60	MDL	21.5	PQL	mg/Kg	J	A
MAGNESIUM	5420		2.74	MDL	10.8	PQL	mg/Kg	J	A
MANGANESE	276		0.0840	MDL	0.539	PQL	mg/Kg	J	A
POTASSIUM	1870		19.4	MDL	53.9	PQL	mg/Kg	J	Q
STRONTIUM	28.0		0.0668	MDL	0.539	PQL	mg/Kg	J	A
TIN	2.72	J	1.08	MDL	10.8	PQL	mg/Kg	U	B

Sample ID: SL-140-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 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
ALUMINUM	23500		5.17	MDL	20.5	PQL	mg/Kg	J	A
CALCIUM	3160		6.30	MDL	20.5	PQL	mg/Kg	J	A
MAGNESIUM	5170		2.61	MDL	10.3	PQL	mg/Kg	J	A
MANGANESE	246		0.0801	MDL	0.514	PQL	mg/Kg	J	A
POTASSIUM	1940		18.5	MDL	51.4	PQL	mg/Kg	J	Q
STRONTIUM	27.3		0.0637	MDL	0.514	PQL	mg/Kg	J	A
TIN	2.91	J	1.03	MDL	10.3	PQL	mg/Kg	U	B

Sample ID: SL-142-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 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
ALUMINUM	20500		5.36	MDL	21.3	PQL	mg/Kg	J	A
CALCIUM	5070		6.53	MDL	21.3	PQL	mg/Kg	J	A
MAGNESIUM	6760		2.71	MDL	10.7	PQL	mg/Kg	J	A
MANGANESE	323		0.0831	MDL	0.533	PQL	mg/Kg	J	A
POTASSIUM	2530		19.2	MDL	53.3	PQL	mg/Kg	J	Q
STRONTIUM	128		0.0661	MDL	0.533	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

10/5/2011 9:07:20 AM

ADR version 1.4.0.111

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## Data Qualifier Summary

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: SL-142-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 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	2.81	J	1.07	MDL	10.7	PQL	mg/Kg	U	B

Sample ID: SL-144-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 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
ALUMINUM	19900		5.38	MDL	21.4	PQL	mg/Kg	J	A
CALCIUM	5500		6.56	MDL	21.4	PQL	mg/Kg	J	A
MAGNESIUM	7180		2.72	MDL	10.7	PQL	mg/Kg	J	A
MANGANESE	443		0.0835	MDL	0.535	PQL	mg/Kg	J	A
POTASSIUM	3420		19.3	MDL	53.5	PQL	mg/Kg	J	Q
SODIUM	400		39.9	MDL	107	PQL	mg/Kg	J	FD
STRONTIUM	33.9		0.0664	MDL	0.535	PQL	mg/Kg	J	A
TIN	4.03	J	1.07	MDL	10.7	PQL	mg/Kg	U	B

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: DUP07-SA5DN-QC-052511

Collected: 5/25/2011 9:00:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.145	J	0.0419	MDL	0.419	PQL	mg/Kg	J	Z

Sample ID: DUP07-SA5DN-QC-052511

Collected: 5/25/2011 9:00:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	113		0.113	MDL	0.419	PQL	mg/Kg	J	E, A

Sample ID: DUP07-SA5DN-QC-052511

Collected: 5/25/2011 9:00:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.105	J	0.0629	MDL	0.210	PQL	mg/Kg	J	Z, Q
ARSENIC	10.6		0.0839	MDL	0.419	PQL	mg/Kg	J	E, A
BERYLLIUM	0.602		0.0168	MDL	0.105	PQL	mg/Kg	J	Q, E
CADMIUM	0.0534	J	0.0419	MDL	0.105	PQL	mg/Kg	J	Z
CHROMIUM	24.2		0.126	MDL	0.419	PQL	mg/Kg	J	Q, E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: DUP07-SA5DN-QC-052511

Collected: 5/25/2011 9:00:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	6.60		0.0210	MDL	0.105	PQL	mg/Kg	J	E, E, FD, A
COPPER	13.9		0.0692	MDL	0.419	PQL	mg/Kg	J	Q, E, A
LEAD	7.73		0.0109	MDL	0.210	PQL	mg/Kg	J	Q, E, A
NICKEL	16.1		0.105	MDL	0.419	PQL	mg/Kg	J	Q, E, A
SILVER	0.0155	J	0.0126	MDL	0.105	PQL	mg/Kg	J	Z, FD
VANADIUM	45.3		0.0231	MDL	0.105	PQL	mg/Kg	J	E, A
ZINC	60.2		0.587	MDL	3.15	PQL	mg/Kg	J	A

Sample ID: SL-130-SA5DN-SB-4.0-5.0

Collected: 5/25/2011 4:15:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.256	J	0.0454	MDL	0.454	PQL	mg/Kg	J	Z

Sample ID: SL-130-SA5DN-SB-4.0-5.0

Collected: 5/25/2011 4:15:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	101		0.123	MDL	0.454	PQL	mg/Kg	J	E, A

Sample ID: SL-130-SA5DN-SB-4.0-5.0

Collected: 5/25/2011 4:15:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.139	J	0.0681	MDL	0.227	PQL	mg/Kg	J	Z, Q
ARSENIC	20.1		0.0908	MDL	0.454	PQL	mg/Kg	J	E, A
BERYLLIUM	0.863		0.0182	MDL	0.114	PQL	mg/Kg	J	Q, E
CADMIUM	0.0612	J	0.0454	MDL	0.114	PQL	mg/Kg	J	Z
CHROMIUM	35.9		0.136	MDL	0.454	PQL	mg/Kg	J	Q, E, A
COBALT	11.1		0.0227	MDL	0.114	PQL	mg/Kg	J	E, E, A
COPPER	11.0		0.0749	MDL	0.454	PQL	mg/Kg	J	Q, E, A
LEAD	9.39		0.0118	MDL	0.227	PQL	mg/Kg	J	Q, E, A
NICKEL	22.6		0.114	MDL	0.454	PQL	mg/Kg	J	Q, E, A
SILVER	0.0609	J	0.0136	MDL	0.114	PQL	mg/Kg	J	Z
VANADIUM	54.4		0.0250	MDL	0.114	PQL	mg/Kg	J	E, A
ZINC	55.9		0.636	MDL	3.41	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-133-SA5DN-SB-4.0-5.0

Collected: 5/25/2011 12:00:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0545	J	0.0452	MDL	0.452	PQL	mg/Kg	J	Z

Sample ID: SL-133-SA5DN-SB-4.0-5.0

Collected: 5/25/2011 12:00:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	105		0.122	MDL	0.452	PQL	mg/Kg	J	E, A

Sample ID: SL-133-SA5DN-SB-4.0-5.0

Collected: 5/25/2011 12:00:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0679	U	0.0679	MDL	0.226	PQL	mg/Kg	UJ	Q
ARSENIC	14.8		0.0905	MDL	0.452	PQL	mg/Kg	J	E, A
BERYLLIUM	0.785		0.0181	MDL	0.113	PQL	mg/Kg	J	Q, E
CHROMIUM	25.5		0.136	MDL	0.452	PQL	mg/Kg	J	Q, E, A
COBALT	6.96		0.0226	MDL	0.113	PQL	mg/Kg	J	E, E, A
COPPER	9.83		0.0747	MDL	0.452	PQL	mg/Kg	J	Q, E, A
LEAD	7.02		0.0118	MDL	0.226	PQL	mg/Kg	J	Q, E, A
NICKEL	18.5		0.113	MDL	0.452	PQL	mg/Kg	J	Q, E, A
SILVER	0.0901	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z
VANADIUM	44.2		0.0249	MDL	0.113	PQL	mg/Kg	J	E, A
ZINC	51.4		0.633	MDL	3.39	PQL	mg/Kg	J	A

Sample ID: SL-140-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 10:55:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0639	J	0.0423	MDL	0.423	PQL	mg/Kg	J	Z

Sample ID: SL-140-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 10:55:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	123		0.114	MDL	0.423	PQL	mg/Kg	J	E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-140-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 10:55:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0981	J	0.0635	MDL	0.212	PQL	mg/Kg	J	Z, Q
ARSENIC	14.9		0.0846	MDL	0.423	PQL	mg/Kg	J	E, A
BERYLLIUM	0.892		0.0169	MDL	0.106	PQL	mg/Kg	J	Q, E
CADMIUM	0.0729	J	0.0423	MDL	0.106	PQL	mg/Kg	J	Z
CHROMIUM	27.4		0.127	MDL	0.423	PQL	mg/Kg	J	Q, E, A
COBALT	11.8		0.0212	MDL	0.106	PQL	mg/Kg	J	E, E, A
COPPER	11.2		0.0698	MDL	0.423	PQL	mg/Kg	J	Q, E, A
LEAD	9.33		0.0110	MDL	0.212	PQL	mg/Kg	J	Q, E, A
NICKEL	16.4		0.106	MDL	0.423	PQL	mg/Kg	J	Q, E, A
SILVER	0.0843	J	0.0127	MDL	0.106	PQL	mg/Kg	J	Z
VANADIUM	52.4		0.0233	MDL	0.106	PQL	mg/Kg	J	E, A
ZINC	47.7		0.592	MDL	3.17	PQL	mg/Kg	J	A

Sample ID: SL-142-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 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	0.319	J	0.0430	MDL	0.430	PQL	mg/Kg	J	Z

Sample ID: SL-142-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 9:50:00

Analysis Type: REA3

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	256		0.291	MDL	1.08	PQL	mg/Kg	J	E, A

Sample ID: SL-142-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 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	0.247		0.0646	MDL	0.215	PQL	mg/Kg	J	Q
ARSENIC	20.8		0.0861	MDL	0.430	PQL	mg/Kg	J	E, A
BERYLLIUM	1.17		0.0172	MDL	0.108	PQL	mg/Kg	J	Q, E
CHROMIUM	37.3		0.129	MDL	0.430	PQL	mg/Kg	J	Q, E, A
COBALT	19.8		0.0215	MDL	0.108	PQL	mg/Kg	J	E, E, A
COPPER	27.2		0.0710	MDL	0.430	PQL	mg/Kg	J	Q, E, A
LEAD	13.5		0.0112	MDL	0.215	PQL	mg/Kg	J	Q, E, A
NICKEL	33.6		0.108	MDL	0.430	PQL	mg/Kg	J	Q, E, A
SILVER	0.0496	J	0.0129	MDL	0.108	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-142-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 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
VANADIUM	66.9		0.0237	MDL	0.108	PQL	mg/Kg	J	E, A
ZINC	114		0.603	MDL	3.23	PQL	mg/Kg	J	A

Sample ID: SL-144-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 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	0.104	J	0.0437	MDL	0.437	PQL	mg/Kg	J	Z

Sample ID: SL-144-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 8:55:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	165		0.118	MDL	0.437	PQL	mg/Kg	J	E, A

Sample ID: SL-144-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 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	0.117	J	0.0655	MDL	0.218	PQL	mg/Kg	J	Z, Q
ARSENIC	12.1		0.0873	MDL	0.437	PQL	mg/Kg	J	E, A
BERYLLIUM	0.842		0.0175	MDL	0.109	PQL	mg/Kg	J	Q, E
CADMIUM	0.0830	J	0.0437	MDL	0.109	PQL	mg/Kg	J	Z
CHROMIUM	23.1		0.131	MDL	0.437	PQL	mg/Kg	J	Q, E, A
COBALT	13.9		0.0218	MDL	0.109	PQL	mg/Kg	J	E, E, FD, A
COPPER	18.7		0.0720	MDL	0.437	PQL	mg/Kg	J	Q, E, A
LEAD	9.30		0.0114	MDL	0.218	PQL	mg/Kg	J	Q, E, A
NICKEL	17.3		0.109	MDL	0.437	PQL	mg/Kg	J	Q, E, A
SILVER	0.0284	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z, FD
VANADIUM	45.7		0.0240	MDL	0.109	PQL	mg/Kg	J	E, A
ZINC	98.9		0.611	MDL	3.27	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

Sample ID: DUP07-SA5DN-QC-052511

Collected: 5/25/2011 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
HEXAVALENT CHROMIUM	0.21	U	0.21	MDL	1.1	PQL	mg/Kg	UJ	FD

Sample ID: SL-133-SA5DN-SB-4.0-5.0

Collected: 5/25/2011 12:00:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.69	J	0.23	MDL	1.1	PQL	mg/Kg	U	B

Sample ID: SL-144-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 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
HEXAVALENT CHROMIUM	1.1	J	0.22	MDL	1.1	PQL	mg/Kg	UJ	B, FD

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

Sample ID: DUP07-SA5DN-QC-052511

Collected: 5/25/2011 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
MERCURY	0.0030	U	0.0030	MDL	0.106	PQL	mg/Kg	UJ	FD

Sample ID: SL-130-SA5DN-SB-4.0-5.0

Collected: 5/25/2011 4:15:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0140	J	0.0030	MDL	0.106	PQL	mg/Kg	J	Z

Sample ID: SL-140-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 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
MERCURY	0.0042	J	0.0029	MDL	0.100	PQL	mg/Kg	J	Z

Sample ID: SL-144-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 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
MERCURY	0.0041	J	0.0031	MDL	0.108	PQL	mg/Kg	J	Z, FD

\* denotes a non-reportable result

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## Data Qualifier Summary

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8015M

**Matrix:** SO

Sample ID: SL-133-SA5DN-SB-4.0-5.0

Collected: 5/25/2011 12:00:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	1.2	J	0.45	MDL	1.3	PQL	mg/Kg	J	Z, L

Sample ID: SL-140-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 10:55:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	1.5		0.43	MDL	1.3	PQL	mg/Kg	J	L

**Method Category:** SVOA

**Method:** 8270C

**Matrix:** SO

Sample ID: SL-144-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 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
1,4-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	Q
BENZIDINE	1300	U	1300	MDL	3700	PQL	ug/Kg	UJ	Q
N-NITROSODIPHENYLAMINE	18	U	18	MDL	180	PQL	ug/Kg	UJ	Q

**Method Category:** VOA

**Method:** 8260B

**Matrix:** SO

Sample ID: DUP07-SA5DN-QC-052511

Collected: 5/25/2011 9:00:00

Analysis Type: RES

Dilution: 0.98

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	14		7.0	MDL	8.4	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.4	J	0.25	MDL	4.2	PQL	ug/Kg	U	B

Sample ID: SL-130-SA5DN-SB-4.0-5.0

Collected: 5/25/2011 4:15:00

Analysis Type: RES

Dilution: 0.85

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.2		6.4	MDL	7.7	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.3	J	0.23	MDL	3.9	PQL	ug/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** VOA

**Method:** 8260B

**Matrix:** SO

Sample ID: SL-130-SA5DN-SB-4.0-5.0

Collected: 5/25/2011 4:15:00

Analysis Type: RES

Dilution: 0.85

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.2		6.4	MDL	7.7	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.3	J	0.23	MDL	3.9	PQL	ug/Kg	U	B

Sample ID: SL-133-SA5DN-SB-4.0-5.0

Collected: 5/25/2011 12:00:00

Analysis Type: RES

Dilution: 0.81

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.0		6.1	MDL	7.3	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.1	J	0.22	MDL	3.7	PQL	ug/Kg	U	B

Sample ID: SL-140-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 10:55:00

Analysis Type: RES

Dilution: 0.88

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.8		6.3	MDL	7.6	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.3	J	0.23	MDL	3.8	PQL	ug/Kg	U	B

Sample ID: SL-142-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 9:50:00

Analysis Type: RES

Dilution: 0.97

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.9		7.1	MDL	8.5	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.1	J	0.26	MDL	4.3	PQL	ug/Kg	U	B

Sample ID: SL-144-SA5DN-SB-2.0-3.0

Collected: 5/25/2011 8:55:00

Analysis Type: RES

Dilution: 0.95

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.4		7.0	MDL	8.4	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.6	J	0.25	MDL	4.2	PQL	ug/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_v1

eQAPP Name: CDM\_SSFL\_110509

### Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	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	Laboratory Triplicate Precision
E	Matrix Spike Precision

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## ***Data Qualifier Summary***

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_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	Laboratory Triplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## **Data Qualifier Summary**

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_v1

eQAPP Name: CDM\_SSFL\_110509

Q	Matrix Spike Upper Rejection
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

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE162

# Method Blank Outlier Report

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method: 6010B</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15208AB220406	6/2/2011 4:06:00 AM	ALUMINUM CALCIUM PHOSPHORUS TIN	6.00 mg/Kg 8.24 mg/Kg 0.998 mg/Kg 1.17 mg/Kg	DUP07-SA5DN-QC-052511 SL-130-SA5DN-SB-4.0-5.0 SL-133-SA5DN-SB-4.0-5.0 SL-140-SA5DN-SB-2.0-3.0 SL-142-SA5DN-SB-2.0-3.0 SL-144-SA5DN-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
DUP07-SA5DN-QC-052511(RES)	TIN	2.88 mg/Kg	2.88U mg/Kg
SL-130-SA5DN-SB-4.0-5.0(RES)	TIN	2.79 mg/Kg	2.79U mg/Kg
SL-133-SA5DN-SB-4.0-5.0(RES)	TIN	2.72 mg/Kg	2.72U mg/Kg
SL-140-SA5DN-SB-2.0-3.0(RES)	TIN	2.91 mg/Kg	2.91U mg/Kg
SL-142-SA5DN-SB-2.0-3.0(RES)	TIN	2.81 mg/Kg	2.81U mg/Kg
SL-144-SA5DN-SB-2.0-3.0(RES)	TIN	4.03 mg/Kg	4.03U mg/Kg

<b>Method: 6020</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15726BB221044A	6/7/2011 10:44:00 AM	COPPER	0.107 mg/Kg	DUP07-SA5DN-QC-052511 SL-130-SA5DN-SB-4.0-5.0 SL-133-SA5DN-SB-4.0-5.0 SL-140-SA5DN-SB-2.0-3.0 SL-142-SA5DN-SB-2.0-3.0 SL-144-SA5DN-SB-2.0-3.0

<b>Method: 7199</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P14843AB271310A	6/1/2011 1:10:00 PM	HEXAVALENT CHROMIUM	0.26 mg/Kg	DUP07-SA5DN-QC-052511 SL-130-SA5DN-SB-4.0-5.0 SL-133-SA5DN-SB-4.0-5.0 SL-140-SA5DN-SB-2.0-3.0 SL-142-SA5DN-SB-2.0-3.0 SL-144-SA5DN-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
SL-133-SA5DN-SB-4.0-5.0(RES)	HEXAVALENT CHROMIUM	0.69 mg/Kg	0.69U mg/Kg
SL-144-SA5DN-SB-2.0-3.0(RES)	HEXAVALENT CHROMIUM	1.1 mg/Kg	1.1U mg/Kg

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method: 8260B</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB72B211210A	6/1/2011 12:10:00 PM	ACETONE METHYLENE CHLORIDE	8.6 ug/Kg 1.4 ug/Kg	DUP07-SA5DN-QC-052511 SL-130-SA5DN-SB-4.0-5.0 SL-133-SA5DN-SB-4.0-5.0 SL-140-SA5DN-SB-2.0-3.0 SL-142-SA5DN-SB-2.0-3.0 SL-144-SA5DN-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
DUP07-SA5DN-QC-052511(RES)	ACETONE	14 ug/Kg	14U ug/Kg
DUP07-SA5DN-QC-052511(RES)	METHYLENE CHLORIDE	1.4 ug/Kg	4.2U ug/Kg
SL-130-SA5DN-SB-4.0-5.0(RES)	ACETONE	8.2 ug/Kg	8.2U ug/Kg
SL-130-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.3 ug/Kg	3.9U ug/Kg
SL-133-SA5DN-SB-4.0-5.0(RES)	ACETONE	8.0 ug/Kg	8.0U ug/Kg
SL-133-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.1 ug/Kg	3.7U ug/Kg
SL-140-SA5DN-SB-2.0-3.0(RES)	ACETONE	8.8 ug/Kg	8.8U ug/Kg
SL-140-SA5DN-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	1.3 ug/Kg	3.8U ug/Kg
SL-142-SA5DN-SB-2.0-3.0(RES)	ACETONE	8.9 ug/Kg	8.9U ug/Kg
SL-142-SA5DN-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	1.1 ug/Kg	4.3U ug/Kg
SL-144-SA5DN-SB-2.0-3.0(RES)	ACETONE	9.4 ug/Kg	9.4U ug/Kg
SL-144-SA5DN-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	1.6 ug/Kg	4.2U ug/Kg

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_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-144-SA5DN-SB-2.0-3.0MS (SL-144-SA5DN-SB-2.0-3.0)	BENZO(B)FLUORANTHENE	160	-	43.00-155.00	-	BENZO(B)FLUORANTHENE	J (all detects)

Method: 8270C

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-144-SA5DN-SB-2.0-3.0MSD (SL-144-SA5DN-SB-2.0-3.0)	2,4-DINITROPHENOL BENZOIC ACID	- -	- -	20.00-143.00 10.00-173.00	52 (30.00) 45 (30.00)	2,4-DINITROPHENOL BENZOIC ACID	J(all detects)
SL-144-SA5DN-SB-2.0-3.0MS SL-144-SA5DN-SB-2.0-3.0MSD (SL-144-SA5DN-SB-2.0-3.0)	1,4-DICHLOROBENZENE BENZIDINE N-NITROSODIPHENYLAMINE	69 19 81	- 31 -	70.00-100.00 35.00-141.00 86.00-145.00	- 50 (30.00) -	1,4-DICHLOROBENZENE BENZIDINE N-NITROSODIPHENYLAMINE	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-144-SA5DN-SB-2.0-3.0MS SL-144-SA5DN-SB-2.0-3.0MSD (DUP07-SA5DN-QC-052511 SL-130-SA5DN-SB-4.0-5.0 SL-133-SA5DN-SB-4.0-5.0 SL-140-SA5DN-SB-2.0-3.0 SL-142-SA5DN-SB-2.0-3.0 SL-144-SA5DN-SB-2.0-3.0)	ALUMINUM MAGNESIUM	5295 450	7388 274	75.00-125.00 75.00-125.00	- -	ALUMINUM MAGNESIUM	No Qual, >4x
SL-144-SA5DN-SB-2.0-3.0MS SL-144-SA5DN-SB-2.0-3.0MSD (DUP07-SA5DN-QC-052511 SL-130-SA5DN-SB-4.0-5.0 SL-133-SA5DN-SB-4.0-5.0 SL-140-SA5DN-SB-2.0-3.0 SL-142-SA5DN-SB-2.0-3.0 SL-144-SA5DN-SB-2.0-3.0)	CALCIUM IRON MANGANESE PHOSPHORUS TITANIUM	-76 -5356 -257 -220 -31	29 -747 -256 -292 -94	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	CALCIUM IRON MANGANESE PHOSPHORUS TITANIUM	No Qual, >4x
SL-144-SA5DN-SB-2.0-3.0MSD (DUP07-SA5DN-QC-052511 SL-130-SA5DN-SB-4.0-5.0 SL-133-SA5DN-SB-4.0-5.0 SL-140-SA5DN-SB-2.0-3.0 SL-142-SA5DN-SB-2.0-3.0 SL-144-SA5DN-SB-2.0-3.0)	POTASSIUM	-	40	75.00-125.00	-	POTASSIUM	J(all detects) UJ(all non-detects)



# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_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-144-SA5DN-SB-2.0-3.0MS SL-144-SA5DN-SB-2.0-3.0MSD (DUP07-SA5DN-QC-052511 SL-130-SA5DN-SB-4.0-5.0 SL-133-SA5DN-SB-4.0-5.0 SL-140-SA5DN-SB-2.0-3.0 SL-142-SA5DN-SB-2.0-3.0 SL-144-SA5DN-SB-2.0-3.0)	ZINC	-47	-7	75.00-125.00	-	ZINC	No Qual, >4x
SL-144-SA5DN-SB-2.0-3.0MS SL-144-SA5DN-SB-2.0-3.0MSD (DUP07-SA5DN-QC-052511 SL-130-SA5DN-SB-4.0-5.0 SL-133-SA5DN-SB-4.0-5.0 SL-140-SA5DN-SB-2.0-3.0 SL-142-SA5DN-SB-2.0-3.0 SL-144-SA5DN-SB-2.0-3.0)	ANTIMONY ARSENIC BERYLLIUM CHROMIUM COBALT COPPER LEAD NICKEL VANADIUM	34 267 - 201 - - 291 162 258	44 - 67 - - 67 - - -	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) 28 (20.00) 28 (20.00) 24 (20.00) 21 (20.00) 46 (20.00) 21 (20.00) 28 (20.00)	ANTIMONY ARSENIC BERYLLIUM CHROMIUM COBALT COPPER LEAD NICKEL VANADIUM	J(all detects) UJ(all non-detects) As, V No Qual based on %R, >4x
SL-144-SA5DN-SB-2.0-3.0MS SL-144-SA5DN-SB-2.0-3.0MSD (DUP07-SA5DN-QC-052511 SL-130-SA5DN-SB-4.0-5.0 SL-133-SA5DN-SB-4.0-5.0 SL-140-SA5DN-SB-2.0-3.0 SL-142-SA5DN-SB-2.0-3.0 SL-144-SA5DN-SB-2.0-3.0)	BARIUM	373	-28	75.00-125.00	24 (20.00)	BARIUM	J(all detects) UJ(all non-detects) No Qual based on %R, >4x

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6020  
**Matrix:** SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-144-SA5DN-SB-2.0-3.0DUP (DUP07-SA5DN-QC-052511 SL-130-SA5DN-SB-4.0-5.0 SL-133-SA5DN-SB-4.0-5.0 SL-140-SA5DN-SB-2.0-3.0 SL-142-SA5DN-SB-2.0-3.0 SL-144-SA5DN-SB-2.0-3.0)	COBALT SILVER	41 122	20.00 20.00	J (all detects) UJ (all non-detects) Ag NoQual, OK by difference

**Method:** 7199  
**Matrix:** SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-144-SA5DN-SB-2.0-3.0DUP (DUP07-SA5DN-QC-052511 SL-130-SA5DN-SB-4.0-5.0 SL-133-SA5DN-SB-4.0-5.0 SL-140-SA5DN-SB-2.0-3.0 SL-142-SA5DN-SB-2.0-3.0 SL-144-SA5DN-SB-2.0-3.0)	HEXAVALENT CHROMIUM	60	20.00	No Qual, OK by difference

**Method:** 7471A  
**Matrix:** SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-144-SA5DN-SB-2.0-3.0DUP (DUP07-SA5DN-QC-052511 SL-130-SA5DN-SB-4.0-5.0 SL-133-SA5DN-SB-4.0-5.0 SL-140-SA5DN-SB-2.0-3.0 SL-142-SA5DN-SB-2.0-3.0 SL-144-SA5DN-SB-2.0-3.0)	MERCURY	113	20.00	No Qual, OK by difference

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 8015M**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11587AQ320825A (SL-133-SA5DN-SB-4.0-5.0 SL-140-SA5DN-SB-2.0-3.0)	EFH (C15-C20) EFH (C30-C40)	115 114	- -	66.00-113.00 66.00-113.00	- -	EFH (C15-C20) EFH (C30-C40)	J (all detects)

**Method: 8270C SIM**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P6LBLCSQ260724 (DUP07-SA5DN-QC-052511 SL-130-SA5DN-SB-4.0-5.0 SL-133-SA5DN-SB-4.0-5.0 SL-140-SA5DN-SB-2.0-3.0 SL-142-SA5DN-SB-2.0-3.0 SL-144-SA5DN-SB-2.0-3.0)	BENZO(A)PYRENE BENZO(K)FLUORANTHENE	131 141	- -	58.00-129.00 66.00-137.00	- -	BENZO(A)PYRENE BENZO(K)FLUORANTHENE	J(all detects)

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 160.3M

Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-144-SA5DN-SB-2.0-3.0	DUP07-SA5DN-QC-052511			
MOISTURE	9.3	6.5	35		No Qualifiers Applied

Method: 300.0

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-144-SA5DN-SB-2.0-3.0	DUP07-SA5DN-QC-052511			
FLUORIDE	8.3	3.4	84	50.00	J(all detects)

Method: 6010B

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-144-SA5DN-SB-2.0-3.0	DUP07-SA5DN-QC-052511			
ALUMINUM	19900	18800	6	50.00	No Qualifiers Applied
CALCIUM	5500	3950	33	50.00	
IRON	41200	28300	37	50.00	
LITHIUM	44.1	32.7	30	50.00	
MAGNESIUM	7180	6270	14	50.00	
MANGANESE	443	277	46	50.00	
PHOSPHORUS	706	446	45	50.00	
POTASSIUM	3420	2410	35	50.00	
STRONTIUM	33.9	27.3	22	50.00	
TIN	4.03	2.88	33	50.00	
TITANIUM	1830	1330	32	50.00	
Zirconium	6.83	6.00	13	50.00	
SODIUM	400	216	60	50.00	J(all detects)

Method: 6020

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-144-SA5DN-SB-2.0-3.0	DUP07-SA5DN-QC-052511			
ANTIMONY	0.117	0.105	11	50.00	No Qualifiers Applied
ARSENIC	12.1	10.6	13	50.00	
BARIUM	165	113	37	50.00	
BERYLLIUM	0.842	0.602	33	50.00	
CADMIUM	0.0830	0.0534	43	50.00	
CHROMIUM	23.1	24.2	5	50.00	
COPPER	18.7	13.9	29	50.00	
LEAD	9.30	7.73	18	50.00	
MOLYBDENUM	0.475	0.427	11	50.00	
NICKEL	17.3	16.1	7	50.00	
SELENIUM	0.104	0.145	33	50.00	
THALLIUM	0.394	0.267	38	50.00	
VANADIUM	45.7	45.3	1	50.00	
ZINC	98.9	60.2	49	50.00	
COBALT	13.9	6.60	71	50.00	J(all detects)
SILVER	0.0284	0.0155	59	50.00	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Field Duplicate RPD Report

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 7199

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-144-SA5DN-SB-2.0-3.0	DUP07-SA5DN-QC-052511			
HEXAVALENT CHROMIUM	1.1	1.1 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 7471A

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-144-SA5DN-SB-2.0-3.0	DUP07-SA5DN-QC-052511			
MERCURY	0.0041	0.106 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 8260B

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-144-SA5DN-SB-2.0-3.0	DUP07-SA5DN-QC-052511			
ACETONE	9.4	14	39	50.00	No Qualifiers Applied
METHYLENE CHLORIDE	1.6	1.4	13	50.00	

Method: 9045M

Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-144-SA5DN-SB-2.0-3.0	DUP07-SA5DN-QC-052511			
PH	7.89	6.64	17	50.00	No Qualifiers Applied

## Reporting Limit Outliers

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 300.0

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-140-SA5DN-SB-2.0-3.0	Nitrate-NO3	J	1.5	1.6	PQL	mg/Kg	J (all detects)

**Method:** 6010B

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP07-SA5DN-QC-052511	TIN	J	2.88	10.4	PQL	mg/Kg	J (all detects)
SL-130-SA5DN-SB-4.0-5.0	TIN	J	2.79	10.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.74	5.46	PQL	mg/Kg	
SL-133-SA5DN-SB-4.0-5.0	TIN	J	2.72	10.8	PQL	mg/Kg	J (all detects)
SL-140-SA5DN-SB-2.0-3.0	TIN	J	2.91	10.3	PQL	mg/Kg	J (all detects)
SL-142-SA5DN-SB-2.0-3.0	TIN	J	2.81	10.7	PQL	mg/Kg	J (all detects)
SL-144-SA5DN-SB-2.0-3.0	TIN	J	4.03	10.7	PQL	mg/Kg	J (all detects)

**Method:** 6020

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP07-SA5DN-QC-052511	ANTIMONY	J	0.105	0.210	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0534	0.105	PQL	mg/Kg	
	SELENIUM	J	0.145	0.419	PQL	mg/Kg	
	SILVER	J	0.0155	0.105	PQL	mg/Kg	
SL-130-SA5DN-SB-4.0-5.0	ANTIMONY	J	0.139	0.227	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0612	0.114	PQL	mg/Kg	
	SELENIUM	J	0.256	0.454	PQL	mg/Kg	
	SILVER	J	0.0609	0.114	PQL	mg/Kg	
SL-133-SA5DN-SB-4.0-5.0	SELENIUM	J	0.0545	0.452	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0901	0.113	PQL	mg/Kg	
SL-140-SA5DN-SB-2.0-3.0	ANTIMONY	J	0.0981	0.212	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0729	0.106	PQL	mg/Kg	
	SELENIUM	J	0.0639	0.423	PQL	mg/Kg	
	SILVER	J	0.0843	0.106	PQL	mg/Kg	
SL-142-SA5DN-SB-2.0-3.0	SELENIUM	J	0.319	0.430	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0496	0.108	PQL	mg/Kg	
SL-144-SA5DN-SB-2.0-3.0	ANTIMONY	J	0.117	0.218	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0830	0.109	PQL	mg/Kg	
	SELENIUM	J	0.104	0.437	PQL	mg/Kg	
	SILVER	J	0.0284	0.109	PQL	mg/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE162

Laboratory: LL

EDD Filename: DE162\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 7199**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-133-SA5DN-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.69	1.1	PQL	mg/Kg	J (all detects)

**Method: 7471A**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-130-SA5DN-SB-4.0-5.0	MERCURY	J	0.0140	0.106	PQL	mg/Kg	J (all detects)
SL-140-SA5DN-SB-2.0-3.0	MERCURY	J	0.0042	0.100	PQL	mg/Kg	J (all detects)
SL-144-SA5DN-SB-2.0-3.0	MERCURY	J	0.0041	0.108	PQL	mg/Kg	J (all detects)

**Method: 8015M**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-133-SA5DN-SB-4.0-5.0	EFH (C30-C40)	J	1.2	1.3	PQL	mg/Kg	J (all detects)

**Method: 8260B**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP07-SA5DN-QC-052511	METHYLENE CHLORIDE	J	1.4	4.2	PQL	ug/Kg	J (all detects)
SL-130-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.3	3.9	PQL	ug/Kg	J (all detects)
SL-133-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.1	3.7	PQL	ug/Kg	J (all detects)
SL-140-SA5DN-SB-2.0-3.0	METHYLENE CHLORIDE	J	1.3	3.8	PQL	ug/Kg	J (all detects)
SL-142-SA5DN-SB-2.0-3.0	METHYLENE CHLORIDE	J	1.1	4.3	PQL	ug/Kg	J (all detects)
SL-144-SA5DN-SB-2.0-3.0	METHYLENE CHLORIDE	J	1.6	4.2	PQL	ug/Kg	J (all detects)

LDC #: 26275T4

## VALIDATION COMPLETENESS WORKSHEET

SDG #: DE162

ADR

Laboratory: Lancaster Laboratories

Date: 9/29/17

Page: 1 of 1

Reviewer: mm2nd Reviewer: CR

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	A	No fuel
V.	ICP Interference Check Sample (ICS) Analysis	N	RPO out
VI.	Matrix Spike Analysis	SW	Al, As, Ba, Ca, Fe, Mg, Mn, P, Ti, V, Zn 74X No fuel
VII.	Duplicate Sample Analysis	SW	Hg, Ag < 5X
VIII.	Laboratory Control Samples (LCS)	N	
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Al, As, Ba, Ca, Cr, Co, Cu, Pb, Mg, Mn, Ni, Sr, V, Zn
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-130-SA5DN-SS-4.0-5.0	11		21		31	
2	SL-133-SA5DN-SS-4.0-5.0	12		22		32	
3	SL-140-SA5DN-SS-2.0-3.0	13		23		33	
4	SL-142-SA5DN-SS-2.0-3.0	14		24		34	
5	SL-144-SA5DN-SS-2.0-3.0	15		25		35	
6	DUP07-SA5DN-QC-052511	16		26		36	
7	SL-144-SA5DN-SS-2.0-3.0MS	17		27		37	
8	SL-144-SA5DN-SS-2.0-3.0MSD	18		28		38	
9	SL-144-SA5DN-SS-2.0-3.0DUP	19		29		39	
10		20		30		40	

Notes: \_\_\_\_\_





QUALITY ASSURANCE SUMMARY  
FORM 5A (MS/MSD)  
MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
SDG No.: DE162  
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6298873BKG Matrix Spike Lab Sample ID: 6298874MS Matrix Spike Duplicate Lab Sample ID: 6298875MSD  
& Solids for Sample: 90.7

Batch Id(s): P15208A, P15726B, P15211A

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	MSD Spike Added	Units	MS		MSD		Control Limit	
		Result	C	Result	C	Result	C				%R	Q	%R	Q	%R	RPD
Aluminum		19868.4129		31544.8104		35532.4464		220.5072	212.0261	MG/KG	5295	34 N	7388			
Antimony	121	0.1168	B	0.5608		0.6771		1.2971	1.2600	MG/KG	267	44 N	89	24 *	75 - 125	20P
Arsenic	75	12.1235		17.8870		13.9844		2.1618	2.1001	MG/KG	267	44 N	89	24 *	75 - 125	20MS
Barium	137	164.7691		205.0500		161.8103		10.8092	10.5003	MG/KG	373	28 *	-28	24 *	75 - 125	20MS
Beryllium	9	0.8416		1.8644		1.4041		0.8647	0.8400	MG/KG	118	67 N	67	28 *	75 - 125	20MS
Boron		4.7634	U	205.8710		199.2250		220.5072	212.0261	MG/KG	93	94	94	3	84 - 115	20P
Cadmium	111	0.0830	B	1.1791		1.2101		1.0809	1.0500	MG/KG	101	107	107	3	75 - 125	20MS
Calcium		5497.8452		5163.3925		5621.0659		441.0143	424.0522	MG/KG	-76	29	29	8	75 - 125	20P
Chromium	52	23.0768		44.7716		33.7061		10.8092	10.5003	MG/KG	201 N	101	101	28 *	75 - 125	20MS
Cobalt	59	13.9138		81.5228		63.8211		54.0459	52.5017	MG/KG	125	95	95	24 *	75 - 125	20MS
Copper	63	18.6863		31.7141		25.7048		10.8092	10.5003	MG/KG	121	67 N	67	21 *	75 - 125	20MS
Iron		41179.1193		35273.5998		40387.5838		110.2536	106.0131	MG/KG	-5356	-747	-747	14	75 - 125	20P
Lead	208	9.3006		18.7496		11.7289		3.2428	3.1501	MG/KG	291 N	77	77	46 *	75 - 125	20MS
Lithium		44.0640		152.4024		155.3441		110.2536	106.0131	MG/KG	98	105	105	2	82 - 114	20P
Magnesium		7178.5733		8171.4686		7759.8751		220.5072	212.0261	MG/KG	450	274	274	5	75 - 125	20P
Manganese		442.6061		301.0011		306.8453		55.1268	53.0065	MG/KG	-257	-256	-256	2	75 - 125	20P
Mercury		0.0041	B	0.1838		0.1648		0.1750	0.1704	MG/KG	103	94	94	11	65 - 135	20CV
Molybdenum	98	0.4749		10.6189		11.0737		10.8092	10.5003	MG/KG	94	101	101	4	75 - 125	20MS
Nickel	60	17.2520		34.7839		28.2039		10.8092	10.5003	MG/KG	162 N	104	104	21 *	75 - 125	20MS
Phosphorus		705.8359		463.0397		396.3797		110.2536	106.0131	MG/KG	-220	-292	-292	16	75 - 125	20P
Potassium		3423.6317		4317.7563		3844.0781		1102.5358	1060.1306	MG/KG	81	40 N	40	12	75 - 125	20P
Selenium	78	0.1038	B	2.3629		2.2849		2.1618	2.1001	MG/KG	105	104	104	3	75 - 125	20MS
Silver	107	0.0284	B	11.0405		10.9561		10.8092	10.5003	MG/KG	102	104	104	1	75 - 125	20MS
Sodium		400.2023		1305.5843		1342.2632		1102.5358	1060.1306	MG/KG	82	89	89	3	75 - 125	20P
Strontium		33.8810		150.5369		145.5305		110.2536	106.0131	MG/KG	106	105	105	3	75 - 115	20P
Thallium	203	0.3939		0.7986		0.9135		0.4324	0.4200	MG/KG	94	124	124	13	75 - 125	20MS
Tin		4.0334	B	375.4939		362.6071		441.0143	424.0522	MG/KG	84	85	85	3	80 - 110	20P
Titanium		1830.0361		1795.5810		1730.2837		110.2536	106.0131	MG/KG	-31	-94	-94	4	75 - 125	20P
Vanadium	51	45.6952		73.5456		55.4838		10.8092	10.5003	MG/KG	258	93	93	28 *	75 - 125	20MS
Zinc	66	98.8571		93.7804		98.1572		10.8092	10.5003	MG/KG	-47	-7	-7	5	75 - 125	20MS
Zirconium		6.8261		111.3539		108.8966		110.2536	106.0131	MG/KG	95	96	96	2	75 - 125	20P

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



# QUALITY ASSURANCE SUMMARY

FORM 6

DUPLICATES

SDG No.: DE162

Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6298873BKG

% Solids for Duplicate: 91.5

Batch ID(s): P15208A, P15726B, P15211A

Concentration Units: MG/KG

Duplicate Lab Sample ID: 6298876DUP

% Solids for Sample: 90.7

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			19868.4129		21261.8112		7		P
Antimony	121		0.1168	B	0.1205	B	3		MS
Arsenic	75		12.1235		12.7784		5		MS
Barium	137		164.7691		187.6957		13		MS
Beryllium	9		0.8416		0.8692		3		MS
Boron			4.7634	U	4.8101	U			P
Cadmium	111		0.0830	B	0.0936	B	12		MS
Calcium			5497.8452		5482.4686		0		P
Chromium	52		23.0768		23.7707		3		MS
Cobalt	59		13.9138		9.1797		41	*	MS
Copper	63		18.6863		17.9316		4		MS
Iron			41179.1193		40992.2552		0		P
Lead	208		9.3006		8.7718		6		MS
Lithium			44.0640		45.1229		2		P
Magnesium			7178.5733		7278.7113		1		P
Manganese			442.6061		392.4552		12		P
Mercury			0.0041	B	0.0148	B	113		CV
Molybdenum	98	0.1	0.4749		0.4487		6		MS
Nickel	60		17.2520		17.8545		3		MS
Phosphorus			705.8359		634.3916		11		P
Potassium			3423.6317		3255.6305		5		P
Selenium	78		0.1038	B	0.1006	B	3		MS
Silver	107	0.1	0.0284	B	0.1174		122		MS
Sodium		107.0	400.2023		439.1573		9		P
Strontium			33.8810		37.7943		11		P
Thallium	203	0.1	0.3939		0.3998		1		MS
Tin			4.0334	B	3.8437	B	5		P
Titanium			1830.0361		1821.1795		0		P
Vanadium	51		45.6952		45.7332		0		MS
Zinc	66		98.8571		96.9350		2		MS
Zirconium		5.4	6.8261		7.8475		14		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.

DE162 2389

## 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



# QUALITY ASSURANCE SUMMARY

FORM 9

SERIAL DILUTIONS

SDG No.: DE162

Matrix: SOIL

Level (low/med): LOW

Background Lab Sample ID: 6298873BKG

Serial Dilution Lab Sample ID: 6298873L

Batch ID(s): P15208A, P15726B

Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		185612.7000		209237.4000		13	E	P
Antimony	121	0.5352	B	1.5000	U	100		MS
Arsenic	75	55.5300		61.9000		11	E	MS
Barium	137	754.7000		854.5000		13	E	MS
Beryllium	9	3.8550		4.9835		29		MS
Boron		8.9000	U	44.5000	U			P
Cadmium	111	0.3800	B	1.0000	U	100		MS
Calcium		51361.4200		58353.2500		14	E	P
Chromium	52	105.7000		139.7500		32	E	MS
Cobalt	59	63.7300		72.5500		14	E	MS
Copper	63	85.5900		98.6000		15	E	MS
Iron		76939.8900		79889.0000		4		P
Lead	208	42.6000		49.9750		17	E	MS
Lithium		411.6500		429.6500		4		P
Magnesium		67062.9500		74547.4000		11	E	P
Manganese		4134.8700		4603.2500		11	E	P
Molybdenum	98	2.1750		2.5100		15		MS
Nickel	60	79.0200		91.6000		16	E	MS
Phosphorus		6593.9900		6950.6500		5		P
Potassium		31983.9100		35134.0500		10		P
Selenium	78	0.4753	B	1.0000	U	100		MS
Silver	107	0.1300	B	0.3000	U	100		MS
Sodium		3738.7300		4085.6500	B	9		P
Strontium		316.5200		352.5500		11	E	P
Thallium	203	1.8040		2.4915	B	38		MS
Tin		37.6800	B	50.0000	U	100		P
Titanium		17096.3800		18538.6500		8		P
Vanadium	51	209.3000		274.7500		31	E	MS
Zinc	66	452.8000		519.0000		15	E	MS
Zirconium		63.7700		80.9000	B	27		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

DE162 2511

# **SAMPLE DELIVERY GROUP**

**DE163**

# **SAMPLE DELIVERY GROUP**

**DE163**

## **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
24-May-2011	SL-185-SA5DN-SS-0.0-0.5	6298892	N	3050B	6010B	III
24-May-2011	SL-185-SA5DN-SS-0.0-0.5	6298892	N	3050B	6020	III
24-May-2011	SL-185-SA5DN-SS-0.0-0.5	6298892	N	3060A	7199	III
24-May-2011	SL-185-SA5DN-SS-0.0-0.5	6298892	N	3550B	8081A	III
24-May-2011	SL-185-SA5DN-SS-0.0-0.5	6298892	N	3550B	8082	III
24-May-2011	SL-185-SA5DN-SS-0.0-0.5	6298892	N	3550B	8151A	III
24-May-2011	SL-185-SA5DN-SS-0.0-0.5	6298892	N	3550B	8270C	III
24-May-2011	SL-185-SA5DN-SS-0.0-0.5	6298892	N	3550B	8270C SIM	III
24-May-2011	SL-185-SA5DN-SS-0.0-0.5	6298892	N	METHOD	300.0	III
24-May-2011	SL-185-SA5DN-SS-0.0-0.5	6298892	N	METHOD	314.0	III
24-May-2011	SL-185-SA5DN-SS-0.0-0.5	6298892	N	METHOD	7471A	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5	6298888	N	3050B	6010B	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5	6298888	N	3050B	6020	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5	6298888	N	3060A	7199	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5	6298888	N	3550B	8081A	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5	6298888	N	3550B	8082	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5	6298888	N	3550B	8151A	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5	6298888	N	3550B	8270C	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5	6298888	N	3550B	8270C SIM	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5	6298888	N	METHOD	300.0	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5	6298888	N	METHOD	314.0	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5	6298888	N	METHOD	7471A	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5MS	6298889	MS	3050B	6010B	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5MS	6298889	MS	3050B	6020	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5MS	6298889	MS	3060A	7199	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5MS	6298889	MS	3550B	8081A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-May-2011	SL-057-SA5DN-SS-0.0-0.5MS	6298889	MS	3550B	8082	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5MS	6298889	MS	3550B	8151A	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5MS	6298889	MS	3550B	8270C	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5MS	6298889	MS	3550B	8270C SIM	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5MS	6298889	MS	METHOD	300.0	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5MS	6298889	MS	METHOD	314.0	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5MS	6298889	MS	METHOD	7471A	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5DU	6298891	DUP	3050B	6010B	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5DU	6298891	DUP	3050B	6020	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5DU	6298891	DUP	3060A	7199	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5DU	6298891	DUP	METHOD	300.0	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5DU	6298891	DUP	METHOD	314.0	III
24-May-2011	SL-057-SA5DN-SS-0.0-0.5DU	6298891	DUP	METHOD	7471A	III
24-May-2011	DUP06-SA5DN-QC-052411	6298893	FD	3050B	6010B	III
24-May-2011	DUP06-SA5DN-QC-052411	6298893	FD	3050B	6020	III
24-May-2011	DUP06-SA5DN-QC-052411	6298893	FD	3060A	7199	III
24-May-2011	DUP06-SA5DN-QC-052411	6298893	FD	3550B	8081A	III
24-May-2011	DUP06-SA5DN-QC-052411	6298893	FD	3550B	8082	III
24-May-2011	DUP06-SA5DN-QC-052411	6298893	FD	3550B	8151A	III
24-May-2011	DUP06-SA5DN-QC-052411	6298893	FD	3550B	8270C	III
24-May-2011	DUP06-SA5DN-QC-052411	6298893	FD	3550B	8270C SIM	III
24-May-2011	DUP06-SA5DN-QC-052411	6298893	FD	METHOD	300.0	III
24-May-2011	DUP06-SA5DN-QC-052411	6298893	FD	METHOD	314.0	III
24-May-2011	DUP06-SA5DN-QC-052411	6298893	FD	METHOD	7471A	III
25-May-2011	SL-006-SA5DN-SS-0.0-0.5	6298898	N	3050B	6010B	III
25-May-2011	SL-006-SA5DN-SS-0.0-0.5	6298898	N	3050B	6020	III



## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-May-2011	SL-006-SA5DN-SS-0.0-0.5	6298898	N	3060A	7199	III
25-May-2011	SL-006-SA5DN-SS-0.0-0.5	6298898	N	3550B	8081A	III
25-May-2011	SL-006-SA5DN-SS-0.0-0.5	6298898	N	3550B	8082	III
25-May-2011	SL-006-SA5DN-SS-0.0-0.5	6298898	N	3550B	8151A	III
25-May-2011	SL-006-SA5DN-SS-0.0-0.5	6298898	N	3550B	8270C	III
25-May-2011	SL-006-SA5DN-SS-0.0-0.5	6298898	N	3550B	8270C SIM	III
25-May-2011	SL-006-SA5DN-SS-0.0-0.5	6298898	N	METHOD	300.0	III
25-May-2011	SL-006-SA5DN-SS-0.0-0.5	6298898	N	METHOD	314.0	III
25-May-2011	SL-006-SA5DN-SS-0.0-0.5	6298898	N	METHOD	7471A	III
25-May-2011	SL-002-SA5DN-SS-0.0-0.5	6298895	N	3050B	6010B	III
25-May-2011	SL-002-SA5DN-SS-0.0-0.5	6298895	N	3050B	6020	III
25-May-2011	SL-002-SA5DN-SS-0.0-0.5	6298895	N	3060A	7199	III
25-May-2011	SL-002-SA5DN-SS-0.0-0.5	6298895	N	3550B	8081A	III
25-May-2011	SL-002-SA5DN-SS-0.0-0.5	6298895	N	3550B	8082	III
25-May-2011	SL-002-SA5DN-SS-0.0-0.5	6298895	N	3550B	8151A	III
25-May-2011	SL-002-SA5DN-SS-0.0-0.5	6298895	N	3550B	8270C	III
25-May-2011	SL-002-SA5DN-SS-0.0-0.5	6298895	N	3550B	8270C SIM	III
25-May-2011	SL-002-SA5DN-SS-0.0-0.5	6298895	N	METHOD	300.0	III
25-May-2011	SL-002-SA5DN-SS-0.0-0.5	6298895	N	METHOD	314.0	III
25-May-2011	SL-002-SA5DN-SS-0.0-0.5	6298895	N	METHOD	7471A	III
25-May-2011	SL-001-SA5DN-SS-0.0-0.5	6298894	N	3050B	6010B	III
25-May-2011	SL-001-SA5DN-SS-0.0-0.5	6298894	N	3050B	6020	III
25-May-2011	SL-001-SA5DN-SS-0.0-0.5	6298894	N	3060A	7199	III
25-May-2011	SL-001-SA5DN-SS-0.0-0.5	6298894	N	3550B	8081A	III
25-May-2011	SL-001-SA5DN-SS-0.0-0.5	6298894	N	3550B	8082	III
25-May-2011	SL-001-SA5DN-SS-0.0-0.5	6298894	N	3550B	8151A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-May-2011	SL-001-SA5DN-SS-0.0-0.5	6298894	N	3550B	8270C	III
25-May-2011	SL-001-SA5DN-SS-0.0-0.5	6298894	N	3550B	8270C SIM	III
25-May-2011	SL-001-SA5DN-SS-0.0-0.5	6298894	N	METHOD	300.0	III
25-May-2011	SL-001-SA5DN-SS-0.0-0.5	6298894	N	METHOD	314.0	III
25-May-2011	SL-001-SA5DN-SS-0.0-0.5	6298894	N	METHOD	7471A	III
25-May-2011	SL-005-SA5DN-SS-0.0-0.5	6298897	N	3050B	6010B	III
25-May-2011	SL-005-SA5DN-SS-0.0-0.5	6298897	N	3050B	6020	III
25-May-2011	SL-005-SA5DN-SS-0.0-0.5	6298897	N	3060A	7199	III
25-May-2011	SL-005-SA5DN-SS-0.0-0.5	6298897	N	3550B	8081A	III
25-May-2011	SL-005-SA5DN-SS-0.0-0.5	6298897	N	3550B	8082	III
25-May-2011	SL-005-SA5DN-SS-0.0-0.5	6298897	N	3550B	8151A	III
25-May-2011	SL-005-SA5DN-SS-0.0-0.5	6298897	N	3550B	8270C	III
25-May-2011	SL-005-SA5DN-SS-0.0-0.5	6298897	N	3550B	8270C SIM	III
25-May-2011	SL-005-SA5DN-SS-0.0-0.5	6298897	N	METHOD	300.0	III
25-May-2011	SL-005-SA5DN-SS-0.0-0.5	6298897	N	METHOD	314.0	III
25-May-2011	SL-005-SA5DN-SS-0.0-0.5	6298897	N	METHOD	7471A	III
25-May-2011	SL-004-SA5DN-SS-0.0-0.5	6298896	N	3050B	6010B	III
25-May-2011	SL-004-SA5DN-SS-0.0-0.5	6298896	N	3050B	6020	III
25-May-2011	SL-004-SA5DN-SS-0.0-0.5	6298896	N	3060A	7199	III
25-May-2011	SL-004-SA5DN-SS-0.0-0.5	6298896	N	3550B	8081A	III
25-May-2011	SL-004-SA5DN-SS-0.0-0.5	6298896	N	3550B	8082	III
25-May-2011	SL-004-SA5DN-SS-0.0-0.5	6298896	N	3550B	8151A	III
25-May-2011	SL-004-SA5DN-SS-0.0-0.5	6298896	N	3550B	8270C	III
25-May-2011	SL-004-SA5DN-SS-0.0-0.5	6298896	N	3550B	8270C SIM	III
25-May-2011	SL-004-SA5DN-SS-0.0-0.5	6298896	N	METHOD	300.0	III
25-May-2011	SL-004-SA5DN-SS-0.0-0.5	6298896	N	METHOD	314.0	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

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-May-2011	SL-004-SA5DN-SS-0.0-0.5	6298896	N	METHOD	7471A	III
25-May-2011	SL-199-SA5DN-SS-0.0-0.5	6298901	N	3050B	6010B	III
25-May-2011	SL-199-SA5DN-SS-0.0-0.5	6298901	N	3050B	6020	III
25-May-2011	SL-199-SA5DN-SS-0.0-0.5	6298901	N	3060A	7199	III
25-May-2011	SL-199-SA5DN-SS-0.0-0.5	6298901	N	3550B	8081A	III
25-May-2011	SL-199-SA5DN-SS-0.0-0.5	6298901	N	3550B	8082	III
25-May-2011	SL-199-SA5DN-SS-0.0-0.5	6298901	N	3550B	8151A	III
25-May-2011	SL-199-SA5DN-SS-0.0-0.5	6298901	N	3550B	8270C	III
25-May-2011	SL-199-SA5DN-SS-0.0-0.5	6298901	N	3550B	8270C SIM	III
25-May-2011	SL-199-SA5DN-SS-0.0-0.5	6298901	N	METHOD	300.0	III
25-May-2011	SL-199-SA5DN-SS-0.0-0.5	6298901	N	METHOD	314.0	III
25-May-2011	SL-199-SA5DN-SS-0.0-0.5	6298901	N	METHOD	7471A	III
25-May-2011	SL-199-SA5DN-SS-0.0-0.5DU	P298901D272036B	DUP	METHOD	300.0	III
25-May-2011	SL-199-SA5DN-SS-0.0-0.5DU	P298901D272203B	DUP	METHOD	314.0	III
25-May-2011	SL-199-SA5DN-SS-0.0-0.5MS	P298901R272050B	MS	METHOD	300.0	III
25-May-2011	SL-199-SA5DN-SS-0.0-0.5MS	P298901R272227B	MS	METHOD	314.0	III
25-May-2011	SL-190-SA5DN-SS-0.0-0.5	6298900	N	3050B	6010B	III
25-May-2011	SL-190-SA5DN-SS-0.0-0.5	6298900	N	3050B	6020	III
25-May-2011	SL-190-SA5DN-SS-0.0-0.5	6298900	N	3060A	7199	III
25-May-2011	SL-190-SA5DN-SS-0.0-0.5	6298900	N	3550B	8081A	III
25-May-2011	SL-190-SA5DN-SS-0.0-0.5	6298900	N	3550B	8082	III
25-May-2011	SL-190-SA5DN-SS-0.0-0.5	6298900	N	3550B	8151A	III
25-May-2011	SL-190-SA5DN-SS-0.0-0.5	6298900	N	3550B	8270C	III
25-May-2011	SL-190-SA5DN-SS-0.0-0.5	6298900	N	3550B	8270C SIM	III
25-May-2011	SL-190-SA5DN-SS-0.0-0.5	6298900	N	METHOD	300.0	III
25-May-2011	SL-190-SA5DN-SS-0.0-0.5	6298900	N	METHOD	314.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-May-2011	SL-190-SA5DN-SS-0.0-0.5	6298900	N	METHOD	7471A	III
25-May-2011	SL-060-SA5DN-SS-0.0-0.5	6298899	N	3050B	6010B	III
25-May-2011	SL-060-SA5DN-SS-0.0-0.5	6298899	N	3050B	6020	III
25-May-2011	SL-060-SA5DN-SS-0.0-0.5	6298899	N	3060A	7199	III
25-May-2011	SL-060-SA5DN-SS-0.0-0.5	6298899	N	3550B	8081A	III
25-May-2011	SL-060-SA5DN-SS-0.0-0.5	6298899	N	3550B	8082	III
25-May-2011	SL-060-SA5DN-SS-0.0-0.5	6298899	N	3550B	8151A	III
25-May-2011	SL-060-SA5DN-SS-0.0-0.5	6298899	N	3550B	8270C	III
25-May-2011	SL-060-SA5DN-SS-0.0-0.5	6298899	N	3550B	8270C SIM	III
25-May-2011	SL-060-SA5DN-SS-0.0-0.5	6298899	N	METHOD	300.0	III
25-May-2011	SL-060-SA5DN-SS-0.0-0.5	6298899	N	METHOD	314.0	III
25-May-2011	SL-060-SA5DN-SS-0.0-0.5	6298899	N	METHOD	7471A	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: GENCHEM

Method: 300.0

Matrix: SO

Sample ID: DUP06-SA5DN-QC-052411

Collected: 5/24/2011 3:55:00

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		0.95	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-001-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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
FLUORIDE	1.9		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-002-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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	2.9		0.84	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-004-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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
FLUORIDE	2.7		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-005-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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
FLUORIDE	2.2		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-006-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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	1.9		0.96	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-057-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 3:48:00

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		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-060-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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
FLUORIDE	1.4		0.86	MDL	1.1	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

Sample ID: SL-185-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 3:27:00

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		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-190-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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	1.2	J	0.95	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-199-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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
FLUORIDE	1.2		0.88	MDL	1.1	PQL	mg/Kg	J	Q

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: DUP06-SA5DN-QC-052411

Collected: 5/24/2011 3:55:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	6710		7.13	MDL	23.3	PQL	mg/Kg	J	E
PHOSPHORUS	447		0.651	MDL	11.6	PQL	mg/Kg	J	E
SODIUM	98.5	J	43.4	MDL	116	PQL	mg/Kg	J	Z
STRONTIUM	37.2		0.0721	MDL	0.581	PQL	mg/Kg	J	E
TIN	2.84	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	4.13	J	0.977	MDL	5.81	PQL	mg/Kg	J	Z

Sample ID: SL-001-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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
CALCIUM	6900		6.73	MDL	22.0	PQL	mg/Kg	J	E
PHOSPHORUS	328		0.615	MDL	11.0	PQL	mg/Kg	J	E
SODIUM	87.6	J	40.9	MDL	110	PQL	mg/Kg	J	Z
STRONTIUM	34.8		0.0681	MDL	0.549	PQL	mg/Kg	J	E
TIN	2.79	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	4.32	J	0.922	MDL	5.49	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** SL-002-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 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
BORON	2.17	J	0.891	MDL	5.01	PQL	mg/Kg	J	Z
CALCIUM	12600		6.14	MDL	20.0	PQL	mg/Kg	J	E
PHOSPHORUS	436		0.561	MDL	10.0	PQL	mg/Kg	J	E
STRONTIUM	36.2		0.0621	MDL	0.501	PQL	mg/Kg	J	E
TIN	2.03	J	1.00	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	3.15	J	0.841	MDL	5.01	PQL	mg/Kg	J	Z

**Sample ID:** SL-004-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 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
CALCIUM	3680		6.56	MDL	21.4	PQL	mg/Kg	J	E
PHOSPHORUS	444		0.599	MDL	10.7	PQL	mg/Kg	J	E
STRONTIUM	23.1		0.0664	MDL	0.535	PQL	mg/Kg	J	E
TIN	2.31	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	1.68	J	0.899	MDL	5.35	PQL	mg/Kg	J	Z

**Sample ID:** SL-005-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 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
CALCIUM	6950		6.81	MDL	22.2	PQL	mg/Kg	J	E
PHOSPHORUS	461		0.622	MDL	11.1	PQL	mg/Kg	J	E
SODIUM	86.7	J	41.4	MDL	111	PQL	mg/Kg	J	Z
STRONTIUM	35.5		0.0688	MDL	0.555	PQL	mg/Kg	J	E
TIN	2.68	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	4.74	J	0.933	MDL	5.55	PQL	mg/Kg	J	Z

**Sample ID:** SL-006-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 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
BORON	5.64	J	1.02	MDL	5.76	PQL	mg/Kg	J	Z
CALCIUM	5700		7.06	MDL	23.0	PQL	mg/Kg	J	E
PHOSPHORUS	357		0.645	MDL	11.5	PQL	mg/Kg	J	E
SODIUM	105	J	43.0	MDL	115	PQL	mg/Kg	J	Z
STRONTIUM	35.6		0.0714	MDL	0.576	PQL	mg/Kg	J	E
TIN	3.06	J	1.15	MDL	11.5	PQL	mg/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** SL-006-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 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
Zirconium	3.69	J	0.967	MDL	5.76	PQL	mg/Kg	J	Z

**Sample ID:** SL-057-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 3:48:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	6930		6.94	MDL	22.6	PQL	mg/Kg	J	E
PHOSPHORUS	523		0.634	MDL	11.3	PQL	mg/Kg	J	E
SODIUM	104	J	42.2	MDL	113	PQL	mg/Kg	J	Z
STRONTIUM	36.3		0.0702	MDL	0.566	PQL	mg/Kg	J	E
TIN	2.73	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	4.02	J	0.951	MDL	5.66	PQL	mg/Kg	J	Z

**Sample ID:** SL-060-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 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
CALCIUM	5970		6.43	MDL	21.0	PQL	mg/Kg	J	E
PHOSPHORUS	613		0.587	MDL	10.5	PQL	mg/Kg	J	E
STRONTIUM	33.4		0.0650	MDL	0.524	PQL	mg/Kg	J	E
TIN	2.47	J	1.05	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	3.13	J	0.881	MDL	5.24	PQL	mg/Kg	J	Z

**Sample ID:** SL-185-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 3:27:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.78	J	0.987	MDL	5.54	PQL	mg/Kg	J	Z
CALCIUM	17100		6.80	MDL	22.2	PQL	mg/Kg	J	E
PHOSPHORUS	449		0.621	MDL	11.1	PQL	mg/Kg	J	E
SODIUM	94.1	J	41.4	MDL	111	PQL	mg/Kg	J	Z
STRONTIUM	32.2		0.0687	MDL	0.554	PQL	mg/Kg	J	E
TIN	2.46	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	1.21	J	0.931	MDL	5.54	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** SL-190-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 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	40400		6.91	MDL	22.5	PQL	mg/Kg	J	E
PHOSPHORUS	709		0.631	MDL	11.3	PQL	mg/Kg	J	E
SODIUM	96.6	J	42.0	MDL	113	PQL	mg/Kg	J	Z
STRONTIUM	77.1		0.0699	MDL	0.564	PQL	mg/Kg	J	E
TIN	2.58	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	3.82	J	0.947	MDL	5.64	PQL	mg/Kg	J	Z

**Sample ID:** SL-199-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 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
BORON	4.28	J	0.968	MDL	5.44	PQL	mg/Kg	J	Z
CALCIUM	3790		6.67	MDL	21.8	PQL	mg/Kg	J	E
PHOSPHORUS	523		0.609	MDL	10.9	PQL	mg/Kg	J	E
SODIUM	67.2	J	40.6	MDL	109	PQL	mg/Kg	J	Z
STRONTIUM	25.5		0.0675	MDL	0.544	PQL	mg/Kg	J	E
TIN	2.55	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	2.47	J	0.914	MDL	5.44	PQL	mg/Kg	J	Z

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** DUP06-SA5DN-QC-052411

**Collected:** 5/24/2011 3:55:00

**Analysis Type:** REA

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.122	J	0.0470	MDL	0.470	PQL	mg/Kg	J	Z

**Sample ID:** DUP06-SA5DN-QC-052411

**Collected:** 5/24/2011 3:55:00

**Analysis Type:** RES

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.106	J	0.0705	MDL	0.235	PQL	mg/Kg	J	Z, Q
ARSENIC	6.49		0.0940	MDL	0.470	PQL	mg/Kg	J	Q
CHROMIUM	31.7		0.141	MDL	0.470	PQL	mg/Kg	J	A
COPPER	18.7		0.0775	MDL	0.470	PQL	mg/Kg	J	Q, E
LEAD	19.1		0.0122	MDL	0.235	PQL	mg/Kg	J	Q
NICKEL	22.5		0.117	MDL	0.470	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** DUP06-SA5DN-QC-052411

**Collected:** 5/24/2011 3:55:00

**Analysis Type:** RES

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0410	J	0.0141	MDL	0.117	PQL	mg/Kg	J	Z
VANADIUM	59.1		0.0258	MDL	0.117	PQL	mg/Kg	J	A

**Sample ID:** SL-001-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 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	0.219	J	0.0435	MDL	0.435	PQL	mg/Kg	J	Z

**Sample ID:** SL-001-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 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	0.116	J	0.0652	MDL	0.217	PQL	mg/Kg	J	Z, Q
ARSENIC	6.08		0.0870	MDL	0.435	PQL	mg/Kg	J	Q
CHROMIUM	29.4		0.130	MDL	0.435	PQL	mg/Kg	J	A
COPPER	16.6		0.0718	MDL	0.435	PQL	mg/Kg	J	Q, E
LEAD	13.6		0.0113	MDL	0.217	PQL	mg/Kg	J	Q
NICKEL	22.1		0.109	MDL	0.435	PQL	mg/Kg	J	Q
SILVER	0.0456	J	0.0130	MDL	0.109	PQL	mg/Kg	J	Z
VANADIUM	55.4		0.0239	MDL	0.109	PQL	mg/Kg	J	A

**Sample ID:** SL-002-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 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	0.0930	J	0.0404	MDL	0.404	PQL	mg/Kg	J	Z

**Sample ID:** SL-002-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 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	0.123	J	0.0607	MDL	0.202	PQL	mg/Kg	J	Z, Q
ARSENIC	4.68		0.0809	MDL	0.404	PQL	mg/Kg	J	Q
CHROMIUM	18.7		0.121	MDL	0.404	PQL	mg/Kg	J	A
COPPER	13.8		0.0667	MDL	0.404	PQL	mg/Kg	J	Q, E
LEAD	7.41		0.0105	MDL	0.202	PQL	mg/Kg	J	Q
NICKEL	10.9		0.101	MDL	0.404	PQL	mg/Kg	J	Q
SILVER	0.0310	J	0.0121	MDL	0.101	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-002-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 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
VANADIUM	35.2		0.0222	MDL	0.101	PQL	mg/Kg	J	A

**Sample ID:** SL-004-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 10:55:00

**Analysis Type:** REA

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0809	J	0.0428	MDL	0.428	PQL	mg/Kg	J	Z

**Sample ID:** SL-004-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 10:55:00

**Analysis Type:** RES

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0642	U	0.0642	MDL	0.214	PQL	mg/Kg	UJ	Q
ARSENIC	2.36		0.0856	MDL	0.428	PQL	mg/Kg	J	Q
CADMIUM	0.0740	J	0.0428	MDL	0.107	PQL	mg/Kg	J	Z
CHROMIUM	15.3		0.128	MDL	0.428	PQL	mg/Kg	J	A
COPPER	12.6		0.0706	MDL	0.428	PQL	mg/Kg	J	Q, E
LEAD	6.28		0.0111	MDL	0.214	PQL	mg/Kg	J	Q
NICKEL	12.9		0.107	MDL	0.428	PQL	mg/Kg	J	Q
SILVER	0.0205	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z
VANADIUM	46.5		0.0235	MDL	0.107	PQL	mg/Kg	J	A

**Sample ID:** SL-005-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 10:10:00

**Analysis Type:** REA

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.223	J	0.0444	MDL	0.444	PQL	mg/Kg	J	Z

**Sample ID:** SL-005-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 10:10:00

**Analysis Type:** RES

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.163	J	0.0666	MDL	0.222	PQL	mg/Kg	J	Z, Q
ARSENIC	5.74		0.0888	MDL	0.444	PQL	mg/Kg	J	Q
CHROMIUM	29.1		0.133	MDL	0.444	PQL	mg/Kg	J	A
COPPER	17.2		0.0733	MDL	0.444	PQL	mg/Kg	J	Q, E
LEAD	13.6		0.0115	MDL	0.222	PQL	mg/Kg	J	Q
NICKEL	21.6		0.111	MDL	0.444	PQL	mg/Kg	J	Q
SILVER	0.0414	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-005-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 10:10:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	53.1		0.0244	MDL	0.111	PQL	mg/Kg	J	A

Sample ID: SL-006-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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	0.170	J	0.0479	MDL	0.479	PQL	mg/Kg	J	Z

Sample ID: SL-006-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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	0.359		0.0719	MDL	0.240	PQL	mg/Kg	J	Q
ARSENIC	29.4		0.0958	MDL	0.479	PQL	mg/Kg	J	Q
CHROMIUM	25.9		0.144	MDL	0.479	PQL	mg/Kg	J	A
COPPER	17.0		0.0790	MDL	0.479	PQL	mg/Kg	J	Q, E
LEAD	17.4		0.0125	MDL	0.240	PQL	mg/Kg	J	Q
NICKEL	21.4		0.120	MDL	0.479	PQL	mg/Kg	J	Q
SILVER	0.0550	J	0.0144	MDL	0.120	PQL	mg/Kg	J	Z
VANADIUM	49.0		0.0263	MDL	0.120	PQL	mg/Kg	J	A

Sample ID: SL-057-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 3:48:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.133	J	0.0453	MDL	0.453	PQL	mg/Kg	J	Z

Sample ID: SL-057-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 3:48:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0992	J	0.0679	MDL	0.226	PQL	mg/Kg	J	Z, Q
ARSENIC	5.68		0.0906	MDL	0.453	PQL	mg/Kg	J	Q
CHROMIUM	27.4		0.136	MDL	0.453	PQL	mg/Kg	J	A
COPPER	22.8		0.0747	MDL	0.453	PQL	mg/Kg	J	Q, E
LEAD	13.0		0.0118	MDL	0.226	PQL	mg/Kg	J	Q
NICKEL	20.5		0.113	MDL	0.453	PQL	mg/Kg	J	Q
SILVER	0.0417	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z
VANADIUM	52.4		0.0249	MDL	0.113	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-060-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 3:30:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.130	J	0.0432	MDL	0.432	PQL	mg/Kg	J	Z

Sample ID: SL-060-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 3:30:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0788	J	0.0648	MDL	0.216	PQL	mg/Kg	J	Z, Q
ARSENIC	4.76		0.0864	MDL	0.432	PQL	mg/Kg	J	Q
CHROMIUM	22.8		0.130	MDL	0.432	PQL	mg/Kg	J	A
COPPER	16.9		0.0713	MDL	0.432	PQL	mg/Kg	J	Q, E
LEAD	11.8		0.0112	MDL	0.216	PQL	mg/Kg	J	Q
NICKEL	17.5		0.108	MDL	0.432	PQL	mg/Kg	J	Q
SILVER	0.0564	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z
VANADIUM	47.2		0.0238	MDL	0.108	PQL	mg/Kg	J	A

Sample ID: SL-185-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 3:27:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0850	J	0.0435	MDL	0.435	PQL	mg/Kg	J	Z

Sample ID: SL-185-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 3:27:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.186	J	0.0652	MDL	0.217	PQL	mg/Kg	J	Z, Q
ARSENIC	3.95		0.0870	MDL	0.435	PQL	mg/Kg	J	Q
CHROMIUM	32.9		0.130	MDL	0.435	PQL	mg/Kg	J	A
COPPER	13.3		0.0717	MDL	0.435	PQL	mg/Kg	J	Q, E
LEAD	17.0		0.0113	MDL	0.217	PQL	mg/Kg	J	Q
NICKEL	19.2		0.109	MDL	0.435	PQL	mg/Kg	J	Q
SILVER	0.0203	J	0.0130	MDL	0.109	PQL	mg/Kg	J	Z
VANADIUM	53.5		0.0239	MDL	0.109	PQL	mg/Kg	J	A

Sample ID: SL-190-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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	0.295	J	0.0460	MDL	0.460	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-190-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 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	0.133	J	0.0689	MDL	0.230	PQL	mg/Kg	J	Z, Q
ARSENIC	6.46		0.0919	MDL	0.460	PQL	mg/Kg	J	Q
CHROMIUM	30.3		0.138	MDL	0.460	PQL	mg/Kg	J	A
COPPER	18.4		0.0758	MDL	0.460	PQL	mg/Kg	J	Q, E
LEAD	13.1		0.0119	MDL	0.230	PQL	mg/Kg	J	Q
NICKEL	21.3		0.115	MDL	0.460	PQL	mg/Kg	J	Q
SILVER	0.0303	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z
VANADIUM	57.9		0.0253	MDL	0.115	PQL	mg/Kg	J	A

**Sample ID:** SL-199-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 11:40:00

**Analysis Type:** REA

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.150	J	0.0435	MDL	0.435	PQL	mg/Kg	J	Z

**Sample ID:** SL-199-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 11:40:00

**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	0.0653	MDL	0.218	PQL	mg/Kg	J	Z, Q
ARSENIC	3.75		0.0870	MDL	0.435	PQL	mg/Kg	J	Q
CHROMIUM	18.8		0.131	MDL	0.435	PQL	mg/Kg	J	A
COPPER	12.6		0.0718	MDL	0.435	PQL	mg/Kg	J	Q, E
LEAD	13.7		0.0113	MDL	0.218	PQL	mg/Kg	J	Q
NICKEL	14.5		0.109	MDL	0.435	PQL	mg/Kg	J	Q
VANADIUM	34.4		0.0239	MDL	0.109	PQL	mg/Kg	J	A

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

**Sample ID:** DUP06-SA5DN-QC-052411

**Collected:** 5/24/2011 3:55:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.58	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

**Sample ID:** SL-001-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 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	0.65	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

**Sample ID:** SL-002-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 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
HEXAVALENT CHROMIUM	0.46	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

**Sample ID:** SL-006-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 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
HEXAVALENT CHROMIUM	0.73	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

**Sample ID:** SL-057-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 3:48:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.95	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

**Sample ID:** SL-060-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 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
HEXAVALENT CHROMIUM	0.37	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

**Sample ID:** SL-185-SA5DN-SS-0.0-0.5

**Collected:** 5/24/2011 3:27:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.62	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

**Sample ID:** SL-199-SA5DN-SS-0.0-0.5

**Collected:** 5/25/2011 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
HEXAVALENT CHROMIUM	0.75	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 7471A

Matrix: SO

Sample ID: DUP06-SA5DN-QC-052411

Collected: 5/24/2011 3:55:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0319	J	0.0033	MDL	0.116	PQL	mg/Kg	J	Z, Q, E, FD

Sample ID: SL-001-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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	0.0067	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z, Q, E

Sample ID: SL-002-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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	0.0228	J	0.0028	MDL	0.0990	PQL	mg/Kg	J	Z, Q, E

Sample ID: SL-004-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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
MERCURY	0.0031	U	0.0031	MDL	0.106	PQL	mg/Kg	UJ	E

Sample ID: SL-005-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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
MERCURY	0.0071	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z, Q, E

Sample ID: SL-006-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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	0.0033	U	0.0033	MDL	0.114	PQL	mg/Kg	UJ	E

Sample ID: SL-057-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 3:48:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0185	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z, Q, E, FD

Sample ID: SL-060-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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
MERCURY	0.0150	J	0.0030	MDL	0.106	PQL	mg/Kg	J	Z, Q, E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

Sample ID: SL-185-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 3:27:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0031	U	0.0031	MDL	0.109	PQL	mg/Kg	UJ	E

Sample ID: SL-190-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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
MERCURY	0.0176	J	0.0033	MDL	0.116	PQL	mg/Kg	J	Z, Q, E

Sample ID: SL-199-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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
MERCURY	0.0500	J	0.0030	MDL	0.106	PQL	mg/Kg	J	Z, Q, E

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

Sample ID: DUP06-SA5DN-QC-052411

Collected: 5/24/2011 3:55:00

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'-DDD	0.078	U	0.078	MDL	0.40	PQL	ug/Kg	UJ	S
4,4'-DDE	0.078	U	0.078	MDL	0.40	PQL	ug/Kg	UJ	S
4,4'-DDT	0.18	U	0.18	MDL	0.40	PQL	ug/Kg	UJ	S
ALDRIN	0.078	U	0.078	MDL	0.20	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.040	U	0.040	MDL	0.20	PQL	ug/Kg	UJ	S
BETA-BHC	0.071	U	0.071	MDL	0.20	PQL	ug/Kg	UJ	S
Chlordane	0.95	U	0.95	MDL	4.0	PQL	ug/Kg	UJ	S, FD
DELTA-BHC	0.043	U	0.043	MDL	0.20	PQL	ug/Kg	UJ	S
DIELDRIN	0.078	U	0.078	MDL	0.40	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.052	U	0.052	MDL	0.20	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.078	U	0.078	MDL	0.40	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.078	U	0.078	MDL	0.40	PQL	ug/Kg	UJ	S
ENDRIN	0.078	U	0.078	MDL	0.40	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.087	U	0.087	MDL	0.40	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.078	U	0.078	MDL	0.40	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.040	U	0.040	MDL	0.20	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.071	U	0.071	MDL	0.20	PQL	ug/Kg	UJ	S

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8081A

Matrix: SO

Sample ID: DUP06-SA5DN-QC-052411

Collected: 5/24/2011 3:55:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEPTACHLOR EPOXIDE	0.040	U	0.040	MDL	0.20	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.40	U	0.40	MDL	2.0	PQL	ug/Kg	UJ	S
MIREX	0.078	U	0.078	MDL	0.40	PQL	ug/Kg	UJ	S
TOXAPHENE	2.6	U	2.6	MDL	7.8	PQL	ug/Kg	UJ	S

Sample ID: SL-001-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 9:45:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	2.7	J	0.91	MDL	3.9	PQL	ug/Kg	J	Z
DELTA-BHC	0.043	J	0.041	MDL	0.19	PQL	ug/Kg	J	Z

Sample ID: SL-002-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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
Chlordane	1.6	J	0.84	MDL	3.6	PQL	ug/Kg	J	Z

Sample ID: SL-005-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 10:10:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	1.3		0.075	MDL	0.39	PQL	ug/Kg	J	L
DELTA-BHC	0.060	J	0.041	MDL	0.19	PQL	ug/Kg	J	Z
ENDRIN	0.12	J	0.075	MDL	0.39	PQL	ug/Kg	J	Z
gamma-BHC (Lindane)	0.056	J	0.039	MDL	0.19	PQL	ug/Kg	J	Z

Sample ID: SL-006-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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
4,4'-DDD	0.079	U	0.079	MDL	0.41	PQL	ug/Kg	UJ	S
4,4'-DDE	0.58		0.079	MDL	0.41	PQL	ug/Kg	J	S
4,4'-DDT	3.0		0.079	MDL	0.41	PQL	ug/Kg	J	L, S
ALDRIN	0.079	U	0.079	MDL	0.20	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.041	U	0.041	MDL	0.20	PQL	ug/Kg	UJ	S
BETA-BHC	0.072	U	0.072	MDL	0.20	PQL	ug/Kg	UJ	S
Chlordane	2.1	J	0.96	MDL	4.1	PQL	ug/Kg	J	Z, S
DELTA-BHC	0.043	U	0.043	MDL	0.20	PQL	ug/Kg	UJ	S

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8081A</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-006-SA5DN-SS-0.0-0.5 Collected: 5/25/2011 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
DIELDRIN	0.079	U	0.079	MDL	0.41	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.053	U	0.053	MDL	0.20	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.079	U	0.079	MDL	0.41	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.079	U	0.079	MDL	0.41	PQL	ug/Kg	UJ	S
ENDRIN	0.14	U	0.14	MDL	0.41	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.28	U	0.28	MDL	0.41	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.079	U	0.079	MDL	0.41	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.041	U	0.041	MDL	0.20	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.072	U	0.072	MDL	0.20	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.041	U	0.041	MDL	0.20	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.41	U	0.41	MDL	2.0	PQL	ug/Kg	UJ	S
MIREX	0.34	U	0.34	MDL	0.41	PQL	ug/Kg	UJ	S
TOXAPHENE	2.6	U	2.6	MDL	7.9	PQL	ug/Kg	UJ	S

Sample ID: SL-057-SA5DN-SS-0.0-0.5 Collected: 5/24/2011 3:48:00 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	0.92	MDL	3.9	PQL	ug/Kg	J	Z, FD

Sample ID: SL-060-SA5DN-SS-0.0-0.5 Collected: 5/25/2011 3:30:00 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	5.3		0.86	MDL	3.7	PQL	ug/Kg	J	S
gamma-BHC (Lindane)	0.068	J	0.037	MDL	0.18	PQL	ug/Kg	J	Z, S

Sample ID: SL-190-SA5DN-SS-0.0-0.5 Collected: 5/25/2011 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
Chlordane	2.4	J	0.95	MDL	4.0	PQL	ug/Kg	J	Z

Sample ID: SL-199-SA5DN-SS-0.0-0.5 Collected: 5/25/2011 11:40:00 Analysis Type: DL-BASE/NEUTRAL Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	4.7		0.36	MDL	1.9	PQL	ug/Kg	J	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8082

Matrix: SO

Sample ID: DUP06-SA5DN-QC-052411

Collected: 5/24/2011 3:55:00

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 1260	0.46	U	0.46	MDL	2.0	PQL	ug/Kg	UJ	FD
Aroclor 5460	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	FD

Sample ID: SL-005-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 10:10:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	2.3	J	0.75	MDL	3.9	PQL	ug/Kg	J	Z
AROCLOR 1260	1.5	J	0.88	MDL	3.9	PQL	ug/Kg	J	Z

Sample ID: SL-057-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 3:48:00

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	0.45	MDL	2.0	PQL	ug/Kg	J	Z, FD
Aroclor 5460	1.6	J	1.2	MDL	3.8	PQL	ug/Kg	J	Z, FD

Sample ID: SL-185-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 3:27:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.87	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-190-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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	1.7	J	0.46	MDL	2.0	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8151A

Matrix: SO

Sample ID: DUP06-SA5DN-QC-052411

Collected: 5/24/2011 3:55:00

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)	0.089	U	0.089	MDL	0.20	PQL	ug/Kg	UJ	FD
MCPP	570		89	MDL	300	PQL	ug/Kg	J	FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8151A</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-002-SA5DN-SS-0.0-0.5			Collected: 5/25/2011 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	
2,4,5-TP (Silvex)	0.12	J	0.079	MDL	0.18	PQL	ug/Kg	J	Z	

Sample ID: SL-057-SA5DN-SS-0.0-0.5			Collected: 5/24/2011 3:48:00		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)	0.18	J	0.087	MDL	0.20	PQL	ug/Kg	J	Z, FD
MCPP	87	U	87	MDL	290	PQL	ug/Kg	UJ	FD

Sample ID: SL-199-SA5DN-SS-0.0-0.5			Collected: 5/25/2011 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
2,4,5-TP (Silvex)	0.17	J	0.082	MDL	0.19	PQL	ug/Kg	J	Z

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8270C</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-006-SA5DN-SS-0.0-0.5			Collected: 5/25/2011 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	95	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	150	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	150	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	96	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	67	J	20	MDL	200	PQL	ug/Kg	J	Z
CHRYSENE	120	J	20	MDL	200	PQL	ug/Kg	J	Z
FLUORANTHENE	150	J	20	MDL	200	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	99	J	20	MDL	200	PQL	ug/Kg	J	Z
PHENANTHRENE	42	J	20	MDL	200	PQL	ug/Kg	J	Z
PYRENE	170	J	20	MDL	200	PQL	ug/Kg	J	Z

Sample ID: SL-057-SA5DN-SS-0.0-0.5			Collected: 5/24/2011 3:48:00		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	R	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C

**Matrix:** SO

Sample ID: SL-185-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 3:27:00

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	30	J	18	MDL	370	PQL	ug/Kg	UJ	L, B

Sample ID: SL-199-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 11:40:00

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	45	J	18	MDL	370	PQL	ug/Kg	UJ	L, B

**Method Category:** SVOA

**Method:** 8270C SIM

**Matrix:** SO

Sample ID: DUP06-SA5DN-QC-052411

Collected: 5/24/2011 3:55:00

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	4.3	J	4.0	MDL	9.9	PQL	ug/Kg	J	Z, FD
BENZO(A)PYRENE	5.0	J	4.0	MDL	9.9	PQL	ug/Kg	J	Z, L, FD
BENZO(B)FLUORANTHENE	7.9	J	4.0	MDL	9.9	PQL	ug/Kg	J	Z, L, FD
BENZO(G,H,I)PERYLENE	4.4	J	4.0	MDL	9.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	4.1	J	4.0	MDL	9.9	PQL	ug/Kg	J	Z, L, FD
CHRYSENE	4.8	J	2.0	MDL	9.9	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	6.7	J	4.0	MDL	9.9	PQL	ug/Kg	J	Z, FD
PHENANTHRENE	4.0	U	4.0	MDL	9.9	PQL	ug/Kg	UJ	FD
PYRENE	6.6	J	4.0	MDL	9.9	PQL	ug/Kg	J	Z

Sample ID: SL-001-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 9:45:00

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(B)FLUORANTHENE	7.0	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z, L
BIS(2-ETHYLHEXYL)PHTHALATE	43	J	34	MDL	100	PQL	ug/Kg	J	Z
CHRYSENE	4.8	J	1.9	MDL	9.5	PQL	ug/Kg	J	Z
FLUORANTHENE	6.9	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z
PYRENE	5.4	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-002-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 9:20:00

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(B)FLUORANTHENE	6.0	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z, L
BIS(2-ETHYLHEXYL)PHTHALATE	69	J	32	MDL	95	PQL	ug/Kg	J	Z
CHRYSENE	4.4	J	1.8	MDL	8.8	PQL	ug/Kg	J	Z
FLUORANTHENE	4.6	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z
PYRENE	4.5	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z

Sample ID: SL-004-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 10:55:00

Analysis Type: RES

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	5.6	J	3.6	MDL	9.1	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	7.3	J	3.6	MDL	9.1	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	8.7	J	3.6	MDL	9.1	PQL	ug/Kg	J	Z, L
BENZO(B)FLUORANTHENE	5.2	J	3.6	MDL	9.1	PQL	ug/Kg	J	Z, L
BENZO(K)FLUORANTHENE	6.4	J	3.6	MDL	9.1	PQL	ug/Kg	J	Z, L
PHENANTHRENE	4.9	J	3.6	MDL	9.1	PQL	ug/Kg	J	Z

Sample ID: SL-005-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 10:10:00

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	7.4	J	3.8	MDL	9.4	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	7.4	J	3.8	MDL	9.4	PQL	ug/Kg	J	Z, L
BENZO(B)FLUORANTHENE	17		3.8	MDL	9.4	PQL	ug/Kg	J	L
BENZO(G,H,I)PERYLENE	4.7	J	3.8	MDL	9.4	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	8.4	J	3.8	MDL	9.4	PQL	ug/Kg	J	Z, L

Sample ID: SL-057-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 3:48:00

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	8.2	J	3.8	MDL	9.6	PQL	ug/Kg	J	Z, FD
BENZO(A)PYRENE	9.2	J	3.8	MDL	9.6	PQL	ug/Kg	J	Z, L, FD
BENZO(B)FLUORANTHENE	14		3.8	MDL	9.6	PQL	ug/Kg	J	L, FD
BENZO(G,H,I)PERYLENE	4.7	J	3.8	MDL	9.6	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	9.2	J	3.8	MDL	9.6	PQL	ug/Kg	J	Z, L, FD
CHRYSENE	8.9	J	1.9	MDL	9.6	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	12		3.8	MDL	9.6	PQL	ug/Kg	J	FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-057-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 3:48:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHENANTHRENE	4.4	J	3.8	MDL	9.6	PQL	ug/Kg	J	Z, FD

Sample ID: SL-060-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 3:30:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	2.0	J	1.8	MDL	9.0	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	31		3.6	MDL	9.0	PQL	ug/Kg	J	L
BENZO(B)FLUORANTHENE	45		3.6	MDL	9.0	PQL	ug/Kg	J	L
BENZO(K)FLUORANTHENE	27		3.6	MDL	9.0	PQL	ug/Kg	J	L
BIS(2-ETHYLHEXYL)PHTHALATE	57	J	32	MDL	97	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	3.7	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	8.1	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z

Sample ID: SL-185-SA5DN-SS-0.0-0.5

Collected: 5/24/2011 3:27:00

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(B)FLUORANTHENE	4.8	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z, L
CHRYSENE	2.8	J	1.8	MDL	9.2	PQL	ug/Kg	J	Z
FLUORANTHENE	3.9	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
PYRENE	3.9	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z

Sample ID: SL-190-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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
2-METHYLNAPHTHALENE	0.98	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.2	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z, L
BENZO(B)FLUORANTHENE	2.7		0.79	MDL	2.0	PQL	ug/Kg	J	L
BENZO(K)FLUORANTHENE	6.6		0.79	MDL	2.0	PQL	ug/Kg	J	L
BIS(2-ETHYLHEXYL)PHTHALATE	8.3	J	7.1	MDL	21	PQL	ug/Kg	J	Z
CHRYSENE	1.7	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-butylphthalate	8.9	J	7.1	MDL	21	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.83	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
NAPHTHALENE	1.4	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
PHENANTHRENE	1.6	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
PYRENE	1.8	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-199-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 11:40:00

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-METHYLNAPHTHALENE	0.97	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	3.1		0.73	MDL	1.8	PQL	ug/Kg	J	L
BENZO(B)FLUORANTHENE	7.7		0.73	MDL	1.8	PQL	ug/Kg	J	L
BENZO(G,H,I)PERYLENE	1.2	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	6.7		0.73	MDL	1.8	PQL	ug/Kg	J	L
INDENO(1,2,3-CD)PYRENE	1.3	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	1.3	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

### Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
C	Initial Calibration Verification Percent Recovery Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## ***Data Qualifier Summary***

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

E	Matrix Spike Precision
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

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## ***Data Qualifier Summary***

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: PrepDE163\_v1

eQAPP Name: CDM\_SSFL\_110509

Q	Matrix Spike Upper Rejection
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

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE163

# Method Blank Outlier Report

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: DE163\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6010B  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15208BB222037	6/3/2011 8:37:00 PM	CALCIUM IRON MANGANESE PHOSPHORUS TIN	9.57 mg/Kg 5.37 mg/Kg 0.0960 mg/Kg 1.57 mg/Kg 1.58 mg/Kg	DUP06-SA5DN-QC-052411 SL-001-SA5DN-SS-0.0-0.5 SL-002-SA5DN-SS-0.0-0.5 SL-004-SA5DN-SS-0.0-0.5 SL-005-SA5DN-SS-0.0-0.5 SL-006-SA5DN-SS-0.0-0.5 SL-057-SA5DN-SS-0.0-0.5 SL-060-SA5DN-SS-0.0-0.5 SL-185-SA5DN-SS-0.0-0.5 SL-190-SA5DN-SS-0.0-0.5 SL-199-SA5DN-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
DUP06-SA5DN-QC-052411(RES)	TIN	2.84 mg/Kg	2.84U mg/Kg
SL-001-SA5DN-SS-0.0-0.5(RES)	TIN	2.79 mg/Kg	2.79U mg/Kg
SL-002-SA5DN-SS-0.0-0.5(RES)	TIN	2.03 mg/Kg	2.03U mg/Kg
SL-004-SA5DN-SS-0.0-0.5(RES)	TIN	2.31 mg/Kg	2.31U mg/Kg
SL-005-SA5DN-SS-0.0-0.5(RES)	TIN	2.68 mg/Kg	2.68U mg/Kg
SL-006-SA5DN-SS-0.0-0.5(RES)	TIN	3.06 mg/Kg	3.06U mg/Kg
SL-057-SA5DN-SS-0.0-0.5(RES)	TIN	2.73 mg/Kg	2.73U mg/Kg
SL-060-SA5DN-SS-0.0-0.5(RES)	TIN	2.47 mg/Kg	2.47U mg/Kg
SL-185-SA5DN-SS-0.0-0.5(RES)	TIN	2.46 mg/Kg	2.46U mg/Kg
SL-190-SA5DN-SS-0.0-0.5(RES)	TIN	2.58 mg/Kg	2.58U mg/Kg
SL-199-SA5DN-SS-0.0-0.5(RES)	TIN	2.55 mg/Kg	2.55U mg/Kg

**Method:** 6020  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15726DB220412A	6/8/2011 4:12:00 AM	COPPER LEAD NICKEL	0.223 mg/Kg 0.0137 mg/Kg 0.117 mg/Kg	DUP06-SA5DN-QC-052411 SL-001-SA5DN-SS-0.0-0.5 SL-002-SA5DN-SS-0.0-0.5 SL-004-SA5DN-SS-0.0-0.5 SL-005-SA5DN-SS-0.0-0.5 SL-006-SA5DN-SS-0.0-0.5 SL-057-SA5DN-SS-0.0-0.5 SL-060-SA5DN-SS-0.0-0.5 SL-185-SA5DN-SS-0.0-0.5 SL-190-SA5DN-SS-0.0-0.5 SL-199-SA5DN-SS-0.0-0.5

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Method Blank Outlier Report

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: DE163\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method: 8270C</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLE15B260616	6/4/2011 6:16:00 AM	BIS(2-ETHYLHEXYL)PHthalate Diethylphthalate Di-n-butylphthalate	19 ug/Kg 25 ug/Kg 19 ug/Kg	DUP06-SA5DN-QC-052411 SL-001-SA5DN-SS-0.0-0.5 SL-002-SA5DN-SS-0.0-0.5 SL-004-SA5DN-SS-0.0-0.5 SL-005-SA5DN-SS-0.0-0.5 SL-006-SA5DN-SS-0.0-0.5 SL-057-SA5DN-SS-0.0-0.5 SL-060-SA5DN-SS-0.0-0.5 SL-185-SA5DN-SS-0.0-0.5 SL-190-SA5DN-SS-0.0-0.5 SL-199-SA5DN-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-185-SA5DN-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHthalate	30 ug/Kg	370U ug/Kg
SL-199-SA5DN-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHthalate	45 ug/Kg	370U ug/Kg

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: DE163\_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-057-SA5DN-SS-0.0-0.5MS SL-057-SA5DN-SS-0.0-0.5MSD (DUP06-SA5DN-QC-052411 SL-001-SA5DN-SS-0.0-0.5 SL-002-SA5DN-SS-0.0-0.5 SL-004-SA5DN-SS-0.0-0.5 SL-005-SA5DN-SS-0.0-0.5 SL-006-SA5DN-SS-0.0-0.5 SL-057-SA5DN-SS-0.0-0.5 SL-060-SA5DN-SS-0.0-0.5 SL-185-SA5DN-SS-0.0-0.5 SL-190-SA5DN-SS-0.0-0.5 SL-199-SA5DN-SS-0.0-0.5)	ALUMINUM CALCIUM IRON MAGNESIUM TITANIUM	2233 - 4402 - 213	2991 136 1420 251 238	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-057-SA5DN-SS-0.0-0.5MS SL-057-SA5DN-SS-0.0-0.5MSD (DUP06-SA5DN-QC-052411 SL-001-SA5DN-SS-0.0-0.5 SL-002-SA5DN-SS-0.0-0.5 SL-004-SA5DN-SS-0.0-0.5 SL-005-SA5DN-SS-0.0-0.5 SL-006-SA5DN-SS-0.0-0.5 SL-057-SA5DN-SS-0.0-0.5 SL-060-SA5DN-SS-0.0-0.5 SL-185-SA5DN-SS-0.0-0.5 SL-190-SA5DN-SS-0.0-0.5 SL-199-SA5DN-SS-0.0-0.5)	MANGANESE PHOSPHORUS	36 61	- 48	75.00-125.00 75.00-125.00	- -	MANGANESE PHOSPHORUS	No Qual, >4x

**Method: 7471A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-057-SA5DN-SS-0.0-0.5MS SL-057-SA5DN-SS-0.0-0.5MSD (DUP06-SA5DN-QC-052411 SL-001-SA5DN-SS-0.0-0.5 SL-002-SA5DN-SS-0.0-0.5 SL-004-SA5DN-SS-0.0-0.5 SL-005-SA5DN-SS-0.0-0.5 SL-006-SA5DN-SS-0.0-0.5 SL-057-SA5DN-SS-0.0-0.5 SL-060-SA5DN-SS-0.0-0.5 SL-185-SA5DN-SS-0.0-0.5 SL-190-SA5DN-SS-0.0-0.5 SL-199-SA5DN-SS-0.0-0.5)	MERCURY	136	-	65.00-135.00	28 (20.00)	MERCURY	J(all detects) UJ(all non-detects)

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: DE163\_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-057-SA5DN-SS-0.0-0.5MS (DUP06-SA5DN-QC-052411 SL-001-SA5DN-SS-0.0-0.5 SL-002-SA5DN-SS-0.0-0.5 SL-004-SA5DN-SS-0.0-0.5 SL-005-SA5DN-SS-0.0-0.5 SL-006-SA5DN-SS-0.0-0.5 SL-057-SA5DN-SS-0.0-0.5 SL-060-SA5DN-SS-0.0-0.5 SL-185-SA5DN-SS-0.0-0.5 SL-190-SA5DN-SS-0.0-0.5)	FLUORIDE	47	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
SL-199-SA5DN-SS-0.0-0.5MS (SL-199-SA5DN-SS-0.0-0.5)	FLUORIDE	50	-	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-057-SA5DN-SS-0.0-0.5MS SL-057-SA5DN-SS-0.0-0.5MSD (SL-057-SA5DN-SS-0.0-0.5)	2,4-DINITROPHENOL 4,6-DINITRO-2-METHYLPHENOL BENZOIC ACID ISOPHORONE	- - - 104	- - - -	20.00-143.00 24.00-116.00 10.00-173.00 73.00-102.00	72 (30.00) 43 (30.00) 44 (30.00) -	2,4-DINITROPHENOL 4,6-DINITRO-2-METHYLPHENOL BENZOIC ACID ISOPHORONE	J(all detects)
SL-057-SA5DN-SS-0.0-0.5MS SL-057-SA5DN-SS-0.0-0.5MSD (SL-057-SA5DN-SS-0.0-0.5)	BENZIDINE	22	0	35.00-141.00	200 (30.00)	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-057-SA5DN-SS-0.0-0.5MS SL-057-SA5DN-SS-0.0-0.5MSD (DUP06-SA5DN-QC-052411 SL-001-SA5DN-SS-0.0-0.5 SL-002-SA5DN-SS-0.0-0.5 SL-004-SA5DN-SS-0.0-0.5 SL-005-SA5DN-SS-0.0-0.5 SL-006-SA5DN-SS-0.0-0.5 SL-057-SA5DN-SS-0.0-0.5 SL-060-SA5DN-SS-0.0-0.5 SL-185-SA5DN-SS-0.0-0.5 SL-190-SA5DN-SS-0.0-0.5 SL-199-SA5DN-SS-0.0-0.5)	ARSENIC LEAD NICKEL VANADIUM ZINC	138 145 126 139 172	- - - 146 172	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - -	ARSENIC LEAD NICKEL VANADIUM ZINC	J(all detects) V, Zn No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: DE163\_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-057-SA5DN-SS-0.0-0.5MS SL-057-SA5DN-SS-0.0-0.5MSD (DUP06-SA5DN-QC-052411 SL-001-SA5DN-SS-0.0-0.5 SL-002-SA5DN-SS-0.0-0.5 SL-004-SA5DN-SS-0.0-0.5 SL-005-SA5DN-SS-0.0-0.5 SL-006-SA5DN-SS-0.0-0.5 SL-057-SA5DN-SS-0.0-0.5 SL-060-SA5DN-SS-0.0-0.5 SL-185-SA5DN-SS-0.0-0.5 SL-190-SA5DN-SS-0.0-0.5 SL-199-SA5DN-SS-0.0-0.5)	ANTIMONY	29	28	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects) Post Spike =91%
SL-057-SA5DN-SS-0.0-0.5MS SL-057-SA5DN-SS-0.0-0.5MSD (DUP06-SA5DN-QC-052411 SL-001-SA5DN-SS-0.0-0.5 SL-002-SA5DN-SS-0.0-0.5 SL-004-SA5DN-SS-0.0-0.5 SL-005-SA5DN-SS-0.0-0.5 SL-006-SA5DN-SS-0.0-0.5 SL-057-SA5DN-SS-0.0-0.5 SL-060-SA5DN-SS-0.0-0.5 SL-185-SA5DN-SS-0.0-0.5 SL-190-SA5DN-SS-0.0-0.5 SL-199-SA5DN-SS-0.0-0.5)	COPPER	52	43	75.00-125.00	-	COPPER	J(all detects) UJ(all non-detects)
SL-057-SA5DN-SS-0.0-0.5MS SL-057-SA5DN-SS-0.0-0.5MSD (DUP06-SA5DN-QC-052411 SL-001-SA5DN-SS-0.0-0.5 SL-002-SA5DN-SS-0.0-0.5 SL-004-SA5DN-SS-0.0-0.5 SL-005-SA5DN-SS-0.0-0.5 SL-006-SA5DN-SS-0.0-0.5 SL-057-SA5DN-SS-0.0-0.5 SL-060-SA5DN-SS-0.0-0.5 SL-185-SA5DN-SS-0.0-0.5 SL-190-SA5DN-SS-0.0-0.5 SL-199-SA5DN-SS-0.0-0.5)	BARIUM	258	223	75.00-125.00	-	BARIUM	No Quat, >4x

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: DE163\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 300.0  
**Matrix:** SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-199-SA5DN-SS-0.0-0.5DUP (SL-199-SA5DN-SS-0.0-0.5)	FLUORIDE	200	20.00	No Qual, OK by difference

**Method:** 6010B  
**Matrix:** SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-057-SA5DN-SS-0.0-0.5DUP (DUP06-SA5DN-QC-052411)	CALCIUM	31	20.00	J(all detects) UJ(all non-detects) Na, Zr No Qual, OK by difference
SL-001-SA5DN-SS-0.0-0.5	PHOSPHORUS	107	20.00	
SL-002-SA5DN-SS-0.0-0.5	SODIUM	37	20.00	
SL-004-SA5DN-SS-0.0-0.5	STRONTIUM	43	20.00	
SL-005-SA5DN-SS-0.0-0.5	Zirconium	32	20.00	
SL-006-SA5DN-SS-0.0-0.5				
SL-057-SA5DN-SS-0.0-0.5				
SL-060-SA5DN-SS-0.0-0.5				
SL-185-SA5DN-SS-0.0-0.5				
SL-190-SA5DN-SS-0.0-0.5				
SL-199-SA5DN-SS-0.0-0.5				

**Method:** 6020  
**Matrix:** SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-057-SA5DN-SS-0.0-0.5DUP (DUP06-SA5DN-QC-052411)	COPPER	26	20.00	J(all detects) UJ(all non-detects)
SL-001-SA5DN-SS-0.0-0.5				
SL-002-SA5DN-SS-0.0-0.5				
SL-004-SA5DN-SS-0.0-0.5				
SL-005-SA5DN-SS-0.0-0.5				
SL-006-SA5DN-SS-0.0-0.5				
SL-057-SA5DN-SS-0.0-0.5				
SL-060-SA5DN-SS-0.0-0.5				
SL-185-SA5DN-SS-0.0-0.5				
SL-190-SA5DN-SS-0.0-0.5				
SL-199-SA5DN-SS-0.0-0.5				

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: DE163\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 7199

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-057-SA5DN-SS-0.0-0.5DUP (DUP06-SA5DN-QC-052411 SL-001-SA5DN-SS-0.0-0.5 SL-002-SA5DN-SS-0.0-0.5 SL-004-SA5DN-SS-0.0-0.5 SL-005-SA5DN-SS-0.0-0.5 SL-006-SA5DN-SS-0.0-0.5 SL-057-SA5DN-SS-0.0-0.5 SL-060-SA5DN-SS-0.0-0.5 SL-185-SA5DN-SS-0.0-0.5 SL-190-SA5DN-SS-0.0-0.5 SL-199-SA5DN-SS-0.0-0.5)	HEXAVALENT CHROMIUM	29	20.00	No Qual, OK by difference

Method: 7471A

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-057-SA5DN-SS-0.0-0.5DUP (DUP06-SA5DN-QC-052411 SL-001-SA5DN-SS-0.0-0.5 SL-002-SA5DN-SS-0.0-0.5 SL-004-SA5DN-SS-0.0-0.5 SL-005-SA5DN-SS-0.0-0.5 SL-006-SA5DN-SS-0.0-0.5 SL-057-SA5DN-SS-0.0-0.5 SL-060-SA5DN-SS-0.0-0.5 SL-185-SA5DN-SS-0.0-0.5 SL-190-SA5DN-SS-0.0-0.5 SL-199-SA5DN-SS-0.0-0.5)	MERCURY	101	20.00	No Qual, OK by difference

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: DE163\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 8081A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11529AQ240528A (DUP06-SA5DN-QC-052411 SL -001-SA5DN-SS-0.0-0.5 SL -002-SA5DN-SS-0.0-0.5 SL -004-SA5DN-SS-0.0-0.5 SL -005-SA5DN-SS-0.0-0.5 SL -006-SA5DN-SS-0.0-0.5 SL -007-SA5DN-SS-0.0-0.5 SL -060-SA5DN-SS-0.0-0.5 SL -185-SA5DN-SS-0.0-0.5 SL -190-SA5DN-SS-0.0-0.5 SL -199-SA5DN-SS-0.0-0.5)	4,4'-DDT METHOXYCHLOR	138 131	- -	54.00-130.00 59.00-125.00	- -	4,4'-DDT METHOXYCHLOR	J (all detects)

Method: 8270C SIM

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P8LBCSQ261915 (DUP06-SA5DN-QC-052411 SL -001-SA5DN-SS-0.0-0.5 SL -002-SA5DN-SS-0.0-0.5 SL -004-SA5DN-SS-0.0-0.5 SL -005-SA5DN-SS-0.0-0.5 SL -006-SA5DN-SS-0.0-0.5 SL -007-SA5DN-SS-0.0-0.5 SL -060-SA5DN-SS-0.0-0.5 SL -185-SA5DN-SS-0.0-0.5 SL -190-SA5DN-SS-0.0-0.5 SL -199-SA5DN-SS-0.0-0.5)	BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(K)FLUORANTHENE	134 144 139	- - -	58.00-129.00 63.00-143.00 66.00-137.00	- - -	BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(K)FLUORANTHENE	J(all detects)

Method: 8270C

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P2LELCSQ260842 (DUP06-SA5DN-QC-052411 SL -001-SA5DN-SS-0.0-0.5 SL -002-SA5DN-SS-0.0-0.5 SL -004-SA5DN-SS-0.0-0.5 SL -005-SA5DN-SS-0.0-0.5 SL -006-SA5DN-SS-0.0-0.5 SL -007-SA5DN-SS-0.0-0.5 SL -060-SA5DN-SS-0.0-0.5 SL -185-SA5DN-SS-0.0-0.5 SL -190-SA5DN-SS-0.0-0.5 SL -199-SA5DN-SS-0.0-0.5)	BIS(2-ETHYLHEXYL)PHTHALAT	118	-	75.00-117.00	-	BIS(2-ETHYLHEXYL)PHTHALA	J(all detects)

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: DE163\_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
P15726DQ220415A (DUP06 -SA5DN-QC-052411 SL -001-SA5DN-SS-0.0-0.5 SL -002-SA5DN-SS-0.0-0.5 SL -004-SA5DN-SS-0.0-0.5 SL -005-SA5DN-SS-0.0-0.5 SL -006-SA5DN-SS-0.0-0.5 SL -057-SA5DN-SS-0.0-0.5 SL -060-SA5DN-SS-0.0-0.5 SL -185-SA5DN-SS-0.0-0.5 SL -190-SA5DN-SS-0.0-0.5 SL -199-SA5DN-SS-0.0-0.5)	ANTIMONY	69	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within limits



# Surrogate Outlier Report

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: DE163\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 8081A

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
DUP06-SA5DN-QC-052411	TETRACHLORO-M-XYLENE	43	50.00-130.00	All Target Analytes	J (all detects) UJ (all non-detects)
SL-006-SA5DN-SS-0.0-0.5	TETRACHLORO-M-XYLENE	47	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-060-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	172	20.00-120.00	All Target Analytes	J(all detects)

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: DE163\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 160.3M

Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-057-SA5DN-SS-0.0-0.5	DUP06-SA5DN-QC-052411			
MOISTURE	13.4	15.7	16		No Qualifiers Applied

Method: 300.0

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-057-SA5DN-SS-0.0-0.5	DUP06-SA5DN-QC-052411			
FLUORIDE	2.4	3.0	22	50.00	No Qualifiers Applied

Method: 6010B

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-057-SA5DN-SS-0.0-0.5	DUP06-SA5DN-QC-052411			
ALUMINUM	33200	34800	5	50.00	No Qualifiers Applied
BORON	8.53	9.41	10	50.00	
CALCIUM	6930	6710	3	50.00	
IRON	34800	35300	1	50.00	
LITHIUM	28.4	28.9	2	50.00	
MAGNESIUM	8400	8260	2	50.00	
MANGANESE	477	440	8	50.00	
PHOSPHORUS	523	447	16	50.00	
POTASSIUM	5370	5110	5	50.00	
SODIUM	104	98.5	5	50.00	
STRONTIUM	36.3	37.2	2	50.00	
TIN	2.73	2.84	4	50.00	
TITANIUM	1480	1470	1	50.00	
Zirconium	4.02	4.13	3	50.00	

Method: 6020

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-057-SA5DN-SS-0.0-0.5	DUP06-SA5DN-QC-052411			
ANTIMONY	0.0992	0.106	7	50.00	No Qualifiers Applied
ARSENIC	5.68	6.49	13	50.00	
BARIUM	122	140	14	50.00	
BERYLLIUM	0.743	0.841	12	50.00	
CADMIUM	0.314	0.351	11	50.00	
CHROMIUM	27.4	31.7	15	50.00	
COBALT	10.7	11.9	11	50.00	
COPPER	22.8	18.7	20	50.00	
LEAD	13.0	19.1	38	50.00	
MOLYBDENUM	0.329	0.341	4	50.00	
NICKEL	20.5	22.5	9	50.00	
SELENIUM	0.133	0.122	9	50.00	
SILVER	0.0417	0.0410	2	50.00	
THALLIUM	0.342	0.348	2	50.00	
VANADIUM	52.4	59.1	12	50.00	
ZINC	69.7	78.2	11	50.00	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Field Duplicate RPD Report

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: DE163\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 7199

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-057-SA5DN-SS-0.0-0.5	DUP06-SA5DN-QC-052411			
HEXAVALENT CHROMIUM	0.95	0.58	48	50.00	No Qualifiers Applied

Method: 7471A

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-057-SA5DN-SS-0.0-0.5	DUP06-SA5DN-QC-052411			
MERCURY	0.0185	0.0319	53	50.00	J(all detects)

Method: 8081A

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-057-SA5DN-SS-0.0-0.5	DUP06-SA5DN-QC-052411			
Chlordane	1.9	4.0 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 8082

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-057-SA5DN-SS-0.0-0.5	DUP06-SA5DN-QC-052411			
AROCOR 1260	1.3	2.0 U	200	50.00	J(all detects)
Aroclor 5460	1.6	3.9 U	200	50.00	UJ(all non-detects)

Method: 8151A

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-057-SA5DN-SS-0.0-0.5	DUP06-SA5DN-QC-052411			
2,4,5-TP (Silvex)	0.18	0.20 U	200	50.00	J(all detects)
MCCP	290 U	570	200	50.00	UJ(all non-detects)

Method: 8270C SIM

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-057-SA5DN-SS-0.0-0.5	DUP06-SA5DN-QC-052411			
BENZO(G,H,I)PERYLENE	4.7	4.4	7	50.00	No Qualifiers Applied
PYRENE	11	6.6	50	50.00	
BENZO(A)ANTHRACENE	8.2	4.3	62	50.00	J(all detects) UJ(all non-detects)
BENZO(A)PYRENE	9.2	5.0	59	50.00	
BENZO(B)FLUORANTHENE	14	7.9	56	50.00	
BENZO(K)FLUORANTHENE	9.2	4.1	77	50.00	
CHRYSENE	8.9	4.8	60	50.00	
FLUORANTHENE	12	6.7	57	50.00	
PHENANTHRENE	4.4	9.9 U	200	50.00	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Field Duplicate RPD Report

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: DE163\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 9045M

Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-057-SA5DN-SS-0.0- 0.5	DUP06-SA5DN-QC- 052411			
PH	7.28	7.47	3	50.00	No Qualifiers Applied

# Reporting Limit Outliers

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: DE163\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6010B

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP06-SA5DN-QC-052411	SODIUM TIN Zirconium	J	98.5	116	PQL	mg/Kg	J (all detects)
		J	2.84	11.6	PQL	mg/Kg	
		J	4.13	5.81	PQL	mg/Kg	
SL-001-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	87.6	110	PQL	mg/Kg	J (all detects)
		J	2.79	11.0	PQL	mg/Kg	
		J	4.32	5.49	PQL	mg/Kg	
SL-002-SA5DN-SS-0.0-0.5	BORON TIN Zirconium	J	2.17	5.01	PQL	mg/Kg	J (all detects)
		J	2.03	10.0	PQL	mg/Kg	
		J	3.15	5.01	PQL	mg/Kg	
SL-004-SA5DN-SS-0.0-0.5	TIN Zirconium	J	2.31	10.7	PQL	mg/Kg	J (all detects)
		J	1.68	5.35	PQL	mg/Kg	
SL-005-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	86.7	111	PQL	mg/Kg	J (all detects)
		J	2.68	11.1	PQL	mg/Kg	
		J	4.74	5.55	PQL	mg/Kg	
SL-006-SA5DN-SS-0.0-0.5	BORON SODIUM TIN Zirconium	J	5.64	5.76	PQL	mg/Kg	J (all detects)
		J	105	115	PQL	mg/Kg	
		J	3.06	11.5	PQL	mg/Kg	
		J	3.69	5.76	PQL	mg/Kg	
SL-057-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	104	113	PQL	mg/Kg	J (all detects)
		J	2.73	11.3	PQL	mg/Kg	
		J	4.02	5.66	PQL	mg/Kg	
SL-060-SA5DN-SS-0.0-0.5	TIN Zirconium	J	2.47	10.5	PQL	mg/Kg	J (all detects)
		J	3.13	5.24	PQL	mg/Kg	
SL-185-SA5DN-SS-0.0-0.5	BORON SODIUM TIN Zirconium	J	3.78	5.54	PQL	mg/Kg	J (all detects)
		J	94.1	111	PQL	mg/Kg	
		J	2.46	11.1	PQL	mg/Kg	
		J	1.21	5.54	PQL	mg/Kg	
SL-190-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	96.6	113	PQL	mg/Kg	J (all detects)
		J	2.58	11.3	PQL	mg/Kg	
		J	3.82	5.64	PQL	mg/Kg	
SL-199-SA5DN-SS-0.0-0.5	BORON SODIUM TIN Zirconium	J	4.28	5.44	PQL	mg/Kg	J (all detects)
		J	67.2	109	PQL	mg/Kg	
		J	2.55	10.9	PQL	mg/Kg	
		J	2.47	5.44	PQL	mg/Kg	

**Method:** 6020

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP06-SA5DN-QC-052411	ANTIMONY SELENIUM SILVER	J	0.106	0.235	PQL	mg/Kg	J (all detects)
		J	0.122	0.470	PQL	mg/Kg	
		J	0.0410	0.117	PQL	mg/Kg	
SL-001-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.116	0.217	PQL	mg/Kg	J (all detects)
		J	0.219	0.435	PQL	mg/Kg	
		J	0.0456	0.109	PQL	mg/Kg	
SL-002-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.123	0.202	PQL	mg/Kg	J (all detects)
		J	0.0930	0.404	PQL	mg/Kg	
		J	0.0310	0.101	PQL	mg/Kg	

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: DE163\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6020

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-004-SA5DN-SS-0.0-0.5	CADMIUM	J	0.0740	0.107	PQL	mg/Kg	J (all detects)
		J	0.0809	0.428	PQL	mg/Kg	
		J	0.0205	0.107	PQL	mg/Kg	
SL-005-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.163	0.222	PQL	mg/Kg	J (all detects)
		J	0.223	0.444	PQL	mg/Kg	
		J	0.0414	0.111	PQL	mg/Kg	
SL-006-SA5DN-SS-0.0-0.5	SELENIUM	J	0.170	0.479	PQL	mg/Kg	J (all detects)
		J	0.0550	0.120	PQL	mg/Kg	
SL-057-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.0992	0.226	PQL	mg/Kg	J (all detects)
		J	0.133	0.453	PQL	mg/Kg	
		J	0.0417	0.113	PQL	mg/Kg	
SL-060-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.0788	0.216	PQL	mg/Kg	J (all detects)
		J	0.130	0.432	PQL	mg/Kg	
		J	0.0564	0.108	PQL	mg/Kg	
SL-185-SA5DN-SS-0.0-0.5	SELENIUM	J	0.186	0.217	PQL	mg/Kg	J (all detects)
		J	0.0850	0.435	PQL	mg/Kg	
		J	0.0203	0.109	PQL	mg/Kg	
SL-190-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.133	0.230	PQL	mg/Kg	J (all detects)
		J	0.295	0.460	PQL	mg/Kg	
		J	0.0303	0.115	PQL	mg/Kg	
SL-199-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.108	0.218	PQL	mg/Kg	J (all detects)
		J	0.150	0.435	PQL	mg/Kg	

**Method:** 7199

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP06-SA5DN-QC-052411	HEXAVALENT CHROMIUM	J	0.58	1.2	PQL	mg/Kg	J (all detects)
SL-001-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.65	1.1	PQL	mg/Kg	J (all detects)
SL-002-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.46	1.1	PQL	mg/Kg	J (all detects)
SL-006-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.73	1.2	PQL	mg/Kg	J (all detects)
SL-057-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.95	1.2	PQL	mg/Kg	J (all detects)
SL-060-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.37	1.1	PQL	mg/Kg	J (all detects)
SL-185-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.62	1.1	PQL	mg/Kg	J (all detects)
SL-199-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.75	1.1	PQL	mg/Kg	J (all detects)

**Method:** 7471A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP06-SA5DN-QC-052411	MERCURY	J	0.0319	0.116	PQL	mg/Kg	J (all detects)

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: DE163\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 7471A**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA5DN-SS-0.0-0.5	MERCURY	J	0.0067	0.112	PQL	mg/Kg	J (all detects)
SL-002-SA5DN-SS-0.0-0.5	MERCURY	J	0.0228	0.0990	PQL	mg/Kg	J (all detects)
SL-005-SA5DN-SS-0.0-0.5	MERCURY	J	0.0071	0.112	PQL	mg/Kg	J (all detects)
SL-057-SA5DN-SS-0.0-0.5	MERCURY	J	0.0185	0.111	PQL	mg/Kg	J (all detects)
SL-060-SA5DN-SS-0.0-0.5	MERCURY	J	0.0150	0.106	PQL	mg/Kg	J (all detects)
SL-190-SA5DN-SS-0.0-0.5	MERCURY	J	0.0176	0.116	PQL	mg/Kg	J (all detects)
SL-199-SA5DN-SS-0.0-0.5	MERCURY	J	0.0500	0.106	PQL	mg/Kg	J (all detects)

**Method: 8081A**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA5DN-SS-0.0-0.5	Chlordane	J	2.7	3.9	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.043	0.19	PQL	ug/Kg	
SL-002-SA5DN-SS-0.0-0.5	Chlordane	J	1.6	3.6	PQL	ug/Kg	J (all detects)
SL-005-SA5DN-SS-0.0-0.5	DELTA-BHC	J	0.060	0.19	PQL	ug/Kg	J (all detects)
	ENDRIN	J	0.12	0.39	PQL	ug/Kg	
	gamma-BHC (Lindane)	J	0.056	0.19	PQL	ug/Kg	
SL-006-SA5DN-SS-0.0-0.5	Chlordane	J	2.1	4.1	PQL	ug/Kg	J (all detects)
SL-057-SA5DN-SS-0.0-0.5	Chlordane	J	1.9	3.9	PQL	ug/Kg	J (all detects)
SL-060-SA5DN-SS-0.0-0.5	gamma-BHC (Lindane)	J	0.068	0.18	PQL	ug/Kg	J (all detects)
SL-190-SA5DN-SS-0.0-0.5	Chlordane	J	2.4	4.0	PQL	ug/Kg	J (all detects)

**Method: 8082**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-005-SA5DN-SS-0.0-0.5	AROCLOR 1254	J	2.3	3.9	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	1.5	3.9	PQL	ug/Kg	
SL-057-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.3	2.0	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	1.6	3.8	PQL	ug/Kg	
SL-185-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	0.87	1.9	PQL	ug/Kg	J (all detects)
SL-190-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.7	2.0	PQL	ug/Kg	J (all detects)

## Reporting Limit Outliers

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: DE163\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8151A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-002-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.12	0.18	PQL	ug/Kg	J (all detects)
SL-057-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.18	0.20	PQL	ug/Kg	J (all detects)
SL-199-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.17	0.19	PQL	ug/Kg	J (all detects)

**Method:** 8270C

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-006-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	95	200	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	150	200	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	150	200	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	96	200	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	67	200	PQL	ug/Kg	
	CHRYSENE	J	120	200	PQL	ug/Kg	
	FLUORANTHENE	J	150	200	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	99	200	PQL	ug/Kg	
	PHENANTHRENE	J	42	200	PQL	ug/Kg	
	PYRENE	J	170	200	PQL	ug/Kg	
SL-185-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	30	370	PQL	ug/Kg	J (all detects)
SL-199-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	45	370	PQL	ug/Kg	J (all detects)

**Method:** 8270C SIM

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP06-SA5DN-QC-052411	BENZO(A)ANTHRACENE	J	4.3	9.9	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	5.0	9.9	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	7.9	9.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	4.4	9.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	4.1	9.9	PQL	ug/Kg	
	CHRYSENE	J	4.8	9.9	PQL	ug/Kg	
	FLUORANTHENE	J	6.7	9.9	PQL	ug/Kg	
	PYRENE	J	6.6	9.9	PQL	ug/Kg	
SL-001-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	7.0	9.5	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	43	100	PQL	ug/Kg	
	CHRYSENE	J	4.8	9.5	PQL	ug/Kg	
	FLUORANTHENE	J	6.9	9.5	PQL	ug/Kg	
	PYRENE	J	5.4	9.5	PQL	ug/Kg	
SL-002-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	6.0	8.8	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	69	95	PQL	ug/Kg	
	CHRYSENE	J	4.4	8.8	PQL	ug/Kg	
	FLUORANTHENE	J	4.6	8.8	PQL	ug/Kg	
	PYRENE	J	4.5	8.8	PQL	ug/Kg	



## Reporting Limit Outliers

Lab Reporting Batch ID: DE163

Laboratory: LL

EDD Filename: DE163\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8270C SIM

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-004-SA5DN-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	5.6	9.1	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	7.3	9.1	PQL	ug/Kg	
	BENZO(A)PYRENE	J	8.7	9.1	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	5.2	9.1	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	6.4	9.1	PQL	ug/Kg	
	PHENANTHRENE	J	4.9	9.1	PQL	ug/Kg	
SL-005-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	7.4	9.4	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	7.4	9.4	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	4.7	9.4	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	8.4	9.4	PQL	ug/Kg	
SL-057-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	8.2	9.6	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	9.2	9.6	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	4.7	9.6	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	9.2	9.6	PQL	ug/Kg	
	CHRYSENE	J	8.9	9.6	PQL	ug/Kg	
	PHENANTHRENE	J	4.4	9.6	PQL	ug/Kg	
SL-060-SA5DN-SS-0.0-0.5	ANTHRACENE	J	2.0	9.0	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	57	97	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	3.7	9.0	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	8.1	9.0	PQL	ug/Kg	
SL-185-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	4.8	9.2	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	2.8	9.2	PQL	ug/Kg	
	FLUORANTHENE	J	3.9	9.2	PQL	ug/Kg	
	PYRENE	J	3.9	9.2	PQL	ug/Kg	
SL-190-SA5DN-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.98	2.0	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.2	2.0	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.3	21	PQL	ug/Kg	
	CHRYSENE	J	1.7	2.0	PQL	ug/Kg	
	Di-n-butylphthalate	J	8.9	21	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.83	2.0	PQL	ug/Kg	
	NAPHTHALENE	J	1.4	2.0	PQL	ug/Kg	
	PHENANTHRENE	J	1.6	2.0	PQL	ug/Kg	
	PYRENE	J	1.8	2.0	PQL	ug/Kg	
SL-199-SA5DN-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.97	1.8	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.2	1.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.3	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	1.3	1.8	PQL	ug/Kg	

LDC #: 26275U4

## VALIDATION COMPLETENESS WORKSHEET

SDG #: DE163

ADR

Laboratory: Lancaster Laboratories

Date: 9/9/17

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

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	A	No find
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	Al, Ba, Ca, Fe, Mg, Mn, P, Ti, V, Zn > 4X
VII.	Duplicate Sample Analysis	SW	Hg, Na, Zr < 1X
VIII.	Laboratory Control Samples (LCS)	NA	SKM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Cr, V
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	N	
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-057-SA5DN-SS-0.0-0.5	11	SL-199-SA5DN-SS-0.0-0.5	21		31	
2	SL-185-SA5DN-SS-0.0-0.5	12	SL-057-SA5DN-SS-0.0-0.5MS	22		32	
3	DUP06-SA5DN-QC-052411	13	SL-057-SA5DN-SS-0.0-0.5MSD	23		33	
4	SL-001-SA5DN-SS-0.0-0.5	14	SL-057-SA5DN-SS-0.0-0.5DUP	24		34	
5	SL-002-SA5DN-SS-0.0-0.5	15		25		35	
6	SL-004-SA5DN-SS-0.0-0.5	16		26		36	
7	SL-005-SA5DN-SS-0.0-0.5	17		27		37	
8	SL-006-SA5DN-SS-0.0-0.5	18		28		38	
9	SL-060-SA5DN-SS-0.0-0.5	19		29		39	
10	SL-190-SA5DN-SS-0.0-0.5	20		30		40	

Notes: \* Sp 3 J/13 post spike 9/7.



QUALITY ASSURANCE SUMMARY  
FORM 5A (MS/MSD)  
MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
SDG No.: DB163  
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6298888BK Matrix Spike Lab Sample ID: 6298888MS Matrix Spike Duplicate Lab Sample ID: 6298890MSD  
% Solids for Sample: 86.6  
Batch ID(s): P15208B, P15726D, P15211B

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	MSD Spike Added	Units	MS		MSD		Control Limit	
		Result	C	Result	C	Result	C				%R	Q	%R	Q	%R	RPD M
Aluminum		33234.6964		38391.9296		40007.2114		230.9469	226.4185	MG/KG	2233		2991			20P
Antimony	121	0.0992	B	0.4892		0.4785		1.3453	1.3453	MG/KG	29	N	28	N	75 - 125	20MS
Arsenic	75	5.6786		8.7625		8.3903		2.2422	2.2422	MG/KG	138	N	121		75 - 125	20MS
Barium	137	122.4471		151.4160		147.4697		11.2110	11.2110	MG/KG	258		223			20MS
Beryllium	9	0.7429		1.5754		1.5693		0.8969	0.8969	MG/KG	93		92		75 - 125	20MS
Boron		8.5292		241.2275		235.5364		230.9469	226.4185	MG/KG	101		100		84 - 115	20P
Cadmium	111	0.3136		1.5487		1.5316		1.1211	1.1211	MG/KG	110		109		75 - 125	20MS
Calcium		6930.5574		7314.8279		7545.0403		461.8938	452.8370	MG/KG	83		136			20P
Chromium	52	27.3966		38.8574		39.7094		11.2110	11.2110	MG/KG	102		110		75 - 125	20MS
Cobalt	59	10.7254		67.4903		66.3916		56.0551	56.0551	MG/KG	101		99		75 - 125	20MS
Copper	63	22.7777		28.6105		27.5791		11.2110	11.2110	MG/KG	52	N	43	N	75 - 125	20MS
Iron		34769.5626		39853.1120		36377.2812		115.4734	113.2093	MG/KG	4402		1420			20P
Lead	208	13.0281		17.8905		16.5878		3.3633	3.3633	MG/KG	145	N	106		75 - 125	20MS
Lithium		28.4427		145.6767		144.9678		115.4734	113.2093	MG/KG	102		103		82 - 114	20P
Magnesium		8396.4237		8616.3176		8964.1681		230.9469	226.4185	MG/KG	95		251			20P
Manganese		477.2834		498.0127		543.8267		57.7367	56.6046	MG/KG	36		118			20P
Mercury		0.0185	B	0.2756		0.2089		0.1887	0.1899	MG/KG	136	N	100		65 - 135	20CV
Molybdenum	98	0.3294		10.0989		10.1863		11.2110	11.2110	MG/KG	87		88		75 - 125	20MS
Nickel	60	20.5180		34.6645		34.1487		11.2110	11.2110	MG/KG	126	N	122		75 - 125	20MS
Phosphorus		522.5852		592.6975		577.4793		115.4734	113.2093	MG/KG	61		48			20P
Potassium		5372.7483		6712.3591		6753.1110		1154.7344	1132.0926	MG/KG	116		122			20P
Selenium	78	0.1334	B	2.2960		2.2736		2.2422	2.2422	MG/KG	96		95		75 - 125	20MS
Silver	107	0.0417	B	11.0070		11.0541		11.2110	11.2110	MG/KG	98		98		75 - 125	20MS
Sodium		104.3042	B	1195.4284		1197.4075		1154.7344	1132.0926	MG/KG	94		97		75 - 125	20P
Strontium		36.2972		149.2506		148.1185		115.4734	113.2093	MG/KG	98		99		75 - 115	20P
Thallium	203	0.3417		0.7913		0.7453		0.4484	0.4484	MG/KG	100		90		75 - 125	20MS
Tin		2.7295	B	387.9619		381.7620		461.8938	452.8370	MG/KG	83		84		80 - 110	20P
Titanium		1477.1091		1722.7852		1747.0203		115.4734	113.2093	MG/KG	213		238			20P
Vanadium	51	52.3706		67.9612		68.7684		11.2110	11.2110	MG/KG	139		146			20MS
Zinc	66	69.7143		89.0379		88.9706		11.2110	11.2110	MG/KG	172		172			20MS
Zirconium		4.0201	B	112.6028		111.1522		115.4734	113.2093	MG/KG	94		95		75 - 125	20P

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



## QUALITY ASSURANCE SUMMARY

FORM 6

DUPLICATES

SDG No.: DE163

Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6298888BKG

% Solids for Duplicate: 86.5

Batch ID(s): P15208B, P15726D, P15211B

Concentration Units: MG/KG

Duplicate Lab Sample ID: 6298891DUP

% Solids for Sample: 86.6

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			33234.6964		32664.4936		2		P
Antimony	121		0.0992	B	0.0943	B	5		MS
Arsenic	75		5.6786		6.3042		10		MS
Barium	137		122.4471		133.5376		9		MS
Beryllium	9		0.7429		0.8234		10		MS
Boron		5.7	8.5292		9.6792		13		P
Cadmium	111	0.1	0.3136		0.3615		14		MS
Calcium			6930.5574		9479.1085		31	*	P
Chromium	52		27.3966		29.7258		8		MS
Cobalt	59		10.7254		11.1746		4		MS
Copper	63		22.7777		17.5977		26	*	MS
Iron			34769.5626		34825.0806		0		P
Lead	208		13.0281		11.9246		9		MS
Lithium			28.4427		27.5113		3		P
Magnesium			8396.4237		7494.7465		11		P
Manganese			477.2834		546.3517		13		P
Mercury			0.0185	B	0.0566	B	101		CV
Molybdenum	98	0.1	0.3294		0.3165		4		MS
Nickel	60		20.5180		23.4148		13		MS
Phosphorus			522.5852		1715.6975		107	*	P
Potassium			5372.7483		5069.8843		6		P
Selenium	78		0.1334	B	0.1296	B	3		MS
Silver	107		0.0417	B	0.0490	B	16		MS
Sodium		113.2	104.3042	B	151.3914		37		P
Strontium			36.2972		56.2379		43	*	P
Thallium	203	0.1	0.3417		0.3611		6		MS
Tin			2.7295	B	2.5964	B	5		P
Titanium			1477.1091		1313.0268		12		P
Vanadium	51		52.3706		57.1651		9		MS
Zinc	66		69.7143		76.5783		9		MS
Zirconium			4.0201	B	5.5782	B	32		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.

DE163 2829

## 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



## QUALITY ASSURANCE SUMMARY

FORM 9

SERIAL DILUTIONS

SDG No.: DE163

Matrix: SOIL

Level (low/med): LOW

Background Lab Sample ID: 6298888BKG

Serial Dilution Lab Sample ID: 6298888L

Batch ID(s): P15208B, P15726D

Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		293568.7200		288017.1500		2		P
Antimony	121	0.4381	B	1.5000	U	100		MS
Arsenic	75	25.0800		27.0150		8		MS
Barium	137	540.8000		522.5000		3		MS
Beryllium	9	3.2810		3.9145		19		MS
Boron		75.3400		44.5000	U	100		P
Cadmium	111	1.3850		1.6320	B	18		MS
Calcium		61219.0000		64565.5500		5		P
Chromium	52	121.0000		139.0000		15	E	MS
Cobalt	59	47.3700		48.5950		3		MS
Copper	63	100.6000		103.3000		3		MS
Iron		61425.3000		61858.5500		1		P
Lead	208	57.5400		57.9500		1		MS
Lithium		251.2400		244.6000		3		P
Magnesium		74167.2900		76098.3500		3		P
Manganese		4215.9400		4527.8500		7		P
Molybdenum	98	1.4550		1.4465	B	1		MS
Nickel	60	90.6200		96.8500		7		MS
Phosphorus		4616.1000		4740.2500		3		P
Potassium		47458.5600		48644.5000		2		P
Selenium	78	0.5891	B	1.0000	U	100		MS
Silver	107	0.1842	B	0.3000	U	100		MS
Sodium		921.3400	B	1865.0000	U	100		P
Strontium		320.6200		332.7000		4		P
Thallium	203	1.5090		1.2425	B	18		MS
Tin		24.1100	B	50.0000	U	100		P
Titanium		13047.6000		13789.6500		6		P
Vanadium	51	231.3000		263.4500		14	E	MS
Zinc	66	307.9000		311.1500		1		MS
Zirconium		35.5100	B	53.2000	B	50		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:

DE163 2834

U= Below MDL

B= Below LOQ

## FLAGS:

E = Matrix Effects exist as proven by  
Serial Dilution or Spiked Dilution

# **SAMPLE DELIVERY GROUP**

**DE164**

## **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
25-May-2011	EB07-SA5DN-SS-052511	6298922	EB	3005A	6010B	III
25-May-2011	EB07-SA5DN-SS-052511	6298922	EB	3020A	6020	III
25-May-2011	EB07-SA5DN-SS-052511	6298922	EB	3510C	8081A	III
25-May-2011	EB07-SA5DN-SS-052511	6298922	EB	3510C	8082	III
25-May-2011	EB07-SA5DN-SS-052511	6298922	EB	3510C	8270C	III
25-May-2011	EB07-SA5DN-SS-052511	6298922	EB	3510C	8270C SIM	III
25-May-2011	EB07-SA5DN-SS-052511	6298922	EB	Gen Prep	300.0	III
25-May-2011	EB07-SA5DN-SS-052511	6298922	EB	Gen Prep	314.0	III
25-May-2011	EB07-SA5DN-SS-052511	6298922	EB	Gen Prep	7199	III
25-May-2011	EB07-SA5DN-SS-052511	6298922	EB	METHOD	7470A	III
25-May-2011	EB07-SA5DN-SS-052511	6298922	EB	METHOD	8151A	III
25-May-2011	EB08-SA5DN-SB-052511	6298923	EB	3005A	6010B	III
25-May-2011	EB08-SA5DN-SB-052511	6298923	EB	3020A	6020	III
25-May-2011	EB08-SA5DN-SB-052511	6298923	EB	3510C	8082	III
25-May-2011	EB08-SA5DN-SB-052511	6298923	EB	5030B	8260B	III
25-May-2011	EB08-SA5DN-SB-052511	6298923	EB	5030B	8260B SIM	III
25-May-2011	EB08-SA5DN-SB-052511	6298923	EB	Gen Prep	300.0	III
25-May-2011	EB08-SA5DN-SB-052511	6298923	EB	Gen Prep	314.0	III
25-May-2011	EB08-SA5DN-SB-052511	6298923	EB	Gen Prep	7199	III
25-May-2011	EB08-SA5DN-SB-052511	6298923	EB	METHOD	7470A	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5	6298916	N	3050B	6010B	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5	6298916	N	3050B	6020	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5	6298916	N	3060A	7199	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5	6298916	N	3550B	8081A	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5	6298916	N	3550B	8082	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5	6298916	N	3550B	8151A	III



## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-May-2011	SL-201-SA5DN-SS-0.0-0.5	6298916	N	3550B	8270C	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5	6298916	N	3550B	8270C SIM	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5	6298916	N	METHOD	300.0	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5	6298916	N	METHOD	314.0	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5	6298916	N	METHOD	7471A	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5MS	6298917	MS	3050B	6010B	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5MS	6298917	MS	3050B	6020	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5MS	6298917	MS	3060A	7199	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5MS	6298917	MS	3550B	8081A	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5MS	6298917	MS	3550B	8082	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5MS	6298917	MS	3550B	8151A	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5MS	6298917	MS	3550B	8270C	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5MS	6298917	MS	3550B	8270C SIM	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5MS	6298917	MS	METHOD	300.0	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5MS	6298917	MS	METHOD	314.0	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5MS	6298917	MS	METHOD	7471A	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5DU	6298919	DUP	3050B	6010B	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5DU	6298919	DUP	3050B	6020	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5DU	6298919	DUP	3060A	7199	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5DU	6298919	DUP	METHOD	300.0	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5DU	6298919	DUP	METHOD	314.0	III
25-May-2011	SL-201-SA5DN-SS-0.0-0.5DU	6298919	DUP	METHOD	7471A	III
25-May-2011	DUP08-SA5DN-QC-052411	6298921	FD	3050B	6010B	III
25-May-2011	DUP08-SA5DN-QC-052411	6298921	FD	3050B	6020	III
25-May-2011	DUP08-SA5DN-QC-052411	6298921	FD	3060A	7199	III
25-May-2011	DUP08-SA5DN-QC-052411	6298921	FD	3550B	8081A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-May-2011	DUP08-SA5DN-QC-052411	6298921	FD	3550B	8082	III
25-May-2011	DUP08-SA5DN-QC-052411	6298921	FD	3550B	8151A	III
25-May-2011	DUP08-SA5DN-QC-052411	6298921	FD	3550B	8270C	III
25-May-2011	DUP08-SA5DN-QC-052411	6298921	FD	3550B	8270C SIM	III
25-May-2011	DUP08-SA5DN-QC-052411	6298921	FD	METHOD	300.0	III
25-May-2011	DUP08-SA5DN-QC-052411	6298921	FD	METHOD	314.0	III
25-May-2011	DUP08-SA5DN-QC-052411	6298921	FD	METHOD	7471A	III
25-May-2011	SL-200-SA5DN-SS-0.0-0.5	6298915	N	3050B	6010B	III
25-May-2011	SL-200-SA5DN-SS-0.0-0.5	6298915	N	3050B	6020	III
25-May-2011	SL-200-SA5DN-SS-0.0-0.5	6298915	N	3060A	7199	III
25-May-2011	SL-200-SA5DN-SS-0.0-0.5	6298915	N	3550B	8081A	III
25-May-2011	SL-200-SA5DN-SS-0.0-0.5	6298915	N	3550B	8082	III
25-May-2011	SL-200-SA5DN-SS-0.0-0.5	6298915	N	3550B	8151A	III
25-May-2011	SL-200-SA5DN-SS-0.0-0.5	6298915	N	3550B	8270C	III
25-May-2011	SL-200-SA5DN-SS-0.0-0.5	6298915	N	3550B	8270C SIM	III
25-May-2011	SL-200-SA5DN-SS-0.0-0.5	6298915	N	METHOD	300.0	III
25-May-2011	SL-200-SA5DN-SS-0.0-0.5	6298915	N	METHOD	314.0	III
25-May-2011	SL-200-SA5DN-SS-0.0-0.5	6298915	N	METHOD	7471A	III
25-May-2011	SL-205-SA5DN-SS-0.0-0.5	6298920	N	3050B	6010B	III
25-May-2011	SL-205-SA5DN-SS-0.0-0.5	6298920	N	3050B	6020	III
25-May-2011	SL-205-SA5DN-SS-0.0-0.5	6298920	N	3060A	7199	III
25-May-2011	SL-205-SA5DN-SS-0.0-0.5	6298920	N	3550B	8081A	III
25-May-2011	SL-205-SA5DN-SS-0.0-0.5	6298920	N	3550B	8082	III
25-May-2011	SL-205-SA5DN-SS-0.0-0.5	6298920	N	3550B	8151A	III
25-May-2011	SL-205-SA5DN-SS-0.0-0.5	6298920	N	3550B	8270C	III
25-May-2011	SL-205-SA5DN-SS-0.0-0.5	6298920	N	3550B	8270C SIM	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

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-May-2011	SL-205-SA5DN-SS-0.0-0.5	6298920	N	METHOD	300.0	III
25-May-2011	SL-205-SA5DN-SS-0.0-0.5	6298920	N	METHOD	314.0	III
25-May-2011	SL-205-SA5DN-SS-0.0-0.5	6298920	N	METHOD	7471A	III

## **Attachment II**

### **Overall Data Qualification Summary**

## Data Qualifier Summary

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>GENCHEM</b>
<b>Method:</b>	<b>300.0</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: DUP08-SA5DN-QC-052411			Collected: 5/25/2011 1:53:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		0.94	MDL	1.2	PQL	mg/Kg	J	Q, FD

Sample ID: SL-200-SA5DN-SS-0.0-0.5			Collected: 5/25/2011 2:10:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.4		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-201-SA5DN-SS-0.0-0.5			Collected: 5/25/2011 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
FLUORIDE	0.95	U	0.95	MDL	1.2	PQL	mg/Kg	UJ	Q, FD

Sample ID: SL-205-SA5DN-SS-0.0-0.5			Collected: 5/25/2011 2:27:00		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	U	0.93	MDL	1.2	PQL	mg/Kg	UJ	Q

<b>Method Category:</b>	<b>METALS</b>
<b>Method:</b>	<b>6010B</b>
<b>Matrix:</b>	<b>AQ</b>

Sample ID: EB07-SA5DN-SS-052511			Collected: 5/25/2011 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
MANGANESE	0.0010	J	0.00084	MDL	0.0050	PQL	mg/L	J	Z

<b>Method Category:</b>	<b>METALS</b>
<b>Method:</b>	<b>6010B</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: DUP08-SA5DN-QC-052411		Collected: 5/25/2011 1:53:00		Analysis Type: REA			Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.67	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	1.06	J	0.957	MDL	5.70	PQL	mg/Kg	J	Z, FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

10/4/2011 1:57:18 PM

ADR version 1.4.0.111

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## Data Qualifier Summary

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: SL-200-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 2:10:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	91.6	J	42.3	MDL	113	PQL	mg/Kg	J	Z
TIN	2.84	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	1.80	J	0.952	MDL	5.67	PQL	mg/Kg	J	Z

Sample ID: SL-201-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 1:45:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.82	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	2.13	J	0.975	MDL	5.80	PQL	mg/Kg	J	Z, FD

Sample ID: SL-205-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 2:27:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	109	J	43.0	MDL	115	PQL	mg/Kg	J	Z
TIN	2.69	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	1.32	J	0.969	MDL	5.77	PQL	mg/Kg	J	Z

**Method Category:** METALS

**Method:** 6020

**Matrix:** AQ

Sample ID: EB07-SA5DN-SS-052511

Collected: 5/25/2011 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
LEAD	0.000065	J	0.000052	MDL	0.0010	PQL	mg/L	U	B

Sample ID: EB08-SA5DN-SB-052511

Collected: 5/25/2011 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
LEAD	0.000052	J	0.000052	MDL	0.0010	PQL	mg/L	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: DUP08-SA5DN-QC-052411

Collected: 5/25/2011 1:53:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.300		0.0697	MDL	0.232	PQL	mg/Kg	J	Q
ARSENIC	6.34		0.0930	MDL	0.465	PQL	mg/Kg	J	E
CHROMIUM	29.5		0.139	MDL	0.465	PQL	mg/Kg	J	A
LEAD	13.7		0.0121	MDL	0.232	PQL	mg/Kg	J	E
SILVER	0.0348	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z
VANADIUM	55.1		0.0256	MDL	0.116	PQL	mg/Kg	J	A

Sample ID: DUP08-SA5DN-QC-052411

Collected: 5/25/2011 1:53:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.314	J	0.0465	MDL	0.465	PQL	mg/Kg	J	Z

Sample ID: DUP08-SA5DN-QC-052411

Collected: 5/25/2011 1:53:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.504		0.0581	MDL	0.116	PQL	mg/Kg	J	E

Sample ID: SL-200-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 2:10:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.291		0.0667	MDL	0.222	PQL	mg/Kg	J	Q
ARSENIC	6.64		0.0889	MDL	0.445	PQL	mg/Kg	J	E
CHROMIUM	30.1		0.133	MDL	0.445	PQL	mg/Kg	J	A
LEAD	12.7		0.0116	MDL	0.222	PQL	mg/Kg	J	E
SILVER	0.0420	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z
VANADIUM	55.6		0.0245	MDL	0.111	PQL	mg/Kg	J	A

Sample ID: SL-200-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 2:10:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.310	J	0.0445	MDL	0.445	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>
<b>Method:</b>	<b>6020</b>
<b>Matrix:</b>	<b>SO</b>

<b>Sample ID:</b> SL-200-SA5DN-SS-0.0-0.5		<b>Collected:</b> 5/25/2011 2:10:00		<b>Analysis Type:</b> REA7		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.533		0.0556	MDL	0.111	PQL	mg/Kg	J	E

<b>Sample ID:</b> SL-201-SA5DN-SS-0.0-0.5		<b>Collected:</b> 5/25/2011 1:45:00		<b>Analysis Type:</b> REA5		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.291		0.0703	MDL	0.234	PQL	mg/Kg	J	Q
ARSENIC	6.40		0.0937	MDL	0.469	PQL	mg/Kg	J	E
CHROMIUM	29.4		0.141	MDL	0.469	PQL	mg/Kg	J	A
LEAD	13.9		0.0122	MDL	0.234	PQL	mg/Kg	J	E
SILVER	0.0461	J	0.0141	MDL	0.117	PQL	mg/Kg	J	Z
VANADIUM	55.1		0.0258	MDL	0.117	PQL	mg/Kg	J	A

<b>Sample ID:</b> SL-201-SA5DN-SS-0.0-0.5		<b>Collected:</b> 5/25/2011 1:45:00		<b>Analysis Type:</b> REA6		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.316	J	0.0469	MDL	0.469	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-201-SA5DN-SS-0.0-0.5		<b>Collected:</b> 5/25/2011 1:45:00		<b>Analysis Type:</b> REA7		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.483		0.0586	MDL	0.117	PQL	mg/Kg	J	E

<b>Sample ID:</b> SL-205-SA5DN-SS-0.0-0.5		<b>Collected:</b> 5/25/2011 2:27:00		<b>Analysis Type:</b> REA5		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.290		0.0699	MDL	0.233	PQL	mg/Kg	J	Q
ARSENIC	6.23		0.0932	MDL	0.466	PQL	mg/Kg	J	E
CHROMIUM	29.1		0.140	MDL	0.466	PQL	mg/Kg	J	A
LEAD	13.5		0.0121	MDL	0.233	PQL	mg/Kg	J	E
SILVER	0.0388	J	0.0140	MDL	0.117	PQL	mg/Kg	J	Z
VANADIUM	54.6		0.0256	MDL	0.117	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>
<b>Method:</b>	<b>6020</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-205-SA5DN-SS-0.0-0.5			Collected: 5/25/2011 2:27:00		Analysis Type: REA6			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.300	J	0.0466	MDL	0.466	PQL	mg/Kg	J	Z

Sample ID: SL-205-SA5DN-SS-0.0-0.5			Collected: 5/25/2011 2:27:00		Analysis Type: REA7			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.504		0.0583	MDL	0.117	PQL	mg/Kg	J	E

<b>Method Category:</b>	<b>METALS</b>
<b>Method:</b>	<b>7199</b>
<b>Matrix:</b>	<b>AQ</b>

Sample ID: EB07-SA5DN-SS-052511			Collected: 5/25/2011 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
HEXAVALENT CHROMIUM	5.0	U	5.0	MDL	10.0	PQL	ug/L	UJ	H

Sample ID: EB08-SA5DN-SB-052511			Collected: 5/25/2011 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
HEXAVALENT CHROMIUM	5.0	U	5.0	MDL	10.0	PQL	ug/L	UJ	H

<b>Method Category:</b>	<b>METALS</b>
<b>Method:</b>	<b>7199</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: DUP08-SA5DN-QC-052411			Collected: 5/25/2011 1:53:00		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	0.23	MDL	1.2	PQL	mg/Kg	J	Z, FD

Sample ID: SL-200-SA5DN-SS-0.0-0.5			Collected: 5/25/2011 2:10:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.94	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>
<b>Method:</b>	<b>7199</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-201-SA5DN-SS-0.0-0.5			Collected: 5/25/2011 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	0.24	U	0.24	MDL	1.2	PQL	mg/Kg	UJ	FD

<b>Method Category:</b>	<b>METALS</b>
<b>Method:</b>	<b>7470A</b>
<b>Matrix:</b>	<b>AQ</b>

Sample ID: EB07-SA5DN-SS-052511			Collected: 5/25/2011 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	0.000046	U	0.000046	MDL	0.00020	PQL	mg/L	UJ	L

Sample ID: EB08-SA5DN-SB-052511		Collected: 5/25/2011 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	0.000046	U	0.000046	MDL	0.00020	PQL	mg/L	UJ	L

<b>Method Category:</b>	<b>METALS</b>
<b>Method:</b>	<b>7471A</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: DUP08-SA5DN-QC-052411			Collected: 5/25/2011 1:53:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0166	J	0.0033	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-200-SA5DN-SS-0.0-0.5			Collected: 5/25/2011 2:10:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0267	J	0.0033	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-201-SA5DN-SS-0.0-0.5			Collected: 5/25/2011 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
MERCURY	0.0165	J	0.0034	MDL	0.118	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

Sample ID: SL-205-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 2:27:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0137	J	0.0033	MDL	0.116	PQL	mg/Kg	J	Z

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

Sample ID: DUP08-SA5DN-QC-052411

Collected: 5/25/2011 1:53:00

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	1.8	J	0.93	MDL	4.0	PQL	ug/Kg	J	Z
DELTA-BHC	0.14	J	0.042	MDL	0.19	PQL	ug/Kg	J	Z
ENDOSULFAN II	0.20	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z, FD
ENDRIN ALDEHYDE	0.14	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z, FD

Sample ID: SL-200-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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
4,4'-DDT	0.35	J	0.076	MDL	0.39	PQL	ug/Kg	J	Z
Chlordane	1.9	J	0.92	MDL	3.9	PQL	ug/Kg	J	Z

Sample ID: SL-201-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 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
Chlordane	1.9	J	0.95	MDL	4.0	PQL	ug/Kg	J	Z
DELTA-BHC	0.14	J	0.043	MDL	0.20	PQL	ug/Kg	J	Z
ENDOSULFAN II	0.21	U	0.21	MDL	0.40	PQL	ug/Kg	UJ	FD
ENDRIN ALDEHYDE	0.12	U	0.12	MDL	0.40	PQL	ug/Kg	UJ	FD

Sample ID: SL-205-SA5DN-SS-0.0-0.5

Collected: 5/25/2011 2:27:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	3.6	J	0.93	MDL	4.0	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8082</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-200-SA5DN-SS-0.0-0.5      Collected: 5/25/2011 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
AROCOR 1260	1.1	J	0.45	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-205-SA5DN-SS-0.0-0.5      Collected: 5/25/2011 2:27:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCOR 1254	3.5	J	0.77	MDL	4.0	PQL	ug/Kg	J	Z
AROCOR 1260	3.0	J	0.91	MDL	4.0	PQL	ug/Kg	J	Z

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8151A</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: DUP08-SA5DN-QC-052411      Collected: 5/25/2011 1:53:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPA	970	U	970	MDL	970	PQL	ug/Kg	UJ	FD

Sample ID: SL-201-SA5DN-SS-0.0-0.5      Collected: 5/25/2011 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
MCPA	110	J	90	MDL	290	PQL	ug/Kg	J	Z, FD

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8270C</b>
<b>Matrix:</b>	<b>AQ</b>

Sample ID: EB07-SA5DN-SS-052511      Collected: 5/25/2011 12:30:00      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	16	PQL	ug/L	UJ	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8270C</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: DUP08-SA5DN-QC-052411			Collected: 5/25/2011 1:53:00		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	20	MDL	390	PQL	ug/Kg	U	B

Sample ID: SL-201-SA5DN-SS-0.0-0.5			Collected: 5/25/2011 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	1400	U	1400	MDL	3900	PQL	ug/Kg	UJ	Q
BIS(2-ETHYLHEXYL)PHTHALATE	30	J	20	MDL	390	PQL	ug/Kg	U	B

Sample ID: SL-205-SA5DN-SS-0.0-0.5		Collected: 5/25/2011 2:27:00		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	27	J	19	MDL	390	PQL	ug/Kg	U	B

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8270C SIM</b>
<b>Matrix:</b>	<b>AQ</b>

Sample ID: EB07-SA5DN-SS-052511			Collected: 5/25/2011 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-METHYLNAPHTHALENE	0.028	J	0.0098	MDL	0.049	PQL	ug/L	J	Z
2-METHYLNAPHTHALENE	0.028	J	0.0098	MDL	0.049	PQL	ug/L	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	0.21	J	0.049	MDL	0.98	PQL	ug/L	J	Z
Di-n-butylphthalate	0.063	J	0.049	MDL	0.98	PQL	ug/L	J	Z

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8270C SIM</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: DUP08-SA5DN-QC-052411		Collected: 5/25/2011 1:53:00		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	0.78	U	0.78	MDL	2.0	PQL	ug/Kg	UJ	FD
BENZO(A)ANTHRACENE	0.78	U	0.78	MDL	2.0	PQL	ug/Kg	UJ	FD
BENZO(A)PYRENE	0.81	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.78	U	0.78	MDL	2.0	PQL	ug/Kg	UJ	FD
Butylbenzylphthalate	11	J	7.0	MDL	21	PQL	ug/Kg	J	Z, FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8270C SIM</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: DUP08-SA5DN-QC-052411      Collected: 5/25/2011 1:53:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	1.4	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
FLUORANTHENE	1.3	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z, FD
INDENO(1,2,3-CD)PYRENE	0.78	U	0.78	MDL	2.0	PQL	ug/Kg	UJ	FD
NAPHTHALENE	0.89	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
PHENANTHRENE	1.0	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z, FD
PYRENE	0.97	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z, FD

Sample ID: SL-200-SA5DN-SS-0.0-0.5      Collected: 5/25/2011 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
CHRYSENE	1.1	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z
FLUORANTHENE	1.5	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.0	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.5	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	1.1	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-201-SA5DN-SS-0.0-0.5      Collected: 5/25/2011 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
2-METHYLNAPHTHALENE	0.93	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z, FD
BENZO(A)ANTHRACENE	0.87	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z, FD
BENZO(A)PYRENE	1.1	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.99	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z, FD
Butylbenzylphthalate	7.1	U	7.1	MDL	21	PQL	ug/Kg	UJ	FD
CHRYSENE	1.7	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
FLUORANTHENE	2.4		0.79	MDL	2.0	PQL	ug/Kg	J	FD
INDENO(1,2,3-CD)PYRENE	0.82	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z, FD
NAPHTHALENE	1.4	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z, Q, Q
PHENANTHRENE	2.0		0.79	MDL	2.0	PQL	ug/Kg	J	FD
PYRENE	1.9	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z, FD

Sample ID: SL-205-SA5DN-SS-0.0-0.5      Collected: 5/25/2011 2:27:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.84	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

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## Data Qualifier Summary

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8270C SIM	Matrix:	SO

Sample ID: SL-205-SA5DN-SS-0.0-0.5      Collected: 5/25/2011 2:27:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	0.79	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
Butylbenzylphthalate	9.5	J	7.0	MDL	21	PQL	ug/Kg	J	Z
FLUORANTHENE	1.4	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.1	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	0.98	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	1.1	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z

Method Category:	VOA		
Method:	8260B	Matrix:	AQ

Sample ID: EB08-SA5DN-SB-052511      Collected: 5/25/2011 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	2	J	2	MDL	5	PQL	ug/L	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

## Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	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	Laboratory Triplicate Precision
E	Matrix Spike Precision

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_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	Laboratory Triplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

Q	Matrix Spike Upper Rejection
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

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE164

## QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 7199 Preparation Method: Gen Prep  
Matrix: AQ

Sample ID	Type	Actual	Criteria	Units	Flag
EB07-SA5DN-SS-052511 (RES)	Sampling To Analysis	25.00	24.00	HOURS	J (all detects)
EB08-SA5DN-SB-052511 (RES)		25.00	24.00	HOURS	UJ (all non-detects)

Method: 9040B Preparation Method: Gen Prep  
Matrix: AQ

Sample ID	Type	Actual	Criteria	Units	Flag
EB07-SA5DN-SS-052511 (RES)	Sampling To Analysis	174.00	48.00	HOURS	No Qualifiers Applied
EB08-SA5DN-SB-052511 (RES)		174.00	48.00	HOURS	

# Method Blank Outlier Report

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method: 6010B</b>				
<b>Matrix: AQ</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P14748CB222255	5/31/2011 10:55:00 PM	MAGNESIUM	0.0211 mg/L	EB07-SA5DN-SS-052511 EB08-SA5DN-SB-052511

<b>Method: 6010B</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15708BB220800	6/7/2011 8:00:00 AM	CALCIUM PHOSPHORUS TIN	6.81 mg/Kg 1.17 mg/Kg 1.38 mg/Kg	DUP08-SA5DN-QC-052411 SL-200-SA5DN-SS-0.0-0.5 SL-201-SA5DN-SS-0.0-0.5 SL-205-SA5DN-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
DUP08-SA5DN-QC-052411(REA)	TIN	2.67 mg/Kg	2.67U mg/Kg
SL-200-SA5DN-SS-0.0-0.5(REA)	TIN	2.84 mg/Kg	2.84U mg/Kg
SL-201-SA5DN-SS-0.0-0.5(REA)	TIN	2.82 mg/Kg	2.82U mg/Kg
SL-205-SA5DN-SS-0.0-0.5(REA)	TIN	2.69 mg/Kg	2.69U mg/Kg

<b>Method: 6020</b>				
<b>Matrix: AQ</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P14750CB220953A	6/1/2011 9:53:00 AM	LEAD	0.000055 mg/L	EB07-SA5DN-SS-052511 EB08-SA5DN-SB-052511

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
EB07-SA5DN-SS-052511(RES)	LEAD	0.000065 mg/L	0.000065U mg/L
EB08-SA5DN-SB-052511(RES)	LEAD	0.000052 mg/L	0.000052U mg/L

<b>Method: 8081A</b>				
<b>Matrix: AQ</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P46460AB240550A	6/3/2011 5:50:00 AM	ENDOSULFAN II	0.59 ug/L	EB07-SA5DN-SS-052511

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## Method Blank Outlier Report

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLF15B260623	6/10/2011 6:23:00 AM	BIS(2-ETHYLHEXYL)PHTHALATE	19 ug/Kg	DUP08-SA5DN-QC-052411 SL-200-SA5DN-SS-0.0-0.5 SL-201-SA5DN-SS-0.0-0.5 SL-205-SA5DN-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
DUP08-SA5DN-QC-052411(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	27 ug/Kg	390U ug/Kg
SL-201-SA5DN-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	30 ug/Kg	390U ug/Kg
SL-205-SA5DN-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	27 ug/Kg	390U ug/Kg

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_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-201-SA5DN-SS-0.0-0.5MSD (SL-201-SA5DN-SS-0.0-0.5)	DINOSEB	-	-	10.00-46.00	43 (35.00)	DINOSEB	J (all detects)

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

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-201-SA5DN-SS-0.0-0.5MS SL-201-SA5DN-SS-0.0-0.5MSD (SL-201-SA5DN-SS-0.0-0.5)	BENZIDINE	21	20	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-201-SA5DN-SS-0.0-0.5MS SL-201-SA5DN-SS-0.0-0.5MSD (SL-201-SA5DN-SS-0.0-0.5)	NAPHTHALENE	107	-	61.00-102.00	31 (30.00)	NAPHTHALENE	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-201-SA5DN-SS-0.0-0.5MS (DUP08-SA5DN-QC-052411 SL-200-SA5DN-SS-0.0-0.5 SL-201-SA5DN-SS-0.0-0.5 SL-205-SA5DN-SS-0.0-0.5)	FLUORIDE	75	-	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-201-SA5DN-SS-0.0-0.5MS SL-201-SA5DN-SS-0.0-0.5MSD (DUP08-SA5DN-QC-052411 SL-200-SA5DN-SS-0.0-0.5 SL-201-SA5DN-SS-0.0-0.5 SL-205-SA5DN-SS-0.0-0.5)	ANTIMONY	39	37	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)



# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_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-201-SA5DN-SS-0.0-0.5MS SL-201-SA5DN-SS-0.0-0.5MSD (DUP08-SA5DN-QC-052411 SL-200-SA5DN-SS-0.0-0.5 SL-201-SA5DN-SS-0.0-0.5 SL-205-SA5DN-SS-0.0-0.5)	ALUMINUM MAGNESIUM POTASSIUM TITANIUM	4015 506 183 464	3538 411 164 429	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ALUMINUM MAGNESIUM POTASSIUM TITANIUM	No Qual, >4x
SL-201-SA5DN-SS-0.0-0.5MS SL-201-SA5DN-SS-0.0-0.5MSD (DUP08-SA5DN-QC-052411 SL-200-SA5DN-SS-0.0-0.5 SL-201-SA5DN-SS-0.0-0.5 SL-205-SA5DN-SS-0.0-0.5)	CALCIUM IRON	-26 -803	-94 166	75.00-125.00 75.00-125.00	- -	CALCIUM IRON	No Qual, >4x
SL-201-SA5DN-SS-0.0-0.5MSD (DUP08-SA5DN-QC-052411 SL-200-SA5DN-SS-0.0-0.5 SL-201-SA5DN-SS-0.0-0.5 SL-205-SA5DN-SS-0.0-0.5)	MANGANESE	-	50	75.00-125.00	-	MANGANESE	No Qual, >4x

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 300.0  
**Matrix:** SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-201-SA5DN-SS-0.0-0.5DUP (DUP08-SA5DN-QC-052411 SL-200-SA5DN-SS-0.0-0.5 SL-201-SA5DN-SS-0.0-0.5 SL-205-SA5DN-SS-0.0-0.5)	FLUORIDE	200	20.00	No Qual, OK by difference

**Method:** 6010B  
**Matrix:** SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-201-SA5DN-SS-0.0-0.5DUP (DUP08-SA5DN-QC-052411 SL-200-SA5DN-SS-0.0-0.5 SL-201-SA5DN-SS-0.0-0.5 SL-205-SA5DN-SS-0.0-0.5)	Zirconium	31	20.00	No Qual, OK by difference

**Method:** 6020  
**Matrix:** SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-201-SA5DN-SS-0.0-0.5DUP (DUP08-SA5DN-QC-052411 SL-200-SA5DN-SS-0.0-0.5 SL-201-SA5DN-SS-0.0-0.5 SL-205-SA5DN-SS-0.0-0.5)	ANTIMONY ARSENIC CADMIUM LEAD MOLYBDENUM SELENIUM SILVER	63 37 25 25 0.8938 56 22	20.00 20.00 20.00 20.00 0.234 20.00 20.00	J(all detects) UJ(all non-detects) Sb, Cd, Se, Ag No Qual, OK by difference

**Method:** 7471A  
**Matrix:** SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-201-SA5DN-SS-0.0-0.5DUP (DUP08-SA5DN-QC-052411 SL-200-SA5DN-SS-0.0-0.5 SL-201-SA5DN-SS-0.0-0.5 SL-205-SA5DN-SS-0.0-0.5)	MERCURY	66	20.00	No Qual, OK by difference

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 8081A**

**Matrix: AQ**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11460AY240614A (EB07-SA5DN-SS-052511)	HEPTACHLOR	-	130	57.00-126.00	-	HEPTACHLOR	J (all detects)

**Method: 8151A**

**Matrix: AQ**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11516AQ241612A (EB07-SA5DN-SS-052511)	MCPP	140	-	67.00-137.00	-	MCPP	J(all detects)

**Method: 8270C**

**Matrix: AQ**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P1WFLCSY260101 (EB07-SA5DN-SS-052511)	BENZOIC ACID	-	-	10.00-69.00	83 (30.00)	BENZOIC ACID	J(all detects) UJ(all non-detects)

**Method: 7470A**

**Matrix: AQ**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P15213DY222331 (EB07-SA5DN-SS-052511 EB08-SA5DN-SB-052511)	MERCURY	-	89	90.00-115.00	-	MERCURY	J(all detects) UJ(all non-detects)

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 160.3M

Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-201-SA5DN-SS-0.0-0.5	DUP08-SA5DN-QC-052411			
MOISTURE	15.5	14.8	5		No Qualifiers Applied

Method: 300.0

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-201-SA5DN-SS-0.0-0.5	DUP08-SA5DN-QC-052411			
FLUORIDE	1.2 U	1.3	200	50.00	J(all detects) UJ(all non-detects)

Method: 6010B

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-201-SA5DN-SS-0.0-0.5	DUP08-SA5DN-QC-052411			
ALUMINUM	27600	27200	1	50.00	No Qualifiers Applied
BORON	21.9	21.4	2	50.00	
CALCIUM	34400	32900	4	50.00	
IRON	33800	33000	2	50.00	
LITHIUM	23.2	23.7	2	50.00	
MAGNESIUM	8020	7980	0	50.00	
MANGANESE	440	418	5	50.00	
PHOSPHORUS	694	694	0	50.00	
POTASSIUM	7380	7370	0	50.00	
SODIUM	121	116	4	50.00	
STRONTIUM	73.6	69.6	6	50.00	
TIN	2.82	2.67	5	50.00	
TITANIUM	1210	1180	3	50.00	
Zirconium	2.13	1.06	67	50.00	J(all detects)

Method: 6020

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-201-SA5DN-SS-0.0-0.5	DUP08-SA5DN-QC-052411			
ANTIMONY	0.291	0.300	3	50.00	No Qualifiers Applied
ARSENIC	6.40	6.34	1	50.00	
BARIUM	118	119	1	50.00	
BERYLLIUM	0.724	0.694	4	50.00	
CADMIUM	0.387	0.393	2	50.00	
CHROMIUM	29.4	29.5	0	50.00	
COBALT	10.7	10.4	3	50.00	
COPPER	18.5	18.5	0	50.00	
LEAD	13.9	13.7	1	50.00	
MOLYBDENUM	0.483	0.504	4	50.00	
NICKEL	20.9	21.0	0	50.00	
SELENIUM	0.316	0.314	1	50.00	
SILVER	0.0461	0.0348	28	50.00	
THALLIUM	0.401	0.380	5	50.00	
VANADIUM	55.1	55.1	0	50.00	
ZINC	81.4	78.8	3	50.00	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Field Duplicate RPD Report

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 7199

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-201-SA5DN-SS-0.0-0.5	DUP08-SA5DN-QC-052411			
HEXAVALENT CHROMIUM	1.2 U	0.60	200	50.00	J(all detects) UJ(all non-detects)

Method: 7471A

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-201-SA5DN-SS-0.0-0.5	DUP08-SA5DN-QC-052411			
MERCURY	0.0165	0.0166	1	50.00	No Qualifiers Applied

Method: 8081A

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-201-SA5DN-SS-0.0-0.5	DUP08-SA5DN-QC-052411			
4,4'-DDE	1.1	1.0	10	50.00	No Qualifiers Applied
4,4'-DDT	1.3	1.3	0	50.00	
Chlordane	1.9	1.8	5	50.00	
DELTA-BHC	0.14	0.14	0	50.00	
ENDOSULFAN II	0.40 U	0.20	200	50.00	J(all detects) UJ(all non-detects)
ENDRIN ALDEHYDE	0.40 U	0.14	200	50.00	

Method: 8082

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-201-SA5DN-SS-0.0-0.5	DUP08-SA5DN-QC-052411			
AROCLOR 1254	3.1	4.7	41	50.00	No Qualifiers Applied
AROCLOR 1260	2.3	2.8	20	50.00	

Method: 8151A

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-201-SA5DN-SS-0.0-0.5	DUP08-SA5DN-QC-052411			
MCPA	110	970 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-201-SA5DN-SS-0.0-0.5	DUP08-SA5DN-QC-052411			
BENZO(A)PYRENE	1.1	0.81	30	50.00	No Qualifiers Applied
BENZO(B)FLUORANTHENE	4.9	4.0	20	50.00	
CHRYSENE	1.7	1.4	19	50.00	
NAPHTHALENE	1.4	0.89	45	50.00	

## Field Duplicate RPD Report

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method: 8270C SIM</b>					
<b>Matrix: SO</b>					
2-METHYLNAPHTHALENE	0.93	2.0 U	200	50.00	J(all detects) UJ(all non-detects)
BENZO(A)ANTHRACENE	0.87	2.0 U	200	50.00	
BENZO(G,H,I)PERYLENE	0.99	2.0 U	200	50.00	
Butylbenzylphthalate	21 U	11	200	50.00	
FLUORANTHENE	2.4	1.3	59	50.00	
INDENO(1,2,3-CD)PYRENE	0.82	2.0 U	200	50.00	
PHENANTHRENE	2.0	1.0	67	50.00	
PYRENE	1.9	0.97	65	50.00	

<b>Method: 8270C</b>					
<b>Matrix: SO</b>					

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-201-SA5DN-SS-0.0- 0.5	DUP08-SA5DN-QC- 052411			
BIS(2-ETHYLHEXYL)PHTHALATE	30	27	11	50.00	No Qualifiers Applied

<b>Method: 9045M</b>					
<b>Matrix: SO</b>					

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-201-SA5DN-SS-0.0- 0.5	DUP08-SA5DN-QC- 052411			
PH	8.09	8.02	1	50.00	No Qualifiers Applied

## Reporting Limit Outliers

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6010B

**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB07-SA5DN-SS-052511	MANGANESE	J	0.0010	0.0050	PQL	mg/L	J (all detects)

**Method:** 6020

**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB07-SA5DN-SS-052511	LEAD	J	0.000065	0.0010	PQL	mg/L	J (all detects)
EB08-SA5DN-SB-052511	LEAD	J	0.000052	0.0010	PQL	mg/L	J (all detects)

**Method:** 8260B

**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB08-SA5DN-SB-052511	METHYLENE CHLORIDE	J	2	5	PQL	ug/L	J (all detects)

**Method:** 8270C SIM

**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB07-SA5DN-SS-052511	1-METHYLNAPHTHALENE	J	0.028	0.049	PQL	ug/L	J (all detects)
	2-METHYLNAPHTHALENE	J	0.028	0.049	PQL	ug/L	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.21	0.98	PQL	ug/L	
	Di-n-butylphthalate	J	0.063	0.98	PQL	ug/L	

**Method:** 6010B

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP08-SA5DN-QC-052411	TIN	J	2.67	11.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.06	5.70	PQL	mg/Kg	
SL-200-SA5DN-SS-0.0-0.5	SODIUM	J	91.6	113	PQL	mg/Kg	J (all detects)
	TIN	J	2.84	11.3	PQL	mg/Kg	
	Zirconium	J	1.80	5.67	PQL	mg/Kg	
SL-201-SA5DN-SS-0.0-0.5	TIN	J	2.82	11.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.13	5.80	PQL	mg/Kg	
SL-205-SA5DN-SS-0.0-0.5	SODIUM	J	109	115	PQL	mg/Kg	J (all detects)
	TIN	J	2.69	11.5	PQL	mg/Kg	
	Zirconium	J	1.32	5.77	PQL	mg/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6020

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP08-SA5DN-QC-052411	SELENIUM	J	0.314	0.465	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0348	0.116	PQL	mg/Kg	
SL-200-SA5DN-SS-0.0-0.5	SELENIUM	J	0.310	0.445	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0420	0.111	PQL	mg/Kg	
SL-201-SA5DN-SS-0.0-0.5	SELENIUM	J	0.316	0.469	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0461	0.117	PQL	mg/Kg	
SL-205-SA5DN-SS-0.0-0.5	SELENIUM	J	0.300	0.466	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0388	0.117	PQL	mg/Kg	

**Method:** 7199

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP08-SA5DN-QC-052411	HEXAVALENT CHROMIUM	J	0.60	1.2	PQL	mg/Kg	J (all detects)
SL-200-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.94	1.2	PQL	mg/Kg	J (all detects)

**Method:** 7471A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP08-SA5DN-QC-052411	MERCURY	J	0.0166	0.114	PQL	mg/Kg	J (all detects)
SL-200-SA5DN-SS-0.0-0.5	MERCURY	J	0.0267	0.114	PQL	mg/Kg	J (all detects)
SL-201-SA5DN-SS-0.0-0.5	MERCURY	J	0.0165	0.118	PQL	mg/Kg	J (all detects)
SL-205-SA5DN-SS-0.0-0.5	MERCURY	J	0.0137	0.116	PQL	mg/Kg	J (all detects)

**Method:** 8081A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP08-SA5DN-QC-052411	Chlordane	J	1.8	4.0	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.14	0.19	PQL	ug/Kg	
	ENDOSULFAN II	J	0.20	0.40	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.14	0.40	PQL	ug/Kg	
SL-200-SA5DN-SS-0.0-0.5	4,4'-DDT	J	0.35	0.39	PQL	ug/Kg	J (all detects)
	Chlordane	J	1.9	3.9	PQL	ug/Kg	
SL-201-SA5DN-SS-0.0-0.5	Chlordane	J	1.9	4.0	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.14	0.20	PQL	ug/Kg	
SL-205-SA5DN-SS-0.0-0.5	Chlordane	J	3.6	4.0	PQL	ug/Kg	J (all detects)



## Reporting Limit Outliers

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8082

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-200-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.1	2.0	PQL	ug/Kg	J (all detects)
SL-205-SA5DN-SS-0.0-0.5	AROCLOR 1254	J	3.5	4.0	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	3.0	4.0	PQL	ug/Kg	

**Method:** 8151A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-201-SA5DN-SS-0.0-0.5	MCPA	J	110	290	PQL	ug/Kg	J (all detects)

**Method:** 8270C

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP08-SA5DN-QC-052411	BIS(2-ETHYLHEXYL)PHthalate	J	27	390	PQL	ug/Kg	J (all detects)
SL-201-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHthalate	J	30	390	PQL	ug/Kg	J (all detects)
SL-205-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHthalate	J	27	390	PQL	ug/Kg	J (all detects)

**Method:** 8270C SIM

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP08-SA5DN-QC-052411	BENZO(A)PYRENE	J	0.81	2.0	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	11	21	PQL	ug/Kg	
	CHRYSENE	J	1.4	2.0	PQL	ug/Kg	
	FLUORANTHENE	J	1.3	2.0	PQL	ug/Kg	
	NAPHTHALENE	J	0.89	2.0	PQL	ug/Kg	
	PHENANTHRENE	J	1.0	2.0	PQL	ug/Kg	
	PYRENE	J	0.97	2.0	PQL	ug/Kg	
SL-200-SA5DN-SS-0.0-0.5	CHRYSENE	J	1.1	1.9	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	1.5	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.0	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.5	1.9	PQL	ug/Kg	
	PYRENE	J	1.1	1.9	PQL	ug/Kg	
SL-201-SA5DN-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.93	2.0	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	0.87	2.0	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.1	2.0	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.99	2.0	PQL	ug/Kg	
	CHRYSENE	J	1.7	2.0	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.82	2.0	PQL	ug/Kg	
	NAPHTHALENE	J	1.4	2.0	PQL	ug/Kg	
	PYRENE	J	1.9	2.0	PQL	ug/Kg	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE164

Laboratory: LL

EDD Filename: DE164\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8270C SIM

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-205-SA5DN-SS-0.0-0.5	BENZO(A)PYRENE	J	0.84	1.9	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	0.79	1.9	PQL	ug/Kg	
	Butylbenzylphthalate	J	9.5	21	PQL	ug/Kg	
	FLUORANTHENE	J	1.4	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.1	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	0.98	1.9	PQL	ug/Kg	
	PYRENE	J	1.1	1.9	PQL	ug/Kg	

LDC #: 26275V4

## VALIDATION COMPLETENESS WORKSHEET

SDG #: DE164

ADR

Laboratory: Lancaster Laboratories

Date: 9/29/11

Page: (of 1)

Reviewer: my

2nd Reviewer: OR

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	A	No find
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	Al, Ca, Fe, Mg, Mn, K, Ti > 4X
VII.	Duplicate Sample Analysis	SW	Sb, Cd, Hg, Se, Ag, Zr < 5X. No difference
VIII.	Laboratory Control Samples (LCS)	A	SRM 0.8938 (± 0.23%) mg/g
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	CV.
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV.	Field Blanks	SW	2B = 5, 6, (No find > 5X)

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinstate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

Validated Samples:

1	SL-200-SA5DN-SS-0.0-0.5	11		21		31	
2	SL-201-SA5DN-SS-0.0-0.5	12		22		32	
3	SL-205-SA5DN-SS-0.0-0.5	13		23		33	
4	DUP08-SA5DN-QC-052411	14		24		34	
5	EB07-SA5DN-SS-052511	15		25		35	
6	EB08-SA5DN-SB-052511	16		26		36	
7	SL-201-SA5DN-SS-0.0-0.5MS	17		27		37	
8	SL-201-SA5DN-SS-0.0-0.5MSD	18		28		38	
9	SL-201-SA5DN-SS-0.0-0.5DUP	19		29		39	
10		20		30		40	

Notes:



## QUALITY ASSURANCE SUMMARY

FORM 5A (MS/MSD)

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

SDG No.: DE164

Matrix: SOIL

Level (low/med): LOW

Background Lab Sample ID: 6298916BKG Matrix Spike Lab Sample ID: 6298917MS Matrix Spike Duplicate Lab Sample ID: 6298918MSD  
& Solids for Sample: 84.5

Batch Id(s): P15708B, P15726E, P15711A

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	MSD Spike Added	Units	MS		MSD		Control Limit	
		Result	C	Result	C	Result	C				%R	Q	%R	Q	%R	RPD
Aluminum		27612.4202		37021.6217		35903.0090		234.3430	234.3430	MG/KG	4015		3538			
Antimony	121	0.2913		0.8346		0.8024		1.3788	1.3923	MG/KG	39 N		37 N		75 - 125	20P
Arsenic	75	6.4022		9.0377		9.1147		2.2979	2.3205	MG/KG	115		117		75 - 125	20MS
Barium	137	117.6402		128.1783		130.1079		11.4896	11.6023	MG/KG	92		107		75 - 125	20MS
Beryllium	9	0.7237		1.4369		1.4554		0.9192	0.9282	MG/KG	78		79		75 - 125	20MS
Boron		21.9237		265.1684		255.4327		234.3430	234.3430	MG/KG	104		100		84 - 115	20P
Cadmium	111	0.3874		1.5022		1.5477		1.1490	1.1602	MG/KG	97		100		75 - 125	20MS
Calcium		34412.8112		34291.8812		33972.4284		468.6859	468.6859	MG/KG	-26		-94			20P
Chromium	52	29.4335		39.9380		40.3295		11.4896	11.6023	MG/KG	91		94		75 - 125	20MS
Cobalt	59	10.7212		64.9394		64.9727		57.4482	58.0114	MG/KG	94		94		75 - 125	20MS
Copper	63	18.5342		29.0228		29.4002		11.4896	11.6023	MG/KG	91		94		75 - 125	20MS
Iron		33849.8260		32908.8230		34044.5252		117.1715	117.1715	MG/KG	-803		166			20P
Lead	208	13.8989		17.0782		17.1064		3.4469	3.4807	MG/KG	92		92			20MS
Lithium		23.1906		151.1254		147.4544		117.1715	117.1715	MG/KG	109		106		82 - 114	20P
Magnesium		8018.8003		9203.8069		8982.6750		234.3430	234.3430	MG/KG	506		411			20P
Manganese		440.3597		491.7875		469.7100		58.5857	58.5857	MG/KG	88		50			20P
Mercury		0.0165 B		0.2198		0.2052		0.1928	0.1954	MG/KG	105		97		65 - 135	20CV
Molybdenum	98	0.4827		11.3954		11.5721		11.4896	11.6023	MG/KG	95		96		75 - 125	20MS
Nickel	60	20.8800		32.2169		32.3471		11.4896	11.6023	MG/KG	99		99		75 - 125	20MS
Phosphorus		694.3172		806.8827		796.6067		117.1715	117.1715	MG/KG	96		87			20P
Potassium		7376.6887		9522.4782		9297.1855		1171.7148	1171.7148	MG/KG	183		164			20P
Selenium	78	0.3161 B		2.4588		2.4434		2.2979	2.3205	MG/KG	93		92		75 - 125	20MS
Silver	107	0.0461 B		11.3426		11.6255		11.4896	11.6023	MG/KG	98		100		75 - 125	20MS
Sodium		120.7576		1301.4377		1276.2025		1171.7148	1171.7148	MG/KG	101		99		75 - 125	20P
Strontium		73.5770		189.5647		182.3282		117.1715	117.1715	MG/KG	99		93		75 - 115	20P
Thallium	203	0.4012		0.8397		0.7934		0.4596	0.4641	MG/KG	95		85		75 - 125	20MS
Tin		2.8228 B		402.0435		388.7551		468.6859	468.6859	MG/KG	85		82		80 - 110	20P
Titanium		1206.1098		1749.4218		1709.0726		117.1715	117.1715	MG/KG	464		429			20P
Vanadium	51	55.1175		67.0535		68.6158		11.4896	11.6023	MG/KG	104		116			20MS
Zinc	66	81.4107		91.2506		91.4955		11.4896	11.6023	MG/KG	86		87			20MS
Zirconium		2.1279 B		92.4647		92.9978		117.1715	117.1715	MG/KG	77		78		75 - 125	20P

## 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



## QUALITY ASSURANCE SUMMARY

FORM 6

DUPLICATES

SDG No.: DE164

Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6298916BKG

% Solids for Duplicate: 84.7

Batch ID(s): P15708B, P15726E, P15711A

Concentration Units: MG/KG

Duplicate Lab Sample ID: 6298919DUP

% Solids for Sample: 84.5

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			27612.4202		28482.3828		3		P
Antimony	121	0.2	0.2913		0.5620		63	*	MS
Arsenic	75		6.4022		9.3305		37	*	MS
Barium	137		117.6402		110.6161		6		MS
Beryllium	9		0.7237		0.8442		15		MS
Boron		5.8	21.9237		22.4602		2		P
Cadmium	111	0.1	0.3874		0.4975		25		MS
Calcium			34412.8112		30512.8334		12		P
Chromium	52		29.4335		27.5206		7		MS
Cobalt	59		10.7212		12.2334		13		MS
Copper	63		18.5342		21.0442		13		MS
Iron			33849.8260		34079.5175		1		P
Lead	208		13.8989		17.7956		25	*	MS
Lithium			23.1906		24.7212		6		P
Magnesium			8018.8003		8096.8798		1		P
Manganese			440.3597		427.9483		3		P
Mercury			0.0165	B	0.0083	B	66		CV
Molybdenum	98	0.1	0.4827		1.3765		96	*	MS
Nickel	60		20.8800		24.8521		17		MS
Phosphorus			694.3172		689.1340		1		P
Potassium			7376.6887		7434.6359		1		P
Selenium	78	0.5	0.3161	B	0.5592		56		MS
Silver	107		0.0461	B	0.0369	B	22		MS
Sodium		116.0	120.7576		117.0744		3		P
Strontium			73.5770		68.7858		7		P
Thallium	203	0.1	0.4012		0.3529		13		MS
Tin			2.8228	B	2.6673	B	6		P
Titanium			1206.1098		1252.6195		4		P
Vanadium	51		55.1175		57.2224		4		MS
Zinc	66		81.4107		90.4977		11		MS
Zirconium			2.1279	B	2.9028	B	31		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.

DE164 2885

## 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



# QUALITY ASSURANCE SUMMARY

FORM 9

SERIAL DILUTIONS

SDG No.: DE164

Matrix: SOIL

Level (low/med): LOW

Background Lab Sample ID: 6298916BKG

Serial Dilution Lab Sample ID: 6298916L

Batch ID(s): P15708B, P15726E

Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		237991.4500		238959.6500		0		P
Antimony	121	1.2430		1.5000	U	100		MS
Arsenic	75	27.3200		27.5800		1		MS
Barium	137	502.0000		498.8500		1		MS
Beryllium	9	3.0880		3.5010		13		MS
Boron		188.9600		220.7000	B	17		P
Cadmium	111	1.6530		1.5080	B	9		MS
Calcium		296604.0200		313274.9500		6		P
Chromium	52	125.6000		146.5500		17	E	MS
Cobalt	59	45.7500		47.1450		3		MS
Copper	63	79.0900		82.0500		4		MS
Iron		58350.3300		57969.7500		1		P
Lead	208	59.3100		59.9000		1		MS
Lithium		199.8800		192.5000		4		P
Magnesium		69114.0400		71476.0500		3		P
Manganese		3795.4600		4065.2500		7		P
Molybdenum	98	2.0600		2.5100		22		MS
Nickel	60	89.1000		91.3500		3		MS
Phosphorus		5984.3200		6170.3500		3		P
Potassium		63579.6800		64068.7000		1		P
Selenium	78	1.3490	B	1.4040	B	4		MS
Silver	107	0.1968	B	0.3000	U	100		MS
Sodium		1040.8100		1865.0000	U	100		P
Strontium		634.1600		669.4500		6		P
Thallium	203	1.7120		1.5100	B	12		MS
Tin		24.3300	B	50.0000	U	100		P
Titanium		10395.4600		11102.9500		7		P
Vanadium	51	235.2000		270.7500		15	E	MS
Zinc	66	347.4000		355.5500		2		MS
Zirconium		18.3400	B	42.0000	U	100		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:

DE164 2827

U= Below MDL

B= Below LOQ

## FLAGS:

E = Matrix Effects exist as proven by  
Serial Dilution or Spiked Dilution

# **SAMPLE DELIVERY GROUP**

**DE166**

## **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-May-2011	TB-052611	6300344	TB	5030B	8260B	III
26-May-2011	TB-052611	6300344	TB	5030B	8260B SIM	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3050B	6010B	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3050B	6020	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3060A	7199	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3546	1625C	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3550B	8015B	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3550B	8015M	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3550B	8081A	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3550B	8082	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3550B	8151A	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3550B	8270C	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3550B	8270C SIM	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	8330	8330A	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	METHOD	300.0	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	METHOD	314.0	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	METHOD	6850	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	METHOD	7471A	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	METHOD	8015B	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	METHOD	8015M	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	METHOD	8315A	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	METHOD	9012B	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5DU	P300354D270911B	DUP	METHOD	9012B	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5MS	P300354R270915B	MS	METHOD	9012B	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	3050B	6010B	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	3050B	6020	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	3060A	7199	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	3550B	8082	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	3550B	8270C	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	3550B	8270C SIM	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	5035	8260B	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	5035	8260B SIM	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	METHOD	300.0	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	METHOD	314.0	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	METHOD	7471A	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	METHOD	8015M	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	3050B	6010B	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	3050B	6020	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	3060A	7199	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	3550B	8081A	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	3550B	8082	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	3550B	8151A	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	3550B	8270C	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	3550B	8270C SIM	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	METHOD	300.0	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	METHOD	314.0	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	METHOD	7471A	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3050B	6010B	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3050B	6020	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3060A	7199	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3546	1625C	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3550B	8015B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3550B	8015M	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3550B	8081A	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3550B	8082	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3550B	8151A	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3550B	8270C	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3550B	8270C SIM	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	8330	8330A	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	METHOD	300.0	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	METHOD	314.0	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	METHOD	7471A	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	METHOD	8015B	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	METHOD	8015M	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	METHOD	8315A	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	METHOD	9012B	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5MS	P300348R320502A	MS	3550B	8015B	III
26-May-2011	SL-008-SA8N-SB-9.0-10.0	6300342	N	3050B	6010B	III
26-May-2011	SL-008-SA8N-SB-9.0-10.0	6300342	N	3050B	6020	III
26-May-2011	SL-008-SA8N-SB-9.0-10.0	6300342	N	3060A	7199	III
26-May-2011	SL-008-SA8N-SB-9.0-10.0	6300342	N	3550B	8082	III
26-May-2011	SL-008-SA8N-SB-9.0-10.0	6300342	N	3550B	8270C	III
26-May-2011	SL-008-SA8N-SB-9.0-10.0	6300342	N	3550B	8270C SIM	III
26-May-2011	SL-008-SA8N-SB-9.0-10.0	6300342	N	METHOD	300.0	III
26-May-2011	SL-008-SA8N-SB-9.0-10.0	6300342	N	METHOD	314.0	III
26-May-2011	SL-008-SA8N-SB-9.0-10.0	6300342	N	METHOD	7471A	III
26-May-2011	SL-008-SA8N-SB-9.0-10.0	6300342	N	METHOD	8015M	III
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	3050B	6010B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	3050B	6020	III
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	3060A	7199	III
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	3550B	8081A	III
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	3550B	8082	III
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	3550B	8151A	III
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	3550B	8270C	III
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	3550B	8270C SIM	III
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	METHOD	300.0	III
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	METHOD	314.0	III
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	METHOD	7471A	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	3050B	6010B	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	3050B	6020	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	3060A	7199	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	3550B	8081A	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	3550B	8082	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	3550B	8151A	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	3550B	8270C	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	3550B	8270C SIM	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	METHOD	300.0	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	METHOD	314.0	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	METHOD	7471A	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5DU	P300350D271020B	DUP	METHOD	314.0	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5DU	P300350D272337B	DUP	METHOD	300.0	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5MS	P300350R270018B	MS	METHOD	300.0	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5MS	P300350R271042B	MS	METHOD	314.0	III
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	3050B	6010B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	3050B	6020	III
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	3060A	7199	III
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	3550B	8081A	III
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	3550B	8082	III
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	3550B	8151A	III
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	3550B	8270C	III
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	3550B	8270C SIM	III
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	METHOD	300.0	III
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	METHOD	314.0	III
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	METHOD	7471A	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3050B	6010B	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3050B	6020	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3060A	7199	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3546	1625C	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3550B	8015B	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3550B	8015M	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3550B	8081A	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3550B	8082	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3550B	8151A	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3550B	8270C	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3550B	8270C SIM	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	8330	8330A	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	METHOD	300.0	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	METHOD	314.0	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	METHOD	7471A	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	METHOD	8015B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	METHOD	8015M	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	METHOD	8315A	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	METHOD	9012B	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5MS	P300352R320238A	MS	METHOD	8015B	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	3050B	6010B	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	3050B	6020	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	3060A	7199	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	3550B	8081A	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	3550B	8082	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	3550B	8151A	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	3550B	8270C	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	3550B	8270C SIM	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	METHOD	300.0	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	METHOD	314.0	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	METHOD	6850	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	METHOD	7471A	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	3005A	6010B	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	3020A	6020	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	3510C	8015B	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	3510C	8015M	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	3510C	8081A	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	3510C	8082	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	3510C	8270C	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	3510C	8270C SIM	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	3520C	1625C	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	8330	8330A	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

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	Gen Prep	300.0	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	Gen Prep	314.0	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	Gen Prep	7199	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	Gen Prep	8015B	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	Gen Prep	8015M	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	METHOD	7470A	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	METHOD	8151A	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	METHOD	8315A	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	METHOD	9012B	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	3005A	6010B	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	3020A	6020	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	3510C	8082	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	3510C	8270C	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	3510C	8270C SIM	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	5030B	8260B	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	5030B	8260B SIM	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	Gen Prep	300.0	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	Gen Prep	314.0	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	Gen Prep	7199	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	METHOD	7470A	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	3050B	6010B	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	3050B	6020	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	3060A	7199	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	3550B	8081A	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	3550B	8082	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	3550B	8151A	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

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	3550B	8270C	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	3550B	8270C SIM	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	METHOD	300.0	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	METHOD	314.0	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	METHOD	6850	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	METHOD	7471A	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	3050B	6010B	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	3050B	6020	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	3060A	7199	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	3550B	8081A	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	3550B	8082	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	3550B	8151A	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	3550B	8270C	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	3550B	8270C SIM	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	METHOD	300.0	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	METHOD	314.0	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	METHOD	6850	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	METHOD	7471A	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	3050B	6010B	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	3050B	6020	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	3060A	7199	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	3550B	8082	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	3550B	8270C	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	3550B	8270C SIM	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	5035	8260B	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	5035	8260B SIM	III



## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	METHOD	300.0	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	METHOD	314.0	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	METHOD	7471A	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	METHOD	8015M	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	3050B	6010B	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	3050B	6020	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	3060A	7199	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	3550B	8082	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	3550B	8270C	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	3550B	8270C SIM	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	5035	8260B	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	5035	8260B SIM	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	METHOD	314.0	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	METHOD	7471A	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	METHOD	8015M	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MSD	6300338	MSD	3050B	6010B	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MSD	6300338	MSD	3050B	6020	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MSD	6300338	MSD	3550B	8082	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MSD	6300338	MSD	3550B	8270C	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MSD	6300338	MSD	3550B	8270C SIM	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MSD	6300338	MSD	5035	8260B	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MSD	6300338	MSD	5035	8260B SIM	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MSD	6300338	MSD	METHOD	7471A	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MSD	6300338	MSD	METHOD	8015M	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0DUP	6300339	DUP	3050B	6010B	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0DUP	6300339	DUP	3050B	6020	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-May-2011	SL-002-SA8N-SB-4.0-5.0DUP	6300339	DUP	3060A	7199	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0DUP	6300339	DUP	METHOD	300.0	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0DUP	6300339	DUP	METHOD	314.0	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0DUP	6300339	DUP	METHOD	7471A	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	P300336R272039A	MS	METHOD	300.0	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	3050B	6010B	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	3050B	6020	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	3060A	7199	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	3550B	8081A	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	3550B	8082	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	3550B	8151A	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	3550B	8270C	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	3550B	8270C SIM	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	METHOD	300.0	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	METHOD	314.0	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	METHOD	6850	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	METHOD	7471A	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	3050B	6010B	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	3050B	6020	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	3060A	7199	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	3550B	8082	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	3550B	8270C	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	3550B	8270C SIM	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	5035	8260B	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	5035	8260B SIM	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	METHOD	300.0	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

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	METHOD	314.0	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	METHOD	7471A	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	METHOD	8015M	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	3050B	6010B	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	3050B	6020	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	3060A	7199	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	3550B	8081A	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	3550B	8082	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	3550B	8151A	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	3550B	8270C	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	3550B	8270C SIM	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	METHOD	300.0	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	METHOD	314.0	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	METHOD	6850	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	METHOD	7471A	III
26-May-2011	SL-002-SA8N-SB-9.0-10.0	6300340	N	3050B	6010B	III
26-May-2011	SL-002-SA8N-SB-9.0-10.0	6300340	N	3050B	6020	III
26-May-2011	SL-002-SA8N-SB-9.0-10.0	6300340	N	3060A	7199	III
26-May-2011	SL-002-SA8N-SB-9.0-10.0	6300340	N	3550B	8082	III
26-May-2011	SL-002-SA8N-SB-9.0-10.0	6300340	N	3550B	8270C	III
26-May-2011	SL-002-SA8N-SB-9.0-10.0	6300340	N	3550B	8270C SIM	III
26-May-2011	SL-002-SA8N-SB-9.0-10.0	6300340	N	METHOD	300.0	III
26-May-2011	SL-002-SA8N-SB-9.0-10.0	6300340	N	METHOD	314.0	III
26-May-2011	SL-002-SA8N-SB-9.0-10.0	6300340	N	METHOD	7471A	III
26-May-2011	SL-002-SA8N-SB-9.0-10.0	6300340	N	METHOD	8015M	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	3050B	6010B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	3050B	6020	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	3060A	7199	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	3550B	8081A	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	3550B	8082	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	3550B	8151A	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	3550B	8270C	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	3550B	8270C SIM	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	METHOD	300.0	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	METHOD	314.0	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	METHOD	6850	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	METHOD	7471A	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	3050B	6010B	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	3050B	6020	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	3060A	7199	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	3550B	8081A	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	3550B	8082	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	3550B	8151A	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	3550B	8270C	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	3550B	8270C SIM	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	METHOD	300.0	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	METHOD	314.0	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	METHOD	7471A	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	3050B	6010B	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	3050B	6020	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	3060A	7199	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	3550B	8081A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	3550B	8082	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	3550B	8151A	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	3550B	8270C	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	3550B	8270C SIM	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	METHOD	300.0	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	METHOD	314.0	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	METHOD	7471A	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5MS	P300345R240512A	MS	3550B	8081A	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5MS	P300345R242058A	MS	3550B	8151A	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

Sample ID: DUP09-SA8N-QC-052611

Collected: 5/26/2011 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	4.3		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-002-SA8N-SB-4.0-5.0

Collected: 5/26/2011 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
FLUORIDE	4.6		0.96	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-002-SA8N-SB-9.0-10.0

Collected: 5/26/2011 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
FLUORIDE	5.3		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-008-SA8N-SB-4.0-5.0

Collected: 5/26/2011 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	3.8		0.95	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-008-SA8N-SB-9.0-10.0

Collected: 5/26/2011 9:40:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.2		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-164-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 3:55:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.1	J	0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-165-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
FLUORIDE	2.1		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-170-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
FLUORIDE	0.82	U	0.82	MDL	1.0	PQL	mg/Kg	UJ	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

10/11/2011 3:29:17 PM

ADR version 1.4.0.111

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>GENCHEM</b>
<b>Method:</b>	<b>300.0</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-171-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 9:35:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.85	U	0.85	MDL	1.1	PQL	mg/Kg	UJ	Q
Nitrate-NO3	1.3	J	0.85	MDL	1.6	PQL	mg/Kg	J	Z

Sample ID: SL-172-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 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	1.1	J	0.86	MDL	1.1	PQL	mg/Kg	J	Q

<b>Method Category:</b>	<b>METALS</b>
<b>Method:</b>	<b>6010B</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: DUP09-SA8N-QC-052611		Collected: 5/26/2011 2:45:00		Analysis Type: REA		Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3730		20.8	MDL	57.9	PQL	mg/Kg	J	Q
TIN	2.64	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	3.92	J	0.972	MDL	5.79	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA8N-SB-4.0-5.0			Collected: 5/26/2011 2:20:00		Analysis Type: REA			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3770		21.5	MDL	59.7	PQL	mg/Kg	J	Q
TIN	2.72	J	1.19	MDL	11.9	PQL	mg/Kg	U	B
Zirconium	4.41	J	1.00	MDL	5.97	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA8N-SB-9.0-10.0			Collected: 5/26/2011 2:50:00		Analysis Type: REA			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3010		21.0	MDL	58.4	PQL	mg/Kg	J	Q
TIN	2.44	J	1.17	MDL	11.7	PQL	mg/Kg	U	B
Zirconium	3.57	J	0.981	MDL	5.84	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** SL-008-SA8N-SB-4.0-5.0

**Collected:** 5/26/2011 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
POTASSIUM	4750		20.6	MDL	57.2	PQL	mg/Kg	J	Q
TIN	2.53	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	3.48	J	0.960	MDL	5.72	PQL	mg/Kg	J	Z

**Sample ID:** SL-008-SA8N-SB-9.0-10.0

**Collected:** 5/26/2011 9:40:00

**Analysis Type:** REA

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.46	J	1.01	MDL	5.65	PQL	mg/Kg	J	Z
POTASSIUM	2830		20.3	MDL	56.5	PQL	mg/Kg	J	Q
TIN	2.65	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	2.78	J	0.949	MDL	5.65	PQL	mg/Kg	J	Z

**Sample ID:** SL-164-SA5DN-SS-0.0-0.5

**Collected:** 5/26/2011 3:55:00

**Analysis Type:** REA

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	4800		19.4	MDL	53.9	PQL	mg/Kg	J	Q
SODIUM	67.9	J	40.2	MDL	108	PQL	mg/Kg	J	Z
TIN	2.45	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	3.03	J	0.905	MDL	5.39	PQL	mg/Kg	J	Z

**Sample ID:** SL-165-SA5DN-SS-0.0-0.5

**Collected:** 5/26/2011 3:30:00

**Analysis Type:** REA

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3760		19.0	MDL	52.7	PQL	mg/Kg	J	Q
SODIUM	75.2	J	39.3	MDL	105	PQL	mg/Kg	J	Z
TIN	2.37	J	1.05	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	2.07	J	0.886	MDL	5.27	PQL	mg/Kg	J	Z

**Sample ID:** SL-170-SA5DN-SS-0.0-0.5

**Collected:** 5/26/2011 10:00:00

**Analysis Type:** REA

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.06	J	0.890	MDL	5.00	PQL	mg/Kg	J	Z
POTASSIUM	2890		18.0	MDL	50.0	PQL	mg/Kg	J	Q
SODIUM	56.5	J	37.3	MDL	100	PQL	mg/Kg	J	Z
TIN	2.23	J	1.00	MDL	10.0	PQL	mg/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>
<b>Method:</b>	<b>6010B</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-170-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 10:00:00		Analysis Type: REA			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	0.906	J	0.840	MDL	5.00	PQL	mg/Kg	J	Z

Sample ID: SL-171-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 9:35:00		Analysis Type: REA			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.71	J	0.928	MDL	5.21	PQL	mg/Kg	J	Z
POTASSIUM	4130		18.8	MDL	52.1	PQL	mg/Kg	J	Q
SODIUM	82.3	J	38.9	MDL	104	PQL	mg/Kg	J	Z
TIN	2.24	J	1.04	MDL	10.4	PQL	mg/Kg	U	B

Sample ID: SL-172-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 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
BORON	4.94	J	0.932	MDL	5.24	PQL	mg/Kg	J	Z
POTASSIUM	3020		18.9	MDL	52.4	PQL	mg/Kg	J	Q
SODIUM	91.7	J	39.1	MDL	105	PQL	mg/Kg	J	Z
TIN	2.17	J	1.05	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	3.31	J	0.880	MDL	5.24	PQL	mg/Kg	J	Z

Sample ID: SL-173-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 10:20:00		Analysis Type: REA			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.90	J	0.909	MDL	5.10	PQL	mg/Kg	J	Z
POTASSIUM	2820		18.4	MDL	51.0	PQL	mg/Kg	J	Q
SODIUM	63.1	J	38.1	MDL	102	PQL	mg/Kg	J	Z
TIN	2.37	J	1.02	MDL	10.2	PQL	mg/Kg	U	B

Sample ID: SL-174-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 10:53:00		Analysis Type: REA			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.86	J	0.908	MDL	5.10	PQL	mg/Kg	J	Z
POTASSIUM	4290		18.4	MDL	51.0	PQL	mg/Kg	J	Q
TIN	2.34	J	1.02	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	1.27	J	0.857	MDL	5.10	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6010B

Matrix: SO

Sample ID: SL-175-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 11:15:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.38	J	0.927	MDL	5.21	PQL	mg/Kg	J	Z
POTASSIUM	3070		18.8	MDL	52.1	PQL	mg/Kg	J	Q
SODIUM	66.4	J	38.9	MDL	104	PQL	mg/Kg	J	Z
TIN	2.16	J	1.04	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	1.33	J	0.875	MDL	5.21	PQL	mg/Kg	J	Z

Sample ID: SL-176-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 11:35:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.60	J	0.891	MDL	5.01	PQL	mg/Kg	J	Z
POTASSIUM	2560		18.0	MDL	50.1	PQL	mg/Kg	J	Q
SODIUM	61.7	J	37.4	MDL	100	PQL	mg/Kg	J	Z
TIN	4.84	J	1.00	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	1.06	J	0.841	MDL	5.01	PQL	mg/Kg	J	Z

Sample ID: SL-179-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 8:50:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.23	J	0.933	MDL	5.24	PQL	mg/Kg	J	Z
POTASSIUM	3040		18.9	MDL	52.4	PQL	mg/Kg	J	Q
SODIUM	72.2	J	39.1	MDL	105	PQL	mg/Kg	J	Z
TIN	2.39	J	1.05	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	1.76	J	0.881	MDL	5.24	PQL	mg/Kg	J	Z

Sample ID: SL-180-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 1:45:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.69	J	0.912	MDL	5.12	PQL	mg/Kg	J	Z
POTASSIUM	3170		18.4	MDL	51.2	PQL	mg/Kg	J	Q
SODIUM	84.5	J	38.2	MDL	102	PQL	mg/Kg	J	Z
TIN	2.40	J	1.02	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	1.67	J	0.861	MDL	5.12	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** SL-181-SA5DN-SS-0.0-0.5

**Collected:** 5/26/2011 2:00:00

**Analysis Type:** REA

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.59	J	0.912	MDL	5.13	PQL	mg/Kg	J	Z
POTASSIUM	3450		18.5	MDL	51.3	PQL	mg/Kg	J	Q
SODIUM	82.8	J	38.2	MDL	103	PQL	mg/Kg	J	Z
TIN	2.27	J	1.03	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	1.90	J	0.861	MDL	5.13	PQL	mg/Kg	J	Z

**Sample ID:** SL-182-SA5DN-SS-0.0-0.5

**Collected:** 5/26/2011 2:25:00

**Analysis Type:** REA

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.95	J	0.917	MDL	5.15	PQL	mg/Kg	J	Z
POTASSIUM	3190		18.6	MDL	51.5	PQL	mg/Kg	J	Q
SODIUM	96.7	J	38.4	MDL	103	PQL	mg/Kg	J	Z
TIN	2.15	J	1.03	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	1.92	J	0.866	MDL	5.15	PQL	mg/Kg	J	Z

**Sample ID:** SL-183-SA5DN-SS-0.0-0.5

**Collected:** 5/26/2011 2:45:00

**Analysis Type:** REA

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.11	J	0.886	MDL	4.98	PQL	mg/Kg	J	Z
POTASSIUM	3140		17.9	MDL	49.8	PQL	mg/Kg	J	Q
TIN	2.44	J	0.996	MDL	9.96	PQL	mg/Kg	U	B

**Sample ID:** SL-184-SA5DN-SS-0.0-0.5

**Collected:** 5/26/2011 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
BORON	3.51	J	0.908	MDL	5.10	PQL	mg/Kg	J	Z
POTASSIUM	3200		18.4	MDL	51.0	PQL	mg/Kg	J	Q
SODIUM	78.2	J	38.1	MDL	102	PQL	mg/Kg	J	Z
TIN	2.19	J	1.02	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	1.87	J	0.857	MDL	5.10	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>
<b>Method:</b>	<b>6020</b>
<b>Matrix:</b>	<b>AQ</b>

Sample ID: EB09-SA5DN-SS-052611			Collected: 5/26/2011 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
LEAD	0.000071	J	0.000052	MDL	0.0010	PQL	mg/L	U	B

Sample ID: EB11-SA8N-SB-052611			Collected: 5/26/2011 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
LEAD	0.000062	J	0.000052	MDL	0.0010	PQL	mg/L	U	B

<b>Method Category:</b>	<b>METALS</b>
<b>Method:</b>	<b>6020</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: DUP09-SA8N-QC-052611			Collected: 5/26/2011 2:45:00		Analysis Type: REA5			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.129	J	0.0675	MDL	0.225	PQL	mg/Kg	J	Z, Q
LEAD	11.7		0.0117	MDL	0.225	PQL	mg/Kg	J	Q, A
SILVER	0.0304	J	0.0135	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: DUP09-SA8N-QC-052611			Collected: 5/26/2011 2:45:00		Analysis Type: REA6			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	6.89		0.0900	MDL	0.450	PQL	mg/Kg	J	Q
CHROMIUM	33.6		0.135	MDL	0.450	PQL	mg/Kg	J	Q, A
NICKEL	28.5		0.112	MDL	0.450	PQL	mg/Kg	J	Q
VANADIUM	68.6		0.0247	MDL	0.112	PQL	mg/Kg	J	A

Sample ID: DUP09-SA8N-QC-052611			Collected: 5/26/2011 2:45:00		Analysis Type: REA7			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.140	J	0.0450	MDL	0.450	PQL	mg/Kg	J	Z

Sample ID: DUP09-SA8N-QC-052611			Collected: 5/26/2011 2:45:00		Analysis Type: REA9			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	129		0.121	MDL	0.450	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-002-SA8N-SB-4.0-5.0

Collected: 5/26/2011 2:20:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.140	J	0.0683	MDL	0.228	PQL	mg/Kg	J	Z, Q
LEAD	10.2		0.0118	MDL	0.228	PQL	mg/Kg	J	Q, A
SILVER	0.0264	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA8N-SB-4.0-5.0

Collected: 5/26/2011 2:20:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	6.98		0.0910	MDL	0.455	PQL	mg/Kg	J	Q
CHROMIUM	31.8		0.137	MDL	0.455	PQL	mg/Kg	J	Q, A
NICKEL	23.0		0.114	MDL	0.455	PQL	mg/Kg	J	Q
VANADIUM	63.9		0.0250	MDL	0.114	PQL	mg/Kg	J	A

Sample ID: SL-002-SA8N-SB-4.0-5.0

Collected: 5/26/2011 2:20:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.147	J	0.0455	MDL	0.455	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA8N-SB-4.0-5.0

Collected: 5/26/2011 2:20:00

Analysis Type: REA9

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	113		0.123	MDL	0.455	PQL	mg/Kg	J	A

Sample ID: SL-002-SA8N-SB-9.0-10.0

Collected: 5/26/2011 2:50:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.139	J	0.0701	MDL	0.234	PQL	mg/Kg	J	Z, Q
LEAD	11.5		0.0121	MDL	0.234	PQL	mg/Kg	J	Q, A
SILVER	0.0453	J	0.0140	MDL	0.117	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA8N-SB-9.0-10.0

Collected: 5/26/2011 2:50:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	6.73		0.0934	MDL	0.467	PQL	mg/Kg	J	Q
CHROMIUM	33.3		0.140	MDL	0.467	PQL	mg/Kg	J	Q, A
NICKEL	24.6		0.117	MDL	0.467	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-002-SA8N-SB-9.0-10.0

Collected: 5/26/2011 2:50:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	65.9		0.0257	MDL	0.117	PQL	mg/Kg	J	A

Sample ID: SL-002-SA8N-SB-9.0-10.0

Collected: 5/26/2011 2:50:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0898	J	0.0467	MDL	0.467	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA8N-SB-9.0-10.0

Collected: 5/26/2011 2:50:00

Analysis Type: REA9

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	117		0.126	MDL	0.467	PQL	mg/Kg	J	A

Sample ID: SL-008-SA8N-SB-4.0-5.0

Collected: 5/26/2011 9:15:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.128	J	0.0686	MDL	0.229	PQL	mg/Kg	J	Z, Q
LEAD	8.93		0.0119	MDL	0.229	PQL	mg/Kg	J	Q, A
SILVER	0.0372	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-008-SA8N-SB-4.0-5.0

Collected: 5/26/2011 9:15:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	6.32		0.0915	MDL	0.457	PQL	mg/Kg	J	Q
CHROMIUM	29.8		0.137	MDL	0.457	PQL	mg/Kg	J	Q, A
NICKEL	19.2		0.114	MDL	0.457	PQL	mg/Kg	J	Q
VANADIUM	56.6		0.0252	MDL	0.114	PQL	mg/Kg	J	A

Sample ID: SL-008-SA8N-SB-4.0-5.0

Collected: 5/26/2011 9:15:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.125	J	0.0457	MDL	0.457	PQL	mg/Kg	J	Z

Sample ID: SL-008-SA8N-SB-4.0-5.0

Collected: 5/26/2011 9:15:00

Analysis Type: REA9

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	100		0.123	MDL	0.457	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-008-SA8N-SB-9.0-10.0

Collected: 5/26/2011 9:40:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0814	J	0.0671	MDL	0.224	PQL	mg/Kg	J	Z, Q
LEAD	6.58		0.0116	MDL	0.224	PQL	mg/Kg	J	Q, A
SILVER	0.0394	J	0.0134	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: SL-008-SA8N-SB-9.0-10.0

Collected: 5/26/2011 9:40:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	5.39		0.0895	MDL	0.447	PQL	mg/Kg	J	Q
CHROMIUM	25.5		0.134	MDL	0.447	PQL	mg/Kg	J	Q, A
NICKEL	17.2		0.112	MDL	0.447	PQL	mg/Kg	J	Q
VANADIUM	49.5		0.0246	MDL	0.112	PQL	mg/Kg	J	A

Sample ID: SL-008-SA8N-SB-9.0-10.0

Collected: 5/26/2011 9:40:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0529	J	0.0447	MDL	0.447	PQL	mg/Kg	J	Z

Sample ID: SL-008-SA8N-SB-9.0-10.0

Collected: 5/26/2011 9:40:00

Analysis Type: REA9

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	86.3		0.121	MDL	0.447	PQL	mg/Kg	J	A

Sample ID: SL-164-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 3:55:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.179	J	0.0640	MDL	0.213	PQL	mg/Kg	J	Z, Q
LEAD	11.4		0.0111	MDL	0.213	PQL	mg/Kg	J	Q, A
SILVER	0.0410	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-164-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 3:55:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	10.1		0.0854	MDL	0.427	PQL	mg/Kg	J	Q
CHROMIUM	24.5		0.128	MDL	0.427	PQL	mg/Kg	J	Q, A
NICKEL	18.5		0.107	MDL	0.427	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-164-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 3:55:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	48.7		0.0235	MDL	0.107	PQL	mg/Kg	J	A

Sample ID: SL-164-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 3:55:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.221	J	0.0427	MDL	0.427	PQL	mg/Kg	J	Z

Sample ID: SL-164-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 3:55:00

Analysis Type: REA9

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	106		0.115	MDL	0.427	PQL	mg/Kg	J	A

Sample ID: SL-165-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 3:30:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0721	J	0.0626	MDL	0.209	PQL	mg/Kg	J	Z, Q
LEAD	9.29		0.0109	MDL	0.209	PQL	mg/Kg	J	Q, A
SILVER	0.0647	J	0.0125	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-165-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 3:30:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	5.30		0.0835	MDL	0.418	PQL	mg/Kg	J	Q
CHROMIUM	21.7		0.125	MDL	0.418	PQL	mg/Kg	J	Q, A
NICKEL	15.4		0.104	MDL	0.418	PQL	mg/Kg	J	Q
VANADIUM	43.3		0.0230	MDL	0.104	PQL	mg/Kg	J	A

Sample ID: SL-165-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 3:30:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.128	J	0.0418	MDL	0.418	PQL	mg/Kg	J	Z

Sample ID: SL-165-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 3:30:00

Analysis Type: REA9

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	98.4		0.113	MDL	0.418	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-170-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 10:00:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0588	U	0.0588	MDL	0.196	PQL	mg/Kg	UJ	Q
CADMIUM	0.0683	J	0.0392	MDL	0.0981	PQL	mg/Kg	J	Z
LEAD	3.56		0.0102	MDL	0.196	PQL	mg/Kg	J	Q, A

Sample ID: SL-170-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 10:00:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	3.48		0.0785	MDL	0.392	PQL	mg/Kg	J	Q
CHROMIUM	16.5		0.118	MDL	0.392	PQL	mg/Kg	J	Q, A
NICKEL	11.5		0.0981	MDL	0.392	PQL	mg/Kg	J	Q
VANADIUM	31.2		0.0216	MDL	0.0981	PQL	mg/Kg	J	A

Sample ID: SL-170-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 10:00:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0474	J	0.0392	MDL	0.392	PQL	mg/Kg	J	Z

Sample ID: SL-170-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 10:00:00

Analysis Type: REA9

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	67.2		0.106	MDL	0.392	PQL	mg/Kg	J	A

Sample ID: SL-171-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 9:35:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0646	J	0.0626	MDL	0.209	PQL	mg/Kg	J	Z, Q
LEAD	12.2		0.0108	MDL	0.209	PQL	mg/Kg	J	Q, A

Sample ID: SL-171-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 9:35:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	13.4		0.0834	MDL	0.417	PQL	mg/Kg	J	Q
CHROMIUM	16.3		0.125	MDL	0.417	PQL	mg/Kg	J	Q, A
NICKEL	13.3		0.104	MDL	0.417	PQL	mg/Kg	J	Q
VANADIUM	33.8		0.0229	MDL	0.104	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-171-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 9:35:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0725	J	0.0417	MDL	0.417	PQL	mg/Kg	J	Z

Sample ID: SL-171-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 9:35:00

Analysis Type: REA9

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	106		0.113	MDL	0.417	PQL	mg/Kg	J	A

Sample ID: SL-172-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 9:25:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0818	J	0.0616	MDL	0.205	PQL	mg/Kg	J	Z, Q
LEAD	6.87		0.0107	MDL	0.205	PQL	mg/Kg	J	Q, A
SILVER	0.0272	J	0.0123	MDL	0.103	PQL	mg/Kg	J	Z

Sample ID: SL-172-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 9:25:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	3.81		0.0822	MDL	0.411	PQL	mg/Kg	J	Q
CHROMIUM	18.7		0.123	MDL	0.411	PQL	mg/Kg	J	Q, A
NICKEL	12.6		0.103	MDL	0.411	PQL	mg/Kg	J	Q
VANADIUM	38.3		0.0226	MDL	0.103	PQL	mg/Kg	J	A

Sample ID: SL-172-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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	0.256	J	0.0411	MDL	0.411	PQL	mg/Kg	J	Z

Sample ID: SL-172-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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	107		0.111	MDL	0.411	PQL	mg/Kg	J	A

Sample ID: SL-173-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
ANTIMONY	0.0902	J	0.0607	MDL	0.202	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-173-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
LEAD	14.4		0.0105	MDL	0.202	PQL	mg/Kg	J	Q, A
SILVER	0.0392	J	0.0121	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: SL-173-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
ARSENIC	5.09		0.0809	MDL	0.404	PQL	mg/Kg	J	Q
CHROMIUM	16.1		0.121	MDL	0.404	PQL	mg/Kg	J	Q, A
NICKEL	12.8		0.101	MDL	0.404	PQL	mg/Kg	J	Q
VANADIUM	29.3		0.0222	MDL	0.101	PQL	mg/Kg	J	A

Sample ID: SL-173-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
SELENIUM	0.228	J	0.0404	MDL	0.404	PQL	mg/Kg	J	Z

Sample ID: SL-173-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 10:20:00

Analysis Type: REA9

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	82.3		0.109	MDL	0.404	PQL	mg/Kg	J	A

Sample ID: SL-174-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 10:53:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.111	J	0.0618	MDL	0.206	PQL	mg/Kg	J	Z, Q
LEAD	11.9		0.0107	MDL	0.206	PQL	mg/Kg	J	Q, A
SILVER	0.0761	J	0.0124	MDL	0.103	PQL	mg/Kg	J	Z

Sample ID: SL-174-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 10:53:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	6.11		0.0824	MDL	0.412	PQL	mg/Kg	J	Q
CHROMIUM	21.8		0.124	MDL	0.412	PQL	mg/Kg	J	Q, A
NICKEL	26.3		0.103	MDL	0.412	PQL	mg/Kg	J	Q
VANADIUM	43.8		0.0227	MDL	0.103	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-174-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 10:53:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.180	J	0.0412	MDL	0.412	PQL	mg/Kg	J	Z

Sample ID: SL-174-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 10:53:00

Analysis Type: REA9

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	162		0.111	MDL	0.412	PQL	mg/Kg	J	A

Sample ID: SL-175-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 11:15:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0802	J	0.0619	MDL	0.206	PQL	mg/Kg	J	Z, Q
LEAD	6.55		0.0107	MDL	0.206	PQL	mg/Kg	J	Q, A
SILVER	0.0421	J	0.0124	MDL	0.103	PQL	mg/Kg	J	Z

Sample ID: SL-175-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 11:15:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	3.89		0.0825	MDL	0.413	PQL	mg/Kg	J	Q
CHROMIUM	16.6		0.124	MDL	0.413	PQL	mg/Kg	J	Q, A
NICKEL	11.7		0.103	MDL	0.413	PQL	mg/Kg	J	Q
VANADIUM	33.9		0.0227	MDL	0.103	PQL	mg/Kg	J	A

Sample ID: SL-175-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 11:15:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.129	J	0.0413	MDL	0.413	PQL	mg/Kg	J	Z

Sample ID: SL-175-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 11:15:00

Analysis Type: REA9

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	101		0.111	MDL	0.413	PQL	mg/Kg	J	A

Sample ID: SL-176-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 11:35:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0871	J	0.0601	MDL	0.200	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-176-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 11:35:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	7.30		0.0104	MDL	0.200	PQL	mg/Kg	J	Q, A

Sample ID: SL-176-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 11:35:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	7.23		0.0801	MDL	0.401	PQL	mg/Kg	J	Q
CHROMIUM	15.0		0.120	MDL	0.401	PQL	mg/Kg	J	Q, A
NICKEL	11.2		0.100	MDL	0.401	PQL	mg/Kg	J	Q
VANADIUM	27.5		0.0220	MDL	0.100	PQL	mg/Kg	J	A

Sample ID: SL-176-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 11:35:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.178	J	0.0401	MDL	0.401	PQL	mg/Kg	J	Z

Sample ID: SL-176-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 11:35:00

Analysis Type: REA9

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	80.0		0.108	MDL	0.401	PQL	mg/Kg	J	A

Sample ID: SL-179-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 8:50:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.102	J	0.0623	MDL	0.208	PQL	mg/Kg	J	Z, Q
LEAD	5.56		0.0108	MDL	0.208	PQL	mg/Kg	J	Q, A
SILVER	0.0498	J	0.0125	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-179-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 8:50:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	8.07		0.0830	MDL	0.415	PQL	mg/Kg	J	Q
CHROMIUM	14.4		0.125	MDL	0.415	PQL	mg/Kg	J	Q, A
NICKEL	9.48		0.104	MDL	0.415	PQL	mg/Kg	J	Q
VANADIUM	25.6		0.0228	MDL	0.104	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-179-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 8:50:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.120	J	0.0415	MDL	0.415	PQL	mg/Kg	J	Z

Sample ID: SL-179-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 8:50:00

Analysis Type: REA9

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	72.6		0.112	MDL	0.415	PQL	mg/Kg	J	A

Sample ID: SL-180-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 1:45:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0627	U	0.0627	MDL	0.209	PQL	mg/Kg	UJ	Q
LEAD	4.48		0.0109	MDL	0.209	PQL	mg/Kg	J	Q, A
SILVER	0.0495	J	0.0125	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-180-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 1:45:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	3.30		0.0836	MDL	0.418	PQL	mg/Kg	J	Q
CHROMIUM	13.0		0.125	MDL	0.418	PQL	mg/Kg	J	Q, A
NICKEL	9.17		0.104	MDL	0.418	PQL	mg/Kg	J	Q
VANADIUM	27.9		0.0230	MDL	0.104	PQL	mg/Kg	J	A

Sample ID: SL-180-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 1:45:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0911	J	0.0418	MDL	0.418	PQL	mg/Kg	J	Z

Sample ID: SL-180-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 1:45:00

Analysis Type: REA9

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	74.2		0.113	MDL	0.418	PQL	mg/Kg	J	A

Sample ID: SL-181-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 2:00:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0858	J	0.0621	MDL	0.207	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-181-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 2:00:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	8.04		0.0108	MDL	0.207	PQL	mg/Kg	J	Q, A
SILVER	0.0466	J	0.0124	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-181-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 2:00:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	3.45		0.0828	MDL	0.414	PQL	mg/Kg	J	Q
CHROMIUM	14.3		0.124	MDL	0.414	PQL	mg/Kg	J	Q, A
NICKEL	10.1		0.104	MDL	0.414	PQL	mg/Kg	J	Q
VANADIUM	31.2		0.0228	MDL	0.104	PQL	mg/Kg	J	A

Sample ID: SL-181-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 2:00:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.126	J	0.0414	MDL	0.414	PQL	mg/Kg	J	Z

Sample ID: SL-181-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 2:00:00

Analysis Type: REA9

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	113		0.112	MDL	0.414	PQL	mg/Kg	J	A

Sample ID: SL-182-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 2:25:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.136	J	0.0624	MDL	0.208	PQL	mg/Kg	J	Z, Q
LEAD	9.67		0.0108	MDL	0.208	PQL	mg/Kg	J	Q, A
SILVER	0.0367	J	0.0125	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-182-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 2:25:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	4.52		0.0833	MDL	0.416	PQL	mg/Kg	J	Q
CHROMIUM	38.1		0.125	MDL	0.416	PQL	mg/Kg	J	Q, A
NICKEL	27.7		0.104	MDL	0.416	PQL	mg/Kg	J	Q
VANADIUM	41.5		0.0229	MDL	0.104	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-182-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 2:25:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.112	J	0.0416	MDL	0.416	PQL	mg/Kg	J	Z

Sample ID: SL-182-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 2:25:00

Analysis Type: REA9

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	109		0.112	MDL	0.416	PQL	mg/Kg	J	A

Sample ID: SL-183-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 2:45:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0609	U	0.0609	MDL	0.203	PQL	mg/Kg	UJ	Q
LEAD	4.85		0.0106	MDL	0.203	PQL	mg/Kg	J	Q, A

Sample ID: SL-183-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 2:45:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	5.67		0.0812	MDL	0.406	PQL	mg/Kg	J	Q
CHROMIUM	13.0		0.122	MDL	0.406	PQL	mg/Kg	J	Q, A
NICKEL	8.89		0.102	MDL	0.406	PQL	mg/Kg	J	Q
VANADIUM	24.3		0.0223	MDL	0.102	PQL	mg/Kg	J	A

Sample ID: SL-183-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 2:45:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.142	J	0.0406	MDL	0.406	PQL	mg/Kg	J	Z

Sample ID: SL-183-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 2:45:00

Analysis Type: REA9

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	71.2		0.110	MDL	0.406	PQL	mg/Kg	J	A

Sample ID: SL-184-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 3:05:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.133	J	0.0624	MDL	0.208	PQL	mg/Kg	J	Z, Q
LEAD	9.63		0.0108	MDL	0.208	PQL	mg/Kg	J	Q, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-184-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 3:05:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0547	J	0.0125	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-184-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 3:05:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	4.27		0.0833	MDL	0.416	PQL	mg/Kg	J	Q
CHROMIUM	19.1		0.125	MDL	0.416	PQL	mg/Kg	J	Q, A
NICKEL	13.9		0.104	MDL	0.416	PQL	mg/Kg	J	Q
VANADIUM	44.1		0.0229	MDL	0.104	PQL	mg/Kg	J	A

Sample ID: SL-184-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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	0.252	J	0.0416	MDL	0.416	PQL	mg/Kg	J	Z

Sample ID: SL-184-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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	122		0.112	MDL	0.416	PQL	mg/Kg	J	A

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

Sample ID: DUP09-SA8N-QC-052611

Collected: 5/26/2011 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
HEXAVALENT CHROMIUM	0.38	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA8N-SB-4.0-5.0

Collected: 5/26/2011 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	0.49	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

Sample ID: SL-008-SA8N-SB-4.0-5.0

Collected: 5/26/2011 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	0.55	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-165-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
HEXAVALENT CHROMIUM	0.85	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-171-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 9:35:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.52	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-173-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
HEXAVALENT CHROMIUM	0.83	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-174-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
HEXAVALENT CHROMIUM	0.34	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-175-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
HEXAVALENT CHROMIUM	0.50	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-176-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
HEXAVALENT CHROMIUM	0.31	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-179-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 8:50:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.43	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

Sample ID: SL-180-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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	0.39	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-181-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
HEXAVALENT CHROMIUM	0.29	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-182-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 2:25:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.48	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-184-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
HEXAVALENT CHROMIUM	0.30	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

**Method Category:** METALS

**Method:** 7470A

**Matrix:** AQ

Sample ID: EB09-SA5DN-SS-052611

Collected: 5/26/2011 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	0.000046	U	0.000046	MDL	0.00020	PQL	mg/L	UJ	L

Sample ID: EB11-SA8N-SB-052611

Collected: 5/26/2011 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	0.000046	U	0.000046	MDL	0.00020	PQL	mg/L	UJ	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

Sample ID: SL-008-SA8N-SB-9.0-10.0

Collected: 5/26/2011 9:40:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0059	J	0.0032	MDL	0.113	PQL	mg/Kg	J	Z

Sample ID: SL-164-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 3:55:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0128	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-165-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
MERCURY	0.0070	J	0.0029	MDL	0.103	PQL	mg/Kg	J	Z

Sample ID: SL-170-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
MERCURY	0.0068	J	0.0028	MDL	0.0972	PQL	mg/Kg	J	Z

Sample ID: SL-171-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 9:35:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0150	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z

Sample ID: SL-172-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
MERCURY	0.0172	J	0.0030	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-173-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
MERCURY	0.0207	J	0.0029	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: SL-174-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
MERCURY	0.0143	J	0.0029	MDL	0.0999	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

Sample ID: SL-175-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
MERCURY	0.0151	J	0.0029	MDL	0.103	PQL	mg/Kg	J	Z

Sample ID: SL-176-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
MERCURY	0.0050	J	0.0028	MDL	0.0968	PQL	mg/Kg	J	Z

Sample ID: SL-179-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 8:50:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0083	J	0.0030	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-184-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
MERCURY	0.0344	J	0.0029	MDL	0.0997	PQL	mg/Kg	J	Z

**Method Category:** SVOA

**Method:** 1625C

**Matrix:** AQ

Sample ID: EB09-SA5DN-SS-052611

Collected: 5/26/2011 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
N-NITROSODIMETHYLAMINE	1.68		0.495	MDL	0.990	PQL	ng/L	U	B

**Method Category:** SVOA

**Method:** 8015M

**Matrix:** AQ

Sample ID: EB09-SA5DN-SS-052611

Collected: 5/26/2011 12:45:00

Analysis Type: REA3

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C12-C14)	0.22	U	0.22	MDL	1.3	PQL	mg/L	UJ	H
EFH (C15-C20)	0.22	U	0.22	MDL	1.3	PQL	mg/L	UJ	H
EFH (C21-C30)	0.22	U	0.22	MDL	1.3	PQL	mg/L	UJ	H
EFH (C30-C40)	0.22	U	0.22	MDL	1.3	PQL	mg/L	UJ	H

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8015M</b>
<b>Matrix:</b>	<b>AQ</b>

Sample ID: EB09-SA5DN-SS-052611			Collected: 5/26/2011 12:45:00		Analysis Type: REA3			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C8-C11)	0.40	J	0.22	MDL	1.3	PQL	mg/L	UJ	B, H

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8015M</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-002-SA8N-SB-4.0-5.0			Collected: 5/26/2011 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
DIETHYLENE GLYCOL	6.0	U	6.0	MDL	12	PQL	mg/Kg	UJ	Q

Sample ID: SL-175-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 11:15:00		Analysis Type: REA3			Dilution: 10	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	6.0	J	4.3	MDL	13	PQL	mg/Kg	J	Z

Sample ID: SL-179-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 8:50:00		Analysis Type: REA3			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	3.5		0.42	MDL	1.3	PQL	mg/Kg	J	L
EFH (C30-C40)	36		0.42	MDL	1.3	PQL	mg/Kg	J	L

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8081A</b>
<b>Matrix:</b>	<b>AQ</b>

Sample ID: EB09-SA5DN-SS-052611			Collected: 5/26/2011 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
HEPTACHLOR	0.0088	J	0.0026	MDL	0.010	PQL	ug/L	J	Z, L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

Sample ID: SL-164-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 3:55:00

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'-DDD	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	S
4,4'-DDE	0.56	U	0.56	MDL	0.56	PQL	ug/Kg	UJ	S
4,4'-DDT	0.82	U	0.82	MDL	0.82	PQL	ug/Kg	UJ	S
ALDRIN	0.073	U	0.073	MDL	0.18	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.037	U	0.037	MDL	0.18	PQL	ug/Kg	UJ	S
BETA-BHC	0.12	J	0.066	MDL	0.18	PQL	ug/Kg	J	Z, Q, Q, S
Chlordane	2.5	J	0.88	MDL	3.7	PQL	ug/Kg	J	Z, S
DELTA-BHC	0.040	U	0.040	MDL	0.18	PQL	ug/Kg	UJ	S
DIELDRIN	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.048	U	0.048	MDL	0.18	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.10	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z, S
ENDOSULFAN SULFATE	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	S
ENDRIN	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.16	U	0.16	MDL	0.37	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.037	U	0.037	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.066	U	0.066	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.037	U	0.037	MDL	0.18	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.37	U	0.37	MDL	1.8	PQL	ug/Kg	UJ	S
MIREX	0.089	U	0.089	MDL	0.37	PQL	ug/Kg	UJ	S
TOXAPHENE	2.4	U	2.4	MDL	7.3	PQL	ug/Kg	UJ	S

Sample ID: SL-165-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 3:30:00

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'-DDT	1.5		0.071	MDL	0.37	PQL	ug/Kg	J	L
Chlordane	2.1	J	0.86	MDL	3.7	PQL	ug/Kg	J	Z
HEPTACHLOR EPOXIDE	0.053	J	0.037	MDL	0.18	PQL	ug/Kg	J	Z

Sample ID: SL-171-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 9:35:00

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	0.27		0.064	MDL	0.18	PQL	ug/Kg	J	S
Chlordane	1.2	J	0.85	MDL	3.6	PQL	ug/Kg	J	Z, S
gamma-BHC (Lindane)	0.041	J	0.036	MDL	0.18	PQL	ug/Kg	J	Z, S

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

Sample ID: SL-172-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
4,4'-DDD	0.071	U	0.071	MDL	0.37	PQL	ug/Kg	UJ	S
4,4'-DDE	0.18	U	0.18	MDL	0.37	PQL	ug/Kg	UJ	S
4,4'-DDT	0.50	U	0.50	MDL	0.50	PQL	ug/Kg	UJ	S
ALDRIN	0.071	U	0.071	MDL	0.18	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.037	U	0.037	MDL	0.18	PQL	ug/Kg	UJ	S
BETA-BHC	0.065	U	0.065	MDL	0.18	PQL	ug/Kg	UJ	S
Chlordane	5.1		0.86	MDL	3.7	PQL	ug/Kg	J	S, S
DELTA-BHC	0.039	U	0.039	MDL	0.18	PQL	ug/Kg	UJ	S
DIELDRIN	0.30	U	0.30	MDL	0.37	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.12	U	0.12	MDL	0.18	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.071	U	0.071	MDL	0.37	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.071	U	0.071	MDL	0.37	PQL	ug/Kg	UJ	S
ENDRIN	0.071	U	0.071	MDL	0.37	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.071	U	0.071	MDL	0.37	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.27	U	0.27	MDL	0.37	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.037	U	0.037	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.065	U	0.065	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.037	U	0.037	MDL	0.18	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.37	U	0.37	MDL	1.8	PQL	ug/Kg	UJ	S
MIREX	0.071	U	0.071	MDL	0.37	PQL	ug/Kg	UJ	S
TOXAPHENE	2.4	U	2.4	MDL	7.1	PQL	ug/Kg	UJ	S

Sample ID: SL-173-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 10:20:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	1.9		0.069	MDL	0.36	PQL	ug/Kg	J	L, S
Chlordane	2.3	J	0.84	MDL	3.6	PQL	ug/Kg	J	Z, S
DELTA-BHC	0.067	J	0.038	MDL	0.17	PQL	ug/Kg	J	Z, S

Sample ID: SL-176-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 11:35:00

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'-DDT	1.7		0.069	MDL	0.35	PQL	ug/Kg	J	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

Sample ID: SL-179-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 8:50:00

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	0.88		0.069	MDL	0.36	PQL	ug/Kg	J	L

Sample ID: SL-180-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
ALDRIN	0.11	J	0.069	MDL	0.17	PQL	ug/Kg	J	Z, S

Sample ID: SL-181-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
4,4'-DDT	2.4		0.070	MDL	0.36	PQL	ug/Kg	J	L, S

Sample ID: SL-183-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
MIREX	2.2		0.068	MDL	0.35	PQL	ug/Kg	J	S

Sample ID: SL-184-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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'-DDE	0.23	J	0.070	MDL	0.36	PQL	ug/Kg	J	Z
4,4'-DDT	0.41		0.070	MDL	0.36	PQL	ug/Kg	J	L
Chlordane	1.6	J	0.85	MDL	3.6	PQL	ug/Kg	J	Z
ENDRIN KETONE	0.11	J	0.070	MDL	0.36	PQL	ug/Kg	J	Z
HEPTACHLOR EPOXIDE	0.051	J	0.036	MDL	0.18	PQL	ug/Kg	J	Z
MIREX	0.25	J	0.070	MDL	0.36	PQL	ug/Kg	J	Z

**Method Category:** SVOA

**Method:** 8082

**Matrix:** SO

Sample ID: SL-164-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 3:55:00

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 1260	1.4	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8082</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-165-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 3:30:00		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 1260	0.45	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-170-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 10:00:00		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 1260	1.7	J	0.40	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-172-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 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
AROCLOR 1260	1.1	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5460	2.8	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z

Sample ID: SL-173-SA5DN-SS-0.0-0.5		Collected: 5/26/2011 10:20:00		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 1016	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	S
AROCLOR 1221	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	S
AROCLOR 1232	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	S
AROCLOR 1242	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	S
AROCLOR 1248	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	S
AROCLOR 1254	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	S
AROCLOR 1260	2.0		0.41	MDL	1.8	PQL	ug/Kg	J	S
Aroclor 1262	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	S
Aroclor 1268	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	S
Aroclor 5432	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	S
Aroclor 5442	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	S
Aroclor 5460	2.0	J	1.1	MDL	3.5	PQL	ug/Kg	J	Z, S

Sample ID: SL-174-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 10:53:00		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	1.1	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8082

**Matrix:** SO

Sample ID: SL-175-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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
AROCLOR 1260	1.2	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5460	1.9	J	1.1	MDL	3.5	PQL	ug/Kg	J	Z

Sample ID: SL-179-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 8:50:00

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	1.2	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-180-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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	0.86	J	0.34	MDL	1.8	PQL	ug/Kg	J	Z
AROCLOR 1260	0.52	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5460	1.5	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-182-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 2:25:00

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	0.74	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z
AROCLOR 1260	0.83	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5460	2.7	J	1.1	MDL	3.5	PQL	ug/Kg	J	Z

Sample ID: SL-184-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 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	3.2	J	1.1	MDL	3.5	PQL	ug/Kg	J	Z

**Method Category:** SVOA

**Method:** 8151A

**Matrix:** SO

Sample ID: SL-164-SA5DN-SS-0.0-0.5

Collected: 5/26/2011 3:55:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPA	230	J	83	MDL	270	PQL	ug/Kg	J	Z, Q, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8151A</b>	<b>Matrix:</b>	<b>SO</b>

<b>Sample ID:</b> SL-170-SA5DN-SS-0.0-0.5		<b>Collected:</b> 5/26/2011 10:00:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPA	160	J	78	MDL	260	PQL	ug/Kg	J	Z

<b>Sample ID:</b> SL-172-SA5DN-SS-0.0-0.5		<b>Collected:</b> 5/26/2011 9:25:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPA	220	J	82	MDL	270	PQL	ug/Kg	J	Z

<b>Sample ID:</b> SL-180-SA5DN-SS-0.0-0.5		<b>Collected:</b> 5/26/2011 1:45:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPA	210	J	79	MDL	260	PQL	ug/Kg	J	Z

<b>Sample ID:</b> SL-181-SA5DN-SS-0.0-0.5		<b>Collected:</b> 5/26/2011 2:00:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DB	1.2	J	0.65	MDL	1.8	PQL	ug/Kg	J	Z

<b>Sample ID:</b> SL-182-SA5DN-SS-0.0-0.5		<b>Collected:</b> 5/26/2011 2:25:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPA	160	J	79	MDL	260	PQL	ug/Kg	J	Z

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8270C</b>	<b>Matrix:</b>	<b>AQ</b>

<b>Sample ID:</b> EB09-SA5DN-SS-052611		<b>Collected:</b> 5/26/2011 12:45:00		<b>Analysis Type:</b> RES-ACID		<b>Dilution:</b> 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

<b>Sample ID:</b> EB11-SA8N-SB-052611		<b>Collected:</b> 5/26/2011 1:00:00		<b>Analysis Type:</b> RES-ACID		<b>Dilution:</b> 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

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8270C</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-164-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 3:55:00		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	24	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-170-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 10:00:00		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	18	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-171-SA5DN-SS-0.0-0.5		Collected: 5/26/2011 9:35:00		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	35	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	31	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	39	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	23	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	24	J	18	MDL	180	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHthalate	31	J	18	MDL	350	PQL	ug/Kg	J	Z
CHRYSENE	40	J	18	MDL	180	PQL	ug/Kg	J	Z
FLUORANTHENE	43	J	18	MDL	180	PQL	ug/Kg	J	Z
PYRENE	44	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-172-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 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
BIS(2-ETHYLHEXYL)PHthalate	28	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-173-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 10:20:00		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)ANTHRACENE	31	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	23	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	34	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	21	J	18	MDL	180	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	26	J	18	MDL	350	PQL	ug/Kg	J	Z
CHRYSENE	35	J	18	MDL	180	PQL	ug/Kg	J	Z
FLUORANTHENE	69	J	18	MDL	180	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C

**Matrix:** SO

**Sample ID:** SL-173-SA5DN-SS-0.0-0.5

**Collected:** 5/26/2011 10:20:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHENANTHRENE	45	J	18	MDL	180	PQL	ug/Kg	J	Z
PYRENE	55	J	18	MDL	180	PQL	ug/Kg	J	Z

**Sample ID:** SL-174-SA5DN-SS-0.0-0.5

**Collected:** 5/26/2011 10:53:00

**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	20	J	17	MDL	350	PQL	ug/Kg	J	Z

**Sample ID:** SL-175-SA5DN-SS-0.0-0.5

**Collected:** 5/26/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	34	J	18	MDL	360	PQL	ug/Kg	J	Z

**Sample ID:** SL-176-SA5DN-SS-0.0-0.5

**Collected:** 5/26/2011 11:35:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	22	J	17	MDL	350	PQL	ug/Kg	J	Z

**Sample ID:** SL-179-SA5DN-SS-0.0-0.5

**Collected:** 5/26/2011 8:50:00

**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	62	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	160	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	100	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	100	J	17	MDL	170	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	29	J	17	MDL	350	PQL	ug/Kg	J	Z
CARBAZOLE	27	J	17	MDL	170	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	32	J	17	MDL	170	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	94	J	17	MDL	170	PQL	ug/Kg	J	Z

**Sample ID:** SL-180-SA5DN-SS-0.0-0.5

**Collected:** 5/26/2011 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-METHYLNAPHTHALENE	26	J	17	MDL	170	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	31	J	17	MDL	170	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8270C</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-180-SA5DN-SS-0.0-0.5      Collected: 5/26/2011 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
BIS(2-ETHYLHEXYL)PHthalate	28	J	17	MDL	350	PQL	ug/Kg	J	Z
DIBENZOFURAN	150	J	17	MDL	170	PQL	ug/Kg	J	Z
NAPHTHALENE	37	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-181-SA5DN-SS-0.0-0.5      Collected: 5/26/2011 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
BIS(2-ETHYLHEXYL)PHthalate	22	J	18	MDL	350	PQL	ug/Kg	J	Z

Sample ID: SL-182-SA5DN-SS-0.0-0.5      Collected: 5/26/2011 2:25:00      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	25	J	18	MDL	350	PQL	ug/Kg	J	Z

Sample ID: SL-183-SA5DN-SS-0.0-0.5      Collected: 5/26/2011 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
BIS(2-ETHYLHEXYL)PHthalate	38	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-184-SA5DN-SS-0.0-0.5      Collected: 5/26/2011 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
BIS(2-ETHYLHEXYL)PHthalate	24	J	18	MDL	350	PQL	ug/Kg	J	Z

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8270C SIM</b>
<b>Matrix:</b>	<b>AQ</b>

Sample ID: EB09-SA5DN-SS-052611      Collected: 5/26/2011 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-METHYLNAPHTHALENE	0.032	J	0.0098	MDL	0.049	PQL	ug/L	J	Z
2-METHYLNAPHTHALENE	0.032	J	0.0098	MDL	0.049	PQL	ug/L	J	Z
BIS(2-ETHYLHEXYL)PHthalate	0.059	J	0.049	MDL	0.98	PQL	ug/L	U	B
Di-n-butylphthalate	0.065	J	0.049	MDL	0.98	PQL	ug/L	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8270C SIM</b>
<b>Matrix:</b>	<b>AQ</b>

Sample ID: EB11-SA8N-SB-052611			Collected: 5/26/2011 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-METHYLNAPHTHALENE	0.033	J	0.0097	MDL	0.048	PQL	ug/L	J	Z
2-METHYLNAPHTHALENE	0.034	J	0.0097	MDL	0.048	PQL	ug/L	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	0.058	J	0.048	MDL	0.97	PQL	ug/L	U	B
Di-n-butylphthalate	0.065	J	0.048	MDL	0.97	PQL	ug/L	J	Z

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8270C SIM</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: DUP09-SA8N-QC-052611			Collected: 5/26/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	12	J	7.1	MDL	21	PQL	ug/Kg	J	Z, FD

Sample ID: SL-002-SA8N-SB-4.0-5.0			Collected: 5/26/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	7.2	U	7.2	MDL	22	PQL	ug/Kg	UJ	FD

Sample ID: SL-008-SA8N-SB-4.0-5.0			Collected: 5/26/2011 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	9.8	J	7.1	MDL	21	PQL	ug/Kg	J	Z
CHRYSENE	0.47	J	0.40	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-008-SA8N-SB-9.0-10.0			Collected: 5/26/2011 9:40:00		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(B)FLUORANTHENE	1.1	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.1	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	11	J	6.9	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-164-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 3:55:00		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(A)ANTHRACENE	0.77	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8270C SIM</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-164-SA5DN-SS-0.0-0.5		Collected: 5/26/2011 3:55:00		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(A)PYRENE	0.83	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.6	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.1	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
Butylbenzylphthalate	6.9	J	6.6	MDL	20	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.1	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	1.2	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-165-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 3:30:00		Analysis Type: RES-BASE/NEUTRAL			Dilution: 5	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	2.5	J	1.8	MDL	9.0	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	64	J	32	MDL	97	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	5.8	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z

Sample ID: SL-172-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 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	3.7	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	4.9	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
CHRYSENE	4.7	J	1.8	MDL	9.0	PQL	ug/Kg	J	Z
FLUORANTHENE	4.9	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
PYRENE	7.1	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z

Sample ID: SL-173-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 10:20:00		Analysis Type: RES-BASE/NEUTRAL			Dilution: 5	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	2.9	J	1.8	MDL	8.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	7.4	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	4.3	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	7.9	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z

Sample ID: SL-174-SA5DN-SS-0.0-0.5			Collected: 5/26/2011 10:53:00		Analysis Type: RES-BASE/NEUTRAL			Dilution: 5	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	1.8	J	1.7	MDL	8.7	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C SIM

**Matrix:** SO

**Sample ID:** SL-175-SA5DN-SS-0.0-0.5

**Collected:** 5/26/2011 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
BENZO(A)ANTHRACENE	0.79	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.83	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.88	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.79	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
CHRYSENE	1.4	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	1.2	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

**Sample ID:** SL-176-SA5DN-SS-0.0-0.5

**Collected:** 5/26/2011 11:35:00

**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	0.97	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.87	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.5	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.4	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.5	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

**Sample ID:** SL-182-SA5DN-SS-0.0-0.5

**Collected:** 5/26/2011 2:25:00

**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	1.2	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.80	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
Butylbenzylphthalate	6.9	J	6.4	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	0.80	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z
FLUORANTHENE	0.89	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	0.96	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

**Sample ID:** SL-183-SA5DN-SS-0.0-0.5

**Collected:** 5/26/2011 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(A)PYRENE	0.87	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
BENZO(G,H,I)PERYLENE	0.81	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.0	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.82	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	0.92	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8270C SIM</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-184-SA5DN-SS-0.0-0.5      Collected: 5/26/2011 3:05:00      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(B)FLUORANTHENE	4.4	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z
CHRYSENE	3.3	J	1.8	MDL	8.8	PQL	ug/Kg	J	Z
FLUORANTHENE	3.8	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z
PYRENE	4.4	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8330A</b>	<b>Matrix:</b>	<b>AQ</b>

Sample ID: EB09-SA5DN-SS-052611      Collected: 5/26/2011 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
RDX	0.58	J	0.20	MDL	0.60	PQL	ug/L	J	Z

<b>Method Category:</b>	<b>VOA</b>		
<b>Method:</b>	<b>8260B</b>	<b>Matrix:</b>	<b>AQ</b>

Sample ID: EB11-SA8N-SB-052611      Collected: 5/26/2011 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
BENZENE	1	J	0.5	MDL	5	PQL	ug/L	J	Z
TOLUENE	0.7	J	0.7	MDL	5	PQL	ug/L	J	Z

<b>Method Category:</b>	<b>VOA</b>		
<b>Method:</b>	<b>8260B</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: DUP09-SA8N-QC-052611      Collected: 5/26/2011 2:45:00      Analysis Type: RES      Dilution: 0.96

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.8		7.6	MDL	9.0	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.6	J	0.27	MDL	4.5	PQL	ug/Kg	U	B
TOLUENE	0.09	U	0.09	MDL	4.5	PQL	ug/Kg	UJ	FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>VOA</b>
<b>Method:</b>	<b>8260B</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-002-SA8N-SB-4.0-5.0

Collected: 5/26/2011 2:20:00

Analysis Type: RES

Dilution: 1.04

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.7	J	8.3	MDL	9.9	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.9	J	0.30	MDL	5.0	PQL	ug/Kg	U	B
TOLUENE	0.11	J	0.1	MDL	5.0	PQL	ug/Kg	J	Z, FD

Sample ID: SL-008-SA8N-SB-4.0-5.0

Collected: 5/26/2011 9:15:00

Analysis Type: RES

Dilution: 0.96

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.9		7.7	MDL	9.2	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.6	J	0.27	MDL	4.6	PQL	ug/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

## Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	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	Laboratory Triplicate Precision
E	Matrix Spike Precision

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## ***Data Qualifier Summary***

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_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	Laboratory Triplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

Q	Matrix Spike Upper Rejection
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

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE166

## QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 8015M

Preparation Method: 3510C

Matrix: AQ

Sample ID	Type	Actual	Criteria	Units	Flag
EB09-SA5DN-SS-052611 (REA3)	Sampling To Analysis	9.00	7.00	DAYS	J (all detects) UJ (all non-detects)

Method: 9040B

Preparation Method: 3510C

Matrix: AQ

Sample ID	Type	Actual	Criteria	Units	Flag
EB09-SA5DN-SS-052611 (RES)	Sampling To Analysis	150.00	48.00	HOURS	No Qualifiers Applied
EB11-SA8N-SB-052611 (RES)		150.00	48.00	HOURS	

# Method Blank Outlier Report

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 1625C  
**Matrix:** AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWI15B261718	6/21/2011 5:18:00 PM	N-NITROSODIMETHYLAMINE	12.1 ng/L	EB09-SA5DN-SS-052611

*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
EB09-SA5DN-SS-052611(RES)	N-NITROSODIMETHYLAMINE	1.68 ng/L	1.68U ng/L

**Method:** 6010B  
**Matrix:** AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P14748CB222255	5/31/2011 10:55:00 PM	MAGNESIUM	0.0211 mg/L	EB09-SA5DN-SS-052611 EB11-SA8N-SB-052611

**Method:** 6010B  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15208EB220140	6/3/2011 1:40:00 AM	ALUMINUM CALCIUM PHOSPHORUS STRONTIUM TIN	7.72 mg/Kg 21.3 mg/Kg 1.14 mg/Kg 0.118 mg/Kg 1.21 mg/Kg	DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5 SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-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
DUP09-SA8N-QC-052611(REA)	TIN	2.64 mg/Kg	2.64U mg/Kg
SL-002-SA8N-SB-4.0-5.0(REA)	TIN	2.72 mg/Kg	2.72U mg/Kg
SL-002-SA8N-SB-9.0-10.0(REA)	TIN	2.44 mg/Kg	2.44U mg/Kg
SL-008-SA8N-SB-4.0-5.0(REA)	TIN	2.53 mg/Kg	2.53U mg/Kg
SL-008-SA8N-SB-9.0-10.0(REA)	TIN	2.65 mg/Kg	2.65U mg/Kg

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6010B

**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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*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-SA5DN-SS-0.0-0.5(REA)	TIN	2.45 mg/Kg	2.45U mg/Kg
SL-165-SA5DN-SS-0.0-0.5(REA)	TIN	2.37 mg/Kg	2.37U mg/Kg
SL-170-SA5DN-SS-0.0-0.5(REA)	TIN	2.23 mg/Kg	2.23U mg/Kg
SL-171-SA5DN-SS-0.0-0.5(REA)	TIN	2.24 mg/Kg	2.24U mg/Kg
SL-172-SA5DN-SS-0.0-0.5(REA)	TIN	2.17 mg/Kg	2.17U mg/Kg
SL-173-SA5DN-SS-0.0-0.5(REA)	TIN	2.37 mg/Kg	2.37U mg/Kg
SL-174-SA5DN-SS-0.0-0.5(REA)	TIN	2.34 mg/Kg	2.34U mg/Kg
SL-175-SA5DN-SS-0.0-0.5(REA)	TIN	2.16 mg/Kg	2.16U mg/Kg
SL-176-SA5DN-SS-0.0-0.5(REA)	TIN	4.84 mg/Kg	4.84U mg/Kg
SL-179-SA5DN-SS-0.0-0.5(REA)	TIN	2.39 mg/Kg	2.39U mg/Kg
SL-180-SA5DN-SS-0.0-0.5(REA)	TIN	2.40 mg/Kg	2.40U mg/Kg
SL-181-SA5DN-SS-0.0-0.5(REA)	TIN	2.27 mg/Kg	2.27U mg/Kg
SL-182-SA5DN-SS-0.0-0.5(REA)	TIN	2.15 mg/Kg	2.15U mg/Kg
SL-183-SA5DN-SS-0.0-0.5(REA)	TIN	2.44 mg/Kg	2.44U mg/Kg
SL-184-SA5DN-SS-0.0-0.5(REA)	TIN	2.19 mg/Kg	2.19U mg/Kg

**Method:** 6020

**Matrix:** AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P14750CB220953A	6/1/2011 9:53:00 AM	LEAD	0.000055 mg/L	EB09-SA5DN-SS-052611 EB11-SA8N-SB-052611

*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
EB09-SA5DN-SS-052611(RES)	LEAD	0.000071 mg/L	0.000071U mg/L
EB11-SA8N-SB-052611(RES)	LEAD	0.000062 mg/L	0.000062U mg/L

## Method Blank Outlier Report

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6020  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15826FB222052A	6/10/2011 8:52:00 PM	COPPER	0.160 mg/Kg	DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5 SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-SS-0.0-0.5
P15826FB222348A	6/9/2011 11:48:00 PM	LEAD	0.0416 mg/Kg	DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5 SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-SS-0.0-0.5

**Method:** 8015M  
**Matrix:** AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P52524AB321224A	6/4/2011 12:24:00 PM	EFH (C8-C11)	0.17 mg/L	EB09-SA5DN-SS-052611

*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
EB09-SA5DN-SS-052611(REA3)	EFH (C8-C11)	0.40 mg/L	1.3U mg/L

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method: 8015M</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P48483AB321813A	6/4/2011 6:13:00 PM	EFH (C30-C40)	1.4 mg/Kg	SL-171-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5

<b>Method: 8260B</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB72B211210A	6/1/2011 12:10:00 PM	ACETONE METHYLENE CHLORIDE	8.6 ug/Kg 1.4 ug/Kg	DUP09-SA8N-QC-052611 SL-008-SA8N-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
DUP09-SA8N-QC-052611(RES)	ACETONE	9.8 ug/Kg	9.8U ug/Kg
DUP09-SA8N-QC-052611(RES)	METHYLENE CHLORIDE	1.6 ug/Kg	4.5U ug/Kg
SL-002-SA8N-SB-4.0-5.0(RES)	ACETONE	9.7 ug/Kg	9.9U ug/Kg
SL-002-SA8N-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.9 ug/Kg	5.0U ug/Kg
SL-008-SA8N-SB-4.0-5.0(RES)	ACETONE	9.9 ug/Kg	9.9U ug/Kg
SL-008-SA8N-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.6 ug/Kg	4.6U ug/Kg

<b>Method: 8270C SIM</b>				
<b>Matrix: AQ</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWH15B261040	6/4/2011 10:40:00 AM	BIS(2-ETHYLHEXYL)PHTHALATE Di-n-octylphthalate	0.13 ug/L 0.053 ug/L	EB09-SA5DN-SS-052611 EB11-SA8N-SB-052611

*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
EB09-SA5DN-SS-052611(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.059 ug/L	0.98U ug/L
EB11-SA8N-SB-052611(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.058 ug/L	0.97U ug/L

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_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-002-SA8N-SB-4.0-5.0MS SL-002-SA8N-SB-4.0-5.0MSD (SL-002-SA8N-SB-4.0-5.0)	DIETHYLENE GLYCOL	51	54	59.00-109.00	-	DIETHYLENE GLYCOL	J (all detects) UJ (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-164-SA5DN-SS-0.0-0.5MS SL-164-SA5DN-SS-0.0-0.5MSD (SL-164-SA5DN-SS-0.0-0.5)	4,4'-DDE 4,4'-DDT BETA-BHC DIELDRIN ENDRIN ALDEHYDE METHOXYCHLOR	171 230 203 - - 149	- 227 - - - -	18.00-161.00 10.00-176.00 14.00-147.00 19.00-154.00 10.00-148.00 32.00-147.00	- - 84 (50.00) 51 (50.00) 46 (35.00) -	4,4'-DDE 4,4'-DDT BETA-BHC DIELDRIN ENDRIN ALDEHYDE METHOXYCHLOR	J(all detects)

**Method: 8151A**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-164-SA5DN-SS-0.0-0.5MSD (SL-164-SA5DN-SS-0.0-0.5)	2,4-D DALAPON	- -	- -	17.00-180.00 10.00-125.00	78 (35.00) 62 (50.00)	2,4-D DALAPON	J(all detects)
SL-164-SA5DN-SS-0.0-0.5MS SL-164-SA5DN-SS-0.0-0.5MSD (SL-164-SA5DN-SS-0.0-0.5)	MCPA	0	-	10.00-213.00	200 (50.00)	MCPA	J(all detects) R(all non-detects)



# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_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-002-SA8N-SB-4.0-5.0MS SL-002-SA8N-SB-4.0-5.0MSD (DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5 SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-SS-0.0-0.5)	ALUMINUM CALCIUM IRON MAGNESIUM POTASSIUM	4020 293 1258 579 135	3884 248 970 495 128	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - -	ALUMINUM CALCIUM IRON MAGNESIUM POTASSIUM	J(all detects) Al, Ca, Fe, Mg No Qual, >4x
SL-002-SA8N-SB-4.0-5.0MS SL-002-SA8N-SB-4.0-5.0MSD (DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5 SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-SS-0.0-0.5)	MANGANESE	37	19	75.00-125.00	-	MANGANESE	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-002-SA8N-SB-4.0-5.0MSD (SL-002-SA8N-SB-4.0-5.0)	2,4-DINITROPHENOL	-	-	20.00-143.00	65 (30.00)	2,4-DINITROPHENOL	J(all detects)

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_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-SA8N-SB-4.0-5.0MS (DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5)	FLUORIDE	67	-	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-002-SA8N-SB-4.0-5.0MS SL-002-SA8N-SB-4.0-5.0MSD (DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5 SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-SS-0.0-0.5)	TITANIUM	254	263	75.00-125.00	-	TITANIUM	No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_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-002-SA8N-SB-4.0-5.0MS SL-002-SA8N-SB-4.0-5.0MSD (DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5 SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-SS-0.0-0.5)	ARSENIC CHROMIUM LEAD NICKEL VANADIUM ZINC	- - - 137 169 194	151 131 146 152 193 192	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 LEAD NICKEL VANADIUM ZINC	J(all detects) V, Zn No Qual, >4x
SL-002-SA8N-SB-4.0-5.0MS SL-002-SA8N-SB-4.0-5.0MSD (DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5 SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-SS-0.0-0.5)	ANTIMONY	33	31	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)
SL-002-SA8N-SB-4.0-5.0MS SL-002-SA8N-SB-4.0-5.0MSD (DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5 SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-SS-0.0-0.5)	BARIUM	207	213	75.00-125.00	-	BARIUM	No Qual, >4x

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 300.0

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-173-SA5DN-SS-0.0-0.5DUP (SL-173-SA5DN-SS-0.0-0.5 SL -174-SA5DN-SS-0.0-0.5 SL -175-SA5DN-SS-0.0-0.5 SL -176-SA5DN-SS-0.0-0.5 SL -179-SA5DN-SS-0.0-0.5 SL -180-SA5DN-SS-0.0-0.5 SL -181-SA5DN-SS-0.0-0.5 SL -182-SA5DN-SS-0.0-0.5 SL -183-SA5DN-SS-0.0-0.5 SL -184-SA5DN-SS-0.0-0.5)	Nitrate-NO3	24	20.00	No Qual, OK by difference
SL-002-SA8N-SB-4.0-5.0DUP (DUP09-SA8N-QC-052611 SL -002-SA8N-SB-4.0-5.0 SL -002-SA8N-SB-9.0-10.0 SL -008-SA8N-SB-4.0-5.0 SL -008-SA8N-SB-9.0-10.0 SL -164-SA5DN-SS-0.0-0.5 SL -165-SA5DN-SS-0.0-0.5 SL -170-SA5DN-SS-0.0-0.5 SL -171-SA5DN-SS-0.0-0.5 SL -172-SA5DN-SS-0.0-0.5)	FLUORIDE	26	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-SA8N-SB-4.0-5.0DUP (DUP09-SA8N-QC-052611 SL -002-SA8N-SB-4.0-5.0 SL -002-SA8N-SB-9.0-10.0 SL -008-SA8N-SB-4.0-5.0 SL -008-SA8N-SB-9.0-10.0 SL -164-SA5DN-SS-0.0-0.5 SL -165-SA5DN-SS-0.0-0.5 SL -170-SA5DN-SS-0.0-0.5 SL -171-SA5DN-SS-0.0-0.5 SL -172-SA5DN-SS-0.0-0.5 SL -173-SA5DN-SS-0.0-0.5 SL -174-SA5DN-SS-0.0-0.5 SL -175-SA5DN-SS-0.0-0.5 SL -176-SA5DN-SS-0.0-0.5 SL -179-SA5DN-SS-0.0-0.5 SL -180-SA5DN-SS-0.0-0.5 SL -181-SA5DN-SS-0.0-0.5 SL -182-SA5DN-SS-0.0-0.5 SL -183-SA5DN-SS-0.0-0.5 SL -184-SA5DN-SS-0.0-0.5)	CADMIUM SILVER	22 22	20.00 20.00	No Qual, OK by difference

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 7199

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-002-SA8N-SB-4.0-5.0DUP (DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5 SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-SS-0.0-0.5)	HEXAVALENT CHROMIUM	36	20.00	No Qual, OK by difference

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 8081A**

**Matrix: AQ**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11473AQ240711A	4,4'-DDT	133	129	53.00-126.00	-	4,4'-DDT	J (all detects)
P11473AY240724A	ENDOSULFAN I	130	-	68.00-128.00	-	ENDOSULFAN I	
(EB09-SA5DN-SS-052611)	HEPTACHLOR	130	-	57.00-126.00	-	HEPTACHLOR	

**Method: 8330A**

**Matrix: AQ**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11518AQ241052A	2,4,6-TRINITROTOLUENE	110	110	76.00-109.00	-	2,4,6-TRINITROTOLUENE	J(all detects)
P11518AY241134A	PETN	121	121	80.00-120.00	-	PETN	
(EB09-SA5DN-SS-052611)							

**Method: 8151A**

**Matrix: AQ**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11516AQ241612A	MCPP	140	-	67.00-137.00	-	MCPP	J(all detects)
(EB09-SA5DN-SS-052611)							

**Method: 8270C**

**Matrix: AQ**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P1WFLCSY260101	BENZOIC ACID	-	-	10.00-69.00	83 (30.00)	BENZOIC ACID	J(all detects) UJ(all non-detects)
(EB09-SA5DN-SS-052611 EB11-SA8N-SB-052611)							

**Method: 8270C SIM**

**Matrix: AQ**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P1WHLCSQ261112	ANTHRACENE	-	112	66.00-111.00	-	ANTHRACENE	J(all detects)
P1WHLCSY261144	BENZO(A)PYRENE	136	141	60.00-127.00	-	BENZO(A)PYRENE	
(EB09-SA5DN-SS-052611 EB11-SA8N-SB-052611)	BENZO(B)FLUORANTHENE	139	142	69.00-123.00	-	BENZO(B)FLUORANTHENE	
	BENZO(K)FLUORANTHENE	146	146	59.00-130.00	-	BENZO(K)FLUORANTHENE	
	DIBENZO(A,H)ANTHRACENE	138	141	55.00-134.00	-	DIBENZO(A,H)ANTHRACENE	
	Di-n-octylphthalate	-	147	57.00-145.00	-	Di-n-octylphthalate	
	INDENO(1,2,3-CD)PYRENE	134	136	69.00-124.00	-	INDENO(1,2,3-CD)PYRENE	
	N-NITROSODIMETHYLAMINE	90	-	36.00-89.00	-	N-NITROSODIMETHYLAMINE	

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 7470A**

**Matrix: AQ**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P15213DY222331 (EB09-SA5DN-SS-052611 EB11-SA8N-SB-052611)	MERCURY	-	89	90.00-115.00	-	MERCURY	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
P11545AQ240431A (SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5 SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-SS-0.0-0.5)	4,4'-DDT METHOXYCHLOR	131 139	- -	54.00-130.00 59.00-125.00	- -	4,4'-DDT METHOXYCHLOR	J(all detects)

**Method: 8015M**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11587AQ320825A (SL-179-SA5DN-SS-0.0-0.5)	EFH (C15-C20) EFH (C30-C40)	115 114	- -	66.00-113.00 66.00-113.00	- -	EFH (C15-C20) EFH (C30-C40)	J(all detects)

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 6010B**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P15208EQ220144 (DUP09-SA8N-QC-052611 SL -002-SA8N-SB-4.0-5.0 SL -002-SA8N-SB-9.0-10.0 SL -008-SA8N-SB-4.0-5.0 SL -008-SA8N-SB-9.0-10.0 SL -164-SA5DN-SS-0.0-0.5 SL -165-SA5DN-SS-0.0-0.5 SL -170-SA5DN-SS-0.0-0.5 SL -171-SA5DN-SS-0.0-0.5 SL -172-SA5DN-SS-0.0-0.5 SL -173-SA5DN-SS-0.0-0.5 SL -174-SA5DN-SS-0.0-0.5 SL -175-SA5DN-SS-0.0-0.5 SL -176-SA5DN-SS-0.0-0.5 SL -179-SA5DN-SS-0.0-0.5 SL -180-SA5DN-SS-0.0-0.5 SL -181-SA5DN-SS-0.0-0.5 SL -182-SA5DN-SS-0.0-0.5 SL -183-SA5DN-SS-0.0-0.5 SL -184-SA5DN-SS-0.0-0.5)	ALUMINUM	78	-	80.00-120.00	-	ALUMINUM	No Qual, SRM within QC limits

**Method: 6020**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P15826FQ222351A (DUP09-SA8N-QC-052611 SL -002-SA8N-SB-4.0-5.0 SL -002-SA8N-SB-9.0-10.0 SL -008-SA8N-SB-4.0-5.0 SL -008-SA8N-SB-9.0-10.0 SL -164-SA5DN-SS-0.0-0.5 SL -165-SA5DN-SS-0.0-0.5 SL -170-SA5DN-SS-0.0-0.5 SL -171-SA5DN-SS-0.0-0.5 SL -172-SA5DN-SS-0.0-0.5 SL -173-SA5DN-SS-0.0-0.5 SL -174-SA5DN-SS-0.0-0.5 SL -175-SA5DN-SS-0.0-0.5 SL -176-SA5DN-SS-0.0-0.5 SL -179-SA5DN-SS-0.0-0.5 SL -180-SA5DN-SS-0.0-0.5 SL -181-SA5DN-SS-0.0-0.5 SL -182-SA5DN-SS-0.0-0.5 SL -183-SA5DN-SS-0.0-0.5 SL -184-SA5DN-SS-0.0-0.5)	ANTIMONY	67	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC limits



# Surrogate Outlier Report

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 8081A

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-164-SA5DN-SS-0.0-0.5	TETRACHLORO-M-XYLENE	49	50.00-130.00	All Target Analytes	J (all detects) UJ (all non-detects)
SL-171-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	184	20.00-120.00	All Target Analytes	J(all detects)
SL-172-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	125	20.00-120.00	All Target Analytes	J(all detects)
SL-172-SA5DN-SS-0.0-0.5	TETRACHLORO-M-XYLENE	45	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-173-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	132	20.00-120.00	All Target Analytes	J(all detects)
SL-180-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	130	20.00-120.00	All Target Analytes	J(all detects)
SL-181-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	130	20.00-120.00	All Target Analytes	J(all detects)
SL-183-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	1024	20.00-120.00	All Target Analytes	J(all detects)

Method: 8082

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-173-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	39	45.00-120.00	All Target Analytes	J(all detects) UJ(all non-detects)

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 160.3M

Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-002-SA8N-SB-4.0-5.0	DUP09-SA8N-QC-052611			
MOISTURE	16.3	15.3	6		No Qualifiers Applied

Method: 300.0

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-002-SA8N-SB-4.0-5.0	DUP09-SA8N-QC-052611			
FLUORIDE	4.6	4.3	7	50.00	No Qualifiers Applied

Method: 6010B

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-002-SA8N-SB-4.0-5.0	DUP09-SA8N-QC-052611			
ALUMINUM	28300	28700	1	50.00	No Qualifiers Applied
BORON	11.3	10.8	5	50.00	
CALCIUM	14300	10100	34	50.00	
IRON	35600	36000	1	50.00	
LITHIUM	26.0	27.3	5	50.00	
MAGNESIUM	7900	8080	2	50.00	
MANGANESE	430	303	35	50.00	
PHOSPHORUS	299	294	2	50.00	
POTASSIUM	3770	3730	1	50.00	
SODIUM	119	124	4	50.00	
STRONTIUM	51.1	50.0	2	50.00	
TIN	2.72	2.64	3	50.00	
TITANIUM	1460	1380	6	50.00	
Zirconium	4.41	3.92	12	50.00	

Method: 6020

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-002-SA8N-SB-4.0-5.0	DUP09-SA8N-QC-052611			
ANTIMONY	0.140	0.129	8	50.00	No Qualifiers Applied
ARSENIC	6.98	6.89	1	50.00	
BARIUM	113	129	13	50.00	
BERYLLIUM	0.842	0.889	5	50.00	
CADMIUM	0.229	0.284	21	50.00	
CHROMIUM	31.8	33.6	6	50.00	
COBALT	10.6	13.6	25	50.00	
COPPER	16.9	18.5	9	50.00	
LEAD	10.2	11.7	14	50.00	
MOLYBDENUM	0.327	0.396	19	50.00	
NICKEL	23.0	28.5	21	50.00	
SELENIUM	0.147	0.140	5	50.00	
SILVER	0.0264	0.0304	14	50.00	
THALLIUM	0.334	0.378	12	50.00	
VANADIUM	63.9	68.6	7	50.00	
ZINC	70.3	78.9	12	50.00	

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: PrepDE166\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 7199

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-002-SA8N-SB-4.0-5.0	DUP09-SA8N-QC-052611			
HEXAVALENT CHROMIUM	0.49	0.38	25	50.00	No Qualifiers Applied

Method: 8260B

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-002-SA8N-SB-4.0-5.0	DUP09-SA8N-QC-052611			
ACETONE	9.7	9.8	1	50.00	No Qualifiers Applied
METHYLENE CHLORIDE	1.9	1.6	17	50.00	
TOLUENE	0.11	4.5 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-002-SA8N-SB-4.0-5.0	DUP09-SA8N-QC-052611			
BIS(2-ETHYLHEXYL)PHTHALATE	22 U	12	200	50.00	J(all detects) UJ(all non-detects)

Method: 9045M

Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-002-SA8N-SB-4.0-5.0	DUP09-SA8N-QC-052611			
PH	8.19	8.15	0	50.00	No Qualifiers Applied

# Reporting Limit Outliers

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6020

**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB09-SA5DN-SS-052611	LEAD	J	0.000071	0.0010	PQL	mg/L	J (all detects)
EB11-SA8N-SB-052611	LEAD	J	0.000062	0.0010	PQL	mg/L	J (all detects)

**Method:** 8015M

**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB09-SA5DN-SS-052611	EFH (C8-C11)	J	0.40	1.3	PQL	mg/L	J (all detects)

**Method:** 8081A

**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB09-SA5DN-SS-052611	HEPTACHLOR	J	0.0088	0.010	PQL	ug/L	J (all detects)

**Method:** 8260B

**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB11-SA8N-SB-052611	BENZENE	J	1	5	PQL	ug/L	J (all detects)
	TOLUENE	J	0.7	5	PQL	ug/L	

**Method:** 8270C SIM

**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB09-SA5DN-SS-052611	1-METHYLNAPHTHALENE	J	0.032	0.049	PQL	ug/L	J (all detects)
	2-METHYLNAPHTHALENE	J	0.032	0.049	PQL	ug/L	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.059	0.98	PQL	ug/L	
	Di-n-butylphthalate	J	0.065	0.98	PQL	ug/L	
EB11-SA8N-SB-052611	1-METHYLNAPHTHALENE	J	0.033	0.048	PQL	ug/L	J (all detects)
	2-METHYLNAPHTHALENE	J	0.034	0.048	PQL	ug/L	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.058	0.97	PQL	ug/L	
	Di-n-butylphthalate	J	0.065	0.97	PQL	ug/L	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 8330A

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB09-SA5DN-SS-052611	RDX	J	0.58	0.60	PQL	ug/L	J (all detects)

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-171-SA5DN-SS-0.0-0.5	Nitrate-NO3	J	1.3	1.6	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA8N-QC-052611	TIN	J	2.64	11.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.92	5.79	PQL	mg/Kg	
SL-002-SA8N-SB-4.0-5.0	TIN	J	2.72	11.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.41	5.97	PQL	mg/Kg	
SL-002-SA8N-SB-9.0-10.0	TIN	J	2.44	11.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.57	5.84	PQL	mg/Kg	
SL-008-SA8N-SB-4.0-5.0	TIN	J	2.53	11.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.48	5.72	PQL	mg/Kg	
SL-008-SA8N-SB-9.0-10.0	BORON	J	5.46	5.65	PQL	mg/Kg	J (all detects)
	TIN	J	2.65	11.3	PQL	mg/Kg	
	Zirconium	J	2.78	5.65	PQL	mg/Kg	
SL-164-SA5DN-SS-0.0-0.5	SODIUM	J	67.9	108	PQL	mg/Kg	J (all detects)
	TIN	J	2.45	10.8	PQL	mg/Kg	
	Zirconium	J	3.03	5.39	PQL	mg/Kg	
SL-165-SA5DN-SS-0.0-0.5	SODIUM	J	75.2	105	PQL	mg/Kg	J (all detects)
	TIN	J	2.37	10.5	PQL	mg/Kg	
	Zirconium	J	2.07	5.27	PQL	mg/Kg	
SL-170-SA5DN-SS-0.0-0.5	BORON	J	3.06	5.00	PQL	mg/Kg	J (all detects)
	SODIUM	J	56.5	100	PQL	mg/Kg	
	TIN	J	2.23	10.0	PQL	mg/Kg	
	Zirconium	J	0.906	5.00	PQL	mg/Kg	
SL-171-SA5DN-SS-0.0-0.5	BORON	J	3.71	5.21	PQL	mg/Kg	J (all detects)
	SODIUM	J	82.3	104	PQL	mg/Kg	
	TIN	J	2.24	10.4	PQL	mg/Kg	
SL-172-SA5DN-SS-0.0-0.5	BORON	J	4.94	5.24	PQL	mg/Kg	J (all detects)
	SODIUM	J	91.7	105	PQL	mg/Kg	
	TIN	J	2.17	10.5	PQL	mg/Kg	
	Zirconium	J	3.31	5.24	PQL	mg/Kg	
SL-173-SA5DN-SS-0.0-0.5	BORON	J	2.90	5.10	PQL	mg/Kg	J (all detects)
	SODIUM	J	63.1	102	PQL	mg/Kg	
	TIN	J	2.37	10.2	PQL	mg/Kg	

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6010B

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-174-SA5DN-SS-0.0-0.5	BORON	J	2.86	5.10	PQL	mg/Kg	J (all detects)
	TIN	J	2.34	10.2	PQL	mg/Kg	
	Zirconium	J	1.27	5.10	PQL	mg/Kg	
SL-175-SA5DN-SS-0.0-0.5	BORON	J	3.38	5.21	PQL	mg/Kg	J (all detects)
	SODIUM	J	66.4	104	PQL	mg/Kg	
	TIN	J	2.16	10.4	PQL	mg/Kg	
	Zirconium	J	1.33	5.21	PQL	mg/Kg	
SL-176-SA5DN-SS-0.0-0.5	BORON	J	2.60	5.01	PQL	mg/Kg	J (all detects)
	SODIUM	J	61.7	100	PQL	mg/Kg	
	TIN	J	4.84	10.0	PQL	mg/Kg	
	Zirconium	J	1.06	5.01	PQL	mg/Kg	
SL-179-SA5DN-SS-0.0-0.5	BORON	J	3.23	5.24	PQL	mg/Kg	J (all detects)
	SODIUM	J	72.2	105	PQL	mg/Kg	
	TIN	J	2.39	10.5	PQL	mg/Kg	
	Zirconium	J	1.76	5.24	PQL	mg/Kg	
SL-180-SA5DN-SS-0.0-0.5	BORON	J	3.69	5.12	PQL	mg/Kg	J (all detects)
	SODIUM	J	84.5	102	PQL	mg/Kg	
	TIN	J	2.40	10.2	PQL	mg/Kg	
	Zirconium	J	1.67	5.12	PQL	mg/Kg	
SL-181-SA5DN-SS-0.0-0.5	BORON	J	4.59	5.13	PQL	mg/Kg	J (all detects)
	SODIUM	J	82.8	103	PQL	mg/Kg	
	TIN	J	2.27	10.3	PQL	mg/Kg	
	Zirconium	J	1.90	5.13	PQL	mg/Kg	
SL-182-SA5DN-SS-0.0-0.5	BORON	J	3.95	5.15	PQL	mg/Kg	J (all detects)
	SODIUM	J	96.7	103	PQL	mg/Kg	
	TIN	J	2.15	10.3	PQL	mg/Kg	
	Zirconium	J	1.92	5.15	PQL	mg/Kg	
SL-183-SA5DN-SS-0.0-0.5	BORON	J	3.11	4.98	PQL	mg/Kg	J (all detects)
	TIN	J	2.44	9.96	PQL	mg/Kg	
SL-184-SA5DN-SS-0.0-0.5	BORON	J	3.51	5.10	PQL	mg/Kg	J (all detects)
	SODIUM	J	78.2	102	PQL	mg/Kg	
	TIN	J	2.19	10.2	PQL	mg/Kg	
	Zirconium	J	1.87	5.10	PQL	mg/Kg	

**Method:** 6020

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA8N-QC-052611	ANTIMONY	J	0.129	0.225	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.140	0.450	PQL	mg/Kg	
	SILVER	J	0.0304	0.112	PQL	mg/Kg	
SL-002-SA8N-SB-4.0-5.0	ANTIMONY	J	0.140	0.228	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.147	0.455	PQL	mg/Kg	
	SILVER	J	0.0264	0.114	PQL	mg/Kg	
SL-002-SA8N-SB-9.0-10.0	ANTIMONY	J	0.139	0.234	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0898	0.467	PQL	mg/Kg	
	SILVER	J	0.0453	0.117	PQL	mg/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA8N-SB-4.0-5.0	ANTIMONY SELENIUM SILVER	J	0.128	0.229	PQL	mg/Kg	J (all detects)
		J	0.125	0.457	PQL	mg/Kg	
		J	0.0372	0.114	PQL	mg/Kg	
SL-008-SA8N-SB-9.0-10.0	ANTIMONY SELENIUM SILVER	J	0.0814	0.224	PQL	mg/Kg	J (all detects)
		J	0.0529	0.447	PQL	mg/Kg	
		J	0.0394	0.112	PQL	mg/Kg	
SL-164-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.179	0.213	PQL	mg/Kg	J (all detects)
		J	0.221	0.427	PQL	mg/Kg	
		J	0.0410	0.107	PQL	mg/Kg	
SL-165-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.0721	0.209	PQL	mg/Kg	J (all detects)
		J	0.128	0.418	PQL	mg/Kg	
		J	0.0647	0.104	PQL	mg/Kg	
SL-170-SA5DN-SS-0.0-0.5	CADMIUM SELENIUM	J	0.0683	0.0981	PQL	mg/Kg	J (all detects)
		J	0.0474	0.392	PQL	mg/Kg	
SL-171-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM	J	0.0646	0.209	PQL	mg/Kg	J (all detects)
		J	0.0725	0.417	PQL	mg/Kg	
SL-172-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.0818	0.205	PQL	mg/Kg	J (all detects)
		J	0.256	0.411	PQL	mg/Kg	
		J	0.0272	0.103	PQL	mg/Kg	
SL-173-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.0902	0.202	PQL	mg/Kg	J (all detects)
		J	0.228	0.404	PQL	mg/Kg	
		J	0.0392	0.101	PQL	mg/Kg	
SL-174-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.111	0.206	PQL	mg/Kg	J (all detects)
		J	0.180	0.412	PQL	mg/Kg	
		J	0.0761	0.103	PQL	mg/Kg	
SL-175-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.0802	0.206	PQL	mg/Kg	J (all detects)
		J	0.129	0.413	PQL	mg/Kg	
		J	0.0421	0.103	PQL	mg/Kg	
SL-176-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM	J	0.0871	0.200	PQL	mg/Kg	J (all detects)
		J	0.178	0.401	PQL	mg/Kg	
SL-179-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.102	0.208	PQL	mg/Kg	J (all detects)
		J	0.120	0.415	PQL	mg/Kg	
		J	0.0498	0.104	PQL	mg/Kg	
SL-180-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.0911	0.418	PQL	mg/Kg	J (all detects)
		J	0.0495	0.104	PQL	mg/Kg	
SL-181-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.0858	0.207	PQL	mg/Kg	J (all detects)
		J	0.126	0.414	PQL	mg/Kg	
		J	0.0466	0.104	PQL	mg/Kg	
SL-182-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.136	0.208	PQL	mg/Kg	J (all detects)
		J	0.112	0.416	PQL	mg/Kg	
		J	0.0367	0.104	PQL	mg/Kg	
SL-183-SA5DN-SS-0.0-0.5	SELENIUM	J	0.142	0.406	PQL	mg/Kg	J (all detects)
SL-184-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.133	0.208	PQL	mg/Kg	J (all detects)
		J	0.252	0.416	PQL	mg/Kg	
		J	0.0547	0.104	PQL	mg/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 7199**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA8N-QC-052611	HEXAVALENT CHROMIUM	J	0.38	1.2	PQL	mg/Kg	J (all detects)
SL-002-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.49	1.2	PQL	mg/Kg	J (all detects)
SL-008-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.55	1.2	PQL	mg/Kg	J (all detects)
SL-165-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.85	1.1	PQL	mg/Kg	J (all detects)
SL-171-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.52	1.1	PQL	mg/Kg	J (all detects)
SL-173-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.83	1.1	PQL	mg/Kg	J (all detects)
SL-174-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.34	1.0	PQL	mg/Kg	J (all detects)
SL-175-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.50	1.1	PQL	mg/Kg	J (all detects)
SL-176-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.31	1.0	PQL	mg/Kg	J (all detects)
SL-179-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.43	1.0	PQL	mg/Kg	J (all detects)
SL-180-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.39	1.0	PQL	mg/Kg	J (all detects)
SL-181-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.29	1.1	PQL	mg/Kg	J (all detects)
SL-182-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.48	1.1	PQL	mg/Kg	J (all detects)
SL-184-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.30	1.1	PQL	mg/Kg	J (all detects)

**Method: 7471A**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA8N-SB-9.0-10.0	MERCURY	J	0.0059	0.113	PQL	mg/Kg	J (all detects)
SL-164-SA5DN-SS-0.0-0.5	MERCURY	J	0.0128	0.107	PQL	mg/Kg	J (all detects)
SL-165-SA5DN-SS-0.0-0.5	MERCURY	J	0.0070	0.103	PQL	mg/Kg	J (all detects)
SL-170-SA5DN-SS-0.0-0.5	MERCURY	J	0.0068	0.0972	PQL	mg/Kg	J (all detects)
SL-171-SA5DN-SS-0.0-0.5	MERCURY	J	0.0150	0.105	PQL	mg/Kg	J (all detects)
SL-172-SA5DN-SS-0.0-0.5	MERCURY	J	0.0172	0.104	PQL	mg/Kg	J (all detects)
SL-173-SA5DN-SS-0.0-0.5	MERCURY	J	0.0207	0.101	PQL	mg/Kg	J (all detects)
SL-174-SA5DN-SS-0.0-0.5	MERCURY	J	0.0143	0.0999	PQL	mg/Kg	J (all detects)
SL-175-SA5DN-SS-0.0-0.5	MERCURY	J	0.0151	0.103	PQL	mg/Kg	J (all detects)
SL-176-SA5DN-SS-0.0-0.5	MERCURY	J	0.0050	0.0968	PQL	mg/Kg	J (all detects)
SL-179-SA5DN-SS-0.0-0.5	MERCURY	J	0.0083	0.104	PQL	mg/Kg	J (all detects)
SL-184-SA5DN-SS-0.0-0.5	MERCURY	J	0.0344	0.0997	PQL	mg/Kg	J (all detects)



## Reporting Limit Outliers

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8015M

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-175-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	6.0	13	PQL	mg/Kg	J (all detects)

**Method:** 8081A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-164-SA5DN-SS-0.0-0.5	BETA-BHC	J	0.12	0.18	PQL	ug/Kg	J (all detects)
	Chlordane	J	2.5	3.7	PQL	ug/Kg	
	ENDOSULFAN II	J	0.10	0.37	PQL	ug/Kg	
SL-165-SA5DN-SS-0.0-0.5	Chlordane	J	2.1	3.7	PQL	ug/Kg	J (all detects)
	HEPTACHLOR EPOXIDE	J	0.053	0.18	PQL	ug/Kg	
SL-171-SA5DN-SS-0.0-0.5	Chlordane	J	1.2	3.6	PQL	ug/Kg	J (all detects)
	gamma-BHC (Lindane)	J	0.041	0.18	PQL	ug/Kg	
SL-173-SA5DN-SS-0.0-0.5	Chlordane	J	2.3	3.6	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.067	0.17	PQL	ug/Kg	
SL-180-SA5DN-SS-0.0-0.5	ALDRIN	J	0.11	0.17	PQL	ug/Kg	J (all detects)
SL-184-SA5DN-SS-0.0-0.5	4,4'-DDE	J	0.23	0.36	PQL	ug/Kg	J (all detects)
	Chlordane	J	1.6	3.6	PQL	ug/Kg	
	ENDRIN KETONE	J	0.11	0.36	PQL	ug/Kg	
	HEPTACHLOR EPOXIDE	J	0.051	0.18	PQL	ug/Kg	
	MIREX	J	0.25	0.36	PQL	ug/Kg	

**Method:** 8082

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-164-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.4	1.9	PQL	ug/Kg	J (all detects)
SL-165-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	0.45	1.8	PQL	ug/Kg	J (all detects)
SL-170-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.7	1.8	PQL	ug/Kg	J (all detects)
SL-172-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.1	1.8	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	2.8	3.6	PQL	ug/Kg	
SL-173-SA5DN-SS-0.0-0.5	Aroclor 5460	J	2.0	3.5	PQL	ug/Kg	J (all detects)
SL-174-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.1	1.8	PQL	ug/Kg	J (all detects)
SL-175-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.2	1.8	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	1.9	3.5	PQL	ug/Kg	
SL-179-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.2	1.8	PQL	ug/Kg	J (all detects)
SL-180-SA5DN-SS-0.0-0.5	AROCLOR 1254	J	0.86	1.8	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	0.52	1.8	PQL	ug/Kg	
	Aroclor 5460	J	1.5	3.4	PQL	ug/Kg	
SL-182-SA5DN-SS-0.0-0.5	AROCLOR 1254	J	0.74	1.8	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	0.83	1.8	PQL	ug/Kg	
	Aroclor 5460	J	2.7	3.5	PQL	ug/Kg	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8082

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-184-SA5DN-SS-0.0-0.5	Aroclor 5460	J	3.2	3.5	PQL	ug/Kg	J (all detects)

**Method:** 8151A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-164-SA5DN-SS-0.0-0.5	MCPA	J	230	270	PQL	ug/Kg	J (all detects)
SL-170-SA5DN-SS-0.0-0.5	MCPA	J	160	260	PQL	ug/Kg	J (all detects)
SL-172-SA5DN-SS-0.0-0.5	MCPA	J	220	270	PQL	ug/Kg	J (all detects)
SL-180-SA5DN-SS-0.0-0.5	MCPA	J	210	260	PQL	ug/Kg	J (all detects)
SL-181-SA5DN-SS-0.0-0.5	2,4-DB	J	1.2	1.8	PQL	ug/Kg	J (all detects)
SL-182-SA5DN-SS-0.0-0.5	MCPA	J	160	260	PQL	ug/Kg	J (all detects)

**Method:** 8260B

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA8N-QC-052611	METHYLENE CHLORIDE	J	1.6	4.5	PQL	ug/Kg	J (all detects)
SL-002-SA8N-SB-4.0-5.0	ACETONE	J	9.7	9.9	PQL	ug/Kg	J (all detects)
	METHYLENE CHLORIDE	J	1.9	5.0	PQL	ug/Kg	
	TOLUENE	J	0.11	5.0	PQL	ug/Kg	
SL-008-SA8N-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.6	4.6	PQL	ug/Kg	J (all detects)

**Method:** 8270C

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-164-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	24	370	PQL	ug/Kg	J (all detects)
SL-170-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	18	340	PQL	ug/Kg	J (all detects)
SL-171-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	35	180	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	31	180	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	39	180	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	23	180	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	24	180	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	31	350	PQL	ug/Kg	
	CHRYSENE	J	40	180	PQL	ug/Kg	
	FLUORANTHENE	J	43	180	PQL	ug/Kg	
	PYRENE	J	44	180	PQL	ug/Kg	
SL-172-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	28	360	PQL	ug/Kg	J (all detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8270C

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-173-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	31	180	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	23	180	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	34	180	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	21	180	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	26	350	PQL	ug/Kg	
	CHRYSENE	J	35	180	PQL	ug/Kg	
	FLUORANTHENE	J	69	180	PQL	ug/Kg	
	PHENANTHRENE	J	45	180	PQL	ug/Kg	
	PYRENE	J	55	180	PQL	ug/Kg	
SL-174-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	20	350	PQL	ug/Kg	J (all detects)
SL-175-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	34	360	PQL	ug/Kg	J (all detects)
SL-176-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	22	350	PQL	ug/Kg	J (all detects)
SL-179-SA5DN-SS-0.0-0.5	ANTHRACENE	J	62	170	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	160	170	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	100	170	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	100	170	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	29	350	PQL	ug/Kg	
	CARBAZOLE	J	27	170	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	32	170	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	94	170	PQL	ug/Kg	
SL-180-SA5DN-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	26	170	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	31	170	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	28	350	PQL	ug/Kg	
	DIBENZOFURAN	J	150	170	PQL	ug/Kg	
	NAPHTHALENE	J	37	170	PQL	ug/Kg	
SL-181-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	22	350	PQL	ug/Kg	J (all detects)
SL-182-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	350	PQL	ug/Kg	J (all detects)
SL-183-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	38	340	PQL	ug/Kg	J (all detects)
SL-184-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	24	350	PQL	ug/Kg	J (all detects)

**Method:** 8270C SIM

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA8N-QC-052611	BIS(2-ETHYLHEXYL)PHTHALATE	J	12	21	PQL	ug/Kg	J (all detects)
SL-008-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.8	21	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.47	2.0	PQL	ug/Kg	
SL-008-SA8N-SB-9.0-10.0	BENZO(B)FLUORANTHENE	J	1.1	1.9	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	1.1	1.9	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	11	21	PQL	ug/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE166

Laboratory: LL

EDD Filename: DE166\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8270C SIM

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-164-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.77	1.8	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	0.83	1.8	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.6	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.1	1.8	PQL	ug/Kg	
	Butylbenzylphthalate	J	6.9	20	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	1.2	1.8	PQL	ug/Kg	
SL-165-SA5DN-SS-0.0-0.5	ANTHRACENE	J	2.5	9.0	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	64	97	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	5.8	9.0	PQL	ug/Kg	
SL-172-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	3.7	9.0	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	4.9	9.0	PQL	ug/Kg	
	CHRYSENE	J	4.7	9.0	PQL	ug/Kg	
	FLUORANTHENE	J	4.9	9.0	PQL	ug/Kg	
	PYRENE	J	7.1	9.0	PQL	ug/Kg	
SL-173-SA5DN-SS-0.0-0.5	ANTHRACENE	J	2.9	8.8	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	7.4	8.8	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	4.3	8.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	7.9	8.8	PQL	ug/Kg	
SL-174-SA5DN-SS-0.0-0.5	CHRYSENE	J	1.8	8.7	PQL	ug/Kg	J (all detects)
SL-175-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.79	1.8	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	0.83	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.88	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.79	1.8	PQL	ug/Kg	
	CHRYSENE	J	1.4	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	1.2	1.8	PQL	ug/Kg	
SL-176-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.97	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	0.87	1.7	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.5	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.4	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.5	1.7	PQL	ug/Kg	
SL-182-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.2	1.8	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	0.80	1.8	PQL	ug/Kg	
	Butylbenzylphthalate	J	6.9	19	PQL	ug/Kg	
	CHRYSENE	J	0.80	1.8	PQL	ug/Kg	
	FLUORANTHENE	J	0.89	1.8	PQL	ug/Kg	
	PYRENE	J	0.96	1.8	PQL	ug/Kg	
SL-183-SA5DN-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	
	BENZO(G,H,I)PERYLENE	J	0.81	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.0	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.82	1.7	PQL	ug/Kg	
	PYRENE	J	0.92	1.7	PQL	ug/Kg	
SL-184-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	4.4	8.8	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	3.3	8.8	PQL	ug/Kg	
	FLUORANTHENE	J	3.8	8.8	PQL	ug/Kg	
	PYRENE	J	4.4	8.8	PQL	ug/Kg	

LDC #: 26275X4

## VALIDATION COMPLETENESS WORKSHEET

SDG #: DE166

ADR

Laboratory: Lancaster Laboratories

Date: 9/29/11

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

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	A	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	Al, Ba, Ca, Fe, Mg, Mn, Ti, V, Zn > 4X
VII.	Duplicate Sample Analysis	A	cd, Ag, 45X
VIII.	Laboratory Control Samples (LCS)	A	SRM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Ba, Cr, Pb, V.
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV.	Field Blanks	SW	EB = 21.22 (No fuel > 5X)

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-002-SA8N-SB-4.0-5.0	11	SL-173-SA5DN-SS-0.0-0.5	21	EB09-SA5DN-SS-052611	31	
2	SL-002-SA8N-SB-9.0-10.0	12	SL-174-SA5DN-SS-0.0-0.5	22	EB11-SA8N-SB-052611	32	
3	SL-008-SA8N-SB-4.0-5.0	13	SL-175-SA5DN-SS-0.0-0.5	23	SL-002-SA8N-SB-4.0-5.0MS	33	
4	SL-008-SA8N-SB-9.0-10.0	14	SL-176-SA5DN-SS-0.0-0.5	24	SL-002-SA8N-SB-4.0-5.0MSD	34	
5	DUP09-SA8N-QC-052611	15	SL-179-SA5DN-SS-0.0-0.5	25	SL-002-SA8N-SB-4.0-5.0DUP	35	
6	SL-164-SA5DN-SS-0.0-0.5	16	SL-180-SA5DN-SS-0.0-0.5	26		36	
7	SL-165-SA5DN-SS-0.0-0.5	17	SL-181-SA5DN-SS-0.0-0.5	27		37	
8	SL-170-SA5DN-SS-0.0-0.5	18	SL-182-SA5DN-SS-0.0-0.5	28		38	
9	SL-171-SA5DN-SS-0.0-0.5	19	SL-183-SA5DN-SS-0.0-0.5	29		39	
10	SL-172-SA5DN-SS-0.0-0.5	20	SL-184-SA5DN-SS-0.0-0.5	30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



QUALITY ASSURANCE SUMMARY  
FORM 5A (MS/MSD)  
MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
SDG No.: DE166  
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6300336BKG Matrix Spike Lab Sample ID: 6300337MS Matrix Spike Duplicate Lab Sample ID: 6300338MSD  
& Solids for Sample: 83.7

Batch Id(e): P15208E, P15826F, P15211D, P15708A

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	Units	MS		MSD		Control Limit	
		Result	C	Result	C	Result	C			%R	Q	%R	Q	%R	Q
Aluminum		28327.6523		37652.5733		37251.9047		231.9890	MG/KG	4020		3884			
Antimony	121	0.1399	B	0.5960		0.5756		1.3785	MG/KG	33	N	31	N	75 - 125	20P
Arsenic	75	6.9750		9.8520		10.5563		2.2976	MG/KG	125		151	N	75 - 125	20MS
Barium	137	113.3072		137.0508		138.4956		11.4879	MG/KG	207		213			
Beryllium	9	0.8422		1.7103		1.7479		0.9190	MG/KG	94		96		75 - 125	20MS
Boron		11.3190		236.6925		233.6182		231.9890	MG/KG	97		97		84 - 115	20P
Cadmium	111	0.2289		1.3574		1.4720		1.1498	MG/KG	98		105		75 - 125	20MS
Calcium		14293.6368		15651.6025		15434.4948		463.9779	MG/KG	293		248			
Chromium	52	31.8143		46.0665		47.3166		11.4879	MG/KG	124		131	N	75 - 125	20MS
Cobalt	59	10.6207		69.6397		70.9985		57.4396	MG/KG	103		102		75 - 125	20MS
Copper	63	16.9358		31.3161		31.6311		11.4879	MG/KG	125		124		75 - 125	20MS
Iron		35643.3453		37102.8233		36757.5533		115.9945	MG/KG	1258		970			
Lead	208	10.1724		12.8848		15.3661		3.4464	MG/KG	79		146	N	75 - 125	20MS
Lithium		26.0084		149.8196		146.6306		115.9945	MG/KG	107		105		82 - 114	20P
Magnesium		7900.1386		9243.9457		9037.9894		231.9890	MG/KG	579		495			
Manganese		430.4504		451.8797		441.3852		57.9972	MG/KG	37		19			
Mercury		0.0035	U	0.1717		0.1822		0.1914	MG/KG	90		93		65 - 135	20CV
Molybdenum	98	0.3272		10.2334		10.0453		11.4879	MG/KG	86		82		75 - 125	20MS
Nickel	60	22.9846		38.7372		40.9998		11.4879	MG/KG	137	N	152	N	75 - 125	20MS
Phosphorus		298.7993		429.1726		407.7612		115.9945	MG/KG	112		95		75 - 125	20P
Potassium		3772.9988		5344.6788		5247.2624		1159.9448	MG/KG	135	N	128	N	75 - 125	20P
Selenium	78	0.1473	B	2.1080		2.0559		2.2976	MG/KG	85		81		75 - 125	20MS
Silver	107	0.0264	B	10.8928		10.9467		11.4879	MG/KG	95		92		75 - 125	20MS
Sodium		118.9546	B	1256.0659		1218.7046		1159.9448	MG/KG	98		96		75 - 125	20P
Strontium		51.0932		167.7269		163.6499		115.9945	MG/KG	101		98		75 - 115	20P
Thallium	203	0.3338		0.7724		0.7866		0.4595	MG/KG	95		96		75 - 125	20MS
Tin		2.7180	B	401.6738		394.9384		463.9779	MG/KG	86		85		80 - 110	20P
Titanium		1459.8484		1754.1474		1767.5498		115.9945	MG/KG	254		263			
Vanadium	51	63.8562		83.2414		86.6839		11.4879	MG/KG	169		193			
Zinc	66	70.3192		92.6385		93.0480		11.4879	MG/KG	194		192			
Zirconium		4.4098	B	117.2542		114.4288		115.9945	MG/KG	97		96		75 - 125	20P

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  
FLACS:  
N = Matrix Spike OOS, \* = Duplicate OOS



## QUALITY ASSURANCE SUMMARY

FORM 9

SERIAL DILUTIONS

SDG No.: DE166.

Matrix: SOIL

Level (low/med): LOW

Background Lab Sample ID: 6300336BKG  
Batch ID(s): P15208E, P15826F, P15708A  
Concentration Units: UG/L

Serial Dilution Lab Sample ID: 6300336L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		237102.4500		228228.8000		4		P
Antimony	121	0.6147	B	1.5000	U	100		MS
Arsenic	75	30.6500		33.5400		9		MS
Barium	137	497.9000		570.5000		15	E	MS
Beryllium	9	3.7010		8.6100		133		MS
Boron		94.7400		47.1000	B	50		P
Cadmium	111	1.0060		1.8180	B	81		MS
Calcium		119637.7400		121137.1000		1		P
Chromium	52	139.8000		178.2000		27	E	MS
Cobalt	59	46.6700		49.0500		5		MS
Copper	63	74.4200		77.9500		5		MS
Iron		59666.9600		60155.3500		1		P
Lead	208	44.7000		54.5000		22	E	MS
Lithium		217.6900		217.7000		0		P
Magnesium		66124.1600		65942.2500		0		P
Manganese		3602.8700		3799.6000		5		P
Molybdenum	98	1.4380		2.2085	B	54		MS
Nickel	60	101.0000		103.8000		3		MS
Phosphorus		2500.9500		2491.7500		0		P
Potassium		31580.0000		31353.8000		1		P
Selenium	78	0.6473	B	1.0000	U	100		MS
Silver	107	0.1162	B	0.3000	U	100		MS
Sodium		995.6500	B	1865.0000	U	100		P
Strontium		427.6500		435.4500		2		P
Thallium	203	1.4670		1.6910	B	15		MS
Tin		22.7500	B	50.0000	U	100		P
Titanium		12463.3100		13174.1500		6		P
Vanadium	51	280.6000		336.7000		20	E	MS
Zinc	66	309.0000		326.7000		6		MS
Zirconium		36.9100	B	44.7000	B	21		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:

DE166 7154

U= Below MDL

B= Below LOQ

## FLAGS:

E = Matrix Effects exist as proven by  
Serial Dilution or Spiked Dilution

# **SAMPLE DELIVERY GROUP**

**DE167**



## **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-May-2011	TB-052711	6301487	TB	5030B	8260B	III
27-May-2011	TB-052711	6301487	TB	5030B	8260B SIM	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	3050B	6010B	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	3050B	6020	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	3060A	7199	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	3550B	8081A	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	3550B	8082	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	3550B	8151A	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	3550B	8270C	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	3550B	8270C SIM	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	METHOD	300.0	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	METHOD	314.0	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	METHOD	7471A	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	3050B	6010B	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	3050B	6020	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	3060A	7199	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	3550B	8081A	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	3550B	8082	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	3550B	8151A	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	3550B	8270C	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	3550B	8270C SIM	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	METHOD	300.0	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	METHOD	314.0	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	METHOD	6850	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	METHOD	7471A	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	3050B	6010B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	3050B	6020	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	3060A	7199	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	3550B	8082	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	3550B	8270C	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	3550B	8270C SIM	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	5035	8260B	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	5035	8260B SIM	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	METHOD	300.0	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	METHOD	314.0	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	METHOD	7471A	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	METHOD	8015M	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0DUP	P301485D271900B	DUP	METHOD	314.0	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0MS	P301485R271923B	MS	METHOD	314.0	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	3050B	6010B	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	3050B	6020	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	3060A	7199	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	3550B	8081A	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	3550B	8082	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	3550B	8151A	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	3550B	8270C	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	3550B	8270C SIM	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	METHOD	300.0	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	METHOD	314.0	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	METHOD	7471A	III
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	3050B	6010B	III
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	3050B	6020	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	3060A	7199	III
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	3550B	8082	III
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	3550B	8270C	III
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	3550B	8270C SIM	III
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	METHOD	300.0	III
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	METHOD	314.0	III
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	METHOD	6850	III
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	METHOD	7471A	III
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	METHOD	8015M	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	3050B	6010B	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	3050B	6020	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	3060A	7199	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	3550B	8081A	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	3550B	8082	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	3550B	8151A	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	3550B	8270C	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	3550B	8270C SIM	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	METHOD	300.0	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	METHOD	314.0	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	METHOD	7471A	III
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	3050B	6010B	III
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	3050B	6020	III
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	3060A	7199	III
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	3550B	8081A	III
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	3550B	8082	III
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	3550B	8151A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	3550B	8270C	III
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	3550B	8270C SIM	III
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	METHOD	300.0	III
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	METHOD	314.0	III
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	METHOD	7471A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3050B	6010B	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3050B	6020	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3060A	7199	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3546	1625C	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3550B	8015B	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3550B	8015M	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3550B	8081A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3550B	8082	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3550B	8151A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3550B	8270C	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3550B	8270C SIM	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	8330	8330A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	METHOD	300.0	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	METHOD	314.0	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	METHOD	7471A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	METHOD	8015B	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	METHOD	8015M	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	METHOD	8315A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	METHOD	9012B	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3050B	6010B	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3050B	6020	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3060A	7199	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3546	1625C	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3550B	8015B	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3550B	8015M	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3550B	8081A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3550B	8082	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3550B	8151A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3550B	8270C	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3550B	8270C SIM	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	8330	8330A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	METHOD	300.0	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	METHOD	314.0	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	METHOD	7471A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	METHOD	8015B	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	METHOD	8015M	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	METHOD	8315A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	METHOD	9012B	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5DU	6301479	DUP	3050B	6010B	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5DU	6301479	DUP	3050B	6020	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5DU	6301479	DUP	3060A	7199	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5DU	6301479	DUP	METHOD	300.0	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5DU	6301479	DUP	METHOD	314.0	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5DU	6301479	DUP	METHOD	7471A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5DU	6301479	DUP	METHOD	9012B	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3050B	6010B	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3050B	6020	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3060A	7199	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3546	1625C	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3550B	8015B	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3550B	8015M	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3550B	8081A	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3550B	8082	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3550B	8151A	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3550B	8270C	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3550B	8270C SIM	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	8330	8330A	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	METHOD	300.0	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	METHOD	314.0	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	METHOD	7471A	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	METHOD	8015B	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	METHOD	8015M	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	METHOD	8315A	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	METHOD	9012B	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3050B	6010B	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3050B	6020	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3060A	7199	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3546	1625C	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3550B	8015B	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3550B	8015M	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3550B	8081A	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3550B	8082	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3550B	8151A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3550B	8270C	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3550B	8270C SIM	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	8330	8330A	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	METHOD	300.0	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	METHOD	314.0	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	METHOD	7471A	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	METHOD	8015B	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	METHOD	8015M	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	METHOD	8315A	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	METHOD	9012B	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3050B	6010B	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3050B	6020	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3060A	7199	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3546	1625C	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3550B	8015B	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3550B	8015M	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3550B	8081A	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3550B	8082	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3550B	8151A	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3550B	8270C	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3550B	8270C SIM	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	8330	8330A	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	METHOD	300.0	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	METHOD	314.0	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	METHOD	7471A	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	METHOD	8015B	III



## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	METHOD	8015M	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	METHOD	8315A	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	METHOD	9012B	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3050B	6010B	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3050B	6020	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3060A	7199	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3546	1625C	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3550B	8015B	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3550B	8015M	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3550B	8081A	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3550B	8082	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3550B	8151A	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3550B	8270C	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3550B	8270C SIM	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	8330	8330A	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	METHOD	300.0	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	METHOD	314.0	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	METHOD	7471A	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	METHOD	8015B	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	METHOD	8015M	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	METHOD	8315A	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	METHOD	9012B	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

**Sample ID:** SL-122-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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	1.1	J	0.95	MDL	1.2	PQL	mg/Kg	J	Z

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** DUP09-SA5DN-QC-052711

**Collected:** 5/27/2011 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
MANGANESE	503		0.0829	MDL	0.531	PQL	mg/Kg	J	A
SODIUM	92.8	J	39.6	MDL	106	PQL	mg/Kg	J	Z
TIN	2.59	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	3.46	J	0.892	MDL	5.31	PQL	mg/Kg	J	Z

**Sample ID:** SL-003-SA8N-SB-4.0-5.0

**Collected:** 5/27/2011 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
MANGANESE	442		0.0915	MDL	0.587	PQL	mg/Kg	J	A
TIN	2.76	J	1.17	MDL	11.7	PQL	mg/Kg	U	B
Zirconium	2.43	J	0.985	MDL	5.87	PQL	mg/Kg	J	Z

**Sample ID:** SL-003-SA8N-SB-9.0-10.0

**Collected:** 5/27/2011 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
MANGANESE	401		0.0964	MDL	0.618	PQL	mg/Kg	J	A
TIN	2.67	J	1.24	MDL	12.4	PQL	mg/Kg	U	B
Zirconium	4.26	J	1.04	MDL	6.18	PQL	mg/Kg	J	Z

**Sample ID:** SL-071-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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
MANGANESE	347		0.0857	MDL	0.549	PQL	mg/Kg	J	A
TIN	2.56	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	3.11	J	0.923	MDL	5.49	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** SL-091-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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
MANGANESE	463		0.0828	MDL	0.531	PQL	mg/Kg	J	A
SODIUM	95.2	J	39.6	MDL	106	PQL	mg/Kg	J	Z
TIN	2.72	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	3.34	J	0.891	MDL	5.31	PQL	mg/Kg	J	Z

**Sample ID:** SL-092-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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
MANGANESE	449		0.0863	MDL	0.553	PQL	mg/Kg	J	A
SODIUM	89.2	J	41.3	MDL	111	PQL	mg/Kg	J	Z
TIN	2.66	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	3.92	J	0.929	MDL	5.53	PQL	mg/Kg	J	Z

**Sample ID:** SL-093-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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
MANGANESE	452		0.0820	MDL	0.525	PQL	mg/Kg	J	A
SODIUM	92.0	J	39.2	MDL	105	PQL	mg/Kg	J	Z
TIN	2.64	J	1.05	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	3.78	J	0.883	MDL	5.25	PQL	mg/Kg	J	Z

**Sample ID:** SL-117-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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
MANGANESE	464		0.0845	MDL	0.542	PQL	mg/Kg	J	A
SODIUM	101	J	40.4	MDL	108	PQL	mg/Kg	J	Z
TIN	2.75	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	4.09	J	0.910	MDL	5.42	PQL	mg/Kg	J	Z

**Sample ID:** SL-118-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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
MANGANESE	484		0.0850	MDL	0.545	PQL	mg/Kg	J	A
SODIUM	95.6	J	40.6	MDL	109	PQL	mg/Kg	J	Z
TIN	2.65	J	1.09	MDL	10.9	PQL	mg/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6010B

Matrix: SO

Sample ID: SL-118-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
Zirconium	3.47	J	0.915	MDL	5.45	PQL	mg/Kg	J	Z

Sample ID: SL-119-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
MANGANESE	463		0.0831	MDL	0.533	PQL	mg/Kg	J	A
SODIUM	87.5	J	39.8	MDL	107	PQL	mg/Kg	J	Z
TIN	2.59	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	2.94	J	0.895	MDL	5.33	PQL	mg/Kg	J	Z

Sample ID: SL-120-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
MANGANESE	488		0.0824	MDL	0.528	PQL	mg/Kg	J	A
SODIUM	92.5	J	39.4	MDL	106	PQL	mg/Kg	J	Z
TIN	2.79	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	3.04	J	0.888	MDL	5.28	PQL	mg/Kg	J	Z

Sample ID: SL-122-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
MANGANESE	473		0.0922	MDL	0.591	PQL	mg/Kg	J	A

Sample ID: SL-122-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
SODIUM	96.5	J	44.1	MDL	118	PQL	mg/Kg	J	Z
TIN	3.07	J	1.18	MDL	11.8	PQL	mg/Kg	U	B
Zirconium	4.09	J	0.993	MDL	5.91	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: DUP09-SA5DN-QC-052711

Collected: 5/27/2011 10:55:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.897		0.0175	MDL	0.109	PQL	mg/Kg	J	Q

Sample ID: DUP09-SA5DN-QC-052711

Collected: 5/27/2011 10:55:00

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.193	J	0.0438	MDL	0.438	PQL	mg/Kg	J	Z

Sample ID: DUP09-SA5DN-QC-052711

Collected: 5/27/2011 10:55:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.101	J	0.0656	MDL	0.219	PQL	mg/Kg	J	Z, Q, Q
LEAD	13.6		0.0114	MDL	0.219	PQL	mg/Kg	J	Q
SILVER	0.0556	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z

Sample ID: SL-003-SA8N-SB-4.0-5.0

Collected: 5/27/2011 9:10:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	1.03		0.0181	MDL	0.113	PQL	mg/Kg	J	Q

Sample ID: SL-003-SA8N-SB-4.0-5.0

Collected: 5/27/2011 9:10:00

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.140	J	0.0451	MDL	0.451	PQL	mg/Kg	J	Z

Sample ID: SL-003-SA8N-SB-4.0-5.0

Collected: 5/27/2011 9:10:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.116	J	0.0677	MDL	0.226	PQL	mg/Kg	J	Z, Q, Q
LEAD	10.6		0.0117	MDL	0.226	PQL	mg/Kg	J	Q
SILVER	0.0394	J	0.0135	MDL	0.113	PQL	mg/Kg	J	Z

Sample ID: SL-003-SA8N-SB-9.0-10.0

Collected: 5/27/2011 9:30:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.842		0.0194	MDL	0.121	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-003-SA8N-SB-9.0-10.0

Collected: 5/27/2011 9:30:00

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.137	J	0.0485	MDL	0.485	PQL	mg/Kg	J	Z

Sample ID: SL-003-SA8N-SB-9.0-10.0

Collected: 5/27/2011 9:30:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0916	J	0.0727	MDL	0.242	PQL	mg/Kg	J	Z, Q, Q
LEAD	9.79		0.0126	MDL	0.242	PQL	mg/Kg	J	Q
SILVER	0.0602	J	0.0145	MDL	0.121	PQL	mg/Kg	J	Z

Sample ID: SL-071-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 8:25:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.712		0.0171	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-071-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 8:25:00

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.177	J	0.0427	MDL	0.427	PQL	mg/Kg	J	Z

Sample ID: SL-071-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 8:25:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.136	J	0.0640	MDL	0.213	PQL	mg/Kg	J	Z, Q, Q
LEAD	11.1		0.0111	MDL	0.213	PQL	mg/Kg	J	Q
SILVER	0.0305	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-091-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
BERYLLIUM	0.869		0.0170	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-091-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
SELENIUM	0.161	J	0.0424	MDL	0.424	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-091-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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	0.171	J	0.0637	MDL	0.212	PQL	mg/Kg	J	Z, Q, Q
LEAD	12.3		0.0110	MDL	0.212	PQL	mg/Kg	J	Q
SILVER	0.0521	J	0.0127	MDL	0.106	PQL	mg/Kg	J	Z

Sample ID: SL-092-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
BERYLLIUM	0.926		0.0179	MDL	0.112	PQL	mg/Kg	J	Q

Sample ID: SL-092-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 9:45:00

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.171	J	0.0447	MDL	0.447	PQL	mg/Kg	J	Z

Sample ID: SL-092-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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	0.0839	J	0.0670	MDL	0.223	PQL	mg/Kg	J	Z, Q, Q
LEAD	12.1		0.0116	MDL	0.223	PQL	mg/Kg	J	Q
SILVER	0.0519	J	0.0134	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: SL-093-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
BERYLLIUM	0.866		0.0170	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-093-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
SELENIUM	0.214	J	0.0424	MDL	0.424	PQL	mg/Kg	J	Z

Sample ID: SL-093-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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	0.126	J	0.0637	MDL	0.212	PQL	mg/Kg	J	Z, Q, Q
LEAD	12.7		0.0110	MDL	0.212	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-093-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
SILVER	0.0473	J	0.0127	MDL	0.106	PQL	mg/Kg	J	Z

Sample ID: SL-117-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
BERYLLIUM	0.889		0.0173	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-117-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
SELENIUM	0.195	J	0.0433	MDL	0.433	PQL	mg/Kg	J	Z

Sample ID: SL-117-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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	0.135	J	0.0650	MDL	0.217	PQL	mg/Kg	J	Z, Q, Q
LEAD	12.6		0.0113	MDL	0.217	PQL	mg/Kg	J	Q
SILVER	0.0643	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z

Sample ID: SL-118-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
BERYLLIUM	0.808		0.0173	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-118-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 11:05:00

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.185	J	0.0431	MDL	0.431	PQL	mg/Kg	J	Z

Sample ID: SL-118-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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	0.112	J	0.0647	MDL	0.216	PQL	mg/Kg	J	Z, Q, Q
LEAD	9.91		0.0112	MDL	0.216	PQL	mg/Kg	J	Q
SILVER	0.0376	J	0.0129	MDL	0.108	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>
<b>Method:</b>	<b>6020</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-119-SA5DN-SS-0.0-0.5			Collected: 5/27/2011 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
BERYLLIUM	0.886		0.0172	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-119-SA5DN-SS-0.0-0.5			Collected: 5/27/2011 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
SELENIUM	0.184	J	0.0431	MDL	0.431	PQL	mg/Kg	J	Z

Sample ID: SL-119-SA5DN-SS-0.0-0.5		Collected: 5/27/2011 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
ANTIMONY	0.123	J	0.0646	MDL	0.215	PQL	mg/Kg	J	Z, Q, Q
LEAD	12.5		0.0112	MDL	0.215	PQL	mg/Kg	J	Q
SILVER	0.0569	J	0.0129	MDL	0.108	PQL	mg/Kg	J	Z

Sample ID: SL-120-SA5DN-SS-0.0-0.5			Collected: 5/27/2011 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
BERYLLIUM	0.803		0.0176	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: SL-120-SA5DN-SS-0.0-0.5			Collected: 5/27/2011 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	0.156	J	0.0440	MDL	0.440	PQL	mg/Kg	J	Z

Sample ID: SL-120-SA5DN-SS-0.0-0.5			Collected: 5/27/2011 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	0.136	J	0.0659	MDL	0.220	PQL	mg/Kg	J	Z, Q, Q
LEAD	16.4		0.0114	MDL	0.220	PQL	mg/Kg	J	Q

Sample ID: SL-122-SA5DN-SS-0.0-0.5			Collected: 5/27/2011 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
BERYLLIUM	1.07		0.0182	MDL	0.114	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-122-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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	0.213	J	0.0455	MDL	0.455	PQL	mg/Kg	J	Z

Sample ID: SL-122-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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	0.130	J	0.0682	MDL	0.227	PQL	mg/Kg	J	Z, Q, Q
LEAD	14.4		0.0118	MDL	0.227	PQL	mg/Kg	J	Q
SILVER	0.0558	J	0.0136	MDL	0.114	PQL	mg/Kg	J	Z

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

Sample ID: DUP09-SA5DN-QC-052711

Collected: 5/27/2011 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
HEXAVALENT CHROMIUM	0.78	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z, FD

Sample ID: SL-003-SA8N-SB-4.0-5.0

Collected: 5/27/2011 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	0.31	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-003-SA8N-SB-9.0-10.0

Collected: 5/27/2011 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
HEXAVALENT CHROMIUM	0.40	J	0.25	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-071-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
HEXAVALENT CHROMIUM	0.77	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

Sample ID: SL-091-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
HEXAVALENT CHROMIUM	0.59	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-093-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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	0.95	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-117-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
HEXAVALENT CHROMIUM	1.5		0.22	MDL	1.1	PQL	mg/Kg	J	FD

Sample ID: SL-118-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
HEXAVALENT CHROMIUM	1.0	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-119-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
HEXAVALENT CHROMIUM	1.0	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-122-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
HEXAVALENT CHROMIUM	0.72	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

Sample ID: DUP09-SA5DN-QC-052711

Collected: 5/27/2011 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
MERCURY	0.0407	J	0.0030	MDL	0.106	PQL	mg/Kg	J	Z, E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

**Sample ID:** SL-003-SA8N-SB-4.0-5.0

**Collected:** 5/27/2011 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
MERCURY	0.0032	U	0.0032	MDL	0.112	PQL	mg/Kg	UJ	E

**Sample ID:** SL-003-SA8N-SB-9.0-10.0

**Collected:** 5/27/2011 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
MERCURY	0.0034	U	0.0034	MDL	0.120	PQL	mg/Kg	UJ	E

**Sample ID:** SL-071-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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
MERCURY	0.0036	J	0.0031	MDL	0.109	PQL	mg/Kg	J	Z, E

**Sample ID:** SL-091-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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
MERCURY	0.0351	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z, E

**Sample ID:** SL-092-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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	0.0048	J	0.0030	MDL	0.106	PQL	mg/Kg	J	Z, E

**Sample ID:** SL-093-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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	0.0127	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z, E

**Sample ID:** SL-117-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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	0.0644	J	0.0030	MDL	0.104	PQL	mg/Kg	J	Z, E

**Sample ID:** SL-118-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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
MERCURY	0.0247	J	0.0031	MDL	0.110	PQL	mg/Kg	J	Z, E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

**Sample ID:** SL-119-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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
MERCURY	0.0644	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z, E

**Sample ID:** SL-120-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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
MERCURY	0.461		0.0030	MDL	0.104	PQL	mg/Kg	J	E

**Method Category:** SVOA

**Method:** 1625C

**Matrix:** SO

**Sample ID:** SL-119-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 11:45:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	252	J	184	MDL	368	PQL	ng/Kg	J	Z

**Sample ID:** SL-120-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 11:25:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	320	J	183	MDL	366	PQL	ng/Kg	J	Z

**Method Category:** SVOA

**Method:** 8015M

**Matrix:** SO

**Sample ID:** DUP09-SA5DN-QC-052711

**Collected:** 5/27/2011 10:55:00

**Analysis Type:** REA3

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	30		0.88	MDL	2.7	PQL	mg/Kg	J	FD
EFH (C30-C40)	72		0.88	MDL	2.7	PQL	mg/Kg	J	FD

**Sample ID:** SL-117-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 10:45:00

**Analysis Type:** REA

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	5.5	U	5.5	MDL	11	PQL	mg/Kg	UJ	Q
ETHYLENE GLYCOL	5.5	U	5.5	MDL	11	PQL	mg/Kg	UJ	Q
Propylene glycol	5.5	U	5.5	MDL	11	PQL	mg/Kg	UJ	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8015M

**Matrix:** SO

Sample ID: SL-117-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 10:45:00

Analysis Type: REA3

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	67		2.2	MDL	6.6	PQL	mg/Kg	J	FD
EFH (C30-C40)	210		2.2	MDL	6.6	PQL	mg/Kg	J	FD

Sample ID: SL-119-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 11:45:00

Analysis Type: REA3

Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	12	J	4.4	MDL	13	PQL	mg/Kg	J	Z

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

Sample ID: DUP09-SA5DN-QC-052711

Collected: 5/27/2011 10:55:00

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'-DDD	0.073	U	0.073	MDL	0.38	PQL	ug/Kg	UJ	S
4,4'-DDE	0.47		0.073	MDL	0.38	PQL	ug/Kg	J	S
4,4'-DDT	0.97		0.073	MDL	0.38	PQL	ug/Kg	J	S
ALDRIN	0.073	U	0.073	MDL	0.18	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.038	U	0.038	MDL	0.18	PQL	ug/Kg	UJ	S
BETA-BHC	0.066	U	0.066	MDL	0.18	PQL	ug/Kg	UJ	S
Chlordane	2.1	J	0.88	MDL	3.8	PQL	ug/Kg	J	Z, S
DELTA-BHC	0.040	U	0.040	MDL	0.18	PQL	ug/Kg	UJ	S
DIELDRIN	0.14	U	0.14	MDL	0.38	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.049	U	0.049	MDL	0.18	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.090	U	0.090	MDL	0.38	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.073	U	0.073	MDL	0.38	PQL	ug/Kg	UJ	S
ENDRIN	0.073	U	0.073	MDL	0.38	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.073	U	0.073	MDL	0.38	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.073	U	0.073	MDL	0.38	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.038	U	0.038	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.066	U	0.066	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.061	U	0.061	MDL	0.18	PQL	ug/Kg	UJ	S, FD
METHOXYCHLOR	0.38	U	0.38	MDL	1.8	PQL	ug/Kg	UJ	S
MIREX	0.26	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z, S, FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

**Sample ID:** DUP09-SA5DN-QC-052711

**Collected:** 5/27/2011 10:55:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	2.4	U	2.4	MDL	7.3	PQL	ug/Kg	UJ	S

**Sample ID:** SL-071-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 8:25:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN KETONE	0.23	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z

**Sample ID:** SL-091-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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
Chlordane	2.3	J	0.87	MDL	3.7	PQL	ug/Kg	J	Z
HEPTACHLOR EPOXIDE	0.050	J	0.037	MDL	0.18	PQL	ug/Kg	J	Z

**Sample ID:** SL-092-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 9:45:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	2.7	J	0.89	MDL	3.8	PQL	ug/Kg	J	Z
ENDOSULFAN SULFATE	0.27	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z

**Sample ID:** SL-093-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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	2.4	J	0.87	MDL	3.7	PQL	ug/Kg	J	Z

**Sample ID:** SL-117-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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	0.52		0.073	MDL	0.38	PQL	ug/Kg	J	S
4,4'-DDT	1.1		0.073	MDL	0.38	PQL	ug/Kg	J	S
Chlordane	2.3	J	0.88	MDL	3.8	PQL	ug/Kg	J	Z, S
HEPTACHLOR EPOXIDE	0.095	J	0.038	MDL	0.18	PQL	ug/Kg	J	Z, S, FD
MIREX	0.073	U	0.073	MDL	0.38	PQL	ug/Kg	UJ	FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

**Sample ID:** SL-118-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 11:05:00

**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	0.076	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z
4,4'-DDE	0.19	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z
4,4'-DDT	0.16	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z
MIREX	0.31	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z

**Sample ID:** SL-119-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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
4,4'-DDE	0.31	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z, S
4,4'-DDT	1.4		0.073	MDL	0.38	PQL	ug/Kg	J	S
Chlordane	5.6		0.89	MDL	3.8	PQL	ug/Kg	J	S
DELTA-BHC	0.086	J	0.040	MDL	0.18	PQL	ug/Kg	J	Z, S

**Sample ID:** SL-120-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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
4,4'-DDD	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	S
4,4'-DDE	0.39		0.073	MDL	0.37	PQL	ug/Kg	J	S
4,4'-DDT	1.4		0.073	MDL	0.37	PQL	ug/Kg	J	S
ALDRIN	0.073	U	0.073	MDL	0.18	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.037	U	0.037	MDL	0.18	PQL	ug/Kg	UJ	S
BETA-BHC	0.066	U	0.066	MDL	0.18	PQL	ug/Kg	UJ	S
Chlordane	9.3		0.88	MDL	3.7	PQL	ug/Kg	J	S
DELTA-BHC	0.040	U	0.040	MDL	0.18	PQL	ug/Kg	UJ	S
DIELDRIN	2.9	U	2.9	MDL	2.9	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.048	U	0.048	MDL	0.18	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.19	U	0.19	MDL	0.37	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	S
ENDRIN	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.12	U	0.12	MDL	0.37	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.037	U	0.037	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.066	U	0.066	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.19	U	0.19	MDL	0.19	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.37	U	0.37	MDL	1.8	PQL	ug/Kg	UJ	S

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

**Sample ID:** SL-120-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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
MIREX	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	S
TOXAPHENE	2.4	U	2.4	MDL	7.3	PQL	ug/Kg	UJ	S

**Sample ID:** SL-122-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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
4,4'-DDE	0.50		0.078	MDL	0.40	PQL	ug/Kg	J	S
4,4'-DDT	1.3		0.078	MDL	0.40	PQL	ug/Kg	J	S
Chlordane	3.0	J	0.95	MDL	4.0	PQL	ug/Kg	J	Z, S

**Method Category:** SVOA

**Method:** 8082

**Matrix:** SO

**Sample ID:** DUP09-SA5DN-QC-052711

**Collected:** 5/27/2011 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
Aroclor 5460	5.0		1.1	MDL	3.6	PQL	ug/Kg	J	FD

**Sample ID:** SL-071-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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
Aroclor 5460	1.6	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z

**Sample ID:** SL-093-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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
Aroclor 5460	1.9	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z

**Sample ID:** SL-117-SA5DN-SS-0.0-0.5

**Collected:** 5/27/2011 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
Aroclor 5460	1.9	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z, FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8082</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-119-SA5DN-SS-0.0-0.5 Collected: 5/27/2011 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
AROCLOL 1260	1.7	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5460	2.1	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z

Sample ID: SL-120-SA5DN-SS-0.0-0.5 Collected: 5/27/2011 11:25:00 Analysis Type: RES Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	12	J	5.5	MDL	18	PQL	ug/Kg	J	Z

Sample ID: SL-122-SA5DN-SS-0.0-0.5 Collected: 5/27/2011 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
AROCLOL 1260	1.9	J	0.46	MDL	2.0	PQL	ug/Kg	J	Z

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8151A</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: DUP09-SA5DN-QC-052711 Collected: 5/27/2011 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
MCPA	400		83	MDL	270	PQL	ug/Kg	J	FD

Sample ID: SL-091-SA5DN-SS-0.0-0.5 Collected: 5/27/2011 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
2,4,5-TP (Silvex)	0.10	J	0.082	MDL	0.19	PQL	ug/Kg	J	Z

Sample ID: SL-092-SA5DN-SS-0.0-0.5 Collected: 5/27/2011 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
2,4,5-TP (Silvex)	0.16	J	0.083	MDL	0.19	PQL	ug/Kg	J	Z

Sample ID: SL-093-SA5DN-SS-0.0-0.5 Collected: 5/27/2011 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
2,4,5-TP (Silvex)	0.15	J	0.082	MDL	0.18	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>									
<b>Method:</b>	<b>8151A</b>					<b>Matrix:</b>	<b>SO</b>			

Sample ID: SL-117-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
MCPA	490	U	490	MDL	490	PQL	ug/Kg	UJ	FD

<b>Method Category:</b>	<b>SVOA</b>									
<b>Method:</b>	<b>8270C</b>					<b>Matrix:</b>	<b>SO</b>			

Sample ID: DUP09-SA5DN-QC-052711

Collected: 5/27/2011 10:55:00

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	370	U	370	MDL	1100	PQL	ug/Kg	UJ	L

Sample ID: SL-003-SA8N-SB-4.0-5.0

Collected: 5/27/2011 9:10:00

Analysis Type: RES-ACID

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	390	U	390	MDL	1200	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	25	J	20	MDL	390	PQL	ug/Kg	J	Z

Sample ID: SL-003-SA8N-SB-9.0-10.0

Collected: 5/27/2011 9:30:00

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	410	U	410	MDL	1200	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	23	J	20	MDL	410	PQL	ug/Kg	J	Z

Sample ID: SL-071-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 8:25:00

Analysis Type: RES-ACID

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	360	U	360	MDL	1100	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	43	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-091-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 9:05:00

Analysis Type: RES-ACID

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	360	U	360	MDL	1100	PQL	ug/Kg	UJ	L
BENZO(A)ANTHRACENE	56	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	58	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	68	J	18	MDL	180	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C

Matrix: SO

Sample ID: SL-091-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
BENZO(K)FLUORANTHENE	27	J	18	MDL	180	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	43	J	18	MDL	360	PQL	ug/Kg	J	Z
Butylbenzylphthalate	24	J	18	MDL	180	PQL	ug/Kg	J	Z
CHRYSENE	78	J	18	MDL	180	PQL	ug/Kg	J	Z
FLUORANTHENE	120	J	18	MDL	180	PQL	ug/Kg	J	Z
PHENANTHRENE	76	J	18	MDL	180	PQL	ug/Kg	J	Z
PYRENE	130	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-092-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 9:45:00

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	370	U	370	MDL	1100	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	40	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-093-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 10:05:00

Analysis Type: RES-ACID

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	360	U	360	MDL	1100	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	33	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-117-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 10:45:00

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	370	U	370	MDL	1100	PQL	ug/Kg	UJ	L
BENZIDINE	1300	U	1300	MDL	3700	PQL	ug/Kg	R	Q
BIS(2-ETHYLHEXYL)PHTHALATE	51	J	18	MDL	370	PQL	ug/Kg	J	Z
CHRYSENE	130	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-118-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 11:05:00

Analysis Type: RES-ACID

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	360	U	360	MDL	1100	PQL	ug/Kg	UJ	L
BENZO(A)ANTHRACENE	23	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	25	J	18	MDL	180	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	35	J	18	MDL	360	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C

Matrix: SO

Sample ID: SL-118-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 11:05:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORANTHENE	40	J	18	MDL	180	PQL	ug/Kg	J	Z
PHENANTHRENE	24	J	18	MDL	180	PQL	ug/Kg	J	Z
PYRENE	41	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-119-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 11:45:00

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	370	U	370	MDL	1100	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	38	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-120-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 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
2,4-DINITROPHENOL	370	U	370	MDL	1100	PQL	ug/Kg	UJ	L
BENZO(A)PYRENE	26	J	18	MDL	180	PQL	ug/Kg	J	Z
CHRYSENE	130	J	18	MDL	180	PQL	ug/Kg	J	Z
Di-n-butylphthalate	66	J	18	MDL	180	PQL	ug/Kg	J	Z
FLUORANTHENE	48	J	18	MDL	180	PQL	ug/Kg	J	Z
PHENANTHRENE	41	J	18	MDL	180	PQL	ug/Kg	J	Z
PYRENE	46	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-122-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 9:25:00

Analysis Type: RES-ACID

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	390	U	390	MDL	1200	PQL	ug/Kg	UJ	L
ANTHRACENE	43	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	140	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	170	J	20	MDL	200	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	48	J	20	MDL	390	PQL	ug/Kg	J	Z
CARBAZOLE	28	J	20	MDL	200	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	43	J	20	MDL	200	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	180	J	20	MDL	200	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: DUP09-SA5DN-QC-052711

Collected: 5/27/2011 10:55:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	5.0	J	1.8	MDL	9.2	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	47		3.7	MDL	9.2	PQL	ug/Kg	J	FD
BENZO(A)PYRENE	40		3.7	MDL	9.2	PQL	ug/Kg	J	FD
BENZO(B)FLUORANTHENE	67		3.7	MDL	9.2	PQL	ug/Kg	J	FD
BENZO(G,H,I)PERYLENE	13		3.7	MDL	9.2	PQL	ug/Kg	J	FD
BENZO(K)FLUORANTHENE	36		3.7	MDL	9.2	PQL	ug/Kg	J	FD
BIS(2-ETHYLHEXYL)PHTHALATE	68	J	33	MDL	99	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	5.3	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	96		3.7	MDL	9.2	PQL	ug/Kg	J	FD
INDENO(1,2,3-CD)PYRENE	14		3.7	MDL	9.2	PQL	ug/Kg	J	FD
PHENANTHRENE	25		3.7	MDL	9.2	PQL	ug/Kg	J	FD
PYRENE	76		3.7	MDL	9.2	PQL	ug/Kg	J	FD

Sample ID: SL-071-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 8:25:00

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(B)FLUORANTHENE	5.1	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	8.7	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
CHRYSENE	2.7	J	1.8	MDL	9.2	PQL	ug/Kg	J	Z

Sample ID: SL-091-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 9:05:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	3.5	J	1.8	MDL	9.0	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	3.8	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z

Sample ID: SL-092-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 9:45:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHENE	7.5	J	3.7	MDL	9.3	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	8.0	J	3.7	MDL	9.3	PQL	ug/Kg	J	Z
FLUORENE	6.0	J	3.7	MDL	9.3	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-093-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 10:05:00

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(B)FLUORANTHENE	4.9	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
CHRYSENE	5.6	J	1.8	MDL	9.0	PQL	ug/Kg	J	Z
FLUORANTHENE	7.8	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
PHENANTHRENE	4.8	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
PYRENE	7.0	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z

Sample ID: SL-117-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 10:45:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	4.5	J	1.8	MDL	9.2	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	6.7	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z, FD
BENZO(A)PYRENE	7.2	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z, FD
BENZO(B)FLUORANTHENE	13		3.7	MDL	9.2	PQL	ug/Kg	J	FD
BENZO(G,H,I)PERYLENE	7.6	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z, FD
BENZO(K)FLUORANTHENE	6.0	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z, FD
DIBENZO(A,H)ANTHRACENE	3.7	U	3.7	MDL	9.2	PQL	ug/Kg	UJ	FD
FLUORANTHENE	10		3.7	MDL	9.2	PQL	ug/Kg	J	FD
INDENO(1,2,3-CD)PYRENE	3.9	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z, FD
PHENANTHRENE	4.8	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z, FD
PYRENE	13		3.7	MDL	9.2	PQL	ug/Kg	J	FD

Sample ID: SL-118-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 11:05:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	1.6	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-120-SA5DN-SS-0.0-0.5

Collected: 5/27/2011 11:25:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	3.5	J	1.8	MDL	9.0	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	7.5	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	7.7	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	3.7	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>VOA</b>
<b>Method:</b>	<b>8015B</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: DUP09-SA5DN-QC-052711			Collected: 5/27/2011 10:55:00		Analysis Type: REA2			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
p-Terphenyl	1.7	J	1.7	MDL	3.9	PQL	mg/Kg	J	Z

Sample ID: SL-117-SA5DN-SS-0.0-0.5			Collected: 5/27/2011 10:45:00		Analysis Type: REA2			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
p-Terphenyl	2.2	J	1.7	MDL	3.9	PQL	mg/Kg	J	Z, Q, Q

Sample ID: SL-119-SA5DN-SS-0.0-0.5			Collected: 5/27/2011 11:45:00		Analysis Type: REA2			Dilution: 5	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
p-Terphenyl	12	J	8.3	MDL	19	PQL	mg/Kg	J	Z

Sample ID: SL-120-SA5DN-SS-0.0-0.5			Collected: 5/27/2011 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
p-Terphenyl	6.6	J	3.3	MDL	7.7	PQL	mg/Kg	J	Z

<b>Method Category:</b>	<b>VOA</b>
<b>Method:</b>	<b>8260B</b>
<b>Matrix:</b>	<b>AQ</b>

Sample ID: TB-052711		Collected: 5/27/2011 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
BENZENE	1	J	0.5	MDL	5	PQL	ug/L	J	Z
TOLUENE	0.7	J	0.7	MDL	5	PQL	ug/L	J	Z

<b>Method Category:</b>	<b>VOA</b>
<b>Method:</b>	<b>8260B</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-003-SA8N-SB-4.0-5.0			Collected: 5/27/2011 9:10:00		Analysis Type: RES			Dilution: 0.94	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	11		7.4	MDL	8.9	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.1	J	0.27	MDL	4.4	PQL	ug/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## ***Data Qualifier Summary***

Lab Reporting Batch ID: DE167

EDD Filename: PrepDE167\_v1

Laboratory: LL

eQAPP Name: CDM\_SSFL\_110509

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

### Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	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
F	Equipment Blank Contamination

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

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
R	Continuing Calibration Verification Percent Recovery Lower Estimation

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## ***Data Qualifier Summary***

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: PrepDE167\_v1

eQAPP Name: CDM\_SSFL\_110509

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

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE167

# Method Blank Outlier Report

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: DE167\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6010B  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15708DB221712	6/7/2011 5:12:00 PM	CALCIUM PHOSPHORUS TIN	6.72 mg/Kg 1.29 mg/Kg 1.55 mg/Kg	DUP09-SA5DN-QC-052711 SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-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
DUP09-SA5DN-QC-052711(RES)	TIN	2.59 mg/Kg	2.59U mg/Kg
SL-003-SA8N-SB-4.0-5.0(RES)	TIN	2.76 mg/Kg	2.76U mg/Kg
SL-003-SA8N-SB-9.0-10.0(RES)	TIN	2.67 mg/Kg	2.67U mg/Kg
SL-071-SA5DN-SS-0.0-0.5(RES)	TIN	2.56 mg/Kg	2.56U mg/Kg
SL-091-SA5DN-SS-0.0-0.5(RES)	TIN	2.72 mg/Kg	2.72U mg/Kg
SL-092-SA5DN-SS-0.0-0.5(RES)	TIN	2.66 mg/Kg	2.66U mg/Kg
SL-093-SA5DN-SS-0.0-0.5(RES)	TIN	2.64 mg/Kg	2.64U mg/Kg
SL-117-SA5DN-SS-0.0-0.5(RES)	TIN	2.75 mg/Kg	2.75U mg/Kg
SL-118-SA5DN-SS-0.0-0.5(RES)	TIN	2.65 mg/Kg	2.65U mg/Kg
SL-119-SA5DN-SS-0.0-0.5(RES)	TIN	2.59 mg/Kg	2.59U mg/Kg
SL-120-SA5DN-SS-0.0-0.5(RES)	TIN	2.79 mg/Kg	2.79U mg/Kg
SL-122-SA5DN-SS-0.0-0.5(RES)	TIN	3.07 mg/Kg	3.07U mg/Kg

**Method:** 6020  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15726HB222324A	6/10/2011 11:24:00 PM	LEAD	0.0194 mg/Kg	DUP09-SA5DN-QC-052711 SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-SS-0.0-0.5

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Method Blank Outlier Report

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: DE167\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method: 8015M</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P57571AB322158A	6/7/2011 9:58:00 PM	EFH (C8-C11)	0.40 mg/Kg	DUP09-SA5DN-QC-052711 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5

<b>Method: 8151A</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P57576AB240515A	6/9/2011 5:15:00 AM	MCP	84 ug/Kg	DUP09-SA5DN-QC-052711 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-SS-0.0-0.5

<b>Method: 8260B</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB72B211210A	6/1/2011 12:10:00 PM	ACETONE METHYLENE CHLORIDE	8.6 ug/Kg 1.4 ug/Kg	SL-003-SA8N-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
SL-003-SA8N-SB-4.0-5.0(RES)	ACETONE	11 ug/Kg	11U ug/Kg
SL-003-SA8N-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.1 ug/Kg	4.4U ug/Kg

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: DE167\_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-117-SA5DN-SS-0.0-0.5MS	DIETHYLENE GLYCOL	45	40	59.00-109.00	-	DIETHYLENE GLYCOL	J (all detects) UJ (all non-detects)
SL-117-SA5DN-SS-0.0-0.5MSD	ETHYLENE GLYCOL	-	57	63.00-107.00	-	ETHYLENE GLYCOL	
(SL-117-SA5DN-SS-0.0-0.5)	Propylene glycol	-	62	63.00-107.00	-	Propylene glycol	

Method: 8015B

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-117-SA5DN-SS-0.0-0.5MS	p-Terphenyl	28	63	75.00-125.00	21 (20.00)	p-Terphenyl	J(all detects) UJ(all non-detects)
SL-117-SA5DN-SS-0.0-0.5MSD							
(SL-117-SA5DN-SS-0.0-0.5)							

Method: 8015M

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-117-SA5DN-SS-0.0-0.5MS	EFH (C12-C14)	0	0	49.00-123.00	-	EFH (C12-C14)	No Qual Diluted Out
SL-117-SA5DN-SS-0.0-0.5MSD	EFH (C15-C20)	-196	-43	49.00-123.00	26 (20.00)	EFH (C15-C20)	
(SL-117-SA5DN-SS-0.0-0.5)	EFH (C21-C30)	-889	-1432	49.00-123.00	31 (20.00)	EFH (C21-C30)	
	EFH (C30-C40)	-226	-1853	49.00-123.00	25 (20.00)	EFH (C30-C40)	
	EFH (C8-C11)	0	0	49.00-123.00	-	EFH (C8-C11)	

Method: 1625C

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-117-SA5DN-SS-0.0-0.5MS	N-NITROSODIMETHYLAMINE	157	136	70.00-130.00	-	N-NITROSODIMETHYLAMINE	J(all detects)
SL-117-SA5DN-SS-0.0-0.5MSD							
(SL-117-SA5DN-SS-0.0-0.5)							

Method: 8270C

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-117-SA5DN-SS-0.0-0.5MSD	3,3'-DICHLOROBENZIDINE	-	-	18.00-119.00	33 (30.00)	3,3'-DICHLOROBENZIDINE	J(all detects)
(SL-117-SA5DN-SS-0.0-0.5)	HEXACHLOROCYCLOPENTADI	-	-	10.00-153.00	79 (30.00)	HEXACHLOROCYCLOPENTAD	
SL-117-SA5DN-SS-0.0-0.5MS	BENZIDINE	0	0	35.00-141.00	-	BENZIDINE	J(all detects) R(all non-detects)
SL-117-SA5DN-SS-0.0-0.5MSD							
(SL-117-SA5DN-SS-0.0-0.5)							

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: DE167\_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-117-SA5DN-SS-0.0-0.5MS SL-117-SA5DN-SS-0.0-0.5MSD (SL-117-SA5DN-SS-0.0-0.5)	BENZO(A)ANTHRACENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(G,H,I)PERYLENE BENZO(K)FLUORANTHENE FLUORANTHENE INDENO(1,2,3-CD)PYRENE PHENANTHRENE PYRENE	142 156 168 - - 221 - 167 188	- - - - - - - - -	59.00-128.00 45.00-138.00 43.00-155.00 33.00-141.00 42.00-144.00 26.00-166.00 21.00-143.00 12.00-165.00 15.00-153.00	47 (30.00) 57 (30.00) 57 (30.00) 33 (30.00) 50 (30.00) 83 (30.00) 40 (30.00) 66 (30.00) 72 (30.00)	BENZO(A)ANTHRACENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(G,H,I)PERYLENE BENZO(K)FLUORANTHENE FLUORANTHENE INDENO(1,2,3-CD)PYRENE PHENANTHRENE PYRENE	No Qual, Diluted Out
SL-117-SA5DN-SS-0.0-0.5MS SL-117-SA5DN-SS-0.0-0.5MSD (SL-117-SA5DN-SS-0.0-0.5)	CHRYSENE Diethylphthalate Dimethylphthalate	- - 0	-4 0 0	48.00-134.00 70.00-136.00 74.00-118.00	37 (30.00) 200 (30.00) -	CHRYSENE Diethylphthalate Dimethylphthalate	No Qual Diluted Out

Method: 6020

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-117-SA5DN-SS-0.0-0.5MS (DUP09-SA5DN-QC-052711 SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-SS-0.0-0.5)	LEAD	143	-	75.00-125.00	-	LEAD	J(all detects)
SL-117-SA5DN-SS-0.0-0.5MS SL-117-SA5DN-SS-0.0-0.5MSD (DUP09-SA5DN-QC-052711 SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-SS-0.0-0.5)	ANTIMONY	28	32	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects) Post Spike=102%
SL-117-SA5DN-SS-0.0-0.5MS (DUP09-SA5DN-QC-052711 SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-SS-0.0-0.5)	BERYLLIUM	62	-	75.00-125.00	-	BERYLLIUM	J(all detects) UJ(all non-detects)

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: DE167\_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-117-SA5DN-SS-0.0-0.5MSD (DUP09-SA5DN-QC-052711 SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-SS-0.0-0.5)	BARIUM	-	134	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-117-SA5DN-SS-0.0-0.5MS SL-117-SA5DN-SS-0.0-0.5MSD (DUP09-SA5DN-QC-052711 SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-SS-0.0-0.5)	ALUMINUM POTASSIUM TITANIUM	1015 137 182	1227 126 226	75.00-125.00 75.00-125.00 75.00-125.00	- - -	ALUMINUM POTASSIUM TITANIUM	No Qual, >4x
SL-117-SA5DN-SS-0.0-0.5MS SL-117-SA5DN-SS-0.0-0.5MSD (DUP09-SA5DN-QC-052711 SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-SS-0.0-0.5)	IRON MANGANESE	438 -	-2108 -18	75.00-125.00 75.00-125.00	- -	IRON MANGANESE	No Qual, >4x

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: DE167\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 6020

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-117-SA5DN-SS-0.0-0.5DUP (DUP09-SA5DN-QC-052711 SL -003-SA8N-SB-4.0-5.0 SL -003-SA8N-SB-9.0-10.0 SL -071-SA5DN-SS-0.0-0.5 SL -091-SA5DN-SS-0.0-0.5 SL -092-SA5DN-SS-0.0-0.5 SL -093-SA5DN-SS-0.0-0.5 SL -117-SA5DN-SS-0.0-0.5 SL -118-SA5DN-SS-0.0-0.5 SL -119-SA5DN-SS-0.0-0.5 SL -120-SA5DN-SS-0.0-0.5 SL -122-SA5DN-SS-0.0-0.5)	SILVER	36	20.00	No Qual, OK by difference

Method: 7199

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-117-SA5DN-SS-0.0-0.5DUP (DUP09-SA5DN-QC-052711 SL -003-SA8N-SB-4.0-5.0 SL -003-SA8N-SB-9.0-10.0 SL -071-SA5DN-SS-0.0-0.5 SL -091-SA5DN-SS-0.0-0.5 SL -092-SA5DN-SS-0.0-0.5 SL -093-SA5DN-SS-0.0-0.5 SL -117-SA5DN-SS-0.0-0.5 SL -118-SA5DN-SS-0.0-0.5 SL -119-SA5DN-SS-0.0-0.5 SL -120-SA5DN-SS-0.0-0.5 SL -122-SA5DN-SS-0.0-0.5)	HEXAVALENT CHROMIUM	30	20.00	No Qual, OK by difference

Method: 7471A

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-117-SA5DN-SS-0.0-0.5DUP (DUP09-SA5DN-QC-052711 SL -003-SA8N-SB-4.0-5.0 SL -003-SA8N-SB-9.0-10.0 SL -071-SA5DN-SS-0.0-0.5 SL -091-SA5DN-SS-0.0-0.5 SL -092-SA5DN-SS-0.0-0.5 SL -093-SA5DN-SS-0.0-0.5 SL -117-SA5DN-SS-0.0-0.5 SL -118-SA5DN-SS-0.0-0.5 SL -119-SA5DN-SS-0.0-0.5 SL -120-SA5DN-SS-0.0-0.5)	MERCURY	1.4942	0.208	J(all detects) UJ(all non-detects)

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: DE167\_v1

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
P3LFLCSQ260356 (DUP09-SA5DN-QC-052711 SL -003-SA8N-SB-4.0-5.0 SL -003-SA8N-SB-9.0-10.0 SL -071-SA5DN-SS-0.0-0.5 SL -091-SA5DN-SS-0.0-0.5 SL -092-SA5DN-SS-0.0-0.5 SL -093-SA5DN-SS-0.0-0.5 SL -117-SA5DN-SS-0.0-0.5 SL -118-SA5DN-SS-0.0-0.5 SL -119-SA5DN-SS-0.0-0.5 SL -120-SA5DN-SS-0.0-0.5 SL -122-SA5DN-SS-0.0-0.5)	2,4-DINITROPHENOL	35	-	37.00-120.00	-	2,4-DINITROPHENOL	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
P15726HQ222327A (DUP09-SA5DN-QC-052711 SL -003-SA8N-SB-4.0-5.0 SL -003-SA8N-SB-9.0-10.0 SL -071-SA5DN-SS-0.0-0.5 SL -091-SA5DN-SS-0.0-0.5 SL -092-SA5DN-SS-0.0-0.5 SL -093-SA5DN-SS-0.0-0.5 SL -117-SA5DN-SS-0.0-0.5 SL -118-SA5DN-SS-0.0-0.5 SL -119-SA5DN-SS-0.0-0.5 SL -120-SA5DN-SS-0.0-0.5 SL -122-SA5DN-SS-0.0-0.5)	ANTIMONY	64	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC limits

# Surrogate Outlier Report

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: DE167\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 8081A

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
DUP09-SA5DN-QC-052711	TETRACHLORO-M-XYLENE	48	50.00-130.00	All Target Analytes	J (all detects) UJ (all non-detects)
SL-117-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	135	20.00-120.00	All Target Analytes	J(all detects)
SL-119-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	173	20.00-120.00	All Target Analytes	J(all detects)
SL-120-SA5DN-SS-0.0-0.5	TETRACHLORO-M-XYLENE	48	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-122-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	146	20.00-120.00	All Target Analytes	J(all detects)

## Field Duplicate RPD Report

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: DE167\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 160.3M

**Matrix:** SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-117-SA5DN-SS-0.0-0.5	DUP09-SA5DN-QC-052711			
MOISTURE	9.5	9.5	0		No Qualifiers Applied

**Method:** 300.0

**Matrix:** SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-117-SA5DN-SS-0.0-0.5	DUP09-SA5DN-QC-052711			
FLUORIDE	1.6	2.0	22	50.00	No Qualifiers Applied
Nitrate-NO3	2.4	3.0	22	50.00	

**Method:** 6010B

**Matrix:** SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-117-SA5DN-SS-0.0-0.5	DUP09-SA5DN-QC-052711			
ALUMINUM	30100	30000	0	50.00	No Qualifiers Applied
CALCIUM	5500	5290	4	50.00	
IRON	31800	32300	2	50.00	
LITHIUM	24.1	23.2	4	50.00	
MAGNESIUM	6580	6500	1	50.00	
MANGANESE	464	503	8	50.00	
PHOSPHORUS	387	396	2	50.00	
POTASSIUM	5780	5660	2	50.00	
SODIUM	101	92.8	8	50.00	
STRONTIUM	31.7	30.6	4	50.00	
TIN	2.75	2.59	6	50.00	
TITANIUM	1420	1350	5	50.00	
Zirconium	4.09	3.46	17	50.00	

**Method:** 6020

**Matrix:** SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-117-SA5DN-SS-0.0-0.5	DUP09-SA5DN-QC-052711			
ANTIMONY	0.135	0.101	29	50.00	No Qualifiers Applied
ARSENIC	5.24	5.39	3	50.00	
BARIUM	138	134	3	50.00	
BERYLLIUM	0.889	0.897	1	50.00	
CADMIUM	0.500	0.489	2	50.00	
CHROMIUM	31.0	29.3	6	50.00	
COBALT	9.33	9.49	2	50.00	
COPPER	16.4	16.6	1	50.00	
LEAD	12.6	13.6	8	50.00	
MOLYBDENUM	0.536	0.519	3	50.00	
NICKEL	21.1	21.0	0	50.00	
SELENIUM	0.195	0.193	1	50.00	
SILVER	0.0643	0.0556	15	50.00	
THALLIUM	0.362	0.354	2	50.00	
VANADIUM	56.6	54.9	3	50.00	
ZINC	80.2	78.8	2	50.00	

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## Field Duplicate RPD Report

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: DE167\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 7199

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-117-SA5DN-SS-0.0-0.5	DUP09-SA5DN-QC-052711			
HEXAVALENT CHROMIUM	1.5	0.78	63	50.00	J(all detects)

Method: 7471A

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-117-SA5DN-SS-0.0-0.5	DUP09-SA5DN-QC-052711			
MERCURY	0.0644	0.0407	45	50.00	No Qualifiers Applied

Method: 8015B

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-117-SA5DN-SS-0.0-0.5	DUP09-SA5DN-QC-052711			
p-Terphenyl	2.2	1.7	26	50.00	No Qualifiers Applied

Method: 8015M

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-117-SA5DN-SS-0.0-0.5	DUP09-SA5DN-QC-052711			
EFH (C15-C20)	9.8	9.8	0	50.00	No Qualifiers Applied
EFH (C21-C30)	67	30	76	50.00	J(all detects)
EFH (C30-C40)	210	72	98	50.00	

Method: 8081A

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-117-SA5DN-SS-0.0-0.5	DUP09-SA5DN-QC-052711			
4,4'-DDE	0.52	0.47	10	50.00	No Qualifiers Applied
4,4'-DDT	1.1	0.97	13	50.00	
Chlordane	2.3	2.1	9	50.00	
HEPTACHLOR EPOXIDE	0.095	0.18 U	200	50.00	J(all detects) UJ(all non-detects)
MIREX	0.38 U	0.26	200	50.00	

Method: 8082

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-117-SA5DN-SS-0.0-0.5	DUP09-SA5DN-QC-052711			
AROCLOR 1260	4.0	6.1	42	50.00	No Qualifiers Applied
Aroclor 5460	1.9	5.0	90	50.00	J(all detects)

## Field Duplicate RPD Report

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: DE167\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8151A

**Matrix:** SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-117-SA5DN-SS-0.0-0.5	DUP09-SA5DN-QC-052711			
MCPA	490 U	400	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-117-SA5DN-SS-0.0-0.5	DUP09-SA5DN-QC-052711			
ANTHRACENE	4.5	5.0	11	50.00	No Qualifiers Applied
BENZO(A)ANTHRACENE	6.7	47	150	50.00	J(all detects) UJ(all non-detects)
BENZO(A)PYRENE	7.2	40	139	50.00	
BENZO(B)FLUORANTHENE	13	67	135	50.00	
BENZO(G,H,I)PERYLENE	7.6	13	52	50.00	
BENZO(K)FLUORANTHENE	6.0	36	143	50.00	
DIBENZO(A,H)ANTHRACENE	9.2 U	5.3	200	50.00	
FLUORANTHENE	10	96	162	50.00	
INDENO(1,2,3-CD)PYRENE	3.9	14	113	50.00	
PHENANTHRENE	4.8	25	136	50.00	
PYRENE	13	76	142	50.00	

**Method:** 9045M

**Matrix:** SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-117-SA5DN-SS-0.0-0.5	DUP09-SA5DN-QC-052711			
PH	6.85	6.84	0	50.00	No Qualifiers Applied

# Reporting Limit Outliers

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: DE167\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8260B

**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TB-052711	BENZENE	J	1	5	PQL	ug/L	J (all detects)
	TOLUENE	J	0.7	5	PQL	ug/L	

**Method:** 1625C

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-119-SA5DN-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	252	368	PQL	ng/Kg	J (all detects)
SL-120-SA5DN-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	320	366	PQL	ng/Kg	J (all detects)

**Method:** 300.0

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-122-SA5DN-SS-0.0-0.5	FLUORIDE	J	1.1	1.2	PQL	mg/Kg	J (all detects)

**Method:** 6010B

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA5DN-QC-052711	SODIUM	J	92.8	106	PQL	mg/Kg	J (all detects)
	TIN	J	2.59	10.6	PQL	mg/Kg	
	Zirconium	J	3.46	5.31	PQL	mg/Kg	
SL-003-SA8N-SB-4.0-5.0	TIN	J	2.76	11.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.43	5.87	PQL	mg/Kg	
SL-003-SA8N-SB-9.0-10.0	TIN	J	2.67	12.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.26	6.18	PQL	mg/Kg	
SL-071-SA5DN-SS-0.0-0.5	TIN	J	2.56	11.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.11	5.49	PQL	mg/Kg	
SL-091-SA5DN-SS-0.0-0.5	SODIUM	J	95.2	106	PQL	mg/Kg	J (all detects)
	TIN	J	2.72	10.6	PQL	mg/Kg	
	Zirconium	J	3.34	5.31	PQL	mg/Kg	
SL-092-SA5DN-SS-0.0-0.5	SODIUM	J	89.2	111	PQL	mg/Kg	J (all detects)
	TIN	J	2.66	11.1	PQL	mg/Kg	
	Zirconium	J	3.92	5.53	PQL	mg/Kg	
SL-093-SA5DN-SS-0.0-0.5	SODIUM	J	92.0	105	PQL	mg/Kg	J (all detects)
	TIN	J	2.64	10.5	PQL	mg/Kg	
	Zirconium	J	3.78	5.25	PQL	mg/Kg	
SL-117-SA5DN-SS-0.0-0.5	SODIUM	J	101	108	PQL	mg/Kg	J (all detects)
	TIN	J	2.75	10.8	PQL	mg/Kg	
	Zirconium	J	4.09	5.42	PQL	mg/Kg	

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# Reporting Limit Outliers

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: DE167\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-118-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	95.6	109	PQL	mg/Kg	J (all detects)
		J	2.65	10.9	PQL	mg/Kg	
		J	3.47	5.45	PQL	mg/Kg	
SL-119-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	87.5	107	PQL	mg/Kg	J (all detects)
		J	2.59	10.7	PQL	mg/Kg	
		J	2.94	5.33	PQL	mg/Kg	
SL-120-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	92.5	106	PQL	mg/Kg	J (all detects)
		J	2.79	10.6	PQL	mg/Kg	
		J	3.04	5.28	PQL	mg/Kg	
SL-122-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	96.5	118	PQL	mg/Kg	J (all detects)
		J	3.07	11.8	PQL	mg/Kg	
		J	4.09	5.91	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA5DN-QC-052711	ANTIMONY SELENIUM SILVER	J	0.101	0.219	PQL	mg/Kg	J (all detects)
		J	0.193	0.438	PQL	mg/Kg	
		J	0.0556	0.109	PQL	mg/Kg	
SL-003-SA8N-SB-4.0-5.0	ANTIMONY SELENIUM SILVER	J	0.116	0.226	PQL	mg/Kg	J (all detects)
		J	0.140	0.451	PQL	mg/Kg	
		J	0.0394	0.113	PQL	mg/Kg	
SL-003-SA8N-SB-9.0-10.0	ANTIMONY SELENIUM SILVER	J	0.0916	0.242	PQL	mg/Kg	J (all detects)
		J	0.137	0.485	PQL	mg/Kg	
		J	0.0602	0.121	PQL	mg/Kg	
SL-071-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.136	0.213	PQL	mg/Kg	J (all detects)
		J	0.177	0.427	PQL	mg/Kg	
		J	0.0305	0.107	PQL	mg/Kg	
SL-091-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.171	0.212	PQL	mg/Kg	J (all detects)
		J	0.161	0.424	PQL	mg/Kg	
		J	0.0521	0.106	PQL	mg/Kg	
SL-092-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.0839	0.223	PQL	mg/Kg	J (all detects)
		J	0.171	0.447	PQL	mg/Kg	
		J	0.0519	0.112	PQL	mg/Kg	
SL-093-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.126	0.212	PQL	mg/Kg	J (all detects)
		J	0.214	0.424	PQL	mg/Kg	
		J	0.0473	0.106	PQL	mg/Kg	
SL-117-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.135	0.217	PQL	mg/Kg	J (all detects)
		J	0.195	0.433	PQL	mg/Kg	
		J	0.0643	0.108	PQL	mg/Kg	
SL-118-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.112	0.216	PQL	mg/Kg	J (all detects)
		J	0.185	0.431	PQL	mg/Kg	
		J	0.0376	0.108	PQL	mg/Kg	
SL-119-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.123	0.215	PQL	mg/Kg	J (all detects)
		J	0.184	0.431	PQL	mg/Kg	
		J	0.0569	0.108	PQL	mg/Kg	

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: DE167\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6020

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-120-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.136	0.220	PQL	mg/Kg	J (all detects)
		J	0.156	0.440	PQL	mg/Kg	
SL-122-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.130	0.227	PQL	mg/Kg	J (all detects)
		J	0.213	0.455	PQL	mg/Kg	
		J	0.0558	0.114	PQL	mg/Kg	

**Method:** 7199

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA5DN-QC-052711	HEXAVALENT CHROMIUM	J	0.78	1.1	PQL	mg/Kg	J (all detects)
SL-003-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.31	1.2	PQL	mg/Kg	J (all detects)
SL-003-SA8N-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.40	1.2	PQL	mg/Kg	J (all detects)
SL-071-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.77	1.1	PQL	mg/Kg	J (all detects)
SL-091-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.59	1.1	PQL	mg/Kg	J (all detects)
SL-093-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.95	1.1	PQL	mg/Kg	J (all detects)
SL-118-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	1.0	1.1	PQL	mg/Kg	J (all detects)
SL-119-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	1.0	1.1	PQL	mg/Kg	J (all detects)
SL-122-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.72	1.2	PQL	mg/Kg	J (all detects)

**Method:** 7471A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA5DN-QC-052711	MERCURY	J	0.0407	0.106	PQL	mg/Kg	J (all detects)
SL-071-SA5DN-SS-0.0-0.5	MERCURY	J	0.0036	0.109	PQL	mg/Kg	J (all detects)
SL-091-SA5DN-SS-0.0-0.5	MERCURY	J	0.0351	0.105	PQL	mg/Kg	J (all detects)
SL-092-SA5DN-SS-0.0-0.5	MERCURY	J	0.0048	0.106	PQL	mg/Kg	J (all detects)
SL-093-SA5DN-SS-0.0-0.5	MERCURY	J	0.0127	0.107	PQL	mg/Kg	J (all detects)
SL-117-SA5DN-SS-0.0-0.5	MERCURY	J	0.0644	0.104	PQL	mg/Kg	J (all detects)
SL-118-SA5DN-SS-0.0-0.5	MERCURY	J	0.0247	0.110	PQL	mg/Kg	J (all detects)
SL-119-SA5DN-SS-0.0-0.5	MERCURY	J	0.0644	0.107	PQL	mg/Kg	J (all detects)

## Reporting Limit Outliers

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: DE167\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 8015B**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA5DN-QC-052711	p-Terphenyl	J	1.7	3.9	PQL	mg/Kg	J (all detects)
SL-117-SA5DN-SS-0.0-0.5	p-Terphenyl	J	2.2	3.9	PQL	mg/Kg	J (all detects)
SL-119-SA5DN-SS-0.0-0.5	p-Terphenyl	J	12	19	PQL	mg/Kg	J (all detects)
SL-120-SA5DN-SS-0.0-0.5	p-Terphenyl	J	6.6	7.7	PQL	mg/Kg	J (all detects)

**Method: 8015M**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-119-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	12	13	PQL	mg/Kg	J (all detects)

**Method: 8081A**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA5DN-QC-052711	Chlordane	J	2.1	3.8	PQL	ug/Kg	J (all detects)
	MIREX	J	0.26	0.38	PQL	ug/Kg	
SL-071-SA5DN-SS-0.0-0.5	ENDRIN KETONE	J	0.23	0.37	PQL	ug/Kg	J (all detects)
SL-091-SA5DN-SS-0.0-0.5	Chlordane	J	2.3	3.7	PQL	ug/Kg	J (all detects)
	HEPTACHLOR EPOXIDE	J	0.050	0.18	PQL	ug/Kg	
SL-092-SA5DN-SS-0.0-0.5	Chlordane	J	2.7	3.8	PQL	ug/Kg	J (all detects)
	ENDOSULFAN SULFATE	J	0.27	0.38	PQL	ug/Kg	
SL-093-SA5DN-SS-0.0-0.5	Chlordane	J	2.4	3.7	PQL	ug/Kg	J (all detects)
SL-117-SA5DN-SS-0.0-0.5	Chlordane	J	2.3	3.8	PQL	ug/Kg	J (all detects)
	HEPTACHLOR EPOXIDE	J	0.095	0.18	PQL	ug/Kg	
SL-118-SA5DN-SS-0.0-0.5	4,4'-DDD	J	0.076	0.37	PQL	ug/Kg	J (all detects)
	4,4'-DDE	J	0.19	0.37	PQL	ug/Kg	
	4,4'-DDT	J	0.16	0.37	PQL	ug/Kg	
	MIREX	J	0.31	0.37	PQL	ug/Kg	
SL-119-SA5DN-SS-0.0-0.5	4,4'-DDE	J	0.31	0.38	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.086	0.18	PQL	ug/Kg	
SL-122-SA5DN-SS-0.0-0.5	Chlordane	J	3.0	4.0	PQL	ug/Kg	J (all detects)

**Method: 8082**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-071-SA5DN-SS-0.0-0.5	Aroclor 5460	J	1.6	3.6	PQL	ug/Kg	J (all detects)
SL-093-SA5DN-SS-0.0-0.5	Aroclor 5460	J	1.9	3.6	PQL	ug/Kg	J (all detects)

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: DE167\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8082

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-117-SA5DN-SS-0.0-0.5	Aroclor 5460	J	1.9	3.6	PQL	ug/Kg	J (all detects)
SL-119-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.7	1.9	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	2.1	3.6	PQL	ug/Kg	
SL-120-SA5DN-SS-0.0-0.5	Aroclor 5460	J	12	18	PQL	ug/Kg	J (all detects)
SL-122-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.9	2.0	PQL	ug/Kg	J (all detects)

**Method:** 8151A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-091-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.10	0.19	PQL	ug/Kg	J (all detects)
SL-092-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.16	0.19	PQL	ug/Kg	J (all detects)
SL-093-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.15	0.18	PQL	ug/Kg	J (all detects)

**Method:** 8260B

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-003-SA8N-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.1	4.4	PQL	ug/Kg	J (all detects)

**Method:** 8270C

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-003-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHthalate	J	25	390	PQL	ug/Kg	J (all detects)
SL-003-SA8N-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHthalate	J	23	410	PQL	ug/Kg	J (all detects)
SL-071-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHthalate	J	43	360	PQL	ug/Kg	J (all detects)
SL-091-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	56	180	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	58	180	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	68	180	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	27	180	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHthalate	J	43	360	PQL	ug/Kg	
	Butylbenzylphthalate	J	24	180	PQL	ug/Kg	
	CHRYSENE	J	78	180	PQL	ug/Kg	
	FLUORANTHENE	J	120	180	PQL	ug/Kg	
	PHENANTHRENE	J	76	180	PQL	ug/Kg	
	PYRENE	J	130	180	PQL	ug/Kg	
SL-092-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHthalate	J	40	370	PQL	ug/Kg	J (all detects)
SL-093-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHthalate	J	33	360	PQL	ug/Kg	J (all detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: DE167\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8270C

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-117-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHthalATE CHRYSENE	J	51	370	PQL	ug/Kg	J (all detects)
		J	130	180	PQL	ug/Kg	
SL-118-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	23	180	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	25	180	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHthalATE	J	35	360	PQL	ug/Kg	
	FLUORANTHENE	J	40	180	PQL	ug/Kg	
	PHENANTHRENE	J	24	180	PQL	ug/Kg	
	PYRENE	J	41	180	PQL	ug/Kg	
SL-119-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHthalATE	J	38	370	PQL	ug/Kg	J (all detects)
SL-120-SA5DN-SS-0.0-0.5	BENZO(A)PYRENE	J	26	180	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	130	180	PQL	ug/Kg	
	Di-n-butylphthalate	J	66	180	PQL	ug/Kg	
	FLUORANTHENE	J	48	180	PQL	ug/Kg	
	PHENANTHRENE	J	41	180	PQL	ug/Kg	
	PYRENE	J	46	180	PQL	ug/Kg	
SL-122-SA5DN-SS-0.0-0.5	ANTHRACENE	J	43	200	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	140	200	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	170	200	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHthalATE	J	48	390	PQL	ug/Kg	
	CARBAZOLE	J	28	200	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	43	200	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	180	200	PQL	ug/Kg	

**Method:** 8270C SIM

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA5DN-QC-052711	ANTHRACENE	J	5.0	9.2	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHthalATE	J	68	99	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	5.3	9.2	PQL	ug/Kg	
SL-071-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	5.1	9.2	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	8.7	9.2	PQL	ug/Kg	
	CHRYSENE	J	2.7	9.2	PQL	ug/Kg	
SL-091-SA5DN-SS-0.0-0.5	ANTHRACENE	J	3.5	9.0	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	3.8	9.0	PQL	ug/Kg	
SL-092-SA5DN-SS-0.0-0.5	ACENAPHTHENE	J	7.5	9.3	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	8.0	9.3	PQL	ug/Kg	
	FLUORENE	J	6.0	9.3	PQL	ug/Kg	
SL-093-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	4.9	9.0	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	5.6	9.0	PQL	ug/Kg	
	FLUORANTHENE	J	7.8	9.0	PQL	ug/Kg	
	PHENANTHRENE	J	4.8	9.0	PQL	ug/Kg	
	PYRENE	J	7.0	9.0	PQL	ug/Kg	



## Reporting Limit Outliers

Lab Reporting Batch ID: DE167

Laboratory: LL

EDD Filename: DE167\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8270C SIM

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-117-SA5DN-SS-0.0-0.5	ANTHRACENE	J	4.5	9.2	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	6.7	9.2	PQL	ug/Kg	
	BENZO(A)PYRENE	J	7.2	9.2	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	7.6	9.2	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	6.0	9.2	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	3.9	9.2	PQL	ug/Kg	
	PHENANTHRENE	J	4.8	9.2	PQL	ug/Kg	
SL-118-SA5DN-SS-0.0-0.5	ANTHRACENE	J	1.6	1.8	PQL	ug/Kg	J (all detects)
SL-120-SA5DN-SS-0.0-0.5	ANTHRACENE	J	3.5	9.0	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	7.5	9.0	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	7.7	9.0	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	3.7	9.0	PQL	ug/Kg	

LDC #: 26275Y4

## VALIDATION COMPLETENESS WORKSHEET

SDG #: DE167

ADR

Laboratory: Lancaster Laboratories

Date: 9/29/11

Page: 1 of 1

Reviewer: MN

2nd Reviewer: QZ

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	A	No find
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW <del>N</del>	Al, Ba, Fe, Mn, K, Ti > 4X
VII.	Duplicate Sample Analysis	SW <del>N</del>	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	SW	Mn.
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	T	
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-071-SA5DN-SS-0.0-0.5	11	SL-003-SA8N-SB-4.0-5.0	21		31	
2	SL-091-SA5DN-SS-0.0-0.5	12	SL-003-SA8N-SB-9.0-10.0	22		32	
3	SL-092-SA5DN-SS-0.0-0.5	13	SL-117-SA5DN-SS-0.0-0.5MS	23		33	
4	SL-093-SA5DN-SS-0.0-0.5	14	SL-117-SA5DN-SS-0.0-0.5MSD	24		34	
5	SL-117-SA5DN-SS-0.0-0.5	15	SL-117-SA5DN-SS-0.0-0.5DUP	25		35	
6	SL-118-SA5DN-SS-0.0-0.5	16		26		36	
7	SL-119-SA5DN-SS-0.0-0.5	17		27		37	
8	SL-120-SA5DN-SS-0.0-0.5	18		28		38	
9	SL-122-SA5DN-SS-0.0-0.5	19		29		39	
10	DUP09-SA5DN-QC-052711	20		30		40	

Notes: # Sb T/NJ = post spike 102%



QUALITY ASSURANCE SUMMARY  
FORM 5A (MS/MSD)  
MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
SDG No.: DE167  
Matrix: SOIL  
Level (Low/med): LOW

Background Lab Sample ID: 6301476BKG Matrix Spike Lab Sample ID: 6301477MS Matrix Spike Duplicate Lab Sample ID: 6301478MSD  
% Solids for Sample: 90.5  
Batch Id(s): P15708D, P15726H, P15911B

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	MSD Spike Added	Units	MS		MSD		Control Limit	
		Result	C	Result	C	Result	C				%R	Q	%R	Q	%R	RPD M
Aluminum		30141.1776		32318.3146		32852.4541		214.5577	220.9945	MG/KG	1015		1227			20P
Antimony	121	0.1354	B	0.5050		0.5646		1.3128	1.3260	MG/KG	28N		32N	11	75 - 125	20MS
Arsenic	75	5.2389		7.6823		7.6177		2.1881	2.2099	MG/KG	112		108	1	75 - 125	20MS
Barium	137	137.8616		149.6855		152.6630		10.9403	11.0497	MG/KG	108		134	2		20MS
Beryllium	9	0.8885		1.4312		1.7266		0.8752	0.8840	MG/KG	62N		95	19	75 - 125	20MS
Boron		0.9641	U	203.3042		213.4983		214.5577	220.9945	MG/KG	95		97	5	84 - 115	20P
Cadmium	111	0.5003		1.5299		1.6223		1.0940	1.1050	MG/KG	94		102	6	75 - 125	20MS
Calcium		5495.2725		5856.2195		5912.2818		429.1155	441.9890	MG/KG	84		94	1		20P
Chromium	52	31.0259		40.8949		41.7901		10.9403	11.0497	MG/KG	90		97	2	75 - 125	20MS
Cobalt	59	9.3251		61.6596		61.9669		54.7016	55.2486	MG/KG	96		95	0	75 - 125	20MS
Copper	63	16.4294		26.4975		27.2707		10.9403	11.0497	MG/KG	92		98	3	75 - 125	20MS
Iron		31761.4235		32230.9982		29432.5171		107.2789	110.4972	MG/KG	438		-2108	9		20P
Lead	208	12.6292		17.3295		15.9978		3.2821	3.3149	MG/KG	143N		102	8	75 - 125	20MS
Lithium		24.0711		127.5460		131.2066		107.2789	110.4972	MG/KG	96		97	3	82 - 114	20P
Magnesium		6578.9611		6836.6604		6792.2519		214.5577	220.9945	MG/KG	120		97	1		20P
Manganese		463.7948		517.2912		453.7293		53.6394	55.2486	MG/KG	100		-18	13		20P
Mercury		0.0644	B	0.2802		0.2598		0.1808	0.1767	MG/KG	119		111	8	65 - 135	20CV
Molybdenum	98	0.5358		10.5487		10.2298		10.9403	11.0497	MG/KG	92		88	3	75 - 125	20MS
Nickel	60	21.1461		31.9020		32.9282		10.9403	11.0497	MG/KG	98		107	3	75 - 125	20MS
Phosphorus		387.4044		479.4593		475.7779		107.2789	110.4972	MG/KG	86		80	1	75 - 125	20P
Potassium		5781.7452		7253.0805		7170.5845		1072.7887	1104.9724	MG/KG	137		126	1		20P
Selenium	78	0.1948	B	2.2843		2.2762		2.1881	2.2099	MG/KG	95		94	0	75 - 125	20MS
Silver	107	0.0643	B	11.0300		11.0232		10.9403	11.0497	MG/KG	100		99	0	75 - 125	20MS
Sodium		101.3899	B	1097.7450		1163.6762		1072.7887	1104.9724	MG/KG	93		96	6	75 - 125	20P
Strontium		31.7365		132.3682		136.0851		107.2789	110.4972	MG/KG	94		94	3	75 - 115	20P
Thallium	203	0.3623		0.7785		0.7982		0.4376	0.4420	MG/KG	95		99	2	75 - 125	20MS
Tin		2.7451	B	349.9941		367.7669		429.1155	441.9890	MG/KG	81		83	5	80 - 110	20P
Titanium		1422.4580		1617.6731		1672.0663		107.2789	110.4972	MG/KG	182		226	3		20P
Vanadium	51	56.6253		67.5674		69.9006		10.9403	11.0497	MG/KG	100		120	3		20MS
Zinc	66	80.2080		89.9076		92.9282		10.9403	11.0497	MG/KG	89		115	3		20MS
Zirconium	90	4.0906	B	99.9903		103.2077		107.2789	110.4972	MG/KG	89		90	3	75 - 125	20P

METHODS:

P = ICP-AES Atomic Emission Spectrometer CV = Cold Vapor  
MS = ICP-MS Mass Spectrometry AF = Cold Vapor Atomic Fluorescence

CONCENTRATION QUALIFIERS:

U = Below MDL, B = Below LOQ  
FLAGS:

N = Matrix Spike OOS, \* = Duplicate OOS



## QUALITY ASSURANCE SUMMARY

FORM 6

DUPLICATES

SDG No.: DE167

Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6301476BKG

% Solids for Duplicate: 90.2

Batch ID(s): P15708D, P15726H, P15911B

Concentration Units: MG/KG

Duplicate Lab Sample ID: 6301479DUP

% Solids for Sample: 90.5

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			30141.1776		29016.2734		4		P
Antimony	121		0.1354	B	0.1302	B	4		MS
Arsenic	75		5.2389		5.7459		9		MS
Barium	137		137.8616		138.4190		0		MS
Beryllium	9		0.8885		0.9180		3		MS
Boron			0.9641	U	0.9641	U			P
Cadmium	111	0.1	0.5003		0.5072		1		MS
Calcium			5495.2725		5246.8942		5		P
Chromium	52		31.0259		31.2155		1		MS
Cobalt	59		9.3251		9.9660		7		MS
Copper	63		16.4294		17.6307		7		MS
Iron			31761.4235		31597.3730		1		P
Lead	208		12.6292		13.3043		5		MS
Lithium			24.0711		25.6213		6		P
Magnesium			6578.9611		6532.5534		1		P
Manganese			463.7948		445.5519		4		P
Mercury			0.0644	B	1.5586		184	*	CV
Molybdenum	98	0.1	0.5358		0.5387		1		MS
Nickel	60		21.1461		21.7595		3		MS
Phosphorus			387.4044		417.8063		8		P
Potassium			5781.7452		5851.5459		1		P
Selenium	78		0.1948	B	0.2096	B	7		MS
Silver	107		0.0643	B	0.0448	B	36		MS
Sodium			101.3899	B	99.1019	B	2		P
Strontium			31.7365		29.9697		6		P
Thallium	203	0.1	0.3623		0.3553		2		MS
Tin			2.7451	B	2.8188	B	3		P
Titanium			1422.4580		1413.7764		1		P
Vanadium	51		56.6353		58.6910		4		MS
Zinc	66		80.2080		85.6991		7		MS
Zirconium			4.0906	B	4.9691	B	19		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.

\* Hg by difference 1.4942 ( $\pm 0.208$  mg/kg)  
σ/nJ  
(found 1-8, 10-12) (#9 batch with SDG DE167 4498)

## 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**

**DE168**

## **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
31-May-2011	SL-013-SA5DN-SB-4.0-5.0	6302802	N	3050B	6010B	III
31-May-2011	SL-013-SA5DN-SB-4.0-5.0	6302802	N	3050B	6020	III
31-May-2011	SL-013-SA5DN-SB-4.0-5.0	6302802	N	3060A	7199	III
31-May-2011	SL-013-SA5DN-SB-4.0-5.0	6302802	N	3546	1625C	III
31-May-2011	SL-013-SA5DN-SB-4.0-5.0	6302802	N	3550B	8015B	III
31-May-2011	SL-013-SA5DN-SB-4.0-5.0	6302802	N	3550B	8015M	III
31-May-2011	SL-013-SA5DN-SB-4.0-5.0	6302802	N	3550B	8082	III
31-May-2011	SL-013-SA5DN-SB-4.0-5.0	6302802	N	3550B	8270C	III
31-May-2011	SL-013-SA5DN-SB-4.0-5.0	6302802	N	3550B	8270C SIM	III
31-May-2011	SL-013-SA5DN-SB-4.0-5.0	6302802	N	5035	8015M	III
31-May-2011	SL-013-SA5DN-SB-4.0-5.0	6302802	N	5035	8260B	III
31-May-2011	SL-013-SA5DN-SB-4.0-5.0	6302802	N	5035	8260B SIM	III
31-May-2011	SL-013-SA5DN-SB-4.0-5.0	6302802	N	8330	8330A	III
31-May-2011	SL-013-SA5DN-SB-4.0-5.0	6302802	N	Gen Prep	300.0	III
31-May-2011	SL-013-SA5DN-SB-4.0-5.0	6302802	N	METHOD	314.0	III
31-May-2011	SL-013-SA5DN-SB-4.0-5.0	6302802	N	METHOD	7471A	III
31-May-2011	SL-013-SA5DN-SB-4.0-5.0	6302802	N	METHOD	8015B	III
31-May-2011	SL-013-SA5DN-SB-4.0-5.0	6302802	N	METHOD	8015M	III
31-May-2011	SL-013-SA5DN-SB-4.0-5.0	6302802	N	METHOD	8315A	III
31-May-2011	SL-013-SA5DN-SB-4.0-5.0	6302802	N	METHOD	9012B	III
31-May-2011	SL-013-SA5DN-SB-9.0-10.0	6302803	N	3050B	6010B	III
31-May-2011	SL-013-SA5DN-SB-9.0-10.0	6302803	N	3050B	6020	III
31-May-2011	SL-013-SA5DN-SB-9.0-10.0	6302803	N	3060A	7199	III
31-May-2011	SL-013-SA5DN-SB-9.0-10.0	6302803	N	3546	1625C	III
31-May-2011	SL-013-SA5DN-SB-9.0-10.0	6302803	N	3550B	8015B	III
31-May-2011	SL-013-SA5DN-SB-9.0-10.0	6302803	N	3550B	8015M	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-May-2011	SL-013-SA5DN-SB-9.0-10.0	6302803	N	3550B	8082	III
31-May-2011	SL-013-SA5DN-SB-9.0-10.0	6302803	N	3550B	8270C	III
31-May-2011	SL-013-SA5DN-SB-9.0-10.0	6302803	N	3550B	8270C SIM	III
31-May-2011	SL-013-SA5DN-SB-9.0-10.0	6302803	N	5035	8015M	III
31-May-2011	SL-013-SA5DN-SB-9.0-10.0	6302803	N	5035	8260B	III
31-May-2011	SL-013-SA5DN-SB-9.0-10.0	6302803	N	5035	8260B SIM	III
31-May-2011	SL-013-SA5DN-SB-9.0-10.0	6302803	N	8330	8330A	III
31-May-2011	SL-013-SA5DN-SB-9.0-10.0	6302803	N	Gen Prep	300.0	III
31-May-2011	SL-013-SA5DN-SB-9.0-10.0	6302803	N	METHOD	314.0	III
31-May-2011	SL-013-SA5DN-SB-9.0-10.0	6302803	N	METHOD	7471A	III
31-May-2011	SL-013-SA5DN-SB-9.0-10.0	6302803	N	METHOD	8015B	III
31-May-2011	SL-013-SA5DN-SB-9.0-10.0	6302803	N	METHOD	8015M	III
31-May-2011	SL-013-SA5DN-SB-9.0-10.0	6302803	N	METHOD	8315A	III
31-May-2011	SL-013-SA5DN-SB-9.0-10.0	6302803	N	METHOD	9012B	III
31-May-2011	DUP-10-SA5DN-QC-053111	6302801	FD	3050B	6010B	III
31-May-2011	DUP-10-SA5DN-QC-053111	6302801	FD	3050B	6020	III
31-May-2011	DUP-10-SA5DN-QC-053111	6302801	FD	3060A	7199	III
31-May-2011	DUP-10-SA5DN-QC-053111	6302801	FD	3546	1625C	III
31-May-2011	DUP-10-SA5DN-QC-053111	6302801	FD	3550B	8015B	III
31-May-2011	DUP-10-SA5DN-QC-053111	6302801	FD	3550B	8015M	III
31-May-2011	DUP-10-SA5DN-QC-053111	6302801	FD	3550B	8082	III
31-May-2011	DUP-10-SA5DN-QC-053111	6302801	FD	3550B	8270C	III
31-May-2011	DUP-10-SA5DN-QC-053111	6302801	FD	3550B	8270C SIM	III
31-May-2011	DUP-10-SA5DN-QC-053111	6302801	FD	5035	8015M	III
31-May-2011	DUP-10-SA5DN-QC-053111	6302801	FD	5035	8260B	III
31-May-2011	DUP-10-SA5DN-QC-053111	6302801	FD	5035	8260B SIM	III



## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-May-2011	DUP-10-SA5DN-QC-053111	6302801	FD	8330	8330A	III
31-May-2011	DUP-10-SA5DN-QC-053111	6302801	FD	Gen Prep	300.0	III
31-May-2011	DUP-10-SA5DN-QC-053111	6302801	FD	METHOD	314.0	III
31-May-2011	DUP-10-SA5DN-QC-053111	6302801	FD	METHOD	7471A	III
31-May-2011	DUP-10-SA5DN-QC-053111	6302801	FD	METHOD	8015B	III
31-May-2011	DUP-10-SA5DN-QC-053111	6302801	FD	METHOD	8015M	III
31-May-2011	DUP-10-SA5DN-QC-053111	6302801	FD	METHOD	8315A	III
31-May-2011	DUP-10-SA5DN-QC-053111	6302801	FD	METHOD	9012B	III
31-May-2011	DUP-10-SA5DN-QC-053111MSD	P302801M240336A	MSD	METHOD	8315A	III
31-May-2011	DUP-10-SA5DN-QC-053111MS	P302801R240326A	MS	METHOD	8315A	III
31-May-2011	SL-010-SA5DN-SB-4.0-5.0	6302799	N	3050B	6010B	III
31-May-2011	SL-010-SA5DN-SB-4.0-5.0	6302799	N	3050B	6020	III
31-May-2011	SL-010-SA5DN-SB-4.0-5.0	6302799	N	3060A	7199	III
31-May-2011	SL-010-SA5DN-SB-4.0-5.0	6302799	N	3550B	8082	III
31-May-2011	SL-010-SA5DN-SB-4.0-5.0	6302799	N	3550B	8270C	III
31-May-2011	SL-010-SA5DN-SB-4.0-5.0	6302799	N	3550B	8270C SIM	III
31-May-2011	SL-010-SA5DN-SB-4.0-5.0	6302799	N	5035	8260B	III
31-May-2011	SL-010-SA5DN-SB-4.0-5.0	6302799	N	5035	8260B SIM	III
31-May-2011	SL-010-SA5DN-SB-4.0-5.0	6302799	N	Gen Prep	300.0	III
31-May-2011	SL-010-SA5DN-SB-4.0-5.0	6302799	N	METHOD	314.0	III
31-May-2011	SL-010-SA5DN-SB-4.0-5.0	6302799	N	METHOD	7471A	III
31-May-2011	SL-010-SA5DN-SB-9.0-10.0	6302800	N	3050B	6010B	III
31-May-2011	SL-010-SA5DN-SB-9.0-10.0	6302800	N	3050B	6020	III
31-May-2011	SL-010-SA5DN-SB-9.0-10.0	6302800	N	3060A	7199	III
31-May-2011	SL-010-SA5DN-SB-9.0-10.0	6302800	N	3550B	8082	III
31-May-2011	SL-010-SA5DN-SB-9.0-10.0	6302800	N	3550B	8270C	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-May-2011	SL-010-SA5DN-SB-9.0-10.0	6302800	N	3550B	8270C SIM	III
31-May-2011	SL-010-SA5DN-SB-9.0-10.0	6302800	N	Gen Prep	300.0	III
31-May-2011	SL-010-SA5DN-SB-9.0-10.0	6302800	N	METHOD	314.0	III
31-May-2011	SL-010-SA5DN-SB-9.0-10.0	6302800	N	METHOD	6850	III
31-May-2011	SL-010-SA5DN-SB-9.0-10.0	6302800	N	METHOD	7471A	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0	6302797	N	3050B	6010B	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0	6302797	N	3050B	6020	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0	6302797	N	3060A	7199	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0	6302797	N	3550B	8082	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0	6302797	N	3550B	8270C	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0	6302797	N	3550B	8270C SIM	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0	6302797	N	5035	8260B	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0	6302797	N	5035	8260B SIM	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0	6302797	N	Gen Prep	300.0	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0	6302797	N	METHOD	314.0	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0	6302797	N	METHOD	7471A	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0DU	P302797D220435A	DUP	3050B	6020	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0DU	P302797D220435B	DUP	3050B	6020	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0DU	P302797D220435C	DUP	3050B	6020	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0DU	P302797D220435D	DUP	3050B	6020	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0DU	P302797D221324	DUP	3050B	6010B	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0DU	P302797D221409	DUP	METHOD	7471A	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0DU	P302797D221805	DUP	3050B	6010B	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0DU	P302797D271510A	DUP	Gen Prep	300.0	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0DU	P302797D272319A	DUP	METHOD	314.0	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0MS	P302797R220438A	MS	3050B	6020	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-May-2011	SL-008-SA5DN-SB-4.0-5.0MS	P302797R220438B	MS	3050B	6020	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0MS	P302797R220438C	MS	3050B	6020	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0MS	P302797R220438D	MS	3050B	6020	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0MS	P302797R220555	MS	3050B	6010B	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0MS	P302797R221410	MS	METHOD	7471A	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0MS	P302797R221809	MS	3050B	6010B	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0MS	P302797R260554	MS	3550B	8270C SIM	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0MS	P302797R271525A	MS	Gen Prep	300.0	III
31-May-2011	SL-008-SA5DN-SB-4.0-5.0MS	P302797R272342A	MS	METHOD	314.0	III
31-May-2011	SL-008-SA5DN-SB-9.0-10.0	6302798	N	3050B	6010B	III
31-May-2011	SL-008-SA5DN-SB-9.0-10.0	6302798	N	3050B	6020	III
31-May-2011	SL-008-SA5DN-SB-9.0-10.0	6302798	N	3060A	7199	III
31-May-2011	SL-008-SA5DN-SB-9.0-10.0	6302798	N	3550B	8082	III
31-May-2011	SL-008-SA5DN-SB-9.0-10.0	6302798	N	3550B	8270C	III
31-May-2011	SL-008-SA5DN-SB-9.0-10.0	6302798	N	3550B	8270C SIM	III
31-May-2011	SL-008-SA5DN-SB-9.0-10.0	6302798	N	Gen Prep	300.0	III
31-May-2011	SL-008-SA5DN-SB-9.0-10.0	6302798	N	METHOD	314.0	III
31-May-2011	SL-008-SA5DN-SB-9.0-10.0	6302798	N	METHOD	7471A	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

Sample ID: DUP-10-SA5DN-QC-053111

Collected: 5/31/2011 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
FLUORIDE	7.5		0.90	MDL	1.1	PQL	mg/Kg	J	Q, FD
Nitrate-NO3	1.6	J	0.90	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-008-SA5DN-SB-4.0-5.0

Collected: 5/31/2011 3:44:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	8.4		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-008-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 3:49:00

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		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-010-SA5DN-SB-4.0-5.0

Collected: 5/31/2011 2:25:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	6.4		0.92	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-010-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 2:31:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	11.8		0.92	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-013-SA5DN-SB-4.0-5.0

Collected: 5/31/2011 10:11:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	11.7		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-013-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 10:19:00

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

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: DUP-10-SA5DN-QC-053111

Collected: 5/31/2011 11:45:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	15.4		0.997	MDL	5.60	PQL	mg/Kg	J	FD

Sample ID: DUP-10-SA5DN-QC-053111

Collected: 5/31/2011 11:45:00

Analysis Type: REA2

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	90600		34.3	MDL	112	PQL	mg/Kg	J	E, FD

Sample ID: DUP-10-SA5DN-QC-053111

Collected: 5/31/2011 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
MANGANESE	273		0.0874	MDL	0.560	PQL	mg/Kg	J	E, E, FD
POTASSIUM	2930		20.2	MDL	56.0	PQL	mg/Kg	J	Q
TIN	2.65	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	3.36	J	0.941	MDL	5.60	PQL	mg/Kg	J	Z

Sample ID: SL-008-SA5DN-SB-4.0-5.0

Collected: 5/31/2011 3:44:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	33000		6.90	MDL	22.5	PQL	mg/Kg	J	E
MANGANESE	246		0.0877	MDL	0.562	PQL	mg/Kg	J	E, E
POTASSIUM	3070		20.2	MDL	56.2	PQL	mg/Kg	J	Q
TIN	2.87	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	3.20	J	0.945	MDL	5.62	PQL	mg/Kg	J	Z

Sample ID: SL-008-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 3:49:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	8250		6.75	MDL	22.0	PQL	mg/Kg	J	E
MANGANESE	240		0.0859	MDL	0.551	PQL	mg/Kg	J	E, E
POTASSIUM	2510		19.8	MDL	55.1	PQL	mg/Kg	J	Q
TIN	2.95	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	1.68	J	0.925	MDL	5.51	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: SL-010-SA5DN-SB-4.0-5.0

Collected: 5/31/2011 2:25:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	4020		6.76	MDL	22.1	PQL	mg/Kg	J	E
MANGANESE	272		0.0860	MDL	0.551	PQL	mg/Kg	J	E, E
POTASSIUM	3460		19.8	MDL	55.1	PQL	mg/Kg	J	Q
TIN	3.14	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	2.25	J	0.926	MDL	5.51	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 2:31:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	6300		6.75	MDL	22.0	PQL	mg/Kg	J	E
MANGANESE	653		0.0859	MDL	0.551	PQL	mg/Kg	J	E, E
POTASSIUM	3000		19.8	MDL	55.1	PQL	mg/Kg	J	Q
TIN	3.15	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	3.03	J	0.925	MDL	5.51	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA5DN-SB-4.0-5.0

Collected: 5/31/2011 10:11:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	9200		6.95	MDL	22.7	PQL	mg/Kg	J	E
MANGANESE	374		0.0884	MDL	0.567	PQL	mg/Kg	J	E, E
POTASSIUM	3340		20.4	MDL	56.7	PQL	mg/Kg	J	Q
TIN	3.04	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	3.37	J	0.952	MDL	5.67	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 10:19:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	21000		6.93	MDL	22.6	PQL	mg/Kg	J	E
MANGANESE	291		0.0882	MDL	0.565	PQL	mg/Kg	J	E, E
POTASSIUM	3470		20.3	MDL	56.5	PQL	mg/Kg	J	Q
TIN	2.87	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	2.52	J	0.949	MDL	5.65	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: DUP-10-SA5DN-QC-053111

Collected: 5/31/2011 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	0.0452	U	0.0452	MDL	0.452	PQL	mg/Kg	UJ	FD

Sample ID: DUP-10-SA5DN-QC-053111

Collected: 5/31/2011 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
ANTIMONY	0.245		0.0679	MDL	0.226	PQL	mg/Kg	J	Q, FD
BERYLLIUM	0.863		0.0181	MDL	0.113	PQL	mg/Kg	J	Q
CHROMIUM	31.9		0.136	MDL	0.452	PQL	mg/Kg	J	A
LEAD	10.6		0.0118	MDL	0.226	PQL	mg/Kg	J	Q, E
SILVER	0.0446	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z, FD
VANADIUM	63.9		0.0249	MDL	0.113	PQL	mg/Kg	J	A

Sample ID: SL-008-SA5DN-SB-4.0-5.0

Collected: 5/31/2011 3:44:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0523	J	0.0446	MDL	0.446	PQL	mg/Kg	J	Z

Sample ID: SL-008-SA5DN-SB-4.0-5.0

Collected: 5/31/2011 3:44:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.177	J	0.0669	MDL	0.223	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.807		0.0178	MDL	0.111	PQL	mg/Kg	J	Q
CHROMIUM	27.2		0.134	MDL	0.446	PQL	mg/Kg	J	A
LEAD	9.71		0.0116	MDL	0.223	PQL	mg/Kg	J	Q, E
SILVER	0.0548	J	0.0134	MDL	0.111	PQL	mg/Kg	J	Z
VANADIUM	54.8		0.0245	MDL	0.111	PQL	mg/Kg	J	A

Sample ID: SL-008-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 3:49:00

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	0.0642	MDL	0.214	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.616		0.0171	MDL	0.107	PQL	mg/Kg	J	Q
CADMIUM	0.0765	J	0.0428	MDL	0.107	PQL	mg/Kg	J	Z
CHROMIUM	17.5		0.128	MDL	0.428	PQL	mg/Kg	J	A
LEAD	5.23		0.0111	MDL	0.214	PQL	mg/Kg	J	Q, E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-008-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 3:49:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0255	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z
VANADIUM	36.7		0.0235	MDL	0.107	PQL	mg/Kg	J	A

Sample ID: SL-010-SA5DN-SB-4.0-5.0

Collected: 5/31/2011 2:25:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.143	J	0.0681	MDL	0.227	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.754		0.0182	MDL	0.114	PQL	mg/Kg	J	Q
CHROMIUM	22.0		0.136	MDL	0.454	PQL	mg/Kg	J	A
LEAD	5.77		0.0118	MDL	0.227	PQL	mg/Kg	J	Q, E
SILVER	0.0281	J	0.0136	MDL	0.114	PQL	mg/Kg	J	Z
VANADIUM	44.9		0.0250	MDL	0.114	PQL	mg/Kg	J	A

Sample ID: SL-010-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 2:31:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0526	J	0.0458	MDL	0.458	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 2:31:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.227	J	0.0687	MDL	0.229	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.918		0.0183	MDL	0.115	PQL	mg/Kg	J	Q
CHROMIUM	27.3		0.137	MDL	0.458	PQL	mg/Kg	J	A
LEAD	9.45		0.0119	MDL	0.229	PQL	mg/Kg	J	Q, E
SILVER	0.0223	J	0.0137	MDL	0.115	PQL	mg/Kg	J	Z
VANADIUM	52.8		0.0252	MDL	0.115	PQL	mg/Kg	J	A

Sample ID: SL-013-SA5DN-SB-4.0-5.0

Collected: 5/31/2011 10:11:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0862	J	0.0453	MDL	0.453	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-013-SA5DN-SB-4.0-5.0

Collected: 5/31/2011 10:11:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.270		0.0680	MDL	0.227	PQL	mg/Kg	J	Q
BERYLLIUM	0.949		0.0181	MDL	0.113	PQL	mg/Kg	J	Q
CHROMIUM	32.9		0.136	MDL	0.453	PQL	mg/Kg	J	A
LEAD	9.50		0.0118	MDL	0.227	PQL	mg/Kg	J	Q, E
SILVER	0.0532	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z
VANADIUM	60.3		0.0249	MDL	0.113	PQL	mg/Kg	J	A

Sample ID: SL-013-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 10:19:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0588	J	0.0443	MDL	0.443	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 10:19:00

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		0.0665	MDL	0.222	PQL	mg/Kg	J	Q
BERYLLIUM	0.763		0.0177	MDL	0.111	PQL	mg/Kg	J	Q
CHROMIUM	29.1		0.133	MDL	0.443	PQL	mg/Kg	J	A
LEAD	9.33		0.0115	MDL	0.222	PQL	mg/Kg	J	Q, E
SILVER	0.0420	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z
VANADIUM	58.1		0.0244	MDL	0.111	PQL	mg/Kg	J	A

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

Sample ID: DUP-10-SA5DN-QC-053111

Collected: 5/31/2011 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
HEXAVALENT CHROMIUM	0.32	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z, FD

Sample ID: SL-010-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 2:31:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.35	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

Sample ID: SL-013-SA5DN-SB-4.0-5.0

Collected: 5/31/2011 10:11:00

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	0.23	MDL	1.2	PQL	mg/Kg	J	Z

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

Sample ID: DUP-10-SA5DN-QC-053111

Collected: 5/31/2011 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
MERCURY	0.0067	J	0.0031	MDL	0.108	PQL	mg/Kg	J	Z, FD

Sample ID: SL-010-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 2:31:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0056	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 10:19:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0038	J	0.0033	MDL	0.114	PQL	mg/Kg	J	Z

**Method Category:** SVOA

**Method:** 1625C

**Matrix:** SO

Sample ID: DUP-10-SA5DN-QC-053111

Collected: 5/31/2011 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
N-NITROSODIMETHYLAMINE	68.1		18.9	MDL	37.7	PQL	ng/Kg	J	FD

**Method Category:** SVOA

**Method:** 6850

**Matrix:** SO

Sample ID: SL-010-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 2:31:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE	2.4	J	2.4	MDL	5.7	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 6850

**Matrix:** SO

**Method Category:** SVOA

**Method:** 8015M

**Matrix:** SO

Sample ID: DUP-10-SA5DN-QC-053111

Collected: 5/31/2011 11:45:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.45	U	0.45	MDL	1.4	PQL	mg/Kg	UJ	FD

**Method Category:** SVOA

**Method:** 8270C SIM

**Matrix:** SO

Sample ID: DUP-10-SA5DN-QC-053111

Collected: 5/31/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	12	J	6.8	MDL	20	PQL	ug/Kg	UJ	B, FD
Di-n-butylphthalate	6.8	U	6.8	MDL	20	PQL	ug/Kg	UJ	L
FLUORANTHENE	0.75	U	0.75	MDL	1.9	PQL	ug/Kg	UJ	L

Sample ID: SL-008-SA5DN-SB-4.0-5.0

Collected: 5/31/2011 3:44:00

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	6.9	U	6.9	MDL	21	PQL	ug/Kg	UJ	L
FLUORANTHENE	0.77	U	0.77	MDL	1.9	PQL	ug/Kg	UJ	L

Sample ID: SL-008-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 3:49:00

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	6.6	U	6.6	MDL	20	PQL	ug/Kg	UJ	L
FLUORANTHENE	0.74	U	0.74	MDL	1.8	PQL	ug/Kg	UJ	L

Sample ID: SL-010-SA5DN-SB-4.0-5.0

Collected: 5/31/2011 2:25:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-butylphthalate	6.9	U	6.9	MDL	21	PQL	ug/Kg	UJ	L
FLUORANTHENE	0.76	U	0.76	MDL	1.9	PQL	ug/Kg	UJ	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8270C SIM</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-010-SA5DN-SB-9.0-10.0      Collected: 5/31/2011 2:31:00      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	6.9	U	6.9	MDL	21	PQL	ug/Kg	UJ	L
FLUORANTHENE	0.76	U	0.76	MDL	1.9	PQL	ug/Kg	UJ	L

Sample ID: SL-013-SA5DN-SB-4.0-5.0      Collected: 5/31/2011 10:11:00      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	6.8	U	6.8	MDL	21	PQL	ug/Kg	UJ	L
FLUORANTHENE	0.76	U	0.76	MDL	1.9	PQL	ug/Kg	UJ	L

Sample ID: SL-013-SA5DN-SB-9.0-10.0      Collected: 5/31/2011 10:19:00      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	6.8	U	6.8	MDL	20	PQL	ug/Kg	UJ	L
FLUORANTHENE	0.76	U	0.76	MDL	1.9	PQL	ug/Kg	UJ	L

<b>Method Category:</b>	<b>VOA</b>
<b>Method:</b>	<b>8015B</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: DUP-10-SA5DN-QC-053111      Collected: 5/31/2011 11:45:00      Analysis Type: REA4      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	190	J	110	MDL	570	PQL	ug/Kg	J	Z, FD

Sample ID: SL-013-SA5DN-SB-4.0-5.0      Collected: 5/31/2011 10:11:00      Analysis Type: REA4      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	330	J	120	MDL	580	PQL	ug/Kg	J	Z

<b>Method Category:</b>	<b>VOA</b>
<b>Method:</b>	<b>8260B</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: DUP-10-SA5DN-QC-053111      Collected: 5/31/2011 11:45:00      Analysis Type: RES      Dilution: 0.91

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	0.11	U	0.11	MDL	4.1	PQL	ug/Kg	UJ	FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** VOA

**Method:** 8260B

**Matrix:** SO

**Sample ID:** DUP-10-SA5DN-QC-053111

**Collected:** 5/31/2011 11:45:00

**Analysis Type:** RES

**Dilution:** 0.91

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.0		6.9	MDL	8.2	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.8	J	0.25	MDL	4.1	PQL	ug/Kg	U	B

**Sample ID:** SL-008-SA5DN-SB-4.0-5.0

**Collected:** 5/31/2011 3:44:00

**Analysis Type:** RES

**Dilution:** 0.94

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	12		7.3	MDL	8.7	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.6	J	0.26	MDL	4.3	PQL	ug/Kg	U	B

**Sample ID:** SL-010-SA5DN-SB-4.0-5.0

**Collected:** 5/31/2011 2:25:00

**Analysis Type:** RES

**Dilution:** 0.91

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.5		7.0	MDL	8.4	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	2.4	J	0.25	MDL	4.2	PQL	ug/Kg	U	B

**Sample ID:** SL-013-SA5DN-SB-4.0-5.0

**Collected:** 5/31/2011 10:11:00

**Analysis Type:** RES

**Dilution:** 0.84

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.2		6.5	MDL	7.7	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.8	J	0.23	MDL	3.9	PQL	ug/Kg	U	B

**Sample ID:** SL-013-SA5DN-SB-9.0-10.0

**Collected:** 5/31/2011 10:19:00

**Analysis Type:** RES

**Dilution:** 0.93

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.3		7.1	MDL	8.5	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	2.1	J	0.26	MDL	4.3	PQL	ug/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

### Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	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	Laboratory Triplicate Precision
E	Matrix Spike Precision

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## ***Data Qualifier Summary***

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_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	Laboratory Triplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

Q	Matrix Spike Upper Rejection
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

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE168

# Method Blank Outlier Report

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6010B  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15808BB220530	6/8/2011 5:30:00 AM	PHOSPHORUS TIN	1.09 mg/Kg 1.28 mg/Kg	DUP-10-SA5DN-QC-053111 SL-008-SA5DN-SB-4.0-5.0 SL-008-SA5DN-SB-9.0-10.0 SL-010-SA5DN-SB-4.0-5.0 SL-010-SA5DN-SB-9.0-10.0 SL-013-SA5DN-SB-4.0-5.0 SL-013-SA5DN-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-10-SA5DN-QC-053111(RES)	TIN	2.65 mg/Kg	2.65U mg/Kg
SL-008-SA5DN-SB-4.0-5.0(RES)	TIN	2.87 mg/Kg	2.87U mg/Kg
SL-008-SA5DN-SB-9.0-10.0(RES)	TIN	2.95 mg/Kg	2.95U mg/Kg
SL-010-SA5DN-SB-4.0-5.0(RES)	TIN	3.14 mg/Kg	3.14U mg/Kg
SL-010-SA5DN-SB-9.0-10.0(RES)	TIN	3.15 mg/Kg	3.15U mg/Kg
SL-013-SA5DN-SB-4.0-5.0(RES)	TIN	3.04 mg/Kg	3.04U mg/Kg
SL-013-SA5DN-SB-9.0-10.0(RES)	TIN	2.87 mg/Kg	2.87U mg/Kg

**Method:** 6020  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15826DB220423A	6/11/2011 4:23:00 AM	COPPER LEAD	0.152 mg/Kg 0.0660 mg/Kg	DUP-10-SA5DN-QC-053111 SL-008-SA5DN-SB-4.0-5.0 SL-008-SA5DN-SB-9.0-10.0 SL-010-SA5DN-SB-4.0-5.0 SL-010-SA5DN-SB-9.0-10.0 SL-013-SA5DN-SB-4.0-5.0 SL-013-SA5DN-SB-9.0-10.0

**Method:** 8260B  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB76B210344A	6/7/2011 3:44:00 AM	ACETONE METHYLENE CHLORIDE	8.4 ug/Kg 1.4 ug/Kg	DUP-10-SA5DN-QC-053111 SL-008-SA5DN-SB-4.0-5.0 SL-010-SA5DN-SB-4.0-5.0 SL-013-SA5DN-SB-4.0-5.0 SL-013-SA5DN-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-10-SA5DN-QC-053111(RES)	ACETONE	9.0 ug/Kg	9.0U ug/Kg

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8260B  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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*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-10-SA5DN-QC-053111(RES)	METHYLENE CHLORIDE	1.8 ug/Kg	4.1U ug/Kg
SL-008-SA5DN-SB-4.0-5.0(RES)	ACETONE	12 ug/Kg	12U ug/Kg
SL-008-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.6 ug/Kg	4.3U ug/Kg
SL-010-SA5DN-SB-4.0-5.0(RES)	ACETONE	9.5 ug/Kg	9.5U ug/Kg
SL-010-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.4 ug/Kg	4.2U ug/Kg
SL-013-SA5DN-SB-4.0-5.0(RES)	ACETONE	8.2 ug/Kg	8.2U ug/Kg
SL-013-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.8 ug/Kg	3.9U ug/Kg
SL-013-SA5DN-SB-9.0-10.0(RES)	ACETONE	9.3 ug/Kg	9.3U ug/Kg
SL-013-SA5DN-SB-9.0-10.0(RES)	METHYLENE CHLORIDE	2.1 ug/Kg	4.3U ug/Kg

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLA15B260133	6/21/2011 1:33:00 AM	BIS(2-ETHYLHEXYL)PHTHALATE	7.8 ug/Kg	DUP-10-SA5DN-QC-053111 SL-008-SA5DN-SB-4.0-5.0 SL-008-SA5DN-SB-9.0-10.0 SL-010-SA5DN-SB-4.0-5.0 SL-010-SA5DN-SB-9.0-10.0 SL-013-SA5DN-SB-4.0-5.0 SL-013-SA5DN-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-10-SA5DN-QC-053111(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	12 ug/Kg	20U ug/Kg

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_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-008-SA5DN-SB-4.0-5.0MS SL-008-SA5DN-SB-4.0-5.0MSD (DUP-10-SA5DN-QC-053111 SL-008-SA5DN-SB-4.0-5.0 SL-008-SA5DN-SB-9.0-10.0 SL-010-SA5DN-SB-4.0-5.0 SL-010-SA5DN-SB-9.0-10.0 SL-013-SA5DN-SB-4.0-5.0 SL-013-SA5DN-SB-9.0-10.0)	ANTIMONY BERYLLIUM LEAD ZINC	58 - - -	55 72 57 69	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ANTIMONY BERYLLIUM LEAD ZINC	J (all detects) UJ (all non-detects) Zn No Qual, >4x
SL-008-SA5DN-SB-4.0-5.0MS SL-008-SA5DN-SB-4.0-5.0MSD (DUP-10-SA5DN-QC-053111 SL-008-SA5DN-SB-4.0-5.0 SL-008-SA5DN-SB-9.0-10.0 SL-010-SA5DN-SB-4.0-5.0 SL-010-SA5DN-SB-9.0-10.0 SL-013-SA5DN-SB-4.0-5.0 SL-013-SA5DN-SB-9.0-10.0)	BARIUM	139	37	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-008-SA5DN-SB-4.0-5.0MS SL-008-SA5DN-SB-4.0-5.0MSD (DUP-10-SA5DN-QC-053111 SL-008-SA5DN-SB-4.0-5.0 SL-008-SA5DN-SB-9.0-10.0 SL-010-SA5DN-SB-4.0-5.0 SL-010-SA5DN-SB-9.0-10.0 SL-013-SA5DN-SB-4.0-5.0 SL-013-SA5DN-SB-9.0-10.0)	MAGNESIUM POTASSIUM	- 149	198 151	75.00-125.00 75.00-125.00	- -	MAGNESIUM POTASSIUM	J(all detects) Mg No Qual, >4x
SL-008-SA5DN-SB-4.0-5.0MS SL-008-SA5DN-SB-4.0-5.0MSD (DUP-10-SA5DN-QC-053111 SL-008-SA5DN-SB-4.0-5.0 SL-008-SA5DN-SB-9.0-10.0 SL-010-SA5DN-SB-4.0-5.0 SL-010-SA5DN-SB-9.0-10.0 SL-013-SA5DN-SB-4.0-5.0 SL-013-SA5DN-SB-9.0-10.0)	CALCIUM IRON	- -1141	-2118 854	75.00-125.00 75.00-125.00	35 (20.00) -	CALCIUM IRON	J(all detects) UJ(all non-detects) No Qual based on %R, >4x
SL-008-SA5DN-SB-4.0-5.0MS SL-008-SA5DN-SB-4.0-5.0MSD (DUP-10-SA5DN-QC-053111 SL-008-SA5DN-SB-4.0-5.0 SL-008-SA5DN-SB-9.0-10.0 SL-010-SA5DN-SB-4.0-5.0 SL-010-SA5DN-SB-9.0-10.0 SL-013-SA5DN-SB-4.0-5.0 SL-013-SA5DN-SB-9.0-10.0)	MANGANESE	204	378	75.00-125.00	24 (20.00)	MANGANESE	J(all detects) UJ(all non-detects) No Qual based on %R, >4x

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_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-008-SA5DN-SB-4.0-5.0MS SL-008-SA5DN-SB-4.0-5.0MSD (DUP-10-SA5DN-QC-053111 SL-008-SA5DN-SB-4.0-5.0 SL-008-SA5DN-SB-9.0-10.0 SL-010-SA5DN-SB-4.0-5.0 SL-010-SA5DN-SB-9.0-10.0 SL-013-SA5DN-SB-4.0-5.0 SL-013-SA5DN-SB-9.0-10.0)	ALUMINUM TITANIUM	1002 360	704 310	75.00-125.00 75.00-125.00	- -	ALUMINUM TITANIUM	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-008-SA5DN-SB-4.0-5.0MS (DUP-10-SA5DN-QC-053111 SL-008-SA5DN-SB-4.0-5.0 SL-008-SA5DN-SB-9.0-10.0 SL-010-SA5DN-SB-4.0-5.0 SL-010-SA5DN-SB-9.0-10.0 SL-013-SA5DN-SB-4.0-5.0 SL-013-SA5DN-SB-9.0-10.0)	FLUORIDE	43	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 6010B

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-008-SA5DN-SB-4.0-5.0DUP (DUP-10-SA5DN-QC-053111 SL -008-SA5DN-SB-4.0-5.0 SL -008-SA5DN-SB-9.0-10.0 SL -010-SA5DN-SB-4.0-5.0 SL -010-SA5DN-SB-9.0-10.0 SL -013-SA5DN-SB-4.0-5.0 SL -013-SA5DN-SB-9.0-10.0)	MANGANESE Zirconium	36 52	20.00 20.00	J (all detects) UJ (all non-detects) Zr No Qual, OK by difference

Method: 6020

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-008-SA5DN-SB-4.0-5.0DUP (DUP-10-SA5DN-QC-053111 SL -008-SA5DN-SB-4.0-5.0 SL -008-SA5DN-SB-9.0-10.0 SL -010-SA5DN-SB-4.0-5.0 SL -010-SA5DN-SB-9.0-10.0 SL -013-SA5DN-SB-4.0-5.0 SL -013-SA5DN-SB-9.0-10.0)	LEAD SELENIUM SILVER	27 200 21	20.00 20.00 20.00	J(all detects) UJ(all non-detects) Se, Ag No Qual, OK by difference



# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 8270C SIM**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P5LALCSQ260206 (DUP -10-SA5DN-QC-053111 SL -008-SA5DN-SB-4.0-5.0 SL -008-SA5DN-SB-9.0-10.0 SL -010-SA5DN-SB-4.0-5.0 SL -010-SA5DN-SB-9.0-10.0 SL -013-SA5DN-SB-4.0-5.0 SL -013-SA5DN-SB-9.0-10.0)	Diethylphthalate	235	-	68.00-125.00	-	Diethylphthalate	J (all detects)
P5LALCSQ260206 (DUP -10-SA5DN-QC-053111 SL -008-SA5DN-SB-4.0-5.0 SL -008-SA5DN-SB-9.0-10.0 SL -010-SA5DN-SB-4.0-5.0 SL -010-SA5DN-SB-9.0-10.0 SL -013-SA5DN-SB-4.0-5.0 SL -013-SA5DN-SB-9.0-10.0)	Di-n-butylphthalate FLUORANTHENE	79 71	- -	84.00-132.00 78.00-120.00	- -	Di-n-butylphthalate FLUORANTHENE	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
P15826DQ220426A (DUP -10-SA5DN-QC-053111 SL -008-SA5DN-SB-4.0-5.0 SL -008-SA5DN-SB-9.0-10.0 SL -010-SA5DN-SB-4.0-5.0 SL -010-SA5DN-SB-9.0-10.0 SL -013-SA5DN-SB-4.0-5.0 SL -013-SA5DN-SB-9.0-10.0)	ANTIMONY	132	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC limits

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL 110509

Method: 160.3M

Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
MOISTURE	12.300000000	11.6	6		No Qualifiers Applied

Method: 1625C

Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
N-NITROSODIMETHYLAMINE	21.400000000	68.1	104	50.00	J(all detects)

Method: 300.0

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
FLUORIDE	18.200000000	7.5	83	50.00	J(all detects) No Qual for NO3 within limits
Nitrate-NO3	1.600000000	1.6	0	50.00	

Method: 6010B

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
ALUMINUM	30300.000000000	38900	25	50.00	J(all detects) JJ(all non-detects) Al, Fe, Li, Mg, P, K, Na, Sr, Sn, Ti, Zr No Qual, within limits
BORON	5.540000000 U	15.4	200	50.00	
CALCIUM	6810.000000000	90600	172	50.00	
IRON	34300.000000000	28600	18	50.00	
LITHIUM	28.500000000	25.3	12	50.00	
MAGNESIUM	6890.000000000	6400	7	50.00	
MANGANESE	1370.000000000	273	134	50.00	
PHOSPHORUS	169.000000000	174	3	50.00	
POTASSIUM	2520.000000000	2930	15	50.00	
SODIUM	741.000000000	597	22	50.00	
STRONTIUM	49.700000000	69.4	33	50.00	
TIN	2.930000000	2.65	10	50.00	
TITANIUM	963.000000000	1410	38	50.00	
Zirconium	2.090000000	3.36	47	50.00	

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 6020

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
ANTIMONY	0.135000000	0.245	58	50.00	J(all detects) UJ(all non-detects) As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mo, Ni, Ti, V, Zn No Qual, within limits
ARSENIC	5.630000000	7.25	25	50.00	
BARIUM	148.000000000	142	4	50.00	
BERYLLIUM	0.867000000	0.863	0	50.00	
CADMIUM	0.148000000	0.115	25	50.00	
CHROMIUM	26.900000000	31.9	17	50.00	
COBALT	12.600000000	13.1	4	50.00	
COPPER	13.500000000	14.7	9	50.00	
LEAD	9.750000000	10.6	8	50.00	
MOLYBDENUM	0.311000000	0.481	43	50.00	
NICKEL	18.200000000	20.0	9	50.00	
SELENIUM	0.064000000	0.452 U	200	50.00	
SILVER	0.084700000	0.0446	62	50.00	
THALLIUM	0.301000000	0.305	1	50.00	
VANADIUM	42.900000000	63.9	39	50.00	
ZINC	59.700000000	59.5	0	50.00	

Method: 7199

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
HEXAVALENT CHROMIUM	1.200000000	0.32	116	50.00	J(all detects)

Method: 7471A

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
MERCURY	0.111000000 U	0.0067	200	50.00	J (all detects) UJ (all non-detects)

Method: 8015B

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
METHANOL	570.000000000 U	190	200	50.00	J (all detects) UJ (all non-detects)

Method: 8015M

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
EFH (C30-C40)	0.710000000	1.4 U	200	50.00	J (all detects) UJ (all non-detects)

## Field Duplicate RPD Report

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 8260B

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	0.190000000	4.1 U	200	50.00	J (all detects)
ACETONE	8.200000000	9.0	9	50.00	UJ (all non-detects)
METHYLENE CHLORIDE	2.100000000	1.8	15	50.00	Acetone, Methylene Chloride No Qual, within limits

Method: 8270C SIM

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
BIS(2-ETHYLHEXYL)PHTHALATE	20.000000000 U	12	200	50.00	J (all detects) UJ (all non-detects)

Method: 9045M

Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
PH	8.950000000	8.62	4	50.00	No Qualifiers Applied

# Reporting Limit Outliers

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-10-SA5DN-QC-053111	Nitrate-NO3	J	1.6	1.7	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-10-SA5DN-QC-053111	TIN	J	2.65	11.2	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.36	5.60	PQL	mg/Kg	
SL-008-SA5DN-SB-4.0-5.0	TIN	J	2.87	11.2	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.20	5.62	PQL	mg/Kg	
SL-008-SA5DN-SB-9.0-10.0	TIN	J	2.95	11.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.68	5.51	PQL	mg/Kg	
SL-010-SA5DN-SB-4.0-5.0	TIN	J	3.14	11.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.25	5.51	PQL	mg/Kg	
SL-010-SA5DN-SB-9.0-10.0	TIN	J	3.15	11.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.03	5.51	PQL	mg/Kg	
SL-013-SA5DN-SB-4.0-5.0	TIN	J	3.04	11.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.37	5.67	PQL	mg/Kg	
SL-013-SA5DN-SB-9.0-10.0	TIN	J	2.87	11.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.52	5.65	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-10-SA5DN-QC-053111	SILVER	J	0.0446	0.113	PQL	mg/Kg	J (all detects)
SL-008-SA5DN-SB-4.0-5.0	ANTIMONY	J	0.177	0.223	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0523	0.446	PQL	mg/Kg	
	SILVER	J	0.0548	0.111	PQL	mg/Kg	
SL-008-SA5DN-SB-9.0-10.0	ANTIMONY	J	0.139	0.214	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0765	0.107	PQL	mg/Kg	
	SILVER	J	0.0255	0.107	PQL	mg/Kg	
SL-010-SA5DN-SB-4.0-5.0	ANTIMONY	J	0.143	0.227	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0281	0.114	PQL	mg/Kg	
SL-010-SA5DN-SB-9.0-10.0	ANTIMONY	J	0.227	0.229	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0526	0.458	PQL	mg/Kg	
	SILVER	J	0.0223	0.115	PQL	mg/Kg	
SL-013-SA5DN-SB-4.0-5.0	SELENIUM	J	0.0862	0.453	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0532	0.113	PQL	mg/Kg	
SL-013-SA5DN-SB-9.0-10.0	SELENIUM	J	0.0588	0.443	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0420	0.111	PQL	mg/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6850

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-010-SA5DN-SB-9.0-10.0	PERCHLORATE	J	2.4	5.7	PQL	ug/Kg	J (all detects)

**Method:** 7199

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-10-SA5DN-QC-053111	HEXAVALENT CHROMIUM	J	0.32	1.1	PQL	mg/Kg	J (all detects)
SL-010-SA5DN-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.35	1.1	PQL	mg/Kg	J (all detects)
SL-013-SA5DN-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.37	1.2	PQL	mg/Kg	J (all detects)

**Method:** 7471A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-10-SA5DN-QC-053111	MERCURY	J	0.0067	0.108	PQL	mg/Kg	J (all detects)
SL-010-SA5DN-SB-9.0-10.0	MERCURY	J	0.0056	0.112	PQL	mg/Kg	J (all detects)
SL-013-SA5DN-SB-9.0-10.0	MERCURY	J	0.0038	0.114	PQL	mg/Kg	J (all detects)

**Method:** 8015B

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-10-SA5DN-QC-053111	METHANOL	J	190	570	PQL	ug/Kg	J (all detects)
SL-013-SA5DN-SB-4.0-5.0	METHANOL	J	330	580	PQL	ug/Kg	J (all detects)

**Method:** 8260B

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-10-SA5DN-QC-053111	METHYLENE CHLORIDE	J	1.8	4.1	PQL	ug/Kg	J (all detects)
SL-008-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.6	4.3	PQL	ug/Kg	J (all detects)
SL-010-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE	J	2.4	4.2	PQL	ug/Kg	J (all detects)
SL-013-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.8	3.9	PQL	ug/Kg	J (all detects)
SL-013-SA5DN-SB-9.0-10.0	METHYLENE CHLORIDE	J	2.1	4.3	PQL	ug/Kg	J (all detects)

## Reporting Limit Outliers

Lab Reporting Batch ID: DE168

Laboratory: LL

EDD Filename: DE168\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8270C SIM

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-10-SA5DN-QC-053111	BIS(2-ETHYLHEXYL)PHTHALATE	J	12	20	PQL	ug/Kg	J (all detects)

LDC #: 26275Z4

## VALIDATION COMPLETENESS WORKSHEET

SDG #: DE168

ADR

Laboratory: Lancaster Laboratories

Date: 9/29/11

Page: 1 of 1

Reviewer: yy

2nd Reviewer: ol

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	A	
V.	ICP Interference Check Sample (ICS) Analysis	N	RP out RP out
VI.	Matrix Spike Analysis	SW	Al, Ba, Ca, Fe, Mg, Mn, Ti, Zn. No find for Pb, Cr, Ni
VII.	Duplicate Sample Analysis	SW	Se, Ag, Zr < 5X
VIII.	Laboratory Control Samples (LCS)	NA	SRM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Cr, V
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-008-SA5DN-SB-4.0-5.0	11		21		31	
2	SL-008-SA5DN-SB-9.0-10.0	12		22		32	
3	SL-010-SA5DN-SB-4.0-5.0	13		23		33	
4	SL-010-SA5DN-SB-9.0-10.0	14		24		34	
5	DUP-10-SA5DN-QC-053111	15		25		35	
6	SL-013-SA5DN-SB-4.0-5.0	16		26		36	
7	SL-013-SA5DN-SB-9.0-10.0	17		27		37	
8	#1 MS	18		28		38	
9	↓ MS	19		29		39	
10	↓ Dup	20		30		40	

Notes: \_\_\_\_\_





QUALITY ASSURANCE SUMMARY  
FORM 5A (MS/MSD)  
MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
SDG No.: DE168  
Matrix: SOIL  
Level (Low/med): LOW

Background Lab Sample ID: 6302797BKG Matrix Spike Lab Sample ID: 6302797MS Matrix Spike Duplicate Lab Sample ID: 6302797MSD  
& Solids for Sample: 86.3  
Batch ID(s): P15908B, P15826D, P15808B, P15811C

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	MSD Spike Added	Units	MS		MSD		Control Limit	
		Result	C	Result	C	Result	C				\$R	Q	\$R	Q	\$R	RPD M
Aluminum		29938.9396		32237.0019		31523.9231		229.4552	224.9997	MG/KG	1002		704			20P
Antimony	121	0.1772	B	0.9613		0.9211		1.3632	1.3632	MG/KG	58	N	55	N	75 - 125	20MS
Arsenic	75	6.5380		9.1791		8.4339		2.2721	2.2721	MG/KG	116		83		75 - 125	20MS
Barium	137	131.2060		146.9793		135.4145		11.3603	11.3603	MG/KG	139		37			20MS
Beryllium	9	0.8069		1.4846		1.4607		0.9088	0.9088	MG/KG	75		72	N	75 - 125	20MS
Boron		17.4544		245.4593		248.9583		227.2056	227.2056	MG/KG	100		102		84 - 115	20P
Cadmium	111	0.1282		1.3775		1.3026		1.1360	1.1360	MG/KG	110		103		75 - 125	20MS
Calcium		32981.5534		33407.9885		23358.0783		454.4112	454.4112	MG/KG	94		-2118			20P
Chromium	52	27.1637		37.5116		36.5119		11.3603	11.3603	MG/KG	91		82		75 - 125	20MS
Cobalt	59	9.1162		63.9584		62.6633		56.8014	56.8014	MG/KG	97		94		75 - 125	20MS
Copper	63	12.7997		24.1747		23.5158		11.3603	11.3603	MG/KG	100		94		75 - 125	20MS
Iron		29226.2350		27929.6606		30196.2136		113.6028	113.6028	MG/KG	-1141		854			20P
Lead	208	9.7067		13.1620		11.6329		3.4081	3.4081	MG/KG	101		57	N	75 - 125	20MS
Lithium		24.2381		139.6201		140.6834		113.6028	113.6028	MG/KG	102		103		82 - 114	20P
Magnesium		6332.8916		6591.9649		6781.8156		227.2056	227.2056	MG/KG	114		198			20P
Manganese		246.4433		362.4759		461.3955		56.8014	56.8014	MG/KG	204		378			20P
Mercury		0.0034	U	0.2029		0.2115		0.1914	0.1888	MG/KG	106		112		65 - 135	20CV
Molybdenum	98	0.2839		11.5057		11.0036		11.3603	11.3603	MG/KG	99		94		75 - 125	20MS
Nickel	60	17.9829		30.7864		30.0820		11.3603	11.3603	MG/KG	113		107		75 - 125	20MS
Phosphorus		277.6542		373.6453		396.4215		113.6028	113.6028	MG/KG	84		105		75 - 125	20P
Potassium		3066.4537		4763.6471		4781.3498		1136.0280	1136.0280	MG/KG	149	N	151	N	75 - 125	20P
Selenium	78	0.0523	B	2.2253		2.3357		2.2721	2.2721	MG/KG	96		100		75 - 125	20MS
Silver	107	0.0548	B	11.7511		11.3535		11.3603	11.3603	MG/KG	103		99		75 - 125	20MS
Sodium		736.5715		1836.1825		1864.9990		1136.0280	1136.0280	MG/KG	97		99		75 - 125	20P
Strontium		44.5106		155.7812		154.3601		113.6028	113.6028	MG/KG	98		97		75 - 115	20P
Thallium	203	0.2808		0.7661		0.6771		0.4544	0.4544	MG/KG	107		87		75 - 125	20MS
Tin		2.8732	B	397.2610		403.6591		454.4112	454.4112	MG/KG	87		88		80 - 110	20P
Titanium		1172.9033		1585.7830		1521.7057		114.7276	112.4999	MG/KG	360		310			20P
Vanadium	51	54.7509		66.6394		65.7760		11.3603	11.3603	MG/KG	105		97			20MS
Zinc	66	52.3665		63.2540		60.2095		11.3603	11.3603	MG/KG	96		69			20MS
Zirconium		3.2029	B	113.8948		114.7786		113.6028	113.6028	MG/KG	97		98		75 - 125	20P

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



## QUALITY ASSURANCE SUMMARY

FORM 6

DUPLICATES

SDG No.: DE168

Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6302797BKG

% Solids for Duplicate: 86.3

Batch ID(s): P15908B, P15826D, P15808B, P15811C

Concentration Units: MG/KG

Duplicate Lab Sample ID: 6302797DUP

% Solids for Sample: 86.3

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			29938.9396		28578.2477		5		P
Antimony	121		0.1772	B	0.1727	B	3		MS
Arsenic	75		6.5380		5.5941		16		MS
Barium	137		131.2060		122.1849		7		MS
Beryllium	9		0.8069		0.7382		9		MS
Boron		5.6	17.4544		15.9601		9		P
Cadmium	111	0.1	0.1282		0.1366		6		MS
Calcium			32981.5534		34062.0101		3		P
Chromium	52		27.1637		26.7545		2		MS
Cobalt	59		9.1162		9.6325		6		MS
Copper	63		12.7997		12.7577		0		MS
Iron			29226.2350		27645.0537		6		P
Lead	208		9.7067		7.4252		27	*	MS
Lithium			24.2381		22.4331		8		P
Magnesium			6332.8916		5928.0928		7		P
Manganese			246.4433		355.9744		36	*	P
Mercury			0.0034	U	0.0034	U			CV
Molybdenum	98	0.1	0.2839		0.2632		8		MS
Nickel	60		17.9829		17.5028		3		MS
Phosphorus			277.6542		282.4268		2		P
Potassium			3066.4537		3015.4466		2		P
Selenium	78		0.0523	B	0.0459	U	200		MS
Silver	107		0.0548	B	0.0445	B	21		MS
Sodium			736.5715		688.4114		7		P
Strontium			44.5106		41.2185		8		P
Thallium	203	0.1	0.2808		0.2721		3		MS
Tin			2.8732	B	2.8264	B	2		P
Titanium			1172.9033		1338.6804		13		P
Vanadium	51		54.7509		50.5719		8		MS
Zinc	66		52.3665		50.2966		4		MS
Zirconium			3.2029	B	5.4734	B	52		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.

DE168 2538

## 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**

**DE169**

## **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
31-May-2011	SL-094-SA5DN-SS-0.0-0.5	6302754	N	3050B	6010B	III
31-May-2011	SL-094-SA5DN-SS-0.0-0.5	6302754	N	3050B	6020	III
31-May-2011	SL-094-SA5DN-SS-0.0-0.5	6302754	N	3060A	7199	III
31-May-2011	SL-094-SA5DN-SS-0.0-0.5	6302754	N	3550B	8081A	III
31-May-2011	SL-094-SA5DN-SS-0.0-0.5	6302754	N	3550B	8082	III
31-May-2011	SL-094-SA5DN-SS-0.0-0.5	6302754	N	3550B	8151A	III
31-May-2011	SL-094-SA5DN-SS-0.0-0.5	6302754	N	3550B	8270C	III
31-May-2011	SL-094-SA5DN-SS-0.0-0.5	6302754	N	3550B	8270C SIM	III
31-May-2011	SL-094-SA5DN-SS-0.0-0.5	6302754	N	METHOD	300.0	III
31-May-2011	SL-094-SA5DN-SS-0.0-0.5	6302754	N	METHOD	314.0	III
31-May-2011	SL-094-SA5DN-SS-0.0-0.5	6302754	N	METHOD	7471A	III
31-May-2011	SL-094-SA5DN-SS-0.0-0.5MS	P302754R241550A	MS	3550B	8151A	III
31-May-2011	SL-094-SA5DN-SS-0.0-0.5MS	P302754R242028A	MS	3550B	8081A	III
31-May-2011	SL-095-SA5DN-SS-0.0-0.5	6302755	N	3050B	6010B	III
31-May-2011	SL-095-SA5DN-SS-0.0-0.5	6302755	N	3050B	6020	III
31-May-2011	SL-095-SA5DN-SS-0.0-0.5	6302755	N	3060A	7199	III
31-May-2011	SL-095-SA5DN-SS-0.0-0.5	6302755	N	3550B	8081A	III
31-May-2011	SL-095-SA5DN-SS-0.0-0.5	6302755	N	3550B	8082	III
31-May-2011	SL-095-SA5DN-SS-0.0-0.5	6302755	N	3550B	8151A	III
31-May-2011	SL-095-SA5DN-SS-0.0-0.5	6302755	N	3550B	8270C	III
31-May-2011	SL-095-SA5DN-SS-0.0-0.5	6302755	N	3550B	8270C SIM	III
31-May-2011	SL-095-SA5DN-SS-0.0-0.5	6302755	N	METHOD	300.0	III
31-May-2011	SL-095-SA5DN-SS-0.0-0.5	6302755	N	METHOD	314.0	III
31-May-2011	SL-095-SA5DN-SS-0.0-0.5	6302755	N	METHOD	7471A	III
31-May-2011	SL-097-SA5DN-SS-0.0-0.5	6302756	N	3050B	6010B	III
31-May-2011	SL-097-SA5DN-SS-0.0-0.5	6302756	N	3050B	6020	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-May-2011	SL-097-SA5DN-SS-0.0-0.5	6302756	N	3060A	7199	III
31-May-2011	SL-097-SA5DN-SS-0.0-0.5	6302756	N	3546	1625C	III
31-May-2011	SL-097-SA5DN-SS-0.0-0.5	6302756	N	3550B	8015B	III
31-May-2011	SL-097-SA5DN-SS-0.0-0.5	6302756	N	3550B	8015M	III
31-May-2011	SL-097-SA5DN-SS-0.0-0.5	6302756	N	3550B	8081A	III
31-May-2011	SL-097-SA5DN-SS-0.0-0.5	6302756	N	3550B	8082	III
31-May-2011	SL-097-SA5DN-SS-0.0-0.5	6302756	N	3550B	8151A	III
31-May-2011	SL-097-SA5DN-SS-0.0-0.5	6302756	N	3550B	8270C	III
31-May-2011	SL-097-SA5DN-SS-0.0-0.5	6302756	N	3550B	8270C SIM	III
31-May-2011	SL-097-SA5DN-SS-0.0-0.5	6302756	N	8330	8330A	III
31-May-2011	SL-097-SA5DN-SS-0.0-0.5	6302756	N	METHOD	300.0	III
31-May-2011	SL-097-SA5DN-SS-0.0-0.5	6302756	N	METHOD	314.0	III
31-May-2011	SL-097-SA5DN-SS-0.0-0.5	6302756	N	METHOD	6850	III
31-May-2011	SL-097-SA5DN-SS-0.0-0.5	6302756	N	METHOD	7471A	III
31-May-2011	SL-097-SA5DN-SS-0.0-0.5	6302756	N	METHOD	8015B	III
31-May-2011	SL-097-SA5DN-SS-0.0-0.5	6302756	N	METHOD	8015M	III
31-May-2011	SL-097-SA5DN-SS-0.0-0.5	6302756	N	METHOD	8315A	III
31-May-2011	SL-097-SA5DN-SS-0.0-0.5	6302756	N	METHOD	9012B	III
31-May-2011	SL-097-SA5DN-SS-0.0-0.5MS	P302756R241238A	MS	METHOD	6850	III
31-May-2011	SL-098-SA5DN-SS-0.0-0.5	6302757	N	3050B	6010B	III
31-May-2011	SL-098-SA5DN-SS-0.0-0.5	6302757	N	3050B	6020	III
31-May-2011	SL-098-SA5DN-SS-0.0-0.5	6302757	N	3060A	7199	III
31-May-2011	SL-098-SA5DN-SS-0.0-0.5	6302757	N	3546	1625C	III
31-May-2011	SL-098-SA5DN-SS-0.0-0.5	6302757	N	3550B	8015B	III
31-May-2011	SL-098-SA5DN-SS-0.0-0.5	6302757	N	3550B	8015M	III
31-May-2011	SL-098-SA5DN-SS-0.0-0.5	6302757	N	3550B	8081A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-May-2011	SL-098-SA5DN-SS-0.0-0.5	6302757	N	3550B	8082	III
31-May-2011	SL-098-SA5DN-SS-0.0-0.5	6302757	N	3550B	8151A	III
31-May-2011	SL-098-SA5DN-SS-0.0-0.5	6302757	N	3550B	8270C	III
31-May-2011	SL-098-SA5DN-SS-0.0-0.5	6302757	N	3550B	8270C SIM	III
31-May-2011	SL-098-SA5DN-SS-0.0-0.5	6302757	N	8330	8330A	III
31-May-2011	SL-098-SA5DN-SS-0.0-0.5	6302757	N	METHOD	300.0	III
31-May-2011	SL-098-SA5DN-SS-0.0-0.5	6302757	N	METHOD	314.0	III
31-May-2011	SL-098-SA5DN-SS-0.0-0.5	6302757	N	METHOD	7471A	III
31-May-2011	SL-098-SA5DN-SS-0.0-0.5	6302757	N	METHOD	8015B	III
31-May-2011	SL-098-SA5DN-SS-0.0-0.5	6302757	N	METHOD	8015M	III
31-May-2011	SL-098-SA5DN-SS-0.0-0.5	6302757	N	METHOD	8315A	III
31-May-2011	SL-098-SA5DN-SS-0.0-0.5	6302757	N	METHOD	9012B	III
31-May-2011	SL-125-SA5DN-SS-0.0-0.5	6302769	N	3050B	6010B	III
31-May-2011	SL-125-SA5DN-SS-0.0-0.5	6302769	N	3050B	6020	III
31-May-2011	SL-125-SA5DN-SS-0.0-0.5	6302769	N	3060A	7199	III
31-May-2011	SL-125-SA5DN-SS-0.0-0.5	6302769	N	3546	1625C	III
31-May-2011	SL-125-SA5DN-SS-0.0-0.5	6302769	N	3550B	8015B	III
31-May-2011	SL-125-SA5DN-SS-0.0-0.5	6302769	N	3550B	8015M	III
31-May-2011	SL-125-SA5DN-SS-0.0-0.5	6302769	N	3550B	8081A	III
31-May-2011	SL-125-SA5DN-SS-0.0-0.5	6302769	N	3550B	8082	III
31-May-2011	SL-125-SA5DN-SS-0.0-0.5	6302769	N	3550B	8151A	III
31-May-2011	SL-125-SA5DN-SS-0.0-0.5	6302769	N	3550B	8270C	III
31-May-2011	SL-125-SA5DN-SS-0.0-0.5	6302769	N	3550B	8270C SIM	III
31-May-2011	SL-125-SA5DN-SS-0.0-0.5	6302769	N	8330	8330A	III
31-May-2011	SL-125-SA5DN-SS-0.0-0.5	6302769	N	METHOD	300.0	III
31-May-2011	SL-125-SA5DN-SS-0.0-0.5	6302769	N	METHOD	314.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-May-2011	SL-125-SA5DN-SS-0.0-0.5	6302769	N	METHOD	7471A	III
31-May-2011	SL-125-SA5DN-SS-0.0-0.5	6302769	N	METHOD	8015B	III
31-May-2011	SL-125-SA5DN-SS-0.0-0.5	6302769	N	METHOD	8015M	III
31-May-2011	SL-125-SA5DN-SS-0.0-0.5	6302769	N	METHOD	8315A	III
31-May-2011	SL-125-SA5DN-SS-0.0-0.5	6302769	N	METHOD	9012B	III
31-May-2011	SL-121-SA5DN-SS-0.0-0.5	6302768	N	3050B	6010B	III
31-May-2011	SL-121-SA5DN-SS-0.0-0.5	6302768	N	3050B	6020	III
31-May-2011	SL-121-SA5DN-SS-0.0-0.5	6302768	N	3060A	7199	III
31-May-2011	SL-121-SA5DN-SS-0.0-0.5	6302768	N	3546	1625C	III
31-May-2011	SL-121-SA5DN-SS-0.0-0.5	6302768	N	3550B	8015B	III
31-May-2011	SL-121-SA5DN-SS-0.0-0.5	6302768	N	3550B	8015M	III
31-May-2011	SL-121-SA5DN-SS-0.0-0.5	6302768	N	3550B	8081A	III
31-May-2011	SL-121-SA5DN-SS-0.0-0.5	6302768	N	3550B	8082	III
31-May-2011	SL-121-SA5DN-SS-0.0-0.5	6302768	N	3550B	8151A	III
31-May-2011	SL-121-SA5DN-SS-0.0-0.5	6302768	N	3550B	8270C	III
31-May-2011	SL-121-SA5DN-SS-0.0-0.5	6302768	N	3550B	8270C SIM	III
31-May-2011	SL-121-SA5DN-SS-0.0-0.5	6302768	N	8330	8330A	III
31-May-2011	SL-121-SA5DN-SS-0.0-0.5	6302768	N	METHOD	300.0	III
31-May-2011	SL-121-SA5DN-SS-0.0-0.5	6302768	N	METHOD	314.0	III
31-May-2011	SL-121-SA5DN-SS-0.0-0.5	6302768	N	METHOD	7471A	III
31-May-2011	SL-121-SA5DN-SS-0.0-0.5	6302768	N	METHOD	8015B	III
31-May-2011	SL-121-SA5DN-SS-0.0-0.5	6302768	N	METHOD	8015M	III
31-May-2011	SL-121-SA5DN-SS-0.0-0.5	6302768	N	METHOD	8315A	III
31-May-2011	SL-121-SA5DN-SS-0.0-0.5	6302768	N	METHOD	9012B	III
31-May-2011	SL-103-SA5DN-SS-0.0-0.5	6302761	N	3050B	6010B	III
31-May-2011	SL-103-SA5DN-SS-0.0-0.5	6302761	N	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



## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-May-2011	SL-103-SA5DN-SS-0.0-0.5	6302761	N	3060A	7199	III
31-May-2011	SL-103-SA5DN-SS-0.0-0.5	6302761	N	3546	1625C	III
31-May-2011	SL-103-SA5DN-SS-0.0-0.5	6302761	N	3550B	8015B	III
31-May-2011	SL-103-SA5DN-SS-0.0-0.5	6302761	N	3550B	8015M	III
31-May-2011	SL-103-SA5DN-SS-0.0-0.5	6302761	N	3550B	8081A	III
31-May-2011	SL-103-SA5DN-SS-0.0-0.5	6302761	N	3550B	8082	III
31-May-2011	SL-103-SA5DN-SS-0.0-0.5	6302761	N	3550B	8151A	III
31-May-2011	SL-103-SA5DN-SS-0.0-0.5	6302761	N	3550B	8270C	III
31-May-2011	SL-103-SA5DN-SS-0.0-0.5	6302761	N	3550B	8270C SIM	III
31-May-2011	SL-103-SA5DN-SS-0.0-0.5	6302761	N	8330	8330A	III
31-May-2011	SL-103-SA5DN-SS-0.0-0.5	6302761	N	METHOD	300.0	III
31-May-2011	SL-103-SA5DN-SS-0.0-0.5	6302761	N	METHOD	314.0	III
31-May-2011	SL-103-SA5DN-SS-0.0-0.5	6302761	N	METHOD	7471A	III
31-May-2011	SL-103-SA5DN-SS-0.0-0.5	6302761	N	METHOD	8015B	III
31-May-2011	SL-103-SA5DN-SS-0.0-0.5	6302761	N	METHOD	8015M	III
31-May-2011	SL-103-SA5DN-SS-0.0-0.5	6302761	N	METHOD	8315A	III
31-May-2011	SL-103-SA5DN-SS-0.0-0.5	6302761	N	METHOD	9012B	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5	6302762	N	3050B	6010B	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5	6302762	N	3050B	6020	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5	6302762	N	3060A	7199	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5	6302762	N	3546	1625C	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5	6302762	N	3550B	8015B	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5	6302762	N	3550B	8015M	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5	6302762	N	3550B	8081A	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5	6302762	N	3550B	8082	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5	6302762	N	3550B	8151A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-May-2011	SL-104-SA5DN-SS-0.0-0.5	6302762	N	3550B	8270C	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5	6302762	N	3550B	8270C SIM	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5	6302762	N	8330	8330A	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5	6302762	N	METHOD	300.0	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5	6302762	N	METHOD	314.0	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5	6302762	N	METHOD	7471A	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5	6302762	N	METHOD	8015B	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5	6302762	N	METHOD	8015M	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5	6302762	N	METHOD	8315A	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5	6302762	N	METHOD	9012B	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5DU	P302762D270524B	DUP	METHOD	300.0	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5DU	P302762D271128B	DUP	METHOD	314.0	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5DU	P302762D272302B	DUP	METHOD	300.0	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5MS	P302762R270539B	MS	METHOD	300.0	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5MS	P302762R271151B	MS	METHOD	314.0	III
31-May-2011	SL-104-SA5DN-SS-0.0-0.5MS	P302762R272315B	MS	METHOD	300.0	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0	6302747	N	3050B	6010B	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0	6302747	N	3050B	6020	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0	6302747	N	3060A	7199	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0	6302747	N	3546	1625C	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0	6302747	N	3550B	8015B	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0	6302747	N	3550B	8015M	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0	6302747	N	3550B	8082	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0	6302747	N	3550B	8270C	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0	6302747	N	3550B	8270C SIM	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0	6302747	N	5035	8015M	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-May-2011	SL-014-SA5DN-SB-4.0-5.0	6302747	N	5035	8260B	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0	6302747	N	5035	8260B SIM	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0	6302747	N	8330	8330A	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0	6302747	N	METHOD	300.0	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0	6302747	N	METHOD	314.0	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0	6302747	N	METHOD	7471A	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0	6302747	N	METHOD	8015B	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0	6302747	N	METHOD	8015M	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0	6302747	N	METHOD	8315A	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0	6302747	N	METHOD	9012B	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0MS	6302748	MS	3060A	7199	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0MS	6302748	MS	3550B	8015B	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0MS	6302748	MS	3550B	8015M	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0MS	6302748	MS	3550B	8082	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0MS	6302748	MS	3550B	8270C	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0MS	6302748	MS	3550B	8270C SIM	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0MS	6302748	MS	5035	8015M	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0MS	6302748	MS	5035	8260B	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0MS	6302748	MS	5035	8260B SIM	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0MS	6302748	MS	8330	8330A	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0MS	6302748	MS	METHOD	300.0	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0MS	6302748	MS	METHOD	314.0	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0MS	6302748	MS	METHOD	8015B	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0MS	6302748	MS	METHOD	8015M	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0MS	6302748	MS	METHOD	8315A	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0MS	6302748	MS	METHOD	9012B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-May-2011	SL-014-SA5DN-SB-4.0-5.0MS	6302749	MS	3050B	6010B	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0MS	6302749	MS	3050B	6020	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0MS	6302749	MS	3546	1625C	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0MS	6302749	MS	METHOD	7471A	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0DU	6302750	DUP	3050B	6010B	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0DU	6302750	DUP	3050B	6020	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0DU	6302750	DUP	3060A	7199	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0DU	6302750	DUP	METHOD	300.0	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0DU	6302750	DUP	METHOD	314.0	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0DU	6302750	DUP	METHOD	7471A	III
31-May-2011	SL-014-SA5DN-SB-4.0-5.0DU	6302750	DUP	METHOD	9012B	III
31-May-2011	SL-014-SA5DN-SB-9.0-10.0	6302751	N	3050B	6010B	III
31-May-2011	SL-014-SA5DN-SB-9.0-10.0	6302751	N	3050B	6020	III
31-May-2011	SL-014-SA5DN-SB-9.0-10.0	6302751	N	3060A	7199	III
31-May-2011	SL-014-SA5DN-SB-9.0-10.0	6302751	N	3546	1625C	III
31-May-2011	SL-014-SA5DN-SB-9.0-10.0	6302751	N	3550B	8015B	III
31-May-2011	SL-014-SA5DN-SB-9.0-10.0	6302751	N	3550B	8015M	III
31-May-2011	SL-014-SA5DN-SB-9.0-10.0	6302751	N	3550B	8082	III
31-May-2011	SL-014-SA5DN-SB-9.0-10.0	6302751	N	3550B	8270C	III
31-May-2011	SL-014-SA5DN-SB-9.0-10.0	6302751	N	3550B	8270C SIM	III
31-May-2011	SL-014-SA5DN-SB-9.0-10.0	6302751	N	5035	8015M	III
31-May-2011	SL-014-SA5DN-SB-9.0-10.0	6302751	N	5035	8260B	III
31-May-2011	SL-014-SA5DN-SB-9.0-10.0	6302751	N	5035	8260B SIM	III
31-May-2011	SL-014-SA5DN-SB-9.0-10.0	6302751	N	8330	8330A	III
31-May-2011	SL-014-SA5DN-SB-9.0-10.0	6302751	N	METHOD	300.0	III
31-May-2011	SL-014-SA5DN-SB-9.0-10.0	6302751	N	METHOD	314.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-May-2011	SL-014-SA5DN-SB-9.0-10.0	6302751	N	METHOD	7471A	III
31-May-2011	SL-014-SA5DN-SB-9.0-10.0	6302751	N	METHOD	8015B	III
31-May-2011	SL-014-SA5DN-SB-9.0-10.0	6302751	N	METHOD	8015M	III
31-May-2011	SL-014-SA5DN-SB-9.0-10.0	6302751	N	METHOD	8315A	III
31-May-2011	SL-014-SA5DN-SB-9.0-10.0	6302751	N	METHOD	9012B	III
31-May-2011	EB10-SA5DN-SS-053111	6302770	EB	3005A	6010B	III
31-May-2011	EB10-SA5DN-SS-053111	6302770	EB	3020A	6020	III
31-May-2011	EB10-SA5DN-SS-053111	6302770	EB	3510C	8015B	III
31-May-2011	EB10-SA5DN-SS-053111	6302770	EB	3510C	8015M	III
31-May-2011	EB10-SA5DN-SS-053111	6302770	EB	3510C	8081A	III
31-May-2011	EB10-SA5DN-SS-053111	6302770	EB	3510C	8082	III
31-May-2011	EB10-SA5DN-SS-053111	6302770	EB	3510C	8270C	III
31-May-2011	EB10-SA5DN-SS-053111	6302770	EB	3510C	8270C SIM	III
31-May-2011	EB10-SA5DN-SS-053111	6302770	EB	3520C	1625C	III
31-May-2011	EB10-SA5DN-SS-053111	6302770	EB	8330	8330A	III
31-May-2011	EB10-SA5DN-SS-053111	6302770	EB	Gen Prep	300.0	III
31-May-2011	EB10-SA5DN-SS-053111	6302770	EB	Gen Prep	314.0	III
31-May-2011	EB10-SA5DN-SS-053111	6302770	EB	Gen Prep	7199	III
31-May-2011	EB10-SA5DN-SS-053111	6302770	EB	Gen Prep	8015B	III
31-May-2011	EB10-SA5DN-SS-053111	6302770	EB	Gen Prep	8015M	III
31-May-2011	EB10-SA5DN-SS-053111	6302770	EB	METHOD	7470A	III
31-May-2011	EB10-SA5DN-SS-053111	6302770	EB	METHOD	8151A	III
31-May-2011	EB10-SA5DN-SS-053111	6302770	EB	METHOD	8315A	III
31-May-2011	EB10-SA5DN-SS-053111	6302770	EB	METHOD	9012B	III
31-May-2011	EB11-SA5DN-SB-053111	6302752	EB	3005A	6010B	III
31-May-2011	EB11-SA5DN-SB-053111	6302752	EB	3020A	6020	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-May-2011	EB11-SA5DN-SB-053111	6302752	EB	3510C	8081A	III
31-May-2011	EB11-SA5DN-SB-053111	6302752	EB	3510C	8082	III
31-May-2011	EB11-SA5DN-SB-053111	6302752	EB	3510C	8270C	III
31-May-2011	EB11-SA5DN-SB-053111	6302752	EB	3510C	8270C SIM	III
31-May-2011	EB11-SA5DN-SB-053111	6302752	EB	5030B	8260B	III
31-May-2011	EB11-SA5DN-SB-053111	6302752	EB	5030B	8260B SIM	III
31-May-2011	EB11-SA5DN-SB-053111	6302752	EB	Gen Prep	300.0	III
31-May-2011	EB11-SA5DN-SB-053111	6302752	EB	Gen Prep	314.0	III
31-May-2011	EB11-SA5DN-SB-053111	6302752	EB	Gen Prep	7199	III
31-May-2011	EB11-SA5DN-SB-053111	6302752	EB	METHOD	7470A	III
31-May-2011	EB11-SA5DN-SB-053111	6302752	EB	METHOD	8151A	III
31-May-2011	SL-102-SA5DN-SS-0.0-0.5	6302760	N	3050B	6010B	III
31-May-2011	SL-102-SA5DN-SS-0.0-0.5	6302760	N	3050B	6020	III
31-May-2011	SL-102-SA5DN-SS-0.0-0.5	6302760	N	3060A	7199	III
31-May-2011	SL-102-SA5DN-SS-0.0-0.5	6302760	N	3546	1625C	III
31-May-2011	SL-102-SA5DN-SS-0.0-0.5	6302760	N	3550B	8015B	III
31-May-2011	SL-102-SA5DN-SS-0.0-0.5	6302760	N	3550B	8015M	III
31-May-2011	SL-102-SA5DN-SS-0.0-0.5	6302760	N	3550B	8081A	III
31-May-2011	SL-102-SA5DN-SS-0.0-0.5	6302760	N	3550B	8082	III
31-May-2011	SL-102-SA5DN-SS-0.0-0.5	6302760	N	3550B	8151A	III
31-May-2011	SL-102-SA5DN-SS-0.0-0.5	6302760	N	3550B	8270C	III
31-May-2011	SL-102-SA5DN-SS-0.0-0.5	6302760	N	3550B	8270C SIM	III
31-May-2011	SL-102-SA5DN-SS-0.0-0.5	6302760	N	8330	8330A	III
31-May-2011	SL-102-SA5DN-SS-0.0-0.5	6302760	N	METHOD	300.0	III
31-May-2011	SL-102-SA5DN-SS-0.0-0.5	6302760	N	METHOD	314.0	III
31-May-2011	SL-102-SA5DN-SS-0.0-0.5	6302760	N	METHOD	7471A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-May-2011	SL-102-SA5DN-SS-0.0-0.5	6302760	N	METHOD	8015B	III
31-May-2011	SL-102-SA5DN-SS-0.0-0.5	6302760	N	METHOD	8015M	III
31-May-2011	SL-102-SA5DN-SS-0.0-0.5	6302760	N	METHOD	8315A	III
31-May-2011	SL-102-SA5DN-SS-0.0-0.5	6302760	N	METHOD	9012B	III
31-May-2011	SL-111-SA5DN-SS-0.0-0.5	6302764	N	3050B	6010B	III
31-May-2011	SL-111-SA5DN-SS-0.0-0.5	6302764	N	3050B	6020	III
31-May-2011	SL-111-SA5DN-SS-0.0-0.5	6302764	N	3060A	7199	III
31-May-2011	SL-111-SA5DN-SS-0.0-0.5	6302764	N	3546	1625C	III
31-May-2011	SL-111-SA5DN-SS-0.0-0.5	6302764	N	3550B	8015B	III
31-May-2011	SL-111-SA5DN-SS-0.0-0.5	6302764	N	3550B	8015M	III
31-May-2011	SL-111-SA5DN-SS-0.0-0.5	6302764	N	3550B	8081A	III
31-May-2011	SL-111-SA5DN-SS-0.0-0.5	6302764	N	3550B	8082	III
31-May-2011	SL-111-SA5DN-SS-0.0-0.5	6302764	N	3550B	8151A	III
31-May-2011	SL-111-SA5DN-SS-0.0-0.5	6302764	N	3550B	8270C	III
31-May-2011	SL-111-SA5DN-SS-0.0-0.5	6302764	N	3550B	8270C SIM	III
31-May-2011	SL-111-SA5DN-SS-0.0-0.5	6302764	N	8330	8330A	III
31-May-2011	SL-111-SA5DN-SS-0.0-0.5	6302764	N	METHOD	300.0	III
31-May-2011	SL-111-SA5DN-SS-0.0-0.5	6302764	N	METHOD	314.0	III
31-May-2011	SL-111-SA5DN-SS-0.0-0.5	6302764	N	METHOD	6850	III
31-May-2011	SL-111-SA5DN-SS-0.0-0.5	6302764	N	METHOD	7471A	III
31-May-2011	SL-111-SA5DN-SS-0.0-0.5	6302764	N	METHOD	8015B	III
31-May-2011	SL-111-SA5DN-SS-0.0-0.5	6302764	N	METHOD	8015M	III
31-May-2011	SL-111-SA5DN-SS-0.0-0.5	6302764	N	METHOD	8315A	III
31-May-2011	SL-111-SA5DN-SS-0.0-0.5	6302764	N	METHOD	9012B	III
31-May-2011	SL-099-SA5DN-SS-0.0-0.5	6302758	N	3050B	6010B	III
31-May-2011	SL-099-SA5DN-SS-0.0-0.5	6302758	N	3050B	6020	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-May-2011	SL-099-SA5DN-SS-0.0-0.5	6302758	N	3060A	7199	III
31-May-2011	SL-099-SA5DN-SS-0.0-0.5	6302758	N	3546	1625C	III
31-May-2011	SL-099-SA5DN-SS-0.0-0.5	6302758	N	3550B	8015B	III
31-May-2011	SL-099-SA5DN-SS-0.0-0.5	6302758	N	3550B	8015M	III
31-May-2011	SL-099-SA5DN-SS-0.0-0.5	6302758	N	3550B	8081A	III
31-May-2011	SL-099-SA5DN-SS-0.0-0.5	6302758	N	3550B	8082	III
31-May-2011	SL-099-SA5DN-SS-0.0-0.5	6302758	N	3550B	8151A	III
31-May-2011	SL-099-SA5DN-SS-0.0-0.5	6302758	N	3550B	8270C	III
31-May-2011	SL-099-SA5DN-SS-0.0-0.5	6302758	N	3550B	8270C SIM	III
31-May-2011	SL-099-SA5DN-SS-0.0-0.5	6302758	N	8330	8330A	III
31-May-2011	SL-099-SA5DN-SS-0.0-0.5	6302758	N	METHOD	300.0	III
31-May-2011	SL-099-SA5DN-SS-0.0-0.5	6302758	N	METHOD	314.0	III
31-May-2011	SL-099-SA5DN-SS-0.0-0.5	6302758	N	METHOD	7471A	III
31-May-2011	SL-099-SA5DN-SS-0.0-0.5	6302758	N	METHOD	8015B	III
31-May-2011	SL-099-SA5DN-SS-0.0-0.5	6302758	N	METHOD	8015M	III
31-May-2011	SL-099-SA5DN-SS-0.0-0.5	6302758	N	METHOD	8315A	III
31-May-2011	SL-099-SA5DN-SS-0.0-0.5	6302758	N	METHOD	9012B	III
31-May-2011	SL-113-SA5DN-SS-0.0-0.5	6302766	N	3050B	6010B	III
31-May-2011	SL-113-SA5DN-SS-0.0-0.5	6302766	N	3050B	6020	III
31-May-2011	SL-113-SA5DN-SS-0.0-0.5	6302766	N	3060A	7199	III
31-May-2011	SL-113-SA5DN-SS-0.0-0.5	6302766	N	3546	1625C	III
31-May-2011	SL-113-SA5DN-SS-0.0-0.5	6302766	N	3550B	8015B	III
31-May-2011	SL-113-SA5DN-SS-0.0-0.5	6302766	N	3550B	8015M	III
31-May-2011	SL-113-SA5DN-SS-0.0-0.5	6302766	N	3550B	8081A	III
31-May-2011	SL-113-SA5DN-SS-0.0-0.5	6302766	N	3550B	8082	III
31-May-2011	SL-113-SA5DN-SS-0.0-0.5	6302766	N	3550B	8151A	III



## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-May-2011	SL-113-SA5DN-SS-0.0-0.5	6302766	N	3550B	8270C	III
31-May-2011	SL-113-SA5DN-SS-0.0-0.5	6302766	N	3550B	8270C SIM	III
31-May-2011	SL-113-SA5DN-SS-0.0-0.5	6302766	N	8330	8330A	III
31-May-2011	SL-113-SA5DN-SS-0.0-0.5	6302766	N	METHOD	300.0	III
31-May-2011	SL-113-SA5DN-SS-0.0-0.5	6302766	N	METHOD	314.0	III
31-May-2011	SL-113-SA5DN-SS-0.0-0.5	6302766	N	METHOD	7471A	III
31-May-2011	SL-113-SA5DN-SS-0.0-0.5	6302766	N	METHOD	8015B	III
31-May-2011	SL-113-SA5DN-SS-0.0-0.5	6302766	N	METHOD	8015M	III
31-May-2011	SL-113-SA5DN-SS-0.0-0.5	6302766	N	METHOD	8315A	III
31-May-2011	SL-113-SA5DN-SS-0.0-0.5	6302766	N	METHOD	9012B	III
31-May-2011	TB-053111	6302753	TB	5030B	8015M	III
31-May-2011	TB-053111	6302753	TB	5030B	8260B	III
31-May-2011	TB-053111	6302753	TB	5030B	8260B SIM	III
31-May-2011	SL-112-SA5DN-SS-0.0-0.5	6302765	N	3050B	6010B	III
31-May-2011	SL-112-SA5DN-SS-0.0-0.5	6302765	N	3050B	6020	III
31-May-2011	SL-112-SA5DN-SS-0.0-0.5	6302765	N	3060A	7199	III
31-May-2011	SL-112-SA5DN-SS-0.0-0.5	6302765	N	3546	1625C	III
31-May-2011	SL-112-SA5DN-SS-0.0-0.5	6302765	N	3550B	8015B	III
31-May-2011	SL-112-SA5DN-SS-0.0-0.5	6302765	N	3550B	8015M	III
31-May-2011	SL-112-SA5DN-SS-0.0-0.5	6302765	N	3550B	8081A	III
31-May-2011	SL-112-SA5DN-SS-0.0-0.5	6302765	N	3550B	8082	III
31-May-2011	SL-112-SA5DN-SS-0.0-0.5	6302765	N	3550B	8151A	III
31-May-2011	SL-112-SA5DN-SS-0.0-0.5	6302765	N	3550B	8270C	III
31-May-2011	SL-112-SA5DN-SS-0.0-0.5	6302765	N	3550B	8270C SIM	III
31-May-2011	SL-112-SA5DN-SS-0.0-0.5	6302765	N	8330	8330A	III
31-May-2011	SL-112-SA5DN-SS-0.0-0.5	6302765	N	METHOD	300.0	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

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-May-2011	SL-112-SA5DN-SS-0.0-0.5	6302765	N	METHOD	314.0	III
31-May-2011	SL-112-SA5DN-SS-0.0-0.5	6302765	N	METHOD	7471A	III
31-May-2011	SL-112-SA5DN-SS-0.0-0.5	6302765	N	METHOD	8015B	III
31-May-2011	SL-112-SA5DN-SS-0.0-0.5	6302765	N	METHOD	8015M	III
31-May-2011	SL-112-SA5DN-SS-0.0-0.5	6302765	N	METHOD	8315A	III
31-May-2011	SL-112-SA5DN-SS-0.0-0.5	6302765	N	METHOD	9012B	III
31-May-2011	SL-112-SA5DN-SS-0.0-0.5DU	P302765D270937B	DUP	METHOD	9012B	III
31-May-2011	SL-112-SA5DN-SS-0.0-0.5MS	P302765R270938B	MS	METHOD	9012B	III
31-May-2011	SL-114-SA5DN-SS-0.0-0.5	6302767	N	3050B	6010B	III
31-May-2011	SL-114-SA5DN-SS-0.0-0.5	6302767	N	3050B	6020	III
31-May-2011	SL-114-SA5DN-SS-0.0-0.5	6302767	N	3060A	7199	III
31-May-2011	SL-114-SA5DN-SS-0.0-0.5	6302767	N	3546	1625C	III
31-May-2011	SL-114-SA5DN-SS-0.0-0.5	6302767	N	3550B	8081A	III
31-May-2011	SL-114-SA5DN-SS-0.0-0.5	6302767	N	3550B	8082	III
31-May-2011	SL-114-SA5DN-SS-0.0-0.5	6302767	N	3550B	8151A	III
31-May-2011	SL-114-SA5DN-SS-0.0-0.5	6302767	N	3550B	8270C	III
31-May-2011	SL-114-SA5DN-SS-0.0-0.5	6302767	N	3550B	8270C SIM	III
31-May-2011	SL-114-SA5DN-SS-0.0-0.5	6302767	N	METHOD	300.0	III
31-May-2011	SL-114-SA5DN-SS-0.0-0.5	6302767	N	METHOD	314.0	III
31-May-2011	SL-114-SA5DN-SS-0.0-0.5	6302767	N	METHOD	7471A	III
31-May-2011	SL-101-SA5DN-SS-0.0-0.5	6302759	N	3050B	6010B	III
31-May-2011	SL-101-SA5DN-SS-0.0-0.5	6302759	N	3050B	6020	III
31-May-2011	SL-101-SA5DN-SS-0.0-0.5	6302759	N	3060A	7199	III
31-May-2011	SL-101-SA5DN-SS-0.0-0.5	6302759	N	3550B	8081A	III
31-May-2011	SL-101-SA5DN-SS-0.0-0.5	6302759	N	3550B	8082	III
31-May-2011	SL-101-SA5DN-SS-0.0-0.5	6302759	N	3550B	8151A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-May-2011	SL-101-SA5DN-SS-0.0-0.5	6302759	N	3550B	8270C	III
31-May-2011	SL-101-SA5DN-SS-0.0-0.5	6302759	N	3550B	8270C SIM	III
31-May-2011	SL-101-SA5DN-SS-0.0-0.5	6302759	N	METHOD	300.0	III
31-May-2011	SL-101-SA5DN-SS-0.0-0.5	6302759	N	METHOD	314.0	III
31-May-2011	SL-101-SA5DN-SS-0.0-0.5	6302759	N	METHOD	7471A	III
31-May-2011	SL-110-SA5DN-SS-0.0-0.5	6302763	N	3050B	6010B	III
31-May-2011	SL-110-SA5DN-SS-0.0-0.5	6302763	N	3050B	6020	III
31-May-2011	SL-110-SA5DN-SS-0.0-0.5	6302763	N	3060A	7199	III
31-May-2011	SL-110-SA5DN-SS-0.0-0.5	6302763	N	3546	1625C	III
31-May-2011	SL-110-SA5DN-SS-0.0-0.5	6302763	N	3550B	8015B	III
31-May-2011	SL-110-SA5DN-SS-0.0-0.5	6302763	N	3550B	8015M	III
31-May-2011	SL-110-SA5DN-SS-0.0-0.5	6302763	N	3550B	8081A	III
31-May-2011	SL-110-SA5DN-SS-0.0-0.5	6302763	N	3550B	8082	III
31-May-2011	SL-110-SA5DN-SS-0.0-0.5	6302763	N	3550B	8151A	III
31-May-2011	SL-110-SA5DN-SS-0.0-0.5	6302763	N	3550B	8270C	III
31-May-2011	SL-110-SA5DN-SS-0.0-0.5	6302763	N	3550B	8270C SIM	III
31-May-2011	SL-110-SA5DN-SS-0.0-0.5	6302763	N	8330	8330A	III
31-May-2011	SL-110-SA5DN-SS-0.0-0.5	6302763	N	METHOD	300.0	III
31-May-2011	SL-110-SA5DN-SS-0.0-0.5	6302763	N	METHOD	314.0	III
31-May-2011	SL-110-SA5DN-SS-0.0-0.5	6302763	N	METHOD	7471A	III
31-May-2011	SL-110-SA5DN-SS-0.0-0.5	6302763	N	METHOD	8015B	III
31-May-2011	SL-110-SA5DN-SS-0.0-0.5	6302763	N	METHOD	8015M	III
31-May-2011	SL-110-SA5DN-SS-0.0-0.5	6302763	N	METHOD	8315A	III
31-May-2011	SL-110-SA5DN-SS-0.0-0.5	6302763	N	METHOD	9012B	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

Sample ID: SL-014-SA5DN-SB-4.0-5.0

Collected: 5/31/2011 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
FLUORIDE	18.2		0.91	MDL	1.1	PQL	mg/Kg	J	Q, FD
Nitrate-NO3	1.6	J	0.91	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-014-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 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	5.4		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-094-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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	2.4		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-095-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
FLUORIDE	1.3		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-097-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
FLUORIDE	1.8		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-098-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
FLUORIDE	2.4		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-099-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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	2.8		0.85	MDL	1.1	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

Sample ID: SL-101-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
FLUORIDE	0.85	U	0.85	MDL	1.1	PQL	mg/Kg	UJ	Q

Sample ID: SL-102-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
FLUORIDE	2.1		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-103-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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	1.5		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-104-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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	1.4		0.85	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-110-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 3:50:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.9		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-111-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
FLUORIDE	3.1		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-112-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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	2.6		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-113-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 2:25:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.0		0.88	MDL	1.1	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

Sample ID: SL-114-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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	1.7		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-121-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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	1.8		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-125-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
FLUORIDE	2.2		0.88	MDL	1.1	PQL	mg/Kg	J	Q

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: SL-014-SA5DN-SB-4.0-5.0

Collected: 5/31/2011 11:40:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	6810		6.79	MDL	22.1	PQL	mg/Kg	J	E, FD
POTASSIUM	2520		19.9	MDL	55.4	PQL	mg/Kg	J	E
TIN	2.93	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	2.09	J	0.930	MDL	5.54	PQL	mg/Kg	J	Z

Sample ID: SL-014-SA5DN-SB-4.0-5.0

Collected: 5/31/2011 11:40:00

Analysis Type: REA3

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.985	U	0.985	MDL	5.54	PQL	mg/Kg	UJ	FD

Sample ID: SL-014-SA5DN-SB-4.0-5.0

Collected: 5/31/2011 11:40:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	1370		0.173	MDL	1.11	PQL	mg/Kg	J	E, FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6010B

Matrix: SO

Sample ID: SL-014-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 11:55:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	6670		7.07	MDL	23.1	PQL	mg/Kg	J	E
MANGANESE	334		0.0900	MDL	0.577	PQL	mg/Kg	J	E
POTASSIUM	3010		20.8	MDL	57.7	PQL	mg/Kg	J	E
TIN	2.86	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	3.28	J	0.969	MDL	5.77	PQL	mg/Kg	J	Z

Sample ID: SL-094-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
CALCIUM	5380		6.71	MDL	21.9	PQL	mg/Kg	J	E
MANGANESE	467		0.0853	MDL	0.547	PQL	mg/Kg	J	E
POTASSIUM	5710		19.7	MDL	54.7	PQL	mg/Kg	J	E
SODIUM	78.0	J	40.8	MDL	109	PQL	mg/Kg	J	Z
TIN	2.72	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	2.83	J	0.919	MDL	5.47	PQL	mg/Kg	J	Z

Sample ID: SL-095-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 9:05:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	4090		6.32	MDL	20.6	PQL	mg/Kg	J	E
MANGANESE	359		0.0804	MDL	0.515	PQL	mg/Kg	J	E
POTASSIUM	4590		18.6	MDL	51.5	PQL	mg/Kg	J	E
SODIUM	72.6	J	38.4	MDL	103	PQL	mg/Kg	J	Z
TIN	2.64	J	1.03	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	1.96	J	0.866	MDL	5.15	PQL	mg/Kg	J	Z

Sample ID: SL-097-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 9:30:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	5200		6.76	MDL	22.1	PQL	mg/Kg	J	E
MANGANESE	490		0.0860	MDL	0.551	PQL	mg/Kg	J	E
POTASSIUM	5620		19.9	MDL	55.1	PQL	mg/Kg	J	E
SODIUM	68.9	J	41.1	MDL	110	PQL	mg/Kg	J	Z
TIN	2.73	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	3.05	J	0.926	MDL	5.51	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** SL-098-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 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
CALCIUM	5540		6.82	MDL	22.2	PQL	mg/Kg	J	E
MANGANESE	453		0.0868	MDL	0.556	PQL	mg/Kg	J	E
POTASSIUM	5430		20.0	MDL	55.6	PQL	mg/Kg	J	E
SODIUM	85.6	J	41.5	MDL	111	PQL	mg/Kg	J	Z
TIN	2.70	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	3.40	J	0.934	MDL	5.56	PQL	mg/Kg	J	Z

**Sample ID:** SL-099-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 2:05:00

**Analysis Type:** REA2

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	6740		6.46	MDL	21.1	PQL	mg/Kg	J	E
MANGANESE	473		0.0822	MDL	0.527	PQL	mg/Kg	J	E
POTASSIUM	4480		19.0	MDL	52.7	PQL	mg/Kg	J	E
SODIUM	91.1	J	39.3	MDL	105	PQL	mg/Kg	J	Z
TIN	2.81	J	1.05	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	3.56	J	0.885	MDL	5.27	PQL	mg/Kg	J	Z

**Sample ID:** SL-101-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 3:30:00

**Analysis Type:** REA2

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	5420		6.48	MDL	21.2	PQL	mg/Kg	J	E
MANGANESE	370		0.0825	MDL	0.529	PQL	mg/Kg	J	E
POTASSIUM	4840		19.0	MDL	52.9	PQL	mg/Kg	J	E
SODIUM	96.9	J	39.5	MDL	106	PQL	mg/Kg	J	Z
TIN	2.87	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	2.03	J	0.889	MDL	5.29	PQL	mg/Kg	J	Z

**Sample ID:** SL-102-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 1:20:00

**Analysis Type:** REA2

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	5010		6.59	MDL	21.5	PQL	mg/Kg	J	E
MANGANESE	373		0.0838	MDL	0.537	PQL	mg/Kg	J	E
POTASSIUM	4010		19.3	MDL	53.7	PQL	mg/Kg	J	E
SODIUM	94.0	J	40.1	MDL	107	PQL	mg/Kg	J	Z
TIN	2.71	J	1.07	MDL	10.7	PQL	mg/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6010B

Matrix: SO

Sample ID: SL-102-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 1:20:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	2.63	J	0.903	MDL	5.37	PQL	mg/Kg	J	Z

Sample ID: SL-103-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
CALCIUM	5260		6.71	MDL	21.9	PQL	mg/Kg	J	E
MANGANESE	391		0.0853	MDL	0.547	PQL	mg/Kg	J	E
POTASSIUM	4340		19.7	MDL	54.7	PQL	mg/Kg	J	E
TIN	2.74	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	4.15	J	0.919	MDL	5.47	PQL	mg/Kg	J	Z

Sample ID: SL-104-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
CALCIUM	4790		6.41	MDL	20.9	PQL	mg/Kg	J	E
MANGANESE	374		0.0816	MDL	0.523	PQL	mg/Kg	J	E
POTASSIUM	3650		18.8	MDL	52.3	PQL	mg/Kg	J	E
SODIUM	96.2	J	39.0	MDL	105	PQL	mg/Kg	J	Z
TIN	2.68	J	1.05	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	2.35	J	0.879	MDL	5.23	PQL	mg/Kg	J	Z

Sample ID: SL-110-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 3:50:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	5180		6.71	MDL	21.9	PQL	mg/Kg	J	E
MANGANESE	433		0.0854	MDL	0.548	PQL	mg/Kg	J	E
POTASSIUM	5270		19.7	MDL	54.8	PQL	mg/Kg	J	E
SODIUM	95.8	J	40.9	MDL	110	PQL	mg/Kg	J	Z
TIN	2.70	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	3.42	J	0.920	MDL	5.48	PQL	mg/Kg	J	Z

Sample ID: SL-111-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 1:45:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	4480		6.82	MDL	22.2	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** SL-111-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 1:45:00

**Analysis Type:** REA2

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	409		0.0868	MDL	0.556	PQL	mg/Kg	J	E
POTASSIUM	4660		20.0	MDL	55.6	PQL	mg/Kg	J	E
SODIUM	77.8	J	41.5	MDL	111	PQL	mg/Kg	J	Z
TIN	2.67	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	2.95	J	0.934	MDL	5.56	PQL	mg/Kg	J	Z

**Sample ID:** SL-112-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 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
CALCIUM	4590		6.55	MDL	21.4	PQL	mg/Kg	J	E
MANGANESE	401		0.0834	MDL	0.535	PQL	mg/Kg	J	E
POTASSIUM	4430		19.2	MDL	53.5	PQL	mg/Kg	J	E
SODIUM	81.1	J	39.9	MDL	107	PQL	mg/Kg	J	Z
TIN	2.62	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	1.96	J	0.898	MDL	5.35	PQL	mg/Kg	J	Z

**Sample ID:** SL-113-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 2:25:00

**Analysis Type:** REA2

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	5180		6.65	MDL	21.7	PQL	mg/Kg	J	E
MANGANESE	450		0.0847	MDL	0.543	PQL	mg/Kg	J	E
POTASSIUM	4820		19.5	MDL	54.3	PQL	mg/Kg	J	E
SODIUM	80.5	J	40.5	MDL	109	PQL	mg/Kg	J	Z
TIN	2.71	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	3.29	J	0.912	MDL	5.43	PQL	mg/Kg	J	Z

**Sample ID:** SL-114-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 3:10:00

**Analysis Type:** REA2

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	5180		6.37	MDL	20.8	PQL	mg/Kg	J	E
MANGANESE	421		0.0810	MDL	0.519	PQL	mg/Kg	J	E
POTASSIUM	4610		18.7	MDL	51.9	PQL	mg/Kg	J	E
SODIUM	71.8	J	38.7	MDL	104	PQL	mg/Kg	J	Z
TIN	2.56	J	1.04	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	2.34	J	0.872	MDL	5.19	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** SL-121-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 10:40:00

**Analysis Type:** REA2

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	4600		6.45	MDL	21.0	PQL	mg/Kg	J	E
MANGANESE	393		0.0820	MDL	0.526	PQL	mg/Kg	J	E
POTASSIUM	4260		18.9	MDL	52.6	PQL	mg/Kg	J	E
SODIUM	75.1	J	39.2	MDL	105	PQL	mg/Kg	J	Z
TIN	2.74	J	1.05	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	2.43	J	0.884	MDL	5.26	PQL	mg/Kg	J	Z

**Sample ID:** SL-125-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 10:15:00

**Analysis Type:** REA2

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	5500		6.76	MDL	22.1	PQL	mg/Kg	J	E
MANGANESE	499		0.0860	MDL	0.551	PQL	mg/Kg	J	E
POTASSIUM	5400		19.8	MDL	55.1	PQL	mg/Kg	J	E
SODIUM	82.0	J	41.1	MDL	110	PQL	mg/Kg	J	Z
TIN	2.77	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	3.41	J	0.926	MDL	5.51	PQL	mg/Kg	J	Z

**Method Category:** METALS

**Method:** 6020

**Matrix:** AQ

**Sample ID:** EB11-SA5DN-SB-053111

**Collected:** 5/31/2011 12:50:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	0.000062	J	0.00005 2	MDL	0.0010	PQL	mg/L	J	Z

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-014-SA5DN-SB-4.0-5.0

**Collected:** 5/31/2011 11:40:00

**Analysis Type:** REA4

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.135	J	0.0677	MDL	0.226	PQL	mg/Kg	J	Z, Q, FD
ARSENIC	5.63		0.0903	MDL	0.452	PQL	mg/Kg	J	Q
CHROMIUM	26.9		0.135	MDL	0.452	PQL	mg/Kg	J	Q, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-014-SA5DN-SB-4.0-5.0

**Collected:** 5/31/2011 11:40:00

**Analysis Type:** REA4

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NICKEL	18.2		0.113	MDL	0.452	PQL	mg/Kg	J	Q, E
SILVER	0.0847	J	0.0135	MDL	0.113	PQL	mg/Kg	J	Z, FD
VANADIUM	42.9		0.0248	MDL	0.113	PQL	mg/Kg	J	Q, A

**Sample ID:** SL-014-SA5DN-SB-4.0-5.0

**Collected:** 5/31/2011 11:40:00

**Analysis Type:** REA5

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0640	J	0.0452	MDL	0.452	PQL	mg/Kg	J	Z, FD

**Sample ID:** SL-014-SA5DN-SB-9.0-10.0

**Collected:** 5/31/2011 11:55:00

**Analysis Type:** REA4

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.174	J	0.0692	MDL	0.231	PQL	mg/Kg	J	Z, Q
ARSENIC	6.92		0.0923	MDL	0.462	PQL	mg/Kg	J	Q
CHROMIUM	22.2		0.138	MDL	0.462	PQL	mg/Kg	J	Q, A
NICKEL	17.3		0.115	MDL	0.462	PQL	mg/Kg	J	Q, E
SILVER	0.0336	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z
VANADIUM	45.8		0.0254	MDL	0.115	PQL	mg/Kg	J	Q, A

**Sample ID:** SL-014-SA5DN-SB-9.0-10.0

**Collected:** 5/31/2011 11:55:00

**Analysis Type:** REA5

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0602	J	0.0462	MDL	0.462	PQL	mg/Kg	J	Z

**Sample ID:** SL-094-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 8:40:00

**Analysis Type:** REA4

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.246		0.0644	MDL	0.215	PQL	mg/Kg	J	Q
ARSENIC	6.17		0.0858	MDL	0.429	PQL	mg/Kg	J	Q
CHROMIUM	25.5		0.129	MDL	0.429	PQL	mg/Kg	J	Q, A
NICKEL	20.7		0.107	MDL	0.429	PQL	mg/Kg	J	Q, E
SILVER	0.0507	J	0.0129	MDL	0.107	PQL	mg/Kg	J	Z
VANADIUM	45.2		0.0236	MDL	0.107	PQL	mg/Kg	J	Q, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-094-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 8:40:00

**Analysis Type:** REA5

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.193	J	0.0429	MDL	0.429	PQL	mg/Kg	J	Z

**Sample ID:** SL-095-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 9:05:00

**Analysis Type:** REA4

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.198	J	0.0630	MDL	0.210	PQL	mg/Kg	J	Z, Q
ARSENIC	5.23		0.0841	MDL	0.420	PQL	mg/Kg	J	Q
CHROMIUM	20.4		0.126	MDL	0.420	PQL	mg/Kg	J	Q, A
NICKEL	15.7		0.105	MDL	0.420	PQL	mg/Kg	J	Q, E
SILVER	0.0491	J	0.0126	MDL	0.105	PQL	mg/Kg	J	Z
VANADIUM	35.6		0.0231	MDL	0.105	PQL	mg/Kg	J	Q, A

**Sample ID:** SL-095-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 9:05:00

**Analysis Type:** REA5

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.139	J	0.0420	MDL	0.420	PQL	mg/Kg	J	Z

**Sample ID:** SL-097-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 9:30:00

**Analysis Type:** REA4

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.239		0.0649	MDL	0.216	PQL	mg/Kg	J	Q
ARSENIC	6.41		0.0865	MDL	0.433	PQL	mg/Kg	J	Q
CHROMIUM	26.5		0.130	MDL	0.433	PQL	mg/Kg	J	Q, A
NICKEL	20.9		0.108	MDL	0.433	PQL	mg/Kg	J	Q, E
SILVER	0.0492	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z
VANADIUM	46.7		0.0238	MDL	0.108	PQL	mg/Kg	J	Q, A

**Sample ID:** SL-097-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 9:30:00

**Analysis Type:** REA5

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.188	J	0.0433	MDL	0.433	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-098-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 9:45:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.232		0.0667	MDL	0.222	PQL	mg/Kg	J	Q
ARSENIC	5.48		0.0890	MDL	0.445	PQL	mg/Kg	J	Q
CHROMIUM	29.3		0.133	MDL	0.445	PQL	mg/Kg	J	Q, A
NICKEL	23.1		0.111	MDL	0.445	PQL	mg/Kg	J	Q, E
SILVER	0.0504	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z
VANADIUM	43.5		0.0245	MDL	0.111	PQL	mg/Kg	J	Q, A

Sample ID: SL-098-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 9:45:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.172	J	0.0445	MDL	0.445	PQL	mg/Kg	J	Z

Sample ID: SL-099-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
ANTIMONY	0.185	J	0.0614	MDL	0.205	PQL	mg/Kg	J	Z, Q
ARSENIC	5.87		0.0818	MDL	0.409	PQL	mg/Kg	J	Q
CHROMIUM	26.1		0.123	MDL	0.409	PQL	mg/Kg	J	Q, A
NICKEL	21.2		0.102	MDL	0.409	PQL	mg/Kg	J	Q, E
SILVER	0.0567	J	0.0123	MDL	0.102	PQL	mg/Kg	J	Z
VANADIUM	40.2		0.0225	MDL	0.102	PQL	mg/Kg	J	Q, A

Sample ID: SL-099-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 2:05:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.156	J	0.0409	MDL	0.409	PQL	mg/Kg	J	Z

Sample ID: SL-101-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 3:30:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.440		0.0628	MDL	0.209	PQL	mg/Kg	J	Q
ARSENIC	5.28		0.0838	MDL	0.419	PQL	mg/Kg	J	Q
CHROMIUM	23.4		0.126	MDL	0.419	PQL	mg/Kg	J	Q, A
NICKEL	19.9		0.105	MDL	0.419	PQL	mg/Kg	J	Q, E
SILVER	0.0965	J	0.0126	MDL	0.105	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-101-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 3:30:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	50.5		0.0230	MDL	0.105	PQL	mg/Kg	J	Q, A

Sample ID: SL-101-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 3:30:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.250	J	0.0419	MDL	0.419	PQL	mg/Kg	J	Z

Sample ID: SL-102-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 1:20:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.212		0.0633	MDL	0.211	PQL	mg/Kg	J	Q
ARSENIC	7.45		0.0843	MDL	0.422	PQL	mg/Kg	J	Q
CHROMIUM	25.2		0.127	MDL	0.422	PQL	mg/Kg	J	Q, A
NICKEL	19.2		0.105	MDL	0.422	PQL	mg/Kg	J	Q, E
SILVER	0.0602	J	0.0127	MDL	0.105	PQL	mg/Kg	J	Z
VANADIUM	40.5		0.0232	MDL	0.105	PQL	mg/Kg	J	Q, A

Sample ID: SL-102-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 1:20:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.155	J	0.0422	MDL	0.422	PQL	mg/Kg	J	Z

Sample ID: SL-103-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 11:05:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.228		0.0650	MDL	0.217	PQL	mg/Kg	J	Q
ARSENIC	6.59		0.0867	MDL	0.433	PQL	mg/Kg	J	Q
CHROMIUM	25.0		0.130	MDL	0.433	PQL	mg/Kg	J	Q, A
NICKEL	21.5		0.108	MDL	0.433	PQL	mg/Kg	J	Q, E
SILVER	0.0570	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z
VANADIUM	42.4		0.0238	MDL	0.108	PQL	mg/Kg	J	Q, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-103-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 11:05:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.183	J	0.0433	MDL	0.433	PQL	mg/Kg	J	Z

Sample ID: SL-104-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
ANTIMONY	0.196	J	0.0622	MDL	0.207	PQL	mg/Kg	J	Z, Q
ARSENIC	5.62		0.0829	MDL	0.414	PQL	mg/Kg	J	Q
CHROMIUM	22.7		0.124	MDL	0.414	PQL	mg/Kg	J	Q, A
NICKEL	18.8		0.104	MDL	0.414	PQL	mg/Kg	J	Q, E
SILVER	0.0659	J	0.0124	MDL	0.104	PQL	mg/Kg	J	Z
VANADIUM	39.7		0.0228	MDL	0.104	PQL	mg/Kg	J	Q, A

Sample ID: SL-104-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 11:25:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.165	J	0.0414	MDL	0.414	PQL	mg/Kg	J	Z

Sample ID: SL-110-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 3:50:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.193	J	0.0638	MDL	0.213	PQL	mg/Kg	J	Z, Q
ARSENIC	6.21		0.0851	MDL	0.425	PQL	mg/Kg	J	Q
CHROMIUM	25.2		0.128	MDL	0.425	PQL	mg/Kg	J	Q, A
NICKEL	20.7		0.106	MDL	0.425	PQL	mg/Kg	J	Q, E
SILVER	0.0487	J	0.0128	MDL	0.106	PQL	mg/Kg	J	Z
VANADIUM	44.0		0.0234	MDL	0.106	PQL	mg/Kg	J	Q, A

Sample ID: SL-110-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 3:50:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.184	J	0.0425	MDL	0.425	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-111-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 1:45:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.185	J	0.0661	MDL	0.220	PQL	mg/Kg	J	Z, Q
ARSENIC	9.15		0.0881	MDL	0.441	PQL	mg/Kg	J	Q
CHROMIUM	24.4		0.132	MDL	0.441	PQL	mg/Kg	J	Q, A
NICKEL	18.8		0.110	MDL	0.441	PQL	mg/Kg	J	Q, E
SILVER	0.0509	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z
VANADIUM	42.5		0.0242	MDL	0.110	PQL	mg/Kg	J	Q, A

Sample ID: SL-111-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 1:45:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.166	J	0.0441	MDL	0.441	PQL	mg/Kg	J	Z

Sample ID: SL-112-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 2:45:00

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	0.0641	MDL	0.214	PQL	mg/Kg	J	Z, Q
ARSENIC	5.59		0.0855	MDL	0.428	PQL	mg/Kg	J	Q
CHROMIUM	24.1		0.128	MDL	0.428	PQL	mg/Kg	J	Q, A
NICKEL	18.7		0.107	MDL	0.428	PQL	mg/Kg	J	Q, E
SILVER	0.0409	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z
VANADIUM	41.1		0.0235	MDL	0.107	PQL	mg/Kg	J	Q, A

Sample ID: SL-112-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 2:45:00

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.167	J	0.0428	MDL	0.428	PQL	mg/Kg	J	Z

Sample ID: SL-113-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 2:25:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.413		0.0633	MDL	0.211	PQL	mg/Kg	J	Q
ARSENIC	6.73		0.0843	MDL	0.422	PQL	mg/Kg	J	Q
CHROMIUM	25.8		0.127	MDL	0.422	PQL	mg/Kg	J	Q, A
NICKEL	22.0		0.105	MDL	0.422	PQL	mg/Kg	J	Q, E
SILVER	0.0625	J	0.0127	MDL	0.105	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-113-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 2:25:00

**Analysis Type:** REA4

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	45.2		0.0232	MDL	0.105	PQL	mg/Kg	J	Q, A

**Sample ID:** SL-113-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 2:25:00

**Analysis Type:** REA5

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.186	J	0.0422	MDL	0.422	PQL	mg/Kg	J	Z

**Sample ID:** SL-114-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 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	0.156	J	0.0623	MDL	0.208	PQL	mg/Kg	J	Z, Q
ARSENIC	6.17		0.0831	MDL	0.415	PQL	mg/Kg	J	Q
CHROMIUM	20.2		0.125	MDL	0.415	PQL	mg/Kg	J	Q, A
NICKEL	16.2		0.104	MDL	0.415	PQL	mg/Kg	J	Q, E
SILVER	0.0636	J	0.0125	MDL	0.104	PQL	mg/Kg	J	Z
VANADIUM	37.3		0.0228	MDL	0.104	PQL	mg/Kg	J	Q, A

**Sample ID:** SL-114-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 3:10:00

**Analysis Type:** REA5

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.138	J	0.0415	MDL	0.415	PQL	mg/Kg	J	Z

**Sample ID:** SL-121-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 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
ANTIMONY	0.252		0.0619	MDL	0.206	PQL	mg/Kg	J	Q
ARSENIC	6.03		0.0825	MDL	0.413	PQL	mg/Kg	J	Q
CHROMIUM	70.8		0.124	MDL	0.413	PQL	mg/Kg	J	Q, A
NICKEL	46.7		0.103	MDL	0.413	PQL	mg/Kg	J	Q, E
SILVER	0.0813	J	0.0124	MDL	0.103	PQL	mg/Kg	J	Z
VANADIUM	39.9		0.0227	MDL	0.103	PQL	mg/Kg	J	Q, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-121-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 10:40:00

**Analysis Type:** REA5

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.159	J	0.0413	MDL	0.413	PQL	mg/Kg	J	Z

**Sample ID:** SL-125-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 10:15:00

**Analysis Type:** REA4

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.269		0.0655	MDL	0.218	PQL	mg/Kg	J	Q
ARSENIC	5.18		0.0873	MDL	0.437	PQL	mg/Kg	J	Q
CHROMIUM	26.2		0.131	MDL	0.437	PQL	mg/Kg	J	Q, A
NICKEL	20.1		0.109	MDL	0.437	PQL	mg/Kg	J	Q, E
SILVER	0.0469	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z
VANADIUM	45.8		0.0240	MDL	0.109	PQL	mg/Kg	J	Q, A

**Sample ID:** SL-125-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 10:15:00

**Analysis Type:** REA5

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.159	J	0.0437	MDL	0.437	PQL	mg/Kg	J	Z

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

**Sample ID:** SL-014-SA5DN-SB-4.0-5.0

**Collected:** 5/31/2011 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
HEXAVALENT CHROMIUM	1.2		0.23	MDL	1.1	PQL	mg/Kg	J	FD

**Sample ID:** SL-097-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 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
HEXAVALENT CHROMIUM	0.39	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

**Sample ID:** SL-101-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 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
HEXAVALENT CHROMIUM	0.98	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

Sample ID: SL-102-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
HEXAVALENT CHROMIUM	0.64	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-104-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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	0.99	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-110-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 3:50:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.64	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-111-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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	0.81	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-112-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
HEXAVALENT CHROMIUM	0.53	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-113-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 2:25:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.82	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-114-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
HEXAVALENT CHROMIUM	0.83	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-125-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
HEXAVALENT CHROMIUM	0.42	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

**Method Category:** METALS

**Method:** 7470A

**Matrix:** AQ

**Sample ID:** EB10-SA5DN-SS-053111

**Collected:** 5/31/2011 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
MERCURY	0.000046	U	0.000046	MDL	0.00020	PQL	mg/L	UJ	L

**Sample ID:** EB11-SA5DN-SB-053111

**Collected:** 5/31/2011 12:50:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.000046	U	0.000046	MDL	0.00020	PQL	mg/L	UJ	L

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

**Sample ID:** SL-014-SA5DN-SB-4.0-5.0

**Collected:** 5/31/2011 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
MERCURY	0.0032	U	0.0032	MDL	0.111	PQL	mg/Kg	UJ	FD

**Sample ID:** SL-014-SA5DN-SB-9.0-10.0

**Collected:** 5/31/2011 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	0.0037	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z

**Sample ID:** SL-094-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 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	0.0319	J	0.0030	MDL	0.106	PQL	mg/Kg	J	Z

**Sample ID:** SL-095-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 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
MERCURY	0.0626	J	0.0030	MDL	0.106	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

**Sample ID:** SL-097-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 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
MERCURY	0.0586	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z

**Sample ID:** SL-101-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 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
MERCURY	0.0090	J	0.0030	MDL	0.106	PQL	mg/Kg	J	Z

**Method Category:** SVOA

**Method:** 1625C

**Matrix:** AQ

**Sample ID:** EB10-SA5DN-SS-053111

**Collected:** 5/31/2011 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
N-NITROSODIMETHYLAMINE	1.18		0.531	MDL	1.06	PQL	ng/L	UJ	B, S

**Method Category:** SVOA

**Method:** 1625C

**Matrix:** SO

**Sample ID:** SL-014-SA5DN-SB-4.0-5.0

**Collected:** 5/31/2011 11:40:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	21.4	J	19.0	MDL	38.0	PQL	ng/Kg	J	Z, FD

**Method Category:** SVOA

**Method:** 6850

**Matrix:** SO

**Sample ID:** SL-097-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 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
PERCHLORATE	3.5	J	2.4	MDL	5.6	PQL	ug/Kg	J	Z

**Sample ID:** SL-111-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 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
PERCHLORATE	3.7	J	2.3	MDL	5.6	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>6850</b>	<b>Matrix:</b>	<b>SO</b>

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8015M</b>	<b>Matrix:</b>	<b>AQ</b>

Sample ID: EB10-SA5DN-SS-053111

Collected: 5/31/2011 12:15:00

Analysis Type: REA3

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C12-C14)	0.095	U	0.095	MDL	0.57	PQL	mg/L	UJ	H
EFH (C15-C20)	0.095	U	0.095	MDL	0.57	PQL	mg/L	UJ	H
EFH (C21-C30)	0.095	U	0.095	MDL	0.57	PQL	mg/L	UJ	H
EFH (C30-C40)	0.095	U	0.095	MDL	0.57	PQL	mg/L	UJ	H
EFH (C8-C11)	0.095	U	0.095	MDL	0.57	PQL	mg/L	UJ	H

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8015M</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-014-SA5DN-SB-4.0-5.0

Collected: 5/31/2011 11:40:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	5.7	U	5.7	MDL	11	PQL	mg/Kg	UJ	Q
ETHYLENE GLYCOL	5.7	U	5.7	MDL	11	PQL	mg/Kg	UJ	Q
Propylene glycol	5.7	U	5.7	MDL	11	PQL	mg/Kg	UJ	Q

Sample ID: SL-014-SA5DN-SB-4.0-5.0

Collected: 5/31/2011 11:40:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.71	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z, FD

Sample ID: SL-014-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 11:55:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.54	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-097-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 9:30:00

Analysis Type: REA2

Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	9.3	J	4.5	MDL	13	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8015M

**Matrix:** SO

**Sample ID:** SL-098-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 9:45:00

**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)	3.6	J	2.2	MDL	6.7	PQL	mg/Kg	J	Z

**Sample ID:** SL-099-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 2:05:00

**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)	3.0	J	2.1	MDL	6.3	PQL	mg/Kg	J	Z

**Sample ID:** SL-104-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 11:25:00

**Analysis Type:** REA2

**Dilution:** 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	12	J	4.2	MDL	13	PQL	mg/Kg	J	Z

**Sample ID:** SL-110-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 3:50:00

**Analysis Type:** REA2

**Dilution:** 20

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	23	J	8.8	MDL	26	PQL	mg/Kg	J	Z

**Sample ID:** SL-111-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 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
EFH (C15-C20)	2.5	J	0.89	MDL	2.7	PQL	mg/Kg	J	Z

**Sample ID:** SL-113-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 2:25:00

**Analysis Type:** REA2

**Dilution:** 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	6.0	J	4.4	MDL	13	PQL	mg/Kg	J	Z

**Sample ID:** SL-121-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 10:40:00

**Analysis Type:** REA2

**Dilution:** 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	6.3	J	4.3	MDL	13	PQL	mg/Kg	J	Z

**Sample ID:** SL-125-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 10:15:00

**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)	3.9	J	2.2	MDL	6.6	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8015M</b>	<b>Matrix:</b>	<b>SO</b>

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8081A</b>	<b>Matrix:</b>	<b>AQ</b>

Sample ID: EB10-SA5DN-SS-053111      Collected: 5/31/2011 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
HEPTACHLOR	0.0088	J	0.0026	MDL	0.010	PQL	ug/L	J	Z

Sample ID: EB11-SA5DN-SB-053111      Collected: 5/31/2011 12:50:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEPTACHLOR	0.0084	J	0.0027	MDL	0.010	PQL	ug/L	J	Z

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8081A</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-094-SA5DN-SS-0.0-0.5      Collected: 5/31/2011 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
4,4'-DDE	0.68		0.073	MDL	0.38	PQL	ug/Kg	J	Q
4,4'-DDT	2.0		0.073	MDL	0.38	PQL	ug/Kg	J	Q, Q, Q
Chlordane	2.0	J	0.88	MDL	3.8	PQL	ug/Kg	J	Z
ENDRIN	0.49	U	0.49	MDL	0.49	PQL	ug/Kg	R	Q
ENDRIN KETONE	0.073	U	0.073	MDL	0.38	PQL	ug/Kg	R	Q

Sample ID: SL-097-SA5DN-SS-0.0-0.5      Collected: 5/31/2011 9:30:00      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	1.4	J	0.90	MDL	3.8	PQL	ug/Kg	J	Z

Sample ID: SL-098-SA5DN-SS-0.0-0.5      Collected: 5/31/2011 9:45:00      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	3.1		0.074	MDL	0.38	PQL	ug/Kg	J	S
4,4'-DDT	2.4		0.074	MDL	0.38	PQL	ug/Kg	J	S
ALPHA-BHC	0.045	J	0.038	MDL	0.19	PQL	ug/Kg	J	Z, S
DELTA-BHC	0.090	J	0.040	MDL	0.19	PQL	ug/Kg	J	Z, S
DIELDRIN	0.49		0.074	MDL	0.38	PQL	ug/Kg	J	S

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8081A

Matrix: SO

Sample ID: SL-098-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 9:45:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEPTACHLOR	0.15	J	0.067	MDL	0.19	PQL	ug/Kg	J	Z, S

Sample ID: SL-099-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
4,4'-DDT	2.8		0.070	MDL	0.36	PQL	ug/Kg	J	S
Chlordane	4.2		0.85	MDL	3.6	PQL	ug/Kg	J	S
DIELDRIN	0.82		0.070	MDL	0.36	PQL	ug/Kg	J	S
HEPTACHLOR EPOXIDE	0.19		0.036	MDL	0.18	PQL	ug/Kg	J	S

Sample ID: SL-101-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 3:30:00

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	1.4		0.071	MDL	0.36	PQL	ug/Kg	J	S
4,4'-DDT	2.6		0.071	MDL	0.36	PQL	ug/Kg	J	S
Chlordane	5.7		0.85	MDL	3.6	PQL	ug/Kg	J	S
gamma-BHC (Lindane)	0.11	J	0.036	MDL	0.18	PQL	ug/Kg	J	Z, S
HEPTACHLOR	0.28		0.064	MDL	0.18	PQL	ug/Kg	J	S

Sample ID: SL-102-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 1:20:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	2.5		0.072	MDL	0.37	PQL	ug/Kg	J	S
4,4'-DDT	2.1		0.072	MDL	0.37	PQL	ug/Kg	J	S
Chlordane	3.0	J	0.88	MDL	3.7	PQL	ug/Kg	J	Z, S
DIELDRIN	0.46		0.072	MDL	0.37	PQL	ug/Kg	J	S

Sample ID: SL-104-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 11:25:00

Analysis Type: DL-BASE/NEUTRAL

Dilution: 20

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	3.7	J	1.4	MDL	7.3	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8081A

Matrix: SO

Sample ID: SL-104-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
4,4'-DDD	2.2	U	2.2	MDL	2.2	PQL	ug/Kg	R	S
ALDRIN	0.070	U	0.070	MDL	0.18	PQL	ug/Kg	R	S
ALPHA-BHC	0.036	U	0.036	MDL	0.18	PQL	ug/Kg	R	S
BETA-BHC	0.064	U	0.064	MDL	0.18	PQL	ug/Kg	R	S
Chlordane	0.85	U	0.85	MDL	3.6	PQL	ug/Kg	R	S
DELTA-BHC	0.087	J	0.038	MDL	0.18	PQL	ug/Kg	J	Z, S
DIELDRIN	1.4	U	1.4	MDL	1.4	PQL	ug/Kg	R	S
ENDOSULFAN I	0.096	U	0.096	MDL	0.18	PQL	ug/Kg	R	S
ENDOSULFAN II	0.22	U	0.22	MDL	0.36	PQL	ug/Kg	R	S
ENDRIN	0.070	U	0.070	MDL	0.36	PQL	ug/Kg	R	S
gamma-BHC (Lindane)	0.096	U	0.096	MDL	0.18	PQL	ug/Kg	R	S
HEPTACHLOR	0.096	U	0.096	MDL	0.18	PQL	ug/Kg	R	S
HEPTACHLOR EPOXIDE	0.18	U	0.18	MDL	0.18	PQL	ug/Kg	R	S
TOXAPHENE	2.3	U	2.3	MDL	7.0	PQL	ug/Kg	R	S

Sample ID: SL-110-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 3:50:00

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	2.0	J	0.88	MDL	3.7	PQL	ug/Kg	J	Z

Sample ID: SL-111-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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'-DDD	0.35	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z
Chlordane	2.5	J	0.89	MDL	3.8	PQL	ug/Kg	J	Z
DIELDRIN	0.29	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.11	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z
HEPTACHLOR EPOXIDE	0.10	J	0.038	MDL	0.18	PQL	ug/Kg	J	Z

Sample ID: SL-112-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
4,4'-DDT	2.9		0.072	MDL	0.37	PQL	ug/Kg	J	S
Chlordane	2.2	J	0.87	MDL	3.7	PQL	ug/Kg	J	Z, S

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

**Sample ID:** SL-113-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 2:25:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	3.7	J	0.88	MDL	3.7	PQL	ug/Kg	J	S

**Sample ID:** SL-114-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 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
gamma-BHC (Lindane)	0.043	J	0.036	MDL	0.18	PQL	ug/Kg	J	Z

**Sample ID:** SL-121-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 10:40:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	2.3		0.071	MDL	0.36	PQL	ug/Kg	J	S
Chlordane	4.6		0.86	MDL	3.6	PQL	ug/Kg	J	S
DELTA-BHC	0.076	J	0.039	MDL	0.18	PQL	ug/Kg	J	Z, S
DIELDRIN	0.55		0.071	MDL	0.36	PQL	ug/Kg	J	S

**Sample ID:** SL-125-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 10:15:00

**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	1.9	J	0.88	MDL	3.7	PQL	ug/Kg	J	Z

**Method Category:** SVOA

**Method:** 8082

**Matrix:** SO

**Sample ID:** SL-095-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 9:05:00

**Analysis Type:** RES

**Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	12	J	5.4	MDL	18	PQL	ug/Kg	J	Z

**Sample ID:** SL-099-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 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
AROCLOR 1260	1.5	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8082

Matrix: SO

Sample ID: SL-101-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 3:30:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	4.8	J	2.1	MDL	9.1	PQL	ug/Kg	J	Z

Sample ID: SL-102-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 1:20:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	4.8	J	2.1	MDL	9.3	PQL	ug/Kg	J	Z

Sample ID: SL-103-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 11:05:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	5.2	J	4.3	MDL	19	PQL	ug/Kg	J	Z

Sample ID: SL-104-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 11:25:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	7.1	J	4.2	MDL	18	PQL	ug/Kg	J	Z

Sample ID: SL-110-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 3:50:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	8.2	J	2.1	MDL	9.3	PQL	ug/Kg	J	Z
Aroclor 5460	6.6	J	5.5	MDL	18	PQL	ug/Kg	J	Z

Sample ID: SL-114-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 3:10:00

Analysis Type: RES

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	5.8	J	5.3	MDL	18	PQL	ug/Kg	J	Z

Sample ID: SL-121-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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 5460	2.4	J	1.1	MDL	3.5	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8082

**Matrix:** SO

**Sample ID:** SL-125-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 10:15:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCOR 1260	7.6	J	2.1	MDL	9.4	PQL	ug/Kg	J	Z
Aroclor 5460	6.3	J	5.5	MDL	18	PQL	ug/Kg	J	Z

**Method Category:** SVOA

**Method:** 8151A

**Matrix:** SO

**Sample ID:** SL-094-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 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
2,4,5-TP (Silvex)	0.097	J	0.083	MDL	0.19	PQL	ug/Kg	J	Z

**Sample ID:** SL-101-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 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
MCPA	130	J	81	MDL	270	PQL	ug/Kg	J	Z

**Sample ID:** SL-104-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 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
2,4,5-TP (Silvex)	0.17	J	0.080	MDL	0.18	PQL	ug/Kg	J	Z

**Sample ID:** SL-110-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 3:50:00

**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)	0.18	J	0.082	MDL	0.19	PQL	ug/Kg	J	Z
DICHLOROPROP	1.5	J	0.87	MDL	1.9	PQL	ug/Kg	J	Z

**Sample ID:** SL-112-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 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
2,4,5-TP (Silvex)	0.14	J	0.082	MDL	0.19	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8151A</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-114-SA5DN-SS-0.0-0.5			Collected: 5/31/2011 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
2,4,5-TP (Silvex)	0.13	J	0.080	MDL	0.18	PQL	ug/Kg	J	Z

Sample ID: SL-121-SA5DN-SS-0.0-0.5			Collected: 5/31/2011 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
2,4,5-TP (Silvex)	0.17	J	0.080	MDL	0.18	PQL	ug/Kg	J	Z
DICHLOROPROP	1.6	J	0.86	MDL	1.8	PQL	ug/Kg	J	Z

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8270C</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-014-SA5DN-SB-4.0-5.0			Collected: 5/31/2011 11:40:00		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-094-SA5DN-SS-0.0-0.5			Collected: 5/31/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	28	J	18	MDL	370	PQL	ug/Kg	J	Z, L

Sample ID: SL-095-SA5DN-SS-0.0-0.5			Collected: 5/31/2011 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	18	J	18	MDL	350	PQL	ug/Kg	J	Z, L

Sample ID: SL-097-SA5DN-SS-0.0-0.5			Collected: 5/31/2011 9:30:00		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	33	J	18	MDL	370	PQL	ug/Kg	J	Z, L

Sample ID: SL-098-SA5DN-SS-0.0-0.5			Collected: 5/31/2011 9:45:00		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	130	J	19	MDL	190	PQL	ug/Kg	J	Z, L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C

Matrix: SO

Sample ID: SL-098-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 9:45:00

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	31	J	19	MDL	370	PQL	ug/Kg	J	Z, L
CARBAZOLE	35	J	19	MDL	190	PQL	ug/Kg	J	Z, L
DIBENZO(A,H)ANTHRACENE	43	J	19	MDL	190	PQL	ug/Kg	J	Z, L
INDENO(1,2,3-CD)PYRENE	120	J	19	MDL	190	PQL	ug/Kg	J	Z, L

Sample ID: SL-103-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 11:05:00

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	41	J	18	MDL	360	PQL	ug/Kg	J	Z, L

Sample ID: SL-104-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
BENZO(A)ANTHRACENE	40	J	18	MDL	180	PQL	ug/Kg	J	Z, L
BENZO(A)PYRENE	48	J	18	MDL	180	PQL	ug/Kg	J	Z, L
BENZO(B)FLUORANTHENE	64	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	32	J	18	MDL	180	PQL	ug/Kg	J	Z, L
BENZO(K)FLUORANTHENE	30	J	18	MDL	180	PQL	ug/Kg	J	Z, L
BIS(2-ETHYLHEXYL)PHTHALATE	24	J	18	MDL	350	PQL	ug/Kg	J	Z, L
CHRYSENE	56	J	18	MDL	180	PQL	ug/Kg	J	Z, L
FLUORANTHENE	58	J	18	MDL	180	PQL	ug/Kg	J	Z, L
INDENO(1,2,3-CD)PYRENE	30	J	18	MDL	180	PQL	ug/Kg	J	Z, L
PYRENE	64	J	18	MDL	180	PQL	ug/Kg	J	Z, L

Sample ID: SL-110-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 3:50:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	21	J	18	MDL	180	PQL	ug/Kg	J	Z, L
PYRENE	18	J	18	MDL	180	PQL	ug/Kg	J	Z, L

Sample ID: SL-112-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	18	J	18	MDL	360	PQL	ug/Kg	J	Z, L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C

Matrix: SO

Sample ID: SL-113-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 2:25:00

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(A)ANTHRACENE	200		18	MDL	180	PQL	ug/Kg	J	L
BENZO(A)PYRENE	170	J	18	MDL	180	PQL	ug/Kg	J	Z, L
BENZO(G,H,I)PERYLENE	93	J	18	MDL	180	PQL	ug/Kg	J	Z, L
BENZO(K)FLUORANTHENE	130	J	18	MDL	180	PQL	ug/Kg	J	Z, L
BIS(2-ETHYLHEXYL)PHTHALATE	50	J	18	MDL	360	PQL	ug/Kg	J	Z, L
CHRYSENE	190		18	MDL	180	PQL	ug/Kg	J	L
DIBENZO(A,H)ANTHRACENE	24	J	18	MDL	180	PQL	ug/Kg	J	Z, L
FLUORANTHENE	280		18	MDL	180	PQL	ug/Kg	J	L
INDENO(1,2,3-CD)PYRENE	85	J	18	MDL	180	PQL	ug/Kg	J	Z, L
PHENANTHRENE	68	J	18	MDL	180	PQL	ug/Kg	J	Z, L
PYRENE	300		18	MDL	180	PQL	ug/Kg	J	L

Sample ID: SL-114-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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(A)PYRENE	28	J	18	MDL	180	PQL	ug/Kg	J	Z, L
BIS(2-ETHYLHEXYL)PHTHALATE	26	J	18	MDL	360	PQL	ug/Kg	J	Z, L
CHRYSENE	59	J	18	MDL	180	PQL	ug/Kg	J	Z, L

Sample ID: SL-121-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 10:40:00

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	20	J	18	MDL	180	PQL	ug/Kg	J	Z, L
BENZO(A)PYRENE	30	J	18	MDL	180	PQL	ug/Kg	J	Z, L
BENZO(B)FLUORANTHENE	38	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	20	J	18	MDL	180	PQL	ug/Kg	J	Z, L
BIS(2-ETHYLHEXYL)PHTHALATE	20	J	18	MDL	350	PQL	ug/Kg	J	Z, L
Butylbenzylphthalate	20	J	18	MDL	180	PQL	ug/Kg	J	Z, L
FLUORANTHENE	36	J	18	MDL	180	PQL	ug/Kg	J	Z, L
PYRENE	40	J	18	MDL	180	PQL	ug/Kg	J	Z, L

Sample ID: SL-125-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 10:15:00

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	22	J	18	MDL	180	PQL	ug/Kg	J	Z, L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C

**Matrix:** SO

**Sample ID:** SL-125-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 10:15:00

**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	19	J	18	MDL	180	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHthalate	260	J	18	MDL	360	PQL	ug/Kg	J	Z, L
CHRYSENE	47	J	18	MDL	180	PQL	ug/Kg	J	Z, L

**Method Category:** SVOA

**Method:** 8270C SIM

**Matrix:** AQ

**Sample ID:** EB10-SA5DN-SS-053111

**Collected:** 5/31/2011 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-METHYLNAPHTHALENE	0.028	J	0.011	MDL	0.054	PQL	ug/L	J	Z
2-METHYLNAPHTHALENE	0.030	J	0.011	MDL	0.054	PQL	ug/L	J	Z
Dimethylphthalate	0.054	U	0.054	MDL	1.1	PQL	ug/L	UJ	E
Di-n-butylphthalate	0.062	J	0.054	MDL	1.1	PQL	ug/L	J	Z

**Sample ID:** EB11-SA5DN-SB-053111

**Collected:** 5/31/2011 12:50:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.023	J	0.011	MDL	0.053	PQL	ug/L	J	Z
2-METHYLNAPHTHALENE	0.024	J	0.011	MDL	0.053	PQL	ug/L	J	Z
BIS(2-ETHYLHEXYL)PHthalate	0.082	J	0.053	MDL	1.1	PQL	ug/L	J	Z
Dimethylphthalate	0.053	U	0.053	MDL	1.1	PQL	ug/L	UJ	E
Di-n-butylphthalate	0.070	J	0.053	MDL	1.1	PQL	ug/L	J	Z

**Method Category:** SVOA

**Method:** 8270C SIM

**Matrix:** SO

**Sample ID:** SL-014-SA5DN-SB-4.0-5.0

**Collected:** 5/31/2011 11:40:00

**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	6.8	U	6.8	MDL	20	PQL	ug/Kg	UJ	FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-094-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
1-METHYLNAPHTHALENE	0.89	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.90	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	1.3	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-095-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
ACENAPHTHENE	0.87	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.46	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
FLUORENE	1.1	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	1.0	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-097-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 9:30:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	1.4	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.4	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	0.75	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-098-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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-METHYLNAPHTHALENE	0.99	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.96	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.82	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.2	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-099-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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
ACENAPHTHYLENE	0.49	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
FLUORENE	0.75	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.80	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-101-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 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-METHYLNAPHTHALENE	1.2	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.4	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
ACENAPHTHENE	1.3	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.73	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
Butylbenzylphthalate	13	J	6.4	MDL	19	PQL	ug/Kg	J	Z
Di-n-butylphthalate	7.9	J	6.4	MDL	19	PQL	ug/Kg	J	Z
FLUORENE	1.6	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-102-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 1:20:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.42	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
Di-n-octylphthalate	7.8	J	6.6	MDL	20	PQL	ug/Kg	J	Z
FLUORENE	1.5	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	0.88	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-103-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 11:05:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	4.2	J	1.8	MDL	9.0	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	3.7	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
NAPHTHALENE	4.4	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z

Sample ID: SL-104-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 11:25:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	2.5	J	1.8	MDL	8.8	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	5.1	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z
PHENANTHRENE	8.6	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z

Sample ID: SL-110-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 3:50:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	7.1	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	7.5	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-110-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 3:50:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	5.5	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	8.7	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHthalate	96	J	33	MDL	98	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	4.3	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
PHENANTHRENE	4.3	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z

Sample ID: SL-111-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 1:45:00

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	7.1	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	8.3	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	5.9	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	6.8	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	4.6	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z

Sample ID: SL-112-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 2:45:00

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	7.8	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	7.4	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	8.6	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	5.3	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
PHENANTHRENE	5.1	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z

Sample ID: SL-113-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 2:25:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	3.0	J	1.8	MDL	9.1	PQL	ug/Kg	J	Z

Sample ID: SL-114-SA5DN-SS-0.0-0.5

Collected: 5/31/2011 3:10:00

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(B)FLUORANTHENE	7.8	J	3.5	MDL	8.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	5.4	J	3.5	MDL	8.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	6.3	J	3.5	MDL	8.9	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8270C SIM</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-114-SA5DN-SS-0.0-0.5 Collected: 5/31/2011 3:10:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORANTHENE	6.0	J	3.5	MDL	8.9	PQL	ug/Kg	J	Z
PYRENE	5.4	J	3.5	MDL	8.9	PQL	ug/Kg	J	Z

Sample ID: SL-121-SA5DN-SS-0.0-0.5 Collected: 5/31/2011 10:40:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	2.7	J	1.8	MDL	8.9	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	3.8	J	3.6	MDL	8.9	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	7.1	J	3.6	MDL	8.9	PQL	ug/Kg	J	Z

Sample ID: SL-125-SA5DN-SS-0.0-0.5 Collected: 5/31/2011 10:15:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	2.1	J	1.8	MDL	9.1	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	6.5	J	3.6	MDL	9.1	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	5.4	J	3.6	MDL	9.1	PQL	ug/Kg	J	Z

<b>Method Category:</b>	<b>SVOA</b>		
<b>Method:</b>	<b>8330A</b>	<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-014-SA5DN-SB-9.0-10.0 Collected: 5/31/2011 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
1,3-DINITROBENZENE	47	J	44	MDL	130	PQL	ug/Kg	J	Z

Sample ID: SL-097-SA5DN-SS-0.0-0.5 Collected: 5/31/2011 9:30:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,3-DINITROBENZENE	58	J	45	MDL	130	PQL	ug/Kg	J	Z

Sample ID: SL-102-SA5DN-SS-0.0-0.5 Collected: 5/31/2011 1:20:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,3-DINITROBENZENE	51	J	43	MDL	130	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8330A

**Matrix:** SO

**Sample ID:** SL-103-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 11:05:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,3-DINITROBENZENE	45	J	42	MDL	130	PQL	ug/Kg	J	Z

**Sample ID:** SL-110-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 3:50:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,3-DINITROBENZENE	53	J	43	MDL	130	PQL	ug/Kg	J	Z

**Sample ID:** SL-111-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 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
1,3-DINITROBENZENE	43	J	42	MDL	130	PQL	ug/Kg	J	Z

**Sample ID:** SL-125-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 10:15:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,3-DINITROBENZENE	51	J	44	MDL	130	PQL	ug/Kg	J	Z

**Method Category:** VOA

**Method:** 8015B

**Matrix:** AQ

**Sample ID:** EB10-SA5DN-SS-053111

**Collected:** 5/31/2011 12:15:00

**Analysis Type:** REA2

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
m-Terphenyl	0.084	U	0.084	MDL	0.26	PQL	mg/L	UJ	L

**Method Category:** VOA

**Method:** 8015B

**Matrix:** SO

**Sample ID:** SL-014-SA5DN-SB-4.0-5.0

**Collected:** 5/31/2011 11:40:00

**Analysis Type:** REA3

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
m-Terphenyl	1.7	U	1.7	MDL	4.0	PQL	mg/Kg	UJ	Q

\* denotes a non-reportable result

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** VOA

**Method:** 8015B

**Matrix:** SO

**Sample ID:** SL-014-SA5DN-SB-4.0-5.0

**Collected:** 5/31/2011 11:40:00

**Analysis Type:** REA4

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	110	U	110	MDL	570	PQL	ug/Kg	UJ	FD

**Sample ID:** SL-121-SA5DN-SS-0.0-0.5

**Collected:** 5/31/2011 10:40:00

**Analysis Type:** REA3

**Dilution:** 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
p-Terphenyl	28	J	16	MDL	38	PQL	mg/Kg	J	Z

**Method Category:** VOA

**Method:** 8260B

**Matrix:** AQ

**Sample ID:** EB11-SA5DN-SB-053111

**Collected:** 5/31/2011 12:50:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZENE	0.9	J	0.5	MDL	5	PQL	ug/L	J	Z

**Sample ID:** TB-053111

**Collected:** 5/31/2011 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
BENZENE	0.9	J	0.5	MDL	5	PQL	ug/L	J	Z

**Method Category:** VOA

**Method:** 8260B

**Matrix:** SO

**Sample ID:** SL-014-SA5DN-SB-4.0-5.0

**Collected:** 5/31/2011 11:40:00

**Analysis Type:** RES

**Dilution:** 0.87

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	0.19	J	0.11	MDL	4.0	PQL	ug/Kg	J	Z, FD
ACETONE	8.2		6.7	MDL	8.0	PQL	ug/Kg	U	B
Chlorotrifluoroethylene	0.50	U	0.50	MDL	5.0	PQL	ug/Kg	UJ	Q
METHYLENE CHLORIDE	2.1	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

**Sample ID:** SL-014-SA5DN-SB-9.0-10.0

**Collected:** 5/31/2011 11:55:00

**Analysis Type:** RES

**Dilution:** 0.9

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.1		7.0	MDL	8.4	PQL	ug/Kg	U	B

\* denotes a non-reportable result

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category: VOA

Method: 8260B

Matrix: SO

Sample ID: SL-014-SA5DN-SB-9.0-10.0

Collected: 5/31/2011 11:55:00

Analysis Type: RES

Dilution: 0.9

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	2.0	J	0.25	MDL	4.2	PQL	ug/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

### Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
C	Initial Calibration Verification Percent Recovery Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

E	Matrix Spike Precision
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

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Q	Matrix Spike Upper Rejection
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

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE169

## QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 8015M

Preparation Method: 3510C

Matrix: AQ

Sample ID	Type	Actual	Criteria	Units	Flag
EB10-SA5DN-SS-053111 (REA3)	Sampling To Analysis	8.00	7.00	DAYS	J (all detects) UJ (all non-detects)



# Method Blank Outlier Report

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 1625C  
**Matrix:** AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWI15B261718	6/21/2011 5:18:00 PM	N-NITROSODIMETHYLAMINE	12.1 ng/L	EB10-SA5DN-SS-053111

*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
EB10-SA5DN-SS-053111(RES)	N-NITROSODIMETHYLAMINE	1.18 ng/L	1.18U ng/L

**Method:** 6010B  
**Matrix:** AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P16048CB221243	6/10/2011 12:43:00 PM	MAGNESIUM	0.0195 mg/L	EB10-SA5DN-SS-053111 EB11-SA5DN-SB-053111

**Method:** 6010B  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P16008BB221041	6/10/2011 10:41:00 AM	PHOSPHORUS TIN	0.975 mg/Kg 1.07 mg/Kg	SL-014-SA5DN-SB-4.0-5.0 SL-014-SA5DN-SB-9.0-10.0 SL-094-SA5DN-SS-0.0-0.5 SL-095-SA5DN-SS-0.0-0.5 SL-097-SA5DN-SS-0.0-0.5 SL-098-SA5DN-SS-0.0-0.5 SL-099-SA5DN-SS-0.0-0.5 SL-101-SA5DN-SS-0.0-0.5 SL-102-SA5DN-SS-0.0-0.5 SL-103-SA5DN-SS-0.0-0.5 SL-104-SA5DN-SS-0.0-0.5 SL-110-SA5DN-SS-0.0-0.5 SL-111-SA5DN-SS-0.0-0.5 SL-112-SA5DN-SS-0.0-0.5 SL-113-SA5DN-SS-0.0-0.5 SL-114-SA5DN-SS-0.0-0.5 SL-121-SA5DN-SS-0.0-0.5 SL-125-SA5DN-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-014-SA5DN-SB-4.0-5.0(REA2)	TIN	2.93 mg/Kg	2.93U mg/Kg
SL-014-SA5DN-SB-9.0-10.0(REA2)	TIN	2.86 mg/Kg	2.86U mg/Kg
SL-094-SA5DN-SS-0.0-0.5(REA2)	TIN	2.72 mg/Kg	2.72U mg/Kg
SL-095-SA5DN-SS-0.0-0.5(REA2)	TIN	2.64 mg/Kg	2.64U mg/Kg
SL-097-SA5DN-SS-0.0-0.5(REA2)	TIN	2.73 mg/Kg	2.73U mg/Kg
SL-098-SA5DN-SS-0.0-0.5(REA2)	TIN	2.70 mg/Kg	2.70U mg/Kg

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6010B  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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*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-099-SA5DN-SS-0.0-0.5(REA2)	TIN	2.81 mg/Kg	2.81U mg/Kg
SL-101-SA5DN-SS-0.0-0.5(REA2)	TIN	2.87 mg/Kg	2.87U mg/Kg
SL-102-SA5DN-SS-0.0-0.5(REA2)	TIN	2.71 mg/Kg	2.71U mg/Kg
SL-103-SA5DN-SS-0.0-0.5(REA2)	TIN	2.74 mg/Kg	2.74U mg/Kg
SL-104-SA5DN-SS-0.0-0.5(REA2)	TIN	2.68 mg/Kg	2.68U mg/Kg
SL-110-SA5DN-SS-0.0-0.5(REA2)	TIN	2.70 mg/Kg	2.70U mg/Kg
SL-111-SA5DN-SS-0.0-0.5(REA2)	TIN	2.67 mg/Kg	2.67U mg/Kg
SL-112-SA5DN-SS-0.0-0.5(REA2)	TIN	2.62 mg/Kg	2.62U mg/Kg
SL-113-SA5DN-SS-0.0-0.5(REA2)	TIN	2.71 mg/Kg	2.71U mg/Kg
SL-114-SA5DN-SS-0.0-0.5(REA2)	TIN	2.56 mg/Kg	2.56U mg/Kg
SL-121-SA5DN-SS-0.0-0.5(REA2)	TIN	2.74 mg/Kg	2.74U mg/Kg
SL-125-SA5DN-SS-0.0-0.5(REA2)	TIN	2.77 mg/Kg	2.77U mg/Kg

**Method:** 8260B  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB76B210344A	6/7/2011 3:44:00 AM	ACETONE METHYLENE CHLORIDE	8.4 ug/Kg 1.4 ug/Kg	SL-014-SA5DN-SB-4.0-5.0 SL-014-SA5DN-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-014-SA5DN-SB-4.0-5.0(RES)	ACETONE	8.2 ug/Kg	8.2U ug/Kg
SL-014-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.1 ug/Kg	4.0U ug/Kg
SL-014-SA5DN-SB-9.0-10.0(RES)	ACETONE	9.1 ug/Kg	9.1U ug/Kg
SL-014-SA5DN-SB-9.0-10.0(RES)	METHYLENE CHLORIDE	2.0 ug/Kg	4.2U ug/Kg

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_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-014-SA5DN-SB-4.0-5.0MS SL-014-SA5DN-SB-4.0-5.0MSD (SL-014-SA5DN-SB-4.0-5.0)	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	42 - -	22 39 44	59.00-109.00 63.00-107.00 63.00-107.00	61 (20.00) 51 (20.00) 50 (20.00)	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	J (all detects) UJ (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-094-SA5DN-SS-0.0-0.5MS SL-094-SA5DN-SS-0.0-0.5MSD (SL-094-SA5DN-SS-0.0-0.5)	DIELDRIN ENDOSULFAN II ENDRIN ALDEHYDE HEPTACHLOR EPOXIDE	274 - 439 276	- - - -	19.00-154.00 28.00-154.00 10.00-148.00 13.00-157.00	132 (50.00) 55 (50.00) 167 (35.00) 108 (50.00)	DIELDRIN ENDOSULFAN II ENDRIN ALDEHYDE HEPTACHLOR EPOXIDE	J(all detects)
SL-094-SA5DN-SS-0.0-0.5MS SL-094-SA5DN-SS-0.0-0.5MSD (SL-094-SA5DN-SS-0.0-0.5)	4,4'-DDT ENDRIN ENDRIN KETONE	1690 0 0	-67 - -	10.00-176.00 11.00-149.00 22.00-165.00	159 (50.00) 200 (50.00) 200 (50.00)	4,4'-DDT ENDRIN ENDRIN KETONE	J(all detects) R(all non-detects)
SL-094-SA5DN-SS-0.0-0.5MSD (SL-094-SA5DN-SS-0.0-0.5)	4,4'-DDE	-	9	18.00-161.00	-	4,4'-DDE	J(all detects) UJ(all non-detects)

Method: 8151A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-094-SA5DN-SS-0.0-0.5MSD (SL-094-SA5DN-SS-0.0-0.5)	2,4-DB DICAMBA	- -	- -	10.00-201.00 10.00-190.00	61 (50.00) 70 (50.00)	2,4-DB DICAMBA	J(all detects)

Method: 8015M

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-014-SA5DN-SB-4.0-5.0MSD (SL-014-SA5DN-SB-4.0-5.0)	EFH (C21-C30)	-	125	49.00-123.00	30 (20.00)	EFH (C21-C30)	J(all detects)

Method: 8015B

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-014-SA5DN-SB-4.0-5.0MSD (SL-014-SA5DN-SB-4.0-5.0)	m-Terphenyl	-	73	75.00-125.00	-	m-Terphenyl	J(all detects) UJ(all non-detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_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-014-SA5DN-SB-4.0-5.0MS SL-014-SA5DN-SB-4.0-5.0MSD (SL-014-SA5DN-SB-4.0-5.0)	1,2,4-TRICHLOROBENZENE	124	121	72.00-115.00	-	1,2,4-TRICHLOROBENZENE	J(all detects)
	1,2-DICHLOROBENZENE	113	115	66.00-108.00	-	1,2-DICHLOROBENZENE	
	1,2-Diphenylhydrazine/Azobenz	133	131	71.00-129.00	-	1,2-Diphenylhydrazine/Azobenz	
	1,3-DICHLOROBENZENE	111	113	63.00-109.00	-	1,3-DICHLOROBENZENE	
	1,4-DICHLOROBENZENE	112	114	70.00-100.00	-	1,4-DICHLOROBENZENE	
	1-METHYLNAPHTHALENE	125	125	73.00-112.00	-	1-METHYLNAPHTHALENE	
	2,4,5-TRICHLOROPHENOL	128	123	78.00-109.00	-	2,4,5-TRICHLOROPHENOL	
	2,4,6-TRICHLOROPHENOL	127	130	77.00-115.00	-	2,4,6-TRICHLOROPHENOL	
	2,4-DICHLOROPHENOL	127	129	78.00-117.00	-	2,4-DICHLOROPHENOL	
	2,4-DIMETHYLPHENOL	128	127	78.00-110.00	-	2,4-DIMETHYLPHENOL	
	2,4-DINITROTOLUENE	126	124	73.00-113.00	-	2,4-DINITROTOLUENE	
	2,6-DINITROTOLUENE	125	-	69.00-123.00	-	2,6-DINITROTOLUENE	
	2-CHLOROPHENOL	128	128	73.00-121.00	-	2-CHLOROPHENOL	
	2-METHYLNAPHTHALENE	118	118	76.00-114.00	-	2-METHYLNAPHTHALENE	
	2-METHYLPHENOL	121	123	75.00-111.00	-	2-METHYLPHENOL	
	2-NITROANILINE	131	126	67.00-125.00	-	2-NITROANILINE	
	2-NITROPHENOL	125	124	74.00-115.00	-	2-NITROPHENOL	
	4-CHLORO-3-METHYLPHENOL	125	127	76.00-110.00	-	4-CHLORO-3-METHYLPHENOL	
	4-CHLOROPHENYL-PHENYLET	125	124	80.00-109.00	-	4-CHLOROPHENYL-PHENYLE	
	4-METHYLPHENOL	119	119	71.00-111.00	-	4-METHYLPHENOL	
	ACENAPHTHENE	125	126	75.00-115.00	-	ACENAPHTHENE	
	ACENAPHTHYLENE	128	127	81.00-110.00	-	ACENAPHTHYLENE	
	ANILINE	98	-	35.00-95.00	-	ANILINE	
	ANTHRACENE	130	128	75.00-115.00	-	ANTHRACENE	
	BENZO(A)ANTHRACENE	130	124	65.00-122.00	-	BENZO(A)ANTHRACENE	
	BENZO(A)PYRENE	131	128	57.00-126.00	-	BENZO(A)PYRENE	
	BENZO(G,H,I)PERYLENE	146	142	59.00-127.00	-	BENZO(G,H,I)PERYLENE	
	BENZO(K)FLUORANTHENE	136	133	56.00-132.00	-	BENZO(K)FLUORANTHENE	
	BENZYL ALCOHOL	122	125	67.00-115.00	-	BENZYL ALCOHOL	
	BIS(2-CHLOROETHOXY)METHA	121	124	75.00-104.00	-	BIS(2-CHLOROETHOXY)METH	
	BIS(2-CHLOROETHYL) ETHER	-	119	60.00-116.00	-	BIS(2-CHLOROETHYL) ETHER	
	BIS(2-ETHYLHEXYL)PHTHALAT	135	130	63.00-122.00	-	BIS(2-ETHYLHEXYL)PHTHALA	
	Butylbenzylphthalate	136	-	73.00-134.00	-	Butylbenzylphthalate	
	CARBAZOLE	128	125	64.00-120.00	-	CARBAZOLE	
	CHRYSENE	131	-	62.00-128.00	-	CHRYSENE	
	DIBENZO(A,H)ANTHRACENE	144	141	65.00-125.00	-	DIBENZO(A,H)ANTHRACENE	
	DIBENZOFURAN	123	124	71.00-112.00	-	DIBENZOFURAN	
	Diethylphthalate	126	123	66.00-118.00	-	Diethylphthalate	
	Dimethylphthalate	124	125	64.00-118.00	-	Dimethylphthalate	
	Di-n-butylphthalate	129	125	67.00-123.00	-	Di-n-butylphthalate	
	Di-n-octylphthalate	140	137	56.00-126.00	-	Di-n-octylphthalate	
	FLUORANTHENE	132	126	73.00-112.00	-	FLUORANTHENE	
	FLUORENE	126	123	77.00-111.00	-	FLUORENE	
	HEXACHLOROBENZENE	129	123	77.00-114.00	-	HEXACHLOROBENZENE	
	HEXACHLOROBUTADIENE	-	122	62.00-120.00	-	HEXACHLOROBUTADIENE	
	HEXACHLOROETHANE	110	111	57.00-109.00	-	HEXACHLOROETHANE	
	INDENO(1,2,3-CD)PYRENE	144	142	61.00-126.00	-	INDENO(1,2,3-CD)PYRENE	
	ISOPHORONE	124	125	73.00-102.00	-	ISOPHORONE	
	NAPHTHALENE	120	121	72.00-116.00	-	NAPHTHALENE	
	NITROBENZENE	124	123	72.00-106.00	-	NITROBENZENE	
	N-NITROSODIMETHYLAMINE	-	118	47.00-116.00	-	N-NITROSODIMETHYLAMINE	
	N-NITROSO-DI-N-PROPYLAMIN	118	119	60.00-116.00	-	N-NITROSO-DI-N-PROPYLAMI	
	PYRENE	134	129	74.00-126.00	-	PYRENE	
SL-014-SA5DN-SB-4.0-5.0MS SL-014-SA5DN-SB-4.0-5.0MSD (SL-014-SA5DN-SB-4.0-5.0)	2,4-DINITROPHENOL	18	-	20.00-143.00	39 (30.00)	2,4-DINITROPHENOL	J(all detects) UJ(all non-detects)

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_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-014-SA5DN-SB-4.0-5.0MS (SL-014-SA5DN-SB-4.0-5.0 SL-014-SA5DN-SB-9.0-10.0 SL-094-SA5DN-SS-0.0-0.5 SL-095-SA5DN-SS-0.0-0.5 SL-097-SA5DN-SS-0.0-0.5 SL-098-SA5DN-SS-0.0-0.5 SL-099-SA5DN-SS-0.0-0.5 SL-101-SA5DN-SS-0.0-0.5 SL-102-SA5DN-SS-0.0-0.5 SL-103-SA5DN-SS-0.0-0.5)	FLUORIDE	40	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
SL-104-SA5DN-SS-0.0-0.5MS (SL-104-SA5DN-SS-0.0-0.5 SL-110-SA5DN-SS-0.0-0.5 SL-111-SA5DN-SS-0.0-0.5 SL-112-SA5DN-SS-0.0-0.5 SL-113-SA5DN-SS-0.0-0.5 SL-114-SA5DN-SS-0.0-0.5 SL-121-SA5DN-SS-0.0-0.5 SL-125-SA5DN-SS-0.0-0.5)	FLUORIDE	67	-	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-014-SA5DN-SB-4.0-5.0MS SL-014-SA5DN-SB-4.0- 5.0MSD (SL-014-SA5DN-SB-4.0-5.0 SL-014-SA5DN-SB-9.0-10.0 SL-094-SA5DN-SS-0.0-0.5 SL-095-SA5DN-SS-0.0-0.5 SL-097-SA5DN-SS-0.0-0.5 SL-098-SA5DN-SS-0.0-0.5 SL-099-SA5DN-SS-0.0-0.5 SL-101-SA5DN-SS-0.0-0.5 SL-102-SA5DN-SS-0.0-0.5 SL-103-SA5DN-SS-0.0-0.5 SL-104-SA5DN-SS-0.0-0.5 SL-110-SA5DN-SS-0.0-0.5 SL-111-SA5DN-SS-0.0-0.5 SL-112-SA5DN-SS-0.0-0.5 SL-113-SA5DN-SS-0.0-0.5 SL-114-SA5DN-SS-0.0-0.5 SL-121-SA5DN-SS-0.0-0.5 SL-125-SA5DN-SS-0.0-0.5)	ARSENIC CHROMIUM NICKEL VANADIUM	158 126 154 210	169 - 154 210	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ARSENIC CHROMIUM NICKEL VANADIUM	J(all detects)

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_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-014-SA5DN-SB-4.0-5.0MS SL-014-SA5DN-SB-4.0-5.0MSD (SL-014-SA5DN-SB-4.0-5.0 SL-014-SA5DN-SB-9.0-10.0 SL-094-SA5DN-SS-0.0-0.5 SL-095-SA5DN-SS-0.0-0.5 SL-097-SA5DN-SS-0.0-0.5 SL-098-SA5DN-SS-0.0-0.5 SL-099-SA5DN-SS-0.0-0.5 SL-101-SA5DN-SS-0.0-0.5 SL-102-SA5DN-SS-0.0-0.5 SL-103-SA5DN-SS-0.0-0.5 SL-104-SA5DN-SS-0.0-0.5 SL-110-SA5DN-SS-0.0-0.5 SL-111-SA5DN-SS-0.0-0.5 SL-112-SA5DN-SS-0.0-0.5 SL-113-SA5DN-SS-0.0-0.5 SL-114-SA5DN-SS-0.0-0.5 SL-121-SA5DN-SS-0.0-0.5 SL-125-SA5DN-SS-0.0-0.5)	ANTIMONY	57	54	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)
SL-014-SA5DN-SB-4.0-5.0MS (SL-014-SA5DN-SB-4.0-5.0 SL-014-SA5DN-SB-9.0-10.0 SL-094-SA5DN-SS-0.0-0.5 SL-095-SA5DN-SS-0.0-0.5 SL-097-SA5DN-SS-0.0-0.5 SL-098-SA5DN-SS-0.0-0.5 SL-099-SA5DN-SS-0.0-0.5 SL-101-SA5DN-SS-0.0-0.5 SL-102-SA5DN-SS-0.0-0.5 SL-103-SA5DN-SS-0.0-0.5 SL-104-SA5DN-SS-0.0-0.5 SL-110-SA5DN-SS-0.0-0.5 SL-111-SA5DN-SS-0.0-0.5 SL-112-SA5DN-SS-0.0-0.5 SL-113-SA5DN-SS-0.0-0.5 SL-114-SA5DN-SS-0.0-0.5 SL-121-SA5DN-SS-0.0-0.5 SL-125-SA5DN-SS-0.0-0.5)	BARIUM	188	-	75.00-125.00	-	BARIUM	No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_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-014-SA5DN-SB-4.0-5.0MS SL-014-SA5DN-SB-4.0-5.0MSD (SL-014-SA5DN-SB-4.0-5.0 SL-014-SA5DN-SB-9.0-10.0 SL-094-SA5DN-SS-0.0-0.5 SL-095-SA5DN-SS-0.0-0.5 SL-097-SA5DN-SS-0.0-0.5 SL-098-SA5DN-SS-0.0-0.5 SL-099-SA5DN-SS-0.0-0.5 SL-101-SA5DN-SS-0.0-0.5 SL-102-SA5DN-SS-0.0-0.5 SL-103-SA5DN-SS-0.0-0.5 SL-104-SA5DN-SS-0.0-0.5 SL-110-SA5DN-SS-0.0-0.5 SL-111-SA5DN-SS-0.0-0.5 SL-112-SA5DN-SS-0.0-0.5 SL-113-SA5DN-SS-0.0-0.5 SL-114-SA5DN-SS-0.0-0.5 SL-121-SA5DN-SS-0.0-0.5 SL-125-SA5DN-SS-0.0-0.5)	ALUMINUM CALCIUM IRON MAGNESIUM TITANIUM	1891 476 - 138 188	3229 385 1419 300 402	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-014-SA5DN-SB-4.0-5.0MS SL-014-SA5DN-SB-4.0-5.0MSD (SL-014-SA5DN-SB-4.0-5.0 SL-014-SA5DN-SB-9.0-10.0 SL-094-SA5DN-SS-0.0-0.5 SL-095-SA5DN-SS-0.0-0.5 SL-097-SA5DN-SS-0.0-0.5 SL-098-SA5DN-SS-0.0-0.5 SL-099-SA5DN-SS-0.0-0.5 SL-101-SA5DN-SS-0.0-0.5 SL-102-SA5DN-SS-0.0-0.5 SL-103-SA5DN-SS-0.0-0.5 SL-104-SA5DN-SS-0.0-0.5 SL-110-SA5DN-SS-0.0-0.5 SL-111-SA5DN-SS-0.0-0.5 SL-112-SA5DN-SS-0.0-0.5 SL-113-SA5DN-SS-0.0-0.5 SL-114-SA5DN-SS-0.0-0.5 SL-121-SA5DN-SS-0.0-0.5 SL-125-SA5DN-SS-0.0-0.5)	MANGANESE	-398	-610	75.00-125.00	-	MANGANESE	No Qual, >4x

Method: 8260B

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-014-SA5DN-SB-4.0-5.0MSD (SL-014-SA5DN-SB-4.0-5.0)	1,3,5-TRIMETHYLBENZENE 4-CHLOROTOLUENE HEXACHLOROBUTADIENE N-BUTYLBENZENE N-PROPYLBENZENE P-ISOPROPYLTOLUENE SEC-BUTYLBENZENE TERT-BUTYLBENZENE	- - - - - - - -	- - - - - - - -	38.00-150.00 39.00-145.00 10.00-155.00 30.00-146.00 39.00-157.00 29.00-152.00 33.00-157.00 41.00-152.00	31 (30.00) 31 (30.00) 32 (30.00) 35 (30.00) 32 (30.00) 33 (30.00) 32 (30.00) 31 (30.00)	1,3,5-TRIMETHYLBENZENE 4-CHLOROTOLUENE HEXACHLOROBUTADIENE N-BUTYLBENZENE N-PROPYLBENZENE P-ISOPROPYLTOLUENE SEC-BUTYLBENZENE TERT-BUTYLBENZENE	J(all detects)
SL-014-SA5DN-SB-4.0-5.0MS (SL-014-SA5DN-SB-4.0-5.0)	Chlorotrifluoroethylene	68	-	70.00-130.00	-	Chlorotrifluoroethylene	J(all detects) UJ(all non-detects)

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 300.0**  
**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-104-SA5DN-SS-0.0-0.5DUP (SL-104-SA5DN-SS-0.0-0.5 SL-110-SA5DN-SS-0.0-0.5 SL-111-SA5DN-SS-0.0-0.5 SL-112-SA5DN-SS-0.0-0.5 SL-113-SA5DN-SS-0.0-0.5 SL-114-SA5DN-SS-0.0-0.5 SL-121-SA5DN-SS-0.0-0.5 SL-125-SA5DN-SS-0.0-0.5)	FLUORIDE	65	20.00	No Qual, OK by difference
SL-014-SA5DN-SB-4.0-5.0DUP (SL-014-SA5DN-SB-4.0-5.0 SL-014-SA5DN-SB-9.0-10.0 SL-094-SA5DN-SS-0.0-0.5 SL-095-SA5DN-SS-0.0-0.5 SL-097-SA5DN-SS-0.0-0.5 SL-098-SA5DN-SS-0.0-0.5 SL-099-SA5DN-SS-0.0-0.5 SL-101-SA5DN-SS-0.0-0.5 SL-102-SA5DN-SS-0.0-0.5 SL-103-SA5DN-SS-0.0-0.5)	Nitrate-NO3	23	20.00	No Qual, OK by difference

**Method: 6010B**  
**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-014-SA5DN-SB-4.0-5.0DUP (SL-014-SA5DN-SB-4.0-5.0 SL-014-SA5DN-SB-9.0-10.0 SL-094-SA5DN-SS-0.0-0.5 SL-095-SA5DN-SS-0.0-0.5 SL-097-SA5DN-SS-0.0-0.5 SL-098-SA5DN-SS-0.0-0.5 SL-099-SA5DN-SS-0.0-0.5 SL-101-SA5DN-SS-0.0-0.5 SL-102-SA5DN-SS-0.0-0.5 SL-103-SA5DN-SS-0.0-0.5 SL-104-SA5DN-SS-0.0-0.5 SL-110-SA5DN-SS-0.0-0.5 SL-111-SA5DN-SS-0.0-0.5 SL-112-SA5DN-SS-0.0-0.5 SL-113-SA5DN-SS-0.0-0.5 SL-114-SA5DN-SS-0.0-0.5 SL-121-SA5DN-SS-0.0-0.5 SL-125-SA5DN-SS-0.0-0.5)	CALCIUM MANGANESE POTASSIUM Zirconium	36 94 21 62	20.00 20.00 20.00 20.00	J(all detects) UJ(all non-detects) Zr No Qual, OK by difference

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 6020**

**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-014-SA5DN-SB-4.0-5.0DUP (SL-014-SA5DN-SB-4.0-5.0 SL-014-SA5DN-SB-9.0-10.0 SL-094-SA5DN-SS-0.0-0.5 SL-095-SA5DN-SS-0.0-0.5 SL-097-SA5DN-SS-0.0-0.5 SL-098-SA5DN-SS-0.0-0.5 SL-099-SA5DN-SS-0.0-0.5 SL-101-SA5DN-SS-0.0-0.5 SL-102-SA5DN-SS-0.0-0.5 SL-103-SA5DN-SS-0.0-0.5 SL-104-SA5DN-SS-0.0-0.5 SL-110-SA5DN-SS-0.0-0.5 SL-111-SA5DN-SS-0.0-0.5 SL-112-SA5DN-SS-0.0-0.5 SL-113-SA5DN-SS-0.0-0.5 SL-114-SA5DN-SS-0.0-0.5 SL-121-SA5DN-SS-0.0-0.5 SL-125-SA5DN-SS-0.0-0.5)	ANTIMONY CADMIUM NICKEL SELENIUM SILVER	42 57 21 23 23	20.00 20.00 20.00 20.00 20.00	J(all detects) UJ(all non-detects) Sb, Cd, Se, Ag No Qual, OK by difference

**Method: 7199**

**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-014-SA5DN-SB-4.0-5.0DUP (SL-014-SA5DN-SB-4.0-5.0 SL-014-SA5DN-SB-9.0-10.0 SL-094-SA5DN-SS-0.0-0.5 SL-095-SA5DN-SS-0.0-0.5 SL-097-SA5DN-SS-0.0-0.5 SL-098-SA5DN-SS-0.0-0.5 SL-099-SA5DN-SS-0.0-0.5 SL-101-SA5DN-SS-0.0-0.5 SL-102-SA5DN-SS-0.0-0.5 SL-103-SA5DN-SS-0.0-0.5 SL-104-SA5DN-SS-0.0-0.5 SL-110-SA5DN-SS-0.0-0.5 SL-111-SA5DN-SS-0.0-0.5 SL-112-SA5DN-SS-0.0-0.5 SL-113-SA5DN-SS-0.0-0.5 SL-114-SA5DN-SS-0.0-0.5 SL-121-SA5DN-SS-0.0-0.5 SL-125-SA5DN-SS-0.0-0.5)	HEXAVALENT CHROMIUM	107	20.00	No Qual, OK by difference

## Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 7471A

**Matrix:** SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-014-SA5DN-SB-4.0-5.0DUP (SL-014-SA5DN-SB-4.0-5.0 SL -014-SA5DN-SB-9.0-10.0 SL -094-SA5DN-SS-0.0-0.5 SL -095-SA5DN-SS-0.0-0.5 SL -097-SA5DN-SS-0.0-0.5 SL -098-SA5DN-SS-0.0-0.5 SL -099-SA5DN-SS-0.0-0.5 SL -101-SA5DN-SS-0.0-0.5 SL -102-SA5DN-SS-0.0-0.5 SL -103-SA5DN-SS-0.0-0.5 SL -104-SA5DN-SS-0.0-0.5 SL -110-SA5DN-SS-0.0-0.5 SL -111-SA5DN-SS-0.0-0.5 SL -112-SA5DN-SS-0.0-0.5 SL -113-SA5DN-SS-0.0-0.5 SL -114-SA5DN-SS-0.0-0.5 SL -121-SA5DN-SS-0.0-0.5 SL -125-SA5DN-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: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 8015B

Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11538AY321015A (EB10-SA5DN-SS-053111)	m-Terphenyl	-	71	75.00-125.00	-	m-Terphenyl	J (all detects) UJ (all non-detects)

Method: 8081A

Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11570AQ242021A P11570AY242034A (EB10-SA5DN-SS-053111 EB11-SA5DN-SB-053111)	4,4'-DDE ENDOSULFAN I	142 130	142 130	66.00-130.00 68.00-128.00	- -	4,4'-DDE ENDOSULFAN I	J(all detects)

Method: 8330A

Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11582AQ242115A P11582AY242158A (EB10-SA5DN-SS-053111)	3-NITROTOLUENE	110	110	69.00-107.00	-	3-NITROTOLUENE	J(all detects)

Method: 7470A

Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P15213DY222331 (EB10-SA5DN-SS-053111 EB11-SA5DN-SB-053111)	MERCURY	-	89	90.00-115.00	-	MERCURY	J(all detects) UJ(all non-detects)

Method: 8270C SIM

Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P3WBLCSY262120 (EB10-SA5DN-SS-053111 EB11-SA5DN-SB-053111)	Dimethylphthalate	-	-	40.00-119.00	31 (30.00)	Dimethylphthalate	J(all detects) UJ(all non-detects)

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_v1

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
P7LDLCSQ262103	1,2,4-TRICHLORO BENZENE	130	-	73.00-108.00	-	1,2,4-TRICHLORO BENZENE	
(SL -014-SA5DN -SB-4.0-5.0	1,2-DICHLORO BENZENE	116	-	79.00-102.00	-	1,2-DICHLORO BENZENE	
SL -014-SA5DN -SB-9.0-10.0	1,2-Diphenylhydrazine/Azobenzen	139	-	77.00-111.00	-	1,2-Diphenylhydrazine/Azobenzen	
SL -094-SA5DN -SS-0.0-0.5	1,3-DICHLORO BENZENE	117	-	70.00-98.00	-	1,3-DICHLORO BENZENE	
SL -095-SA5DN -SS-0.0-0.5	1,4-DICHLORO BENZENE	119	-	74.00-106.00	-	1,4-DICHLORO BENZENE	
SL -097-SA5DN -SS-0.0-0.5	1-METHYLNAPHTHALENE	129	-	74.00-105.00	-	1-METHYLNAPHTHALENE	
SL -098-SA5DN -SS-0.0-0.5	2,4,5-TRICHLOROPHENOL	131	-	76.00-107.00	-	2,4,5-TRICHLOROPHENOL	
SL -099-SA5DN -SS-0.0-0.5	2,4,6-TRICHLOROPHENOL	136	-	78.00-111.00	-	2,4,6-TRICHLOROPHENOL	
SL -101-SA5DN -SS-0.0-0.5	2,4-DICHLOROPHENOL	130	-	75.00-111.00	-	2,4-DICHLOROPHENOL	
SL -102-SA5DN -SS-0.0-0.5	2,4-DIMETHYLPHENOL	132	-	72.00-111.00	-	2,4-DIMETHYLPHENOL	
SL -103-SA5DN -SS-0.0-0.5	2,4-DINITROPHENOL	131	-	37.00-120.00	-	2,4-DINITROPHENOL	
SL -104-SA5DN -SS-0.0-0.5	2,4-DINITROTOLUENE	130	-	73.00-115.00	-	2,4-DINITROTOLUENE	
SL -110-SA5DN -SS-0.0-0.5	2,6-DINITROTOLUENE	130	-	79.00-115.00	-	2,6-DINITROTOLUENE	
SL -111-SA5DN -SS-0.0-0.5	2-CHLOROPHENOL	129	-	72.00-112.00	-	2-CHLOROPHENOL	
SL -112-SA5DN -SS-0.0-0.5	2-METHYLNAPHTHALENE	121	-	76.00-105.00	-	2-METHYLNAPHTHALENE	
SL -113-SA5DN -SS-0.0-0.5	2-METHYLPHENOL	122	-	66.00-110.00	-	2-METHYLPHENOL	
SL -114-SA5DN -SS-0.0-0.5	2-NITROANILINE	134	-	78.00-116.00	-	2-NITROANILINE	
SL -121-SA5DN -SS-0.0-0.5	2-NITROPHENOL	132	-	81.00-114.00	-	2-NITROPHENOL	
SL -125-SA5DN -SS-0.0-0.5)	3-NITROANILINE	127	-	62.00-109.00	-	3-NITROANILINE	
	4,6-DINITRO-2-METHYLPHENOL	141	-	53.00-110.00	-	4,6-DINITRO-2-METHYLPHENOL	
	4-BROMOPHENYL-PHENYLETH	130	-	79.00-117.00	-	4-BROMOPHENYL-PHENYLETH	
	4-CHLORO-3-METHYLPHENOL	128	-	74.00-119.00	-	4-CHLORO-3-METHYLPHENOL	
	4-CHLOROPHENYL-PHENYLETH	126	-	79.00-110.00	-	4-CHLOROPHENYL-PHENYLETH	
	4-METHYLPHENOL	118	-	66.00-117.00	-	4-METHYLPHENOL	
	ACENAPHTHENE	132	-	76.00-111.00	-	ACENAPHTHENE	
	ACENAPHTHYLENE	133	-	75.00-122.00	-	ACENAPHTHYLENE	
	ANILINE	110	-	34.00-94.00	-	ANILINE	
	ANTHRACENE	133	-	76.00-112.00	-	ANTHRACENE	
	BENZO(A)ANTHRACENE	130	-	73.00-112.00	-	BENZO(A)ANTHRACENE	
	BENZO(A)PYRENE	133	-	69.00-122.00	-	BENZO(A)PYRENE	
	BENZO(G,H,I)PERYLENE	147	-	65.00-122.00	-	BENZO(G,H,I)PERYLENE	
	BENZO(K)FLUORANTHENE	141	-	67.00-125.00	-	BENZO(K)FLUORANTHENE	
	BENZYL ALCOHOL	125	-	68.00-111.00	-	BENZYL ALCOHOL	
	BIS(2-CHLOROETHOXY)METHA	128	-	70.00-118.00	-	BIS(2-CHLOROETHOXY)METHA	
	BIS(2-CHLOROETHYL) ETHER	119	-	70.00-104.00	-	BIS(2-CHLOROETHYL) ETHER	
	BIS(2-ETHYLHEXYL)PHTHALAT	138	-	75.00-117.00	-	BIS(2-ETHYLHEXYL)PHTHALAT	
	Butylbenzylphthalate	140	-	75.00-115.00	-	Butylbenzylphthalate	
	CARBAZOLE	131	-	77.00-113.00	-	CARBAZOLE	
	CHRYSENE	130	-	76.00-113.00	-	CHRYSENE	
	DIBENZO(A,H)ANTHRACENE	145	-	70.00-128.00	-	DIBENZO(A,H)ANTHRACENE	
	DIBENZOFURAN	130	-	79.00-108.00	-	DIBENZOFURAN	
	Diethylphthalate	129	-	76.00-111.00	-	Diethylphthalate	
	Dimethylphthalate	131	-	77.00-109.00	-	Dimethylphthalate	
	Di-n-butylphthalate	134	-	79.00-112.00	-	Di-n-butylphthalate	
	Di-n-octylphthalate	148	-	68.00-130.00	-	Di-n-octylphthalate	
	FLUORANTHENE	133	-	78.00-116.00	-	FLUORANTHENE	
	FLUORENE	129	-	75.00-116.00	-	FLUORENE	
	HEXACHLORO BENZENE	133	-	78.00-116.00	-	HEXACHLORO BENZENE	
	HEXACHLOROBUTADIENE	132	-	70.00-112.00	-	HEXACHLOROBUTADIENE	
	HEXACHLOROCYCLOPENTADI	124	-	46.00-115.00	-	HEXACHLOROCYCLOPENTADI	
	HEXACHLOROETHANE	114	-	68.00-105.00	-	HEXACHLOROETHANE	
	INDENO(1,2,3-CD)PYRENE	145	-	64.00-119.00	-	INDENO(1,2,3-CD)PYRENE	
	ISOPHORONE	129	-	69.00-110.00	-	ISOPHORONE	
	NAPHTHALENE	126	-	73.00-106.00	-	NAPHTHALENE	
	NITRO BENZENE	129	-	71.00-104.00	-	NITRO BENZENE	
	N-NITROSODIMETHYLAMINE	111	-	60.00-106.00	-	N-NITROSODIMETHYLAMINE	
	N-NITROSO-DI-N-PROPYLAMIN	118	-	63.00-107.00	-	N-NITROSO-DI-N-PROPYLAMIN	
	PENTACHLOROPHENOL	119	-	35.00-106.00	-	PENTACHLOROPHENOL	
	PHENANTHRENE	129	-	77.00-113.00	-	PHENANTHRENE	
	PYRENE	136	-	75.00-115.00	-	PYRENE	

J(all detects)

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: PrepDE169\_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
P16026AQ220155A (SL-014-SA5DN-SB-4.0-5.0 SL-014-SA5DN-SB-9.0-10.0 SL-094-SA5DN-SS-0.0-0.5 SL-095-SA5DN-SS-0.0-0.5 SL-097-SA5DN-SS-0.0-0.5 SL-098-SA5DN-SS-0.0-0.5 SL-099-SA5DN-SS-0.0-0.5 SL-101-SA5DN-SS-0.0-0.5 SL-102-SA5DN-SS-0.0-0.5 SL-103-SA5DN-SS-0.0-0.5 SL-104-SA5DN-SS-0.0-0.5 SL-110-SA5DN-SS-0.0-0.5 SL-111-SA5DN-SS-0.0-0.5 SL-112-SA5DN-SS-0.0-0.5 SL-113-SA5DN-SS-0.0-0.5 SL-114-SA5DN-SS-0.0-0.5 SL-121-SA5DN-SS-0.0-0.5 SL-125-SA5DN-SS-0.0-0.5)	ANTIMONY	127	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC Limits

# Surrogate Outlier Report

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 1625C  
**Matrix:** AQ

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
EB10-SA5DN-SS-053111	N-Nitrosodimethylamine-d6	156	50.00-150.00	All Target Analytes	J (all detects)

**Method:** 1625C  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-097-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine-d6	1473	50.00-150.00	All Target Analytes	No Qual, diluted out
SL-098-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine-d6	1367	50.00-150.00	All Target Analytes	No Qual, diluted out
SL-099-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine-d6	1166	50.00-150.00	All Target Analytes	No Qual, diluted out
SL-102-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine-d6	989	50.00-150.00	All Target Analytes	No Qual, diluted out
SL-103-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine-d6	1083	50.00-150.00	All Target Analytes	No Qual, diluted out
SL-104-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine-d6	1044	50.00-150.00	All Target Analytes	No Qual, diluted out
SL-110-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine-d6	1033	50.00-150.00	All Target Analytes	No Qual, diluted out
SL-111-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine-d6	955	50.00-150.00	All Target Analytes	No Qual, diluted out
SL-112-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine-d6	1004	50.00-150.00	All Target Analytes	No Qual, diluted out
SL-113-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine-d6	1010	50.00-150.00	All Target Analytes	No Qual, diluted out
SL-114-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine-d6	1039	50.00-150.00	All Target Analytes	No Qual, diluted out
SL-121-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine-d6	1021	50.00-150.00	All Target Analytes	No Qual, diluted out
SL-125-SA5DN-SS-0.0-0.5	N-Nitrosodimethylamine-d6	969	50.00-150.00	All Target Analytes	No Qual, diluted out

**Method:** 8081A  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-098-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	147	20.00-120.00	All Target Analytes	J(all detects)
SL-099-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	140	20.00-120.00	All Target Analytes	J(all detects)
SL-101-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	126	20.00-120.00	All Target Analytes	J(all detects)
SL-102-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	128	20.00-120.00	All Target Analytes	J(all detects)
SL-104-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	0	20.00-120.00	All Target Analytes	J(all detects) R(all non-detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Surrogate Outlier Report

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 8081A

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-112-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	123	20.00-120.00	All Target Analytes	J(all detects)
SL-113-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	137	20.00-120.00	All Target Analytes	J(all detects)
SL-121-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	240	20.00-120.00	All Target Analytes	J(all detects)

Method: 8082

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-095-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	495	45.00-120.00	All Target Analytes	No Qual, diluted out
	TETRACHLORO-M-XYLENE	520	53.00-139.00		
SL-104-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	125	45.00-120.00	All Target Analytes	No Qual, diluted out

Method: 8270C SIM

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-101-SA5DN-SS-0.0-0.5	Terphenyl-d14	158	45.00-135.00	No Affected Compounds	J(all detects)

Method: 8315A

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-014-SA5DN-SB-4.0-5.0	Butyraldehyde	138	64.00-126.00	All Target Analytes	J(all detects)
SL-014-SA5DN-SB-9.0-10.0	Butyraldehyde	135	64.00-126.00	All Target Analytes	J(all detects)
SL-097-SA5DN-SS-0.0-0.5	Butyraldehyde	143	64.00-126.00	All Target Analytes	J(all detects)
SL-098-SA5DN-SS-0.0-0.5	Butyraldehyde	130	64.00-126.00	All Target Analytes	J(all detects)
SL-099-SA5DN-SS-0.0-0.5	Butyraldehyde	138	64.00-126.00	All Target Analytes	J(all detects)
SL-102-SA5DN-SS-0.0-0.5	Butyraldehyde	150	64.00-126.00	All Target Analytes	J(all detects)
SL-103-SA5DN-SS-0.0-0.5	Butyraldehyde	141	64.00-126.00	All Target Analytes	J(all detects)
SL-104-SA5DN-SS-0.0-0.5	Butyraldehyde	135	64.00-126.00	All Target Analytes	J(all detects)
SL-110-SA5DN-SS-0.0-0.5	Butyraldehyde	129	64.00-126.00	All Target Analytes	J(all detects)
SL-112-SA5DN-SS-0.0-0.5	Butyraldehyde	130	64.00-126.00	All Target Analytes	J(all detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Surrogate Outlier Report

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8315A

**Matrix:** SO

<i>Sample ID</i>	<i>Surrogate</i>	<i>Sample % Recovery</i>	<i>% Recovery Limits</i>	<i>Affected Compounds</i>	<i>Flag</i>
SL-113-SA5DN-SS- 0.0-0.5	Butyraldehyde	141	64.00-126.00	All Target Analytes	J(all detects)
SL-121-SA5DN-SS- 0.0-0.5	Butyraldehyde	130	64.00-126.00	All Target Analytes	J(all detects)



# Field Duplicate RPD Report

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 160.3M

Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
MOISTURE	12.3	11.600000000	6		No Qualifiers Applied

Method: 1625C

Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
N-NITROSODIMETHYLAMINE	21.4	68.100000000	104	50.00	J (all detects)

Method: 300.0

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
FLUORIDE	18.2	7.500000000	83	50.00	J(all detects) No Qual for NO3 within limits
Nitrate-NO3	1.6	1.600000000	0	50.00	

Method: 6010B

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
ALUMINUM	30300	38900.000000000	25	50.00	J(all detects) UJ(all non-detects) Al, Fe, Li, Mg, P, K, Na, Sr, Sn, Ti, Zr No Qual, within limits
BORON	5.54 U	15.400000000	200	50.00	
CALCIUM	6810	90600.000000000	172	50.00	
IRON	34300	28600.000000000	18	50.00	
LITHIUM	28.5	25.300000000	12	50.00	
MAGNESIUM	6890	6400.000000000	7	50.00	
MANGANESE	1370	273.000000000	134	50.00	
PHOSPHORUS	169	174.000000000	3	50.00	
POTASSIUM	2520	2930.000000000	15	50.00	
SODIUM	741	597.000000000	22	50.00	
STRONTIUM	49.7	69.400000000	33	50.00	
TIN	2.93	2.650000000	10	50.00	
TITANIUM	963	1410.000000000	38	50.00	
Zirconium	2.09	3.360000000	47	50.00	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Field Duplicate RPD Report

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 6020

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
ANTIMONY	0.135	0.245000000	58	50.00	J(all detects) UJ(all non-detects) As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mo, Ni, Ti, V, Zn No Qual, within limits
ARSENIC	5.63	7.250000000	25	50.00	
BARIUM	148	142.000000000	4	50.00	
BERYLLIUM	0.867	0.863000000	0	50.00	
CADMIUM	0.148	0.115000000	25	50.00	
CHROMIUM	26.9	31.900000000	17	50.00	
COBALT	12.6	13.100000000	4	50.00	
COPPER	13.5	14.700000000	9	50.00	
LEAD	9.75	10.600000000	8	50.00	
MOLYBDENUM	0.311	0.481000000	43	50.00	
NICKEL	18.2	20.000000000	9	50.00	
SELENIUM	0.0640	0.452000000 U	200	50.00	
SILVER	0.0847	0.044600000	62	50.00	
THALLIUM	0.301	0.305000000	1	50.00	
VANADIUM	42.9	63.900000000	39	50.00	
ZINC	59.7	59.500000000	0	50.00	

Method: 7199

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
HEXAVALENT CHROMIUM	1.2	0.320000000	116	50.00	J(all detects)

Method: 7471A

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
MERCURY	0.111 U	0.006700000	200	50.00	J (all detects) UJ (all non-detects)

Method: 8015B

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
METHANOL	570 U	190.000000000	200	50.00	J (all detects) UJ (all non-detects)

Method: 8015M

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
EFH (C30-C40)	0.71	1.400000000 U	200	50.00	J (all detects) UJ (all non-detects)

## Field Duplicate RPD Report

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8260B

**Matrix:** SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	0.19	4.100000000 U	200	50.00	J (all detects)
ACETONE	8.2	9.000000000	9	50.00	UJ (all non-detects)
METHYLENE CHLORIDE	2.1	1.800000000	15	50.00	Acetone, Methylene Chloride No Qual. within limits

**Method:** 8270C SIM

**Matrix:** SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
BIS(2-ETHYLHEXYL)PHTHALATE	20 U	12.000000000	200	50.00	J (all detects) UJ (all non-detects)

**Method:** 9045M

**Matrix:** SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-014-SA5DN-SB-4.0-5.0	DUP-10-SA5DN-QC-053111			
PH	8.95	8.620000000	4	50.00	No Qualifiers Applied

## Reporting Limit Outliers

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6020

**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB11-SA5DN-SB-053111	LEAD	J	0.000062	0.0010	PQL	mg/L	J (all detects)

**Method:** 8081A

**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB10-SA5DN-SS-053111	HEPTACHLOR	J	0.0088	0.010	PQL	ug/L	J (all detects)
EB11-SA5DN-SB-053111	HEPTACHLOR	J	0.0084	0.010	PQL	ug/L	J (all detects)

**Method:** 8260B

**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB11-SA5DN-SB-053111	BENZENE	J	0.9	5	PQL	ug/L	J (all detects)
TB-053111	BENZENE	J	0.9	5	PQL	ug/L	J (all detects)

**Method:** 8270C SIM

**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB10-SA5DN-SS-053111	1-METHYLNAPHTHALENE	J	0.028	0.054	PQL	ug/L	J (all detects)
	2-METHYLNAPHTHALENE	J	0.030	0.054	PQL	ug/L	
	Di-n-butylphthalate	J	0.062	1.1	PQL	ug/L	
EB11-SA5DN-SB-053111	1-METHYLNAPHTHALENE	J	0.023	0.053	PQL	ug/L	J (all detects)
	2-METHYLNAPHTHALENE	J	0.024	0.053	PQL	ug/L	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.082	1.1	PQL	ug/L	
	Di-n-butylphthalate	J	0.070	1.1	PQL	ug/L	

**Method:** 1625C

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-014-SA5DN-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	21.4	38.0	PQL	ng/Kg	J (all detects)

## Reporting Limit Outliers

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 300.0

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-014-SA5DN-SB-4.0-5.0	Nitrate-NO3	J	1.6	1.7	PQL	mg/Kg	J (all detects)

**Method:** 6010B

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-014-SA5DN-SB-4.0-5.0	TIN	J	2.93	11.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.09	5.54	PQL	mg/Kg	
SL-014-SA5DN-SB-9.0-10.0	TIN	J	2.86	11.5	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.28	5.77	PQL	mg/Kg	
SL-094-SA5DN-SS-0.0-0.5	SODIUM	J	78.0	109	PQL	mg/Kg	J (all detects)
	TIN	J	2.72	10.9	PQL	mg/Kg	
	Zirconium	J	2.83	5.47	PQL	mg/Kg	
SL-095-SA5DN-SS-0.0-0.5	SODIUM	J	72.6	103	PQL	mg/Kg	J (all detects)
	TIN	J	2.64	10.3	PQL	mg/Kg	
	Zirconium	J	1.96	5.15	PQL	mg/Kg	
SL-097-SA5DN-SS-0.0-0.5	SODIUM	J	68.9	110	PQL	mg/Kg	J (all detects)
	TIN	J	2.73	11.0	PQL	mg/Kg	
	Zirconium	J	3.05	5.51	PQL	mg/Kg	
SL-098-SA5DN-SS-0.0-0.5	SODIUM	J	85.6	111	PQL	mg/Kg	J (all detects)
	TIN	J	2.70	11.1	PQL	mg/Kg	
	Zirconium	J	3.40	5.56	PQL	mg/Kg	
SL-099-SA5DN-SS-0.0-0.5	SODIUM	J	91.1	105	PQL	mg/Kg	J (all detects)
	TIN	J	2.81	10.5	PQL	mg/Kg	
	Zirconium	J	3.56	5.27	PQL	mg/Kg	
SL-101-SA5DN-SS-0.0-0.5	SODIUM	J	96.9	106	PQL	mg/Kg	J (all detects)
	TIN	J	2.87	10.6	PQL	mg/Kg	
	Zirconium	J	2.03	5.29	PQL	mg/Kg	
SL-102-SA5DN-SS-0.0-0.5	SODIUM	J	94.0	107	PQL	mg/Kg	J (all detects)
	TIN	J	2.71	10.7	PQL	mg/Kg	
	Zirconium	J	2.63	5.37	PQL	mg/Kg	
SL-103-SA5DN-SS-0.0-0.5	TIN	J	2.74	10.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.15	5.47	PQL	mg/Kg	
SL-104-SA5DN-SS-0.0-0.5	SODIUM	J	96.2	105	PQL	mg/Kg	J (all detects)
	TIN	J	2.68	10.5	PQL	mg/Kg	
	Zirconium	J	2.35	5.23	PQL	mg/Kg	
SL-110-SA5DN-SS-0.0-0.5	SODIUM	J	95.8	110	PQL	mg/Kg	J (all detects)
	TIN	J	2.70	11.0	PQL	mg/Kg	
	Zirconium	J	3.42	5.48	PQL	mg/Kg	
SL-111-SA5DN-SS-0.0-0.5	SODIUM	J	77.8	111	PQL	mg/Kg	J (all detects)
	TIN	J	2.67	11.1	PQL	mg/Kg	
	Zirconium	J	2.95	5.56	PQL	mg/Kg	
SL-112-SA5DN-SS-0.0-0.5	SODIUM	J	81.1	107	PQL	mg/Kg	J (all detects)
	TIN	J	2.62	10.7	PQL	mg/Kg	
	Zirconium	J	1.96	5.35	PQL	mg/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 6010B**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-113-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	80.5	109	PQL	mg/Kg	J (all detects)
		J	2.71	10.9	PQL	mg/Kg	
		J	3.29	5.43	PQL	mg/Kg	
SL-114-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	71.8	104	PQL	mg/Kg	J (all detects)
		J	2.56	10.4	PQL	mg/Kg	
		J	2.34	5.19	PQL	mg/Kg	
SL-121-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	75.1	105	PQL	mg/Kg	J (all detects)
		J	2.74	10.5	PQL	mg/Kg	
		J	2.43	5.26	PQL	mg/Kg	
SL-125-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	82.0	110	PQL	mg/Kg	J (all detects)
		J	2.77	11.0	PQL	mg/Kg	
		J	3.41	5.51	PQL	mg/Kg	

**Method: 6020**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-014-SA5DN-SB-4.0-5.0	ANTIMONY SELENIUM SILVER	J	0.135	0.226	PQL	mg/Kg	J (all detects)
		J	0.0640	0.452	PQL	mg/Kg	
		J	0.0847	0.113	PQL	mg/Kg	
SL-014-SA5DN-SB-9.0-10.0	ANTIMONY SELENIUM SILVER	J	0.174	0.231	PQL	mg/Kg	J (all detects)
		J	0.0602	0.462	PQL	mg/Kg	
		J	0.0336	0.115	PQL	mg/Kg	
SL-094-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.193	0.429	PQL	mg/Kg	J (all detects)
		J	0.0507	0.107	PQL	mg/Kg	
SL-095-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.198	0.210	PQL	mg/Kg	J (all detects)
		J	0.139	0.420	PQL	mg/Kg	
		J	0.0491	0.105	PQL	mg/Kg	
SL-097-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.188	0.433	PQL	mg/Kg	J (all detects)
		J	0.0492	0.108	PQL	mg/Kg	
SL-098-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.172	0.445	PQL	mg/Kg	J (all detects)
		J	0.0504	0.111	PQL	mg/Kg	
SL-099-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.185	0.205	PQL	mg/Kg	J (all detects)
		J	0.156	0.409	PQL	mg/Kg	
		J	0.0567	0.102	PQL	mg/Kg	
SL-101-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.250	0.419	PQL	mg/Kg	J (all detects)
		J	0.0965	0.105	PQL	mg/Kg	
SL-102-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.155	0.422	PQL	mg/Kg	J (all detects)
		J	0.0602	0.105	PQL	mg/Kg	
SL-103-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.183	0.433	PQL	mg/Kg	J (all detects)
		J	0.0570	0.108	PQL	mg/Kg	
SL-104-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.196	0.207	PQL	mg/Kg	J (all detects)
		J	0.165	0.414	PQL	mg/Kg	
		J	0.0659	0.104	PQL	mg/Kg	
SL-110-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.193	0.213	PQL	mg/Kg	J (all detects)
		J	0.184	0.425	PQL	mg/Kg	
		J	0.0487	0.106	PQL	mg/Kg	

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6020

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-111-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.185	0.220	PQL	mg/Kg	J (all detects)
		J	0.166	0.441	PQL	mg/Kg	
		J	0.0509	0.110	PQL	mg/Kg	
SL-112-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.150	0.214	PQL	mg/Kg	J (all detects)
		J	0.167	0.428	PQL	mg/Kg	
		J	0.0409	0.107	PQL	mg/Kg	
SL-113-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.186	0.422	PQL	mg/Kg	J (all detects)
		J	0.0625	0.105	PQL	mg/Kg	
SL-114-SA5DN-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.156	0.208	PQL	mg/Kg	J (all detects)
		J	0.138	0.415	PQL	mg/Kg	
		J	0.0636	0.104	PQL	mg/Kg	
SL-121-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.159	0.413	PQL	mg/Kg	J (all detects)
		J	0.0813	0.103	PQL	mg/Kg	
SL-125-SA5DN-SS-0.0-0.5	SELENIUM SILVER	J	0.159	0.437	PQL	mg/Kg	J (all detects)
		J	0.0469	0.109	PQL	mg/Kg	

**Method:** 6850

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-097-SA5DN-SS-0.0-0.5	PERCHLORATE	J	3.5	5.6	PQL	ug/Kg	J (all detects)
SL-111-SA5DN-SS-0.0-0.5	PERCHLORATE	J	3.7	5.6	PQL	ug/Kg	J (all detects)

**Method:** 7199

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-097-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.39	1.1	PQL	mg/Kg	J (all detects)
SL-101-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.98	1.1	PQL	mg/Kg	J (all detects)
SL-102-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.64	1.1	PQL	mg/Kg	J (all detects)
SL-104-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.99	1.1	PQL	mg/Kg	J (all detects)
SL-110-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.64	1.1	PQL	mg/Kg	J (all detects)
SL-111-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.81	1.1	PQL	mg/Kg	J (all detects)
SL-112-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.53	1.1	PQL	mg/Kg	J (all detects)
SL-113-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.82	1.1	PQL	mg/Kg	J (all detects)
SL-114-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.83	1.1	PQL	mg/Kg	J (all detects)
SL-125-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.42	1.1	PQL	mg/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 7471A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-014-SA5DN-SB-9.0-10.0	MERCURY	J	0.0037	0.111	PQL	mg/Kg	J (all detects)
SL-094-SA5DN-SS-0.0-0.5	MERCURY	J	0.0319	0.106	PQL	mg/Kg	J (all detects)
SL-095-SA5DN-SS-0.0-0.5	MERCURY	J	0.0626	0.106	PQL	mg/Kg	J (all detects)
SL-097-SA5DN-SS-0.0-0.5	MERCURY	J	0.0586	0.112	PQL	mg/Kg	J (all detects)
SL-101-SA5DN-SS-0.0-0.5	MERCURY	J	0.0090	0.106	PQL	mg/Kg	J (all detects)

**Method:** 8015B

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-121-SA5DN-SS-0.0-0.5	p-Terphenyl	J	28	38	PQL	mg/Kg	J (all detects)

**Method:** 8015M

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-014-SA5DN-SB-4.0-5.0	EFH (C30-C40)	J	0.71	1.4	PQL	mg/Kg	J (all detects)
SL-014-SA5DN-SB-9.0-10.0	EFH (C30-C40)	J	0.54	1.4	PQL	mg/Kg	J (all detects)
SL-097-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	9.3	13	PQL	mg/Kg	J (all detects)
SL-098-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	3.6	6.7	PQL	mg/Kg	J (all detects)
SL-099-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	3.0	6.3	PQL	mg/Kg	J (all detects)
SL-104-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	12	13	PQL	mg/Kg	J (all detects)
SL-110-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	23	26	PQL	mg/Kg	J (all detects)
SL-111-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	2.5	2.7	PQL	mg/Kg	J (all detects)
SL-113-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	6.0	13	PQL	mg/Kg	J (all detects)
SL-121-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	6.3	13	PQL	mg/Kg	J (all detects)
SL-125-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	3.9	6.6	PQL	mg/Kg	J (all detects)

**Method:** 8081A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-094-SA5DN-SS-0.0-0.5	Chlordane	J	2.0	3.8	PQL	ug/Kg	J (all detects)
SL-097-SA5DN-SS-0.0-0.5	Chlordane	J	1.4	3.8	PQL	ug/Kg	J (all detects)



## Reporting Limit Outliers

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8081A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-098-SA5DN-SS-0.0-0.5	ALPHA-BHC	J	0.045	0.19	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.090	0.19	PQL	ug/Kg	
	HEPTACHLOR	J	0.15	0.19	PQL	ug/Kg	
SL-101-SA5DN-SS-0.0-0.5	gamma-BHC (Lindane)	J	0.11	0.18	PQL	ug/Kg	J (all detects)
SL-102-SA5DN-SS-0.0-0.5	Chlordane	J	3.0	3.7	PQL	ug/Kg	J (all detects)
SL-104-SA5DN-SS-0.0-0.5	4,4'-DDT	J	3.7	7.3	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.087	0.18	PQL	ug/Kg	
SL-110-SA5DN-SS-0.0-0.5	Chlordane	J	2.0	3.7	PQL	ug/Kg	J (all detects)
SL-111-SA5DN-SS-0.0-0.5	4,4'-DDD	J	0.35	0.38	PQL	ug/Kg	J (all detects)
	Chlordane	J	2.5	3.8	PQL	ug/Kg	
	DIELDRIN	J	0.29	0.38	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.11	0.38	PQL	ug/Kg	
	HEPTACHLOR EPOXIDE	J	0.10	0.18	PQL	ug/Kg	
SL-112-SA5DN-SS-0.0-0.5	Chlordane	J	2.2	3.7	PQL	ug/Kg	J (all detects)
SL-114-SA5DN-SS-0.0-0.5	gamma-BHC (Lindane)	J	0.043	0.18	PQL	ug/Kg	J (all detects)
SL-121-SA5DN-SS-0.0-0.5	DELTA-BHC	J	0.076	0.18	PQL	ug/Kg	J (all detects)
SL-125-SA5DN-SS-0.0-0.5	Chlordane	J	1.9	3.7	PQL	ug/Kg	J (all detects)

**Method:** 8082

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-095-SA5DN-SS-0.0-0.5	Aroclor 5460	J	12	18	PQL	ug/Kg	J (all detects)
SL-099-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.5	1.8	PQL	ug/Kg	J (all detects)
SL-101-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	4.8	9.1	PQL	ug/Kg	J (all detects)
SL-102-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	4.8	9.3	PQL	ug/Kg	J (all detects)
SL-103-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	5.2	19	PQL	ug/Kg	J (all detects)
SL-104-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	7.1	18	PQL	ug/Kg	J (all detects)
SL-110-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	8.2	9.3	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	6.6	18	PQL	ug/Kg	
SL-114-SA5DN-SS-0.0-0.5	Aroclor 5460	J	5.8	18	PQL	ug/Kg	J (all detects)
SL-121-SA5DN-SS-0.0-0.5	Aroclor 5460	J	2.4	3.5	PQL	ug/Kg	J (all detects)
SL-125-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	7.6	9.4	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	6.3	18	PQL	ug/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 8151A**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-094-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.097	0.19	PQL	ug/Kg	J (all detects)
SL-101-SA5DN-SS-0.0-0.5	MCPA	J	130	270	PQL	ug/Kg	J (all detects)
SL-104-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.17	0.18	PQL	ug/Kg	J (all detects)
SL-110-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.18	0.19	PQL	ug/Kg	J (all detects)
	DICHLOROPROP	J	1.5	1.9	PQL	ug/Kg	
SL-112-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.14	0.19	PQL	ug/Kg	J (all detects)
SL-114-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.13	0.18	PQL	ug/Kg	J (all detects)
SL-121-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.17	0.18	PQL	ug/Kg	J (all detects)
	DICHLOROPROP	J	1.6	1.8	PQL	ug/Kg	

**Method: 8260B**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-014-SA5DN-SB-4.0-5.0	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	J	0.19	4.0	PQL	ug/Kg	J (all detects)
	METHYLENE CHLORIDE	J	2.1	4.0	PQL	ug/Kg	
SL-014-SA5DN-SB-9.0-10.0	METHYLENE CHLORIDE	J	2.0	4.2	PQL	ug/Kg	J (all detects)

**Method: 8270C**

**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-094-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	28	370	PQL	ug/Kg	J (all detects)
SL-095-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	18	350	PQL	ug/Kg	J (all detects)
SL-097-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	33	370	PQL	ug/Kg	J (all detects)
SL-098-SA5DN-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	130	190	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	31	370	PQL	ug/Kg	
	CARBAZOLE	J	35	190	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	43	190	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	120	190	PQL	ug/Kg	
SL-103-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	41	360	PQL	ug/Kg	J (all detects)
SL-104-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	40	180	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	48	180	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	64	180	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	32	180	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	30	180	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	24	350	PQL	ug/Kg	
	CHRYSENE	J	56	180	PQL	ug/Kg	
	FLUORANTHENE	J	58	180	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	30	180	PQL	ug/Kg	
	PYRENE	J	64	180	PQL	ug/Kg	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

10/11/2011 3:08:11 PM

ADR version 1.4.0.111

Page 7 of 10

## Reporting Limit Outliers

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8270C

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-110-SA5DN-SS-0.0-0.5	CHRYSENE	J	21	180	PQL	ug/Kg	J (all detects)
	PYRENE	J	18	180	PQL	ug/Kg	
SL-112-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHthalate	J	18	360	PQL	ug/Kg	J (all detects)
SL-113-SA5DN-SS-0.0-0.5	BENZO(A)PYRENE	J	170	180	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	93	180	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	130	180	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHthalate	J	50	360	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	24	180	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	85	180	PQL	ug/Kg	
SL-114-SA5DN-SS-0.0-0.5	PHENANTHRENE	J	68	180	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	28	180	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHthalate	J	26	360	PQL	ug/Kg	
	CHRYSENE	J	59	180	PQL	ug/Kg	
SL-121-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	20	180	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	30	180	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	38	180	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	20	180	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHthalate	J	20	350	PQL	ug/Kg	
	Butylbenzylphthalate	J	20	180	PQL	ug/Kg	
	FLUORANTHENE	J	36	180	PQL	ug/Kg	
	PYRENE	J	40	180	PQL	ug/Kg	
SL-125-SA5DN-SS-0.0-0.5	BENZO(A)PYRENE	J	22	180	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	19	180	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHthalate	J	260	360	PQL	ug/Kg	
	CHRYSENE	J	47	180	PQL	ug/Kg	

**Method:** 8270C SIM

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-094-SA5DN-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.89	1.8	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	0.90	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	1.3	1.8	PQL	ug/Kg	
SL-095-SA5DN-SS-0.0-0.5	ACENAPHTHENE	J	0.87	1.8	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	0.46	1.8	PQL	ug/Kg	
	FLUORENE	J	1.1	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	1.0	1.8	PQL	ug/Kg	
SL-097-SA5DN-SS-0.0-0.5	ANTHRACENE	J	1.4	1.9	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	1.4	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	0.75	1.9	PQL	ug/Kg	
SL-098-SA5DN-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.99	1.9	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	0.96	1.9	PQL	ug/Kg	
	ACENAPHTHYLENE	J	0.82	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.2	1.9	PQL	ug/Kg	
SL-099-SA5DN-SS-0.0-0.5	ACENAPHTHYLENE	J	0.49	1.7	PQL	ug/Kg	J (all detects)
	FLUORENE	J	0.75	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.80	1.7	PQL	ug/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-101-SA5DN-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	1.2	1.8	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.4	1.8	PQL	ug/Kg	
	ACENAPHTHENE	J	1.3	1.8	PQL	ug/Kg	
	ACENAPHTHYLENE	J	0.73	1.8	PQL	ug/Kg	
	Butylbenzylphthalate	J	13	19	PQL	ug/Kg	
	Di-n-butylphthalate	J	7.9	19	PQL	ug/Kg	
	FLUORENE	J	1.6	1.8	PQL	ug/Kg	
SL-102-SA5DN-SS-0.0-0.5	ACENAPHTHYLENE	J	0.42	1.8	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	7.8	20	PQL	ug/Kg	
	FLUORENE	J	1.5	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	0.88	1.8	PQL	ug/Kg	
SL-103-SA5DN-SS-0.0-0.5	ANTHRACENE	J	4.2	9.0	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	3.7	9.0	PQL	ug/Kg	
	NAPHTHALENE	J	4.4	9.0	PQL	ug/Kg	
SL-104-SA5DN-SS-0.0-0.5	ANTHRACENE	J	2.5	8.8	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	5.1	8.8	PQL	ug/Kg	
	PHENANTHRENE	J	8.6	8.8	PQL	ug/Kg	
SL-110-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	7.1	9.0	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	7.5	9.0	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	5.5	9.0	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	8.7	9.0	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	96	98	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	4.3	9.0	PQL	ug/Kg	
	PHENANTHRENE	J	4.3	9.0	PQL	ug/Kg	
SL-111-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	7.1	9.2	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	8.3	9.2	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	5.9	9.2	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	6.8	9.2	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	4.6	9.2	PQL	ug/Kg	
SL-112-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	7.8	9.0	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	7.4	9.0	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	8.6	9.0	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	5.3	9.0	PQL	ug/Kg	
	PHENANTHRENE	J	5.1	9.0	PQL	ug/Kg	
SL-113-SA5DN-SS-0.0-0.5	ANTHRACENE	J	3.0	9.1	PQL	ug/Kg	J (all detects)
SL-114-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	7.8	8.9	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	5.4	8.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	6.3	8.9	PQL	ug/Kg	
	FLUORANTHENE	J	6.0	8.9	PQL	ug/Kg	
	PYRENE	J	5.4	8.9	PQL	ug/Kg	
SL-121-SA5DN-SS-0.0-0.5	ANTHRACENE	J	2.7	8.9	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	3.8	8.9	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	7.1	8.9	PQL	ug/Kg	
SL-125-SA5DN-SS-0.0-0.5	ANTHRACENE	J	2.1	9.1	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	6.5	9.1	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	5.4	9.1	PQL	ug/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE169

Laboratory: LL

EDD Filename: DE169\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8330A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-014-SA5DN-SB-9.0-10.0	1,3-DINITROBENZENE	J	47	130	PQL	ug/Kg	J (all detects)
SL-097-SA5DN-SS-0.0-0.5	1,3-DINITROBENZENE	J	58	130	PQL	ug/Kg	J (all detects)
SL-102-SA5DN-SS-0.0-0.5	1,3-DINITROBENZENE	J	51	130	PQL	ug/Kg	J (all detects)
SL-103-SA5DN-SS-0.0-0.5	1,3-DINITROBENZENE	J	45	130	PQL	ug/Kg	J (all detects)
SL-110-SA5DN-SS-0.0-0.5	1,3-DINITROBENZENE	J	53	130	PQL	ug/Kg	J (all detects)
SL-111-SA5DN-SS-0.0-0.5	1,3-DINITROBENZENE	J	43	130	PQL	ug/Kg	J (all detects)
SL-125-SA5DN-SS-0.0-0.5	1,3-DINITROBENZENE	J	51	130	PQL	ug/Kg	J (all detects)

LDC #: 26277A4

## VALIDATION COMPLETENESS WORKSHEET

SDG #: DE169

ADR

Laboratory: Lancaster Laboratories

Date: 9/29/11

Page: 1 of 1

Reviewer: MY

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	N	
III.	Calibration	N	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	Al, Ba, Ca, Fe, Mg, Mn, Ti > 4X
VII.	Duplicate Sample Analysis	SW	Sb, Cd, Hg, Se, Ag, Zr < 5X
VIII.	Laboratory Control Samples (LCS)	NA	SRM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Cr, V.
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	N	
XV.	Field Blanks	SW	EB = 3, 20 <sup>+</sup> (No qual > 5X)

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-014-SA5DN-SB-4.0-5.0	11	SL-103-SA5DN-SS-0.0-0.5	21	SL-014-SA5DN-SB-4.0-5.0MS	31	
2	SL-014-SA5DN-SB-9.0-10.0	12	SL-104-SA5DN-SS-0.0-0.5	22	SL-014-SA5DN-SB-4.0-5.0MSD	32	
3	EB11-SA5DN-SB-053111	13	SL-110-SA5DN-SS-0.0-0.5	23	SL-014-SA5DN-SB-4.0-5.0DUP	33	
4	SL-094-SA5DN-SS-0.0-0.5	14	SL-111-SA5DN-SS-0.0-0.5	24		34	
5	SL-095-SA5DN-SS-0.0-0.5	15	SL-112-SA5DN-SS-0.0-0.5	25		35	
6	SL-097-SA5DN-SS-0.0-0.5	16	SL-113-SA5DN-SS-0.0-0.5	26		36	
7	SL-098-SA5DN-SS-0.0-0.5	17	SL-114-SA5DN-SS-0.0-0.5	27		37	
8	SL-099-SA5DN-SS-0.0-0.5	18	SL-121-SA5DN-SS-0.0-0.5	28		38	
9	SL-101-SA5DN-SS-0.0-0.5	19	SL-125-SA5DN-SS-0.0-0.5	29		39	
10	SL102-SA5DN-SS-0.0-0.5	20	EB10-SA5DN-SS-053111	30		40	

Notes: \_\_\_\_\_



QUALITY ASSURANCE SUMMARY  
FORM 5A (MS/MSD)  
MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
SDG No.: DEL69  
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6302747BKG Matrix Spike Lab Sample ID: 6302748MS Matrix Spike Duplicate Lab Sample ID: 6302749MSD  
& Solids for Sample: 87.7

Batch ID(s): P16008B, P16026A, P15911D

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	MSD Spike Added	Units	MS		MSD		Control Limit	
		Result	C	Result	C	Result	C				\$R	Q	\$R	Q	\$R	RPD M
Aluminum		30329.6033		34600.0215		37694.2041		225.7922	228.0502	MG/KG	1891		3229			20P
Antimony	121	0.1346 B		0.9184		0.8711		1.3683	1.3548	MG/KG	57 N		54 N		75 - 125	20MS
Arsenic	75	5.6335		9.2429		9.4449		2.2805	2.2579	MG/KG	158 N		169 N		75 - 125	20MS
Barium	137	148.0520		169.5325		161.2382		11.4025	11.2896	MG/KG	188		117			20MS
Beryllium	9	0.8670		1.6376		1.6659		0.9122	0.9032	MG/KG	84		88		75 - 125	20MS
Boron		0.9853 U		240.0623		242.2554		225.7922	228.0502	MG/KG	106		106		84 - 115	20P
Cadmium	111	0.1481		1.3489		1.3148		1.1403	1.1290	MG/KG	105		103		75 - 125	20MS
Calcium		6808.2474		8956.5248		8565.8210		451.5845	456.1003	MG/KG	476		385			20P
Chromium	52	26.8693		41.1859		39.0169		11.4025	11.2896	MG/KG	97		92		75 - 125	20MS
Cobalt	59	12.6128		67.7081		64.6895		11.4025	11.2896	MG/KG	113		110		75 - 125	20MS
Copper	63	13.5475		26.3854		25.9210		112.8961	114.0251	MG/KG	84		1419			20P
Iron		34263.1522		34357.9010		35881.1585		3.4208	3.3869	MG/KG	89		109		75 - 125	20MS
Lead	208	9.7542		12.8073		13.4504		112.8961	114.0251	MG/KG	100		101		82 - 114	20P
Lithium		28.4919		140.8548		143.8985		225.7922	228.0502	MG/KG	138		300			20P
Magnesium		6892.0249		7204.2133		7576.3293		56.4481	57.0125	MG/KG	-398		-610			20P
Manganese		1371.3609		1146.8801		1023.7332		0.1826	0.1784	MG/KG	115		106		65 - 135	20CV
Mercury		0.0033 U		0.2100		0.1891		11.4025	11.2896	MG/KG	94		93		75 - 125	20MS
Molybdenum	98	0.3111		11.0057		10.7703		11.4025	11.2896	MG/KG	154 N		154 N		75 - 125	20MS
Nickel	60	18.2124		35.7583		35.5623		112.8961	114.0251	MG/KG	92		106		75 - 125	20P
Phosphorus		169.1734		272.9094		289.7742		1128.9612	1140.2509	MG/KG	104		120		75 - 125	20P
Potassium		2520.2511		3689.3212		3884.7537		2.2805	2.2579	MG/KG	90		90		75 - 125	20MS
Selenium	78	0.0640 B		2.1106		2.0884		11.4025	11.2896	MG/KG	104		101		75 - 125	20MS
Silver	107	0.0847 B		11.9977		11.4702		1128.9612	1140.2509	MG/KG	93		93		75 - 125	20P
Sodium		741.3645		1793.2917		1796.5986		112.8961	114.0251	MG/KG	98		97		75 - 115	20P
Strontium		49.6961		160.0494		159.7811		0.4561	0.4516	MG/KG	95		93		75 - 125	20MS
Thallium	203	0.3014		0.7330		0.7232		451.5845	456.1003	MG/KG	87		87		80 - 110	20P
Tin		2.9270 B		394.3146		397.7948		112.8961	114.0251	MG/KG	188		402			20P
Titanium		963.0636		1175.4970		1421.3432		11.4025	11.2896	MG/KG	210 N		210 N		75 - 125	20MS
Vanadium	51	42.8554		66.8415		66.5184		11.4025	11.2896	MG/KG	102		90			20MS
Zinc	66	59.6543		71.3113		69.8601		112.8961	114.0251	MG/KG	96		96		75 - 125	20P
Zirconium		2.0934 B		110.1618		111.7298										

METHODS:

P = ICP-Atomic Emission Spectrometer CV = Cold Vapor  
MS = ICP-Atomic Mass Spectrometry AF = Cold Vapor Atomic Fluorescence

CONCENTRATION QUALIFIERS:

U= Below MDL, B= Below LOQ

FLAGS:

N = Matrix Spike OOS, \* = Duplicate OOS



## QUALITY ASSURANCE SUMMARY

FORM 6

DUPLICATES

SDG No.: DE169

Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6302747BKG

% Solids for Duplicate: 87.6

Batch ID(s): P16008B, P16026A, P15911D

Concentration Units: MG/KG

Duplicate Lab Sample ID: 6302750DUP

% Solids for Sample: 87.7

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			30329.6033		31816.1716		5		P
Antimony	121		0.1346	B	0.2069	B	42		MS
Arsenic	75		5.6335		6.8281		19		MS
Barium	137		148.0520		149.5741		1		MS
Beryllium	9		0.8670		0.8720		1		MS
Boron			0.9853	U	0.9853	U			P
Cadmium	111	0.1	0.1481		0.2654		57	*	MS
Calcium			6808.2474		9809.6301		36	*	P
Chromium	52		26.8693		27.4555		2		MS
Cobalt	59		12.6128		11.5232		9		MS
Copper	63		13.5475		13.6942		1		MS
Iron			34263.1522		32095.7678		7		P
Lead	208		9.7542		9.0102		8		MS
Lithium			28.4919		28.3546		0		P
Magnesium			6892.0249		6803.6267		1		P
Manganese			1371.3609		495.1966		94	*	P
Mercury			0.0033	U	0.0162	B	200		CV
Molybdenum	98	0.1	0.3111		0.3108		0		MS
Nickel	60		18.2124		22.4473		21	*	MS
Phosphorus			169.1734		171.1063		1		P
Potassium			2520.2511		3107.1692		21	*	P
Selenium	78		0.0640	B	0.0510	B	23		MS
Silver	107		0.0847	B	0.0671	B	23		MS
Sodium			741.3645		651.9711		13		P
Strontium			49.6961		47.6348		4		P
Thallium	203	0.1	0.3014		0.3121		3		MS
Tin			2.9270	B	2.9503	B	1		P
Titanium			963.0636		922.0821		4		P
Vanadium	51		42.8554		49.0308		13		MS
Zinc	66		59.6543		54.1955		10		MS
Zirconium			2.0934	B	3.9710	B	62		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.

DE169 7981

## 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**

**DE170**

## **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
01-Jun-2011	SL-130-SA5DN-SS-0.0-0.5	6304854	N	3050B	6010B	III
01-Jun-2011	SL-130-SA5DN-SS-0.0-0.5	6304854	N	3050B	6020	III
01-Jun-2011	SL-130-SA5DN-SS-0.0-0.5	6304854	N	3060A	7199	III
01-Jun-2011	SL-130-SA5DN-SS-0.0-0.5	6304854	N	3550B	8081A	III
01-Jun-2011	SL-130-SA5DN-SS-0.0-0.5	6304854	N	3550B	8082	III
01-Jun-2011	SL-130-SA5DN-SS-0.0-0.5	6304854	N	3550B	8151A	III
01-Jun-2011	SL-130-SA5DN-SS-0.0-0.5	6304854	N	3550B	8270C	III
01-Jun-2011	SL-130-SA5DN-SS-0.0-0.5	6304854	N	3550B	8270C SIM	III
01-Jun-2011	SL-130-SA5DN-SS-0.0-0.5	6304854	N	METHOD	300.0	III
01-Jun-2011	SL-130-SA5DN-SS-0.0-0.5	6304854	N	METHOD	314.0	III
01-Jun-2011	SL-130-SA5DN-SS-0.0-0.5	6304854	N	METHOD	7471A	III
01-Jun-2011	SL-129-SA5DN-SS-0.0-0.5	6304853	N	3050B	6010B	III
01-Jun-2011	SL-129-SA5DN-SS-0.0-0.5	6304853	N	3050B	6020	III
01-Jun-2011	SL-129-SA5DN-SS-0.0-0.5	6304853	N	3060A	7199	III
01-Jun-2011	SL-129-SA5DN-SS-0.0-0.5	6304853	N	3550B	8081A	III
01-Jun-2011	SL-129-SA5DN-SS-0.0-0.5	6304853	N	3550B	8082	III
01-Jun-2011	SL-129-SA5DN-SS-0.0-0.5	6304853	N	3550B	8151A	III
01-Jun-2011	SL-129-SA5DN-SS-0.0-0.5	6304853	N	3550B	8270C	III
01-Jun-2011	SL-129-SA5DN-SS-0.0-0.5	6304853	N	3550B	8270C SIM	III
01-Jun-2011	SL-129-SA5DN-SS-0.0-0.5	6304853	N	METHOD	300.0	III
01-Jun-2011	SL-129-SA5DN-SS-0.0-0.5	6304853	N	METHOD	314.0	III
01-Jun-2011	SL-129-SA5DN-SS-0.0-0.5	6304853	N	METHOD	7471A	III
01-Jun-2011	SL-128-SA5DN-SS-0.0-0.5	6304852	N	3050B	6010B	III
01-Jun-2011	SL-128-SA5DN-SS-0.0-0.5	6304852	N	3050B	6020	III
01-Jun-2011	SL-128-SA5DN-SS-0.0-0.5	6304852	N	3060A	7199	III
01-Jun-2011	SL-128-SA5DN-SS-0.0-0.5	6304852	N	3550B	8081A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Jun-2011	SL-128-SA5DN-SS-0.0-0.5	6304852	N	3550B	8082	III
01-Jun-2011	SL-128-SA5DN-SS-0.0-0.5	6304852	N	3550B	8151A	III
01-Jun-2011	SL-128-SA5DN-SS-0.0-0.5	6304852	N	3550B	8270C	III
01-Jun-2011	SL-128-SA5DN-SS-0.0-0.5	6304852	N	3550B	8270C SIM	III
01-Jun-2011	SL-128-SA5DN-SS-0.0-0.5	6304852	N	METHOD	300.0	III
01-Jun-2011	SL-128-SA5DN-SS-0.0-0.5	6304852	N	METHOD	314.0	III
01-Jun-2011	SL-128-SA5DN-SS-0.0-0.5	6304852	N	METHOD	7471A	III
01-Jun-2011	SL-128-SA5DN-SS-0.0-0.5DU	P304852D271643B	DUP	METHOD	300.0	III
01-Jun-2011	SL-128-SA5DN-SS-0.0-0.5MS	P304852R271657B	MS	METHOD	300.0	III
01-Jun-2011	SL-123-SA5DN-SS-0.0-0.5	6304848	N	3050B	6010B	III
01-Jun-2011	SL-123-SA5DN-SS-0.0-0.5	6304848	N	3050B	6020	III
01-Jun-2011	SL-123-SA5DN-SS-0.0-0.5	6304848	N	3060A	7199	III
01-Jun-2011	SL-123-SA5DN-SS-0.0-0.5	6304848	N	3550B	8081A	III
01-Jun-2011	SL-123-SA5DN-SS-0.0-0.5	6304848	N	3550B	8082	III
01-Jun-2011	SL-123-SA5DN-SS-0.0-0.5	6304848	N	3550B	8151A	III
01-Jun-2011	SL-123-SA5DN-SS-0.0-0.5	6304848	N	3550B	8270C	III
01-Jun-2011	SL-123-SA5DN-SS-0.0-0.5	6304848	N	3550B	8270C SIM	III
01-Jun-2011	SL-123-SA5DN-SS-0.0-0.5	6304848	N	METHOD	300.0	III
01-Jun-2011	SL-123-SA5DN-SS-0.0-0.5	6304848	N	METHOD	314.0	III
01-Jun-2011	SL-123-SA5DN-SS-0.0-0.5	6304848	N	METHOD	7471A	III
01-Jun-2011	SL-124-SA5DN-SS-0.0-0.5	6304849	N	3050B	6010B	III
01-Jun-2011	SL-124-SA5DN-SS-0.0-0.5	6304849	N	3050B	6020	III
01-Jun-2011	SL-124-SA5DN-SS-0.0-0.5	6304849	N	3060A	7199	III
01-Jun-2011	SL-124-SA5DN-SS-0.0-0.5	6304849	N	3550B	8081A	III
01-Jun-2011	SL-124-SA5DN-SS-0.0-0.5	6304849	N	3550B	8082	III
01-Jun-2011	SL-124-SA5DN-SS-0.0-0.5	6304849	N	3550B	8151A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Jun-2011	SL-124-SA5DN-SS-0.0-0.5	6304849	N	3550B	8270C	III
01-Jun-2011	SL-124-SA5DN-SS-0.0-0.5	6304849	N	3550B	8270C SIM	III
01-Jun-2011	SL-124-SA5DN-SS-0.0-0.5	6304849	N	METHOD	300.0	III
01-Jun-2011	SL-124-SA5DN-SS-0.0-0.5	6304849	N	METHOD	314.0	III
01-Jun-2011	SL-124-SA5DN-SS-0.0-0.5	6304849	N	METHOD	7471A	III
01-Jun-2011	SL-126-SA5DN-SS-0.0-0.5	6304850	N	3050B	6010B	III
01-Jun-2011	SL-126-SA5DN-SS-0.0-0.5	6304850	N	3050B	6020	III
01-Jun-2011	SL-126-SA5DN-SS-0.0-0.5	6304850	N	3060A	7199	III
01-Jun-2011	SL-126-SA5DN-SS-0.0-0.5	6304850	N	3550B	8081A	III
01-Jun-2011	SL-126-SA5DN-SS-0.0-0.5	6304850	N	3550B	8082	III
01-Jun-2011	SL-126-SA5DN-SS-0.0-0.5	6304850	N	3550B	8151A	III
01-Jun-2011	SL-126-SA5DN-SS-0.0-0.5	6304850	N	3550B	8270C	III
01-Jun-2011	SL-126-SA5DN-SS-0.0-0.5	6304850	N	3550B	8270C SIM	III
01-Jun-2011	SL-126-SA5DN-SS-0.0-0.5	6304850	N	METHOD	300.0	III
01-Jun-2011	SL-126-SA5DN-SS-0.0-0.5	6304850	N	METHOD	314.0	III
01-Jun-2011	SL-126-SA5DN-SS-0.0-0.5	6304850	N	METHOD	7471A	III
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	3050B	6010B	III
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	3050B	6020	III
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	3060A	7199	III
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	3546	1625C	III
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	3550B	8015B	III
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	3550B	8015M	III
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	3550B	8082	III
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	3550B	8270C	III
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	3550B	8270C SIM	III
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	5035	8015M	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

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	5035	8260B	III
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	5035	8260B SIM	III
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	8330	8330A	III
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	METHOD	300.0	III
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	METHOD	314.0	III
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	METHOD	6850	III
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	METHOD	7471A	III
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	METHOD	8015B	III
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	METHOD	8015M	III
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	METHOD	8315A	III
01-Jun-2011	SL-018-SA5DN-SB-4.0-5.0	6304861	N	METHOD	9012B	III
01-Jun-2011	SL-127-SA5DN-SS-0.0-0.5	6304851	N	3050B	6010B	III
01-Jun-2011	SL-127-SA5DN-SS-0.0-0.5	6304851	N	3050B	6020	III
01-Jun-2011	SL-127-SA5DN-SS-0.0-0.5	6304851	N	3060A	7199	III
01-Jun-2011	SL-127-SA5DN-SS-0.0-0.5	6304851	N	3550B	8081A	III
01-Jun-2011	SL-127-SA5DN-SS-0.0-0.5	6304851	N	3550B	8082	III
01-Jun-2011	SL-127-SA5DN-SS-0.0-0.5	6304851	N	3550B	8151A	III
01-Jun-2011	SL-127-SA5DN-SS-0.0-0.5	6304851	N	3550B	8270C	III
01-Jun-2011	SL-127-SA5DN-SS-0.0-0.5	6304851	N	3550B	8270C SIM	III
01-Jun-2011	SL-127-SA5DN-SS-0.0-0.5	6304851	N	METHOD	300.0	III
01-Jun-2011	SL-127-SA5DN-SS-0.0-0.5	6304851	N	METHOD	314.0	III
01-Jun-2011	SL-127-SA5DN-SS-0.0-0.5	6304851	N	METHOD	7471A	III
01-Jun-2011	SL-017-SA5DN-SB-4.0-5.0	6304859	N	3050B	6010B	III
01-Jun-2011	SL-017-SA5DN-SB-4.0-5.0	6304859	N	3050B	6020	III
01-Jun-2011	SL-017-SA5DN-SB-4.0-5.0	6304859	N	3060A	7199	III
01-Jun-2011	SL-017-SA5DN-SB-4.0-5.0	6304859	N	3550B	8082	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Jun-2011	SL-017-SA5DN-SB-4.0-5.0	6304859	N	3550B	8270C	III
01-Jun-2011	SL-017-SA5DN-SB-4.0-5.0	6304859	N	3550B	8270C SIM	III
01-Jun-2011	SL-017-SA5DN-SB-4.0-5.0	6304859	N	5035	8260B	III
01-Jun-2011	SL-017-SA5DN-SB-4.0-5.0	6304859	N	5035	8260B SIM	III
01-Jun-2011	SL-017-SA5DN-SB-4.0-5.0	6304859	N	METHOD	300.0	III
01-Jun-2011	SL-017-SA5DN-SB-4.0-5.0	6304859	N	METHOD	314.0	III
01-Jun-2011	SL-017-SA5DN-SB-4.0-5.0	6304859	N	METHOD	7471A	III
01-Jun-2011	SL-017-SA5DN-SB-7.0-8.0	6304860	N	3050B	6010B	III
01-Jun-2011	SL-017-SA5DN-SB-7.0-8.0	6304860	N	3050B	6020	III
01-Jun-2011	SL-017-SA5DN-SB-7.0-8.0	6304860	N	3060A	7199	III
01-Jun-2011	SL-017-SA5DN-SB-7.0-8.0	6304860	N	3550B	8082	III
01-Jun-2011	SL-017-SA5DN-SB-7.0-8.0	6304860	N	3550B	8270C	III
01-Jun-2011	SL-017-SA5DN-SB-7.0-8.0	6304860	N	3550B	8270C SIM	III
01-Jun-2011	SL-017-SA5DN-SB-7.0-8.0	6304860	N	METHOD	300.0	III
01-Jun-2011	SL-017-SA5DN-SB-7.0-8.0	6304860	N	METHOD	314.0	III
01-Jun-2011	SL-017-SA5DN-SB-7.0-8.0	6304860	N	METHOD	7471A	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5	6304840	N	3050B	6010B	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5	6304840	N	3050B	6020	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5	6304840	N	3060A	7199	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5	6304840	N	3546	1625C	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5	6304840	N	3550B	8015B	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5	6304840	N	3550B	8015M	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5	6304840	N	3550B	8081A	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5	6304840	N	3550B	8082	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5	6304840	N	3550B	8151A	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5	6304840	N	3550B	8270C	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5	6304840	N	3550B	8270C SIM	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5	6304840	N	8330	8330A	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5	6304840	N	METHOD	300.0	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5	6304840	N	METHOD	314.0	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5	6304840	N	METHOD	6850	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5	6304840	N	METHOD	7471A	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5	6304840	N	METHOD	8015B	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5	6304840	N	METHOD	8015M	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5	6304840	N	METHOD	8315A	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5	6304840	N	METHOD	9012B	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5DU	P304840D270904A	DUP	METHOD	9012B	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5MS	P304840R240010A	MS	8330	8330A	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5MS	P304840R242355A	MS	METHOD	8315A	III
01-Jun-2011	SL-105-SA5DN-SS-0.0-0.5MS	P304840R270905A	MS	METHOD	9012B	III
01-Jun-2011	SL-106-SA5DN-SS-0.0-0.5	6304841	N	3050B	6010B	III
01-Jun-2011	SL-106-SA5DN-SS-0.0-0.5	6304841	N	3050B	6020	III
01-Jun-2011	SL-106-SA5DN-SS-0.0-0.5	6304841	N	3060A	7199	III
01-Jun-2011	SL-106-SA5DN-SS-0.0-0.5	6304841	N	3546	1625C	III
01-Jun-2011	SL-106-SA5DN-SS-0.0-0.5	6304841	N	3550B	8015B	III
01-Jun-2011	SL-106-SA5DN-SS-0.0-0.5	6304841	N	3550B	8015M	III
01-Jun-2011	SL-106-SA5DN-SS-0.0-0.5	6304841	N	3550B	8081A	III
01-Jun-2011	SL-106-SA5DN-SS-0.0-0.5	6304841	N	3550B	8082	III
01-Jun-2011	SL-106-SA5DN-SS-0.0-0.5	6304841	N	3550B	8151A	III
01-Jun-2011	SL-106-SA5DN-SS-0.0-0.5	6304841	N	3550B	8270C	III
01-Jun-2011	SL-106-SA5DN-SS-0.0-0.5	6304841	N	3550B	8270C SIM	III
01-Jun-2011	SL-106-SA5DN-SS-0.0-0.5	6304841	N	8330	8330A	III



## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Jun-2011	SL-106-SA5DN-SS-0.0-0.5	6304841	N	METHOD	300.0	III
01-Jun-2011	SL-106-SA5DN-SS-0.0-0.5	6304841	N	METHOD	314.0	III
01-Jun-2011	SL-106-SA5DN-SS-0.0-0.5	6304841	N	METHOD	7471A	III
01-Jun-2011	SL-106-SA5DN-SS-0.0-0.5	6304841	N	METHOD	8015B	III
01-Jun-2011	SL-106-SA5DN-SS-0.0-0.5	6304841	N	METHOD	8015M	III
01-Jun-2011	SL-106-SA5DN-SS-0.0-0.5	6304841	N	METHOD	8315A	III
01-Jun-2011	SL-106-SA5DN-SS-0.0-0.5	6304841	N	METHOD	9012B	III
01-Jun-2011	SL-107-SA5DN-SS-0.0-0.5	6304842	N	3050B	6010B	III
01-Jun-2011	SL-107-SA5DN-SS-0.0-0.5	6304842	N	3050B	6020	III
01-Jun-2011	SL-107-SA5DN-SS-0.0-0.5	6304842	N	3060A	7199	III
01-Jun-2011	SL-107-SA5DN-SS-0.0-0.5	6304842	N	3546	1625C	III
01-Jun-2011	SL-107-SA5DN-SS-0.0-0.5	6304842	N	3550B	8015B	III
01-Jun-2011	SL-107-SA5DN-SS-0.0-0.5	6304842	N	3550B	8015M	III
01-Jun-2011	SL-107-SA5DN-SS-0.0-0.5	6304842	N	3550B	8081A	III
01-Jun-2011	SL-107-SA5DN-SS-0.0-0.5	6304842	N	3550B	8082	III
01-Jun-2011	SL-107-SA5DN-SS-0.0-0.5	6304842	N	3550B	8151A	III
01-Jun-2011	SL-107-SA5DN-SS-0.0-0.5	6304842	N	3550B	8270C	III
01-Jun-2011	SL-107-SA5DN-SS-0.0-0.5	6304842	N	3550B	8270C SIM	III
01-Jun-2011	SL-107-SA5DN-SS-0.0-0.5	6304842	N	8330	8330A	III
01-Jun-2011	SL-107-SA5DN-SS-0.0-0.5	6304842	N	METHOD	300.0	III
01-Jun-2011	SL-107-SA5DN-SS-0.0-0.5	6304842	N	METHOD	314.0	III
01-Jun-2011	SL-107-SA5DN-SS-0.0-0.5	6304842	N	METHOD	7471A	III
01-Jun-2011	SL-107-SA5DN-SS-0.0-0.5	6304842	N	METHOD	8015B	III
01-Jun-2011	SL-107-SA5DN-SS-0.0-0.5	6304842	N	METHOD	8015M	III
01-Jun-2011	SL-107-SA5DN-SS-0.0-0.5	6304842	N	METHOD	8315A	III
01-Jun-2011	SL-107-SA5DN-SS-0.0-0.5	6304842	N	METHOD	9012B	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

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Jun-2011	SL-107-SA5DN-SS-0.0-0.5MS	P304842R321130A	MS	METHOD	8015M	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5	6304843	N	3050B	6010B	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5	6304843	N	3050B	6020	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5	6304843	N	3060A	7199	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5	6304843	N	3550B	8081A	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5	6304843	N	3550B	8082	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5	6304843	N	3550B	8151A	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5	6304843	N	3550B	8270C	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5	6304843	N	3550B	8270C SIM	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5	6304843	N	METHOD	300.0	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5	6304843	N	METHOD	314.0	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5	6304843	N	METHOD	7471A	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5MS	6304844	MS	3050B	6010B	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5MS	6304844	MS	3050B	6020	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5MS	6304844	MS	3060A	7199	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5MS	6304844	MS	3550B	8081A	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5MS	6304844	MS	3550B	8082	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5MS	6304844	MS	3550B	8151A	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5MS	6304844	MS	3550B	8270C	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5MS	6304844	MS	3550B	8270C SIM	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5MS	6304844	MS	METHOD	300.0	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5MS	6304844	MS	METHOD	314.0	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5MS	6304844	MS	METHOD	7471A	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5DU	6304846	DUP	3050B	6010B	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5DU	6304846	DUP	3050B	6020	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5DU	6304846	DUP	3060A	7199	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

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5DU	6304846	DUP	METHOD	300.0	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5DU	6304846	DUP	METHOD	314.0	III
01-Jun-2011	SL-108-SA5DN-SS-0.0-0.5DU	6304846	DUP	METHOD	7471A	III
01-Jun-2011	TB-060111	6304863	TB	5030B	8015M	III
01-Jun-2011	TB-060111	6304863	TB	5030B	8260B	III
01-Jun-2011	TB-060111	6304863	TB	5030B	8260B SIM	III
01-Jun-2011	DUP-11-SA5DN-QC-060111	6304856	FD	3050B	6010B	III
01-Jun-2011	DUP-11-SA5DN-QC-060111	6304856	FD	3050B	6020	III
01-Jun-2011	DUP-11-SA5DN-QC-060111	6304856	FD	3060A	7199	III
01-Jun-2011	DUP-11-SA5DN-QC-060111	6304856	FD	3550B	8081A	III
01-Jun-2011	DUP-11-SA5DN-QC-060111	6304856	FD	3550B	8082	III
01-Jun-2011	DUP-11-SA5DN-QC-060111	6304856	FD	3550B	8151A	III
01-Jun-2011	DUP-11-SA5DN-QC-060111	6304856	FD	3550B	8270C	III
01-Jun-2011	DUP-11-SA5DN-QC-060111	6304856	FD	3550B	8270C SIM	III
01-Jun-2011	DUP-11-SA5DN-QC-060111	6304856	FD	METHOD	300.0	III
01-Jun-2011	DUP-11-SA5DN-QC-060111	6304856	FD	METHOD	314.0	III
01-Jun-2011	DUP-11-SA5DN-QC-060111	6304856	FD	METHOD	7471A	III
01-Jun-2011	SL-109-SA5DN-SS-0.0-0.5	6304847	N	3050B	6010B	III
01-Jun-2011	SL-109-SA5DN-SS-0.0-0.5	6304847	N	3050B	6020	III
01-Jun-2011	SL-109-SA5DN-SS-0.0-0.5	6304847	N	3060A	7199	III
01-Jun-2011	SL-109-SA5DN-SS-0.0-0.5	6304847	N	3546	1625C	III
01-Jun-2011	SL-109-SA5DN-SS-0.0-0.5	6304847	N	3550B	8015B	III
01-Jun-2011	SL-109-SA5DN-SS-0.0-0.5	6304847	N	3550B	8015M	III
01-Jun-2011	SL-109-SA5DN-SS-0.0-0.5	6304847	N	3550B	8081A	III
01-Jun-2011	SL-109-SA5DN-SS-0.0-0.5	6304847	N	3550B	8082	III
01-Jun-2011	SL-109-SA5DN-SS-0.0-0.5	6304847	N	3550B	8151A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Jun-2011	SL-109-SA5DN-SS-0.0-0.5	6304847	N	3550B	8270C	III
01-Jun-2011	SL-109-SA5DN-SS-0.0-0.5	6304847	N	3550B	8270C SIM	III
01-Jun-2011	SL-109-SA5DN-SS-0.0-0.5	6304847	N	8330	8330A	III
01-Jun-2011	SL-109-SA5DN-SS-0.0-0.5	6304847	N	METHOD	300.0	III
01-Jun-2011	SL-109-SA5DN-SS-0.0-0.5	6304847	N	METHOD	314.0	III
01-Jun-2011	SL-109-SA5DN-SS-0.0-0.5	6304847	N	METHOD	7471A	III
01-Jun-2011	SL-109-SA5DN-SS-0.0-0.5	6304847	N	METHOD	8015B	III
01-Jun-2011	SL-109-SA5DN-SS-0.0-0.5	6304847	N	METHOD	8015M	III
01-Jun-2011	SL-109-SA5DN-SS-0.0-0.5	6304847	N	METHOD	8315A	III
01-Jun-2011	SL-109-SA5DN-SS-0.0-0.5	6304847	N	METHOD	9012B	III
01-Jun-2011	SL-100-SA5DN-SS-0.0-0.5	6304839	N	3050B	6010B	III
01-Jun-2011	SL-100-SA5DN-SS-0.0-0.5	6304839	N	3050B	6020	III
01-Jun-2011	SL-100-SA5DN-SS-0.0-0.5	6304839	N	3060A	7199	III
01-Jun-2011	SL-100-SA5DN-SS-0.0-0.5	6304839	N	3546	1625C	III
01-Jun-2011	SL-100-SA5DN-SS-0.0-0.5	6304839	N	3550B	8081A	III
01-Jun-2011	SL-100-SA5DN-SS-0.0-0.5	6304839	N	3550B	8082	III
01-Jun-2011	SL-100-SA5DN-SS-0.0-0.5	6304839	N	3550B	8151A	III
01-Jun-2011	SL-100-SA5DN-SS-0.0-0.5	6304839	N	3550B	8270C	III
01-Jun-2011	SL-100-SA5DN-SS-0.0-0.5	6304839	N	3550B	8270C SIM	III
01-Jun-2011	SL-100-SA5DN-SS-0.0-0.5	6304839	N	METHOD	300.0	III
01-Jun-2011	SL-100-SA5DN-SS-0.0-0.5	6304839	N	METHOD	314.0	III
01-Jun-2011	SL-100-SA5DN-SS-0.0-0.5	6304839	N	METHOD	7471A	III
01-Jun-2011	SL-100-SA5DN-SS-0.0-0.5MS	P304839R261453	MS	3546	1625C	III
01-Jun-2011	SL-015-SA5DN-SB-4.0-5.0	6304857	N	3050B	6010B	III
01-Jun-2011	SL-015-SA5DN-SB-4.0-5.0	6304857	N	3050B	6020	III
01-Jun-2011	SL-015-SA5DN-SB-4.0-5.0	6304857	N	3060A	7199	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Jun-2011	SL-015-SA5DN-SB-4.0-5.0	6304857	N	3546	1625C	III
01-Jun-2011	SL-015-SA5DN-SB-4.0-5.0	6304857	N	3550B	8015B	III
01-Jun-2011	SL-015-SA5DN-SB-4.0-5.0	6304857	N	3550B	8015M	III
01-Jun-2011	SL-015-SA5DN-SB-4.0-5.0	6304857	N	3550B	8082	III
01-Jun-2011	SL-015-SA5DN-SB-4.0-5.0	6304857	N	3550B	8270C	III
01-Jun-2011	SL-015-SA5DN-SB-4.0-5.0	6304857	N	3550B	8270C SIM	III
01-Jun-2011	SL-015-SA5DN-SB-4.0-5.0	6304857	N	5035	8015M	III
01-Jun-2011	SL-015-SA5DN-SB-4.0-5.0	6304857	N	5035	8260B	III
01-Jun-2011	SL-015-SA5DN-SB-4.0-5.0	6304857	N	5035	8260B SIM	III
01-Jun-2011	SL-015-SA5DN-SB-4.0-5.0	6304857	N	8330	8330A	III
01-Jun-2011	SL-015-SA5DN-SB-4.0-5.0	6304857	N	METHOD	300.0	III
01-Jun-2011	SL-015-SA5DN-SB-4.0-5.0	6304857	N	METHOD	314.0	III
01-Jun-2011	SL-015-SA5DN-SB-4.0-5.0	6304857	N	METHOD	7471A	III
01-Jun-2011	SL-015-SA5DN-SB-4.0-5.0	6304857	N	METHOD	8015B	III
01-Jun-2011	SL-015-SA5DN-SB-4.0-5.0	6304857	N	METHOD	8015M	III
01-Jun-2011	SL-015-SA5DN-SB-4.0-5.0	6304857	N	METHOD	8315A	III
01-Jun-2011	SL-015-SA5DN-SB-4.0-5.0	6304857	N	METHOD	9012B	III
01-Jun-2011	SL-148-SA5DN-SS-0.0-0.5	6304855	N	3050B	6010B	III
01-Jun-2011	SL-148-SA5DN-SS-0.0-0.5	6304855	N	3050B	6020	III
01-Jun-2011	SL-148-SA5DN-SS-0.0-0.5	6304855	N	3060A	7199	III
01-Jun-2011	SL-148-SA5DN-SS-0.0-0.5	6304855	N	3550B	8081A	III
01-Jun-2011	SL-148-SA5DN-SS-0.0-0.5	6304855	N	3550B	8082	III
01-Jun-2011	SL-148-SA5DN-SS-0.0-0.5	6304855	N	3550B	8151A	III
01-Jun-2011	SL-148-SA5DN-SS-0.0-0.5	6304855	N	3550B	8270C	III
01-Jun-2011	SL-148-SA5DN-SS-0.0-0.5	6304855	N	3550B	8270C SIM	III
01-Jun-2011	SL-148-SA5DN-SS-0.0-0.5	6304855	N	METHOD	300.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Jun-2011	SL-148-SA5DN-SS-0.0-0.5	6304855	N	METHOD	314.0	III
01-Jun-2011	SL-148-SA5DN-SS-0.0-0.5	6304855	N	METHOD	6850	III
01-Jun-2011	SL-148-SA5DN-SS-0.0-0.5	6304855	N	METHOD	7471A	III
01-Jun-2011	SL-148-SA5DN-SS-0.0-0.5DU	P304855D271253A	DUP	METHOD	314.0	III
01-Jun-2011	SL-148-SA5DN-SS-0.0-0.5MS	P304855R271317A	MS	METHOD	314.0	III
01-Jun-2011	SL-015-SA5DN-SB-12.0-13.0	6304858	N	3050B	6010B	III
01-Jun-2011	SL-015-SA5DN-SB-12.0-13.0	6304858	N	3050B	6020	III
01-Jun-2011	SL-015-SA5DN-SB-12.0-13.0	6304858	N	3060A	7199	III
01-Jun-2011	SL-015-SA5DN-SB-12.0-13.0	6304858	N	3546	1625C	III
01-Jun-2011	SL-015-SA5DN-SB-12.0-13.0	6304858	N	3550B	8015B	III
01-Jun-2011	SL-015-SA5DN-SB-12.0-13.0	6304858	N	3550B	8015M	III
01-Jun-2011	SL-015-SA5DN-SB-12.0-13.0	6304858	N	3550B	8082	III
01-Jun-2011	SL-015-SA5DN-SB-12.0-13.0	6304858	N	3550B	8270C	III
01-Jun-2011	SL-015-SA5DN-SB-12.0-13.0	6304858	N	3550B	8270C SIM	III
01-Jun-2011	SL-015-SA5DN-SB-12.0-13.0	6304858	N	5035	8015M	III
01-Jun-2011	SL-015-SA5DN-SB-12.0-13.0	6304858	N	5035	8260B	III
01-Jun-2011	SL-015-SA5DN-SB-12.0-13.0	6304858	N	5035	8260B SIM	III
01-Jun-2011	SL-015-SA5DN-SB-12.0-13.0	6304858	N	8330	8330A	III
01-Jun-2011	SL-015-SA5DN-SB-12.0-13.0	6304858	N	METHOD	300.0	III
01-Jun-2011	SL-015-SA5DN-SB-12.0-13.0	6304858	N	METHOD	314.0	III
01-Jun-2011	SL-015-SA5DN-SB-12.0-13.0	6304858	N	METHOD	7471A	III
01-Jun-2011	SL-015-SA5DN-SB-12.0-13.0	6304858	N	METHOD	8015B	III
01-Jun-2011	SL-015-SA5DN-SB-12.0-13.0	6304858	N	METHOD	8015M	III
01-Jun-2011	SL-015-SA5DN-SB-12.0-13.0	6304858	N	METHOD	8315A	III
01-Jun-2011	SL-015-SA5DN-SB-12.0-13.0	6304858	N	METHOD	9012B	III

## **Attachment II**

### **Overall Data Qualification Summary**

## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

Sample ID: DUP-11-SA5DN-QC-060111

Collected: 6/1/2011 2:40:00 PM

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

Sample ID: SL-015-SA5DN-SB-12.0-13.0

Collected: 6/1/2011 3:54:00 PM

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		0.88	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	3.6		0.88	MDL	1.6	PQL	mg/Kg	J	Q

Sample ID: SL-015-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 3:45:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	10.8		0.93	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	2.2		0.93	MDL	1.7	PQL	mg/Kg	J	Q

Sample ID: SL-017-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 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	12.0		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-017-SA5DN-SB-7.0-8.0

Collected: 6/1/2011 12:39:00

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		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-018-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 11:16:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	7.6		0.89	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.9		0.89	MDL	1.7	PQL	mg/Kg	J	Q

Sample ID: SL-100-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 3:25:00 PM

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: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

10/20/2011 8:44:05 AM

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# Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

**Sample ID:** SL-105-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 1:35:00 PM

**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		0.85	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	2.1		0.85	MDL	1.6	PQL	mg/Kg	J	Q

**Sample ID:** SL-106-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 1:45:00 PM

**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		0.85	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.9		0.85	MDL	1.6	PQL	mg/Kg	J	Q

**Sample ID:** SL-107-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 2:10:00 PM

**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
Nitrate-NO3	2.3		0.84	MDL	1.6	PQL	mg/Kg	J	Q

**Sample ID:** SL-108-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 2:30:00 PM

**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

**Sample ID:** SL-109-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:10:00 PM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.1		0.87	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	3.8		0.87	MDL	1.6	PQL	mg/Kg	J	Q

**Sample ID:** SL-123-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 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	1.7		0.86	MDL	1.1	PQL	mg/Kg	J	Q

**Sample ID:** SL-124-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 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	2.3		0.87	MDL	1.1	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

Sample ID: SL-126-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 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	1.4		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-127-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 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
FLUORIDE	0.81	U	0.81	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-128-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 9:20:00 AM

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		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-129-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 8:50:00 AM

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		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-130-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 8:30:00 AM

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		0.84	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-148-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 3:50:00 PM

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		0.84	MDL	1.0	PQL	mg/Kg	J	Q

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: DUP-11-SA5DN-QC-060111

Collected: 6/1/2011 2:40:00 PM

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	9.83		0.377	MDL	5.24	PQL	mg/Kg	J	FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

10/20/2011 8:44:05 AM

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** DUP-11-SA5DN-QC-060111

**Collected:** 6/1/2011 2:40:00 PM

**Analysis Type:** REA4

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.05	J	0.332	MDL	10.4	PQL	mg/Kg	U	B

**Sample ID:** DUP-11-SA5DN-QC-060111

**Collected:** 6/1/2011 2:40:00 PM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	327		0.0817	MDL	0.524	PQL	mg/Kg	J	E
PHOSPHORUS	366		0.587	MDL	10.5	PQL	mg/Kg	J	Q
SODIUM	87.2	J	39.1	MDL	105	PQL	mg/Kg	J	Z
Zirconium	2.74	J	0.880	MDL	5.24	PQL	mg/Kg	J	Z

**Sample ID:** SL-015-SA5DN-SB-12.0-13.0

**Collected:** 6/1/2011 3:54:00 PM

**Analysis Type:** REA4

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.20	J	0.337	MDL	10.5	PQL	mg/Kg	U	B

**Sample ID:** SL-015-SA5DN-SB-12.0-13.0

**Collected:** 6/1/2011 3:54:00 PM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	301		0.0822	MDL	0.527	PQL	mg/Kg	J	E
PHOSPHORUS	355		0.590	MDL	10.5	PQL	mg/Kg	J	Q
Zirconium	1.65	J	0.886	MDL	5.27	PQL	mg/Kg	J	Z

**Sample ID:** SL-015-SA5DN-SB-4.0-5.0

**Collected:** 6/1/2011 3:45:00 PM

**Analysis Type:** REA4

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.07	J	0.362	MDL	11.3	PQL	mg/Kg	U	B

**Sample ID:** SL-015-SA5DN-SB-4.0-5.0

**Collected:** 6/1/2011 3:45:00 PM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	338		0.0865	MDL	0.554	PQL	mg/Kg	J	E
PHOSPHORUS	317		0.621	MDL	11.1	PQL	mg/Kg	J	Q
Zirconium	2.89	J	0.931	MDL	5.54	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: SL-017-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 12:35:00

Analysis Type: REA4

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.44	J	0.362	MDL	11.3	PQL	mg/Kg	U	B

Sample ID: SL-017-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 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
MANGANESE	510		0.0901	MDL	0.577	PQL	mg/Kg	J	E
PHOSPHORUS	174		0.647	MDL	11.5	PQL	mg/Kg	J	Q
Zirconium	2.19	J	0.970	MDL	5.77	PQL	mg/Kg	J	Z

Sample ID: SL-017-SA5DN-SB-7.0-8.0

Collected: 6/1/2011 12:39:00

Analysis Type: REA4

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.98	J	0.353	MDL	11.0	PQL	mg/Kg	U	B

Sample ID: SL-017-SA5DN-SB-7.0-8.0

Collected: 6/1/2011 12:39:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	509		0.0862	MDL	0.552	PQL	mg/Kg	J	E
PHOSPHORUS	697		0.619	MDL	11.0	PQL	mg/Kg	J	Q
Zirconium	2.90	J	0.928	MDL	5.52	PQL	mg/Kg	J	Z

Sample ID: SL-018-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 11:16:00

Analysis Type: REA4

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.34	J	0.351	MDL	11.0	PQL	mg/Kg	U	B

Sample ID: SL-018-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 11:16:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	304		0.0831	MDL	0.533	PQL	mg/Kg	J	E
PHOSPHORUS	210		0.597	MDL	10.7	PQL	mg/Kg	J	Q
Zirconium	1.77	J	0.895	MDL	5.33	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: SL-100-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 3:25:00 PM

Analysis Type: REA4

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.28	J	0.337	MDL	10.5	PQL	mg/Kg	U	B

Sample ID: SL-100-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 3:25:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	473		0.0821	MDL	0.526	PQL	mg/Kg	J	E
PHOSPHORUS	347		0.589	MDL	10.5	PQL	mg/Kg	J	Q
SODIUM	90.6	J	39.2	MDL	105	PQL	mg/Kg	J	Z
Zirconium	4.40	J	0.884	MDL	5.26	PQL	mg/Kg	J	Z

Sample ID: SL-105-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 1:35:00 PM

Analysis Type: REA

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	1590		0.412	MDL	2.64	PQL	mg/Kg	J	E

Sample ID: SL-105-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 1:35:00 PM

Analysis Type: REA4

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.26	J	0.342	MDL	10.7	PQL	mg/Kg	U	B

Sample ID: SL-105-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 1:35:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	402		0.592	MDL	10.6	PQL	mg/Kg	J	Q
SODIUM	100	J	39.4	MDL	106	PQL	mg/Kg	J	Z
Zirconium	3.93	J	0.888	MDL	5.28	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 1:45:00 PM

Analysis Type: REA4

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.29	J	0.338	MDL	10.6	PQL	mg/Kg	U	B

Sample ID: SL-106-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 1:45:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	357		0.0824	MDL	0.528	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6010B

Matrix: SO

Sample ID: SL-106-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 1:45:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	339		0.592	MDL	10.6	PQL	mg/Kg	J	Q
SODIUM	88.6	J	39.4	MDL	106	PQL	mg/Kg	J	Z
Zirconium	3.55	J	0.888	MDL	5.28	PQL	mg/Kg	J	Z

Sample ID: SL-107-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 2:10:00 PM

Analysis Type: REA4

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.94	J	0.327	MDL	10.2	PQL	mg/Kg	U	B

Sample ID: SL-107-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 2:10:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	409		0.0783	MDL	0.502	PQL	mg/Kg	J	E
PHOSPHORUS	388		0.562	MDL	10.0	PQL	mg/Kg	J	Q
SODIUM	83.9	J	37.4	MDL	100	PQL	mg/Kg	J	Z
Zirconium	1.37	J	0.843	MDL	5.02	PQL	mg/Kg	J	Z

Sample ID: SL-108-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 2:30:00 PM

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.380	U	0.380	MDL	5.28	PQL	mg/Kg	UJ	FD

Sample ID: SL-108-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 2:30:00 PM

Analysis Type: REA4

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.00	J	0.328	MDL	10.3	PQL	mg/Kg	U	B

Sample ID: SL-108-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 2:30:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	387		0.0824	MDL	0.528	PQL	mg/Kg	J	E
PHOSPHORUS	408		0.591	MDL	10.6	PQL	mg/Kg	J	Q
SODIUM	103	J	39.4	MDL	106	PQL	mg/Kg	J	Z
Zirconium	3.89	J	0.887	MDL	5.28	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6010B

Matrix: SO

Sample ID: SL-109-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 3:10:00 PM

Analysis Type: REA4

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.09	J	0.341	MDL	10.7	PQL	mg/Kg	U	B

Sample ID: SL-109-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 3:10:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	393		0.0840	MDL	0.539	PQL	mg/Kg	J	E
PHOSPHORUS	407		0.603	MDL	10.8	PQL	mg/Kg	J	Q
Zirconium	4.85	J	0.905	MDL	5.39	PQL	mg/Kg	J	Z

Sample ID: SL-123-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 10:20:00

Analysis Type: REA4

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.12	J	0.341	MDL	10.7	PQL	mg/Kg	U	B

Sample ID: SL-123-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 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
MANGANESE	368		0.0800	MDL	0.513	PQL	mg/Kg	J	E
PHOSPHORUS	310		0.575	MDL	10.3	PQL	mg/Kg	J	Q
SODIUM	86.2	J	38.3	MDL	103	PQL	mg/Kg	J	Z
Zirconium	3.19	J	0.862	MDL	5.13	PQL	mg/Kg	J	Z

Sample ID: SL-124-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 10:45:00

Analysis Type: REA4

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.50	J	0.344	MDL	10.8	PQL	mg/Kg	U	B

Sample ID: SL-124-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 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
MANGANESE	263		0.0822	MDL	0.527	PQL	mg/Kg	J	E
PHOSPHORUS	367		0.590	MDL	10.5	PQL	mg/Kg	J	Q
SODIUM	86.0	J	39.3	MDL	105	PQL	mg/Kg	J	Z
Zirconium	3.57	J	0.885	MDL	5.27	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** SL-126-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 11:15:00

**Analysis Type:** REA4

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.26	J	0.337	MDL	10.5	PQL	mg/Kg	U	B

**Sample ID:** SL-126-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 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
MANGANESE	247		0.0837	MDL	0.536	PQL	mg/Kg	J	E
PHOSPHORUS	422		0.601	MDL	10.7	PQL	mg/Kg	J	Q
SODIUM	82.5	J	40.0	MDL	107	PQL	mg/Kg	J	Z
Zirconium	2.73	J	0.901	MDL	5.36	PQL	mg/Kg	J	Z

**Sample ID:** SL-127-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 11:35:00

**Analysis Type:** REA4

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.47	J	0.316	MDL	9.88	PQL	mg/Kg	U	B

**Sample ID:** SL-127-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 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
MANGANESE	223		0.0763	MDL	0.489	PQL	mg/Kg	J	E
PHOSPHORUS	266		0.548	MDL	9.78	PQL	mg/Kg	J	Q
Zirconium	0.949	J	0.822	MDL	4.89	PQL	mg/Kg	J	Z

**Sample ID:** SL-128-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 9:20:00 AM

**Analysis Type:** REA4

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.76	J	0.351	MDL	11.0	PQL	mg/Kg	U	B

**Sample ID:** SL-128-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 9:20:00 AM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	273		0.0854	MDL	0.548	PQL	mg/Kg	J	E
PHOSPHORUS	361		0.613	MDL	11.0	PQL	mg/Kg	J	Q
Zirconium	1.72	J	0.920	MDL	5.48	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** SL-129-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 8:50:00 AM

**Analysis Type:** REA4

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.06	J	0.336	MDL	10.5	PQL	mg/Kg	U	B

**Sample ID:** SL-129-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 8:50:00 AM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	292		0.0794	MDL	0.509	PQL	mg/Kg	J	E
PHOSPHORUS	433		0.570	MDL	10.2	PQL	mg/Kg	J	Q
SODIUM	81.9	J	38.0	MDL	102	PQL	mg/Kg	J	Z
Zirconium	2.60	J	0.856	MDL	5.09	PQL	mg/Kg	J	Z

**Sample ID:** SL-130-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 8:30:00 AM

**Analysis Type:** REA4

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.64	J	0.324	MDL	10.1	PQL	mg/Kg	U	B

**Sample ID:** SL-130-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 8:30:00 AM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	273		0.0814	MDL	0.522	PQL	mg/Kg	J	E
PHOSPHORUS	476		0.585	MDL	10.4	PQL	mg/Kg	J	Q
SODIUM	86.1	J	38.9	MDL	104	PQL	mg/Kg	J	Z
Zirconium	2.99	J	0.877	MDL	5.22	PQL	mg/Kg	J	Z

**Sample ID:** SL-148-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:50:00 PM

**Analysis Type:** REA4

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.03	J	0.332	MDL	10.4	PQL	mg/Kg	U	B

**Sample ID:** SL-148-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:50:00 PM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	346		0.0779	MDL	0.500	PQL	mg/Kg	J	E
PHOSPHORUS	379		0.560	MDL	9.99	PQL	mg/Kg	J	Q
SODIUM	66.5	J	37.3	MDL	99.9	PQL	mg/Kg	J	Z
Zirconium	2.99	J	0.839	MDL	5.00	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: DUP-11-SA5DN-QC-060111

Collected: 6/1/2011 2:40:00 PM

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.145	J	0.0415	MDL	0.415	PQL	mg/Kg	J	Z

Sample ID: DUP-11-SA5DN-QC-060111

Collected: 6/1/2011 2:40:00 PM

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.692		0.0519	MDL	0.104	PQL	mg/Kg	J	Q, E, E

Sample ID: DUP-11-SA5DN-QC-060111

Collected: 6/1/2011 2:40:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	142		0.112	MDL	0.415	PQL	mg/Kg	J	E

Sample ID: DUP-11-SA5DN-QC-060111

Collected: 6/1/2011 2:40:00 PM

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	0.0622	MDL	0.207	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.89		0.0830	MDL	0.415	PQL	mg/Kg	J	Q
BERYLLIUM	0.788		0.0166	MDL	0.104	PQL	mg/Kg	J	Q
CADMIUM	0.384		0.0415	MDL	0.104	PQL	mg/Kg	J	Q, E
CHROMIUM	29.6		0.124	MDL	0.415	PQL	mg/Kg	J	Q, Q, E
COBALT	9.46		0.0207	MDL	0.104	PQL	mg/Kg	J	Q, E
COPPER	17.0		0.0685	MDL	0.415	PQL	mg/Kg	J	Q
NICKEL	21.9		0.104	MDL	0.415	PQL	mg/Kg	J	Q, E
SILVER	0.0667	J	0.0124	MDL	0.104	PQL	mg/Kg	J	Z, Q, FD
THALLIUM	0.328		0.0311	MDL	0.104	PQL	mg/Kg	J	Q
VANADIUM	52.4		0.0228	MDL	0.104	PQL	mg/Kg	J	A

Sample ID: SL-015-SA5DN-SB-12.0-13.0

Collected: 6/1/2011 3:54:00 PM

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0728	J	0.0430	MDL	0.430	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-015-SA5DN-SB-12.0-13.0

Collected: 6/1/2011 3:54:00 PM

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.561		0.0537	MDL	0.107	PQL	mg/Kg	J	Q, E, E

Sample ID: SL-015-SA5DN-SB-12.0-13.0

Collected: 6/1/2011 3:54:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	101		0.116	MDL	0.430	PQL	mg/Kg	J	E

Sample ID: SL-015-SA5DN-SB-12.0-13.0

Collected: 6/1/2011 3:54:00 PM

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.103	J	0.0645	MDL	0.215	PQL	mg/Kg	J	Z, Q, E
ARSENIC	9.06		0.0860	MDL	0.430	PQL	mg/Kg	J	Q
BERYLLIUM	0.878		0.0172	MDL	0.107	PQL	mg/Kg	J	Q
CADMIUM	0.162		0.0430	MDL	0.107	PQL	mg/Kg	J	Q, E
CHROMIUM	30.8		0.129	MDL	0.430	PQL	mg/Kg	J	Q, Q, E
COBALT	7.83		0.0215	MDL	0.107	PQL	mg/Kg	J	Q, E
COPPER	18.2		0.0709	MDL	0.430	PQL	mg/Kg	J	Q
NICKEL	21.5		0.107	MDL	0.430	PQL	mg/Kg	J	Q, E
SILVER	0.0503	J	0.0129	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.398		0.0322	MDL	0.107	PQL	mg/Kg	J	Q
VANADIUM	58.0		0.0236	MDL	0.107	PQL	mg/Kg	J	A

Sample ID: SL-015-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 3:45:00 PM

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0901	J	0.0448	MDL	0.448	PQL	mg/Kg	J	Z

Sample ID: SL-015-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 3:45:00 PM

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.326		0.0560	MDL	0.112	PQL	mg/Kg	J	Q, E, E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-015-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 3:45:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	175		0.121	MDL	0.448	PQL	mg/Kg	J	E

Sample ID: SL-015-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 3:45:00 PM

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.103	J	0.0672	MDL	0.224	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.64		0.0895	MDL	0.448	PQL	mg/Kg	J	Q
BERYLLIUM	1.06		0.0179	MDL	0.112	PQL	mg/Kg	J	Q
CADMIUM	0.281		0.0448	MDL	0.112	PQL	mg/Kg	J	Q, E
CHROMIUM	32.8		0.134	MDL	0.448	PQL	mg/Kg	J	Q, Q, E
COBALT	12.5		0.0224	MDL	0.112	PQL	mg/Kg	J	Q, E
COPPER	17.1		0.0739	MDL	0.448	PQL	mg/Kg	J	Q
NICKEL	24.4		0.112	MDL	0.448	PQL	mg/Kg	J	Q, E
SILVER	0.0526	J	0.0134	MDL	0.112	PQL	mg/Kg	J	Z, Q
THALLIUM	0.372		0.0336	MDL	0.112	PQL	mg/Kg	J	Q
VANADIUM	59.3		0.0246	MDL	0.112	PQL	mg/Kg	J	A

Sample ID: SL-017-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 12:35:00

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0652	J	0.0453	MDL	0.453	PQL	mg/Kg	J	Z

Sample ID: SL-017-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 12:35:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.223		0.0566	MDL	0.113	PQL	mg/Kg	J	Q, E, E

Sample ID: SL-017-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 12:35:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	167		0.122	MDL	0.453	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-017-SA5DN-SB-4.0-5.0

**Collected:** 6/1/2011 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	0.130	J	0.0679	MDL	0.226	PQL	mg/Kg	J	Z, Q, E
ARSENIC	9.94		0.0906	MDL	0.453	PQL	mg/Kg	J	Q
BERYLLIUM	1.13		0.0181	MDL	0.113	PQL	mg/Kg	J	Q
CADMIUM	0.161		0.0453	MDL	0.113	PQL	mg/Kg	J	Q, E
CHROMIUM	33.8		0.136	MDL	0.453	PQL	mg/Kg	J	Q, Q, E
COBALT	9.19		0.0226	MDL	0.113	PQL	mg/Kg	J	Q, E
COPPER	16.2		0.0747	MDL	0.453	PQL	mg/Kg	J	Q
NICKEL	25.3		0.113	MDL	0.453	PQL	mg/Kg	J	Q, E
SILVER	0.0656	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z, Q
THALLIUM	0.468		0.0340	MDL	0.113	PQL	mg/Kg	J	Q
VANADIUM	64.0		0.0249	MDL	0.113	PQL	mg/Kg	J	A

**Sample ID:** SL-017-SA5DN-SB-7.0-8.0

**Collected:** 6/1/2011 12:39:00

**Analysis Type:** REA2

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.235	J	0.0451	MDL	0.451	PQL	mg/Kg	J	Z

**Sample ID:** SL-017-SA5DN-SB-7.0-8.0

**Collected:** 6/1/2011 12:39:00

**Analysis Type:** REA3

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.480		0.0563	MDL	0.113	PQL	mg/Kg	J	Q, E, E

**Sample ID:** SL-017-SA5DN-SB-7.0-8.0

**Collected:** 6/1/2011 12:39:00

**Analysis Type:** REA4

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	176		0.122	MDL	0.451	PQL	mg/Kg	J	E

**Sample ID:** SL-017-SA5DN-SB-7.0-8.0

**Collected:** 6/1/2011 12:39:00

**Analysis Type:** RES

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.113	J	0.0676	MDL	0.225	PQL	mg/Kg	J	Z, Q, E
ARSENIC	12.9		0.0901	MDL	0.451	PQL	mg/Kg	J	Q
BERYLLIUM	1.36		0.0180	MDL	0.113	PQL	mg/Kg	J	Q
CADMIUM	0.643		0.0451	MDL	0.113	PQL	mg/Kg	J	Q, E
CHROMIUM	62.4		0.135	MDL	0.451	PQL	mg/Kg	J	Q, Q, E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-017-SA5DN-SB-7.0-8.0

Collected: 6/1/2011 12:39:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	17.6		0.0225	MDL	0.113	PQL	mg/Kg	J	Q, E
COPPER	42.8		0.0743	MDL	0.451	PQL	mg/Kg	J	Q
NICKEL	44.0		0.113	MDL	0.451	PQL	mg/Kg	J	Q, E
SILVER	0.0164	J	0.0135	MDL	0.113	PQL	mg/Kg	J	Z, Q
THALLIUM	0.433		0.0338	MDL	0.113	PQL	mg/Kg	J	Q
VANADIUM	77.0		0.0248	MDL	0.113	PQL	mg/Kg	J	A

Sample ID: SL-018-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 11:16:00

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0608	J	0.0426	MDL	0.426	PQL	mg/Kg	J	Z

Sample ID: SL-018-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 11:16:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.444		0.0533	MDL	0.107	PQL	mg/Kg	J	Q, E, E

Sample ID: SL-018-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 11:16:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	173		0.115	MDL	0.426	PQL	mg/Kg	J	E

Sample ID: SL-018-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 11:16:00

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	0.0640	MDL	0.213	PQL	mg/Kg	J	Z, Q, E
ARSENIC	7.87		0.0853	MDL	0.426	PQL	mg/Kg	J	Q
BERYLLIUM	1.03		0.0171	MDL	0.107	PQL	mg/Kg	J	Q
CADMIUM	0.243		0.0426	MDL	0.107	PQL	mg/Kg	J	Q, E
CHROMIUM	35.5		0.128	MDL	0.426	PQL	mg/Kg	J	Q, Q, E
COBALT	16.2		0.0213	MDL	0.107	PQL	mg/Kg	J	Q, E
COPPER	18.0		0.0704	MDL	0.426	PQL	mg/Kg	J	Q
NICKEL	40.4		0.107	MDL	0.426	PQL	mg/Kg	J	Q, E
SILVER	0.0974	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.395		0.0320	MDL	0.107	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-018-SA5DN-SB-4.0-5.0

**Collected:** 6/1/2011 11:16:00

**Analysis Type:** RES

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	62.1		0.0235	MDL	0.107	PQL	mg/Kg	J	A

**Sample ID:** SL-100-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:25:00 PM

**Analysis Type:** REA2

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.194	J	0.0417	MDL	0.417	PQL	mg/Kg	J	Z

**Sample ID:** SL-100-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:25:00 PM

**Analysis Type:** REA3

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.744		0.0521	MDL	0.104	PQL	mg/Kg	J	Q, E, E

**Sample ID:** SL-100-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:25:00 PM

**Analysis Type:** REA4

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	159		0.113	MDL	0.417	PQL	mg/Kg	J	E

**Sample ID:** SL-100-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:25:00 PM

**Analysis Type:** RES

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.138	J	0.0625	MDL	0.208	PQL	mg/Kg	J	Z, Q, E
ARSENIC	7.08		0.0833	MDL	0.417	PQL	mg/Kg	J	Q
BERYLLIUM	0.857		0.0167	MDL	0.104	PQL	mg/Kg	J	Q
CADMIUM	0.495		0.0417	MDL	0.104	PQL	mg/Kg	J	Q, E
CHROMIUM	33.4		0.125	MDL	0.417	PQL	mg/Kg	J	Q, Q, E
COBALT	10.9		0.0208	MDL	0.104	PQL	mg/Kg	J	Q, E
COPPER	18.9		0.0688	MDL	0.417	PQL	mg/Kg	J	Q
NICKEL	25.4		0.104	MDL	0.417	PQL	mg/Kg	J	Q, E
SILVER	0.0597	J	0.0125	MDL	0.104	PQL	mg/Kg	J	Z, Q
THALLIUM	0.403		0.0313	MDL	0.104	PQL	mg/Kg	J	Q
VANADIUM	56.6		0.0229	MDL	0.104	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-105-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 1:35:00 PM

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.216	J	0.0414	MDL	0.414	PQL	mg/Kg	J	Z

Sample ID: SL-105-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 1:35:00 PM

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.11		0.0518	MDL	0.104	PQL	mg/Kg	J	Q, E, E

Sample ID: SL-105-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 1:35:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	125		0.112	MDL	0.414	PQL	mg/Kg	J	E

Sample ID: SL-105-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 1:35:00 PM

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.220		0.0622	MDL	0.207	PQL	mg/Kg	J	Q, E
ARSENIC	8.88		0.0829	MDL	0.414	PQL	mg/Kg	J	Q
BERYLLIUM	1.04		0.0166	MDL	0.104	PQL	mg/Kg	J	Q
CADMIUM	0.684		0.0414	MDL	0.104	PQL	mg/Kg	J	Q, E
CHROMIUM	44.0		0.124	MDL	0.414	PQL	mg/Kg	J	Q, Q, E
COBALT	15.0		0.0207	MDL	0.104	PQL	mg/Kg	J	Q, E
COPPER	26.5		0.0684	MDL	0.414	PQL	mg/Kg	J	Q
NICKEL	34.6		0.104	MDL	0.414	PQL	mg/Kg	J	Q, E
SILVER	0.0903	J	0.0124	MDL	0.104	PQL	mg/Kg	J	Z, Q
THALLIUM	0.521		0.0311	MDL	0.104	PQL	mg/Kg	J	Q
VANADIUM	73.9		0.0228	MDL	0.104	PQL	mg/Kg	J	A

Sample ID: SL-106-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 1:45:00 PM

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.172	J	0.0407	MDL	0.407	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-106-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 1:45:00 PM

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.656		0.0508	MDL	0.102	PQL	mg/Kg	J	Q, E, E

Sample ID: SL-106-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 1:45:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	163		0.110	MDL	0.407	PQL	mg/Kg	J	E

Sample ID: SL-106-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 1:45:00 PM

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.208		0.0610	MDL	0.203	PQL	mg/Kg	J	Q, E
ARSENIC	6.65		0.0813	MDL	0.407	PQL	mg/Kg	J	Q
BERYLLIUM	0.824		0.0163	MDL	0.102	PQL	mg/Kg	J	Q
CADMIUM	0.471		0.0407	MDL	0.102	PQL	mg/Kg	J	Q, E
CHROMIUM	31.8		0.122	MDL	0.407	PQL	mg/Kg	J	Q, Q, E
COBALT	10.4		0.0203	MDL	0.102	PQL	mg/Kg	J	Q, E
COPPER	18.0		0.0671	MDL	0.407	PQL	mg/Kg	J	Q
NICKEL	23.6		0.102	MDL	0.407	PQL	mg/Kg	J	Q, E
SILVER	0.0621	J	0.0122	MDL	0.102	PQL	mg/Kg	J	Z, Q
THALLIUM	0.409		0.0305	MDL	0.102	PQL	mg/Kg	J	Q
VANADIUM	56.6		0.0224	MDL	0.102	PQL	mg/Kg	J	A

Sample ID: SL-107-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 2:10:00 PM

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.130	J	0.0409	MDL	0.409	PQL	mg/Kg	J	Z

Sample ID: SL-107-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 2:10:00 PM

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.591		0.0512	MDL	0.102	PQL	mg/Kg	J	Q, E, E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-107-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 2:10:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	141		0.111	MDL	0.409	PQL	mg/Kg	J	E

Sample ID: SL-107-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 2:10:00 PM

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.146	J	0.0614	MDL	0.205	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.54		0.0819	MDL	0.409	PQL	mg/Kg	J	Q
BERYLLIUM	0.741		0.0164	MDL	0.102	PQL	mg/Kg	J	Q
CADMIUM	0.388		0.0409	MDL	0.102	PQL	mg/Kg	J	Q, E
CHROMIUM	26.0		0.123	MDL	0.409	PQL	mg/Kg	J	Q, Q, E
COBALT	9.10		0.0205	MDL	0.102	PQL	mg/Kg	J	Q, E
COPPER	14.3		0.0675	MDL	0.409	PQL	mg/Kg	J	Q
NICKEL	18.7		0.102	MDL	0.409	PQL	mg/Kg	J	Q, E
SILVER	0.0538	J	0.0123	MDL	0.102	PQL	mg/Kg	J	Z, Q
THALLIUM	0.361		0.0307	MDL	0.102	PQL	mg/Kg	J	Q
VANADIUM	48.0		0.0225	MDL	0.102	PQL	mg/Kg	J	A

Sample ID: SL-108-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 2:30:00 PM

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.164	J	0.0418	MDL	0.418	PQL	mg/Kg	J	Z

Sample ID: SL-108-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 2:30:00 PM

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.809		0.0523	MDL	0.105	PQL	mg/Kg	J	Q, E, E

Sample ID: SL-108-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 2:30:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	151		0.113	MDL	0.418	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-108-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 2:30:00 PM

**Analysis Type:** RES

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.157	J	0.0627	MDL	0.209	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.41		0.0836	MDL	0.418	PQL	mg/Kg	J	Q
BERYLLIUM	0.796		0.0167	MDL	0.105	PQL	mg/Kg	J	Q
CADMIUM	0.435		0.0418	MDL	0.105	PQL	mg/Kg	J	Q, E
CHROMIUM	33.6		0.125	MDL	0.418	PQL	mg/Kg	J	Q, Q, E
COBALT	9.66		0.0209	MDL	0.105	PQL	mg/Kg	J	Q, E
COPPER	17.9		0.0690	MDL	0.418	PQL	mg/Kg	J	Q
NICKEL	25.1		0.105	MDL	0.418	PQL	mg/Kg	J	Q, E
SILVER	0.151		0.0125	MDL	0.105	PQL	mg/Kg	J	Q, FD
THALLIUM	0.356		0.0314	MDL	0.105	PQL	mg/Kg	J	Q
VANADIUM	50.3		0.0230	MDL	0.105	PQL	mg/Kg	J	A

**Sample ID:** SL-109-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:10:00 PM

**Analysis Type:** REA2

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.201	J	0.0431	MDL	0.431	PQL	mg/Kg	J	Z

**Sample ID:** SL-109-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:10:00 PM

**Analysis Type:** REA3

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.803		0.0539	MDL	0.108	PQL	mg/Kg	J	Q, E, E

**Sample ID:** SL-109-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:10:00 PM

**Analysis Type:** REA4

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	189		0.116	MDL	0.431	PQL	mg/Kg	J	E

**Sample ID:** SL-109-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:10:00 PM

**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		0.0646	MDL	0.215	PQL	mg/Kg	J	Q, E
ARSENIC	7.67		0.0862	MDL	0.431	PQL	mg/Kg	J	Q
BERYLLIUM	0.951		0.0172	MDL	0.108	PQL	mg/Kg	J	Q
CADMIUM	0.604		0.0431	MDL	0.108	PQL	mg/Kg	J	Q, E
CHROMIUM	37.1		0.129	MDL	0.431	PQL	mg/Kg	J	Q, Q, E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-109-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:10:00 PM

**Analysis Type:** RES

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	13.1		0.0215	MDL	0.108	PQL	mg/Kg	J	Q, E
COPPER	23.4		0.0711	MDL	0.431	PQL	mg/Kg	J	Q
NICKEL	30.0		0.108	MDL	0.431	PQL	mg/Kg	J	Q, E
SILVER	0.0663	J	0.0129	MDL	0.108	PQL	mg/Kg	J	Z, Q
THALLIUM	0.427		0.0323	MDL	0.108	PQL	mg/Kg	J	Q
VANADIUM	64.0		0.0237	MDL	0.108	PQL	mg/Kg	J	A

**Sample ID:** SL-123-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 10:20:00

**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	0.0414	MDL	0.414	PQL	mg/Kg	J	Z

**Sample ID:** SL-123-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 10:20:00

**Analysis Type:** REA3

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.774		0.0518	MDL	0.104	PQL	mg/Kg	J	Q, E, E

**Sample ID:** SL-123-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 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
BARIUM	169		0.112	MDL	0.414	PQL	mg/Kg	J	E

**Sample ID:** SL-123-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 10:20:00

**Analysis Type:** RES

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.167	J	0.0622	MDL	0.207	PQL	mg/Kg	J	Z, Q, E
ARSENIC	7.17		0.0829	MDL	0.414	PQL	mg/Kg	J	Q
BERYLLIUM	0.896		0.0166	MDL	0.104	PQL	mg/Kg	J	Q
CADMIUM	0.553		0.0414	MDL	0.104	PQL	mg/Kg	J	Q, E
CHROMIUM	34.7		0.124	MDL	0.414	PQL	mg/Kg	J	Q, Q, E
COBALT	11.5		0.0207	MDL	0.104	PQL	mg/Kg	J	Q, E
COPPER	20.9		0.0684	MDL	0.414	PQL	mg/Kg	J	Q
NICKEL	25.1		0.104	MDL	0.414	PQL	mg/Kg	J	Q, E
SILVER	0.0660	J	0.0124	MDL	0.104	PQL	mg/Kg	J	Z, Q
THALLIUM	0.426		0.0311	MDL	0.104	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-123-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 10:20:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	60.3		0.0228	MDL	0.104	PQL	mg/Kg	J	A

Sample ID: SL-124-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 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
SELENIUM	0.379	J	0.0434	MDL	0.434	PQL	mg/Kg	J	Z

Sample ID: SL-124-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 10:45:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.17		0.0543	MDL	0.109	PQL	mg/Kg	J	Q, E, E

Sample ID: SL-124-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 10:45:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	153		0.117	MDL	0.434	PQL	mg/Kg	J	E

Sample ID: SL-124-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 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	0.172	J	0.0651	MDL	0.217	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.45		0.0869	MDL	0.434	PQL	mg/Kg	J	Q
BERYLLIUM	0.787		0.0174	MDL	0.109	PQL	mg/Kg	J	Q
CADMIUM	1.32		0.0434	MDL	0.109	PQL	mg/Kg	J	Q, E
CHROMIUM	30.7		0.130	MDL	0.434	PQL	mg/Kg	J	Q, Q, E
COBALT	9.68		0.0217	MDL	0.109	PQL	mg/Kg	J	Q, E
COPPER	27.7		0.0717	MDL	0.434	PQL	mg/Kg	J	Q
NICKEL	24.5		0.109	MDL	0.434	PQL	mg/Kg	J	Q, E
SILVER	0.148		0.0130	MDL	0.109	PQL	mg/Kg	J	Q
THALLIUM	0.433		0.0326	MDL	0.109	PQL	mg/Kg	J	Q
VANADIUM	52.4		0.0239	MDL	0.109	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-126-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 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
SELENIUM	0.399	J	0.0421	MDL	0.421	PQL	mg/Kg	J	Z

Sample ID: SL-126-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 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
MOLYBDENUM	0.872		0.0526	MDL	0.105	PQL	mg/Kg	J	Q, E, E

Sample ID: SL-126-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 11:15:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	143		0.114	MDL	0.421	PQL	mg/Kg	J	E

Sample ID: SL-126-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 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	0.161	J	0.0631	MDL	0.210	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.21		0.0842	MDL	0.421	PQL	mg/Kg	J	Q
BERYLLIUM	0.733		0.0168	MDL	0.105	PQL	mg/Kg	J	Q
CADMIUM	0.880		0.0421	MDL	0.105	PQL	mg/Kg	J	Q, E
CHROMIUM	27.0		0.126	MDL	0.421	PQL	mg/Kg	J	Q, Q, E
COBALT	8.27		0.0210	MDL	0.105	PQL	mg/Kg	J	Q, E
COPPER	36.5		0.0694	MDL	0.421	PQL	mg/Kg	J	Q
NICKEL	20.1		0.105	MDL	0.421	PQL	mg/Kg	J	Q, E
SILVER	0.0751	J	0.0126	MDL	0.105	PQL	mg/Kg	J	Z, Q
THALLIUM	0.357		0.0316	MDL	0.105	PQL	mg/Kg	J	Q
VANADIUM	47.9		0.0231	MDL	0.105	PQL	mg/Kg	J	A

Sample ID: SL-127-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 11:35:00

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.186	J	0.0403	MDL	0.403	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-127-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 11:35:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.618		0.0504	MDL	0.101	PQL	mg/Kg	J	Q, E, E

Sample ID: SL-127-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 11:35:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	118		0.109	MDL	0.403	PQL	mg/Kg	J	E

Sample ID: SL-127-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 11:35:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.148	J	0.0604	MDL	0.201	PQL	mg/Kg	J	Z, Q, E
ARSENIC	8.81		0.0806	MDL	0.403	PQL	mg/Kg	J	Q
BERYLLIUM	0.526		0.0161	MDL	0.101	PQL	mg/Kg	J	Q
CADMIUM	0.359		0.0403	MDL	0.101	PQL	mg/Kg	J	Q, E
CHROMIUM	23.2		0.121	MDL	0.403	PQL	mg/Kg	J	Q, Q, E
COBALT	7.81		0.0201	MDL	0.101	PQL	mg/Kg	J	Q, E
COPPER	14.9		0.0665	MDL	0.403	PQL	mg/Kg	J	Q
NICKEL	15.6		0.101	MDL	0.403	PQL	mg/Kg	J	Q, E
SILVER	0.0481	J	0.0121	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.238		0.0302	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	46.5		0.0222	MDL	0.101	PQL	mg/Kg	J	A

Sample ID: SL-128-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 9:20:00 AM

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.167	J	0.0443	MDL	0.443	PQL	mg/Kg	J	Z

Sample ID: SL-128-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 9:20:00 AM

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.544		0.0553	MDL	0.111	PQL	mg/Kg	J	Q, E, E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-128-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 9:20:00 AM

**Analysis Type:** REA4

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	193		0.119	MDL	0.443	PQL	mg/Kg	J	E

**Sample ID:** SL-128-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 9:20:00 AM

**Analysis Type:** RES

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0989	J	0.0664	MDL	0.221	PQL	mg/Kg	J	Z, Q, E
ARSENIC	4.97		0.0885	MDL	0.443	PQL	mg/Kg	J	Q
BERYLLIUM	0.712		0.0177	MDL	0.111	PQL	mg/Kg	J	Q
CADMIUM	0.153		0.0443	MDL	0.111	PQL	mg/Kg	J	Q, E
CHROMIUM	22.7		0.133	MDL	0.443	PQL	mg/Kg	J	Q, Q, E
COBALT	9.27		0.0221	MDL	0.111	PQL	mg/Kg	J	Q, E
COPPER	14.7		0.0730	MDL	0.443	PQL	mg/Kg	J	Q
NICKEL	15.8		0.111	MDL	0.443	PQL	mg/Kg	J	Q, E
SILVER	0.0611	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z, Q
THALLIUM	0.351		0.0332	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	49.7		0.0243	MDL	0.111	PQL	mg/Kg	J	A

**Sample ID:** SL-129-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 8:50:00 AM

**Analysis Type:** REA2

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.198	J	0.0428	MDL	0.428	PQL	mg/Kg	J	Z

**Sample ID:** SL-129-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 8:50:00 AM

**Analysis Type:** REA3

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.757		0.0535	MDL	0.107	PQL	mg/Kg	J	Q, E, E

**Sample ID:** SL-129-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 8:50:00 AM

**Analysis Type:** REA4

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	135		0.116	MDL	0.428	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-129-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 8:50:00 AM

**Analysis Type:** RES

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.128	J	0.0642	MDL	0.214	PQL	mg/Kg	J	Z, Q, E
ARSENIC	9.27		0.0856	MDL	0.428	PQL	mg/Kg	J	Q
BERYLLIUM	0.779		0.0171	MDL	0.107	PQL	mg/Kg	J	Q
CADMIUM	2.89		0.0428	MDL	0.107	PQL	mg/Kg	J	Q, E
CHROMIUM	29.5		0.128	MDL	0.428	PQL	mg/Kg	J	Q, Q, E
COBALT	8.26		0.0214	MDL	0.107	PQL	mg/Kg	J	Q, E
COPPER	21.7		0.0706	MDL	0.428	PQL	mg/Kg	J	Q
NICKEL	22.7		0.107	MDL	0.428	PQL	mg/Kg	J	Q, E
SILVER	0.851		0.0128	MDL	0.107	PQL	mg/Kg	J	Q
THALLIUM	0.361		0.0321	MDL	0.107	PQL	mg/Kg	J	Q
VANADIUM	48.1		0.0235	MDL	0.107	PQL	mg/Kg	J	A

**Sample ID:** SL-130-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 8:30:00 AM

**Analysis Type:** REA2

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.184	J	0.0401	MDL	0.401	PQL	mg/Kg	J	Z

**Sample ID:** SL-130-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 8:30:00 AM

**Analysis Type:** REA3

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.849		0.0502	MDL	0.100	PQL	mg/Kg	J	Q, E, E

**Sample ID:** SL-130-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 8:30:00 AM

**Analysis Type:** REA4

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	130		0.108	MDL	0.401	PQL	mg/Kg	J	E

**Sample ID:** SL-130-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 8:30:00 AM

**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	0.0602	MDL	0.201	PQL	mg/Kg	J	Z, Q, E
ARSENIC	12.5		0.0803	MDL	0.401	PQL	mg/Kg	J	Q
BERYLLIUM	0.718		0.0161	MDL	0.100	PQL	mg/Kg	J	Q
CADMIUM	0.763		0.0401	MDL	0.100	PQL	mg/Kg	J	Q, E
CHROMIUM	30.5		0.120	MDL	0.401	PQL	mg/Kg	J	Q, Q, E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-130-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 8:30:00 AM

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	8.32		0.0201	MDL	0.100	PQL	mg/Kg	J	Q, E
COPPER	17.1		0.0662	MDL	0.401	PQL	mg/Kg	J	Q
NICKEL	20.6		0.100	MDL	0.401	PQL	mg/Kg	J	Q, E
SILVER	0.0898	J	0.0120	MDL	0.100	PQL	mg/Kg	J	Z, Q
THALLIUM	0.350		0.0301	MDL	0.100	PQL	mg/Kg	J	Q
VANADIUM	46.8		0.0221	MDL	0.100	PQL	mg/Kg	J	A

Sample ID: SL-148-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 3:50:00 PM

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.157	J	0.0411	MDL	0.411	PQL	mg/Kg	J	Z

Sample ID: SL-148-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 3:50:00 PM

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.690		0.0514	MDL	0.103	PQL	mg/Kg	J	Q, E, E

Sample ID: SL-148-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 3:50:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	145		0.111	MDL	0.411	PQL	mg/Kg	J	E

Sample ID: SL-148-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 3:50:00 PM

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	0.0617	MDL	0.206	PQL	mg/Kg	J	Z, Q, E
ARSENIC	7.08		0.0823	MDL	0.411	PQL	mg/Kg	J	Q
BERYLLIUM	0.747		0.0165	MDL	0.103	PQL	mg/Kg	J	Q
CADMIUM	0.422		0.0411	MDL	0.103	PQL	mg/Kg	J	Q, E
CHROMIUM	29.8		0.123	MDL	0.411	PQL	mg/Kg	J	Q, Q, E
COBALT	9.83		0.0206	MDL	0.103	PQL	mg/Kg	J	Q, E
COPPER	16.2		0.0679	MDL	0.411	PQL	mg/Kg	J	Q
NICKEL	21.3		0.103	MDL	0.411	PQL	mg/Kg	J	Q, E
SILVER	0.0571	J	0.0123	MDL	0.103	PQL	mg/Kg	J	Z, Q
THALLIUM	0.367		0.0309	MDL	0.103	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-148-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 3:50:00 PM

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	51.7		0.0226	MDL	0.103	PQL	mg/Kg	J	A

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

Sample ID: DUP-11-SA5DN-QC-060111

Collected: 6/1/2011 2:40:00 PM

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-015-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 3:45:00 PM

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	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-017-SA5DN-SB-7.0-8.0

Collected: 6/1/2011 12:39:00

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	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-018-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 11:16:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.29	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-100-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 3:25:00 PM

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	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-105-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 1:35:00 PM

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	0.21	MDL	1.1	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

**Sample ID:** SL-106-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 1:45:00 PM

**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	0.21	MDL	1.1	PQL	mg/Kg	J	Z

**Sample ID:** SL-107-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 2:10:00 PM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.41	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

**Sample ID:** SL-108-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 2:30:00 PM

**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	0.21	MDL	1.1	PQL	mg/Kg	J	Z

**Sample ID:** SL-124-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 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
HEXAVALENT CHROMIUM	0.93	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

**Sample ID:** SL-126-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 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	0.34	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

**Sample ID:** SL-128-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 9:20:00 AM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.54	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

**Sample ID:** SL-130-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 8:30:00 AM

**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	1.0	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

Sample ID: DUP-11-SA5DN-QC-060111

Collected: 6/1/2011 2:40:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.427		0.0029	MDL	0.101	PQL	mg/Kg	J	E, Q

Sample ID: SL-015-SA5DN-SB-12.0-13.0

Collected: 6/1/2011 3:54:00 PM

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	0.0029	MDL	0.103	PQL	mg/Kg	J	Z, E, Q

Sample ID: SL-015-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 3:45:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0155	J	0.0033	MDL	0.115	PQL	mg/Kg	J	Z, E, Q

Sample ID: SL-017-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 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
MERCURY	0.0075	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z, E, Q

Sample ID: SL-017-SA5DN-SB-7.0-8.0

Collected: 6/1/2011 12:39:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0032	U	0.0032	MDL	0.113	PQL	mg/Kg	UJ	E, Q

Sample ID: SL-018-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 11:16:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0320	J	0.0030	MDL	0.104	PQL	mg/Kg	J	Z, E, Q

Sample ID: SL-100-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 3:25:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.120		0.0030	MDL	0.104	PQL	mg/Kg	J	E, Q

Sample ID: SL-105-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 1:35:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.321		0.0030	MDL	0.105	PQL	mg/Kg	J	E, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

**Sample ID:** SL-106-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 1:45:00 PM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.621		0.0030	MDL	0.106	PQL	mg/Kg	J	E, Q

**Sample ID:** SL-107-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 2:10:00 PM

**Analysis Type:** RES

**Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.896		0.0140	MDL	0.489	PQL	mg/Kg	J	E, Q

**Sample ID:** SL-108-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 2:30:00 PM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.653		0.0030	MDL	0.104	PQL	mg/Kg	J	E, Q

**Sample ID:** SL-109-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:10:00 PM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.378		0.0031	MDL	0.108	PQL	mg/Kg	J	E, Q

**Sample ID:** SL-123-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 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
MERCURY	0.0440	J	0.0030	MDL	0.106	PQL	mg/Kg	J	Z, E, Q

**Sample ID:** SL-124-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 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	0.317		0.0030	MDL	0.106	PQL	mg/Kg	J	E, Q

**Sample ID:** SL-126-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 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
MERCURY	0.134		0.0030	MDL	0.106	PQL	mg/Kg	J	E, Q

**Sample ID:** SL-127-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 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
MERCURY	0.0287	J	0.0028	MDL	0.0985	PQL	mg/Kg	J	Z, E, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

**Sample ID:** SL-128-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 9:20:00 AM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0907	J	0.0030	MDL	0.106	PQL	mg/Kg	J	Z, E, Q

**Sample ID:** SL-129-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 8:50:00 AM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0788	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z, E, Q

**Sample ID:** SL-130-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 8:30:00 AM

**Analysis Type:** RES

**Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	1.18		0.0138	MDL	0.483	PQL	mg/Kg	J	E, Q

**Sample ID:** SL-148-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:50:00 PM

**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	0.0029	MDL	0.103	PQL	mg/Kg	J	Z, E, Q

**Method Category:** SVOA

**Method:** 1625C

**Matrix:** SO

**Sample ID:** SL-015-SA5DN-SB-12.0-13.0

**Collected:** 6/1/2011 3:54:00 PM

**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	24.1	J	18.0	MDL	36.1	PQL	ng/Kg	J	Z

**Sample ID:** SL-018-SA5DN-SB-4.0-5.0

**Collected:** 6/1/2011 11:16:00

**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	30.8	J	18.4	MDL	36.8	PQL	ng/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>								
<b>Method:</b>	<b>6850</b>	<b>Matrix:</b>	<b>SO</b>						

Sample ID: SL-148-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 3:50:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE	3.3	J	2.2	MDL	5.2	PQL	ug/Kg	J	Z

<b>Method Category:</b>	<b>SVOA</b>								
<b>Method:</b>	<b>8015M</b>	<b>Matrix:</b>	<b>SO</b>						

Sample ID: SL-015-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 3:45:00 PM

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)	0.54	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-015-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 3:45:00 PM

Analysis Type: RES

Dilution: 23.36

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-106-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 1:45:00 PM

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)	4.3	J	2.1	MDL	6.4	PQL	mg/Kg	J	Z

Sample ID: SL-107-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 2:10:00 PM

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

Sample ID: SL-107-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 2:10:00 PM

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)	2.9	J	2.1	MDL	6.3	PQL	mg/Kg	J	Z

Sample ID: SL-109-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 3:10:00 PM

Analysis Type: REA2

Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	9.6	J	4.3	MDL	13	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8081A

Matrix: SO

Sample ID: DUP-11-SA5DN-QC-060111

Collected: 6/1/2011 2:40:00 PM

Analysis Type: DL-BASE/NEUTRAL

Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	3.5	J	0.70	MDL	3.6	PQL	ug/Kg	J	Z, L

Sample ID: DUP-11-SA5DN-QC-060111

Collected: 6/1/2011 2:40:00 PM

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	2.3	J	0.85	MDL	3.6	PQL	ug/Kg	J	Z, S

Sample ID: SL-100-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 3:25:00 PM

Analysis Type: DL-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	1.9		0.35	MDL	1.8	PQL	ug/Kg	J	L

Sample ID: SL-100-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 3:25:00 PM

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	0.070	U	0.070	MDL	0.36	PQL	ug/Kg	UJ	S
ALDRIN	0.070	U	0.070	MDL	0.18	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.036	U	0.036	MDL	0.18	PQL	ug/Kg	UJ	S
BETA-BHC	0.064	U	0.064	MDL	0.18	PQL	ug/Kg	UJ	S
Chlordane	2.2	J	0.85	MDL	3.6	PQL	ug/Kg	J	Z, S
DELTA-BHC	0.038	U	0.038	MDL	0.18	PQL	ug/Kg	UJ	S
DIELDRIN	0.33	U	0.33	MDL	0.36	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.047	U	0.047	MDL	0.18	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.070	U	0.070	MDL	0.36	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.070	U	0.070	MDL	0.36	PQL	ug/Kg	UJ	S
ENDRIN	0.34	U	0.34	MDL	0.36	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.11	U	0.11	MDL	0.36	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.070	U	0.070	MDL	0.36	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.036	U	0.036	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.064	U	0.064	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.12	U	0.12	MDL	0.18	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	S
MIREX	0.070	U	0.070	MDL	0.36	PQL	ug/Kg	UJ	S
TOXAPHENE	2.3	U	2.3	MDL	7.0	PQL	ug/Kg	UJ	S

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

**Sample ID:** SL-105-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 1:35:00 PM

**Analysis Type:** DL-BASE/NEUTRAL

**Dilution:** 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	3.8		0.70	MDL	3.6	PQL	ug/Kg	J	L

**Sample ID:** SL-105-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 1:35:00 PM

**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	1.5		0.070	MDL	0.36	PQL	ug/Kg	J	S
ALDRIN	0.070	U	0.070	MDL	0.18	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.036	U	0.036	MDL	0.18	PQL	ug/Kg	UJ	S
BETA-BHC	0.064	U	0.064	MDL	0.18	PQL	ug/Kg	UJ	S
Chlordane	2.8	J	0.85	MDL	3.6	PQL	ug/Kg	J	Z, S
DELTA-BHC	0.064	U	0.064	MDL	0.18	PQL	ug/Kg	UJ	S
DIELDRIN	0.47	U	0.47	MDL	0.47	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.047	U	0.047	MDL	0.18	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.22	U	0.22	MDL	0.36	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.070	U	0.070	MDL	0.36	PQL	ug/Kg	UJ	S
ENDRIN	0.070	U	0.070	MDL	0.36	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.22	U	0.22	MDL	0.36	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.070	U	0.070	MDL	0.36	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.036	U	0.036	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.064	U	0.064	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.22	U	0.22	MDL	0.22	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	S
MIREX	0.085	U	0.085	MDL	0.36	PQL	ug/Kg	UJ	S
TOXAPHENE	2.3	U	2.3	MDL	7.0	PQL	ug/Kg	UJ	S

**Sample ID:** SL-106-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 1:45:00 PM

**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	0.070	U	0.070	MDL	0.36	PQL	ug/Kg	UJ	S
4,4'-DDE	2.5		0.070	MDL	0.36	PQL	ug/Kg	J	S
4,4'-DDT	1.1		0.070	MDL	0.36	PQL	ug/Kg	J	L, S
ALDRIN	0.070	U	0.070	MDL	0.18	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.036	U	0.036	MDL	0.18	PQL	ug/Kg	UJ	S
BETA-BHC	0.064	U	0.064	MDL	0.18	PQL	ug/Kg	UJ	S
Chlordane	0.85	U	0.85	MDL	3.6	PQL	ug/Kg	UJ	S

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8081A

Matrix: SO

Sample ID: SL-106-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 1:45:00 PM

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	0.038	U	0.038	MDL	0.18	PQL	ug/Kg	UJ	S
DIELDIN	0.11	J	0.070	MDL	0.36	PQL	ug/Kg	J	Z, S
ENDOSULFAN I	0.047	U	0.047	MDL	0.18	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.070	U	0.070	MDL	0.36	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.070	U	0.070	MDL	0.36	PQL	ug/Kg	UJ	S
ENDRIN	0.099	J	0.070	MDL	0.36	PQL	ug/Kg	J	Z, L, S
ENDRIN ALDEHYDE	0.081	J	0.070	MDL	0.36	PQL	ug/Kg	J	Z, S
ENDRIN KETONE	0.11	J	0.070	MDL	0.36	PQL	ug/Kg	J	Z, S
gamma-BHC (Lindane)	0.036	U	0.036	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.064	U	0.064	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.036	U	0.036	MDL	0.18	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	S
MIREX	0.070	U	0.070	MDL	0.36	PQL	ug/Kg	UJ	S
TOXAPHENE	2.3	U	2.3	MDL	7.0	PQL	ug/Kg	UJ	S

Sample ID: SL-107-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 2:10:00 PM

Analysis Type: DL-BASE/NEUTRAL

Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	26		0.69	MDL	3.5	PQL	ug/Kg	J	L

Sample ID: SL-107-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 2:10:00 PM

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 KETONE	0.084	J	0.069	MDL	0.35	PQL	ug/Kg	J	Z
METHOXYCHLOR	0.49	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z, L

Sample ID: SL-108-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 2:30:00 PM

Analysis Type: DL-BASE/NEUTRAL

Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	4.1		0.70	MDL	3.6	PQL	ug/Kg	J	L

Sample ID: SL-108-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 2:30:00 PM

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALDRIN	0.070	U	0.070	MDL	0.18	PQL	ug/Kg	R	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

**Sample ID:** SL-108-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 2:30:00 PM

**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	0.063	U	0.063	MDL	0.18	PQL	ug/Kg	R	Q
Chlordane	3.3	J	0.84	MDL	3.6	PQL	ug/Kg	J	Z
DELTA-BHC	0.12	U	0.12	MDL	0.18	PQL	ug/Kg	R	Q
ENDOSULFAN II	0.070	U	0.070	MDL	0.36	PQL	ug/Kg	UJ	Q
ENDRIN KETONE	0.070	U	0.070	MDL	0.36	PQL	ug/Kg	UJ	Q

**Sample ID:** SL-109-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:10:00 PM

**Analysis Type:** DL-BASE/NEUTRAL

**Dilution:** 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	4.7		0.72	MDL	3.7	PQL	ug/Kg	J	L

**Sample ID:** SL-109-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:10:00 PM

**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	3.6	J	0.87	MDL	3.7	PQL	ug/Kg	J	Z

**Sample ID:** SL-123-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 10:20:00

**Analysis Type:** DL-BASE/NEUTRAL

**Dilution:** 20

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	12		1.4	MDL	7.3	PQL	ug/Kg	J	L

**Sample ID:** SL-123-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 10:20:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	3.2	J	0.86	MDL	3.7	PQL	ug/Kg	J	Z, S

**Sample ID:** SL-124-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 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'-DDD	0.072	U	0.072	MDL	0.37	PQL	ug/Kg	UJ	S
4,4'-DDE	0.76		0.072	MDL	0.37	PQL	ug/Kg	J	S
4,4'-DDT	0.44		0.072	MDL	0.37	PQL	ug/Kg	J	L, S
ALDRIN	0.072	U	0.072	MDL	0.18	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.037	U	0.037	MDL	0.18	PQL	ug/Kg	UJ	S
BETA-BHC	0.065	U	0.065	MDL	0.18	PQL	ug/Kg	UJ	S

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

**Sample ID:** SL-124-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 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
Chlordane	1.5	J	0.87	MDL	3.7	PQL	ug/Kg	J	Z, S
DELTA-BHC	0.087	U	0.087	MDL	0.18	PQL	ug/Kg	UJ	S
DIELDRIN	0.072	U	0.072	MDL	0.37	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.048	U	0.048	MDL	0.18	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.072	U	0.072	MDL	0.37	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.072	U	0.072	MDL	0.37	PQL	ug/Kg	UJ	S
ENDRIN	0.14	U	0.14	MDL	0.37	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.072	U	0.072	MDL	0.37	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.072	U	0.072	MDL	0.37	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.037	U	0.037	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.065	U	0.065	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.087	U	0.087	MDL	0.18	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.37	U	0.37	MDL	1.8	PQL	ug/Kg	UJ	S
MIREX	0.15	U	0.15	MDL	0.37	PQL	ug/Kg	UJ	S
TOXAPHENE	2.4	U	2.4	MDL	7.2	PQL	ug/Kg	UJ	S

**Sample ID:** SL-126-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 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
4,4'-DDD	0.071	U	0.071	MDL	0.36	PQL	ug/Kg	UJ	S
4,4'-DDT	1.5		0.071	MDL	0.36	PQL	ug/Kg	J	L, S
ALDRIN	0.071	U	0.071	MDL	0.18	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.036	U	0.036	MDL	0.18	PQL	ug/Kg	UJ	S
BETA-BHC	0.064	U	0.064	MDL	0.18	PQL	ug/Kg	UJ	S
Chlordane	4.2		0.86	MDL	3.6	PQL	ug/Kg	J	S
DELTA-BHC	0.20	U	0.20	MDL	0.20	PQL	ug/Kg	UJ	S
DIELDRIN	0.31	U	0.31	MDL	0.36	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.047	U	0.047	MDL	0.18	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.25	U	0.25	MDL	0.36	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.071	U	0.071	MDL	0.36	PQL	ug/Kg	UJ	S
ENDRIN	0.071	U	0.071	MDL	0.36	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.19	U	0.19	MDL	0.36	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.071	U	0.071	MDL	0.36	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.036	U	0.036	MDL	0.18	PQL	ug/Kg	UJ	S

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

**Sample ID:** SL-126-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 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
HEPTACHLOR	0.072	U	0.072	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.036	U	0.036	MDL	0.18	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	S
MIREX	0.11	U	0.11	MDL	0.36	PQL	ug/Kg	UJ	S
TOXAPHENE	2.4	U	2.4	MDL	7.1	PQL	ug/Kg	UJ	S

**Sample ID:** SL-127-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 11:35:00

**Analysis Type:** DL-BASE/NEUTRAL

**Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	2.0		0.34	MDL	1.7	PQL	ug/Kg	J	L

**Sample ID:** SL-128-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 9:20:00 AM

**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	0.089	U	0.089	MDL	0.38	PQL	ug/Kg	R	S
4,4'-DDE	0.074	U	0.074	MDL	0.38	PQL	ug/Kg	R	S
4,4'-DDT	0.074	U	0.074	MDL	0.38	PQL	ug/Kg	R	S
ALDRIN	0.074	U	0.074	MDL	0.19	PQL	ug/Kg	R	S
ALPHA-BHC	0.038	U	0.038	MDL	0.19	PQL	ug/Kg	R	S
BETA-BHC	0.067	U	0.067	MDL	0.19	PQL	ug/Kg	R	S
Chlordane	1.0	J	0.89	MDL	3.8	PQL	ug/Kg	J	Z, S
DELTA-BHC	0.040	U	0.040	MDL	0.19	PQL	ug/Kg	R	S
DIELDRIN	0.074	U	0.074	MDL	0.38	PQL	ug/Kg	R	S
ENDOSULFAN I	0.049	U	0.049	MDL	0.19	PQL	ug/Kg	R	S
ENDOSULFAN II	0.10	U	0.10	MDL	0.38	PQL	ug/Kg	R	S
ENDOSULFAN SULFATE	0.074	U	0.074	MDL	0.38	PQL	ug/Kg	R	S
ENDRIN	0.074	U	0.074	MDL	0.38	PQL	ug/Kg	R	S
ENDRIN ALDEHYDE	0.089	U	0.089	MDL	0.38	PQL	ug/Kg	R	S
ENDRIN KETONE	0.12	U	0.12	MDL	0.38	PQL	ug/Kg	R	S
gamma-BHC (Lindane)	0.038	U	0.038	MDL	0.19	PQL	ug/Kg	R	S
HEPTACHLOR	0.067	U	0.067	MDL	0.19	PQL	ug/Kg	R	S
HEPTACHLOR EPOXIDE	0.056	U	0.056	MDL	0.19	PQL	ug/Kg	R	S
METHOXYCHLOR	0.38	U	0.38	MDL	1.9	PQL	ug/Kg	R	S
MIREX	0.074	U	0.074	MDL	0.38	PQL	ug/Kg	R	S
TOXAPHENE	2.5	U	2.5	MDL	7.4	PQL	ug/Kg	R	S

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8081A

Matrix: SO

Sample ID: SL-129-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 8:50:00 AM

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	0.51		0.071	MDL	0.36	PQL	ug/Kg	J	S
Chlordane	3.3	J	0.86	MDL	3.6	PQL	ug/Kg	J	Z, S
DIELDRIN	0.40		0.071	MDL	0.36	PQL	ug/Kg	J	S
HEPTACHLOR	0.10	J	0.064	MDL	0.18	PQL	ug/Kg	J	Z, S

Sample ID: SL-130-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 8:30:00 AM

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	0.99		0.069	MDL	0.35	PQL	ug/Kg	J	S
4,4'-DDT	1.2		0.069	MDL	0.35	PQL	ug/Kg	J	L, S
Chlordane	2.2	J	0.84	MDL	3.5	PQL	ug/Kg	J	Z, S

Sample ID: SL-148-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 3:50:00 PM

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	0.57		0.069	MDL	0.36	PQL	ug/Kg	J	L

Method Category: SVOA

Method: 8082

Matrix: SO

Sample ID: DUP-11-SA5DN-QC-060111

Collected: 6/1/2011 2:40:00 PM

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	4.5	J	2.1	MDL	9.0	PQL	ug/Kg	J	Z
Aroclor 5460	5.3	U	5.3	MDL	17	PQL	ug/Kg	UJ	FD

Sample ID: SL-017-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 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	1.2	J	0.45	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-018-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 11:16:00

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	0.70	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8082

Matrix: SO

Sample ID: SL-108-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 2:30:00 PM

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	4.7	J	2.1	MDL	9.0	PQL	ug/Kg	J	Z
Aroclor 5460	6.3	J	5.3	MDL	17	PQL	ug/Kg	J	Z, FD

Sample ID: SL-109-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 3:10:00 PM

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	4.0	J	2.1	MDL	9.2	PQL	ug/Kg	J	Z

Sample ID: SL-123-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 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
Aroclor 5460	3.0	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z

Sample ID: SL-124-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 10:45:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	1.8	U	1.8	MDL	9.2	PQL	ug/Kg	R	S
AROCLOR 1221	1.8	U	1.8	MDL	9.2	PQL	ug/Kg	R	S
AROCLOR 1232	1.8	U	1.8	MDL	9.2	PQL	ug/Kg	R	S
AROCLOR 1242	1.8	U	1.8	MDL	9.2	PQL	ug/Kg	R	S
AROCLOR 1248	1.8	U	1.8	MDL	9.2	PQL	ug/Kg	R	S
AROCLOR 1254	1.8	U	1.8	MDL	9.2	PQL	ug/Kg	R	S
AROCLOR 1260	14		2.1	MDL	9.2	PQL	ug/Kg	J	S
Aroclor 1262	1.8	U	1.8	MDL	9.2	PQL	ug/Kg	R	S
Aroclor 1268	1.8	U	1.8	MDL	9.2	PQL	ug/Kg	R	S
Aroclor 5432	5.4	U	5.4	MDL	18	PQL	ug/Kg	R	S
Aroclor 5442	5.4	U	5.4	MDL	18	PQL	ug/Kg	R	S
Aroclor 5460	16	J	5.4	MDL	18	PQL	ug/Kg	J	Z, S

Sample ID: SL-126-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 11:15:00

Analysis Type: RES

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	13	J	5.4	MDL	18	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8082

**Matrix:** SO

**Sample ID:** SL-127-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 11:35:00

**Analysis Type:** RES

**Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	8.4	J	5.1	MDL	17	PQL	ug/Kg	J	Z

**Sample ID:** SL-148-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:50:00 PM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	2.9	J	1.0	MDL	3.5	PQL	ug/Kg	J	Z

**Method Category:** SVOA

**Method:** 8151A

**Matrix:** SO

**Sample ID:** DUP-11-SA5DN-QC-060111

**Collected:** 6/1/2011 2:40:00 PM

**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)	0.079	U	0.079	MDL	0.18	PQL	ug/Kg	UJ	FD
DICAMBA	0.42	U	0.42	MDL	1.3	PQL	ug/Kg	UJ	FD
MCPA	460		80	MDL	260	PQL	ug/Kg	J	FD

**Sample ID:** SL-106-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 1:45:00 PM

**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	0.080	MDL	0.18	PQL	ug/Kg	J	Z

**Sample ID:** SL-107-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 2:10:00 PM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICHLOROPROP	1.4	J	0.83	MDL	1.8	PQL	ug/Kg	J	Z

**Sample ID:** SL-108-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 2:30:00 PM

**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)	0.11	J	0.079	MDL	0.18	PQL	ug/Kg	J	Z, Q, FD
DICAMBA	0.56	J	0.42	MDL	1.3	PQL	ug/Kg	J	Z, FD
MCPA	820		80	MDL	260	PQL	ug/Kg	J	Q, FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8151A

**Matrix:** SO

**Sample ID:** SL-109-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:10:00 PM

**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)	0.12	J	0.081	MDL	0.18	PQL	ug/Kg	J	Z

**Sample ID:** SL-123-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 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
2,4,5-TP (Silvex)	0.17	J	0.081	MDL	0.18	PQL	ug/Kg	J	Z

**Sample ID:** SL-129-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 8:50:00 AM

**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)	0.10	J	0.080	MDL	0.18	PQL	ug/Kg	J	Z

**Sample ID:** SL-148-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:50:00 PM

**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)	0.12	J	0.078	MDL	0.18	PQL	ug/Kg	J	Z

**Method Category:** SVOA

**Method:** 8270C

**Matrix:** SO

**Sample ID:** DUP-11-SA5DN-QC-060111

**Collected:** 6/1/2011 2:40:00 PM

**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	35	J	17	MDL	350	PQL	ug/Kg	J	Z, L

**Sample ID:** SL-017-SA5DN-SB-7.0-8.0

**Collected:** 6/1/2011 12:39:00

**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	61	J	19	MDL	380	PQL	ug/Kg	J	Z, L

**Sample ID:** SL-100-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:25:00 PM

**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	21	J	18	MDL	180	PQL	ug/Kg	J	Z, L
BENZO(B)FLUORANTHENE	25	J	18	MDL	180	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C

**Matrix:** SO

**Sample ID:** SL-100-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:25:00 PM

**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	150	J	18	MDL	350	PQL	ug/Kg	J	Z, L
CHRYSENE	19	J	18	MDL	180	PQL	ug/Kg	J	Z, L
FLUORANTHENE	34	J	18	MDL	180	PQL	ug/Kg	J	Z, L
PYRENE	36	J	18	MDL	180	PQL	ug/Kg	J	Z, L

**Sample ID:** SL-105-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 1:35:00 PM

**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	34	J	18	MDL	350	PQL	ug/Kg	J	Z, L

**Sample ID:** SL-106-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 1:45:00 PM

**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	68	J	18	MDL	350	PQL	ug/Kg	J	Z, L

**Sample ID:** SL-107-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 2:10:00 PM

**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	35	J	17	MDL	350	PQL	ug/Kg	J	Z, L

**Sample ID:** SL-108-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 2:30:00 PM

**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	350	U	350	MDL	1100	PQL	ug/Kg	UJ	Q
BENZIDINE	1200	U	1200	MDL	3500	PQL	ug/Kg	UJ	Q

**Sample ID:** SL-123-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 10:20:00

**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	21	J	18	MDL	360	PQL	ug/Kg	J	Z, L

**Sample ID:** SL-124-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 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
BIS(2-ETHYLHEXYL)PHthalate	49	J	18	MDL	360	PQL	ug/Kg	J	Z, L
CHRYSENE	55	J	18	MDL	180	PQL	ug/Kg	J	Z, L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C

**Matrix:** SO

**Sample ID:** SL-124-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 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
FLUORANTHENE	28	J	18	MDL	180	PQL	ug/Kg	J	Z, L
PYRENE	28	J	18	MDL	180	PQL	ug/Kg	J	Z, L

**Sample ID:** SL-126-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 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
BENZO(A)ANTHRACENE	18	J	18	MDL	180	PQL	ug/Kg	J	Z, L
BIS(2-ETHYLHEXYL)PHthalATE	27	J	18	MDL	350	PQL	ug/Kg	J	Z, L
PYRENE	20	J	18	MDL	180	PQL	ug/Kg	J	Z, L

**Sample ID:** SL-127-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 11:35:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHthalATE	160	J	84	MDL	1700	PQL	ug/Kg	J	Z, L

**Sample ID:** SL-128-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 9:20:00 AM

**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	36	J	19	MDL	370	PQL	ug/Kg	J	Z, L

**Sample ID:** SL-130-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 8:30:00 AM

**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	350	PQL	ug/Kg	J	Z, L

**Method Category:** SVOA

**Method:** 8270C SIM

**Matrix:** SO

**Sample ID:** DUP-11-SA5DN-QC-060111

**Collected:** 6/1/2011 2:40:00 PM

**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	0.86	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z, FD
BENZO(A)PYRENE	1.0	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z, FD
BENZO(B)FLUORANTHENE	1.8		0.71	MDL	1.8	PQL	ug/Kg	J	FD
BENZO(K)FLUORANTHENE	1.2	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z, FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C SIM

**Matrix:** SO

Sample ID: DUP-11-SA5DN-QC-060111

Collected: 6/1/2011 2:40:00 PM

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	1.5	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z, FD
INDENO(1,2,3-CD)PYRENE	0.91	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z, FD
PHENANTHRENE	0.90	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z, FD
PYRENE	1.5	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z, FD

Sample ID: SL-015-SA5DN-SB-12.0-13.0

Collected: 6/1/2011 3:54:00 PM

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	0.48	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	0.78	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-105-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 1:35:00 PM

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	3.6	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z

Sample ID: SL-106-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 1:45:00 PM

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	7.7	J	3.5	MDL	8.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	7.5	J	3.5	MDL	8.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	8.0	J	3.5	MDL	8.9	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	4.5	J	3.5	MDL	8.9	PQL	ug/Kg	J	Z
PHENANTHRENE	7.0	J	3.5	MDL	8.9	PQL	ug/Kg	J	Z

Sample ID: SL-107-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 2:10:00 PM

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	1.5	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.86	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.90	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.3	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.0	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C SIM

**Matrix:** SO

**Sample ID:** SL-108-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 2:30:00 PM

**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	3.5	U	3.5	MDL	8.8	PQL	ug/Kg	UJ	FD
BENZO(A)PYRENE	3.5	U	3.5	MDL	8.8	PQL	ug/Kg	UJ	FD
BENZO(B)FLUORANTHENE	4.6	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z, FD
BENZO(G,H,I)PERYLENE	3.5	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	5.3	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z, FD
BIS(2-ETHYLHEXYL)PHTHALATE	73	J	32	MDL	95	PQL	ug/Kg	J	Z
CHRYSENE	5.2	J	1.8	MDL	8.8	PQL	ug/Kg	J	Z
FLUORANTHENE	5.8	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z, FD
INDENO(1,2,3-CD)PYRENE	3.5	U	3.5	MDL	8.8	PQL	ug/Kg	UJ	FD
PHENANTHRENE	3.5	U	3.5	MDL	8.8	PQL	ug/Kg	UJ	FD
PYRENE	5.0	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z, FD

**Sample ID:** SL-109-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 3:10:00 PM

**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	0.80	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.3	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.4	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.1	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
FLUORANTHENE	0.94	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.83	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	0.92	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

**Sample ID:** SL-123-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 10:20:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORENE	1.1	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	0.88	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

**Sample ID:** SL-124-SA5DN-SS-0.0-0.5

**Collected:** 6/1/2011 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	0.79	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.91	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-126-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 11:15:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	1.9	J	1.8	MDL	8.9	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	7.0	J	3.6	MDL	8.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	4.7	J	3.6	MDL	8.9	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	4.0	J	3.6	MDL	8.9	PQL	ug/Kg	J	Z

Sample ID: SL-127-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 11:35:00

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	5.9	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	6.0	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	5.0	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	4.3	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z
PHENANTHRENE	4.4	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z

Sample ID: SL-128-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 9:20:00 AM

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	0.64	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-129-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 8:50:00 AM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.83	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.0	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	1.0	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
Di-n-butylphthalate	14	J	6.4	MDL	19	PQL	ug/Kg	J	Z
NAPHTHALENE	1.4	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-148-SA5DN-SS-0.0-0.5

Collected: 6/1/2011 3:50:00 PM

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(B)FLUORANTHENE	4.2	J	3.5	MDL	8.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	3.7	J	3.5	MDL	8.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	3.9	J	3.5	MDL	8.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	45	J	31	MDL	94	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>								
<b>Method:</b>	<b>8270C SIM</b>	<b>Matrix:</b>	<b>SO</b>						

Sample ID: SL-148-SA5DN-SS-0.0-0.5 Collected: 6/1/2011 3:50:00 PM Analysis Type: RES-BASE/NEUTRAL Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	6.0	J	1.7	MDL	8.7	PQL	ug/Kg	J	Z
FLUORANTHENE	6.3	J	3.5	MDL	8.7	PQL	ug/Kg	J	Z
PYRENE	4.8	J	3.5	MDL	8.7	PQL	ug/Kg	J	Z

<b>Method Category:</b>	<b>SVOA</b>								
<b>Method:</b>	<b>8330A</b>	<b>Matrix:</b>	<b>SO</b>						

Sample ID: SL-018-SA5DN-SB-4.0-5.0 Collected: 6/1/2011 11:16:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,3-DINITROBENZENE	70	J	44	MDL	130	PQL	ug/Kg	J	Z

<b>Method Category:</b>	<b>VOA</b>								
<b>Method:</b>	<b>8260B</b>	<b>Matrix:</b>	<b>SO</b>						

Sample ID: SL-015-SA5DN-SB-12.0-13.0 Collected: 6/1/2011 3:54:00 PM Analysis Type: RES Dilution: 0.83

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	7.6		6.1	MDL	7.3	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	0.85	J	0.22	MDL	3.7	PQL	ug/Kg	U	B

Sample ID: SL-015-SA5DN-SB-4.0-5.0 Collected: 6/1/2011 3:45:00 PM Analysis Type: RES Dilution: 0.94

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.9		7.3	MDL	8.7	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.2	J	0.26	MDL	4.4	PQL	ug/Kg	U	B

Sample ID: SL-017-SA5DN-SB-4.0-5.0 Collected: 6/1/2011 12:35:00 Analysis Type: RES Dilution: 0.88

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.5		6.8	MDL	8.1	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.1	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: VOA

Method: 8260B

Matrix: SO

Sample ID: SL-018-SA5DN-SB-4.0-5.0

Collected: 6/1/2011 11:16:00

Analysis Type: RES

Dilution: 1.04

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.1	J	7.7	MDL	9.2	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.6	J	0.28	MDL	4.6	PQL	ug/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

### Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
C	Initial Calibration Verification Percent Recovery Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

E	Matrix Spike Precision
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

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Q	Matrix Spike Upper Rejection
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

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE170

# Method Blank Outlier Report

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 6010B

Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15908FB220728	6/14/2011 7:28:00 AM	CALCIUM PHOSPHORUS	7.77 mg/Kg 1.63 mg/Kg	DUP-11-SA5DN-QC-060111 SL-015-SA5DN-SB-12.0-13.0 SL-015-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-7.0-8.0 SL-018-SA5DN-SB-4.0-5.0 SL-100-SA5DN-SS-0.0-0.5 SL-105-SA5DN-SS-0.0-0.5 SL-106-SA5DN-SS-0.0-0.5 SL-107-SA5DN-SS-0.0-0.5 SL-108-SA5DN-SS-0.0-0.5 SL-109-SA5DN-SS-0.0-0.5 SL-123-SA5DN-SS-0.0-0.5 SL-124-SA5DN-SS-0.0-0.5 SL-126-SA5DN-SS-0.0-0.5 SL-127-SA5DN-SS-0.0-0.5 SL-128-SA5DN-SS-0.0-0.5 SL-129-SA5DN-SS-0.0-0.5 SL-130-SA5DN-SS-0.0-0.5 SL-148-SA5DN-SS-0.0-0.5
P15908FB220930	6/15/2011 9:30:00 AM	BORON	0.454 mg/Kg	DUP-11-SA5DN-QC-060111 SL-015-SA5DN-SB-12.0-13.0 SL-015-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-7.0-8.0 SL-018-SA5DN-SB-4.0-5.0 SL-100-SA5DN-SS-0.0-0.5 SL-105-SA5DN-SS-0.0-0.5 SL-106-SA5DN-SS-0.0-0.5 SL-107-SA5DN-SS-0.0-0.5 SL-108-SA5DN-SS-0.0-0.5 SL-109-SA5DN-SS-0.0-0.5 SL-123-SA5DN-SS-0.0-0.5 SL-124-SA5DN-SS-0.0-0.5 SL-126-SA5DN-SS-0.0-0.5 SL-127-SA5DN-SS-0.0-0.5 SL-128-SA5DN-SS-0.0-0.5 SL-129-SA5DN-SS-0.0-0.5 SL-130-SA5DN-SS-0.0-0.5 SL-148-SA5DN-SS-0.0-0.5
P16508EB220829	6/16/2011 8:29:00 AM	TIN	1.75 mg/Kg	DUP-11-SA5DN-QC-060111 SL-015-SA5DN-SB-12.0-13.0 SL-015-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-7.0-8.0 SL-018-SA5DN-SB-4.0-5.0 SL-100-SA5DN-SS-0.0-0.5 SL-105-SA5DN-SS-0.0-0.5 SL-106-SA5DN-SS-0.0-0.5 SL-107-SA5DN-SS-0.0-0.5 SL-108-SA5DN-SS-0.0-0.5 SL-109-SA5DN-SS-0.0-0.5 SL-123-SA5DN-SS-0.0-0.5 SL-124-SA5DN-SS-0.0-0.5 SL-126-SA5DN-SS-0.0-0.5 SL-127-SA5DN-SS-0.0-0.5 SL-128-SA5DN-SS-0.0-0.5 SL-129-SA5DN-SS-0.0-0.5 SL-130-SA5DN-SS-0.0-0.5 SL-148-SA5DN-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
DUP-11-SA5DN-QC-060111(REA4)	TIN	3.05 mg/Kg	3.05U mg/Kg

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

10/12/2011 1:13:41 PM

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 6010B

Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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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-SA5DN-SB-12.0-13.0(REA4)	TIN	3.20 mg/Kg	3.20U mg/Kg
SL-015-SA5DN-SB-4.0-5.0(REA4)	TIN	3.07 mg/Kg	3.07U mg/Kg
SL-017-SA5DN-SB-4.0-5.0(REA4)	TIN	3.44 mg/Kg	3.44U mg/Kg
SL-017-SA5DN-SB-7.0-8.0(REA4)	TIN	3.98 mg/Kg	3.98U mg/Kg
SL-018-SA5DN-SB-4.0-5.0(REA4)	TIN	3.34 mg/Kg	3.34U mg/Kg
SL-100-SA5DN-SS-0.0-0.5(REA4)	TIN	3.28 mg/Kg	3.28U mg/Kg
SL-105-SA5DN-SS-0.0-0.5(REA4)	TIN	3.26 mg/Kg	3.26U mg/Kg
SL-106-SA5DN-SS-0.0-0.5(REA4)	TIN	3.29 mg/Kg	3.29U mg/Kg
SL-107-SA5DN-SS-0.0-0.5(REA4)	TIN	2.94 mg/Kg	2.94U mg/Kg
SL-108-SA5DN-SS-0.0-0.5(REA4)	TIN	3.00 mg/Kg	3.00U mg/Kg
SL-109-SA5DN-SS-0.0-0.5(REA4)	TIN	3.09 mg/Kg	3.09U mg/Kg
SL-123-SA5DN-SS-0.0-0.5(REA4)	TIN	3.12 mg/Kg	3.12U mg/Kg
SL-124-SA5DN-SS-0.0-0.5(REA4)	TIN	3.50 mg/Kg	3.50U mg/Kg
SL-126-SA5DN-SS-0.0-0.5(REA4)	TIN	3.26 mg/Kg	3.26U mg/Kg
SL-127-SA5DN-SS-0.0-0.5(REA4)	TIN	2.47 mg/Kg	2.47U mg/Kg
SL-128-SA5DN-SS-0.0-0.5(REA4)	TIN	2.76 mg/Kg	2.76U mg/Kg
SL-129-SA5DN-SS-0.0-0.5(REA4)	TIN	3.06 mg/Kg	3.06U mg/Kg
SL-130-SA5DN-SS-0.0-0.5(REA4)	TIN	2.64 mg/Kg	2.64U mg/Kg
SL-148-SA5DN-SS-0.0-0.5(REA4)	TIN	3.03 mg/Kg	3.03U mg/Kg

Method: 6020

Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15926BB221126A	6/11/2011 11:26:00 AM	COPPER LEAD	0.307 mg/Kg 0.0446 mg/Kg	DUP-11-SA5DN-QC-060111 SL-015-SA5DN-SB-12.0-13.0 SL-015-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-7.0-8.0 SL-018-SA5DN-SB-4.0-5.0 SL-100-SA5DN-SS-0.0-0.5 SL-105-SA5DN-SS-0.0-0.5 SL-106-SA5DN-SS-0.0-0.5 SL-107-SA5DN-SS-0.0-0.5 SL-108-SA5DN-SS-0.0-0.5 SL-109-SA5DN-SS-0.0-0.5 SL-123-SA5DN-SS-0.0-0.5 SL-124-SA5DN-SS-0.0-0.5 SL-126-SA5DN-SS-0.0-0.5 SL-127-SA5DN-SS-0.0-0.5 SL-128-SA5DN-SS-0.0-0.5 SL-129-SA5DN-SS-0.0-0.5 SL-130-SA5DN-SS-0.0-0.5 SL-148-SA5DN-SS-0.0-0.5

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_v2

eQAPP Name: CDM\_SSFL\_110509

<b>Method:</b> 8260B				
<b>Matrix:</b> SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB76B210344A	6/7/2011 3:44:00 AM	ACETONE METHYLENE CHLORIDE	8.4 ug/Kg 1.4 ug/Kg	SL-015-SA5DN-SB-12.0-13.0 SL-015-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-4.0-5.0 SL-018-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
SL-015-SA5DN-SB-12.0-13.0(RES)	ACETONE	7.6 ug/Kg	7.6U ug/Kg
SL-015-SA5DN-SB-12.0-13.0(RES)	METHYLENE CHLORIDE	0.85 ug/Kg	3.7U ug/Kg
SL-015-SA5DN-SB-4.0-5.0(RES)	ACETONE	8.9 ug/Kg	8.9U ug/Kg
SL-015-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.2 ug/Kg	4.4U ug/Kg
SL-017-SA5DN-SB-4.0-5.0(RES)	ACETONE	8.5 ug/Kg	8.5U ug/Kg
SL-017-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.1 ug/Kg	4.0U ug/Kg
SL-018-SA5DN-SB-4.0-5.0(RES)	ACETONE	9.1 ug/Kg	9.2U ug/Kg
SL-018-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.6 ug/Kg	4.6U ug/Kg

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_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-107-SA5DN-SS-0.0-0.5MS SL-107-SA5DN-SS-0.0-0.5MSD (SL-107-SA5DN-SS-0.0-0.5)	DIETHYLENE GLYCOL	29	34	59.00-109.00	-	DIETHYLENE GLYCOL	J (all detects) UJ (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-108-SA5DN-SS-0.0-0.5MSD (SL-108-SA5DN-SS-0.0-0.5)	4,4'-DDD ALPHA-BHC DIELDRIN ENDOSULFAN I ENDOSULFAN SULFATE ENDRIN ENDRIN ALDEHYDE gamma-BHC (Lindane) HEPTACHLOR HEPTACHLOR EPOXIDE METHOXYCHLOR	- - - - - - - - - - -	- - - - - - - - - - -	16.00-163.00 10.00-129.00 19.00-154.00 16.00-137.00 21.00-160.00 11.00-149.00 10.00-148.00 10.00-140.00 13.00-126.00 13.00-157.00 32.00-147.00	80 (50.00) 95 (50.00) 57 (50.00) 80 (50.00) 74 (50.00) 101 (50.00) 122 (35.00) 87 (50.00) 98 (50.00) 89 (50.00) 62 (50.00)	4,4'-DDD ALPHA-BHC DIELDRIN ENDOSULFAN I ENDOSULFAN SULFATE ENDRIN ENDRIN ALDEHYDE gamma-BHC (Lindane) HEPTACHLOR HEPTACHLOR EPOXIDE METHOXYCHLOR	J(all detects)
SL-108-SA5DN-SS-0.0-0.5MS SL-108-SA5DN-SS-0.0-0.5MSD (SL-108-SA5DN-SS-0.0-0.5)	4,4'-DDE 4,4'-DDT ALDRIN BETA-BHC DELTA-BHC	-604 -244 0 0 0	249 - - - 0	18.00-161.00 10.00-176.00 16.00-126.00 14.00-147.00 23.00-140.00	69 (50.00) 73 (50.00) 200 (50.00) 200 (50.00) -	4,4'-DDE 4,4'-DDT ALDRIN BETA-BHC DELTA-BHC	J(all detects) R(all non-detects) 4,4'-DDE, 4,4'-DDT, No Qual, >4x
SL-108-SA5DN-SS-0.0-0.5MS SL-108-SA5DN-SS-0.0-0.5MSD (SL-108-SA5DN-SS-0.0-0.5)	ENDOSULFAN II ENDRIN KETONE	18 21	- -	28.00-154.00 22.00-165.00	86 (50.00) 86 (50.00)	ENDOSULFAN II ENDRIN KETONE	J(all detects) UJ(all non-detects)

Method: 8151A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-108-SA5DN-SS-0.0-0.5MS SL-108-SA5DN-SS-0.0-0.5MSD (SL-108-SA5DN-SS-0.0-0.5)	2,4,5-TP (Silvex) 2,4-DB	- 1112	- -	24.00-141.00 10.00-201.00	52 (35.00) 190 (50.00)	2,4,5-TP (Silvex) 2,4-DB	J(all detects)
SL-108-SA5DN-SS-0.0-0.5MS SL-108-SA5DN-SS-0.0-0.5MSD (SL-108-SA5DN-SS-0.0-0.5)	MCPA	-65	-73	10.00-213.00	-	MCPA	J(all detects) R(all non-detects)

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_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-108-SA5DN-SS-0.0-0.5MS	1,2,4-TRICHLOROBENZENE	123	123	72.00-115.00	-	1,2,4-TRICHLOROBENZENE	J(all detects)
SL-108-SA5DN-SS-0.0-0.5MSD	1,2-DICHLOROBENZENE	116	121	66.00-108.00	-	1,2-DICHLOROBENZENE	
(SL-108-SA5DN-SS-0.0-0.5)	1,3-DICHLOROBENZENE	112	115	63.00-109.00	-	1,3-DICHLOROBENZENE	
	1,4-DICHLOROBENZENE	113	116	70.00-100.00	-	1,4-DICHLOROBENZENE	
	1-METHYLNAPHTHALENE	131	130	73.00-112.00	-	1-METHYLNAPHTHALENE	
	2,4,5-TRICHLOROPHENOL	133	132	78.00-109.00	-	2,4,5-TRICHLOROPHENOL	
	2,4,6-TRICHLOROPHENOL	136	135	77.00-115.00	-	2,4,6-TRICHLOROPHENOL	
	2,4-DICHLOROPHENOL	129	132	78.00-117.00	-	2,4-DICHLOROPHENOL	
	2,4-DIMETHYLPHENOL	120	120	78.00-110.00	-	2,4-DIMETHYLPHENOL	
	2,4-DINITROTOLUENE	129	131	73.00-113.00	-	2,4-DINITROTOLUENE	
	2,6-DINITROTOLUENE	126	125	69.00-123.00	-	2,6-DINITROTOLUENE	
	2-CHLOROPHENOL	127	126	73.00-121.00	-	2-CHLOROPHENOL	
	2-METHYLNAPHTHALENE	122	123	76.00-114.00	-	2-METHYLNAPHTHALENE	
	2-METHYLPHENOL	128	126	75.00-111.00	-	2-METHYLPHENOL	
	2-NITROANILINE	149	145	67.00-125.00	-	2-NITROANILINE	
	2-NITROPHENOL	119	119	74.00-115.00	-	2-NITROPHENOL	
	3,3'-DICHLOROBENZIDINE	124	122	16.00-119.00	-	3,3'-DICHLOROBENZIDINE	
	3-NITROANILINE	147	141	59.00-122.00	-	3-NITROANILINE	
	4-CHLORO-3-METHYLPHENOL	131	131	76.00-110.00	-	4-CHLORO-3-METHYLPHENOL	
	4-CHLOROANILINE	106	-	23.00-95.00	-	4-CHLOROANILINE	
	4-CHLOROPHENYL-PHENYLET	131	129	80.00-109.00	-	4-CHLOROPHENYL-PHENYLE	
	4-METHYLPHENOL	131	131	71.00-111.00	-	4-METHYLPHENOL	
	4-NITROANILINE	125	-	52.00-112.00	-	4-NITROANILINE	
	4-NITROPHENOL	119	117	54.00-113.00	-	4-NITROPHENOL	
	ACENAPHTHENE	128	129	75.00-115.00	-	ACENAPHTHENE	
	ACENAPHTHYLENE	136	134	81.00-110.00	-	ACENAPHTHYLENE	
	ANILINE	96	-	35.00-95.00	-	ANILINE	
	ANTHRACENE	132	132	75.00-115.00	-	ANTHRACENE	
	BENZO(A)ANTHRACENE	135	136	65.00-122.00	-	BENZO(A)ANTHRACENE	
	BENZO(B)FLUORANTHENE	127	-	59.00-125.00	-	BENZO(B)FLUORANTHENE	
	BENZYL ALCOHOL	134	129	67.00-115.00	-	BENZYL ALCOHOL	
	BIS(2-CHLOROETHOXY)METHA	128	128	75.00-104.00	-	BIS(2-CHLOROETHOXY)METH	
	BIS(2-CHLOROETHYL) ETHER	-	118	60.00-116.00	-	BIS(2-CHLOROETHYL) ETHER	
	BIS(2-ETHYLHEXYL)PHTHALAT	140	137	63.00-122.00	-	BIS(2-ETHYLHEXYL)PHTHALA	
	Butylbenzylphthalate	141	142	73.00-134.00	-	Butylbenzylphthalate	
	CARBAZOLE	136	135	64.00-120.00	-	CARBAZOLE	
	CHRYSENE	129	131	62.00-128.00	-	CHRYSENE	
	DIBENZOFURAN	133	130	71.00-112.00	-	DIBENZOFURAN	
	Diethylphthalate	128	128	66.00-118.00	-	Diethylphthalate	
	Dimethylphthalate	126	127	64.00-118.00	-	Dimethylphthalate	
	Di-n-butylphthalate	124	124	67.00-123.00	-	Di-n-butylphthalate	
	FLUORANTHENE	130	132	73.00-112.00	-	FLUORANTHENE	
	FLUORENE	134	131	77.00-111.00	-	FLUORENE	
	HEXACHLOROBENZENE	133	134	77.00-114.00	-	HEXACHLOROBENZENE	
	ISOPHORONE	129	127	73.00-102.00	-	ISOPHORONE	
	NAPHTHALENE	123	121	72.00-116.00	-	NAPHTHALENE	
	NITROBENZENE	126	128	72.00-106.00	-	NITROBENZENE	
	N-NITROSO-DI-N-PROPYLAMIN	130	131	60.00-116.00	-	N-NITROSO-DI-N-PROPYLAMI	
	PHENANTHRENE	128	129	65.00-125.00	-	PHENANTHRENE	
	PYRENE	135	136	74.00-126.00	-	PYRENE	
SL-108-SA5DN-SS-0.0-0.5MS	2,4-DINITROPHENOL	14	14	20.00-143.00	-	2,4-DINITROPHENOL	J(all detects) UJ(all non-detects)
SL-108-SA5DN-SS-0.0-0.5MSD	BENZIDINE	23	26	35.00-141.00	-	BENZIDINE	
(SL-108-SA5DN-SS-0.0-0.5)							

Method: 8270C SIM

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-108-SA5DN-SS-0.0-0.5MSD	FLUORANTHENE	-	-	26.00-166.00	31 (30.00)	FLUORANTHENE	No Qual, Diluted Out
(SL-108-SA5DN-SS-0.0-0.5)	PYRENE	-	-	15.00-153.00	32 (30.00)	PYRENE	

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_v2

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-108-SA5DN-SS-0.0-0.5MS	BIS(2-ETHYLHEXYL)PHTHALAT	-91	-91	39.00-167.00	-	BIS(2-ETHYLHEXYL)PHTHALA	No Qual Diluted Out
SL-108-SA5DN-SS-0.0-0.5MSD	Butylbenzylphthalate	0	0	57.00-173.00	-	Butylbenzylphthalate	
(SL-108-SA5DN-SS-0.0-0.5)	Dimethylphthalate	0	0	74.00-118.00	-	Dimethylphthalate	
	Di-n-octylphthalate	0	0	40.00-192.00	-	Di-n-octylphthalate	

Method: 6020

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-108-SA5DN-SS-0.0-0.5MS	ARSENIC	-	195	75.00-125.00	-	ARSENIC	J(all detects)  V, No Qual, >4x
SL-108-SA5DN-SS-0.0-0.5MSD	BERYLLIUM	-	140	75.00-125.00	-	BERYLLIUM	
(DUP-11-SA5DN-QC-060111	COPPER	-	159	75.00-125.00	-	COPPER	
SL-015-SA5DN-SB-12.0-13.0	SILVER	-	138	75.00-125.00	-	SILVER	
SL-015-SA5DN-SB-4.0-5.0	THALLIUM	-	161	75.00-125.00	-	THALLIUM	
SL-017-SA5DN-SB-4.0-5.0	VANADIUM	126	218	75.00-125.00	-	VANADIUM	
SL-017-SA5DN-SB-7.0-8.0							
SL-018-SA5DN-SB-4.0-5.0							
SL-100-SA5DN-SS-0.0-0.5							
SL-105-SA5DN-SS-0.0-0.5							
SL-106-SA5DN-SS-0.0-0.5							
SL-107-SA5DN-SS-0.0-0.5							
SL-108-SA5DN-SS-0.0-0.5							
SL-109-SA5DN-SS-0.0-0.5							
SL-123-SA5DN-SS-0.0-0.5							
SL-124-SA5DN-SS-0.0-0.5							
SL-126-SA5DN-SS-0.0-0.5							
SL-127-SA5DN-SS-0.0-0.5							
SL-128-SA5DN-SS-0.0-0.5							
SL-129-SA5DN-SS-0.0-0.5							
SL-130-SA5DN-SS-0.0-0.5							
SL-148-SA5DN-SS-0.0-0.5)							
SL-108-SA5DN-SS-0.0-0.5MS	ANTIMONY	29	46	75.00-125.00	36 (20.00)	ANTIMONY	J(all detects) UJ(all non-detects)  Pb, No Qual, >4x  Sb post spike = 80%
SL-108-SA5DN-SS-0.0-0.5MSD	LEAD	-143	-97	75.00-125.00	-	LEAD	
(DUP-11-SA5DN-QC-060111							
SL-015-SA5DN-SB-12.0-13.0							
SL-015-SA5DN-SB-4.0-5.0							
SL-017-SA5DN-SB-4.0-5.0							
SL-017-SA5DN-SB-7.0-8.0							
SL-018-SA5DN-SB-4.0-5.0							
SL-100-SA5DN-SS-0.0-0.5							
SL-105-SA5DN-SS-0.0-0.5							
SL-106-SA5DN-SS-0.0-0.5							
SL-107-SA5DN-SS-0.0-0.5							
SL-108-SA5DN-SS-0.0-0.5							
SL-109-SA5DN-SS-0.0-0.5							
SL-123-SA5DN-SS-0.0-0.5							
SL-124-SA5DN-SS-0.0-0.5							
SL-126-SA5DN-SS-0.0-0.5							
SL-127-SA5DN-SS-0.0-0.5							
SL-128-SA5DN-SS-0.0-0.5							
SL-129-SA5DN-SS-0.0-0.5							
SL-130-SA5DN-SS-0.0-0.5							
SL-148-SA5DN-SS-0.0-0.5)							

## Matrix Spike/Matrix Spike Duplicate Outlier Report

**Lab Reporting Batch ID: DE170**

**Laboratory: LL**

**EDD Filename: DE170\_v2**

eQAPP Name: CDM\_SSFL\_110509

**Method: 6020**

**Matrix:** SO

[illegible]

**Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling**

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_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-108-SA5DN-SS-0.0-0.5MS SL-108-SA5DN-SS-0.0-0.5MSD (DUP-11-SA5DN-QC-060111 SL-015-SA5DN-SB-12.0-13.0 SL-015-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-7.0-8.0 SL-018-SA5DN-SB-4.0-5.0 SL-100-SA5DN-SS-0.0-0.5 SL-105-SA5DN-SS-0.0-0.5 SL-106-SA5DN-SS-0.0-0.5 SL-107-SA5DN-SS-0.0-0.5 SL-108-SA5DN-SS-0.0-0.5 SL-109-SA5DN-SS-0.0-0.5 SL-123-SA5DN-SS-0.0-0.5 SL-124-SA5DN-SS-0.0-0.5 SL-126-SA5DN-SS-0.0-0.5 SL-127-SA5DN-SS-0.0-0.5 SL-128-SA5DN-SS-0.0-0.5 SL-129-SA5DN-SS-0.0-0.5 SL-130-SA5DN-SS-0.0-0.5 SL-148-SA5DN-SS-0.0-0.5)	ALUMINUM	1734	1289	75.00-125.00	-	ALUMINUM	No Qual, >4x
SL-108-SA5DN-SS-0.0-0.5MS SL-108-SA5DN-SS-0.0-0.5MSD (DUP-11-SA5DN-QC-060111 SL-015-SA5DN-SB-12.0-13.0 SL-015-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-7.0-8.0 SL-018-SA5DN-SB-4.0-5.0 SL-100-SA5DN-SS-0.0-0.5 SL-105-SA5DN-SS-0.0-0.5 SL-106-SA5DN-SS-0.0-0.5 SL-107-SA5DN-SS-0.0-0.5 SL-108-SA5DN-SS-0.0-0.5 SL-109-SA5DN-SS-0.0-0.5 SL-123-SA5DN-SS-0.0-0.5 SL-124-SA5DN-SS-0.0-0.5 SL-126-SA5DN-SS-0.0-0.5 SL-127-SA5DN-SS-0.0-0.5 SL-128-SA5DN-SS-0.0-0.5 SL-129-SA5DN-SS-0.0-0.5 SL-130-SA5DN-SS-0.0-0.5 SL-148-SA5DN-SS-0.0-0.5)	CALCIUM IRON MAGNESIUM PHOSPHORUS	64 -1211 297 20	-32 -1166 -45 52	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	CALCIUM IRON MAGNESIUM PHOSPHORUS	J(all detects) UJ(all non-detects)  Ca, Fe, Mg, No Qual, >4x  P post spike = 88%
SL-108-SA5DN-SS-0.0-0.5MSD (DUP-11-SA5DN-QC-060111 SL-015-SA5DN-SB-12.0-13.0 SL-015-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-7.0-8.0 SL-018-SA5DN-SB-4.0-5.0 SL-100-SA5DN-SS-0.0-0.5 SL-105-SA5DN-SS-0.0-0.5 SL-106-SA5DN-SS-0.0-0.5 SL-107-SA5DN-SS-0.0-0.5 SL-108-SA5DN-SS-0.0-0.5 SL-109-SA5DN-SS-0.0-0.5 SL-123-SA5DN-SS-0.0-0.5 SL-124-SA5DN-SS-0.0-0.5 SL-126-SA5DN-SS-0.0-0.5 SL-127-SA5DN-SS-0.0-0.5 SL-128-SA5DN-SS-0.0-0.5 SL-129-SA5DN-SS-0.0-0.5 SL-130-SA5DN-SS-0.0-0.5 SL-148-SA5DN-SS-0.0-0.5)	MANGANESE	-	405	75.00-125.00	31 (20.00)	MANGANESE	J(all detects) UJ(all non-detects)  No Qual %R, >4x

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 7471A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-108-SA5DN-SS-0.0-0.5MS SL-108-SA5DN-SS-0.0-0.5MSD (DUP-11-SA5DN-QC-060111 SL-015-SA5DN-SB-12.0-13.0 SL-015-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-7.0-8.0 SL-018-SA5DN-SB-4.0-5.0 SL-100-SA5DN-SS-0.0-0.5 SL-105-SA5DN-SS-0.0-0.5 SL-106-SA5DN-SS-0.0-0.5 SL-107-SA5DN-SS-0.0-0.5 SL-108-SA5DN-SS-0.0-0.5 SL-109-SA5DN-SS-0.0-0.5 SL-123-SA5DN-SS-0.0-0.5 SL-124-SA5DN-SS-0.0-0.5 SL-126-SA5DN-SS-0.0-0.5 SL-127-SA5DN-SS-0.0-0.5 SL-128-SA5DN-SS-0.0-0.5 SL-129-SA5DN-SS-0.0-0.5 SL-130-SA5DN-SS-0.0-0.5 SL-148-SA5DN-SS-0.0-0.5)	MERCURY	-88	-85	65.00-135.00	-	MERCURY	J(all detects) UJ(all non-detects)  Post spike = 89%

Method: 6010B

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-108-SA5DN-SS-0.0-0.5MS SL-108-SA5DN-SS-0.0-0.5MSD (DUP-11-SA5DN-QC-060111 SL-015-SA5DN-SB-12.0-13.0 SL-015-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-7.0-8.0 SL-018-SA5DN-SB-4.0-5.0 SL-100-SA5DN-SS-0.0-0.5 SL-105-SA5DN-SS-0.0-0.5 SL-106-SA5DN-SS-0.0-0.5 SL-107-SA5DN-SS-0.0-0.5 SL-108-SA5DN-SS-0.0-0.5 SL-109-SA5DN-SS-0.0-0.5 SL-123-SA5DN-SS-0.0-0.5 SL-124-SA5DN-SS-0.0-0.5 SL-126-SA5DN-SS-0.0-0.5 SL-127-SA5DN-SS-0.0-0.5 SL-128-SA5DN-SS-0.0-0.5 SL-129-SA5DN-SS-0.0-0.5 SL-130-SA5DN-SS-0.0-0.5 SL-148-SA5DN-SS-0.0-0.5)	TITANIUM	325	305	75.00-125.00	-	TITANIUM	No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_v2

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-108-SA5DN-SS-0.0-0.5MS (SL-100-SA5DN-SS-0.0-0.5 SL-105-SA5DN-SS-0.0-0.5 SL-106-SA5DN-SS-0.0-0.5 SL-107-SA5DN-SS-0.0-0.5 SL-108-SA5DN-SS-0.0-0.5 SL-109-SA5DN-SS-0.0-0.5 SL-123-SA5DN-SS-0.0-0.5 SL-124-SA5DN-SS-0.0-0.5 SL-126-SA5DN-SS-0.0-0.5 SL-127-SA5DN-SS-0.0-0.5)	FLUORIDE Nitrate-NO3	51 70	- -	80.00-120.00 80.00-120.00	- -	FLUORIDE Nitrate-NO3	J(all detects) UJ(all non-detects)
SL-128-SA5DN-SS-0.0-0.5MS (DUP-11-SA5DN-QC-060111 SL-015-SA5DN-SB-12.0-13.0 SL-015-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-7.0-8.0 SL-018-SA5DN-SB-4.0-5.0 SL-128-SA5DN-SS-0.0-0.5 SL-129-SA5DN-SS-0.0-0.5 SL-130-SA5DN-SS-0.0-0.5 SL-148-SA5DN-SS-0.0-0.5)	FLUORIDE Nitrate-NO3	48 79	- -	80.00-120.00 80.00-120.00	- -	FLUORIDE Nitrate-NO3	J(all detects) UJ(all non-detects)



# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 300.0

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-108-SA5DN-SS-0.0-0.5DUP (SL-100-SA5DN-SS-0.0-0.5 SL -105-SA5DN-SS-0.0-0.5 SL -106-SA5DN-SS-0.0-0.5 SL -107-SA5DN-SS-0.0-0.5 SL -108-SA5DN-SS-0.0-0.5 SL -109-SA5DN-SS-0.0-0.5 SL -123-SA5DN-SS-0.0-0.5 SL -124-SA5DN-SS-0.0-0.5 SL -126-SA5DN-SS-0.0-0.5 SL -127-SA5DN-SS-0.0-0.5)	FLUORIDE Nitrate-NO3	65 29	20.00 20.00	No Qual, OK by Difference

Method: 6010B

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-108-SA5DN-SS-0.0-0.5DUP (DUP-11-SA5DN-QC-060111 SL -015-SA5DN-SB-12.0-13.0 SL -015-SA5DN-SB-4.0-5.0 SL -017-SA5DN-SB-4.0-5.0 SL -017-SA5DN-SB-7.0-8.0 SL -018-SA5DN-SB-4.0-5.0 SL -100-SA5DN-SS-0.0-0.5 SL -105-SA5DN-SS-0.0-0.5 SL -106-SA5DN-SS-0.0-0.5 SL -107-SA5DN-SS-0.0-0.5 SL -108-SA5DN-SS-0.0-0.5 SL -109-SA5DN-SS-0.0-0.5 SL -123-SA5DN-SS-0.0-0.5 SL -124-SA5DN-SS-0.0-0.5 SL -126-SA5DN-SS-0.0-0.5 SL -127-SA5DN-SS-0.0-0.5 SL -128-SA5DN-SS-0.0-0.5 SL -129-SA5DN-SS-0.0-0.5 SL -130-SA5DN-SS-0.0-0.5 SL -148-SA5DN-SS-0.0-0.5)	Zirconium	23	20.00	No Qual, OK by Difference

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 6020

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-108-SA5DN-SS-0.0-0.5DUP (DUP-11-SA5DN-QC-060111 SL-015-SA5DN-SB-12.0-13.0 SL-015-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-7.0-8.0 SL-018-SA5DN-SB-4.0-5.0 SL-100-SA5DN-SS-0.0-0.5 SL-105-SA5DN-SS-0.0-0.5 SL-106-SA5DN-SS-0.0-0.5 SL-107-SA5DN-SS-0.0-0.5 SL-108-SA5DN-SS-0.0-0.5 SL-109-SA5DN-SS-0.0-0.5 SL-123-SA5DN-SS-0.0-0.5 SL-124-SA5DN-SS-0.0-0.5 SL-126-SA5DN-SS-0.0-0.5 SL-127-SA5DN-SS-0.0-0.5 SL-128-SA5DN-SS-0.0-0.5 SL-129-SA5DN-SS-0.0-0.5 SL-130-SA5DN-SS-0.0-0.5 SL-148-SA5DN-SS-0.0-0.5)	MOLYBDENUM SELENIUM SILVER	23 22 74	20.00 20.00 20.00	J(all detects) UJ(all non-detects)  Se, Ag, No Qual, OK by Difference

Method: 7199

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-108-SA5DN-SS-0.0-0.5DUP (DUP-11-SA5DN-QC-060111 SL-015-SA5DN-SB-12.0-13.0 SL-015-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-4.0-5.0 SL-017-SA5DN-SB-7.0-8.0 SL-018-SA5DN-SB-4.0-5.0 SL-100-SA5DN-SS-0.0-0.5 SL-105-SA5DN-SS-0.0-0.5 SL-106-SA5DN-SS-0.0-0.5 SL-107-SA5DN-SS-0.0-0.5 SL-108-SA5DN-SS-0.0-0.5 SL-109-SA5DN-SS-0.0-0.5 SL-123-SA5DN-SS-0.0-0.5 SL-124-SA5DN-SS-0.0-0.5 SL-126-SA5DN-SS-0.0-0.5 SL-127-SA5DN-SS-0.0-0.5 SL-128-SA5DN-SS-0.0-0.5 SL-129-SA5DN-SS-0.0-0.5 SL-130-SA5DN-SS-0.0-0.5 SL-148-SA5DN-SS-0.0-0.5)	HEXAVALENT CHROMIUM	200	20.00	No Qual, OK by Difference

## Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 7471A

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-108-SA5DN-SS-0.0-0.5DUP (DUP-11-SA5DN-QC-060111 SL -015-SA5DN-SB-12.0-13.0 SL -015-SA5DN-SB-4.0-5.0 SL -017-SA5DN-SB-4.0-5.0 SL -017-SA5DN-SB-7.0-8.0 SL -018-SA5DN-SB-4.0-5.0 SL -100-SA5DN-SS-0.0-0.5 SL -105-SA5DN-SS-0.0-0.5 SL -106-SA5DN-SS-0.0-0.5 SL -107-SA5DN-SS-0.0-0.5 SL -108-SA5DN-SS-0.0-0.5 SL -109-SA5DN-SS-0.0-0.5 SL -123-SA5DN-SS-0.0-0.5 SL -124-SA5DN-SS-0.0-0.5 SL -126-SA5DN-SS-0.0-0.5 SL -127-SA5DN-SS-0.0-0.5 SL -128-SA5DN-SS-0.0-0.5 SL -129-SA5DN-SS-0.0-0.5 SL -130-SA5DN-SS-0.0-0.5 SL -148-SA5DN-SS-0.0-0.5)	MERCURY	0.3178	0.208	J(all detects) UJ(all non-detects)

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 8081A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11595AQ242340A (DUP-11-SA5DN-QC-060111 SL-100-SA5DN-SS-0.0-0.5 SL-105-SA5DN-SS-0.0-0.5 SL-106-SA5DN-SS-0.0-0.5 SL-107-SA5DN-SS-0.0-0.5 SL-108-SA5DN-SS-0.0-0.5 SL-109-SA5DN-SS-0.0-0.5 SL-123-SA5DN-SS-0.0-0.5 SL-124-SA5DN-SS-0.0-0.5 SL-126-SA5DN-SS-0.0-0.5 SL-127-SA5DN-SS-0.0-0.5 SL-128-SA5DN-SS-0.0-0.5 SL-129-SA5DN-SS-0.0-0.5 SL-130-SA5DN-SS-0.0-0.5 SL-148-SA5DN-SS-0.0-0.5)	4,4'-DDT ENDRIN METHOXYCHLOR	145 132 143	- - -	54.00-130.00 62.00-129.00 59.00-125.00	- - -	4,4'-DDT ENDRIN METHOXYCHLOR	J (all detects)

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_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
P7LELCSQ261232	1,2,4-TRICHLOROBENZENE	119	-	73.00-108.00	-	1,2,4-TRICHLOROBENZENE	J(all detects)
(DUP-11-SA5DN-QC-060111	1,2-DICHLOROBENZENE	118	-	79.00-102.00	-	1,2-DICHLOROBENZENE	
SL -015-SA5DN-SB-12.0-13.0	1,2-Diphenylhydrazine/Azobenzen	125	-	77.00-111.00	-	1,2-Diphenylhydrazine/Azobenz	
SL -015-SA5DN-SB-4.0-5.0	1,3-DICHLOROBENZENE	116	-	70.00-98.00	-	1,3-DICHLOROBENZENE	
SL -017-SA5DN-SB-4.0-5.0	1,4-DICHLOROBENZENE	118	-	74.00-106.00	-	1,4-DICHLOROBENZENE	
SL -017-SA5DN-SB-7.0-8.0	1-METHYLNAPHTHALENE	126	-	74.00-105.00	-	1-METHYLNAPHTHALENE	
SL -018-SA5DN-SB-4.0-5.0	2,4,5-TRICHLOROPHENOL	127	-	76.00-107.00	-	2,4,5-TRICHLOROPHENOL	
SL -100-SA5DN-SS-0.0-0.5	2,4,6-TRICHLOROPHENOL	131	-	78.00-111.00	-	2,4,6-TRICHLOROPHENOL	
SL -105-SA5DN-SS-0.0-0.5	2,4-DICHLOROPHENOL	127	-	75.00-111.00	-	2,4-DICHLOROPHENOL	
SL -106-SA5DN-SS-0.0-0.5	2,4-DIMETHYLPHENOL	122	-	72.00-111.00	-	2,4-DIMETHYLPHENOL	
SL -107-SA5DN-SS-0.0-0.5	2,4-DINITROTOLUENE	135	-	73.00-115.00	-	2,4-DINITROTOLUENE	
SL -108-SA5DN-SS-0.0-0.5	2,6-DINITROTOLUENE	130	-	79.00-115.00	-	2,6-DINITROTOLUENE	
SL -109-SA5DN-SS-0.0-0.5	2-CHLOROPHENOL	127	-	72.00-112.00	-	2-CHLOROPHENOL	
SL -123-SA5DN-SS-0.0-0.5	2-METHYLNAPHTHALENE	119	-	76.00-105.00	-	2-METHYLNAPHTHALENE	
SL -124-SA5DN-SS-0.0-0.5	2-METHYLPHENOL	125	-	66.00-110.00	-	2-METHYLPHENOL	
SL -126-SA5DN-SS-0.0-0.5	2-NITROANILINE	136	-	78.00-116.00	-	2-NITROANILINE	
SL -127-SA5DN-SS-0.0-0.5	2-NITROPHENOL	128	-	81.00-114.00	-	2-NITROPHENOL	
SL -128-SA5DN-SS-0.0-0.5	3-NITROANILINE	128	-	62.00-109.00	-	3-NITROANILINE	
SL -129-SA5DN-SS-0.0-0.5	4-BROMOPHENYL-PHENYLETH	119	-	79.00-117.00	-	4-BROMOPHENYL-PHENYLET	
SL -130-SA5DN-SS-0.0-0.5	4-CHLORO-3-METHYLPHENOL	126	-	74.00-119.00	-	4-CHLORO-3-METHYLPHENOL	
SL -148-SA5DN-SS-0.0-0.5)	4-CHLOROPHENYL-PHENYLET	122	-	79.00-110.00	-	4-CHLOROPHENYL-PHENYLE	
	4-METHYLPHENOL	128	-	66.00-117.00	-	4-METHYLPHENOL	
	ACENAPHTHENE	125	-	76.00-111.00	-	ACENAPHTHENE	
	ACENAPHTHYLENE	130	-	75.00-122.00	-	ACENAPHTHYLENE	
	ANILINE	108	-	34.00-94.00	-	ANILINE	
	ANTHRACENE	127	-	76.00-112.00	-	ANTHRACENE	
	BENZO(A)ANTHRACENE	132	-	73.00-112.00	-	BENZO(A)ANTHRACENE	
	BENZO(A)PYRENE	128	-	69.00-122.00	-	BENZO(A)PYRENE	
	BENZO(G,H,I)PERYLENE	126	-	65.00-122.00	-	BENZO(G,H,I)PERYLENE	
	BENZYL ALCOHOL	129	-	68.00-111.00	-	BENZYL ALCOHOL	
	BIS(2-CHLOROETHOXY)METHA	121	-	70.00-118.00	-	BIS(2-CHLOROETHOXY)METH	
	BIS(2-CHLOROETHYL) ETHER	121	-	70.00-104.00	-	BIS(2-CHLOROETHYL) ETHER	
	BIS(2-ETHYLHEXYL)PHTHALAT	132	-	75.00-117.00	-	BIS(2-ETHYLHEXYL)PHTHALA	
	Butylbenzylphthalate	137	-	75.00-115.00	-	Butylbenzylphthalate	
	CARBAZOLE	128	-	77.00-113.00	-	CARBAZOLE	
	CHRYSENE	129	-	76.00-113.00	-	CHRYSENE	
	DIBENZOFURAN	128	-	79.00-108.00	-	DIBENZOFURAN	
	Diethylphthalate	125	-	76.00-111.00	-	Diethylphthalate	
	Dimethylphthalate	121	-	77.00-109.00	-	Dimethylphthalate	
	Di-n-butylphthalate	118	-	79.00-112.00	-	Di-n-butylphthalate	
	FLUORANTHENE	128	-	78.00-116.00	-	FLUORANTHENE	
	FLUORENE	126	-	75.00-116.00	-	FLUORENE	
	HEXACHLOROBENZENE	122	-	78.00-116.00	-	HEXACHLOROBENZENE	
	HEXACHLOROCYCLOPENTADI	121	-	46.00-115.00	-	HEXACHLOROCYCLOPENTAD	
	HEXACHLOROETHANE	114	-	68.00-105.00	-	HEXACHLOROETHANE	
	INDENO(1,2,3-CD)PYRENE	134	-	64.00-119.00	-	INDENO(1,2,3-CD)PYRENE	
	ISOPHORONE	126	-	69.00-110.00	-	ISOPHORONE	
	NAPHTHALENE	122	-	73.00-106.00	-	NAPHTHALENE	
	NITROBENZENE	124	-	71.00-104.00	-	NITROBENZENE	
	N-NITROSODIMETHYLAMINE	117	-	60.00-106.00	-	N-NITROSODIMETHYLAMINE	
	N-NITROSO-DI-N-PROPYLAMIN	123	-	63.00-107.00	-	N-NITROSO-DI-N-PROPYLAMI	
	PENTACHLOROPHENOL	115	-	35.00-106.00	-	PENTACHLOROPHENOL	
	PHENANTHRENE	122	-	77.00-113.00	-	PHENANTHRENE	
	PHENOL	127	-	58.00-112.00	-	PHENOL	
	PYRENE	131	-	75.00-115.00	-	PYRENE	

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_v2

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
P15926BQ221129A (DUP -11-SA5DN -QC-060111 SL -015-SA5DN -SB-12.0-13.0 SL -015-SA5DN -SB-4.0-5.0 SL -017-SA5DN -SB-4.0-5.0 SL -017-SA5DN -SB-7.0-8.0 SL -018-SA5DN -SB-4.0-5.0 SL -100-SA5DN -SS-0.0-0.5 SL -105-SA5DN -SS-0.0-0.5 SL -106-SA5DN -SS-0.0-0.5 SL -107-SA5DN -SS-0.0-0.5 SL -108-SA5DN -SS-0.0-0.5 SL -109-SA5DN -SS-0.0-0.5 SL -123-SA5DN -SS-0.0-0.5 SL -124-SA5DN -SS-0.0-0.5 SL -126-SA5DN -SS-0.0-0.5 SL -127-SA5DN -SS-0.0-0.5 SL -128-SA5DN -SS-0.0-0.5 SL -129-SA5DN -SS-0.0-0.5 SL -130-SA5DN -SS-0.0-0.5 SL -148-SA5DN -SS-0.0-0.5)	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
P15908FQ220731 (DUP -11-SA5DN -QC-060111 SL -015-SA5DN -SB-12.0-13.0 SL -015-SA5DN -SB-4.0-5.0 SL -017-SA5DN -SB-4.0-5.0 SL -017-SA5DN -SB-7.0-8.0 SL -018-SA5DN -SB-4.0-5.0 SL -100-SA5DN -SS-0.0-0.5 SL -105-SA5DN -SS-0.0-0.5 SL -106-SA5DN -SS-0.0-0.5 SL -107-SA5DN -SS-0.0-0.5 SL -108-SA5DN -SS-0.0-0.5 SL -109-SA5DN -SS-0.0-0.5 SL -123-SA5DN -SS-0.0-0.5 SL -124-SA5DN -SS-0.0-0.5 SL -126-SA5DN -SS-0.0-0.5 SL -127-SA5DN -SS-0.0-0.5 SL -128-SA5DN -SS-0.0-0.5 SL -129-SA5DN -SS-0.0-0.5 SL -130-SA5DN -SS-0.0-0.5 SL -148-SA5DN -SS-0.0-0.5)	ALUMINUM IRON	78 79	- -	80.00-120.00 80.00-120.00	- -	ALUMINUM IRON	No Qual, SRM Within QC Limits

# Surrogate Outlier Report

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 8081A

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
DUP-11-SA5DN-QC-060111	DECACHLOROBIPHENYL	146	20.00-120.00	All Target Analytes	J (all detects)
SL-100-SA5DN-SS-0.0-0.5	TETRACHLORO-M-XYLENE	45	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-105-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	130	20.00-120.00	All Target Analytes	J(all detects)
SL-105-SA5DN-SS-0.0-0.5	TETRACHLORO-M-XYLENE	33	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-106-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	18 17	20.00-120.00 50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-123-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	123	20.00-120.00	All Target Analytes	J(all detects)
SL-124-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	159	20.00-120.00	All Target Analytes	J(all detects)
SL-124-SA5DN-SS-0.0-0.5	TETRACHLORO-M-XYLENE	13	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-126-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	176	20.00-120.00	All Target Analytes	J(all detects)
SL-126-SA5DN-SS-0.0-0.5	TETRACHLORO-M-XYLENE	47	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-128-SA5DN-SS-0.0-0.5	TETRACHLORO-M-XYLENE	8	50.00-130.00	All Target Analytes	J(all detects) R(all non-detects)
SL-128-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	16	20.00-120.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-129-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	138	20.00-120.00	All Target Analytes	J(all detects)
SL-130-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	123	20.00-120.00	All Target Analytes	J(all detects)

Method: 8082

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-108-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	123	45.00-120.00	All Target Analytes	No Qual, Diluted Out
SL-124-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	0	45.00-120.00	All Target Analytes	J(all detects) R(all non-detects)

Method: 8315A

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-015-SA5DN-SB-12.0-13.0	Butyraldehyde	133	64.00-126.00	All Target Analytes	J(all detects)
SL-018-SA5DN-SB-4.0-5.0	Butyraldehyde	140	64.00-126.00	All Target Analytes	J(all detects)
SL-105-SA5DN-SS-0.0-0.5	Butyraldehyde	151	64.00-126.00	All Target Analytes	J(all detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Surrogate Outlier Report

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 8315A

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-106-SA5DN-SS-0.0-0.5	Butyraldehyde	135	64.00-126.00	All Target Analytes	J(all detects)
SL-107-SA5DN-SS-0.0-0.5	Butyraldehyde	148	64.00-126.00	All Target Analytes	J(all detects)
SL-109-SA5DN-SS-0.0-0.5	Butyraldehyde	143	64.00-126.00	All Target Analytes	J(all detects)



# Field Duplicate RPD Report

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 160.3M

Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-108-SA5DN-SS-0.0-0.5	DUP-11-SA5DN-QC-060111			
MOISTURE	5.3	5.5	4		No Qualifiers Applied

Method: 300.0

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-108-SA5DN-SS-0.0-0.5	DUP-11-SA5DN-QC-060111			
FLUORIDE	2.4	2.1	13	50.00	No Qualifiers Applied

Method: 6010B

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-108-SA5DN-SS-0.0-0.5	DUP-11-SA5DN-QC-060111			
ALUMINUM	20500	17500	16	50.00	No Qualifiers Applied
CALCIUM	5100	4830	5	50.00	
IRON	25600	22400	13	50.00	
LITHIUM	21.2	18.9	11	50.00	
MAGNESIUM	5240	4630	12	50.00	
MANGANESE	387	327	17	50.00	
PHOSPHORUS	408	366	11	50.00	
POTASSIUM	4200	3680	13	50.00	
SODIUM	103	87.2	17	50.00	
STRONTIUM	28.6	25.3	12	50.00	
TIN	3.00	3.05	2	50.00	
TITANIUM	1150	1210	5	50.00	
Zirconium	3.89	2.74	35	50.00	
BORON	5.28 U	9.83	200	50.00	J(all detects) UJ(all non-detects)

Method: 6020

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-108-SA5DN-SS-0.0-0.5	DUP-11-SA5DN-QC-060111			
ANTIMONY	0.157	0.127	21	50.00	No Qualifiers Applied
ARSENIC	6.41	6.89	7	50.00	
BARIUM	151	142	6	50.00	
BERYLLIUM	0.796	0.788	1	50.00	
CADMIUM	0.435	0.384	12	50.00	
CHROMIUM	33.6	29.6	13	50.00	
COBALT	9.66	9.46	2	50.00	
COPPER	17.9	17.0	5	50.00	
LEAD	18.6	15.3	19	50.00	
MOLYBDENUM	0.809	0.692	16	50.00	
NICKEL	25.1	21.9	14	50.00	
SELENIUM	0.164	0.145	12	50.00	
THALLIUM	0.356	0.328	8	50.00	
VANADIUM	50.3	52.4	4	50.00	
ZINC	88.4	83.2	6	50.00	
SILVER	0.151	0.0667	77	50.00	J(all detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Field Duplicate RPD Report

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 7199

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-108-SA5DN-SS-0.0-0.5	DUP-11-SA5DN-QC-060111			
HEXAVALENT CHROMIUM	0.64	0.60	6	50.00	No Qualifiers Applied

Method: 7471A

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-108-SA5DN-SS-0.0-0.5	DUP-11-SA5DN-QC-060111			
MERCURY	0.653	0.427	42	50.00	No Qualifiers Applied

Method: 8081A

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-108-SA5DN-SS-0.0-0.5	DUP-11-SA5DN-QC-060111			
4,4'-DDE	9.8	9.9	1	50.00	No Qualifiers Applied
4,4'-DDT	4.1	3.5	16	50.00	
Chlordane	3.3	2.3	36	50.00	

Method: 8082

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-108-SA5DN-SS-0.0-0.5	DUP-11-SA5DN-QC-060111			
AROCLOR 1260	4.7	4.5	4	50.00	No Qualifiers Applied
Aroclor 5460	6.3	17 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 8151A

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-108-SA5DN-SS-0.0-0.5	DUP-11-SA5DN-QC-060111			
2,4,5-TP (Silvex)	0.11	0.18 U	200	50.00	J(all detects) UJ(all non-detects)
DICAMBA	0.56	1.3 U	200	50.00	
MCPA	820	460	56	50.00	

Method: 8270C SIM

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-108-SA5DN-SS-0.0-0.5	DUP-11-SA5DN-QC-060111			
BENZO(G,H,I)PERYLENE	3.5	4.1	16	50.00	No Qualifiers Applied
CHRYSENE	5.2	4.0	26	50.00	

## Field Duplicate RPD Report

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: PrepDE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 8270C SIM

Matrix: SO

BENZO(A)ANTHRACENE	8.8 U	0.86	200	50.00	J(all detects) UJ(all non-detects)
BENZO(A)PYRENE	8.8 U	1.0	200	50.00	
BENZO(B)FLUORANTHENE	4.6	1.8	88	50.00	
BENZO(K)FLUORANTHENE	5.3	1.2	126	50.00	
FLUORANTHENE	5.8	1.5	118	50.00	
INDENO(1,2,3-CD)PYRENE	8.8 U	0.91	200	50.00	
PHENANTHRENE	8.8 U	0.90	200	50.00	
PYRENE	5.0	1.5	108	50.00	

Method: 9045M

Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-108-SA5DN-SS-0.0- 0.5	DUP-11-SA5DN-QC- 060111			
PH	7.16	7.57	6	50.00	No Qualifiers Applied

# Reporting Limit Outliers

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-015-SA5DN-SB-12.0-13.0	N-NITROSODIMETHYLAMINE	J	24.1	36.1	PQL	ng/Kg	J (all detects)
SL-018-SA5DN-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	30.8	36.8	PQL	ng/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-11-SA5DN-QC-060111	SODIUM TIN Zirconium	J	87.2	105	PQL	mg/Kg	J (all detects)
		J	3.05	10.4	PQL	mg/Kg	
		J	2.74	5.24	PQL	mg/Kg	
SL-015-SA5DN-SB-12.0-13.0	TIN Zirconium	J	3.20	10.5	PQL	mg/Kg	J (all detects)
		J	1.65	5.27	PQL	mg/Kg	
SL-015-SA5DN-SB-4.0-5.0	TIN Zirconium	J	3.07	11.3	PQL	mg/Kg	J (all detects)
		J	2.89	5.54	PQL	mg/Kg	
SL-017-SA5DN-SB-4.0-5.0	TIN Zirconium	J	3.44	11.3	PQL	mg/Kg	J (all detects)
		J	2.19	5.77	PQL	mg/Kg	
SL-017-SA5DN-SB-7.0-8.0	TIN Zirconium	J	3.98	11.0	PQL	mg/Kg	J (all detects)
		J	2.90	5.52	PQL	mg/Kg	
SL-018-SA5DN-SB-4.0-5.0	TIN Zirconium	J	3.34	11.0	PQL	mg/Kg	J (all detects)
		J	1.77	5.33	PQL	mg/Kg	
SL-100-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	90.6	105	PQL	mg/Kg	J (all detects)
		J	3.28	10.5	PQL	mg/Kg	
		J	4.40	5.26	PQL	mg/Kg	
SL-105-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	100	106	PQL	mg/Kg	J (all detects)
		J	3.26	10.7	PQL	mg/Kg	
		J	3.93	5.28	PQL	mg/Kg	
SL-106-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	88.6	106	PQL	mg/Kg	J (all detects)
		J	3.29	10.6	PQL	mg/Kg	
		J	3.55	5.28	PQL	mg/Kg	
SL-107-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	83.9	100	PQL	mg/Kg	J (all detects)
		J	2.94	10.2	PQL	mg/Kg	
		J	1.37	5.02	PQL	mg/Kg	
SL-108-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	103	106	PQL	mg/Kg	J (all detects)
		J	3.00	10.3	PQL	mg/Kg	
		J	3.89	5.28	PQL	mg/Kg	
SL-109-SA5DN-SS-0.0-0.5	TIN Zirconium	J	3.09	10.7	PQL	mg/Kg	J (all detects)
		J	4.85	5.39	PQL	mg/Kg	
SL-123-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	86.2	103	PQL	mg/Kg	J (all detects)
		J	3.12	10.7	PQL	mg/Kg	
		J	3.19	5.13	PQL	mg/Kg	
SL-124-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	86.0	105	PQL	mg/Kg	J (all detects)
		J	3.50	10.8	PQL	mg/Kg	
		J	3.57	5.27	PQL	mg/Kg	
SL-126-SA5DN-SS-0.0-0.5	SODIUM TIN Zirconium	J	82.5	107	PQL	mg/Kg	J (all detects)
		J	3.26	10.5	PQL	mg/Kg	
		J	2.73	5.36	PQL	mg/Kg	
SL-127-SA5DN-SS-0.0-0.5	TIN Zirconium	J	2.47	9.88	PQL	mg/Kg	J (all detects)
		J	0.949	4.89	PQL	mg/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-128-SA5DN-SS-0.0-0.5	TIN	J	2.76	11.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.72	5.48	PQL	mg/Kg	
SL-129-SA5DN-SS-0.0-0.5	SODIUM	J	81.9	102	PQL	mg/Kg	J (all detects)
	TIN	J	3.06	10.5	PQL	mg/Kg	
	Zirconium	J	2.60	5.09	PQL	mg/Kg	
SL-130-SA5DN-SS-0.0-0.5	SODIUM	J	86.1	104	PQL	mg/Kg	J (all detects)
	TIN	J	2.64	10.1	PQL	mg/Kg	
	Zirconium	J	2.99	5.22	PQL	mg/Kg	
SL-148-SA5DN-SS-0.0-0.5	SODIUM	J	66.5	99.9	PQL	mg/Kg	J (all detects)
	TIN	J	3.03	10.4	PQL	mg/Kg	
	Zirconium	J	2.99	5.00	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-11-SA5DN-QC-060111	ANTIMONY	J	0.127	0.207	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.145	0.415	PQL	mg/Kg	
	SILVER	J	0.0667	0.104	PQL	mg/Kg	
SL-015-SA5DN-SB-12.0-13.0	ANTIMONY	J	0.103	0.215	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0728	0.430	PQL	mg/Kg	
	SILVER	J	0.0503	0.107	PQL	mg/Kg	
SL-015-SA5DN-SB-4.0-5.0	ANTIMONY	J	0.103	0.224	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0901	0.448	PQL	mg/Kg	
	SILVER	J	0.0526	0.112	PQL	mg/Kg	
SL-017-SA5DN-SB-4.0-5.0	ANTIMONY	J	0.130	0.226	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0652	0.453	PQL	mg/Kg	
	SILVER	J	0.0656	0.113	PQL	mg/Kg	
SL-017-SA5DN-SB-7.0-8.0	ANTIMONY	J	0.113	0.225	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.235	0.451	PQL	mg/Kg	
	SILVER	J	0.0164	0.113	PQL	mg/Kg	
SL-018-SA5DN-SB-4.0-5.0	ANTIMONY	J	0.107	0.213	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0608	0.426	PQL	mg/Kg	
	SILVER	J	0.0974	0.107	PQL	mg/Kg	
SL-100-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.138	0.208	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.194	0.417	PQL	mg/Kg	
	SILVER	J	0.0597	0.104	PQL	mg/Kg	
SL-105-SA5DN-SS-0.0-0.5	SELENIUM	J	0.216	0.414	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0903	0.104	PQL	mg/Kg	
SL-106-SA5DN-SS-0.0-0.5	SELENIUM	J	0.172	0.407	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0621	0.102	PQL	mg/Kg	
SL-107-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.146	0.205	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.130	0.409	PQL	mg/Kg	
	SILVER	J	0.0538	0.102	PQL	mg/Kg	
SL-108-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.157	0.209	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.164	0.418	PQL	mg/Kg	
SL-109-SA5DN-SS-0.0-0.5	SELENIUM	J	0.201	0.431	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0663	0.108	PQL	mg/Kg	
SL-123-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.167	0.207	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.220	0.414	PQL	mg/Kg	
	SILVER	J	0.0660	0.104	PQL	mg/Kg	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Reporting Limit Outliers

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-124-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.172	0.217	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.379	0.434	PQL	mg/Kg	J (all detects)
SL-126-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.161	0.210	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.399	0.421	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0751	0.105	PQL	mg/Kg	J (all detects)
SL-127-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.148	0.201	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.186	0.403	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0481	0.101	PQL	mg/Kg	J (all detects)
SL-128-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.0989	0.221	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.167	0.443	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0611	0.111	PQL	mg/Kg	J (all detects)
SL-129-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.128	0.214	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.198	0.428	PQL	mg/Kg	J (all detects)
SL-130-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.114	0.201	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.184	0.401	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0898	0.100	PQL	mg/Kg	J (all detects)
SL-148-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.143	0.206	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.157	0.411	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0571	0.103	PQL	mg/Kg	J (all detects)

Method: 6850

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-148-SA5DN-SS-0.0-0.5	PERCHLORATE	J	3.3	5.2	PQL	ug/Kg	J (all detects)

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-11-SA5DN-QC-060111	HEXAVALENT CHROMIUM	J	0.60	1.1	PQL	mg/Kg	J (all detects)
SL-015-SA5DN-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.33	1.2	PQL	mg/Kg	J (all detects)
SL-017-SA5DN-SB-7.0-8.0	HEXAVALENT CHROMIUM	J	0.31	1.1	PQL	mg/Kg	J (all detects)
SL-018-SA5DN-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.29	1.1	PQL	mg/Kg	J (all detects)
SL-100-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.47	1.1	PQL	mg/Kg	J (all detects)
SL-105-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.73	1.1	PQL	mg/Kg	J (all detects)
SL-106-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.62	1.1	PQL	mg/Kg	J (all detects)
SL-107-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.41	1.0	PQL	mg/Kg	J (all detects)
SL-108-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.64	1.1	PQL	mg/Kg	J (all detects)
SL-124-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.93	1.1	PQL	mg/Kg	J (all detects)
SL-126-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.34	1.1	PQL	mg/Kg	J (all detects)
SL-128-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.54	1.1	PQL	mg/Kg	J (all detects)
SL-130-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.55	1.0	PQL	mg/Kg	J (all detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Reporting Limit Outliers

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-015-SA5DN-SB-12.0-13.0	MERCURY	J	0.0091	0.103	PQL	mg/Kg	J (all detects)
SL-015-SA5DN-SB-4.0-5.0	MERCURY	J	0.0155	0.115	PQL	mg/Kg	J (all detects)
SL-017-SA5DN-SB-4.0-5.0	MERCURY	J	0.0075	0.112	PQL	mg/Kg	J (all detects)
SL-018-SA5DN-SB-4.0-5.0	MERCURY	J	0.0320	0.104	PQL	mg/Kg	J (all detects)
SL-123-SA5DN-SS-0.0-0.5	MERCURY	J	0.0440	0.106	PQL	mg/Kg	J (all detects)
SL-127-SA5DN-SS-0.0-0.5	MERCURY	J	0.0287	0.0985	PQL	mg/Kg	J (all detects)
SL-128-SA5DN-SS-0.0-0.5	MERCURY	J	0.0907	0.106	PQL	mg/Kg	J (all detects)
SL-129-SA5DN-SS-0.0-0.5	MERCURY	J	0.0788	0.105	PQL	mg/Kg	J (all detects)
SL-148-SA5DN-SS-0.0-0.5	MERCURY	J	0.0142	0.103	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-015-SA5DN-SB-4.0-5.0	EFH (C15-C20)	J	0.54	1.4	PQL	mg/Kg	J (all detects)
	GASOLINE RANGE ORGANICS (C5-C12)	J	0.3	1.1	PQL	mg/Kg	
SL-106-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	4.3	6.4	PQL	mg/Kg	J (all detects)
SL-107-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	2.9	6.3	PQL	mg/Kg	J (all detects)
SL-109-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	9.6	13	PQL	mg/Kg	J (all detects)

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-11-SA5DN-QC-060111	4,4'-DDT	J	3.5	3.6	PQL	ug/Kg	J (all detects)
	Chlordane	J	2.3	3.6	PQL	ug/Kg	
SL-100-SA5DN-SS-0.0-0.5	Chlordane	J	2.2	3.6	PQL	ug/Kg	J (all detects)
SL-105-SA5DN-SS-0.0-0.5	Chlordane	J	2.8	3.6	PQL	ug/Kg	J (all detects)
SL-106-SA5DN-SS-0.0-0.5	DIELDRIN	J	0.11	0.36	PQL	ug/Kg	J (all detects)
	ENDRIN	J	0.099	0.36	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.081	0.36	PQL	ug/Kg	
	ENDRIN KETONE	J	0.11	0.36	PQL	ug/Kg	
SL-107-SA5DN-SS-0.0-0.5	ENDRIN KETONE	J	0.084	0.35	PQL	ug/Kg	J (all detects)
	METHOXYCHLOR	J	0.49	1.7	PQL	ug/Kg	
SL-108-SA5DN-SS-0.0-0.5	Chlordane	J	3.3	3.6	PQL	ug/Kg	J (all detects)
SL-109-SA5DN-SS-0.0-0.5	Chlordane	J	3.6	3.7	PQL	ug/Kg	J (all detects)
SL-123-SA5DN-SS-0.0-0.5	Chlordane	J	3.2	3.7	PQL	ug/Kg	J (all detects)
SL-124-SA5DN-SS-0.0-0.5	Chlordane	J	1.5	3.7	PQL	ug/Kg	J (all detects)
SL-128-SA5DN-SS-0.0-0.5	Chlordane	J	1.0	3.8	PQL	ug/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-129-SA5DN-SS-0.0-0.5	Chlordane HEPTACHLOR	J	3.3	3.6	PQL	ug/Kg	J (all detects)
		J	0.10	0.18	PQL	ug/Kg	
SL-130-SA5DN-SS-0.0-0.5	Chlordane	J	2.2	3.5	PQL	ug/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-11-SA5DN-QC-060111	AROCLOR 1260	J	4.5	9.0	PQL	ug/Kg	J (all detects)
SL-017-SA5DN-SB-4.0-5.0	AROCLOR 1260	J	1.2	2.0	PQL	ug/Kg	J (all detects)
SL-018-SA5DN-SB-4.0-5.0	AROCLOR 1260	J	0.70	1.9	PQL	ug/Kg	J (all detects)
SL-108-SA5DN-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J	4.7	9.0	PQL	ug/Kg	J (all detects)
		J	6.3	17	PQL	ug/Kg	
SL-109-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	4.0	9.2	PQL	ug/Kg	J (all detects)
SL-123-SA5DN-SS-0.0-0.5	Aroclor 5460	J	3.0	3.6	PQL	ug/Kg	J (all detects)
SL-124-SA5DN-SS-0.0-0.5	Aroclor 5460	J	16	18	PQL	ug/Kg	J (all detects)
SL-126-SA5DN-SS-0.0-0.5	Aroclor 5460	J	13	18	PQL	ug/Kg	J (all detects)
SL-127-SA5DN-SS-0.0-0.5	Aroclor 5460	J	8.4	17	PQL	ug/Kg	J (all detects)
SL-148-SA5DN-SS-0.0-0.5	Aroclor 5460	J	2.9	3.5	PQL	ug/Kg	J (all detects)

Method: 8151A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-106-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.090	0.18	PQL	ug/Kg	J (all detects)
SL-107-SA5DN-SS-0.0-0.5	DICHLOROPROP	J	1.4	1.8	PQL	ug/Kg	J (all detects)
SL-108-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex) DICAMBA	J	0.11	0.18	PQL	ug/Kg	J (all detects)
		J	0.56	1.3	PQL	ug/Kg	
SL-109-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.12	0.18	PQL	ug/Kg	J (all detects)
SL-123-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.17	0.18	PQL	ug/Kg	J (all detects)
SL-129-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.10	0.18	PQL	ug/Kg	J (all detects)
SL-148-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.12	0.18	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-015-SA5DN-SB-12.0-13.0	METHYLENE CHLORIDE	J	0.85	3.7	PQL	ug/Kg	J (all detects)



# Reporting Limit Outliers

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-015-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.2	4.4	PQL	ug/Kg	J (all detects)
SL-017-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.1	4.0	PQL	ug/Kg	J (all detects)
SL-018-SA5DN-SB-4.0-5.0	ACETONE	J	9.1	9.2	PQL	ug/Kg	J (all detects)
	METHYLENE CHLORIDE	J	1.6	4.6	PQL	ug/Kg	

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-11-SA5DN-QC-060111	BIS(2-ETHYLHEXYL)PHTHALATE	J	35	350	PQL	ug/Kg	J (all detects)
SL-017-SA5DN-SB-7.0-8.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	61	380	PQL	ug/Kg	J (all detects)
SL-100-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	21	180	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	25	180	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	150	350	PQL	ug/Kg	
	CHRYSENE	J	19	180	PQL	ug/Kg	
	FLUORANTHENE	J	34	180	PQL	ug/Kg	
SL-105-SA5DN-SS-0.0-0.5	PYRENE	J	36	180	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	34	350	PQL	ug/Kg	
SL-106-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	68	350	PQL	ug/Kg	J (all detects)
SL-107-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	35	350	PQL	ug/Kg	J (all detects)
SL-123-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	21	360	PQL	ug/Kg	J (all detects)
SL-124-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	49	360	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	55	180	PQL	ug/Kg	
	FLUORANTHENE	J	28	180	PQL	ug/Kg	
	PYRENE	J	28	180	PQL	ug/Kg	
SL-126-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	18	180	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	27	350	PQL	ug/Kg	
	PYRENE	J	20	180	PQL	ug/Kg	
SL-127-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	160	1700	PQL	ug/Kg	J (all detects)
SL-128-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	36	370	PQL	ug/Kg	J (all detects)
SL-130-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	19	350	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-11-SA5DN-QC-060111	BENZO(A)ANTHRACENE	J	0.86	1.8	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.0	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.2	1.8	PQL	ug/Kg	
	FLUORANTHENE	J	1.5	1.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.91	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	0.90	1.8	PQL	ug/Kg	
	PYRENE	J	1.5	1.8	PQL	ug/Kg	
SL-015-SA5DN-SB-12.0-13.0	CHRYSENE	J	0.48	1.8	PQL	ug/Kg	J (all detects)
	PYRENE	J	0.78	1.8	PQL	ug/Kg	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Reporting Limit Outliers

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-105-SA5DN-SS-0.0-0.5	NAPHTHALENE	J	3.6	8.8	PQL	ug/Kg	J (all detects)
SL-106-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	7.7	8.9	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	7.5	8.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	8.0	8.9	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	4.5	8.9	PQL	ug/Kg	
	PHENANTHRENE	J	7.0	8.9	PQL	ug/Kg	
SL-107-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.5	1.7	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	0.86	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.90	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.3	1.7	PQL	ug/Kg	
	PYRENE	J	1.0	1.7	PQL	ug/Kg	
SL-108-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	4.6	8.8	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	3.5	8.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	5.3	8.8	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	73	95	PQL	ug/Kg	
	CHRYSENE	J	5.2	8.8	PQL	ug/Kg	
	FLUORANTHENE	J	5.8	8.8	PQL	ug/Kg	
	PYRENE	J	5.0	8.8	PQL	ug/Kg	
SL-109-SA5DN-SS-0.0-0.5	BENZO(A)PYRENE	J	0.80	1.8	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.3	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.4	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.1	1.8	PQL	ug/Kg	
	FLUORANTHENE	J	0.94	1.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.83	1.8	PQL	ug/Kg	
	PYRENE	J	0.92	1.8	PQL	ug/Kg	
SL-123-SA5DN-SS-0.0-0.5	FLUORENE	J	1.1	1.8	PQL	ug/Kg	J (all detects)
	NAPHTHALENE	J	0.88	1.8	PQL	ug/Kg	
SL-124-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	0.79	1.8	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	0.91	1.8	PQL	ug/Kg	
SL-126-SA5DN-SS-0.0-0.5	ANTHRACENE	J	1.9	8.9	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	7.0	8.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	4.7	8.9	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	4.0	8.9	PQL	ug/Kg	
SL-127-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	5.9	8.4	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	6.0	8.4	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	5.0	8.4	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	4.3	8.4	PQL	ug/Kg	
	PHENANTHRENE	J	4.4	8.4	PQL	ug/Kg	
SL-128-SA5DN-SS-0.0-0.5	CHRYSENE	J	0.64	1.8	PQL	ug/Kg	J (all detects)
SL-129-SA5DN-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.83	1.8	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.0	1.8	PQL	ug/Kg	
	ACENAPHTHYLENE	J	1.0	1.8	PQL	ug/Kg	
	Di-n-butylphthalate	J	14	19	PQL	ug/Kg	
	NAPHTHALENE	J	1.4	1.8	PQL	ug/Kg	
SL-148-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	4.2	8.7	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	3.7	8.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	3.9	8.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	45	94	PQL	ug/Kg	
	CHRYSENE	J	6.0	8.7	PQL	ug/Kg	
	FLUORANTHENE	J	6.3	8.7	PQL	ug/Kg	
	PYRENE	J	4.8	8.7	PQL	ug/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE170

Laboratory: LL

EDD Filename: DE170\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8330A

**Matrix:** SO

<i>SampleID</i>	<i>Analyte</i>	<i>Lab Qual</i>	<i>Result</i>	<i>Reporting Limit</i>	<i>RL Type</i>	<i>Units</i>	<i>Flag</i>
SL-018-SA5DN-SB-4.0-5.0	1,3-DINITROBENZENE	J	70	130	PQL	ug/Kg	J (all detects)


LDC #: 26277B4 **VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE170 ADR

Laboratory: Lancaster Laboratories

Date: 9/30/11

Page: 1 of 1

Reviewer: 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	N	
III.	Calibration	N	
IV.	Blanks	A	No qual.
V.	ICP Interference Check Sample (ICS) Analysis	N	RPD out
VI.	Matrix Spike Analysis	SW	Al, Ba, Ca, Fe, Pb, Mg, Mn, Ti, V, Zn > 4x, No qual %
VII.	Duplicate Sample Analysis	SW	Se, Ag, Zr 45X
VIII.	Laboratory Control Samples (LCS)	A	SRM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	V
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	1	
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-100-SA5DN-SS-0.0-0.5	11	SL-128-SA5DN-SS-0.0-0.5	21	<del>SL-018-SA5DN-SB-7.5-9.5</del>	31	
2	SL-105-SA5DN-SS-0.0-0.5	12	SL-129-SA5DN-SS-0.0-0.5	22	SL-108-SA5DN-SS-0.0-0.5MS	32	
3	SL-106-SA5DN-SS-0.0-0.5	13	SL-130-SA5DN-SS-0.0-0.5	23	SL-108-SA5DN-SS-0.0-0.5MSD	33	
4	SL-107-SA5DN-SS-0.0-0.5	14	SL-148-SA5DN-SS-0.0-0.5	24	SL-108-SA5DN-SS-0.0-0.5DUP	34	
5	SL-108-SA5DN-SS-0.0-0.5	15	DUP-11-SA5DN-QC-060111	25		35	
6	SL-109-SA5DN-SS-0.0-0.5	16	SL-015-SA5DN-SB-4.0-5.0	26		36	
7	SL-123-SA5DN-SS-0.0-0.5	17	SL-015-SA5DN-SB-12.0-13.0	27		37	
8	SL-124-SA5DN-SS-0.0-0.5	18	SL-017-SA5DN-SB-4.0-5.0	28		38	
9	SL-126-SA5DN-SS-0.0-0.5	19	SL-017-SA5DN-SB-7.0-5.0	29		39	
10	SL-127-SA5DN-SS-0.0-0.5	20	SL-018-SA5DN-SB-4.0-5.0	30		40	

Notes:  $\chi^2$  Sb = J/uJ. part spike 80%. P = J/uJ, part spike 88, Hg = 89  
# Hg difference 0.3178 ( $\pm 0.208$ ) ug/g



QUALITY ASSURANCE SUMMARY  
FORM 5A (MS/MSD)  
MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
SDG No.: DEL70  
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6304843BKG Matrix Spike Lab Sample ID: 6304844MS Matrix Spike Duplicate Lab Sample ID: 6304845MSD  
% Solids for Sample: 94.7  
Batch Id(s): P15908F, P15926B, P15911E, P16508E

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	MSD Spike Added	Units		MS		MSD		RPD	Control Limit	
		Result	C	Result	C	Result	C			MG/KG	MG/KG	%R	Q	%R	Q		%R	RPD
Aluminum	121	20454.0327		24008.8916		23149.6179		205.0420	209.1022	MG/KG	MG/KG	1734		1289		4		
Antimony	75	0.1571	B	0.5115		0.7375		1.2184	1.2546	MG/KG	MG/KG	29	N	46	N	36	*	75 - 125
Arsenic	137	6.4132		8.7564		10.4823		2.0307	2.0910	MG/KG	MG/KG	115		195	N	18		75 - 125
Barium	137	151.0136		160.8927		125.6286		10.1535	10.4551	MG/KG	MG/KG	97		-243		25	*	20MS
Beryllium	9	0.7963		1.6585		1.9662		0.8123	0.8364	MG/KG	MG/KG	106		140	N	17		75 - 125
Boron		0.3801	U	191.9090		194.3103		205.0420	209.1022	MG/KG	MG/KG	94		93		1		84 - 115
Cadmium	111	0.4345		1.5839		1.9702		1.0154	1.0455	MG/KG	MG/KG	113		147	N	22	*	75 - 125
Calcium		5104.6589		5368.6737		4970.0461		410.0840	418.2044	MG/KG	MG/KG	64		-32		8		20P
Chromium	52	33.5609		40.7752		50.4473		10.1535	10.4551	MG/KG	MG/KG	71	N	162	N	21	*	75 - 125
Cobalt	59	9.6626		66.1400		82.2399		50.7676	52.2756	MG/KG	MG/KG	111		139	N	22	*	75 - 125
Copper	63	17.9096		28.5517		34.5437		10.1535	10.4551	MG/KG	MG/KG	105		159	N	19		75 - 125
Iron		25596.0686		24354.9892		24376.6757		102.5210	104.5511	MG/KG	MG/KG	-1211		-1166		0		20P
Lead	208	18.6436		14.2941		15.5928		3.0461	3.1365	MG/KG	MG/KG	-143		-97		9		20MS
Lithium		21.2133		118.6937		120.0027		102.5210	104.5511	MG/KG	MG/KG	95		94		1		82 - 114
Magnesium		5240.6473		5850.5500		5146.6695		205.0420	209.1022	MG/KG	MG/KG	297		-45		13		20P
Manganese		387.1204		435.8362		598.6586		51.2605	52.2756	MG/KG	MG/KG	95		405		31	*	20P
Mercury		0.6535		0.5006		0.5055		0.1726	0.1731	MG/KG	MG/KG	-89	N	-85	N	1		65 - 135
Molybdenum	98	0.8088		11.9040		14.8964		10.1535	10.4551	MG/KG	MG/KG	109		135	N	22	*	75 - 125
Nickel	60	25.0714		34.6844		44.4342		10.1535	10.4551	MG/KG	MG/KG	95		185	N	25	*	75 - 125
Phosphorus		408.4688		429.2103		462.3470		102.5210	104.5511	MG/KG	MG/KG	20	N	52	N	7		75 - 125
Potassium		4195.7878		5100.0615		5017.2426		1025.2099	1045.5111	MG/KG	MG/KG	88		79		2		20P
Selenium	78	0.1640	B	2.3516		2.6849		2.0307	2.0910	MG/KG	MG/KG	108		121		13		75 - 125
Silver	107	0.1513		12.2715		14.5765		10.1535	10.4551	MG/KG	MG/KG	119		138	N	17		75 - 125
Sodium		103.0063	B	1083.5300		1072.9599		1025.2099	1045.5111	MG/KG	MG/KG	96		93		1		75 - 125
Strontium		28.6146		123.4066		124.5193		102.5210	104.5511	MG/KG	MG/KG	92		92		1		75 - 115
Thallium	203	0.3561		0.8385		1.0277		0.4061	0.4182	MG/KG	MG/KG	119		161	N	20		75 - 125
Tin		2.9967	B	392.3960		389.0190		414.1044	414.1044	MG/KG	MG/KG	94		93		1		80 - 110
Titanium		1147.4590		1484.2050		1462.9553		103.5261	103.5261	MG/KG	MG/KG	325		305		1		20P
Vanadium	51	50.3100		63.1346		73.0812		10.1535	10.4551	MG/KG	MG/KG	126		218		15		20MS
Zinc	66	88.3666		93.5139		109.8414		10.1535	10.4551	MG/KG	MG/KG	51		205		16		20MS
Zirconium		3.8870	B	102.3108		99.4699		102.5210	104.5511	MG/KG	MG/KG	96		91		3		75 - 125

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

Sp = post spike 8070  
8870



## QUALITY ASSURANCE SUMMARY

FORM 6

DUPLICATES

SDG No.: DE170

Matrix: SOIL

Level (low/med): LOW

Background Lab Sample ID: 6304843BKG

Duplicate Lab Sample ID: 6304846DUP

% Solids for Duplicate: 94.6

% Solids for Sample: 94.7

Batch ID(s): P15908F, P15926B, P15911E, P16508E

Concentration Units: MG/KG

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			20454.0327		19401.7291		5		P
Antimony	121		0.1571	B	0.1470	B	7		MS
Arsenic	75		6.4132		6.4182		0		MS
Barium	137		151.0136		158.4372		5		MS
Beryllium	9		0.7963		0.8289		4		MS
Boron			0.3801	U	0.3655	U			P
Cadmium	111	0.1	0.4345		0.4564		5		MS
Calcium			5104.6589		4563.1986		11		P
Chromium	52		33.5609		29.5671		13		MS
Cobalt	59		9.6626		10.2175		6		MS
Copper	63		17.9096		17.7423		1		MS
Iron			25596.0686		25165.3135		2		P
Lead	208		18.6436		16.1690		14		MS
Lithium			21.2133		20.5406		3		P
Magnesium			5240.6473		5029.6899		4		P
Manganese			387.1204		410.8490		6		P
<del>Mercury</del>		0.1	0.6535		0.3357		64	*	CV
Molybdenum	98		0.8088		0.6433		23	*	MS
Nickel	60		25.0714		23.8860		5		MS
Phosphorus			408.4688		367.8042		10		P
Potassium			4195.7878		4041.7828		4		P
Selenium	78		0.1640	B	0.2041	B	22		MS
Silver	107	0.1	0.1513		0.0699	B	74		MS
Sodium			103.0063	B	96.4503	B	7		P
Strontium			28.6146		27.4693		4		P
Thallium	203	0.1	0.3561		0.3740		5		MS
Tin			2.9967	B	2.9860	B	0		P
Titanium			1147.4590		1132.3711		1		P
Vanadium	51		50.3100		52.2070		4		MS
Zinc	66		88.3666		90.2218		2		MS
Zirconium			3.8870	B	4.9062	B	23		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.

# Hg by difference 0.3178 ( $\leq 0.208$ ) mg/kg

DE170 6548

## 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**

**DE171**

## **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-Jun-2011	SL-136-SA5DN-SS-0.0-0.5	6305884	N	3050B	6010B	III
02-Jun-2011	SL-136-SA5DN-SS-0.0-0.5	6305884	N	3050B	6020	III
02-Jun-2011	SL-136-SA5DN-SS-0.0-0.5	6305884	N	3060A	7199	III
02-Jun-2011	SL-136-SA5DN-SS-0.0-0.5	6305884	N	3546	1625C	III
02-Jun-2011	SL-136-SA5DN-SS-0.0-0.5	6305884	N	3550B	8015B	III
02-Jun-2011	SL-136-SA5DN-SS-0.0-0.5	6305884	N	3550B	8015M	III
02-Jun-2011	SL-136-SA5DN-SS-0.0-0.5	6305884	N	3550B	8081A	III
02-Jun-2011	SL-136-SA5DN-SS-0.0-0.5	6305884	N	3550B	8082	III
02-Jun-2011	SL-136-SA5DN-SS-0.0-0.5	6305884	N	3550B	8151A	III
02-Jun-2011	SL-136-SA5DN-SS-0.0-0.5	6305884	N	3550B	8270C	III
02-Jun-2011	SL-136-SA5DN-SS-0.0-0.5	6305884	N	3550B	8270C SIM	III
02-Jun-2011	SL-136-SA5DN-SS-0.0-0.5	6305884	N	8330	8330A	III
02-Jun-2011	SL-136-SA5DN-SS-0.0-0.5	6305884	N	METHOD	300.0	III
02-Jun-2011	SL-136-SA5DN-SS-0.0-0.5	6305884	N	METHOD	314.0	III
02-Jun-2011	SL-136-SA5DN-SS-0.0-0.5	6305884	N	METHOD	7471A	III
02-Jun-2011	SL-136-SA5DN-SS-0.0-0.5	6305884	N	METHOD	8015B	III
02-Jun-2011	SL-136-SA5DN-SS-0.0-0.5	6305884	N	METHOD	8015M	III
02-Jun-2011	SL-136-SA5DN-SS-0.0-0.5	6305884	N	METHOD	8315A	III
02-Jun-2011	SL-136-SA5DN-SS-0.0-0.5	6305884	N	METHOD	9012B	III
02-Jun-2011	SL-134-SA5DN-SS-0.0-0.5	6305882	N	3050B	6010B	III
02-Jun-2011	SL-134-SA5DN-SS-0.0-0.5	6305882	N	3050B	6020	III
02-Jun-2011	SL-134-SA5DN-SS-0.0-0.5	6305882	N	3060A	7199	III
02-Jun-2011	SL-134-SA5DN-SS-0.0-0.5	6305882	N	3546	1625C	III
02-Jun-2011	SL-134-SA5DN-SS-0.0-0.5	6305882	N	3550B	8015B	III
02-Jun-2011	SL-134-SA5DN-SS-0.0-0.5	6305882	N	3550B	8015M	III
02-Jun-2011	SL-134-SA5DN-SS-0.0-0.5	6305882	N	3550B	8081A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Jun-2011	SL-134-SA5DN-SS-0.0-0.5	6305882	N	3550B	8082	III
02-Jun-2011	SL-134-SA5DN-SS-0.0-0.5	6305882	N	3550B	8151A	III
02-Jun-2011	SL-134-SA5DN-SS-0.0-0.5	6305882	N	3550B	8270C	III
02-Jun-2011	SL-134-SA5DN-SS-0.0-0.5	6305882	N	3550B	8270C SIM	III
02-Jun-2011	SL-134-SA5DN-SS-0.0-0.5	6305882	N	8330	8330A	III
02-Jun-2011	SL-134-SA5DN-SS-0.0-0.5	6305882	N	METHOD	300.0	III
02-Jun-2011	SL-134-SA5DN-SS-0.0-0.5	6305882	N	METHOD	314.0	III
02-Jun-2011	SL-134-SA5DN-SS-0.0-0.5	6305882	N	METHOD	7471A	III
02-Jun-2011	SL-134-SA5DN-SS-0.0-0.5	6305882	N	METHOD	8015B	III
02-Jun-2011	SL-134-SA5DN-SS-0.0-0.5	6305882	N	METHOD	8015M	III
02-Jun-2011	SL-134-SA5DN-SS-0.0-0.5	6305882	N	METHOD	8315A	III
02-Jun-2011	SL-134-SA5DN-SS-0.0-0.5	6305882	N	METHOD	9012B	III
02-Jun-2011	SL-135-SA5DN-SS-0.0-0.5	6305883	N	3050B	6010B	III
02-Jun-2011	SL-135-SA5DN-SS-0.0-0.5	6305883	N	3050B	6020	III
02-Jun-2011	SL-135-SA5DN-SS-0.0-0.5	6305883	N	3060A	7199	III
02-Jun-2011	SL-135-SA5DN-SS-0.0-0.5	6305883	N	3546	1625C	III
02-Jun-2011	SL-135-SA5DN-SS-0.0-0.5	6305883	N	3550B	8015B	III
02-Jun-2011	SL-135-SA5DN-SS-0.0-0.5	6305883	N	3550B	8015M	III
02-Jun-2011	SL-135-SA5DN-SS-0.0-0.5	6305883	N	3550B	8081A	III
02-Jun-2011	SL-135-SA5DN-SS-0.0-0.5	6305883	N	3550B	8082	III
02-Jun-2011	SL-135-SA5DN-SS-0.0-0.5	6305883	N	3550B	8151A	III
02-Jun-2011	SL-135-SA5DN-SS-0.0-0.5	6305883	N	3550B	8270C	III
02-Jun-2011	SL-135-SA5DN-SS-0.0-0.5	6305883	N	3550B	8270C SIM	III
02-Jun-2011	SL-135-SA5DN-SS-0.0-0.5	6305883	N	8330	8330A	III
02-Jun-2011	SL-135-SA5DN-SS-0.0-0.5	6305883	N	METHOD	300.0	III
02-Jun-2011	SL-135-SA5DN-SS-0.0-0.5	6305883	N	METHOD	314.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Jun-2011	SL-135-SA5DN-SS-0.0-0.5	6305883	N	METHOD	7471A	III
02-Jun-2011	SL-135-SA5DN-SS-0.0-0.5	6305883	N	METHOD	8015B	III
02-Jun-2011	SL-135-SA5DN-SS-0.0-0.5	6305883	N	METHOD	8015M	III
02-Jun-2011	SL-135-SA5DN-SS-0.0-0.5	6305883	N	METHOD	8315A	III
02-Jun-2011	SL-135-SA5DN-SS-0.0-0.5	6305883	N	METHOD	9012B	III
02-Jun-2011	SL-137-SA5DN-SS-0.0-0.5	6305885	N	3050B	6010B	III
02-Jun-2011	SL-137-SA5DN-SS-0.0-0.5	6305885	N	3050B	6020	III
02-Jun-2011	SL-137-SA5DN-SS-0.0-0.5	6305885	N	3060A	7199	III
02-Jun-2011	SL-137-SA5DN-SS-0.0-0.5	6305885	N	3546	1625C	III
02-Jun-2011	SL-137-SA5DN-SS-0.0-0.5	6305885	N	3550B	8015B	III
02-Jun-2011	SL-137-SA5DN-SS-0.0-0.5	6305885	N	3550B	8015M	III
02-Jun-2011	SL-137-SA5DN-SS-0.0-0.5	6305885	N	3550B	8081A	III
02-Jun-2011	SL-137-SA5DN-SS-0.0-0.5	6305885	N	3550B	8082	III
02-Jun-2011	SL-137-SA5DN-SS-0.0-0.5	6305885	N	3550B	8151A	III
02-Jun-2011	SL-137-SA5DN-SS-0.0-0.5	6305885	N	3550B	8270C	III
02-Jun-2011	SL-137-SA5DN-SS-0.0-0.5	6305885	N	3550B	8270C SIM	III
02-Jun-2011	SL-137-SA5DN-SS-0.0-0.5	6305885	N	8330	8330A	III
02-Jun-2011	SL-137-SA5DN-SS-0.0-0.5	6305885	N	METHOD	300.0	III
02-Jun-2011	SL-137-SA5DN-SS-0.0-0.5	6305885	N	METHOD	314.0	III
02-Jun-2011	SL-137-SA5DN-SS-0.0-0.5	6305885	N	METHOD	7471A	III
02-Jun-2011	SL-137-SA5DN-SS-0.0-0.5	6305885	N	METHOD	8015B	III
02-Jun-2011	SL-137-SA5DN-SS-0.0-0.5	6305885	N	METHOD	8015M	III
02-Jun-2011	SL-137-SA5DN-SS-0.0-0.5	6305885	N	METHOD	8315A	III
02-Jun-2011	SL-137-SA5DN-SS-0.0-0.5	6305885	N	METHOD	9012B	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5	6305886	N	3050B	6010B	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5	6305886	N	3050B	6020	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5	6305886	N	3060A	7199	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5	6305886	N	3546	1625C	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5	6305886	N	3550B	8015B	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5	6305886	N	3550B	8015M	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5	6305886	N	3550B	8081A	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5	6305886	N	3550B	8082	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5	6305886	N	3550B	8151A	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5	6305886	N	3550B	8270C	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5	6305886	N	3550B	8270C SIM	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5	6305886	N	8330	8330A	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5	6305886	N	METHOD	300.0	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5	6305886	N	METHOD	314.0	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5	6305886	N	METHOD	7471A	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5	6305886	N	METHOD	8015B	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5	6305886	N	METHOD	8015M	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5	6305886	N	METHOD	8315A	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5	6305886	N	METHOD	9012B	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5MS	6305887	MS	3050B	6010B	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5MS	6305887	MS	3050B	6020	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5MS	6305887	MS	3060A	7199	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5MS	6305887	MS	3546	1625C	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5MS	6305887	MS	3550B	8015B	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5MS	6305887	MS	3550B	8015M	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5MS	6305887	MS	3550B	8081A	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5MS	6305887	MS	3550B	8082	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5MS	6305887	MS	3550B	8151A	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

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5MS	6305887	MS	3550B	8270C	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5MS	6305887	MS	3550B	8270C SIM	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5MS	6305887	MS	8330	8330A	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5MS	6305887	MS	METHOD	300.0	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5MS	6305887	MS	METHOD	314.0	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5MS	6305887	MS	METHOD	7471A	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5MS	6305887	MS	METHOD	8015B	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5MS	6305887	MS	METHOD	8015M	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5MS	6305887	MS	METHOD	8315A	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5MS	6305887	MS	METHOD	9012B	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5DU	6305889	DUP	3050B	6010B	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5DU	6305889	DUP	3050B	6020	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5DU	6305889	DUP	3060A	7199	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5DU	6305889	DUP	METHOD	300.0	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5DU	6305889	DUP	METHOD	314.0	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5DU	6305889	DUP	METHOD	7471A	III
02-Jun-2011	SL-138-SA5DN-SS-0.0-0.5DU	6305889	DUP	METHOD	9012B	III
02-Jun-2011	DUP-12-SA5DN-QC-060211	6305896	FD	3050B	6010B	III
02-Jun-2011	DUP-12-SA5DN-QC-060211	6305896	FD	3050B	6020	III
02-Jun-2011	DUP-12-SA5DN-QC-060211	6305896	FD	3060A	7199	III
02-Jun-2011	DUP-12-SA5DN-QC-060211	6305896	FD	3546	1625C	III
02-Jun-2011	DUP-12-SA5DN-QC-060211	6305896	FD	3550B	8015B	III
02-Jun-2011	DUP-12-SA5DN-QC-060211	6305896	FD	3550B	8015M	III
02-Jun-2011	DUP-12-SA5DN-QC-060211	6305896	FD	3550B	8081A	III
02-Jun-2011	DUP-12-SA5DN-QC-060211	6305896	FD	3550B	8082	III
02-Jun-2011	DUP-12-SA5DN-QC-060211	6305896	FD	3550B	8151A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Jun-2011	DUP-12-SA5DN-QC-060211	6305896	FD	3550B	8270C	III
02-Jun-2011	DUP-12-SA5DN-QC-060211	6305896	FD	3550B	8270C SIM	III
02-Jun-2011	DUP-12-SA5DN-QC-060211	6305896	FD	8330	8330A	III
02-Jun-2011	DUP-12-SA5DN-QC-060211	6305896	FD	METHOD	300.0	III
02-Jun-2011	DUP-12-SA5DN-QC-060211	6305896	FD	METHOD	314.0	III
02-Jun-2011	DUP-12-SA5DN-QC-060211	6305896	FD	METHOD	7471A	III
02-Jun-2011	DUP-12-SA5DN-QC-060211	6305896	FD	METHOD	8015B	III
02-Jun-2011	DUP-12-SA5DN-QC-060211	6305896	FD	METHOD	8015M	III
02-Jun-2011	DUP-12-SA5DN-QC-060211	6305896	FD	METHOD	8315A	III
02-Jun-2011	DUP-12-SA5DN-QC-060211	6305896	FD	METHOD	9012B	III
02-Jun-2011	SL-139-SA5DN-SS-0.0-0.5	6305890	N	3050B	6010B	III
02-Jun-2011	SL-139-SA5DN-SS-0.0-0.5	6305890	N	3050B	6020	III
02-Jun-2011	SL-139-SA5DN-SS-0.0-0.5	6305890	N	3060A	7199	III
02-Jun-2011	SL-139-SA5DN-SS-0.0-0.5	6305890	N	3546	1625C	III
02-Jun-2011	SL-139-SA5DN-SS-0.0-0.5	6305890	N	3550B	8015B	III
02-Jun-2011	SL-139-SA5DN-SS-0.0-0.5	6305890	N	3550B	8015M	III
02-Jun-2011	SL-139-SA5DN-SS-0.0-0.5	6305890	N	3550B	8081A	III
02-Jun-2011	SL-139-SA5DN-SS-0.0-0.5	6305890	N	3550B	8082	III
02-Jun-2011	SL-139-SA5DN-SS-0.0-0.5	6305890	N	3550B	8151A	III
02-Jun-2011	SL-139-SA5DN-SS-0.0-0.5	6305890	N	3550B	8270C	III
02-Jun-2011	SL-139-SA5DN-SS-0.0-0.5	6305890	N	3550B	8270C SIM	III
02-Jun-2011	SL-139-SA5DN-SS-0.0-0.5	6305890	N	8330	8330A	III
02-Jun-2011	SL-139-SA5DN-SS-0.0-0.5	6305890	N	METHOD	300.0	III
02-Jun-2011	SL-139-SA5DN-SS-0.0-0.5	6305890	N	METHOD	314.0	III
02-Jun-2011	SL-139-SA5DN-SS-0.0-0.5	6305890	N	METHOD	7471A	III
02-Jun-2011	SL-139-SA5DN-SS-0.0-0.5	6305890	N	METHOD	8015B	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

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Jun-2011	SL-139-SA5DN-SS-0.0-0.5	6305890	N	METHOD	8015M	III
02-Jun-2011	SL-139-SA5DN-SS-0.0-0.5	6305890	N	METHOD	8315A	III
02-Jun-2011	SL-139-SA5DN-SS-0.0-0.5	6305890	N	METHOD	9012B	III
02-Jun-2011	SL-140-SA5DN-SS-0.0-0.5	6305891	N	3050B	6010B	III
02-Jun-2011	SL-140-SA5DN-SS-0.0-0.5	6305891	N	3050B	6020	III
02-Jun-2011	SL-140-SA5DN-SS-0.0-0.5	6305891	N	3060A	7199	III
02-Jun-2011	SL-140-SA5DN-SS-0.0-0.5	6305891	N	3546	1625C	III
02-Jun-2011	SL-140-SA5DN-SS-0.0-0.5	6305891	N	3550B	8015B	III
02-Jun-2011	SL-140-SA5DN-SS-0.0-0.5	6305891	N	3550B	8015M	III
02-Jun-2011	SL-140-SA5DN-SS-0.0-0.5	6305891	N	3550B	8081A	III
02-Jun-2011	SL-140-SA5DN-SS-0.0-0.5	6305891	N	3550B	8082	III
02-Jun-2011	SL-140-SA5DN-SS-0.0-0.5	6305891	N	3550B	8151A	III
02-Jun-2011	SL-140-SA5DN-SS-0.0-0.5	6305891	N	3550B	8270C	III
02-Jun-2011	SL-140-SA5DN-SS-0.0-0.5	6305891	N	3550B	8270C SIM	III
02-Jun-2011	SL-140-SA5DN-SS-0.0-0.5	6305891	N	8330	8330A	III
02-Jun-2011	SL-140-SA5DN-SS-0.0-0.5	6305891	N	METHOD	300.0	III
02-Jun-2011	SL-140-SA5DN-SS-0.0-0.5	6305891	N	METHOD	314.0	III
02-Jun-2011	SL-140-SA5DN-SS-0.0-0.5	6305891	N	METHOD	7471A	III
02-Jun-2011	SL-140-SA5DN-SS-0.0-0.5	6305891	N	METHOD	8015B	III
02-Jun-2011	SL-140-SA5DN-SS-0.0-0.5	6305891	N	METHOD	8015M	III
02-Jun-2011	SL-140-SA5DN-SS-0.0-0.5	6305891	N	METHOD	8315A	III
02-Jun-2011	SL-140-SA5DN-SS-0.0-0.5	6305891	N	METHOD	9012B	III
02-Jun-2011	SL-133-SA5DN-SS-0.0-0.5	6305881	N	3050B	6010B	III
02-Jun-2011	SL-133-SA5DN-SS-0.0-0.5	6305881	N	3050B	6020	III
02-Jun-2011	SL-133-SA5DN-SS-0.0-0.5	6305881	N	3060A	7199	III
02-Jun-2011	SL-133-SA5DN-SS-0.0-0.5	6305881	N	3546	1625C	III

III = EPA Level 3 Data Review  
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FB = Field Blank

MS = Matrix Spike  
MSD = Matrix Spike Duplicate

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Jun-2011	SL-133-SA5DN-SS-0.0-0.5	6305881	N	3550B	8015B	III
02-Jun-2011	SL-133-SA5DN-SS-0.0-0.5	6305881	N	3550B	8015M	III
02-Jun-2011	SL-133-SA5DN-SS-0.0-0.5	6305881	N	3550B	8081A	III
02-Jun-2011	SL-133-SA5DN-SS-0.0-0.5	6305881	N	3550B	8082	III
02-Jun-2011	SL-133-SA5DN-SS-0.0-0.5	6305881	N	3550B	8151A	III
02-Jun-2011	SL-133-SA5DN-SS-0.0-0.5	6305881	N	3550B	8270C	III
02-Jun-2011	SL-133-SA5DN-SS-0.0-0.5	6305881	N	3550B	8270C SIM	III
02-Jun-2011	SL-133-SA5DN-SS-0.0-0.5	6305881	N	8330	8330A	III
02-Jun-2011	SL-133-SA5DN-SS-0.0-0.5	6305881	N	METHOD	300.0	III
02-Jun-2011	SL-133-SA5DN-SS-0.0-0.5	6305881	N	METHOD	314.0	III
02-Jun-2011	SL-133-SA5DN-SS-0.0-0.5	6305881	N	METHOD	7471A	III
02-Jun-2011	SL-133-SA5DN-SS-0.0-0.5	6305881	N	METHOD	8015B	III
02-Jun-2011	SL-133-SA5DN-SS-0.0-0.5	6305881	N	METHOD	8015M	III
02-Jun-2011	SL-133-SA5DN-SS-0.0-0.5	6305881	N	METHOD	8315A	III
02-Jun-2011	SL-133-SA5DN-SS-0.0-0.5	6305881	N	METHOD	9012B	III
02-Jun-2011	SL-132-SA5DN-SS-0.0-0.5	6305880	N	3050B	6010B	III
02-Jun-2011	SL-132-SA5DN-SS-0.0-0.5	6305880	N	3050B	6020	III
02-Jun-2011	SL-132-SA5DN-SS-0.0-0.5	6305880	N	3060A	7199	III
02-Jun-2011	SL-132-SA5DN-SS-0.0-0.5	6305880	N	3546	1625C	III
02-Jun-2011	SL-132-SA5DN-SS-0.0-0.5	6305880	N	3550B	8015B	III
02-Jun-2011	SL-132-SA5DN-SS-0.0-0.5	6305880	N	3550B	8015M	III
02-Jun-2011	SL-132-SA5DN-SS-0.0-0.5	6305880	N	3550B	8081A	III
02-Jun-2011	SL-132-SA5DN-SS-0.0-0.5	6305880	N	3550B	8082	III
02-Jun-2011	SL-132-SA5DN-SS-0.0-0.5	6305880	N	3550B	8151A	III
02-Jun-2011	SL-132-SA5DN-SS-0.0-0.5	6305880	N	3550B	8270C	III
02-Jun-2011	SL-132-SA5DN-SS-0.0-0.5	6305880	N	3550B	8270C SIM	III

III = EPA Level 3 Data Review  
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N = Normal Sample  
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FB = Field Blank

MS = Matrix Spike  
MSD = Matrix Spike Duplicate



## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Jun-2011	SL-132-SA5DN-SS-0.0-0.5	6305880	N	8330	8330A	III
02-Jun-2011	SL-132-SA5DN-SS-0.0-0.5	6305880	N	METHOD	300.0	III
02-Jun-2011	SL-132-SA5DN-SS-0.0-0.5	6305880	N	METHOD	314.0	III
02-Jun-2011	SL-132-SA5DN-SS-0.0-0.5	6305880	N	METHOD	6850	III
02-Jun-2011	SL-132-SA5DN-SS-0.0-0.5	6305880	N	METHOD	7471A	III
02-Jun-2011	SL-132-SA5DN-SS-0.0-0.5	6305880	N	METHOD	8015B	III
02-Jun-2011	SL-132-SA5DN-SS-0.0-0.5	6305880	N	METHOD	8015M	III
02-Jun-2011	SL-132-SA5DN-SS-0.0-0.5	6305880	N	METHOD	8315A	III
02-Jun-2011	SL-132-SA5DN-SS-0.0-0.5	6305880	N	METHOD	9012B	III
02-Jun-2011	SL-131-SA5DN-SS-0.0-0.5	6305879	N	3050B	6010B	III
02-Jun-2011	SL-131-SA5DN-SS-0.0-0.5	6305879	N	3050B	6020	III
02-Jun-2011	SL-131-SA5DN-SS-0.0-0.5	6305879	N	3060A	7199	III
02-Jun-2011	SL-131-SA5DN-SS-0.0-0.5	6305879	N	3550B	8081A	III
02-Jun-2011	SL-131-SA5DN-SS-0.0-0.5	6305879	N	3550B	8082	III
02-Jun-2011	SL-131-SA5DN-SS-0.0-0.5	6305879	N	3550B	8151A	III
02-Jun-2011	SL-131-SA5DN-SS-0.0-0.5	6305879	N	3550B	8270C	III
02-Jun-2011	SL-131-SA5DN-SS-0.0-0.5	6305879	N	3550B	8270C SIM	III
02-Jun-2011	SL-131-SA5DN-SS-0.0-0.5	6305879	N	METHOD	300.0	III
02-Jun-2011	SL-131-SA5DN-SS-0.0-0.5	6305879	N	METHOD	314.0	III
02-Jun-2011	SL-131-SA5DN-SS-0.0-0.5	6305879	N	METHOD	7471A	III
02-Jun-2011	EB12-SA5DN-SS-060211	6305901	EB	3005A	6010B	III
02-Jun-2011	EB12-SA5DN-SS-060211	6305901	EB	3020A	6020	III
02-Jun-2011	EB12-SA5DN-SS-060211	6305901	EB	3510C	8015B	III
02-Jun-2011	EB12-SA5DN-SS-060211	6305901	EB	3510C	8015M	III
02-Jun-2011	EB12-SA5DN-SS-060211	6305901	EB	3510C	8081A	III
02-Jun-2011	EB12-SA5DN-SS-060211	6305901	EB	3510C	8082	III

III = EPA Level 3 Data Review  
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N = Normal Sample  
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TB = Trip Blank  
FB = Field Blank

MS = Matrix Spike  
MSD = Matrix Spike Duplicate

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Jun-2011	EB12-SA5DN-SS-060211	6305901	EB	3510C	8270C	III
02-Jun-2011	EB12-SA5DN-SS-060211	6305901	EB	3510C	8270C SIM	III
02-Jun-2011	EB12-SA5DN-SS-060211	6305901	EB	3520C	1625C	III
02-Jun-2011	EB12-SA5DN-SS-060211	6305901	EB	8330	8330A	III
02-Jun-2011	EB12-SA5DN-SS-060211	6305901	EB	Gen Prep	300.0	III
02-Jun-2011	EB12-SA5DN-SS-060211	6305901	EB	Gen Prep	314.0	III
02-Jun-2011	EB12-SA5DN-SS-060211	6305901	EB	Gen Prep	7199	III
02-Jun-2011	EB12-SA5DN-SS-060211	6305901	EB	Gen Prep	8015B	III
02-Jun-2011	EB12-SA5DN-SS-060211	6305901	EB	Gen Prep	8015M	III
02-Jun-2011	EB12-SA5DN-SS-060211	6305901	EB	METHOD	7470A	III
02-Jun-2011	EB12-SA5DN-SS-060211	6305901	EB	METHOD	8151A	III
02-Jun-2011	EB12-SA5DN-SS-060211	6305901	EB	METHOD	8315A	III
02-Jun-2011	EB12-SA5DN-SS-060211	6305901	EB	METHOD	9012B	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5	6305892	N	3050B	6010B	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5	6305892	N	3050B	6020	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5	6305892	N	3060A	7199	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5	6305892	N	3546	1625C	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5	6305892	N	3550B	8015B	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5	6305892	N	3550B	8015M	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5	6305892	N	3550B	8081A	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5	6305892	N	3550B	8082	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5	6305892	N	3550B	8151A	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5	6305892	N	3550B	8270C	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5	6305892	N	3550B	8270C SIM	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5	6305892	N	8330	8330A	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5	6305892	N	METHOD	300.0	III

III = EPA Level 3 Data Review  
IV = EPA Level 4 Data Validation

N = Normal Sample  
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TB = Trip Blank  
FB = Field Blank

MS = Matrix Spike  
MSD = Matrix Spike Duplicate

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5	6305892	N	METHOD	314.0	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5	6305892	N	METHOD	7471A	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5	6305892	N	METHOD	8015B	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5	6305892	N	METHOD	8015M	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5	6305892	N	METHOD	8315A	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5	6305892	N	METHOD	9012B	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5DU	P305892D270633B	DUP	METHOD	314.0	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5DU	P305892D271734B	DUP	METHOD	300.0	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5MS	P305892R270657B	MS	METHOD	314.0	III
02-Jun-2011	SL-141-SA5DN-SS-0.0-0.5MS	P305892R271748B	MS	METHOD	300.0	III
02-Jun-2011	SL-143-SA5DN-SS-0.0-0.5	6305894	N	3050B	6010B	III
02-Jun-2011	SL-143-SA5DN-SS-0.0-0.5	6305894	N	3050B	6020	III
02-Jun-2011	SL-143-SA5DN-SS-0.0-0.5	6305894	N	3060A	7199	III
02-Jun-2011	SL-143-SA5DN-SS-0.0-0.5	6305894	N	3550B	8081A	III
02-Jun-2011	SL-143-SA5DN-SS-0.0-0.5	6305894	N	3550B	8082	III
02-Jun-2011	SL-143-SA5DN-SS-0.0-0.5	6305894	N	3550B	8151A	III
02-Jun-2011	SL-143-SA5DN-SS-0.0-0.5	6305894	N	3550B	8270C	III
02-Jun-2011	SL-143-SA5DN-SS-0.0-0.5	6305894	N	3550B	8270C SIM	III
02-Jun-2011	SL-143-SA5DN-SS-0.0-0.5	6305894	N	METHOD	300.0	III
02-Jun-2011	SL-143-SA5DN-SS-0.0-0.5	6305894	N	METHOD	314.0	III
02-Jun-2011	SL-143-SA5DN-SS-0.0-0.5	6305894	N	METHOD	7471A	III
02-Jun-2011	SL-151-SA5DN-SS-0.0-0.5	6305900	N	3050B	6010B	III
02-Jun-2011	SL-151-SA5DN-SS-0.0-0.5	6305900	N	3050B	6020	III
02-Jun-2011	SL-151-SA5DN-SS-0.0-0.5	6305900	N	3060A	7199	III
02-Jun-2011	SL-151-SA5DN-SS-0.0-0.5	6305900	N	3550B	8081A	III
02-Jun-2011	SL-151-SA5DN-SS-0.0-0.5	6305900	N	3550B	8082	III

III = EPA Level 3 Data Review  
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N = Normal Sample  
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TB = Trip Blank  
FB = Field Blank

MS = Matrix Spike  
MSD = Matrix Spike Duplicate

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Jun-2011	SL-151-SA5DN-SS-0.0-0.5	6305900	N	3550B	8151A	III
02-Jun-2011	SL-151-SA5DN-SS-0.0-0.5	6305900	N	3550B	8270C	III
02-Jun-2011	SL-151-SA5DN-SS-0.0-0.5	6305900	N	3550B	8270C SIM	III
02-Jun-2011	SL-151-SA5DN-SS-0.0-0.5	6305900	N	METHOD	300.0	III
02-Jun-2011	SL-151-SA5DN-SS-0.0-0.5	6305900	N	METHOD	314.0	III
02-Jun-2011	SL-151-SA5DN-SS-0.0-0.5	6305900	N	METHOD	7471A	III
02-Jun-2011	SL-142-SA5DN-SS-0.0-0.5	6305893	N	3050B	6010B	III
02-Jun-2011	SL-142-SA5DN-SS-0.0-0.5	6305893	N	3050B	6020	III
02-Jun-2011	SL-142-SA5DN-SS-0.0-0.5	6305893	N	3060A	7199	III
02-Jun-2011	SL-142-SA5DN-SS-0.0-0.5	6305893	N	3550B	8081A	III
02-Jun-2011	SL-142-SA5DN-SS-0.0-0.5	6305893	N	3550B	8082	III
02-Jun-2011	SL-142-SA5DN-SS-0.0-0.5	6305893	N	3550B	8151A	III
02-Jun-2011	SL-142-SA5DN-SS-0.0-0.5	6305893	N	3550B	8270C	III
02-Jun-2011	SL-142-SA5DN-SS-0.0-0.5	6305893	N	3550B	8270C SIM	III
02-Jun-2011	SL-142-SA5DN-SS-0.0-0.5	6305893	N	METHOD	300.0	III
02-Jun-2011	SL-142-SA5DN-SS-0.0-0.5	6305893	N	METHOD	314.0	III
02-Jun-2011	SL-142-SA5DN-SS-0.0-0.5	6305893	N	METHOD	7471A	III
02-Jun-2011	SL-144-SA5DN-SS-0.0-0.5	6305895	N	3050B	6010B	III
02-Jun-2011	SL-144-SA5DN-SS-0.0-0.5	6305895	N	3050B	6020	III
02-Jun-2011	SL-144-SA5DN-SS-0.0-0.5	6305895	N	3060A	7199	III
02-Jun-2011	SL-144-SA5DN-SS-0.0-0.5	6305895	N	3550B	8081A	III
02-Jun-2011	SL-144-SA5DN-SS-0.0-0.5	6305895	N	3550B	8082	III
02-Jun-2011	SL-144-SA5DN-SS-0.0-0.5	6305895	N	3550B	8151A	III
02-Jun-2011	SL-144-SA5DN-SS-0.0-0.5	6305895	N	3550B	8270C	III
02-Jun-2011	SL-144-SA5DN-SS-0.0-0.5	6305895	N	3550B	8270C SIM	III
02-Jun-2011	SL-144-SA5DN-SS-0.0-0.5	6305895	N	METHOD	300.0	III

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MSD = Matrix Spike Duplicate

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Jun-2011	SL-144-SA5DN-SS-0.0-0.5	6305895	N	METHOD	314.0	III
02-Jun-2011	SL-144-SA5DN-SS-0.0-0.5	6305895	N	METHOD	6850	III
02-Jun-2011	SL-144-SA5DN-SS-0.0-0.5	6305895	N	METHOD	7471A	III
02-Jun-2011	SL-145-SA5DN-SS-0.0-0.5	6305897	N	3050B	6010B	III
02-Jun-2011	SL-145-SA5DN-SS-0.0-0.5	6305897	N	3050B	6020	III
02-Jun-2011	SL-145-SA5DN-SS-0.0-0.5	6305897	N	3060A	7199	III
02-Jun-2011	SL-145-SA5DN-SS-0.0-0.5	6305897	N	3550B	8081A	III
02-Jun-2011	SL-145-SA5DN-SS-0.0-0.5	6305897	N	3550B	8082	III
02-Jun-2011	SL-145-SA5DN-SS-0.0-0.5	6305897	N	3550B	8151A	III
02-Jun-2011	SL-145-SA5DN-SS-0.0-0.5	6305897	N	3550B	8270C	III
02-Jun-2011	SL-145-SA5DN-SS-0.0-0.5	6305897	N	3550B	8270C SIM	III
02-Jun-2011	SL-145-SA5DN-SS-0.0-0.5	6305897	N	METHOD	300.0	III
02-Jun-2011	SL-145-SA5DN-SS-0.0-0.5	6305897	N	METHOD	314.0	III
02-Jun-2011	SL-145-SA5DN-SS-0.0-0.5	6305897	N	METHOD	7471A	III
02-Jun-2011	SL-150-SA5DN-SS-0.0-0.5	6305899	N	3050B	6010B	III
02-Jun-2011	SL-150-SA5DN-SS-0.0-0.5	6305899	N	3050B	6020	III
02-Jun-2011	SL-150-SA5DN-SS-0.0-0.5	6305899	N	3060A	7199	III
02-Jun-2011	SL-150-SA5DN-SS-0.0-0.5	6305899	N	3550B	8081A	III
02-Jun-2011	SL-150-SA5DN-SS-0.0-0.5	6305899	N	3550B	8082	III
02-Jun-2011	SL-150-SA5DN-SS-0.0-0.5	6305899	N	3550B	8151A	III
02-Jun-2011	SL-150-SA5DN-SS-0.0-0.5	6305899	N	3550B	8270C	III
02-Jun-2011	SL-150-SA5DN-SS-0.0-0.5	6305899	N	3550B	8270C SIM	III
02-Jun-2011	SL-150-SA5DN-SS-0.0-0.5	6305899	N	METHOD	300.0	III
02-Jun-2011	SL-150-SA5DN-SS-0.0-0.5	6305899	N	METHOD	314.0	III
02-Jun-2011	SL-150-SA5DN-SS-0.0-0.5	6305899	N	METHOD	7471A	III
02-Jun-2011	SL-149-SA5DN-SS-0.0-0.5	6305898	N	3050B	6010B	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

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Jun-2011	SL-149-SA5DN-SS-0.0-0.5	6305898	N	3050B	6020	III
02-Jun-2011	SL-149-SA5DN-SS-0.0-0.5	6305898	N	3060A	7199	III
02-Jun-2011	SL-149-SA5DN-SS-0.0-0.5	6305898	N	3550B	8081A	III
02-Jun-2011	SL-149-SA5DN-SS-0.0-0.5	6305898	N	3550B	8082	III
02-Jun-2011	SL-149-SA5DN-SS-0.0-0.5	6305898	N	3550B	8151A	III
02-Jun-2011	SL-149-SA5DN-SS-0.0-0.5	6305898	N	3550B	8270C	III
02-Jun-2011	SL-149-SA5DN-SS-0.0-0.5	6305898	N	3550B	8270C SIM	III
02-Jun-2011	SL-149-SA5DN-SS-0.0-0.5	6305898	N	METHOD	300.0	III
02-Jun-2011	SL-149-SA5DN-SS-0.0-0.5	6305898	N	METHOD	314.0	III
02-Jun-2011	SL-149-SA5DN-SS-0.0-0.5	6305898	N	METHOD	6850	III
02-Jun-2011	SL-149-SA5DN-SS-0.0-0.5	6305898	N	METHOD	7471A	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

**Sample ID:** DUP-12-SA5DN-QC-060211

**Collected:** 6/2/2011 9:45:00 AM

**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		0.82	MDL	1.0	PQL	mg/Kg	J	Q

**Sample ID:** SL-131-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 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	0.83	U	0.83	MDL	1.0	PQL	mg/Kg	UJ	Q

**Sample ID:** SL-132-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 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	1.5		0.82	MDL	1.0	PQL	mg/Kg	J	Q

**Sample ID:** SL-133-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 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	1.2		0.82	MDL	1.0	PQL	mg/Kg	J	Q
Nitrate-NO3	0.95	J	0.82	MDL	1.5	PQL	mg/Kg	J	Z

**Sample ID:** SL-134-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 8:45:00 AM

**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		0.83	MDL	1.0	PQL	mg/Kg	J	Q

**Sample ID:** SL-135-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 9:00:00 AM

**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-136-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 8:25:00 AM

**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		0.82	MDL	1.0	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

10/20/2011 9:16:51 AM

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# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: GENCHEM

Method: 300.0

Matrix: SO

Sample ID: SL-137-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:15:00 AM

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		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-138-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:30:00 AM

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		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-139-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
FLUORIDE	0.81	U	0.81	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-140-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
FLUORIDE	1.4		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-141-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:15:00 PM

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		0.85	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-142-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:15:00 PM

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-143-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:35:00 PM

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		0.84	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-144-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:35:00 PM

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		0.83	MDL	1.0	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

Sample ID: SL-145-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:50:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.9		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-149-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:25:00 PM

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		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-150-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:05:00 PM

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

Sample ID: SL-151-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:50:00 PM

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

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: DUP-12-SA5DN-QC-060211

Collected: 6/2/2011 9:45:00 AM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.71	J	1.02	MDL	10.2	PQL	mg/Kg	U	B

Sample ID: SL-131-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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	2.70	J	1.03	MDL	10.3	PQL	mg/Kg	U	B

Sample ID: SL-131-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 11:25:00

Analysis Type: REA3

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	96.6	J	6.12	MDL	103	PQL	mg/Kg	J	Z
Zirconium	4.57	J	0.473	MDL	5.15	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6010B

Matrix: SO

Sample ID: SL-132-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 11:10:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.56	J	1.02	MDL	10.2	PQL	mg/Kg	U	B

Sample ID: SL-132-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 11:10:00

Analysis Type: REA3

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	84.8	J	6.08	MDL	102	PQL	mg/Kg	J	Z
Zirconium	3.64	J	0.470	MDL	5.11	PQL	mg/Kg	J	Z

Sample ID: SL-133-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
TIN	2.59	J	1.03	MDL	10.3	PQL	mg/Kg	U	B

Sample ID: SL-133-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
SODIUM	86.4	J	6.12	MDL	103	PQL	mg/Kg	J	Z
Zirconium	4.35	J	0.473	MDL	5.14	PQL	mg/Kg	J	Z

Sample ID: SL-134-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:45:00 AM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.70	J	1.01	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: SL-134-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:45:00 AM

Analysis Type: REA3

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	4.88	J	0.462	MDL	5.03	PQL	mg/Kg	J	Z

Sample ID: SL-135-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:00:00 AM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.01	J	1.01	MDL	10.1	PQL	mg/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6010B

Matrix: SO

Sample ID: SL-135-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:00:00 AM

Analysis Type: REA3

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	5.01	J	0.465	MDL	5.06	PQL	mg/Kg	J	Z

Sample ID: SL-136-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:25:00 AM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.65	J	1.01	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: SL-137-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:15:00 AM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.73	J	1.00	MDL	10.0	PQL	mg/Kg	U	B

Sample ID: SL-138-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:30:00 AM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.94	J	0.998	MDL	9.98	PQL	mg/Kg	U	B

Sample ID: SL-139-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 10:10:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.56	J	0.992	MDL	9.92	PQL	mg/Kg	U	B

Sample ID: SL-139-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 10:10:00

Analysis Type: REA3

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	4.47	J	0.456	MDL	4.96	PQL	mg/Kg	J	Z

Sample ID: SL-140-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 10:30:00

Analysis Type: REA3

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	91.7	J	6.07	MDL	102	PQL	mg/Kg	J	Z
Zirconium	4.84	J	0.469	MDL	5.10	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6010B

Matrix: SO

Sample ID: SL-141-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:15:00 PM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.98	J	1.06	MDL	10.6	PQL	mg/Kg	U	B

Sample ID: SL-141-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:15:00 PM

Analysis Type: REA3

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	4.86	J	0.487	MDL	5.29	PQL	mg/Kg	J	Z

Sample ID: SL-142-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:15:00 PM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.67	J	1.00	MDL	10.0	PQL	mg/Kg	U	B

Sample ID: SL-142-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:15:00 PM

Analysis Type: REA3

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	75.9	J	5.95	MDL	100	PQL	mg/Kg	J	Z
Zirconium	3.68	J	0.460	MDL	5.00	PQL	mg/Kg	J	Z

Sample ID: SL-143-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:35:00 PM

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	1.05	MDL	10.5	PQL	mg/Kg	U	B

Sample ID: SL-144-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:35:00 PM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.72	J	1.04	MDL	10.4	PQL	mg/Kg	U	B

Sample ID: SL-144-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:35:00 PM

Analysis Type: REA3

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	88.5	J	6.16	MDL	104	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

10/20/2011 9:16:51 AM

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: SL-145-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:50:00 PM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.57	J	1.03	MDL	10.3	PQL	mg/Kg	U	B

Sample ID: SL-145-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:50:00 PM

Analysis Type: REA3

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	81.0	J	6.12	MDL	103	PQL	mg/Kg	J	Z
Zirconium	4.16	J	0.473	MDL	5.14	PQL	mg/Kg	J	Z

Sample ID: SL-149-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:25:00 PM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.96	J	1.07	MDL	10.7	PQL	mg/Kg	U	B

Sample ID: SL-149-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:25:00 PM

Analysis Type: REA3

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	75.9	J	6.35	MDL	107	PQL	mg/Kg	J	Z

Sample ID: SL-150-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:05:00 PM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.18	J	1.06	MDL	10.6	PQL	mg/Kg	U	B

Sample ID: SL-150-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:05:00 PM

Analysis Type: REA3

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	86.5	J	6.31	MDL	106	PQL	mg/Kg	J	Z

Sample ID: SL-151-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:50:00 PM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.31	J	1.02	MDL	10.2	PQL	mg/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** AQ

Sample ID: EB12-SA5DN-SS-060211

Collected: 6/2/2011 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
LEAD	0.000074	J	0.000052	MDL	0.0010	PQL	mg/L	J	Z

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: DUP-12-SA5DN-QC-060211

Collected: 6/2/2011 9:45:00 AM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.231		0.0593	MDL	0.198	PQL	mg/Kg	J	Q
ARSENIC	32.0		0.0791	MDL	0.395	PQL	mg/Kg	J	E, A
BERYLLIUM	0.744		0.0158	MDL	0.0988	PQL	mg/Kg	J	E
CADMIUM	0.297		0.0395	MDL	0.0988	PQL	mg/Kg	J	Q
CHROMIUM	27.6		0.119	MDL	0.395	PQL	mg/Kg	J	Q, E
COBALT	9.31		0.0198	MDL	0.0988	PQL	mg/Kg	J	Q, E, E, A
COPPER	14.7		0.0652	MDL	0.395	PQL	mg/Kg	J	Q, E, A
LEAD	9.65		0.0103	MDL	0.198	PQL	mg/Kg	J	Q, E, E, A
NICKEL	22.5		0.0988	MDL	0.395	PQL	mg/Kg	J	Q, Q, E, E, A
SILVER	0.0402	J	0.0119	MDL	0.0988	PQL	mg/Kg	J	Z, Q
THALLIUM	0.391		0.0296	MDL	0.0988	PQL	mg/Kg	J	Q, E
VANADIUM	47.5		0.0217	MDL	0.0988	PQL	mg/Kg	J	E
ZINC	83.7		0.553	MDL	2.96	PQL	mg/Kg	J	E, E, A

Sample ID: DUP-12-SA5DN-QC-060211

Collected: 6/2/2011 9:45:00 AM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.176	J	0.0395	MDL	0.395	PQL	mg/Kg	J	Z, Q

Sample ID: DUP-12-SA5DN-QC-060211

Collected: 6/2/2011 9:45:00 AM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.740		0.0494	MDL	0.0988	PQL	mg/Kg	J	Q, E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: DUP-12-SA5DN-QC-060211

Collected: 6/2/2011 9:45:00 AM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	140		0.107	MDL	0.395	PQL	mg/Kg	J	E, E, A

Sample ID: SL-131-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
ANTIMONY	0.288		0.0618	MDL	0.206	PQL	mg/Kg	J	Q
ARSENIC	11.2		0.0823	MDL	0.412	PQL	mg/Kg	J	E, A
BERYLLIUM	0.670		0.0165	MDL	0.103	PQL	mg/Kg	J	E
CADMIUM	0.608		0.0412	MDL	0.103	PQL	mg/Kg	J	Q
CHROMIUM	25.1		0.124	MDL	0.412	PQL	mg/Kg	J	Q, E
COBALT	7.84		0.0206	MDL	0.103	PQL	mg/Kg	J	Q, E, E, A
COPPER	18.0		0.0679	MDL	0.412	PQL	mg/Kg	J	Q, E, A
LEAD	17.0		0.0107	MDL	0.206	PQL	mg/Kg	J	Q, E, E, A
NICKEL	19.4		0.103	MDL	0.412	PQL	mg/Kg	J	Q, Q, E, E, A
SILVER	0.294		0.0124	MDL	0.103	PQL	mg/Kg	J	Q
THALLIUM	0.285		0.0309	MDL	0.103	PQL	mg/Kg	J	Q, E
VANADIUM	42.5		0.0226	MDL	0.103	PQL	mg/Kg	J	E

Sample ID: SL-131-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 11:25:00

Analysis Type: REA5

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	156		1.44	MDL	7.72	PQL	mg/Kg	J	E, E, A

Sample ID: SL-131-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
SELENIUM	0.106	J	0.0412	MDL	0.412	PQL	mg/Kg	J	Z, Q

Sample ID: SL-131-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
MOLYBDENUM	0.851		0.0515	MDL	0.103	PQL	mg/Kg	J	Q, E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-131-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
BARIUM	124		0.111	MDL	0.412	PQL	mg/Kg	J	E, E, A

Sample ID: SL-132-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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	0.211		0.0607	MDL	0.202	PQL	mg/Kg	J	Q
ARSENIC	11.0		0.0809	MDL	0.405	PQL	mg/Kg	J	E, A
BERYLLIUM	0.731		0.0162	MDL	0.101	PQL	mg/Kg	J	E
CADMIUM	0.557		0.0405	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	29.1		0.121	MDL	0.405	PQL	mg/Kg	J	Q, E
COBALT	8.09		0.0202	MDL	0.101	PQL	mg/Kg	J	Q, E, E, A
COPPER	18.5		0.0667	MDL	0.405	PQL	mg/Kg	J	Q, E, A
LEAD	13.5		0.0105	MDL	0.202	PQL	mg/Kg	J	Q, E, E, A
NICKEL	23.2		0.101	MDL	0.405	PQL	mg/Kg	J	Q, Q, E, E, A
SILVER	0.237		0.0121	MDL	0.101	PQL	mg/Kg	J	Q
THALLIUM	0.361		0.0303	MDL	0.101	PQL	mg/Kg	J	Q, E
VANADIUM	50.0		0.0222	MDL	0.101	PQL	mg/Kg	J	E
ZINC	101		0.566	MDL	3.03	PQL	mg/Kg	J	E, E, A

Sample ID: SL-132-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 11:10:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.157	J	0.0405	MDL	0.405	PQL	mg/Kg	J	Z, Q

Sample ID: SL-132-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
MOLYBDENUM	0.913		0.0506	MDL	0.101	PQL	mg/Kg	J	Q, E

Sample ID: SL-132-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
BARIUM	149		0.109	MDL	0.405	PQL	mg/Kg	J	E, E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-133-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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	0.548		0.0617	MDL	0.206	PQL	mg/Kg	J	Q
ARSENIC	23.0		0.0822	MDL	0.411	PQL	mg/Kg	J	E, A
BERYLLIUM	0.753		0.0164	MDL	0.103	PQL	mg/Kg	J	E
CADMIUM	0.451		0.0411	MDL	0.103	PQL	mg/Kg	J	Q
CHROMIUM	27.8		0.123	MDL	0.411	PQL	mg/Kg	J	Q, E
COBALT	8.09		0.0206	MDL	0.103	PQL	mg/Kg	J	Q, E, E, A
COPPER	16.0		0.0678	MDL	0.411	PQL	mg/Kg	J	Q, E, A
LEAD	11.9		0.0107	MDL	0.206	PQL	mg/Kg	J	Q, E, E, A
NICKEL	22.0		0.103	MDL	0.411	PQL	mg/Kg	J	Q, Q, E, E, A
SILVER	0.133		0.0123	MDL	0.103	PQL	mg/Kg	J	Q
THALLIUM	0.311		0.0308	MDL	0.103	PQL	mg/Kg	J	Q, E
VANADIUM	46.7		0.0226	MDL	0.103	PQL	mg/Kg	J	E
ZINC	81.9		0.576	MDL	3.08	PQL	mg/Kg	J	E, E, A

Sample ID: SL-133-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 10:50:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.128	J	0.0411	MDL	0.411	PQL	mg/Kg	J	Z, Q

Sample ID: SL-133-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
MOLYBDENUM	0.785		0.0514	MDL	0.103	PQL	mg/Kg	J	Q, E

Sample ID: SL-133-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
BARIUM	124		0.111	MDL	0.411	PQL	mg/Kg	J	E, E, A

Sample ID: SL-134-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:45:00 AM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.287		0.0609	MDL	0.203	PQL	mg/Kg	J	Q
ARSENIC	43.7		0.0812	MDL	0.406	PQL	mg/Kg	J	E, A
BERYLLIUM	0.924		0.0162	MDL	0.101	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-134-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:45:00 AM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.474		0.0406	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	34.4		0.122	MDL	0.406	PQL	mg/Kg	J	Q, E
COBALT	9.62		0.0203	MDL	0.101	PQL	mg/Kg	J	Q, E, E, A
COPPER	19.3		0.0670	MDL	0.406	PQL	mg/Kg	J	Q, E, A
LEAD	15.4		0.0106	MDL	0.203	PQL	mg/Kg	J	Q, E, E, A
NICKEL	29.2		0.101	MDL	0.406	PQL	mg/Kg	J	Q, Q, E, E, A
SILVER	0.107		0.0122	MDL	0.101	PQL	mg/Kg	J	Q
THALLIUM	0.385		0.0304	MDL	0.101	PQL	mg/Kg	J	Q, E
VANADIUM	56.0		0.0223	MDL	0.101	PQL	mg/Kg	J	E
ZINC	98.6		0.568	MDL	3.04	PQL	mg/Kg	J	E, E, A

Sample ID: SL-134-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:45:00 AM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.187	J	0.0406	MDL	0.406	PQL	mg/Kg	J	Z, Q

Sample ID: SL-134-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:45:00 AM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.702		0.0507	MDL	0.101	PQL	mg/Kg	J	Q, E

Sample ID: SL-134-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:45:00 AM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	139		0.110	MDL	0.406	PQL	mg/Kg	J	E, E, A

Sample ID: SL-135-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:00:00 AM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.417		0.0601	MDL	0.200	PQL	mg/Kg	J	Q
ARSENIC	42.2		0.0801	MDL	0.401	PQL	mg/Kg	J	E, A
BERYLLIUM	0.943		0.0160	MDL	0.100	PQL	mg/Kg	J	E
CADMIUM	0.419		0.0401	MDL	0.100	PQL	mg/Kg	J	Q
CHROMIUM	37.6		0.120	MDL	0.401	PQL	mg/Kg	J	Q, E
COBALT	10.6		0.0200	MDL	0.100	PQL	mg/Kg	J	Q, E, E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-135-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:00:00 AM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	36.6		0.0661	MDL	0.401	PQL	mg/Kg	J	Q, E, A
LEAD	21.2		0.0104	MDL	0.200	PQL	mg/Kg	J	Q, E, E, A
NICKEL	31.5		0.100	MDL	0.401	PQL	mg/Kg	J	Q, Q, E, E, A
SILVER	0.128		0.0120	MDL	0.100	PQL	mg/Kg	J	Q
THALLIUM	0.441		0.0300	MDL	0.100	PQL	mg/Kg	J	Q, E
VANADIUM	56.1		0.0220	MDL	0.100	PQL	mg/Kg	J	E
ZINC	144		0.561	MDL	3.00	PQL	mg/Kg	J	E, E, A

Sample ID: SL-135-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:00:00 AM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.144	J	0.0401	MDL	0.401	PQL	mg/Kg	J	Z, Q

Sample ID: SL-135-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:00:00 AM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.802		0.0501	MDL	0.100	PQL	mg/Kg	J	Q, E

Sample ID: SL-135-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:00:00 AM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	147		0.108	MDL	0.401	PQL	mg/Kg	J	E, E, A

Sample ID: SL-136-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:25:00 AM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.297		0.0606	MDL	0.202	PQL	mg/Kg	J	Q
ARSENIC	30.8		0.0807	MDL	0.404	PQL	mg/Kg	J	E, A
BERYLLIUM	0.987		0.0161	MDL	0.101	PQL	mg/Kg	J	E
CADMIUM	0.456		0.0404	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	39.4		0.121	MDL	0.404	PQL	mg/Kg	J	Q, E
COBALT	10.6		0.0202	MDL	0.101	PQL	mg/Kg	J	Q, E, E, A
COPPER	23.0		0.0666	MDL	0.404	PQL	mg/Kg	J	Q, E, A
LEAD	17.5		0.0105	MDL	0.202	PQL	mg/Kg	J	Q, E, E, A
NICKEL	30.1		0.101	MDL	0.404	PQL	mg/Kg	J	Q, Q, E, E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-136-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:25:00 AM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0894	J	0.0121	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.431		0.0303	MDL	0.101	PQL	mg/Kg	J	Q, E
VANADIUM	63.0		0.0222	MDL	0.101	PQL	mg/Kg	J	E
ZINC	109		0.565	MDL	3.03	PQL	mg/Kg	J	E, E, A

Sample ID: SL-136-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:25:00 AM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.237	J	0.0404	MDL	0.404	PQL	mg/Kg	J	Z, Q

Sample ID: SL-136-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:25:00 AM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.960		0.0505	MDL	0.101	PQL	mg/Kg	J	Q, E

Sample ID: SL-136-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:25:00 AM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	170		0.109	MDL	0.404	PQL	mg/Kg	J	E, E, A

Sample ID: SL-137-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:15:00 AM

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		0.0591	MDL	0.197	PQL	mg/Kg	J	Q
ARSENIC	40.4		0.0787	MDL	0.394	PQL	mg/Kg	J	E, A
BERYLLIUM	0.974		0.0157	MDL	0.0984	PQL	mg/Kg	J	E
CADMIUM	0.620		0.0394	MDL	0.0984	PQL	mg/Kg	J	Q
CHROMIUM	34.0		0.118	MDL	0.394	PQL	mg/Kg	J	Q, E
COBALT	9.79		0.0197	MDL	0.0984	PQL	mg/Kg	J	Q, E, E, A
COPPER	20.8		0.0650	MDL	0.394	PQL	mg/Kg	J	Q, E, A
LEAD	15.9		0.0102	MDL	0.197	PQL	mg/Kg	J	Q, E, E, A
NICKEL	28.7		0.0984	MDL	0.394	PQL	mg/Kg	J	Q, Q, E, E, A
SILVER	0.0955	J	0.0118	MDL	0.0984	PQL	mg/Kg	J	Z, Q
THALLIUM	0.371		0.0295	MDL	0.0984	PQL	mg/Kg	J	Q, E
VANADIUM	53.3		0.0217	MDL	0.0984	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

10/20/2011 9:16:51 AM

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-137-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:15:00 AM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	112		0.551	MDL	2.95	PQL	mg/Kg	J	E, E, A

Sample ID: SL-137-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:15:00 AM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.134	J	0.0394	MDL	0.394	PQL	mg/Kg	J	Z, Q

Sample ID: SL-137-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:15:00 AM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.823		0.0492	MDL	0.0984	PQL	mg/Kg	J	Q, E

Sample ID: SL-137-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:15:00 AM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	140		0.106	MDL	0.394	PQL	mg/Kg	J	E, E, A

Sample ID: SL-138-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:30:00 AM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.237		0.0605	MDL	0.202	PQL	mg/Kg	J	Q
ARSENIC	33.9		0.0806	MDL	0.403	PQL	mg/Kg	J	E, A
BERYLLIUM	0.923		0.0161	MDL	0.101	PQL	mg/Kg	J	E
CADMIUM	0.383		0.0403	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	28.7		0.121	MDL	0.403	PQL	mg/Kg	J	Q, E
COBALT	11.4		0.0202	MDL	0.101	PQL	mg/Kg	J	Q, E, E, A
COPPER	17.0		0.0665	MDL	0.403	PQL	mg/Kg	J	Q, E, A
LEAD	10.3		0.0105	MDL	0.202	PQL	mg/Kg	J	Q, E, E, A
NICKEL	26.1		0.101	MDL	0.403	PQL	mg/Kg	J	Q, Q, E, E, A
SILVER	0.0512	J	0.0121	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.388		0.0302	MDL	0.101	PQL	mg/Kg	J	Q, E
VANADIUM	51.3		0.0222	MDL	0.101	PQL	mg/Kg	J	E
ZINC	95.2		0.564	MDL	3.02	PQL	mg/Kg	J	E, E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-138-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:30:00 AM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.156	J	0.0403	MDL	0.403	PQL	mg/Kg	J	Z, Q

Sample ID: SL-138-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:30:00 AM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.843		0.0504	MDL	0.101	PQL	mg/Kg	J	Q, E

Sample ID: SL-138-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:30:00 AM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	153		0.109	MDL	0.403	PQL	mg/Kg	J	E, E, A

Sample ID: SL-139-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 10:10:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.239		0.0607	MDL	0.202	PQL	mg/Kg	J	Q
ARSENIC	12.6		0.0810	MDL	0.405	PQL	mg/Kg	J	E, A
BERYLLIUM	0.866		0.0162	MDL	0.101	PQL	mg/Kg	J	E
CADMIUM	0.341		0.0405	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	29.1		0.121	MDL	0.405	PQL	mg/Kg	J	Q, E
COBALT	10.5		0.0202	MDL	0.101	PQL	mg/Kg	J	Q, E, E, A
COPPER	18.1		0.0668	MDL	0.405	PQL	mg/Kg	J	Q, E, A
LEAD	10.4		0.0105	MDL	0.202	PQL	mg/Kg	J	Q, E, E, A
NICKEL	22.1		0.101	MDL	0.405	PQL	mg/Kg	J	Q, Q, E, E, A
SILVER	0.0542	J	0.0121	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.403		0.0304	MDL	0.101	PQL	mg/Kg	J	Q, E
VANADIUM	48.4		0.0223	MDL	0.101	PQL	mg/Kg	J	E
ZINC	74.5		0.567	MDL	3.04	PQL	mg/Kg	J	E, E, A

Sample ID: SL-139-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 10:10:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.166	J	0.0405	MDL	0.405	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-139-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 10:10:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.02		0.0506	MDL	0.101	PQL	mg/Kg	J	Q, E

Sample ID: SL-139-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 10:10:00

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	173		0.109	MDL	0.405	PQL	mg/Kg	J	E, E, A

Sample ID: SL-140-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 10:30:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.253		0.0606	MDL	0.202	PQL	mg/Kg	J	Q
ARSENIC	19.2		0.0807	MDL	0.404	PQL	mg/Kg	J	E, A
BERYLLIUM	0.796		0.0161	MDL	0.101	PQL	mg/Kg	J	E
CADMIUM	0.440		0.0404	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	30.5		0.121	MDL	0.404	PQL	mg/Kg	J	Q, E
COBALT	9.60		0.0202	MDL	0.101	PQL	mg/Kg	J	Q, E, E, A
COPPER	18.3		0.0666	MDL	0.404	PQL	mg/Kg	J	Q, E, A
LEAD	21.6		0.0105	MDL	0.202	PQL	mg/Kg	J	Q, E, E, A
NICKEL	24.1		0.101	MDL	0.404	PQL	mg/Kg	J	Q, Q, E, E, A
SILVER	0.138		0.0121	MDL	0.101	PQL	mg/Kg	J	Q
THALLIUM	0.369		0.0303	MDL	0.101	PQL	mg/Kg	J	Q, E
VANADIUM	50.5		0.0222	MDL	0.101	PQL	mg/Kg	J	E
ZINC	90.7		0.565	MDL	3.03	PQL	mg/Kg	J	E, E, A

Sample ID: SL-140-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 10:30:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.136	J	0.0404	MDL	0.404	PQL	mg/Kg	J	Z, Q

Sample ID: SL-140-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 10:30:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.933		0.0505	MDL	0.101	PQL	mg/Kg	J	Q, E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-140-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 10:30:00

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	138		0.109	MDL	0.404	PQL	mg/Kg	J	E, E, A

Sample ID: SL-141-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:15:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.365		0.0628	MDL	0.209	PQL	mg/Kg	J	Q
ARSENIC	15.0		0.0838	MDL	0.419	PQL	mg/Kg	J	E, A
BERYLLIUM	0.999		0.0168	MDL	0.105	PQL	mg/Kg	J	E
CADMIUM	1.04		0.0419	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	38.0		0.126	MDL	0.419	PQL	mg/Kg	J	Q, E
COBALT	11.7		0.0209	MDL	0.105	PQL	mg/Kg	J	Q, E, E, A
COPPER	34.5		0.0691	MDL	0.419	PQL	mg/Kg	J	Q, E, A
LEAD	23.8		0.0109	MDL	0.209	PQL	mg/Kg	J	Q, E, E, A
NICKEL	30.1		0.105	MDL	0.419	PQL	mg/Kg	J	Q, Q, E, E, A
SILVER	1.18		0.0126	MDL	0.105	PQL	mg/Kg	J	Q
THALLIUM	0.469		0.0314	MDL	0.105	PQL	mg/Kg	J	Q, E
VANADIUM	60.3		0.0230	MDL	0.105	PQL	mg/Kg	J	E
ZINC	169		0.587	MDL	3.14	PQL	mg/Kg	J	E, E, A

Sample ID: SL-141-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:15:00 PM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.271	J	0.0419	MDL	0.419	PQL	mg/Kg	J	Z, Q

Sample ID: SL-141-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:15:00 PM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.10		0.0524	MDL	0.105	PQL	mg/Kg	J	Q, E

Sample ID: SL-141-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:15:00 PM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	186		0.113	MDL	0.419	PQL	mg/Kg	J	E, E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-142-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:15:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.239		0.0624	MDL	0.208	PQL	mg/Kg	J	Q
ARSENIC	9.99		0.0832	MDL	0.416	PQL	mg/Kg	J	E, A
BERYLLIUM	0.706		0.0166	MDL	0.104	PQL	mg/Kg	J	E
CADMIUM	0.576		0.0416	MDL	0.104	PQL	mg/Kg	J	Q
CHROMIUM	30.1		0.125	MDL	0.416	PQL	mg/Kg	J	Q, E
COBALT	9.72		0.0208	MDL	0.104	PQL	mg/Kg	J	Q, E, E, A
COPPER	23.6		0.0686	MDL	0.416	PQL	mg/Kg	J	Q, E, A
LEAD	17.4		0.0108	MDL	0.208	PQL	mg/Kg	J	Q, E, E, A
NICKEL	22.2		0.104	MDL	0.416	PQL	mg/Kg	J	Q, Q, E, E, A
SILVER	0.385		0.0125	MDL	0.104	PQL	mg/Kg	J	Q
THALLIUM	0.325		0.0312	MDL	0.104	PQL	mg/Kg	J	Q, E
VANADIUM	46.5		0.0229	MDL	0.104	PQL	mg/Kg	J	E
ZINC	92.0		0.582	MDL	3.12	PQL	mg/Kg	J	E, E, A

Sample ID: SL-142-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:15:00 PM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.167	J	0.0416	MDL	0.416	PQL	mg/Kg	J	Z, Q

Sample ID: SL-142-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:15:00 PM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.27		0.0520	MDL	0.104	PQL	mg/Kg	J	Q, E

Sample ID: SL-142-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:15:00 PM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	137		0.112	MDL	0.416	PQL	mg/Kg	J	E, E, A

Sample ID: SL-143-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:35:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.284		0.0624	MDL	0.208	PQL	mg/Kg	J	Q
ARSENIC	9.19		0.0832	MDL	0.416	PQL	mg/Kg	J	E, A
BERYLLIUM	0.655		0.0166	MDL	0.104	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-143-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:35:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.593		0.0416	MDL	0.104	PQL	mg/Kg	J	Q
CHROMIUM	26.4		0.125	MDL	0.416	PQL	mg/Kg	J	Q, E
COBALT	8.27		0.0208	MDL	0.104	PQL	mg/Kg	J	Q, E, E, A
COPPER	19.0		0.0686	MDL	0.416	PQL	mg/Kg	J	Q, E, A
LEAD	14.2		0.0108	MDL	0.208	PQL	mg/Kg	J	Q, E, E, A
NICKEL	19.3		0.104	MDL	0.416	PQL	mg/Kg	J	Q, Q, E, E, A
SILVER	0.186		0.0125	MDL	0.104	PQL	mg/Kg	J	Q
THALLIUM	0.310		0.0312	MDL	0.104	PQL	mg/Kg	J	Q, E
VANADIUM	42.6		0.0229	MDL	0.104	PQL	mg/Kg	J	E
ZINC	97.2		0.582	MDL	3.12	PQL	mg/Kg	J	E, E, A

Sample ID: SL-143-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:35:00 PM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.172	J	0.0416	MDL	0.416	PQL	mg/Kg	J	Z, Q

Sample ID: SL-143-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:35:00 PM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.931		0.0520	MDL	0.104	PQL	mg/Kg	J	Q, E

Sample ID: SL-143-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:35:00 PM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	128		0.112	MDL	0.416	PQL	mg/Kg	J	E, E, A

Sample ID: SL-144-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:35:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.249		0.0609	MDL	0.203	PQL	mg/Kg	J	Q
ARSENIC	9.95		0.0812	MDL	0.406	PQL	mg/Kg	J	E, A
BERYLLIUM	0.830		0.0162	MDL	0.101	PQL	mg/Kg	J	E
CADMIUM	0.307		0.0406	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	27.9		0.122	MDL	0.406	PQL	mg/Kg	J	Q, E
COBALT	9.47		0.0203	MDL	0.101	PQL	mg/Kg	J	Q, E, E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-144-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:35:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	18.7		0.0670	MDL	0.406	PQL	mg/Kg	J	Q, E, A
LEAD	10.7		0.0106	MDL	0.203	PQL	mg/Kg	J	Q, E, E, A
NICKEL	21.5		0.101	MDL	0.406	PQL	mg/Kg	J	Q, Q, E, E, A
SILVER	0.211		0.0122	MDL	0.101	PQL	mg/Kg	J	Q
THALLIUM	0.394		0.0304	MDL	0.101	PQL	mg/Kg	J	Q, E
VANADIUM	48.5		0.0223	MDL	0.101	PQL	mg/Kg	J	E
ZINC	74.4		0.568	MDL	3.04	PQL	mg/Kg	J	E, E, A

Sample ID: SL-144-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:35:00 PM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.205	J	0.0406	MDL	0.406	PQL	mg/Kg	J	Z, Q

Sample ID: SL-144-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:35:00 PM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.952		0.0507	MDL	0.101	PQL	mg/Kg	J	Q, E

Sample ID: SL-144-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:35:00 PM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	162		0.110	MDL	0.406	PQL	mg/Kg	J	E, E, A

Sample ID: SL-145-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:50:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.248		0.0605	MDL	0.202	PQL	mg/Kg	J	Q
ARSENIC	10.5		0.0807	MDL	0.403	PQL	mg/Kg	J	E, A
BERYLLIUM	0.733		0.0161	MDL	0.101	PQL	mg/Kg	J	E
CADMIUM	0.426		0.0403	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	27.2		0.121	MDL	0.403	PQL	mg/Kg	J	Q, E
COBALT	8.84		0.0202	MDL	0.101	PQL	mg/Kg	J	Q, E, E, A
COPPER	17.4		0.0666	MDL	0.403	PQL	mg/Kg	J	Q, E, A
LEAD	11.3		0.0105	MDL	0.202	PQL	mg/Kg	J	Q, E, E, A
NICKEL	20.0		0.101	MDL	0.403	PQL	mg/Kg	J	Q, Q, E, E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-145-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:50:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0583	J	0.0121	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.369		0.0303	MDL	0.101	PQL	mg/Kg	J	Q, E
VANADIUM	48.7		0.0222	MDL	0.101	PQL	mg/Kg	J	E
ZINC	76.1		0.565	MDL	3.03	PQL	mg/Kg	J	E, E, A

Sample ID: SL-145-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:50:00 PM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.165	J	0.0403	MDL	0.403	PQL	mg/Kg	J	Z, Q

Sample ID: SL-145-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:50:00 PM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.981		0.0504	MDL	0.101	PQL	mg/Kg	J	Q, E

Sample ID: SL-145-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:50:00 PM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	149		0.109	MDL	0.403	PQL	mg/Kg	J	E, E, A

Sample ID: SL-149-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:25:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.331		0.0647	MDL	0.216	PQL	mg/Kg	J	Q
ARSENIC	9.13		0.0862	MDL	0.431	PQL	mg/Kg	J	E, A
BERYLLIUM	0.940		0.0172	MDL	0.108	PQL	mg/Kg	J	E
CADMIUM	0.604		0.0431	MDL	0.108	PQL	mg/Kg	J	Q
CHROMIUM	37.8		0.129	MDL	0.431	PQL	mg/Kg	J	Q, E
COBALT	13.3		0.0216	MDL	0.108	PQL	mg/Kg	J	Q, E, E, A
COPPER	23.6		0.0711	MDL	0.431	PQL	mg/Kg	J	Q, E, A
LEAD	17.2		0.0112	MDL	0.216	PQL	mg/Kg	J	Q, E, E, A
NICKEL	28.0		0.108	MDL	0.431	PQL	mg/Kg	J	Q, Q, E, E, A
SILVER	0.0431	J	0.0129	MDL	0.108	PQL	mg/Kg	J	Z, Q
THALLIUM	0.492		0.0323	MDL	0.108	PQL	mg/Kg	J	Q, E
VANADIUM	67.8		0.0237	MDL	0.108	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-149-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:25:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	98.0		0.603	MDL	3.23	PQL	mg/Kg	J	E, E, A

Sample ID: SL-149-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:25:00 PM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.222	J	0.0431	MDL	0.431	PQL	mg/Kg	J	Z, Q

Sample ID: SL-149-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:25:00 PM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.14		0.0539	MDL	0.108	PQL	mg/Kg	J	Q, E

Sample ID: SL-149-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:25:00 PM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	191		0.116	MDL	0.431	PQL	mg/Kg	J	E, E, A

Sample ID: SL-150-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:05:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.516		0.0636	MDL	0.212	PQL	mg/Kg	J	Q
ARSENIC	10.5		0.0848	MDL	0.424	PQL	mg/Kg	J	E, A
BERYLLIUM	0.845		0.0170	MDL	0.106	PQL	mg/Kg	J	E
CADMIUM	0.503		0.0424	MDL	0.106	PQL	mg/Kg	J	Q
CHROMIUM	34.6		0.127	MDL	0.424	PQL	mg/Kg	J	Q, E
COBALT	11.7		0.0212	MDL	0.106	PQL	mg/Kg	J	Q, E, E, A
COPPER	28.3		0.0700	MDL	0.424	PQL	mg/Kg	J	Q, E, A
LEAD	18.0		0.0110	MDL	0.212	PQL	mg/Kg	J	Q, E, E, A
NICKEL	26.3		0.106	MDL	0.424	PQL	mg/Kg	J	Q, Q, E, E, A
SILVER	0.0762	J	0.0127	MDL	0.106	PQL	mg/Kg	J	Z, Q
THALLIUM	0.427		0.0318	MDL	0.106	PQL	mg/Kg	J	Q, E
VANADIUM	59.3		0.0233	MDL	0.106	PQL	mg/Kg	J	E
ZINC	101		0.594	MDL	3.18	PQL	mg/Kg	J	E, E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-150-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:05:00 PM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.281	J	0.0424	MDL	0.424	PQL	mg/Kg	J	Z, Q

Sample ID: SL-150-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:05:00 PM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.33		0.0530	MDL	0.106	PQL	mg/Kg	J	Q, E

Sample ID: SL-150-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:05:00 PM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	179		0.114	MDL	0.424	PQL	mg/Kg	J	E, E, A

Sample ID: SL-151-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:50:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.155	J	0.0611	MDL	0.204	PQL	mg/Kg	J	Z, Q
ARSENIC	8.17		0.0814	MDL	0.407	PQL	mg/Kg	J	E, A
BERYLLIUM	0.953		0.0163	MDL	0.102	PQL	mg/Kg	J	E
CADMIUM	0.176		0.0407	MDL	0.102	PQL	mg/Kg	J	Q
CHROMIUM	27.5		0.122	MDL	0.407	PQL	mg/Kg	J	Q, E
COBALT	9.56		0.0204	MDL	0.102	PQL	mg/Kg	J	Q, E, E, A
COPPER	19.4		0.0672	MDL	0.407	PQL	mg/Kg	J	Q, E, A
LEAD	13.1		0.0106	MDL	0.204	PQL	mg/Kg	J	Q, E, E, A
NICKEL	22.1		0.102	MDL	0.407	PQL	mg/Kg	J	Q, Q, E, E, A
SILVER	0.0497	J	0.0122	MDL	0.102	PQL	mg/Kg	J	Z, Q
THALLIUM	0.382		0.0305	MDL	0.102	PQL	mg/Kg	J	Q, E
VANADIUM	50.2		0.0224	MDL	0.102	PQL	mg/Kg	J	E
ZINC	95.5		0.570	MDL	3.05	PQL	mg/Kg	J	E, E, A

Sample ID: SL-151-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:50:00 PM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.233	J	0.0407	MDL	0.407	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-151-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:50:00 PM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.15		0.0509	MDL	0.102	PQL	mg/Kg	J	Q, E

Sample ID: SL-151-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:50:00 PM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	138		0.110	MDL	0.407	PQL	mg/Kg	J	E, E, A

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

Sample ID: DUP-12-SA5DN-QC-060211

Collected: 6/2/2011 9:45:00 AM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.58	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-131-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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	0.71	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-133-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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	0.37	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-134-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:45:00 AM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.42	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-136-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:25:00 AM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.80	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 7199

Matrix: SO

Sample ID: SL-137-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:15:00 AM

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-138-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:30:00 AM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.39	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-139-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
HEXAVALENT CHROMIUM	0.81	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-140-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
HEXAVALENT CHROMIUM	0.44	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-141-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:15:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.72	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-142-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:15:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.51	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-143-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:35:00 PM

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	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-144-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:35:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.39	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

Sample ID: SL-145-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:50:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.94	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-149-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:25:00 PM

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	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-150-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:05:00 PM

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	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-151-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:50:00 PM

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	1.0	PQL	mg/Kg	J	Z

**Method Category:** METALS

**Method:** 7470A

**Matrix:** AQ

Sample ID: EB12-SA5DN-SS-060211

Collected: 6/2/2011 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	0.000093	J	0.000046	MDL	0.00020	PQL	mg/L	U	B

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

Sample ID: DUP-12-SA5DN-QC-060211

Collected: 6/2/2011 9:45:00 AM

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	0.0028	MDL	0.0994	PQL	mg/Kg	UJ	FD, F

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 7471A

Matrix: SO

Sample ID: SL-132-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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	0.0366	J	0.0029	MDL	0.0999	PQL	mg/Kg	U	F

Sample ID: SL-133-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
MERCURY	0.0645	J	0.0029	MDL	0.100	PQL	mg/Kg	U	F

Sample ID: SL-136-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:25:00 AM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0358	J	0.0029	MDL	0.101	PQL	mg/Kg	U	F

Sample ID: SL-138-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:30:00 AM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0282	J	0.0028	MDL	0.0985	PQL	mg/Kg	UJ	FD, F

Sample ID: SL-139-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
MERCURY	0.0057	J	0.0029	MDL	0.100	PQL	mg/Kg	U	F

Sample ID: SL-140-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
MERCURY	0.0064	J	0.0028	MDL	0.0992	PQL	mg/Kg	U	F

Sample ID: SL-142-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:15:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0148	J	0.0030	MDL	0.103	PQL	mg/Kg	U	F

Sample ID: SL-143-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:35:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0822	J	0.0029	MDL	0.103	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

**Sample ID:** SL-144-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 2:35:00 PM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0034	J	0.0028	MDL	0.0984	PQL	mg/Kg	U	F

**Sample ID:** SL-150-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 3:05:00 PM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0050	J	0.0029	MDL	0.103	PQL	mg/Kg	U	F

**Sample ID:** SL-151-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 1:50:00 PM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0051	J	0.0029	MDL	0.101	PQL	mg/Kg	U	F

**Method Category:** SVOA

**Method:** 1625C

**Matrix:** AQ

**Sample ID:** EB12-SA5DN-SS-060211

**Collected:** 6/2/2011 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
N-NITROSODIMETHYLAMINE	4.51		1.06	MDL	2.13	PQL	ng/L	U	B

**Method Category:** SVOA

**Method:** 1625C

**Matrix:** SO

**Sample ID:** SL-136-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 8:25:00 AM

**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	40.9		16.9	MDL	33.8	PQL	ng/Kg	U	B

**Sample ID:** SL-137-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 9:15:00 AM

**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	48.8		16.8	MDL	33.7	PQL	ng/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8015M

**Matrix:** SO

**Sample ID:** SL-132-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 11:10:00

**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)	6.0	J	2.0	MDL	6.1	PQL	mg/Kg	J	Z

**Sample ID:** SL-134-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 8:45:00 AM

**Analysis Type:** REA2

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	1.4	J	0.83	MDL	2.5	PQL	mg/Kg	J	Z

**Sample ID:** SL-138-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 9:30:00 AM

**Analysis Type:** REA

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	5.1	U	5.1	MDL	10	PQL	mg/Kg	UJ	Q
ETHYLENE GLYCOL	5.1	U	5.1	MDL	10	PQL	mg/Kg	UJ	Q
Propylene glycol	5.1	U	5.1	MDL	10	PQL	mg/Kg	UJ	Q

**Sample ID:** SL-141-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 1:15:00 PM

**Analysis Type:** REA2

**Dilution:** 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	7.0	J	4.3	MDL	13	PQL	mg/Kg	J	Z

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** AQ

**Sample ID:** EB12-SA5DN-SS-060211

**Collected:** 6/2/2011 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
HEPTACHLOR	0.0099	J	0.0027	MDL	0.010	PQL	ug/L	J	Z

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

**Sample ID:** DUP-12-SA5DN-QC-060211

**Collected:** 6/2/2011 9:45:00 AM

**Analysis Type:** DL-BASE/NEUTRAL

**Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	5.8		0.34	MDL	1.7	PQL	ug/Kg	J	FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8081A

Matrix: SO

Sample ID: DUP-12-SA5DN-QC-060211

Collected: 6/2/2011 9:45:00 AM

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	2.5		0.068	MDL	0.35	PQL	ug/Kg	J	FD
Chlordane	4.3		0.82	MDL	3.5	PQL	ug/Kg	J	FD
DIELDRIN	0.47		0.068	MDL	0.35	PQL	ug/Kg	J	FD
ENDRIN ALDEHYDE	0.17	J	0.068	MDL	0.35	PQL	ug/Kg	J	Z, FD
MIREX	0.16	J	0.068	MDL	0.35	PQL	ug/Kg	J	Z, FD

Sample ID: SL-131-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
Chlordane	2.5	J	0.83	MDL	3.5	PQL	ug/Kg	J	Z

Sample ID: SL-132-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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	1.8	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z

Sample ID: SL-133-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
Chlordane	2.4	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z
gamma-BHC (Lindane)	0.089	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z

Sample ID: SL-134-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:45:00 AM

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	0.14	J	0.068	MDL	0.35	PQL	ug/Kg	J	Z
DIELDRIN	0.24	J	0.068	MDL	0.35	PQL	ug/Kg	J	Z

Sample ID: SL-136-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:25:00 AM

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	0.093	U	0.093	MDL	0.35	PQL	ug/Kg	UJ	S
4,4'-DDE	0.87		0.067	MDL	0.35	PQL	ug/Kg	J	S
4,4'-DDT	2.5		0.067	MDL	0.35	PQL	ug/Kg	J	S
ALDRIN	0.067	U	0.067	MDL	0.17	PQL	ug/Kg	UJ	S

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

Sample ID: SL-136-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:25:00 AM

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	0.035	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	1.4	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	0.26	J	0.067	MDL	0.35	PQL	ug/Kg	J	Z, 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
ENDRIN	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.067	U	0.067	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	0.063	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z, 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-137-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:15:00 AM

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	0.090	U	0.090	MDL	0.35	PQL	ug/Kg	UJ	S
4,4'-DDE	0.42		0.068	MDL	0.35	PQL	ug/Kg	J	S
4,4'-DDT	1.7		0.068	MDL	0.35	PQL	ug/Kg	J	S
ALDRIN	0.068	U	0.068	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	3.0	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	1.1		0.068	MDL	0.35	PQL	ug/Kg	J	S
ENDOSULFAN I	0.045	U	0.045	MDL	0.17	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	S
ENDRIN	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	S

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8081A

Matrix: SO

Sample ID: SL-137-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:15:00 AM

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 ALDEHYDE	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.068	U	0.068	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	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z, S
METHOXYCHLOR	0.35	U	0.35	MDL	1.7	PQL	ug/Kg	UJ	S
MIREX	0.14	J	0.068	MDL	0.35	PQL	ug/Kg	J	Z, S
TOXAPHENE	2.3	U	2.3	MDL	6.8	PQL	ug/Kg	UJ	S

Sample ID: SL-138-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:30:00 AM

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	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	FD
4,4'-DDT	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	FD
Chlordane	0.82	U	0.82	MDL	3.5	PQL	ug/Kg	UJ	FD
DIELDRIN	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	FD
ENDRIN ALDEHYDE	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	FD
MIREX	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	FD

Sample ID: SL-140-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 10:30:00

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	1.5	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z

Sample ID: SL-141-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:15:00 PM

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
gamma-BHC (Lindane)	0.097	J	0.036	MDL	0.18	PQL	ug/Kg	J	Z

Sample ID: SL-144-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:35:00 PM

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	3.1	J	0.83	MDL	3.5	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.16	J	0.068	MDL	0.35	PQL	ug/Kg	J	Z
MIREX	0.27	J	0.068	MDL	0.35	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8081A

**Matrix:** SO

**Sample ID:** SL-145-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 2:50:00 PM

**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	0.82	MDL	3.5	PQL	ug/Kg	J	Z
DIELDRIN	0.10	J	0.068	MDL	0.35	PQL	ug/Kg	J	Z
ENDOSULFAN II	0.074	J	0.068	MDL	0.35	PQL	ug/Kg	J	Z
MIREX	0.15	J	0.068	MDL	0.35	PQL	ug/Kg	J	Z

**Sample ID:** SL-149-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 3:25:00 PM

**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	0.12	J	0.071	MDL	0.37	PQL	ug/Kg	J	Z

**Sample ID:** SL-150-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 3:05:00 PM

**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	2.1	J	0.86	MDL	3.6	PQL	ug/Kg	J	Z
DELTA-BHC	0.057	J	0.039	MDL	0.18	PQL	ug/Kg	J	Z
ENDOSULFAN II	0.16	J	0.071	MDL	0.36	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.20	J	0.071	MDL	0.36	PQL	ug/Kg	J	Z
HEPTACHLOR EPOXIDE	0.13	J	0.036	MDL	0.18	PQL	ug/Kg	J	Z
MIREX	0.15	J	0.071	MDL	0.36	PQL	ug/Kg	J	Z

**Method Category:** SVOA

**Method:** 8082

**Matrix:** SO

**Sample ID:** DUP-12-SA5DN-QC-060211

**Collected:** 6/2/2011 9:45:00 AM

**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	0.40	U	0.40	MDL	1.7	PQL	ug/Kg	UJ	FD
Aroclor 5460	1.0	U	1.0	MDL	3.4	PQL	ug/Kg	UJ	FD

**Sample ID:** SL-131-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 11:25:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	5.0	J	2.0	MDL	8.8	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8082

**Matrix:** SO

**Sample ID:** SL-132-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 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
AROCOLOR 1260	7.8		0.40	MDL	1.7	PQL	ug/Kg	J	S
Aroclor 5460	11		1.0	MDL	3.4	PQL	ug/Kg	J	S

**Sample ID:** SL-133-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 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
AROCOLOR 1260	1.1	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	1.3	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z

**Sample ID:** SL-135-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 9:00:00 AM

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCOLOR 1260	1.2	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	3.2	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z

**Sample ID:** SL-138-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 9:30:00 AM

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCOLOR 1260	2.1	J	2.0	MDL	8.7	PQL	ug/Kg	J	Z, FD
Aroclor 5460	5.8	J	5.1	MDL	17	PQL	ug/Kg	J	Z, FD

**Sample ID:** SL-140-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 10:30:00

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCOLOR 1260	1.6	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z

**Sample ID:** SL-141-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 1:15:00 PM

**Analysis Type:** RES

**Dilution:** 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	30	J	11	MDL	35	PQL	ug/Kg	J	Z

**Sample ID:** SL-142-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 2:15:00 PM

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCOLOR 1260	6.2	J	2.0	MDL	8.8	PQL	ug/Kg	J	Z
Aroclor 5460	7.4	J	5.2	MDL	17	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8082

Matrix: SO

Sample ID: SL-149-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:25:00 PM

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	1.7	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5460	3.4	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8151A

Matrix: SO

Sample ID: DUP-12-SA5DN-QC-060211

Collected: 6/2/2011 9:45:00 AM

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
MCPA	170	U	170	MDL	260	PQL	ug/Kg	UJ	FD

Sample ID: SL-131-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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	1.2	U	1.2	MDL	2.5	PQL	ug/Kg	R	L

Sample ID: SL-132-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
DICHLOROPROP	1.0	J	0.81	MDL	1.7	PQL	ug/Kg	J	Z
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L
MCP	130	J	76	MDL	250	PQL	ug/Kg	J	Z

Sample ID: SL-133-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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	0.82	U	0.82	MDL	2.5	PQL	ug/Kg	R	L

Sample ID: SL-134-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:45:00 AM

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

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8151A

Matrix: SO

Sample ID: SL-135-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:00:00 AM

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-136-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:25:00 AM

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-137-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:15:00 AM

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-138-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:30:00 AM

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
MCPA	290		78	MDL	260	PQL	ug/Kg	J	Q, FD

Sample ID: SL-139-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 10:10:00

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	2.7	U	2.7	MDL	2.7	PQL	ug/Kg	R	L

Sample ID: SL-140-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 10:30:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	1.0	U	1.0	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-141-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:15:00 PM

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	0.85	U	0.85	MDL	2.6	PQL	ug/Kg	R	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8151A

Matrix: SO

Sample ID: SL-142-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:15:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICHLOROPROP	0.87	J	0.83	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-143-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:35:00 PM

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	0.84	U	0.84	MDL	2.5	PQL	ug/Kg	R	L

Sample ID: SL-144-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:35:00 PM

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-145-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:50:00 PM

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)	0.080	J	0.077	MDL	0.17	PQL	ug/Kg	J	Z
DINOSEB	0.82	U	0.82	MDL	2.5	PQL	ug/Kg	R	L

Sample ID: SL-149-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:25:00 PM

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	0.85	U	0.85	MDL	2.6	PQL	ug/Kg	R	L

Sample ID: SL-150-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:05:00 PM

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)	0.12	J	0.080	MDL	0.18	PQL	ug/Kg	J	Z
DINOSEB	0.85	U	0.85	MDL	2.6	PQL	ug/Kg	R	L

Sample ID: SL-151-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:50:00 PM

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

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C

Matrix: SO

Sample ID: SL-132-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	20	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-133-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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	23	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-138-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:30:00 AM

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	17	U	17	MDL	170	PQL	ug/Kg	UJ	Q
1,4-DICHLOROBENZENE	17	U	17	MDL	170	PQL	ug/Kg	UJ	Q
2,4,5-TRICHLOROPHENOL	34	U	34	MDL	170	PQL	ug/Kg	UJ	Q
2,4,6-TRICHLOROPHENOL	34	U	34	MDL	170	PQL	ug/Kg	UJ	Q
2,4-DICHLOROPHENOL	17	U	17	MDL	170	PQL	ug/Kg	UJ	Q
2,4-DIMETHYLPHENOL	34	U	34	MDL	170	PQL	ug/Kg	UJ	Q
2,4-DINITROTOLUENE	34	U	34	MDL	170	PQL	ug/Kg	UJ	Q
2-NITROPHENOL	17	U	17	MDL	170	PQL	ug/Kg	UJ	Q
4-CHLORO-3-METHYLPHENOL	34	U	34	MDL	170	PQL	ug/Kg	UJ	Q
4-CHLOROPHENYL-PHENYLETHER	34	U	34	MDL	170	PQL	ug/Kg	UJ	Q
BENZIDINE	1200	U	1200	MDL	3400	PQL	ug/Kg	R	Q
BIS(2-CHLOROETHOXY)METHANE	17	U	17	MDL	170	PQL	ug/Kg	UJ	Q
HEXACHLOROBENZENE	17	U	17	MDL	170	PQL	ug/Kg	UJ	Q
NITROBENZENE	17	U	17	MDL	170	PQL	ug/Kg	UJ	Q
N-NITROSODIPHENYLAMINE	17	U	17	MDL	170	PQL	ug/Kg	UJ	Q

Sample ID: SL-141-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:15:00 PM

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	25	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	41	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	81	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	170	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	24	J	18	MDL	180	PQL	ug/Kg	J	Z
CHRYSENE	35	J	18	MDL	180	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C

Matrix: SO

Sample ID: SL-141-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:15:00 PM

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	43	J	18	MDL	180	PQL	ug/Kg	J	Z
PHENANTHRENE	48	J	18	MDL	180	PQL	ug/Kg	J	Z
PYRENE	40	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-145-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:50:00 PM

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	93	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-149-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:25:00 PM

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	30	J	18	MDL	350	PQL	ug/Kg	J	Z

Sample ID: SL-150-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:05:00 PM

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	59	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-151-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:50:00 PM

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	22	J	17	MDL	340	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM

Matrix: AQ

Sample ID: EB12-SA5DN-SS-060211

Collected: 6/2/2011 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-METHYLNAPHTHALENE	0.029	J	0.010	MDL	0.052	PQL	ug/L	J	Z
2-METHYLNAPHTHALENE	0.029	J	0.010	MDL	0.052	PQL	ug/L	J	Z
BIS(2-ETHYLHEXYL)PHthalate	0.22	J	0.052	MDL	1.0	PQL	ug/L	J	Z
Di-n-butylphthalate	0.082	J	0.052	MDL	1.0	PQL	ug/L	J	Z
Di-n-octylphthalate	0.052	U	0.052	MDL	1.0	PQL	ug/L	UJ	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C SIM

**Matrix:** SO

**Sample ID:** DUP-12-SA5DN-QC-060211

**Collected:** 6/2/2011 9:45:00 AM

**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	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD
BENZO(A)PYRENE	2.2		0.69	MDL	1.7	PQL	ug/Kg	J	FD
BENZO(B)FLUORANTHENE	4.4		0.69	MDL	1.7	PQL	ug/Kg	J	FD
BENZO(G,H,I)PERYLENE	1.5	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD
BENZO(K)FLUORANTHENE	6.2		0.69	MDL	1.7	PQL	ug/Kg	J	FD
BIS(2-ETHYLHEXYL)PHTHALATE	42		6.2	MDL	19	PQL	ug/Kg	J	FD
CHRYSENE	5.8		0.34	MDL	1.7	PQL	ug/Kg	J	FD
DIBENZO(A,H)ANTHRACENE	1.2	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	2.9		0.69	MDL	1.7	PQL	ug/Kg	J	FD
INDENO(1,2,3-CD)PYRENE	1.1	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD
PHENANTHRENE	1.4	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD
PYRENE	2.9		0.69	MDL	1.7	PQL	ug/Kg	J	FD

**Sample ID:** SL-131-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 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-METHYLNAPHTHALENE	1.0	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.35	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	1.5	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	1.5	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

**Sample ID:** SL-132-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 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
ANTHRACENE	1.6	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
FLUORENE	0.83	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

**Sample ID:** SL-133-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 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
ACENAPHTHENE	0.74	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

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-134-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:45:00 AM

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	0.98	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
Butylbenzylphthalate	9.8	J	6.2	MDL	19	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.4	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-135-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:00:00 AM

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	0.46	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.0	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.82	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-136-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:25:00 AM

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	1.6	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	10	J	6.1	MDL	18	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	0.76	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.5	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-137-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:15:00 AM

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	0.75	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	1.0	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	10	J	6.1	MDL	18	PQL	ug/Kg	J	Z
FLUORANTHENE	1.6	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.98	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.3	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-138-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:30:00 AM

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

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-138-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 9:30:00 AM

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	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	FD
BENZO(B)FLUORANTHENE	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
BENZO(K)FLUORANTHENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	FD
BIS(2-ETHYLHEXYL)PHthalate	18	J	6.2	MDL	19	PQL	ug/Kg	J	Z, FD
CHRYSENE	0.34	U	0.34	MDL	1.7	PQL	ug/Kg	UJ	FD
DIBENZO(A,H)ANTHRACENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	FD
FLUORANTHENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	FD
INDENO(1,2,3-CD)PYRENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	FD
PHENANTHRENE	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-140-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 10:30:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.70	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	1.0	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-141-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 11:15:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.7	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.50	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z
Butylbenzylphthalate	9.3	J	6.4	MDL	19	PQL	ug/Kg	J	Z
Di-n-butylphthalate	16	J	6.4	MDL	19	PQL	ug/Kg	J	Z
FLUORENE	0.96	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-142-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:15:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.73	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.97	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.35	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	1.0	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
Butylbenzylphthalate	11	J	6.2	MDL	19	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-142-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:15:00 PM

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	1.4	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-143-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:35:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.1	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.3	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.48	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
Di-n-octylphthalate	13	J	6.3	MDL	19	PQL	ug/Kg	J	Z

Sample ID: SL-144-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:35:00 PM

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	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.5	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	14	J	6.1	MDL	18	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.0	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.71	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-145-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 2:50:00 PM

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)PYRENE	4.4	J	3.4	MDL	8.6	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	8.0	J	3.4	MDL	8.6	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	4.2	J	3.4	MDL	8.6	PQL	ug/Kg	J	Z
FLUORANTHENE	7.5	J	3.4	MDL	8.6	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	3.6	J	3.4	MDL	8.6	PQL	ug/Kg	J	Z
PHENANTHRENE	3.7	J	3.4	MDL	8.6	PQL	ug/Kg	J	Z
PYRENE	6.5	J	3.4	MDL	8.6	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-149-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:25:00 PM

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	1.0	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
CHRYSENE	0.93	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-150-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 3:05:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.3	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
ANTHRACENE	1.0	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z
Butylbenzylphthalate	9.1	J	6.4	MDL	19	PQL	ug/Kg	J	Z
FLUORENE	1.5	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-151-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 1:50:00 PM

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	0.78	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.94	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.2	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	1.4	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8315A

Matrix: SO

Sample ID: SL-132-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 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
FORMALDEHYDE	2800	J	1200	MDL	3100	PQL	ug/Kg	J	Z

Sample ID: SL-134-SA5DN-SS-0.0-0.5

Collected: 6/2/2011 8:45:00 AM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	1000	J	620	MDL	1600	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8315A

**Matrix:** SO

**Sample ID:** SL-135-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 9:00:00 AM

**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	610	MDL	1500	PQL	ug/Kg	J	Z

**Sample ID:** SL-136-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 8:25:00 AM

**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	610	MDL	1500	PQL	ug/Kg	J	Z

**Sample ID:** SL-137-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 9:15:00 AM

**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	610	MDL	1500	PQL	ug/Kg	J	Z

**Sample ID:** SL-139-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 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
FORMALDEHYDE	1400	J	610	MDL	1500	PQL	ug/Kg	J	Z

**Method Category:** VOA

**Method:** 8015B

**Matrix:** SO

**Sample ID:** SL-140-SA5DN-SS-0.0-0.5

**Collected:** 6/2/2011 10:30:00

**Analysis Type:** REA4

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Isopropanol	150	J	100	MDL	510	PQL	ug/Kg	J	Z
METHANOL	130	J	100	MDL	510	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

### Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
C	Initial Calibration Verification Percent Recovery Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

E	Matrix Spike Precision
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

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## ***Data Qualifier Summary***

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Q	Matrix Spike Upper Rejection
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

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE171

# Method Blank Outlier Report

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method:** 1625C  
**Matrix:** AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWB15B261608	6/21/2011 4:08:00 PM	N-NITROSODIMETHYLAMINE	1.84 ng/L	EB12-SA5DN-SS-060211

*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
EB12-SA5DN-SS-060211(RES)	N-NITROSODIMETHYLAMINE	4.51 ng/L	4.51U ng/L

**Method:** 1625C  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLH15B261032	6/23/2011 10:32:00 AM	N-NITROSODIMETHYLAMINE	18.7 ng/Kg	DUP-12-SA5DN-QC-060211 SL-132-SA5DN-SS-0.0-0.5 SL-133-SA5DN-SS-0.0-0.5 SL-134-SA5DN-SS-0.0-0.5 SL-135-SA5DN-SS-0.0-0.5 SL-136-SA5DN-SS-0.0-0.5 SL-137-SA5DN-SS-0.0-0.5 SL-138-SA5DN-SS-0.0-0.5 SL-139-SA5DN-SS-0.0-0.5 SL-140-SA5DN-SS-0.0-0.5 SL-141-SA5DN-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-136-SA5DN-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	40.9 ng/Kg	40.9U ng/Kg
SL-137-SA5DN-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	48.8 ng/Kg	48.8U ng/Kg

**Method:** 6010B  
**Matrix:** AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P16048CB221243	6/10/2011 12:43:00 PM	MAGNESIUM	0.0195 mg/L	EB12-SA5DN-SS-060211

# Method Blank Outlier Report

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 6010B

Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P16108AB221514	6/14/2011 3:14:00 PM	PHOSPHORUS STRONTIUM TIN	1.92 mg/Kg 0.0700 mg/Kg 1.52 mg/Kg	DUP-12-SA5DN-QC-060211 SL-131-SA5DN-SS-0.0-0.5 SL-132-SA5DN-SS-0.0-0.5 SL-133-SA5DN-SS-0.0-0.5 SL-134-SA5DN-SS-0.0-0.5 SL-135-SA5DN-SS-0.0-0.5 SL-136-SA5DN-SS-0.0-0.5 SL-137-SA5DN-SS-0.0-0.5 SL-138-SA5DN-SS-0.0-0.5 SL-139-SA5DN-SS-0.0-0.5 SL-140-SA5DN-SS-0.0-0.5 SL-141-SA5DN-SS-0.0-0.5 SL-142-SA5DN-SS-0.0-0.5 SL-143-SA5DN-SS-0.0-0.5 SL-144-SA5DN-SS-0.0-0.5 SL-145-SA5DN-SS-0.0-0.5 SL-149-SA5DN-SS-0.0-0.5 SL-150-SA5DN-SS-0.0-0.5 SL-151-SA5DN-SS-0.0-0.5
P16108AB222058	6/15/2011 8:58:00 PM	BORON CALCIUM MAGNESIUM	0.596 mg/Kg 12.9 mg/Kg 0.711 mg/Kg	DUP-12-SA5DN-QC-060211 SL-131-SA5DN-SS-0.0-0.5 SL-132-SA5DN-SS-0.0-0.5 SL-133-SA5DN-SS-0.0-0.5 SL-134-SA5DN-SS-0.0-0.5 SL-135-SA5DN-SS-0.0-0.5 SL-136-SA5DN-SS-0.0-0.5 SL-137-SA5DN-SS-0.0-0.5 SL-138-SA5DN-SS-0.0-0.5 SL-139-SA5DN-SS-0.0-0.5 SL-140-SA5DN-SS-0.0-0.5 SL-141-SA5DN-SS-0.0-0.5 SL-142-SA5DN-SS-0.0-0.5 SL-143-SA5DN-SS-0.0-0.5 SL-144-SA5DN-SS-0.0-0.5 SL-145-SA5DN-SS-0.0-0.5 SL-149-SA5DN-SS-0.0-0.5 SL-150-SA5DN-SS-0.0-0.5 SL-151-SA5DN-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
DUP-12-SA5DN-QC-060211(REA2)	TIN	2.71 mg/Kg	2.71U mg/Kg
SL-131-SA5DN-SS-0.0-0.5(REA2)	TIN	2.70 mg/Kg	2.70U mg/Kg
SL-132-SA5DN-SS-0.0-0.5(REA2)	TIN	2.56 mg/Kg	2.56U mg/Kg
SL-133-SA5DN-SS-0.0-0.5(REA2)	TIN	2.59 mg/Kg	2.59U mg/Kg
SL-134-SA5DN-SS-0.0-0.5(REA2)	TIN	2.70 mg/Kg	2.70U mg/Kg
SL-135-SA5DN-SS-0.0-0.5(REA2)	TIN	3.01 mg/Kg	3.01U mg/Kg
SL-136-SA5DN-SS-0.0-0.5(REA2)	TIN	2.65 mg/Kg	2.65U mg/Kg
SL-137-SA5DN-SS-0.0-0.5(REA2)	TIN	2.73 mg/Kg	2.73U mg/Kg
SL-138-SA5DN-SS-0.0-0.5(REA2)	TIN	2.94 mg/Kg	2.94U mg/Kg
SL-139-SA5DN-SS-0.0-0.5(REA2)	TIN	2.56 mg/Kg	2.56U mg/Kg
SL-141-SA5DN-SS-0.0-0.5(REA2)	TIN	2.98 mg/Kg	2.98U mg/Kg
SL-142-SA5DN-SS-0.0-0.5(REA2)	TIN	2.67 mg/Kg	2.67U mg/Kg
SL-143-SA5DN-SS-0.0-0.5(REA2)	TIN	2.90 mg/Kg	2.90U mg/Kg
SL-144-SA5DN-SS-0.0-0.5(REA2)	TIN	2.72 mg/Kg	2.72U mg/Kg
SL-145-SA5DN-SS-0.0-0.5(REA2)	TIN	2.57 mg/Kg	2.57U mg/Kg

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 6010B

Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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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-149-SA5DN-SS-0.0-0.5(REA2)	TIN	2.96 mg/Kg	2.96U mg/Kg
SL-150-SA5DN-SS-0.0-0.5(REA2)	TIN	3.18 mg/Kg	3.18U mg/Kg
SL-151-SA5DN-SS-0.0-0.5(REA2)	TIN	3.31 mg/Kg	3.31U mg/Kg

Method: 6020

Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P16126AB220901A	6/13/2011 9:01:00 AM	LEAD	0.0635 mg/Kg	DUP-12-SA5DN-QC-060211 SL-131-SA5DN-SS-0.0-0.5 SL-132-SA5DN-SS-0.0-0.5 SL-133-SA5DN-SS-0.0-0.5 SL-134-SA5DN-SS-0.0-0.5 SL-135-SA5DN-SS-0.0-0.5 SL-136-SA5DN-SS-0.0-0.5 SL-137-SA5DN-SS-0.0-0.5 SL-138-SA5DN-SS-0.0-0.5 SL-139-SA5DN-SS-0.0-0.5 SL-140-SA5DN-SS-0.0-0.5 SL-141-SA5DN-SS-0.0-0.5 SL-142-SA5DN-SS-0.0-0.5 SL-143-SA5DN-SS-0.0-0.5 SL-144-SA5DN-SS-0.0-0.5 SL-145-SA5DN-SS-0.0-0.5 SL-149-SA5DN-SS-0.0-0.5 SL-150-SA5DN-SS-0.0-0.5 SL-151-SA5DN-SS-0.0-0.5

Method: 7470A

Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P16013BB221002	6/11/2011 10:02:00 AM	MERCURY	0.00012 mg/L	EB12-SA5DN-SS-060211

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
EB12-SA5DN-SS-060211(RES)	MERCURY	0.000093 mg/L	0.000093U mg/L

## Method Blank Outlier Report

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_v2

eQAPP Name: CDM\_SSFL\_110509

<b>Method:</b> 8015M				
<b>Matrix:</b> SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P58589AB320048A	6/12/2011 12:48:00 AM	EFH (C30-C40)	0.48 mg/Kg	DUP-12-SA5DN-QC-060211 SL-132-SA5DN-SS-0.0-0.5 SL-133-SA5DN-SS-0.0-0.5 SL-134-SA5DN-SS-0.0-0.5 SL-135-SA5DN-SS-0.0-0.5 SL-136-SA5DN-SS-0.0-0.5 SL-137-SA5DN-SS-0.0-0.5 SL-138-SA5DN-SS-0.0-0.5 SL-139-SA5DN-SS-0.0-0.5 SL-140-SA5DN-SS-0.0-0.5 SL-141-SA5DN-SS-0.0-0.5

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_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-138-SA5DN-SS-0.0-0.5MS SL-138-SA5DN-SS-0.0-0.5MSD (SL-138-SA5DN-SS-0.0-0.5)	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	7 38 54	8 41 57	59.00-109.00 63.00-107.00 63.00-107.00	- - -	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	J (all detects) UJ (all non-detects)
SL-138-SA5DN-SS-0.0-0.5MS SL-138-SA5DN-SS-0.0-0.5MSD (SL-138-SA5DN-SS-0.0-0.5)	EFH (C15-C20)	199	217	49.00-123.00	-	EFH (C15-C20)	No Qual, Diluted Out
SL-138-SA5DN-SS-0.0-0.5MS SL-138-SA5DN-SS-0.0-0.5MSD (SL-138-SA5DN-SS-0.0-0.5)	EFH (C12-C14) EFH (C21-C30) EFH (C30-C40) EFH (C8-C11)	0 -76 -186 0	0 - 341 0	49.00-123.00 49.00-123.00 49.00-123.00 49.00-123.00	- 31 (20.00) 27 (20.00) -	EFH (C12-C14) EFH (C21-C30) EFH (C30-C40) EFH (C8-C11)	No Qual Diluted Out

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-138-SA5DN-SS-0.0-0.5MSD (SL-138-SA5DN-SS-0.0-0.5)	2,4,5-T 2,4,5-TP (Silvex)	- -	- -	10.00-156.00 24.00-141.00	40 (35.00) 46 (35.00)	2,4,5-T 2,4,5-TP (Silvex)	J(all detects)
SL-138-SA5DN-SS-0.0-0.5MS SL-138-SA5DN-SS-0.0-0.5MSD (SL-138-SA5DN-SS-0.0-0.5)	MCPA	-21	-17	10.00-213.00	-	MCPA	J(all detects) R(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-138-SA5DN-SS-0.0-0.5MS SL-138-SA5DN-SS-0.0-0.5MSD (SL-138-SA5DN-SS-0.0-0.5)	BENZIDINE	0	0	35.00-141.00	-	BENZIDINE	J(all detects) R(all non-detects)
SL-138-SA5DN-SS-0.0-0.5MS SL-138-SA5DN-SS-0.0-0.5MSD (SL-138-SA5DN-SS-0.0-0.5)	1,2,4-TRICHLOROBENZENE 1,4-DICHLOROBENZENE 2,4,5-TRICHLOROPHENOL 2,4,6-TRICHLOROPHENOL 2,4-DICHLOROPHENOL 2,4-DIMETHYLPHENOL 2,4-DINITROTOLUENE 2-METHYLNAPHTHALENE 2-NITROPHENOL 4-CHLORO-3-METHYLPHENOL 4-CHLOROPHENYL-PHENYLET ACENAPHTHENE ACENAPHTHYLENE ANTHRACENE BIS(2-CHLOROETHOXY)METHA FLUORANTHENE FLUORENE HEXACHLOROBENZENE NAPHTHALENE NITROBENZENE N-NITROSODIPHENYLAMINE	70 66 73 72 74 74 69 68 67 75 71 71 73 72 73 66 72 72 70 71 77	- 68 75 - - - - 73 - - 75 80 - - - 69 - - - - 82	72.00-115.00 70.00-100.00 78.00-109.00 77.00-115.00 78.00-117.00 78.00-110.00 73.00-113.00 76.00-114.00 74.00-115.00 76.00-110.00 80.00-109.00 75.00-115.00 81.00-110.00 75.00-115.00 75.00-104.00 73.00-112.00 77.00-111.00 77.00-114.00 72.00-116.00 72.00-106.00 86.00-145.00	- -	1,2,4-TRICHLOROBENZENE 1,4-DICHLOROBENZENE 2,4,5-TRICHLOROPHENOL 2,4,6-TRICHLOROPHENOL 2,4-DICHLOROPHENOL 2,4-DIMETHYLPHENOL 2,4-DINITROTOLUENE 2-METHYLNAPHTHALENE 2-NITROPHENOL 4-CHLORO-3-METHYLPHENOL 4-CHLOROPHENYL-PHENYLE ACENAPHTHENE ACENAPHTHYLENE ANTHRACENE BIS(2-CHLOROETHOXY)METH FLUORANTHENE FLUORENE HEXACHLOROBENZENE NAPHTHALENE NITROBENZENE N-NITROSODIPHENYLAMINE	J(all detects) UJ(all non-detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_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-138-SA5DN-SS-0.0-0.5MS SL-138-SA5DN-SS-0.0-0.5MSD (DUP-12-SA5DN-QC-060211 SL-131-SA5DN-SS-0.0-0.5 SL-132-SA5DN-SS-0.0-0.5 SL-133-SA5DN-SS-0.0-0.5 SL-134-SA5DN-SS-0.0-0.5 SL-135-SA5DN-SS-0.0-0.5 SL-136-SA5DN-SS-0.0-0.5 SL-137-SA5DN-SS-0.0-0.5 SL-138-SA5DN-SS-0.0-0.5 SL-139-SA5DN-SS-0.0-0.5 SL-140-SA5DN-SS-0.0-0.5 SL-141-SA5DN-SS-0.0-0.5 SL-142-SA5DN-SS-0.0-0.5 SL-143-SA5DN-SS-0.0-0.5 SL-144-SA5DN-SS-0.0-0.5 SL-145-SA5DN-SS-0.0-0.5 SL-149-SA5DN-SS-0.0-0.5 SL-150-SA5DN-SS-0.0-0.5 SL-151-SA5DN-SS-0.0-0.5)	CADMIUM CHROMIUM COPPER SILVER	- - - 130	144 134 159 155	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	CADMIUM CHROMIUM COPPER SILVER	J(all detects)
SL-138-SA5DN-SS-0.0-0.5MS SL-138-SA5DN-SS-0.0-0.5MSD (DUP-12-SA5DN-QC-060211 SL-131-SA5DN-SS-0.0-0.5 SL-132-SA5DN-SS-0.0-0.5 SL-133-SA5DN-SS-0.0-0.5 SL-134-SA5DN-SS-0.0-0.5 SL-135-SA5DN-SS-0.0-0.5 SL-136-SA5DN-SS-0.0-0.5 SL-137-SA5DN-SS-0.0-0.5 SL-138-SA5DN-SS-0.0-0.5 SL-139-SA5DN-SS-0.0-0.5 SL-140-SA5DN-SS-0.0-0.5 SL-141-SA5DN-SS-0.0-0.5 SL-142-SA5DN-SS-0.0-0.5 SL-143-SA5DN-SS-0.0-0.5 SL-144-SA5DN-SS-0.0-0.5 SL-145-SA5DN-SS-0.0-0.5 SL-149-SA5DN-SS-0.0-0.5 SL-150-SA5DN-SS-0.0-0.5 SL-151-SA5DN-SS-0.0-0.5)	ARSENIC ZINC	-45 -47	182 172	75.00-125.00 75.00-125.00	- 21 (20.00)	ARSENIC ZINC	J(all detects) UJ(all non-detects)  As, Zn, No Qual %R, >4x
SL-138-SA5DN-SS-0.0-0.5MS SL-138-SA5DN-SS-0.0-0.5MSD (DUP-12-SA5DN-QC-060211 SL-131-SA5DN-SS-0.0-0.5 SL-132-SA5DN-SS-0.0-0.5 SL-133-SA5DN-SS-0.0-0.5 SL-134-SA5DN-SS-0.0-0.5 SL-135-SA5DN-SS-0.0-0.5 SL-136-SA5DN-SS-0.0-0.5 SL-137-SA5DN-SS-0.0-0.5 SL-138-SA5DN-SS-0.0-0.5 SL-139-SA5DN-SS-0.0-0.5 SL-140-SA5DN-SS-0.0-0.5 SL-141-SA5DN-SS-0.0-0.5 SL-142-SA5DN-SS-0.0-0.5 SL-143-SA5DN-SS-0.0-0.5 SL-144-SA5DN-SS-0.0-0.5 SL-145-SA5DN-SS-0.0-0.5 SL-149-SA5DN-SS-0.0-0.5 SL-150-SA5DN-SS-0.0-0.5 SL-151-SA5DN-SS-0.0-0.5)	ANTIMONY COBALT LEAD NICKEL THALLIUM VANADIUM	64 - - 74 - 39	72 153 194 155 171 148	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- 22 (20.00) 24 (20.00) 21 (20.00) 21 (20.00) -	ANTIMONY COBALT LEAD NICKEL THALLIUM VANADIUM	J(all detects) UJ(all non-detects)  V, No Qual, >4x

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_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-138-SA5DN-SS-0.0-0.5MSD (DUP-12-SA5DN-QC-060211 SL-131-SA5DN-SS-0.0-0.5 SL-132-SA5DN-SS-0.0-0.5 SL-133-SA5DN-SS-0.0-0.5 SL-134-SA5DN-SS-0.0-0.5 SL-135-SA5DN-SS-0.0-0.5 SL-136-SA5DN-SS-0.0-0.5 SL-137-SA5DN-SS-0.0-0.5 SL-138-SA5DN-SS-0.0-0.5 SL-139-SA5DN-SS-0.0-0.5 SL-140-SA5DN-SS-0.0-0.5 SL-141-SA5DN-SS-0.0-0.5 SL-142-SA5DN-SS-0.0-0.5 SL-143-SA5DN-SS-0.0-0.5 SL-144-SA5DN-SS-0.0-0.5 SL-145-SA5DN-SS-0.0-0.5 SL-149-SA5DN-SS-0.0-0.5 SL-150-SA5DN-SS-0.0-0.5 SL-151-SA5DN-SS-0.0-0.5)	SELENIUM	-	141	75.00-125.00	-	SELENIUM	J(all detects)
SL-138-SA5DN-SS-0.0-0.5MS SL-138-SA5DN-SS-0.0-0.5MSD (DUP-12-SA5DN-QC-060211 SL-131-SA5DN-SS-0.0-0.5 SL-132-SA5DN-SS-0.0-0.5 SL-133-SA5DN-SS-0.0-0.5 SL-134-SA5DN-SS-0.0-0.5 SL-135-SA5DN-SS-0.0-0.5 SL-136-SA5DN-SS-0.0-0.5 SL-137-SA5DN-SS-0.0-0.5 SL-138-SA5DN-SS-0.0-0.5 SL-139-SA5DN-SS-0.0-0.5 SL-140-SA5DN-SS-0.0-0.5 SL-141-SA5DN-SS-0.0-0.5 SL-142-SA5DN-SS-0.0-0.5 SL-143-SA5DN-SS-0.0-0.5 SL-144-SA5DN-SS-0.0-0.5 SL-145-SA5DN-SS-0.0-0.5 SL-149-SA5DN-SS-0.0-0.5 SL-150-SA5DN-SS-0.0-0.5 SL-151-SA5DN-SS-0.0-0.5)	MOLYBDENUM	130	160	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-138-SA5DN-SS-0.0-0.5MS SL-138-SA5DN-SS-0.0-0.5MSD (DUP-12-SA5DN-QC-060211 SL-131-SA5DN-SS-0.0-0.5 SL-132-SA5DN-SS-0.0-0.5 SL-133-SA5DN-SS-0.0-0.5 SL-134-SA5DN-SS-0.0-0.5 SL-135-SA5DN-SS-0.0-0.5 SL-136-SA5DN-SS-0.0-0.5 SL-137-SA5DN-SS-0.0-0.5 SL-138-SA5DN-SS-0.0-0.5 SL-139-SA5DN-SS-0.0-0.5 SL-140-SA5DN-SS-0.0-0.5 SL-141-SA5DN-SS-0.0-0.5 SL-142-SA5DN-SS-0.0-0.5 SL-143-SA5DN-SS-0.0-0.5 SL-144-SA5DN-SS-0.0-0.5 SL-145-SA5DN-SS-0.0-0.5 SL-149-SA5DN-SS-0.0-0.5 SL-150-SA5DN-SS-0.0-0.5 SL-151-SA5DN-SS-0.0-0.5)	BARIUM	-143	231	75.00-125.00	24 (20.00)	BARIUM	J(all detects) UJ(all non-detects)  No Qual %R, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_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-138-SA5DN-SS-0.0-0.5MS SL-138-SA5DN-SS-0.0-0.5MSD (DUP-12-SA5DN-QC-060211 SL-131-SA5DN-SS-0.0-0.5 SL-132-SA5DN-SS-0.0-0.5 SL-133-SA5DN-SS-0.0-0.5 SL-134-SA5DN-SS-0.0-0.5 SL-135-SA5DN-SS-0.0-0.5 SL-136-SA5DN-SS-0.0-0.5 SL-137-SA5DN-SS-0.0-0.5 SL-138-SA5DN-SS-0.0-0.5 SL-139-SA5DN-SS-0.0-0.5 SL-140-SA5DN-SS-0.0-0.5 SL-141-SA5DN-SS-0.0-0.5 SL-142-SA5DN-SS-0.0-0.5 SL-143-SA5DN-SS-0.0-0.5 SL-144-SA5DN-SS-0.0-0.5 SL-145-SA5DN-SS-0.0-0.5 SL-149-SA5DN-SS-0.0-0.5 SL-150-SA5DN-SS-0.0-0.5 SL-151-SA5DN-SS-0.0-0.5)	ALUMINUM MANGANESE TITANIUM	188 148 158	530 - 190	75.00-125.00 75.00-125.00 75.00-125.00	- - -	ALUMINUM MANGANESE TITANIUM	No Qual, >4x
SL-138-SA5DN-SS-0.0-0.5MS SL-138-SA5DN-SS-0.0-0.5MSD (DUP-12-SA5DN-QC-060211 SL-131-SA5DN-SS-0.0-0.5 SL-132-SA5DN-SS-0.0-0.5 SL-133-SA5DN-SS-0.0-0.5 SL-134-SA5DN-SS-0.0-0.5 SL-135-SA5DN-SS-0.0-0.5 SL-136-SA5DN-SS-0.0-0.5 SL-137-SA5DN-SS-0.0-0.5 SL-138-SA5DN-SS-0.0-0.5 SL-139-SA5DN-SS-0.0-0.5 SL-140-SA5DN-SS-0.0-0.5 SL-141-SA5DN-SS-0.0-0.5 SL-142-SA5DN-SS-0.0-0.5 SL-143-SA5DN-SS-0.0-0.5 SL-144-SA5DN-SS-0.0-0.5 SL-145-SA5DN-SS-0.0-0.5 SL-149-SA5DN-SS-0.0-0.5 SL-150-SA5DN-SS-0.0-0.5 SL-151-SA5DN-SS-0.0-0.5)	IRON MAGNESIUM	-2229 -95	-1538 -26	75.00-125.00 75.00-125.00	- -	IRON MAGNESIUM	No Qual, >4x
SL-138-SA5DN-SS-0.0-0.5MS SL-138-SA5DN-SS-0.0-0.5MSD (DUP-12-SA5DN-QC-060211 SL-131-SA5DN-SS-0.0-0.5 SL-132-SA5DN-SS-0.0-0.5 SL-133-SA5DN-SS-0.0-0.5 SL-134-SA5DN-SS-0.0-0.5 SL-135-SA5DN-SS-0.0-0.5 SL-136-SA5DN-SS-0.0-0.5 SL-137-SA5DN-SS-0.0-0.5 SL-138-SA5DN-SS-0.0-0.5 SL-139-SA5DN-SS-0.0-0.5 SL-140-SA5DN-SS-0.0-0.5 SL-141-SA5DN-SS-0.0-0.5 SL-142-SA5DN-SS-0.0-0.5 SL-143-SA5DN-SS-0.0-0.5 SL-144-SA5DN-SS-0.0-0.5 SL-145-SA5DN-SS-0.0-0.5 SL-149-SA5DN-SS-0.0-0.5 SL-150-SA5DN-SS-0.0-0.5 SL-151-SA5DN-SS-0.0-0.5)	PHOSPHORUS	62	70	75.00-125.00	-	PHOSPHORUS	No Qual, >4x

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_v2

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-138-SA5DN-SS-0.0-0.5MS (SL-131-SA5DN-SS-0.0-0.5 SL-132-SA5DN-SS-0.0-0.5 SL-133-SA5DN-SS-0.0-0.5 SL-134-SA5DN-SS-0.0-0.5 SL-135-SA5DN-SS-0.0-0.5 SL-136-SA5DN-SS-0.0-0.5 SL-137-SA5DN-SS-0.0-0.5 SL-138-SA5DN-SS-0.0-0.5 SL-139-SA5DN-SS-0.0-0.5 SL-140-SA5DN-SS-0.0-0.5)	FLUORIDE	69	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
SL-141-SA5DN-SS-0.0-0.5MS (DUP-12-SA5DN-QC-060211 SL-141-SA5DN-SS-0.0-0.5 SL-142-SA5DN-SS-0.0-0.5 SL-143-SA5DN-SS-0.0-0.5 SL-144-SA5DN-SS-0.0-0.5 SL-145-SA5DN-SS-0.0-0.5 SL-149-SA5DN-SS-0.0-0.5 SL-150-SA5DN-SS-0.0-0.5 SL-151-SA5DN-SS-0.0-0.5)	FLUORIDE	76	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 300.0

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-138-SA5DN-SS-0.0-0.5DUP (SL-131-SA5DN-SS-0.0-0.5 SL-132-SA5DN-SS-0.0-0.5 SL-133-SA5DN-SS-0.0-0.5 SL-134-SA5DN-SS-0.0-0.5 SL-135-SA5DN-SS-0.0-0.5 SL-136-SA5DN-SS-0.0-0.5 SL-137-SA5DN-SS-0.0-0.5 SL-138-SA5DN-SS-0.0-0.5 SL-139-SA5DN-SS-0.0-0.5 SL-140-SA5DN-SS-0.0-0.5)	FLUORIDE	21	20.00	No Qual, OK by Difference

Method: 6020

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-138-SA5DN-SS-0.0-0.5DUP (DUP-12-SA5DN-QC-060211 SL-131-SA5DN-SS-0.0-0.5 SL-132-SA5DN-SS-0.0-0.5 SL-133-SA5DN-SS-0.0-0.5 SL-134-SA5DN-SS-0.0-0.5 SL-135-SA5DN-SS-0.0-0.5 SL-136-SA5DN-SS-0.0-0.5 SL-137-SA5DN-SS-0.0-0.5 SL-138-SA5DN-SS-0.0-0.5 SL-139-SA5DN-SS-0.0-0.5 SL-140-SA5DN-SS-0.0-0.5 SL-141-SA5DN-SS-0.0-0.5 SL-142-SA5DN-SS-0.0-0.5 SL-143-SA5DN-SS-0.0-0.5 SL-144-SA5DN-SS-0.0-0.5 SL-145-SA5DN-SS-0.0-0.5 SL-149-SA5DN-SS-0.0-0.5 SL-150-SA5DN-SS-0.0-0.5 SL-151-SA5DN-SS-0.0-0.5)	ANTIMONY ARSENIC BARIUM BERYLLIUM CADMIUM CHROMIUM COBALT COPPER LEAD MOLYBDENUM NICKEL THALLIUM VANADIUM ZINC	52 56 42 40 62 42 50 34 41 0.3779 43 40 36 39	20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 0.202 20.00 20.00 20.00 20.00	J(all detects) UJ(all non-detects)  Sb, Cd, Tl, No Qual, OK by Difference

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 7199

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-138-SA5DN-SS-0.0-0.5DUP (DUP-12-SA5DN-QC-060211 SL -131-SA5DN-SS-0.0-0.5 SL -132-SA5DN-SS-0.0-0.5 SL -133-SA5DN-SS-0.0-0.5 SL -134-SA5DN-SS-0.0-0.5 SL -135-SA5DN-SS-0.0-0.5 SL -136-SA5DN-SS-0.0-0.5 SL -137-SA5DN-SS-0.0-0.5 SL -138-SA5DN-SS-0.0-0.5 SL -139-SA5DN-SS-0.0-0.5 SL -140-SA5DN-SS-0.0-0.5 SL -141-SA5DN-SS-0.0-0.5 SL -142-SA5DN-SS-0.0-0.5 SL -143-SA5DN-SS-0.0-0.5 SL -144-SA5DN-SS-0.0-0.5 SL -145-SA5DN-SS-0.0-0.5 SL -149-SA5DN-SS-0.0-0.5 SL -150-SA5DN-SS-0.0-0.5 SL -151-SA5DN-SS-0.0-0.5)	HEXAVALENT CHROMIUM	57	20.00	No Qual, OK by Difference

Method: 300.0

Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-141-SA5DN-SS-0.0-0.5DUP (DUP-12-SA5DN-QC-060211 SL -141-SA5DN-SS-0.0-0.5 SL -142-SA5DN-SS-0.0-0.5 SL -143-SA5DN-SS-0.0-0.5 SL -144-SA5DN-SS-0.0-0.5 SL -145-SA5DN-SS-0.0-0.5 SL -149-SA5DN-SS-0.0-0.5 SL -150-SA5DN-SS-0.0-0.5 SL -151-SA5DN-SS-0.0-0.5)	FLUORIDE Nitrate-NO3	200 38	20.00 20.00	No Qual, OK by Difference

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 8081A

Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11570AQ242021A P11570AY242034A (EB12-SA5DN-SS-060211)	4,4'-DDE ENDOSULFAN I	142 130	142 130	66.00-130.00 68.00-128.00	- -	4,4'-DDE ENDOSULFAN I	J (all detects)

Method: 8330A

Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11582AQ242115A P11582AY242158A (EB12-SA5DN-SS-060211)	3-NITROTOLUENE	110	110	69.00-107.00	-	3-NITROTOLUENE	J(all detects)

Method: 8015M

Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11601AQ321314A (EB12-SA5DN-SS-060211)	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	135 130 130	- - -	78.00-126.00 80.00-124.00 80.00-120.00	- - -	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	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
P7WELCSY260343 (EB12-SA5DN-SS-060211)	Di-n-octylphthalate	-	148	57.00-145.00	43 (30.00)	Di-n-octylphthalate	J(all detects) UJ(all non-detects)

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_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
P11606AQ240458A (DUP-12-SA5DN-QC-060211 SL -131-SA5DN-SS-0.0-0.5 SL -132-SA5DN-SS-0.0-0.5 SL -133-SA5DN-SS-0.0-0.5 SL -134-SA5DN-SS-0.0-0.5 SL -135-SA5DN-SS-0.0-0.5 SL -136-SA5DN-SS-0.0-0.5 SL -137-SA5DN-SS-0.0-0.5 SL -138-SA5DN-SS-0.0-0.5 SL -139-SA5DN-SS-0.0-0.5 SL -140-SA5DN-SS-0.0-0.5 SL -141-SA5DN-SS-0.0-0.5 SL -142-SA5DN-SS-0.0-0.5 SL -143-SA5DN-SS-0.0-0.5 SL -144-SA5DN-SS-0.0-0.5 SL -145-SA5DN-SS-0.0-0.5 SL -149-SA5DN-SS-0.0-0.5 SL -150-SA5DN-SS-0.0-0.5 SL -151-SA5DN-SS-0.0-0.5)	DINOSEB	6	-	10.00-36.00	-	DINOSEB	J(all detects) R(all non-detects)

**Method: 8330A**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11678AQ240711A (DUP-12-SA5DN-QC-060211 SL -132-SA5DN-SS-0.0-0.5 SL -133-SA5DN-SS-0.0-0.5 SL -134-SA5DN-SS-0.0-0.5 SL -135-SA5DN-SS-0.0-0.5 SL -136-SA5DN-SS-0.0-0.5 SL -137-SA5DN-SS-0.0-0.5 SL -138-SA5DN-SS-0.0-0.5 SL -139-SA5DN-SS-0.0-0.5 SL -140-SA5DN-SS-0.0-0.5 SL -141-SA5DN-SS-0.0-0.5)	2,4,6-TRINITROTOLUENE 2,6-DINITROTOLUENE 2-AMINO-4,6-DINITROTOLUENE 4-AMINO-2,6-DINITROTOLUENE NITROBENZENE PETN	128 123 125 122 127 126	- - - - - -	80.00-120.00 80.00-120.00 80.00-120.00 80.00-120.00 80.00-120.00 80.00-120.00	- - - - - -	2,4,6-TRINITROTOLUENE 2,6-DINITROTOLUENE 2-AMINO-4,6-DINITROTOLUEN 4-AMINO-2,6-DINITROTOLUEN NITROBENZENE PETN	J(all detects)

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_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
P9LELCSQ261214 (DUP-12-SA5DN-QC-060211 SL -131-SA5DN-SS-0.0-0.5 SL -132-SA5DN-SS-0.0-0.5 SL -133-SA5DN-SS-0.0-0.5 SL -134-SA5DN-SS-0.0-0.5 SL -135-SA5DN-SS-0.0-0.5 SL -136-SA5DN-SS-0.0-0.5 SL -137-SA5DN-SS-0.0-0.5 SL -138-SA5DN-SS-0.0-0.5 SL -139-SA5DN-SS-0.0-0.5 SL -140-SA5DN-SS-0.0-0.5 SL -141-SA5DN-SS-0.0-0.5 SL -142-SA5DN-SS-0.0-0.5 SL -143-SA5DN-SS-0.0-0.5 SL -144-SA5DN-SS-0.0-0.5 SL -145-SA5DN-SS-0.0-0.5 SL -149-SA5DN-SS-0.0-0.5 SL -150-SA5DN-SS-0.0-0.5 SL -151-SA5DN-SS-0.0-0.5)	3,3'-DICHLOROBENZIDINE 4-CHLOROANILINE ANILINE	130 142 115	- - -	24.00-101.00 10.00-110.00 34.00-94.00	- - -	3,3'-DICHLOROBENZIDINE 4-CHLOROANILINE ANILINE	J(all detects)

**Method:** 6020

**Matrix:** SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P16126AQ220904A (DUP-12-SA5DN-QC-060211 SL -131-SA5DN-SS-0.0-0.5 SL -132-SA5DN-SS-0.0-0.5 SL -133-SA5DN-SS-0.0-0.5 SL -134-SA5DN-SS-0.0-0.5 SL -135-SA5DN-SS-0.0-0.5 SL -136-SA5DN-SS-0.0-0.5 SL -137-SA5DN-SS-0.0-0.5 SL -138-SA5DN-SS-0.0-0.5 SL -139-SA5DN-SS-0.0-0.5 SL -140-SA5DN-SS-0.0-0.5 SL -141-SA5DN-SS-0.0-0.5 SL -142-SA5DN-SS-0.0-0.5 SL -143-SA5DN-SS-0.0-0.5 SL -144-SA5DN-SS-0.0-0.5 SL -145-SA5DN-SS-0.0-0.5 SL -149-SA5DN-SS-0.0-0.5 SL -150-SA5DN-SS-0.0-0.5 SL -151-SA5DN-SS-0.0-0.5)	ANTIMONY	158	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC Limits



# Surrogate Outlier Report

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 8081A

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-136-SA5DN-SS-0.0-0.5	TETRACHLORO-M-XYLENE	42	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-137-SA5DN-SS-0.0-0.5	TETRACHLORO-M-XYLENE	47	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-132-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	147	45.00-120.00	All Target Analytes	J (all detects)

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 160.3M

Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA5DN-SS-0.0-0.5	DUP-12-SA5DN-QC-060211			
MOISTURE	2.7	2.7	0		No Qualifiers Applied

Method: 300.0

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA5DN-SS-0.0-0.5	DUP-12-SA5DN-QC-060211			
FLUORIDE	2.2	2.2	0	50.00	No Qualifiers Applied
Nitrate-NO3	2.4	2.5	4	50.00	

Method: 6010B

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA5DN-SS-0.0-0.5	DUP-12-SA5DN-QC-060211			
ALUMINUM	16800	16200	4	50.00	No Qualifiers Applied
CALCIUM	3740	3640	3	50.00	
IRON	24100	22500	7	50.00	
LITHIUM	32.6	30.9	5	50.00	
MAGNESIUM	5570	5260	6	50.00	
MANGANESE	344	314	9	50.00	
PHOSPHORUS	499	485	3	50.00	
POTASSIUM	3180	2800	13	50.00	
SODIUM	114	110	4	50.00	
STRONTIUM	18.9	19.6	4	50.00	
TIN	2.94	2.71	8	50.00	
TITANIUM	1480	1390	6	50.00	
Zirconium	5.95	5.18	14	50.00	

Method: 6020

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA5DN-SS-0.0-0.5	DUP-12-SA5DN-QC-060211			
ANTIMONY	0.237	0.231	3	50.00	No Qualifiers Applied
ARSENIC	33.9	32.0	6	50.00	
BARIUM	153	140	9	50.00	
BERYLLIUM	0.923	0.744	21	50.00	
CADMIUM	0.383	0.297	25	50.00	
CHROMIUM	28.7	27.6	4	50.00	
COBALT	11.4	9.31	20	50.00	
COPPER	17.0	14.7	15	50.00	
LEAD	10.3	9.65	7	50.00	
MOLYBDENUM	0.843	0.740	13	50.00	
NICKEL	26.1	22.5	15	50.00	
SELENIUM	0.156	0.176	12	50.00	
SILVER	0.0512	0.0402	24	50.00	
THALLIUM	0.388	0.391	1	50.00	
VANADIUM	51.3	47.5	8	50.00	
ZINC	95.2	83.7	13	50.00	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Field Duplicate RPD Report

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 7199

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA5DN-SS-0.0-0.5	DUP-12-SA5DN-QC-060211			
HEXAVALENT CHROMIUM	0.39	0.58	39	50.00	No Qualifiers Applied

Method: 7471A

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA5DN-SS-0.0-0.5	DUP-12-SA5DN-QC-060211			
MERCURY	0.0282	0.0088	105	50.00	J(all detects)

Method: 8015M

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA5DN-SS-0.0-0.5	DUP-12-SA5DN-QC-060211			
EFH (C21-C30)	13	9.5	31	50.00	No Qualifiers Applied
EFH (C30-C40)	49	53	8	50.00	

Method: 8081A

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA5DN-SS-0.0-0.5	DUP-12-SA5DN-QC-060211			
4,4'-DDE	0.35 U	2.5	200	50.00	J(all detects) UJ(all non-detects)
4,4'-DDT	0.35 U	5.8	200	50.00	
Chlordane	3.5 U	4.3	200	50.00	
DIELDRIN	0.35 U	0.47	200	50.00	
ENDRIN ALDEHYDE	0.35 U	0.17	200	50.00	
MIREX	0.35 U	0.16	200	50.00	

Method: 8082

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA5DN-SS-0.0-0.5	DUP-12-SA5DN-QC-060211			
AROCLOR 1260	2.1	1.7 U	200	50.00	J(all detects)
Aroclor 5460	5.8	3.4 U	200	50.00	UJ(all non-detects)

Method: 8151A

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA5DN-SS-0.0-0.5	DUP-12-SA5DN-QC-060211			
MCPA	290	260 U	200	50.00	J(all detects) UJ(all non-detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Field Duplicate RPD Report

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: PrepDE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 8270C SIM

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA5DN-SS-0.0-0.5	DUP-12-SA5DN-QC-060211			
BENZO(A)ANTHRACENE	1.7 U	0.96	200	50.00	J(all detects) UJ(all non-detects)
BENZO(A)PYRENE	1.7 U	2.2	200	50.00	
BENZO(B)FLUORANTHENE	1.7 U	4.4	200	50.00	
BENZO(G,H,I)PERYLENE	1.7 U	1.5	200	50.00	
BENZO(K)FLUORANTHENE	1.7 U	6.2	200	50.00	
BIS(2-ETHYLHEXYL)PHTHALATE	18	42	80	50.00	
CHRYSENE	1.7 U	5.8	200	50.00	
DIBENZO(A,H)ANTHRACENE	1.7 U	1.2	200	50.00	
FLUORANTHENE	1.7 U	2.9	200	50.00	
INDENO(1,2,3-CD)PYRENE	1.7 U	1.1	200	50.00	
PHENANTHRENE	1.7 U	1.4	200	50.00	
PYRENE	1.7 U	2.9	200	50.00	

Method: 8315A

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA5DN-SS-0.0-0.5	DUP-12-SA5DN-QC-060211			
FORMALDEHYDE	2100	1700	21	50.00	No Qualifiers Applied

Method: 9045M

Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA5DN-SS-0.0-0.5	DUP-12-SA5DN-QC-060211			
PH	7.59	7.53	1	50.00	No Qualifiers Applied

# Reporting Limit Outliers

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6020

**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB12-SA5DN-SS-060211	LEAD	J	0.000074	0.0010	PQL	mg/L	J (all detects)

**Method:** 7470A

**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB12-SA5DN-SS-060211	MERCURY	J	0.000093	0.00020	PQL	mg/L	J (all detects)

**Method:** 8081A

**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB12-SA5DN-SS-060211	HEPTACHLOR	J	0.0099	0.010	PQL	ug/L	J (all detects)

**Method:** 8270C SIM

**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB12-SA5DN-SS-060211	1-METHYLNAPHTHALENE	J	0.029	0.052	PQL	ug/L	J (all detects)
	2-METHYLNAPHTHALENE	J	0.029	0.052	PQL	ug/L	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.22	1.0	PQL	ug/L	
	Di-n-butylphthalate	J	0.082	1.0	PQL	ug/L	

**Method:** 300.0

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-133-SA5DN-SS-0.0-0.5	Nitrate-NO3	J	0.95	1.5	PQL	mg/Kg	J (all detects)

**Method:** 6010B

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-12-SA5DN-QC-060211	TIN	J	2.71	10.2	PQL	mg/Kg	J (all detects)
SL-131-SA5DN-SS-0.0-0.5	SODIUM	J	96.6	103	PQL	mg/Kg	J (all detects)
	TIN	J	2.70	10.3	PQL	mg/Kg	
	Zirconium	J	4.57	5.15	PQL	mg/Kg	
SL-132-SA5DN-SS-0.0-0.5	SODIUM	J	84.8	102	PQL	mg/Kg	J (all detects)
	TIN	J	2.56	10.2	PQL	mg/Kg	
	Zirconium	J	3.64	5.11	PQL	mg/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-133-SA5DN-SS-0.0-0.5	SODIUM	J	86.4	103	PQL	mg/Kg	J (all detects)
	TIN	J	2.59	10.3	PQL	mg/Kg	
	Zirconium	J	4.35	5.14	PQL	mg/Kg	
SL-134-SA5DN-SS-0.0-0.5	TIN	J	2.70	10.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.88	5.03	PQL	mg/Kg	
SL-135-SA5DN-SS-0.0-0.5	TIN	J	3.01	10.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	5.01	5.06	PQL	mg/Kg	
SL-136-SA5DN-SS-0.0-0.5	TIN	J	2.65	10.1	PQL	mg/Kg	J (all detects)
SL-137-SA5DN-SS-0.0-0.5	TIN	J	2.73	10.0	PQL	mg/Kg	J (all detects)
SL-138-SA5DN-SS-0.0-0.5	TIN	J	2.94	9.98	PQL	mg/Kg	J (all detects)
SL-139-SA5DN-SS-0.0-0.5	TIN	J	2.56	9.92	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.47	4.96	PQL	mg/Kg	
SL-140-SA5DN-SS-0.0-0.5	SODIUM	J	91.7	102	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.84	5.10	PQL	mg/Kg	
SL-141-SA5DN-SS-0.0-0.5	TIN	J	2.98	10.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.86	5.29	PQL	mg/Kg	
SL-142-SA5DN-SS-0.0-0.5	SODIUM	J	75.9	100	PQL	mg/Kg	J (all detects)
	TIN	J	2.67	10.0	PQL	mg/Kg	
	Zirconium	J	3.68	5.00	PQL	mg/Kg	
SL-143-SA5DN-SS-0.0-0.5	TIN	J	2.90	10.5	PQL	mg/Kg	J (all detects)
SL-144-SA5DN-SS-0.0-0.5	SODIUM	J	88.5	104	PQL	mg/Kg	J (all detects)
	TIN	J	2.72	10.4	PQL	mg/Kg	
SL-145-SA5DN-SS-0.0-0.5	SODIUM	J	81.0	103	PQL	mg/Kg	J (all detects)
	TIN	J	2.57	10.3	PQL	mg/Kg	
	Zirconium	J	4.16	5.14	PQL	mg/Kg	
SL-149-SA5DN-SS-0.0-0.5	SODIUM	J	75.9	107	PQL	mg/Kg	J (all detects)
	TIN	J	2.96	10.7	PQL	mg/Kg	
SL-150-SA5DN-SS-0.0-0.5	SODIUM	J	86.5	106	PQL	mg/Kg	J (all detects)
	TIN	J	3.18	10.6	PQL	mg/Kg	
SL-151-SA5DN-SS-0.0-0.5	TIN	J	3.31	10.2	PQL	mg/Kg	J (all detects)

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-12-SA5DN-QC-060211	SELENIUM	J	0.176	0.395	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0402	0.0988	PQL	mg/Kg	
SL-131-SA5DN-SS-0.0-0.5	SELENIUM	J	0.106	0.412	PQL	mg/Kg	J (all detects)
SL-132-SA5DN-SS-0.0-0.5	SELENIUM	J	0.157	0.405	PQL	mg/Kg	J (all detects)
SL-133-SA5DN-SS-0.0-0.5	SELENIUM	J	0.128	0.411	PQL	mg/Kg	J (all detects)
SL-134-SA5DN-SS-0.0-0.5	SELENIUM	J	0.187	0.406	PQL	mg/Kg	J (all detects)
SL-135-SA5DN-SS-0.0-0.5	SELENIUM	J	0.144	0.401	PQL	mg/Kg	J (all detects)
SL-136-SA5DN-SS-0.0-0.5	SELENIUM	J	0.237	0.404	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0894	0.101	PQL	mg/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-137-SA5DN-SS-0.0-0.5	SELENIUM	J	0.134	0.394	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0955	0.0984	PQL	mg/Kg	J (all detects)
SL-138-SA5DN-SS-0.0-0.5	SELENIUM	J	0.156	0.403	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0512	0.101	PQL	mg/Kg	J (all detects)
SL-139-SA5DN-SS-0.0-0.5	SELENIUM	J	0.166	0.405	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0542	0.101	PQL	mg/Kg	J (all detects)
SL-140-SA5DN-SS-0.0-0.5	SELENIUM	J	0.136	0.404	PQL	mg/Kg	J (all detects)
SL-141-SA5DN-SS-0.0-0.5	SELENIUM	J	0.271	0.419	PQL	mg/Kg	J (all detects)
SL-142-SA5DN-SS-0.0-0.5	SELENIUM	J	0.167	0.416	PQL	mg/Kg	J (all detects)
SL-143-SA5DN-SS-0.0-0.5	SELENIUM	J	0.172	0.416	PQL	mg/Kg	J (all detects)
SL-144-SA5DN-SS-0.0-0.5	SELENIUM	J	0.205	0.406	PQL	mg/Kg	J (all detects)
SL-145-SA5DN-SS-0.0-0.5	SELENIUM	J	0.165	0.403	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0583	0.101	PQL	mg/Kg	J (all detects)
SL-149-SA5DN-SS-0.0-0.5	SELENIUM	J	0.222	0.431	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0431	0.108	PQL	mg/Kg	J (all detects)
SL-150-SA5DN-SS-0.0-0.5	SELENIUM	J	0.281	0.424	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0762	0.106	PQL	mg/Kg	J (all detects)
SL-151-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.155	0.204	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.233	0.407	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0497	0.102	PQL	mg/Kg	J (all detects)

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-12-SA5DN-QC-060211	HEXAVALENT CHROMIUM	J	0.58	1.0	PQL	mg/Kg	J (all detects)
SL-131-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.71	1.0	PQL	mg/Kg	J (all detects)
SL-133-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.37	1.0	PQL	mg/Kg	J (all detects)
SL-134-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.42	1.0	PQL	mg/Kg	J (all detects)
SL-136-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.80	1.0	PQL	mg/Kg	J (all detects)
SL-137-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.53	1.0	PQL	mg/Kg	J (all detects)
SL-138-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.39	1.0	PQL	mg/Kg	J (all detects)
SL-139-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.81	1.0	PQL	mg/Kg	J (all detects)
SL-140-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.44	1.0	PQL	mg/Kg	J (all detects)
SL-141-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.72	1.1	PQL	mg/Kg	J (all detects)
SL-142-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.51	1.0	PQL	mg/Kg	J (all detects)
SL-143-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.43	1.1	PQL	mg/Kg	J (all detects)
SL-144-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.39	1.0	PQL	mg/Kg	J (all detects)
SL-145-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.94	1.0	PQL	mg/Kg	J (all detects)
SL-149-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.45	1.1	PQL	mg/Kg	J (all detects)
SL-150-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.37	1.1	PQL	mg/Kg	J (all detects)

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# Reporting Limit Outliers

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-151-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.56	1.0	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-12-SA5DN-QC-060211	MERCURY	J	0.0088	0.0994	PQL	mg/Kg	J (all detects)
SL-132-SA5DN-SS-0.0-0.5	MERCURY	J	0.0366	0.0999	PQL	mg/Kg	J (all detects)
SL-133-SA5DN-SS-0.0-0.5	MERCURY	J	0.0645	0.100	PQL	mg/Kg	J (all detects)
SL-136-SA5DN-SS-0.0-0.5	MERCURY	J	0.0358	0.101	PQL	mg/Kg	J (all detects)
SL-138-SA5DN-SS-0.0-0.5	MERCURY	J	0.0282	0.0985	PQL	mg/Kg	J (all detects)
SL-139-SA5DN-SS-0.0-0.5	MERCURY	J	0.0057	0.100	PQL	mg/Kg	J (all detects)
SL-140-SA5DN-SS-0.0-0.5	MERCURY	J	0.0064	0.0992	PQL	mg/Kg	J (all detects)
SL-142-SA5DN-SS-0.0-0.5	MERCURY	J	0.0148	0.103	PQL	mg/Kg	J (all detects)
SL-143-SA5DN-SS-0.0-0.5	MERCURY	J	0.0822	0.103	PQL	mg/Kg	J (all detects)
SL-144-SA5DN-SS-0.0-0.5	MERCURY	J	0.0034	0.0984	PQL	mg/Kg	J (all detects)
SL-150-SA5DN-SS-0.0-0.5	MERCURY	J	0.0050	0.103	PQL	mg/Kg	J (all detects)
SL-151-SA5DN-SS-0.0-0.5	MERCURY	J	0.0051	0.101	PQL	mg/Kg	J (all detects)

Method: 8015B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-140-SA5DN-SS-0.0-0.5	Isopropanol	J	150	510	PQL	ug/Kg	J (all detects)
	METHANOL	J	130	510	PQL	ug/Kg	

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-132-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	6.0	6.1	PQL	mg/Kg	J (all detects)
SL-134-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	1.4	2.5	PQL	mg/Kg	J (all detects)
SL-141-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	7.0	13	PQL	mg/Kg	J (all detects)



# Reporting Limit Outliers

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-12-SA5DN-QC-060211	ENDRIN ALDEHYDE	J	0.17	0.35	PQL	ug/Kg	J (all detects)
	MIREX	J	0.16	0.35	PQL	ug/Kg	
SL-131-SA5DN-SS-0.0-0.5	Chlordane	J	2.5	3.5	PQL	ug/Kg	J (all detects)
SL-132-SA5DN-SS-0.0-0.5	Chlordane	J	1.8	3.5	PQL	ug/Kg	J (all detects)
SL-133-SA5DN-SS-0.0-0.5	Chlordane	J	2.4	3.5	PQL	ug/Kg	J (all detects)
	gamma-BHC (Lindane)	J	0.089	0.17	PQL	ug/Kg	
SL-134-SA5DN-SS-0.0-0.5	4,4'-DDE	J	0.14	0.35	PQL	ug/Kg	J (all detects)
	DIELDRIN	J	0.24	0.35	PQL	ug/Kg	
SL-136-SA5DN-SS-0.0-0.5	Chlordane	J	1.4	3.5	PQL	ug/Kg	J (all detects)
	DIELDRIN	J	0.26	0.35	PQL	ug/Kg	
	HEPTACHLOR EPOXIDE	J	0.063	0.17	PQL	ug/Kg	
SL-137-SA5DN-SS-0.0-0.5	Chlordane	J	3.0	3.5	PQL	ug/Kg	J (all detects)
	HEPTACHLOR EPOXIDE	J	0.035	0.17	PQL	ug/Kg	
	MIREX	J	0.14	0.35	PQL	ug/Kg	
SL-140-SA5DN-SS-0.0-0.5	Chlordane	J	1.5	3.5	PQL	ug/Kg	J (all detects)
SL-141-SA5DN-SS-0.0-0.5	gamma-BHC (Lindane)	J	0.097	0.18	PQL	ug/Kg	J (all detects)
SL-144-SA5DN-SS-0.0-0.5	Chlordane	J	3.1	3.5	PQL	ug/Kg	J (all detects)
	ENDRIN ALDEHYDE	J	0.16	0.35	PQL	ug/Kg	
	MIREX	J	0.27	0.35	PQL	ug/Kg	
SL-145-SA5DN-SS-0.0-0.5	Chlordane	J	1.9	3.5	PQL	ug/Kg	J (all detects)
	DIELDRIN	J	0.10	0.35	PQL	ug/Kg	
	ENDOSULFAN II	J	0.074	0.35	PQL	ug/Kg	
	MIREX	J	0.15	0.35	PQL	ug/Kg	
SL-149-SA5DN-SS-0.0-0.5	4,4'-DDE	J	0.12	0.37	PQL	ug/Kg	J (all detects)
SL-150-SA5DN-SS-0.0-0.5	Chlordane	J	2.1	3.6	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.057	0.18	PQL	ug/Kg	
	ENDOSULFAN II	J	0.16	0.36	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.20	0.36	PQL	ug/Kg	
	HEPTACHLOR EPOXIDE	J	0.13	0.18	PQL	ug/Kg	
	MIREX	J	0.15	0.36	PQL	ug/Kg	

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-131-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	5.0	8.8	PQL	ug/Kg	J (all detects)
SL-133-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.1	1.7	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	1.3	3.4	PQL	ug/Kg	
SL-135-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.2	1.7	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	3.2	3.4	PQL	ug/Kg	
SL-138-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	2.1	8.7	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	5.8	17	PQL	ug/Kg	
SL-140-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.6	1.7	PQL	ug/Kg	J (all detects)
SL-141-SA5DN-SS-0.0-0.5	Aroclor 5460	J	30	35	PQL	ug/Kg	J (all detects)
SL-142-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	6.2	8.8	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	7.4	17	PQL	ug/Kg	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Reporting Limit Outliers

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-149-SA5DN-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J	1.7	1.8	PQL	ug/Kg	J (all detects)
		J	3.4	3.6	PQL	ug/Kg	

Method: 8151A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-132-SA5DN-SS-0.0-0.5	DICHOROPROP MCP	J	1.0	1.7	PQL	ug/Kg	J (all detects)
		J	130	250	PQL	ug/Kg	
SL-142-SA5DN-SS-0.0-0.5	DICHOROPROP	J	0.87	1.8	PQL	ug/Kg	J (all detects)
SL-145-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.080	0.17	PQL	ug/Kg	J (all detects)
SL-150-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.12	0.18	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-132-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	20	340	PQL	ug/Kg	J (all detects)
SL-133-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	23	340	PQL	ug/Kg	J (all detects)
SL-141-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	25	180	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	41	180	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	81	180	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	170	180	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	24	180	PQL	ug/Kg	
	CHRYSENE	J	35	180	PQL	ug/Kg	
	FLUORANTHENE	J	43	180	PQL	ug/Kg	
	PHENANTHRENE	J	48	180	PQL	ug/Kg	
	PYRENE	J	40	180	PQL	ug/Kg	
SL-145-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	93	340	PQL	ug/Kg	J (all detects)
SL-149-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	30	350	PQL	ug/Kg	J (all detects)
SL-150-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	59	360	PQL	ug/Kg	J (all detects)
SL-151-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	22	340	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-12-SA5DN-QC-060211	BENZO(A)ANTHRACENE	J	0.96	1.7	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.5	1.7	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.2	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.4	1.7	PQL	ug/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-131-SA5DN-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	1.0	1.7	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.2	1.7	PQL	ug/Kg	
	ACENAPHTHYLENE	J	0.35	1.7	PQL	ug/Kg	
	ANTHRACENE	J	1.5	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	1.5	1.7	PQL	ug/Kg	
SL-132-SA5DN-SS-0.0-0.5	ANTHRACENE	J	1.6	1.7	PQL	ug/Kg	J (all detects)
	FLUORENE	J	0.83	1.7	PQL	ug/Kg	
SL-133-SA5DN-SS-0.0-0.5	ACENAPHTHENE	J	0.74	1.7	PQL	ug/Kg	J (all detects)
	NAPHTHALENE	J	0.75	1.7	PQL	ug/Kg	
SL-134-SA5DN-SS-0.0-0.5	ANTHRACENE	J	0.98	1.7	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	9.8	19	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.4	1.7	PQL	ug/Kg	
SL-135-SA5DN-SS-0.0-0.5	ANTHRACENE	J	0.46	1.7	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	1.0	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.82	1.7	PQL	ug/Kg	
SL-136-SA5DN-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	1.6	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	10	18	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	0.76	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.5	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.1	1.7	PQL	ug/Kg	
SL-137-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.75	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	1.0	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	10	18	PQL	ug/Kg	
	FLUORANTHENE	J	1.6	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.98	1.7	PQL	ug/Kg	
	PYRENE	J	1.3	1.7	PQL	ug/Kg	
SL-138-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	18	19	PQL	ug/Kg	J (all detects)
SL-140-SA5DN-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.70	1.7	PQL	ug/Kg	J (all detects)
	NAPHTHALENE	J	1.0	1.7	PQL	ug/Kg	
SL-141-SA5DN-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	1.7	1.8	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	0.50	1.8	PQL	ug/Kg	
	Butylbenzylphthalate	J	9.3	19	PQL	ug/Kg	
	Di-n-butylphthalate	J	16	19	PQL	ug/Kg	
	FLUORENE	J	0.96	1.8	PQL	ug/Kg	
SL-142-SA5DN-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.73	1.7	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	0.97	1.7	PQL	ug/Kg	
	ACENAPHTHYLENE	J	0.35	1.7	PQL	ug/Kg	
	ANTHRACENE	J	1.0	1.7	PQL	ug/Kg	
	Butylbenzylphthalate	J	11	19	PQL	ug/Kg	
	NAPHTHALENE	J	1.4	1.7	PQL	ug/Kg	
SL-143-SA5DN-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	1.1	1.7	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.3	1.7	PQL	ug/Kg	
	ACENAPHTHYLENE	J	0.48	1.7	PQL	ug/Kg	
	Di-n-octylphthalate	J	13	19	PQL	ug/Kg	
SL-144-SA5DN-SS-0.0-0.5	ANTHRACENE	J	0.37	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	1.2	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.5	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	14	18	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.0	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.71	1.7	PQL	ug/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE171

Laboratory: LL

EDD Filename: DE171\_v2

eQAPP Name: CDM\_SSFL\_110509

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-145-SA5DN-SS-0.0-0.5	BENZO(A)PYRENE	J	4.4	8.6	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	8.0	8.6	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	4.2	8.6	PQL	ug/Kg	
	FLUORANTHENE	J	7.5	8.6	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	3.6	8.6	PQL	ug/Kg	
	PHENANTHRENE	J	3.7	8.6	PQL	ug/Kg	
	PYRENE	J	6.5	8.6	PQL	ug/Kg	
SL-149-SA5DN-SS-0.0-0.5	BENZO(K)FLUORANTHENE	J	1.0	1.8	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.93	1.8	PQL	ug/Kg	
SL-150-SA5DN-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	1.3	1.8	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	1.0	1.8	PQL	ug/Kg	
	Butylbenzylphthalate	J	9.1	19	PQL	ug/Kg	
	FLUORENE	J	1.5	1.8	PQL	ug/Kg	
SL-151-SA5DN-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.78	1.7	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.94	1.7	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.2	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	1.4	1.7	PQL	ug/Kg	

Method: 8315A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-132-SA5DN-SS-0.0-0.5	FORMALDEHYDE	J	2800	3100	PQL	ug/Kg	J (all detects)
SL-134-SA5DN-SS-0.0-0.5	FORMALDEHYDE	J	1000	1600	PQL	ug/Kg	J (all detects)
SL-135-SA5DN-SS-0.0-0.5	FORMALDEHYDE	J	1200	1500	PQL	ug/Kg	J (all detects)
SL-136-SA5DN-SS-0.0-0.5	FORMALDEHYDE	J	1200	1500	PQL	ug/Kg	J (all detects)
SL-137-SA5DN-SS-0.0-0.5	FORMALDEHYDE	J	1200	1500	PQL	ug/Kg	J (all detects)
SL-139-SA5DN-SS-0.0-0.5	FORMALDEHYDE	J	1400	1500	PQL	ug/Kg	J (all detects)

**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	A	No find
V.	ICP Interference Check Sample (ICS) Analysis	N	RPP.
VI.	Matrix Spike Analysis	SW	Al, As, Ba, Ca, Fe, Mg, Mn, P, Ti, V, Zn 744 No find
VII.	Duplicate Sample Analysis	SW*	Sb, Cd, Te, $\leq 5X$ , h-2R
VIII.	Laboratory Control Samples (LCS)	A	SRM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	As, Ba, Co, Cu, Pb, Ni, Zn.
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	-	
XV.	Field Blanks	SW	FB=20

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:

1	SL-131-SA5DN-SS-0.0-0.5	11	SL-141-SA5DN-SS-0.0-0.5	21	SL-138-SA5DN-SS-0.0-0.5MS	31	
2	SL-132-SA5DN-SS-0.0-0.5	12	SL-142-SA5DN-SS-0.0-0.5	22	SL-138-SA5DN-SS-0.0-0.5MSD	32	
3	SL-133-SA5DN-SS-0.0-0.5	13	SL-143-SA5DN-SS-0.0-0.5	23	SL-138-SA5DN-SS-0.0-0.5DUP	33	
4	SL-134-SA5DN-SS-0.0-0.5	14	SL-144-SA5DN-SS-0.0-0.5	24		34	
5	SL-135-SA5DN-SS-0.0-0.5	15	DUP-12-SA5DN-QC-060211	25		35	
6	SL-136-SA5DN-SS-0.0-0.5	16	SL-145-SA5DN-SS-0.0-0.5	26		36	
7	SL-137-SA5DN-SS-0.0-0.5	17	SL-149-SA5DN-SS-0.0-0.5	27		37	
8	SL-138-SA5DN-SS-0.0-0.5	18	SL-150-SA5DN-SS-0.0-0.5	28		38	
9	SL-139-SA5DN-SS-0.0-0.5	19	SL-151-SA5DN-SS-0.0-0.5	29		39	
10	SL-140-SA5DN-SS-0.0-0.5	20	EB12-SA5DN-SS-060211	30		40	

Notes: \* Mo: Difference - 0.3779 ( $\leq 0.202$ )

## VALIDATION FINDINGS WORKSHEET

## Field Blanks

Page: 1 of 1  
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: 6/2/11 Soil factor applied 100X, Hg: 166.7Field blank type: (circle one) Field Blank / Rinsate / Other: Field Blank Associated Samples: All Soil

Analyte		Blank ID	Sample Identification															
		20	Action Level	2	3	6	8	9	10	12	14	15	18	19				
Pb	0.074		0.037															
Hg	0.093		0.077516	0.037	0.065	0.036	0.028	0.0057	0.0064	0.015	0.0034	0.0088	0.0050	0.0051				

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".



QUALITY ASSURANCE SUMMARY  
FORM 5A(MS/MSD)  
MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
SDG No.: DE171  
Matrix: SOIL  
Level (low/med): LOW

Background Lab Sample ID: 6305886BKG Matrix Spike Lab Sample ID: 6305887MS Matrix Spike Duplicate Lab Sample ID: 6305888MSD  
& Solids for Sample: 97.3  
Batch ID(s): P16108A, P16126A, P16111A

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	MSD Spike Added	Units	MS		MSD		RPD Q	Control Limit	
		Result	C	Result	C	Result	C				\$R	Q	\$R	Q		%R	RPD M
Aluminum		16779.5638		17162.1341		17827.2314		203.5147	197.6441	MG/KG	188		530	4			20P
Antimony	121	0.2368		1.0163		1.0946		1.2091	1.1859	MG/KG	64	N	72	N	7	75 - 125	20MS
Arsenic	75	33.8553		32.9484		37.4536		2.0152	1.9764	MG/KG	-45		182	13			20MS
Barium	137	152.8727		138.5043		175.6661		10.0760	9.8822	MG/KG	-143		231	24	*		20MS
Beryllium	9	0.9234		1.6708		1.8834		0.8061	0.7906	MG/KG	93		121	12		75 - 125	20MS
Boron		0.3592	U	202.7505		197.0768		203.5147	197.6441	MG/KG	100		100	3		84 - 115	20P
Cadmium	111	0.3829		1.5461		1.8061		1.0076	0.9882	MG/KG	115		144	N	16	75 - 125	20MS
Calcium		3737.0289		4153.4664		4163.0722		407.0294	395.2882	MG/KG	102		108	0			20P
Chromium	52	28.7165		36.3138		41.9598		10.0760	9.8822	MG/KG	75		134	N	14	75 - 125	20MS
Cobalt	59	11.3516		69.7862		86.9832		50.3799	49.4110	MG/KG	116		153	N	22	75 - 125	20MS
Copper	63	17.0344		26.7618		32.7496		10.0760	9.8822	MG/KG	97		159	N	20	75 - 125	20MS
Iron		24057.6986		21789.2412		22537.6907		101.7573	98.8220	MG/KG	-2229		-1538	3			20P
Lead	208	10.3379		12.6433		16.0863		3.0228	2.9647	MG/KG	76		194	N	24	75 - 125	20MS
Lithium		32.6285		131.8785		130.6467		101.7573	98.8220	MG/KG	98		99	1		82 - 114	20P
Magnesium		5573.9840		5379.6750		5523.1846		203.5147	197.6441	MG/KG	-95		-26	3			20P
Manganese		344.3100		419.5893		383.9444		50.8787	49.4110	MG/KG	148		80	9			20P
Mercury		0.0282	B	0.2097		0.1917		0.1651	0.1638	MG/KG	110		100	9		65 - 135	20CV
Molybdenum	98	0.8428		13.9774		16.6456		10.0760	9.8822	MG/KG	130	N	160	N	17	75 - 125	20MS
Nickel	60	26.0968		33.5328		41.4460		10.0760	9.8822	MG/KG	74	N	155	N	21	75 - 125	20MS
Phosphorus		498.9463		561.8980		568.3493		101.7573	98.8220	MG/KG	62		70	1			20P
Potassium		3181.7759		4167.2362		4304.5478		1017.5735	988.2204	MG/KG	97		114	3		75 - 125	20P
Selenium	78	0.1556	B	2.6762		2.9409		2.0152	1.9764	MG/KG	125		141	N	9	75 - 125	20MS
Silver	107	0.0512	B	13.1028		15.3451		10.0760	9.8822	MG/KG	130	N	155	N	16	75 - 125	20MS
Sodium		114.2189		1096.2146		1081.1813		1017.5735	988.2204	MG/KG	97		98	1		75 - 125	20P
Strontium		18.8936		115.5668		114.8322		101.7573	98.8220	MG/KG	95		97	1		75 - 115	20P
Thallium	203	0.3881		0.8607		1.0631		0.4030	0.3953	MG/KG	117		171	N	21	75 - 125	20MS
Tin		2.9446	B	341.1273		325.7105		407.0294	395.2882	MG/KG	83		82	5		80 - 110	20P
Titanium		1484.9789		1645.8641		1672.6332		101.7573	98.8220	MG/KG	158		190	2			20P
Tungsten		51.3270		55.2365		65.9341		10.0760	9.8822	MG/KG	39		148	18			20MS
Zinc	66	95.1978		90.5024		112.1630		10.0760	9.8822	MG/KG	-47		172	21	*		20MS
Zirconium		5.9460		108.7664		106.0963		101.7573	98.8220	MG/KG	101		101	2		75 - 125	20P

METHODS:  
P = ICP Atomic Emission Spectrometer CV = Cold Vapor  
MS = ICP-MS Spectrometry AF = Cold Vapor Atomic Fluorescence

CONCENTRATION QUALIFIERS:  
U = Below MDL, B = Below LOQ  
FLAGS:  
N = Matrix Spike OOS, \* = Duplicate OOS



## QUALITY ASSURANCE SUMMARY

FORM 6

DUPLICATES

SDG No.: DE171

Matrix: SOIL

Level (low/med): LOW

Background Lab Sample ID: 6305886BKG

% Solids for Duplicate: 97.4

Batch ID(s): P16108A, P16126A, P16111A

Concentration Units: MG/KG

Duplicate Lab Sample ID: 6305889DUP

% Solids for Sample: 97.3

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			16779.5638		15878.0424		6		P
Antimony	121	0.2	0.2368		0.1395	B	52		MS
Arsenic	75		33.8553		18.9912		56	*	MS
Barium	137		152.8727		99.4297		42	*	MS
Beryllium	9		0.9234		0.6171		40	*	MS
Boron			0.3592	U	0.3627	U			P
Cadmium	111	0.1	0.3829		0.2017		62	*	MS
Calcium			3737.0289		3535.9057		6		P
Chromium	52		28.7165		18.8441		42	*	MS
Cobalt	59		11.3516		6.8194		50	*	MS
Copper	63		17.0344		12.0650		34	*	MS
Iron			24057.6986		21835.3354		10		P
Lead	208		10.3379		6.8315		41	*	MS
Lithium			32.6285		30.2148		8		P
Magnesium			5573.9840		5092.5105		9		P
Manganese			344.3100		326.8253		5		P
Mercury			0.0282	B	0.0299	B	6		CV
Molybdenum	98	0.1	0.8428		0.4649		58	*	MS
Nickel	60		26.0968		16.7765		43	*	MS
Phosphorus			498.9463		463.4978		7		P
Potassium			3181.7759		2913.3839		9		P
Selenium	78		0.1556	B	0.1301	B	18		MS
Silver	107		0.0512	B	0.0494	B	4		MS
Sodium		99.8	114.2189		103.2858		10		P
Strontium			18.8936		18.7322		1		P
Thallium	203	0.1	0.3881		0.2600		40	*	MS
Tin			2.9446	B	2.6651	B	10		P
Titanium			1484.9789		1395.2794		6		P
Vanadium	51		51.3270		35.7697		36	*	MS
Zinc	66		95.1978		64.2847		39	*	MS
Zirconium		5.0	5.9460		6.7983		13		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.

No: difference 0.3779 ( $\leq 0.202$ ) *ws/uy*

DE171 6146

## 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





# QUALITY ASSURANCE SUMMARY

FORM 9

SERIAL DILUTIONS

SDG No.: DE171

Matrix: SOIL

Level (low/med): LOW

Background Lab Sample ID: 6305886BKG

Serial Dilution Lab Sample ID: 6305886L

Batch ID(s): P16108A, P16126A

Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		168163.1100		161696.6000		4		P
Antimony	121	1.1750		1.5000	U	100		MS
Arsenic	75	168.0000		133.4000		21	E	MS
Barium	137	758.6000		636.5000		16	E	MS
Beryllium	9	4.5820		4.3775		4		MS
Boron		3.6000	U	18.0000	U			P
Cadmium	111	1.9000		1.4655	B	23		MS
Calcium		37452.1300		38225.0500		2		P
Chromium	52	142.5000		131.7000		8		MS
Cobalt	59	56.3300		44.5600		21	E	MS
Copper	63	84.5300		68.3000		19	E	MS
Iron		241103.8500		240055.9000		0		P
Lead	208	51.3000		42.4550		17	E	MS
Lithium		327.0000		317.9500		3		P
Magnesium		55861.9100		55427.7000		1		P
Manganese		3450.6400		3597.1000		4		P
Molybdenum	98	4.1820		3.5955		14		MS
Nickel	60	129.5000		108.8000		16	E	MS
Phosphorus		5000.3900		5172.0000		3		P
Potassium		31887.4400		31763.5000		0		P
Selenium	78	0.7721	B	1.0000	U	100		MS
Silver	107	0.2540	B	0.3000	U	100		MS
Sodium		1144.6900		1108.8500	B	3		P
Strontium		189.3500		193.1500		2		P
Thallium	203	1.9260		2.0555	B	7		MS
Tin		29.5100	B	50.0000	U	100		P
Titanium		14882.3100		15413.6000		4		P
Vanadium	51	254.7000		239.7500		6		MS
Zinc	66	472.4000		374.5000		21	E	MS
Zirconium		59.5900		79.9000	B	34		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:

DE171 6148

U= Below MDL

B= Below LOQ

## FLAGS:

E = Matrix Effects exist as proven by  
Serial Dilution or Spiked Dilution

# **SAMPLE DELIVERY GROUP**

**DE172**

## **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
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5	6304862	N	3050B	6010B	III
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5	6304862	N	3050B	6020	III
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5	6304862	N	3060A	7199	III
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5	6304862	N	3546	1625C	III
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5	6304862	N	3550B	8015B	III
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5	6304862	N	3550B	8015M	III
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5	6304862	N	3550B	8082	III
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5	6304862	N	3550B	8270C	III
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5	6304862	N	3550B	8270C SIM	III
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5	6304862	N	5035	8015M	III
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5	6304862	N	5035	8260B	III
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5	6304862	N	5035	8260B SIM	III
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5	6304862	N	8330	8330A	III
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5	6304862	N	METHOD	300.0	III
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5	6304862	N	METHOD	314.0	III
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5	6304862	N	METHOD	7471A	III
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5	6304862	N	METHOD	8015B	III
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5	6304862	N	METHOD	8015M	III
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5	6304862	N	METHOD	8315A	III
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5	6304862	N	METHOD	9012B	III
01-Jun-2011	SL-018-SA5DN-SB-7.5-8.5MS	P304862R261201	MS	3550B	8270C SIM	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0	6305964	N	3050B	6010B	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0	6305964	N	3050B	6020	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0	6305964	N	3060A	7199	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0	6305964	N	3546	1625C	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0	6305964	N	3550B	8015B	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

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0	6305964	N	3550B	8015M	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0	6305964	N	3550B	8082	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0	6305964	N	3550B	8270C	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0	6305964	N	3550B	8270C.SIM	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0	6305964	N	5035	8015M	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0	6305964	N	5035	8260B	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0	6305964	N	5035	8260B SIM	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0	6305964	N	8330	8330A	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0	6305964	N	METHOD	300.0	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0	6305964	N	METHOD	314.0	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0	6305964	N	METHOD	7471A	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0	6305964	N	METHOD	8015B	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0	6305964	N	METHOD	8015M	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0	6305964	N	METHOD	8315A	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0	6305964	N	METHOD	9012B	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0MS	P305964R261118	MS	3546	1625C	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0MS	P305964R261520	MS	3550B	8270C SIM	III
02-Jun-2011	SL-016-SA5DN-SB-4.0-5.0MS	P305964R320711A	MS	3550B	8015B	III
02-Jun-2011	SL-016-SA5DN-SB-12.0-13.0	6305965	N	3050B	6010B	III
02-Jun-2011	SL-016-SA5DN-SB-12.0-13.0	6305965	N	3050B	6020	III
02-Jun-2011	SL-016-SA5DN-SB-12.0-13.0	6305965	N	3060A	7199	III
02-Jun-2011	SL-016-SA5DN-SB-12.0-13.0	6305965	N	3546	1625C	III
02-Jun-2011	SL-016-SA5DN-SB-12.0-13.0	6305965	N	3550B	8015B	III
02-Jun-2011	SL-016-SA5DN-SB-12.0-13.0	6305965	N	3550B	8015M	III
02-Jun-2011	SL-016-SA5DN-SB-12.0-13.0	6305965	N	3550B	8082	III
02-Jun-2011	SL-016-SA5DN-SB-12.0-13.0	6305965	N	3550B	8270C	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

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Jun-2011	SL-016-SA5DN-SB-12.0-13.0	6305965	N	3550B	8270C SIM	III
02-Jun-2011	SL-016-SA5DN-SB-12.0-13.0	6305965	N	5035	8015M	III
02-Jun-2011	SL-016-SA5DN-SB-12.0-13.0	6305965	N	5035	8260B	III
02-Jun-2011	SL-016-SA5DN-SB-12.0-13.0	6305965	N	5035	8260B SIM	III
02-Jun-2011	SL-016-SA5DN-SB-12.0-13.0	6305965	N	8330	8330A	III
02-Jun-2011	SL-016-SA5DN-SB-12.0-13.0	6305965	N	METHOD	300.0	III
02-Jun-2011	SL-016-SA5DN-SB-12.0-13.0	6305965	N	METHOD	314.0	III
02-Jun-2011	SL-016-SA5DN-SB-12.0-13.0	6305965	N	METHOD	7471A	III
02-Jun-2011	SL-016-SA5DN-SB-12.0-13.0	6305965	N	METHOD	8015B	III
02-Jun-2011	SL-016-SA5DN-SB-12.0-13.0	6305965	N	METHOD	8015M	III
02-Jun-2011	SL-016-SA5DN-SB-12.0-13.0	6305965	N	METHOD	8315A	III
02-Jun-2011	SL-016-SA5DN-SB-12.0-13.0	6305965	N	METHOD	9012B	III
02-Jun-2011	TB-060211	6305968	TB	5030B	8015M	III
02-Jun-2011	TB-060211	6305968	TB	5030B	8260B	III
02-Jun-2011	TB-060211	6305968	TB	5030B	8260B SIM	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0	6305966	N	3050B	6010B	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0	6305966	N	3050B	6020	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0	6305966	N	3060A	7199	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0	6305966	N	3546	1625C	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0	6305966	N	3550B	8015B	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0	6305966	N	3550B	8015M	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0	6305966	N	3550B	8082	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0	6305966	N	3550B	8270C	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0	6305966	N	3550B	8270C SIM	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0	6305966	N	5035	8015M	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0	6305966	N	5035	8260B	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

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0	6305966	N	5035	8260B SIM	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0	6305966	N	8330	8330A	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0	6305966	N	METHOD	300.0	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0	6305966	N	METHOD	314.0	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0	6305966	N	METHOD	7471A	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0	6305966	N	METHOD	8015B	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0	6305966	N	METHOD	8015M	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0	6305966	N	METHOD	8315A	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0	6305966	N	METHOD	9012B	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0DU	P305966D271759B	DUP	METHOD	314.0	III
02-Jun-2011	SL-021-SA5DN-SB-4.0-5.0MS	P305966R271823B	MS	METHOD	314.0	III
02-Jun-2011	SL-021-SA5DN-SB-19.5-20.5	6305967	N	3050B	6010B	III
02-Jun-2011	SL-021-SA5DN-SB-19.5-20.5	6305967	N	3050B	6020	III
02-Jun-2011	SL-021-SA5DN-SB-19.5-20.5	6305967	N	3060A	7199	III
02-Jun-2011	SL-021-SA5DN-SB-19.5-20.5	6305967	N	3546	1625C	III
02-Jun-2011	SL-021-SA5DN-SB-19.5-20.5	6305967	N	3550B	8015B	III
02-Jun-2011	SL-021-SA5DN-SB-19.5-20.5	6305967	N	3550B	8015M	III
02-Jun-2011	SL-021-SA5DN-SB-19.5-20.5	6305967	N	3550B	8082	III
02-Jun-2011	SL-021-SA5DN-SB-19.5-20.5	6305967	N	3550B	8270C	III
02-Jun-2011	SL-021-SA5DN-SB-19.5-20.5	6305967	N	3550B	8270C SIM	III
02-Jun-2011	SL-021-SA5DN-SB-19.5-20.5	6305967	N	5035	8015M	III
02-Jun-2011	SL-021-SA5DN-SB-19.5-20.5	6305967	N	5035	8260B	III
02-Jun-2011	SL-021-SA5DN-SB-19.5-20.5	6305967	N	5035	8260B SIM	III
02-Jun-2011	SL-021-SA5DN-SB-19.5-20.5	6305967	N	8330	8330A	III
02-Jun-2011	SL-021-SA5DN-SB-19.5-20.5	6305967	N	METHOD	300.0	III
02-Jun-2011	SL-021-SA5DN-SB-19.5-20.5	6305967	N	METHOD	314.0	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

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Jun-2011	SL-021-SA5DN-SB-19.5-20.5	6305967	N	METHOD	7471A	III
02-Jun-2011	SL-021-SA5DN-SB-19.5-20.5	6305967	N	METHOD	8015B	III
02-Jun-2011	SL-021-SA5DN-SB-19.5-20.5	6305967	N	METHOD	8015M	III
02-Jun-2011	SL-021-SA5DN-SB-19.5-20.5	6305967	N	METHOD	8315A	III
02-Jun-2011	SL-021-SA5DN-SB-19.5-20.5	6305967	N	METHOD	9012B	III



## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE172

Laboratory: LL

EDD Filename: PrepDE172

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

**Sample ID:** SL-016-SA5DN-SB-12.0-13.0

**Collected:** 6/2/2011 10:19:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.5		0.90	MDL	1.1	PQL	mg/Kg	J	Q

**Sample ID:** SL-016-SA5DN-SB-4.0-5.0

**Collected:** 6/2/2011 10:04:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	10.2		0.94	MDL	1.2	PQL	mg/Kg	J	Q

**Sample ID:** SL-018-SA5DN-SB-7.5-8.5

**Collected:** 6/1/2011 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
Nitrate-NO3	1.2	J	0.88	MDL	1.7	PQL	mg/Kg	J	Z

**Sample ID:** SL-021-SA5DN-SB-19.5-20.5

**Collected:** 6/2/2011 2:50:00 PM

**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		0.89	MDL	1.1	PQL	mg/Kg	J	Q

**Sample ID:** SL-021-SA5DN-SB-4.0-5.0

**Collected:** 6/2/2011 2:40:00 PM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.3		0.91	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.5	J	0.91	MDL	1.7	PQL	mg/Kg	J	Z

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

**Sample ID:** SL-016-SA5DN-SB-12.0-13.0

**Collected:** 6/2/2011 10:19:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.12	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	0.997	J	0.941	MDL	5.60	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE172

Laboratory: LL

EDD Filename: PrepDE172

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: SL-016-SA5DN-SB-4.0-5.0

Collected: 6/2/2011 10:04:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.01	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	3.45	J	0.962	MDL	5.72	PQL	mg/Kg	J	Z

Sample ID: SL-018-SA5DN-SB-7.5-8.5

Collected: 6/1/2011 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
ALUMINUM	19900		5.40	MDL	21.5	PQL	mg/Kg	J	L
TIN	2.80	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	1.28	J	0.902	MDL	5.37	PQL	mg/Kg	J	Z

Sample ID: SL-021-SA5DN-SB-19.5-20.5

Collected: 6/2/2011 2:50:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.82	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	2.35	J	0.908	MDL	5.41	PQL	mg/Kg	J	Z

Sample ID: SL-021-SA5DN-SB-4.0-5.0

Collected: 6/2/2011 2:40:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.95	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	3.49	J	0.938	MDL	5.58	PQL	mg/Kg	J	Z

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-016-SA5DN-SB-12.0-13.0

Collected: 6/2/2011 10:19:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0551	J	0.0439	MDL	0.439	PQL	mg/Kg	J	Z

Sample ID: SL-016-SA5DN-SB-12.0-13.0

Collected: 6/2/2011 10:19:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.149	J	0.0659	MDL	0.220	PQL	mg/Kg	J	Z
SILVER	0.0715	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE172

Laboratory: LL

EDD Filename: PrepDE172

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-016-SA5DN-SB-4.0-5.0

**Collected:** 6/2/2011 10:04:00

**Analysis Type:** REA

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0961	J	0.0462	MDL	0.462	PQL	mg/Kg	J	Z

**Sample ID:** SL-016-SA5DN-SB-4.0-5.0

**Collected:** 6/2/2011 10:04:00

**Analysis Type:** RES

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.225	J	0.0694	MDL	0.231	PQL	mg/Kg	J	Z
SILVER	0.0556	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z

**Sample ID:** SL-018-SA5DN-SB-7.5-8.5

**Collected:** 6/1/2011 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
CADMIUM	0.0881	J	0.0434	MDL	0.108	PQL	mg/Kg	J	Z

**Sample ID:** SL-018-SA5DN-SB-7.5-8.5

**Collected:** 6/1/2011 11:25:00

**Analysis Type:** REA5

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.245	J	0.0434	MDL	0.434	PQL	mg/Kg	J	Z

**Sample ID:** SL-021-SA5DN-SB-19.5-20.5

**Collected:** 6/2/2011 2:50:00 PM

**Analysis Type:** REA

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0455	J	0.0428	MDL	0.428	PQL	mg/Kg	J	Z

**Sample ID:** SL-021-SA5DN-SB-19.5-20.5

**Collected:** 6/2/2011 2:50:00 PM

**Analysis Type:** RES

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.171	J	0.0642	MDL	0.214	PQL	mg/Kg	J	Z
SILVER	0.0254	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z

**Sample ID:** SL-021-SA5DN-SB-4.0-5.0

**Collected:** 6/2/2011 2:40:00 PM

**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	0.0447	MDL	0.447	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE172

Laboratory: LL

EDD Filename: PrepDE172

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

**Sample ID:** SL-021-SA5DN-SB-4.0-5.0

**Collected:** 6/2/2011 2:40:00 PM

**Analysis Type:** RES

**Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0478	J	0.0134	MDL	0.112	PQL	mg/Kg	J	Z

**Method Category:** METALS

**Method:** 7199

**Matrix:** SO

**Sample ID:** SL-016-SA5DN-SB-4.0-5.0

**Collected:** 6/2/2011 10:04:00

**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	0.24	MDL	1.2	PQL	mg/Kg	J	Z

**Sample ID:** SL-018-SA5DN-SB-7.5-8.5

**Collected:** 6/1/2011 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	0.41	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

**Sample ID:** SL-021-SA5DN-SB-4.0-5.0

**Collected:** 6/2/2011 2:40:00 PM

**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

**Method Category:** METALS

**Method:** 7471A

**Matrix:** SO

**Sample ID:** SL-016-SA5DN-SB-12.0-13.0

**Collected:** 6/2/2011 10:19:00

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0078	J	0.0031	MDL	0.108	PQL	mg/Kg	J	Z

**Method Category:** SVOA

**Method:** 1625C

**Matrix:** SO

**Sample ID:** SL-016-SA5DN-SB-12.0-13.0

**Collected:** 6/2/2011 10:19:00

**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	36.9	J	18.9	MDL	37.7	PQL	ng/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE172

Laboratory: LL

EDD Filename: PrepDE172

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 1625C

**Matrix:** SO

**Method Category:** SVOA

**Method:** 8082

**Matrix:** SO

**Sample ID:** SL-016-SA5DN-SB-12.0-13.0

**Collected:** 6/2/2011 10:19:00

**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	0.44	MDL	1.9	PQL	ug/Kg	J	Z
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

**Sample ID:** SL-016-SA5DN-SB-4.0-5.0

**Collected:** 6/2/2011 10:04:00

**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	0.39	U	0.39	MDL	2.0	PQL	ug/Kg	UJ	S
AROCLOR 1221	0.39	U	0.39	MDL	2.0	PQL	ug/Kg	UJ	S
AROCLOR 1232	0.39	U	0.39	MDL	2.0	PQL	ug/Kg	UJ	S
AROCLOR 1242	0.39	U	0.39	MDL	2.0	PQL	ug/Kg	UJ	S
AROCLOR 1248	0.39	U	0.39	MDL	2.0	PQL	ug/Kg	UJ	S
AROCLOR 1254	13		0.39	MDL	2.0	PQL	ug/Kg	J	S
AROCLOR 1260	2.3		0.46	MDL	2.0	PQL	ug/Kg	J	S
Aroclor 1262	0.39	U	0.39	MDL	2.0	PQL	ug/Kg	UJ	S
Aroclor 1268	0.39	U	0.39	MDL	2.0	PQL	ug/Kg	UJ	S
Aroclor 5432	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	S, E
Aroclor 5442	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	E, S
Aroclor 5460	8.3		1.2	MDL	3.9	PQL	ug/Kg	J	S, E

**Sample ID:** SL-021-SA5DN-SB-19.5-20.5

**Collected:** 6/2/2011 2:50:00 PM

**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

**Sample ID:** SL-021-SA5DN-SB-4.0-5.0

**Collected:** 6/2/2011 2:40:00 PM

**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	3.8	PQL	ug/Kg	UJ	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE172

Laboratory: LL

EDD Filename: PrepDE172

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8082

**Matrix:** SO

**Sample ID:** SL-021-SA5DN-SB-4.0-5.0

**Collected:** 6/2/2011 2:40:00 PM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5442	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	E
Aroclor 5460	1.4	J	1.1	MDL	3.8	PQL	ug/Kg	J	Z, E

**Method Category:** SVOA

**Method:** 8270C

**Matrix:** SO

**Sample ID:** SL-016-SA5DN-SB-12.0-13.0

**Collected:** 6/2/2011 10:19:00

**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	25	J	19	MDL	380	PQL	ug/Kg	U	B

**Sample ID:** SL-016-SA5DN-SB-4.0-5.0

**Collected:** 6/2/2011 10:04:00

**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	32	J	20	MDL	390	PQL	ug/Kg	U	B
CARBAZOLE	26	J	20	MDL	200	PQL	ug/Kg	J	Z

**Sample ID:** SL-021-SA5DN-SB-19.5-20.5

**Collected:** 6/2/2011 2:50:00 PM

**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	19	MDL	370	PQL	ug/Kg	U	B

**Sample ID:** SL-021-SA5DN-SB-4.0-5.0

**Collected:** 6/2/2011 2:40:00 PM

**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	25	J	19	MDL	380	PQL	ug/Kg	U	B

**Method Category:** SVOA

**Method:** 8270C SIM

**Matrix:** SO

**Sample ID:** SL-021-SA5DN-SB-19.5-20.5

**Collected:** 6/2/2011 2:50:00 PM

**Analysis Type:** RES-BASE/NEUTRAL

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIBENZO(A,H)ANTHRACENE	1.3	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

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## Data Qualifier Summary

Lab Reporting Batch ID: DE172

Laboratory: LL

EDD Filename: PrepDE172

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C SIM

**Matrix:** SO

**Sample ID:** SL-021-SA5DN-SB-4.0-5.0

**Collected:** 6/2/2011 2:40:00 PM

**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	1.4	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.4	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

**Method Category:** SVOA

**Method:** 8315A

**Matrix:** SO

**Sample ID:** SL-021-SA5DN-SB-19.5-20.5

**Collected:** 6/2/2011 2:50:00 PM

**Analysis Type:** RES

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	670	U	670	MDL	1700	PQL	ug/Kg	UJ	S

**Method Category:** SVOA

**Method:** 8330A

**Matrix:** SO

**Sample ID:** SL-018-SA5DN-SB-7.5-8.5

**Collected:** 6/1/2011 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
1,3-DINITROBENZENE	78	J	44	MDL	130	PQL	ug/Kg	J	Z

**Method Category:** VOA

**Method:** 8015B

**Matrix:** SO

**Sample ID:** SL-016-SA5DN-SB-12.0-13.0

**Collected:** 6/2/2011 10:19:00

**Analysis Type:** REA4

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	460	J	110	MDL	570	PQL	ug/Kg	J	Z

**Sample ID:** SL-016-SA5DN-SB-4.0-5.0

**Collected:** 6/2/2011 10:04:00

**Analysis Type:** REA3

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
m-Terphenyl	1.8	U	1.8	MDL	4.1	PQL	mg/Kg	R	Q, Q
p-Terphenyl	1.8	U	1.8	MDL	4.1	PQL	mg/Kg	R	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE172

Laboratory: LL

EDD Filename: PrepDE172

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** VOA

**Method:** 8015B

**Matrix:** SO

**Sample ID:** SL-021-SA5DN-SB-19.5-20.5

**Collected:** 6/2/2011 2:50:00 PM

**Analysis Type:** REA4

**Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	210	J	110	MDL	560	PQL	ug/Kg	J	Z

**Method Category:** VOA

**Method:** 8260B

**Matrix:** SO

**Sample ID:** SL-016-SA5DN-SB-12.0-13.0

**Collected:** 6/2/2011 10:19:00

**Analysis Type:** RES

**Dilution:** 1.07

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.6	J	8.1	MDL	9.6	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.9	J	0.29	MDL	4.8	PQL	ug/Kg	U	B

**Sample ID:** SL-016-SA5DN-SB-4.0-5.0

**Collected:** 6/2/2011 10:04:00

**Analysis Type:** RES

**Dilution:** 0.92

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.2		7.2	MDL	8.7	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	2.0	J	0.26	MDL	4.3	PQL	ug/Kg	U	B

**Sample ID:** SL-018-SA5DN-SB-7.5-8.5

**Collected:** 6/1/2011 11:25:00

**Analysis Type:** RES

**Dilution:** 0.97

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.9		7.2	MDL	8.6	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	4.1	J	0.26	MDL	4.3	PQL	ug/Kg	U	B

**Sample ID:** SL-021-SA5DN-SB-19.5-20.5

**Collected:** 6/2/2011 2:50:00 PM

**Analysis Type:** RES

**Dilution:** 0.94

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.2		7.0	MDL	8.4	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	2.2	J	0.25	MDL	4.2	PQL	ug/Kg	U	B

**Sample ID:** SL-021-SA5DN-SB-4.0-5.0

**Collected:** 6/2/2011 2:40:00 PM

**Analysis Type:** RES

**Dilution:** 0.99

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	2.2	J	0.27	MDL	4.5	PQL	ug/Kg	U	B
TOLUENE	0.1	J	0.09	MDL	4.5	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## ***Data Qualifier Summary***

Lab Reporting Batch ID: DE172

EDD Filename: PrepDE172

Laboratory: LL

eQAPP Name: CDM\_SSFL\_110509

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE172

Laboratory: LL

EDD Filename: PrepDE172

eQAPP Name: CDM\_SSFL\_110509

### Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
<b>*#</b>	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

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE172

Laboratory: LL

EDD Filename: PrepDE172

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

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## ***Data Qualifier Summary***

Lab Reporting Batch ID: DE172

Laboratory: LL

EDD Filename: PrepDE172

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

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE172

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE172

Laboratory: LL

EDD Filename: PrepDE172

eQAPP Name: CDM\_SSFL\_110509

**Method: 8015B**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-016-SA5DN-SB-4.0-5.0MSD (SL-016-SA5DN-SB-4.0-5.0)	O-TERPHENYL	-	840	75.00-125.00	167 (20.00)	O-TERPHENYL	J (all detects)
SL-016-SA5DN-SB-4.0-5.0MS SL-016-SA5DN-SB-4.0-5.0MSD (SL-016-SA5DN-SB-4.0-5.0)	m-Terphenyl p-Terphenyl	68 -	0 0	75.00-125.00 75.00-125.00	200 (20.00) 200 (20.00)	m-Terphenyl p-Terphenyl	J(all detects) R(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-016-SA5DN-SB-4.0-5.0MS SL-016-SA5DN-SB-4.0-5.0MSD (SL-016-SA5DN-SB-4.0-5.0)	1-METHYLNAPHTHALENE 2-METHYLNAPHTHALENE ACENAPHTHENE ACENAPHTHYLENE ANTHRACENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(G,H,I)PERYLENE DIBENZO(A,H)ANTHRACENE FLUORANTHENE FLUORENE NAPHTHALENE PHENANTHRENE	211 156 2674 165 4785 - 356 - 415 9783 1459 117 6286	- - 173 - 710 1914 2690 324 249 2435 147 - 1454	72.00-123.00 64.00-103.00 63.00-105.00 67.00-114.00 73.00-115.00 45.00-138.00 43.00-155.00 33.00-141.00 22.00-133.00 26.00-166.00 66.00-122.00 61.00-102.00 12.00-165.00	65 (30.00) 48 (30.00) 172 (30.00) 51 (30.00) 137 (30.00) 84 (30.00) 78 (30.00) 41 (30.00) 35 (30.00) 94 (30.00) 161 (30.00) - 118 (30.00)	1-METHYLNAPHTHALENE 2-METHYLNAPHTHALENE ACENAPHTHENE ACENAPHTHYLENE ANTHRACENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(G,H,I)PERYLENE DIBENZO(A,H)ANTHRACENE FLUORANTHENE FLUORENE NAPHTHALENE PHENANTHRENE	No Qual, Diluted Out
SL-016-SA5DN-SB-4.0-5.0MS SL-016-SA5DN-SB-4.0-5.0MSD (SL-016-SA5DN-SB-4.0-5.0)	BENZO(A)ANTHRACENE BENZO(K)FLUORANTHENE BIS(2-ETHYLHEXYL)PHTHALAT Butylbenzylphthalate CHRYSENE Di-n-octylphthalate PYRENE	-909 -317 0 0 -1556 0 -1758	1891 1262 - - 1596 - 942	59.00-128.00 57.00-153.00 39.00-167.00 57.00-173.00 48.00-134.00 40.00-192.00 15.00-153.00	147 (30.00) 138 (30.00) 200 (30.00) 200 (30.00) 192 (30.00) 200 (30.00) 167 (30.00)	BENZO(A)ANTHRACENE BENZO(K)FLUORANTHENE BIS(2-ETHYLHEXYL)PHTHALA Butylbenzylphthalate CHRYSENE Di-n-octylphthalate PYRENE	No Qual, Diluted Out
SL-016-SA5DN-SB-4.0-5.0MS SL-016-SA5DN-SB-4.0-5.0MSD (SL-016-SA5DN-SB-4.0-5.0)	INDENO(1,2,3-CD)PYRENE	9	465	21.00-143.00	74 (30.00)	INDENO(1,2,3-CD)PYRENE	No Qual, Diluted Out

**Method: 300.0**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-021-SA5DN-SB-19.5-20.5MS (SL-016-SA5DN-SB-12.0-13.0 SL-016-SA5DN-SB-4.0-5.0 SL-021-SA5DN-SB-19.5-20.5 SL-021-SA5DN-SB-4.0-5.0)	FLUORIDE	59	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

11/11/2011 10:43:25 AM

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE172

Laboratory: LL

EDD Filename: DE172\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method: 1625C  
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLB16B261008	6/28/2011 10:08:00 AM	N-NITROSODIMETHYLAMINE	18.9 ng/Kg	SL-016-SA5DN-SB-12.0-13.0 SL-016-SA5DN-SB-4.0-5.0 SL-021-SA5DN-SB-19.5-20.5 SL-021-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
SL-016-SA5DN-SB-12.0-13.0(RES)	N-NITROSODIMETHYLAMINE	36.9 ng/Kg	37.7U ng/Kg

Method: 6010B  
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15808BB220530	6/8/2011 5:30:00 AM	PHOSPHORUS TIN	1.09 mg/Kg 1.28 mg/Kg	SL-016-SA5DN-SB-12.0-13.0 SL-016-SA5DN-SB-4.0-5.0 SL-021-SA5DN-SB-19.5-20.5 SL-021-SA5DN-SB-4.0-5.0
P16008CB221116	6/14/2011 11:16:00 AM	PHOSPHORUS TIN	1.82 mg/Kg 1.75 mg/Kg	SL-018-SA5DN-SB-7.5-8.5
P16008CB221207	6/15/2011 12:07:00 PM	BORON	0.406 mg/Kg	SL-018-SA5DN-SB-7.5-8.5

*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-016-SA5DN-SB-12.0-13.0(RES)	TIN	3.12 mg/Kg	3.12U mg/Kg
SL-016-SA5DN-SB-4.0-5.0(RES)	TIN	3.01 mg/Kg	3.01U mg/Kg
SL-018-SA5DN-SB-7.5-8.5(REA4)	TIN	2.80 mg/Kg	2.80U mg/Kg
SL-021-SA5DN-SB-19.5-20.5(RES)	TIN	2.82 mg/Kg	2.82U mg/Kg
SL-021-SA5DN-SB-4.0-5.0(RES)	TIN	2.95 mg/Kg	2.95U mg/Kg

Method: 6020  
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15826DB220423A	6/11/2011 4:23:00 AM	COPPER LEAD	0.152 mg/Kg 0.0660 mg/Kg	SL-016-SA5DN-SB-12.0-13.0 SL-016-SA5DN-SB-4.0-5.0 SL-021-SA5DN-SB-19.5-20.5 SL-021-SA5DN-SB-4.0-5.0
P16026CB220837A	6/11/2011 8:37:00 AM	LEAD VANADIUM	0.0160 mg/Kg 0.0337 mg/Kg	SL-018-SA5DN-SB-7.5-8.5

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE172

Laboratory: LL

EDD Filename: DE172\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method:</b> 8260B <b>Matrix:</b> SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VLKB76B210344A	6/7/2011 3:44:00 AM	ACETONE METHYLENE CHLORIDE	8.4 ug/Kg 1.4 ug/Kg	SL-016-SA5DN-SB-12.0-13.0 SL-016-SA5DN-SB-4.0-5.0 SL-018-SA5DN-SB-7.5-8.5 SL-021-SA5DN-SB-19.5-20.5 SL-021-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
SL-016-SA5DN-SB-12.0-13.0(RES)	ACETONE	9.6 ug/Kg	9.6U ug/Kg
SL-016-SA5DN-SB-12.0-13.0(RES)	METHYLENE CHLORIDE	1.9 ug/Kg	4.8U ug/Kg
SL-016-SA5DN-SB-4.0-5.0(RES)	ACETONE	9.2 ug/Kg	9.2U ug/Kg
SL-016-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.0 ug/Kg	4.3U ug/Kg
SL-018-SA5DN-SB-7.5-8.5(RES)	ACETONE	8.9 ug/Kg	8.9U ug/Kg
SL-018-SA5DN-SB-7.5-8.5(RES)	METHYLENE CHLORIDE	4.1 ug/Kg	4.3U ug/Kg
SL-021-SA5DN-SB-19.5-20.5(RES)	ACETONE	9.2 ug/Kg	9.2U ug/Kg
SL-021-SA5DN-SB-19.5-20.5(RES)	METHYLENE CHLORIDE	2.2 ug/Kg	4.2U ug/Kg
SL-021-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.2 ug/Kg	4.5U ug/Kg

<b>Method:</b> 8270C <b>Matrix:</b> SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLA16B260223	6/23/2011 2:23:00 AM	BIS(2-ETHYLHEXYL)PHthalATE	21 ug/Kg	SL-016-SA5DN-SB-12.0-13.0 SL-016-SA5DN-SB-4.0-5.0 SL-021-SA5DN-SB-19.5-20.5 SL-021-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
SL-016-SA5DN-SB-12.0-13.0(RES)	BIS(2-ETHYLHEXYL)PHthalATE	25 ug/Kg	380U ug/Kg
SL-016-SA5DN-SB-4.0-5.0(RES)	BIS(2-ETHYLHEXYL)PHthalATE	32 ug/Kg	390U ug/Kg
SL-021-SA5DN-SB-19.5-20.5(RES)	BIS(2-ETHYLHEXYL)PHthalATE	19 ug/Kg	370U ug/Kg
SL-021-SA5DN-SB-4.0-5.0(RES)	BIS(2-ETHYLHEXYL)PHthalATE	25 ug/Kg	380U ug/Kg

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE172

Laboratory: LL

EDD Filename: DE172\_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
P11611AQ241711A P11611AY241652A (SL -016-SA5DN-SB-12.0-13.0 SL -016-SA5DN-SB-4.0-5.0 SL -021-SA5DN-SB-19.5-20.5 SL -021-SA5DN-SB-4.0-5.0)	Aroclor 5442	148	-	38.00-106.00	38 (30.00)	Aroclor 5432 Aroclor 5442 Aroclor 5460	J (all detects) UJ (all non-detects)

Method: 8330A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11678AQ240711A (SL -016-SA5DN-SB-12.0-13.0 SL -016-SA5DN-SB-4.0-5.0 SL -021-SA5DN-SB-19.5-20.5 SL -021-SA5DN-SB-4.0-5.0)	2,4,6-TRINITROTOLUENE 2,6-DINITROTOLUENE 2-AMINO-4,6-DINITROTOLUENE 4-AMINO-2,6-DINITROTOLUENE NITROBENZENE PETN	128 123 125 122 127 126	- - - - - -	80.00-120.00 80.00-120.00 80.00-120.00 80.00-120.00 80.00-120.00 80.00-120.00	- - - - - -	2,4,6-TRINITROTOLUENE 2,6-DINITROTOLUENE 2-AMINO-4,6-DINITROTOLUEN 4-AMINO-2,6-DINITROTOLUEN NITROBENZENE PETN	J(all detects)

Method: 6020

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P15826DQ220426A (SL -016-SA5DN-SB-12.0-13.0 SL -016-SA5DN-SB-4.0-5.0 SL -021-SA5DN-SB-19.5-20.5 SL -021-SA5DN-SB-4.0-5.0)	ANTIMONY	132	-	80.00-120.00	-	ANTIMONY	No qual, SRM within QC limits

Method: 8270C SIM

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P8LELCSQ260926 (SL -018-SA5DN-SB-7.5-8.5)	1-METHYLNAPHTHALENE BENZO(A)ANTHRACENE BENZO(B)FLUORANTHENE Butylbenzylphthalate CHRYSENE Dimethylphthalate FLUORANTHENE FLUORENE PYRENE	122 130 150 145 130 122 127 121 125	- - - - - - - - -	72.00-120.00 74.00-120.00 63.00-143.00 65.00-131.00 73.00-114.00 79.00-121.00 64.00-120.00 71.00-120.00 56.00-121.00	- - - - - - - - -	1-METHYLNAPHTHALENE BENZO(A)ANTHRACENE BENZO(B)FLUORANTHENE Butylbenzylphthalate CHRYSENE Dimethylphthalate FLUORANTHENE FLUORENE PYRENE	J(all detects)

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE172

Laboratory: LL

EDD Filename: DE172\_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
P9LELCSQ261214 (SL-018-SA5DN-SB-7.5-8.5)	3,3'-DICHLOROBENZIDINE	130	-	24.00-101.00	-	3,3'-DICHLOROBENZIDINE	J(all detects)
	4-CHLOROANILINE	142	-	10.00-110.00	-	4-CHLOROANILINE	
	ANILINE	115	-	34.00-94.00	-	ANILINE	

**Method: 6010B**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P16008CQ221119 (SL-018-SA5DN-SB-7.5-8.5)	ALUMINUM	79	-	80.00-120.00	-	ALUMINUM	No qual, SRM within QC limits

# Surrogate Outlier Report

Lab Reporting Batch ID: DE172

Laboratory: LL

EDD Filename: PrepDE172

eQAPP Name: CDM\_SSFL\_110509

Method: 8015B

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-016-SA5DN-SB -4.0-5.0	n-Triacontane-d62	153	50.00-150.00	All Target Analytes	J (all detects)

Method: 8015M

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-016-SA5DN-SB -4.0-5.0	O-TERPHENYL	663	47.00-145.00	All Target Analytes	No qual, Diluted out

Method: 8082

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-016-SA5DN-SB -4.0-5.0	TETRACHLORO-M-XYLENE	34	53.00-139.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-021-SA5DN-SB -19.5-20.5	DECACHLOROBIPHENYL	127	45.00-120.00	All Target Analytes	J(all detects)

Method: 8315A

Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-021-SA5DN-SB -19.5-20.5	Butyraldehyde	62	64.00-126.00	All Target Analytes	J(all detects) UJ(all non-detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE172

Laboratory: LL

EDD Filename: DE172\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-016-SA5DN-SB-12.0-13.0	N-NITROSODIMETHYLAMINE	J	36.9	37.7	PQL	ng/Kg	J (all detects)

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-018-SA5DN-SB-7.5-8.5	Nitrate-NO3	J	1.2	1.7	PQL	mg/Kg	J (all detects)
SL-021-SA5DN-SB-4.0-5.0	Nitrate-NO3	J	1.5	1.7	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-016-SA5DN-SB-12.0-13.0	TIN	J	3.12	11.2	PQL	mg/Kg	J (all detects)
	Zirconium	J	0.997	5.60	PQL	mg/Kg	
SL-016-SA5DN-SB-4.0-5.0	TIN	J	3.01	11.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.45	5.72	PQL	mg/Kg	
SL-018-SA5DN-SB-7.5-8.5	TIN	J	2.80	10.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.28	5.37	PQL	mg/Kg	
SL-021-SA5DN-SB-19.5-20.5	TIN	J	2.82	10.8	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.35	5.41	PQL	mg/Kg	
SL-021-SA5DN-SB-4.0-5.0	TIN	J	2.95	11.2	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.49	5.58	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-016-SA5DN-SB-12.0-13.0	ANTIMONY	J	0.149	0.220	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0551	0.439	PQL	mg/Kg	
	SILVER	J	0.0715	0.110	PQL	mg/Kg	
SL-016-SA5DN-SB-4.0-5.0	ANTIMONY	J	0.225	0.231	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0961	0.462	PQL	mg/Kg	
	SILVER	J	0.0556	0.116	PQL	mg/Kg	
SL-018-SA5DN-SB-7.5-8.5	CADMIUM	J	0.0881	0.108	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.245	0.434	PQL	mg/Kg	
SL-021-SA5DN-SB-19.5-20.5	ANTIMONY	J	0.171	0.214	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0455	0.428	PQL	mg/Kg	
	SILVER	J	0.0254	0.107	PQL	mg/Kg	
SL-021-SA5DN-SB-4.0-5.0	SELENIUM	J	0.112	0.447	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0478	0.112	PQL	mg/Kg	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Reporting Limit Outliers

Lab Reporting Batch ID: DE172

Laboratory: LL

EDD Filename: DE172\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-016-SA5DN-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.45	1.2	PQL	mg/Kg	J (all detects)
SL-018-SA5DN-SB-7.5-8.5	HEXAVALENT CHROMIUM	J	0.41	1.1	PQL	mg/Kg	J (all detects)
SL-021-SA5DN-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.52	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-016-SA5DN-SB-12.0-13.0	MERCURY	J	0.0078	0.108	PQL	mg/Kg	J (all detects)

Method: 8015B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-016-SA5DN-SB-12.0-13.0	METHANOL	J	460	570	PQL	ug/Kg	J (all detects)
SL-021-SA5DN-SB-19.5-20.5	METHANOL	J	210	560	PQL	ug/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-016-SA5DN-SB-12.0-13.0	AROCLOR 1260	J	1.3	1.9	PQL	ug/Kg	J (all detects)
SL-021-SA5DN-SB-4.0-5.0	Aroclor 5460	J	1.4	3.8	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-016-SA5DN-SB-12.0-13.0	METHYLENE CHLORIDE	J	1.9	4.8	PQL	ug/Kg	J (all detects)
SL-016-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE	J	2.0	4.3	PQL	ug/Kg	J (all detects)
SL-018-SA5DN-SB-7.5-8.5	METHYLENE CHLORIDE	J	4.1	4.3	PQL	ug/Kg	J (all detects)
SL-021-SA5DN-SB-19.5-20.5	METHYLENE CHLORIDE	J	2.2	4.2	PQL	ug/Kg	J (all detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Reporting Limit Outliers

Lab Reporting Batch ID: DE172

Laboratory: LL

EDD Filename: DE172\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-021-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE	J	2.2	4.5	PQL	ug/Kg	J (all detects)
	TOLUENE	J	0.1	4.5	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-016-SA5DN-SB-12.0-13.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	380	PQL	ug/Kg	J (all detects)
SL-016-SA5DN-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	32	390	PQL	ug/Kg	J (all detects)
	CARBAZOLE	J	26	200	PQL	ug/Kg	J (all detects)
SL-021-SA5DN-SB-19.5-20.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	19	370	PQL	ug/Kg	J (all detects)
SL-021-SA5DN-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	380	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-021-SA5DN-SB-19.5-20.5	DIBENZO(A,H)ANTHRACENE	J	1.3	1.9	PQL	ug/Kg	J (all detects)
SL-021-SA5DN-SB-4.0-5.0	ANTHRACENE	J	1.4	1.9	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	1.4	1.9	PQL	ug/Kg	J (all detects)

Method: 8330A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-018-SA5DN-SB-7.5-8.5	1,3-DINITROBENZENE	J	78	130	PQL	ug/Kg	J (all detects)



**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	CS
VII.	Duplicate Sample Analysis	N	↓
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	N	Not performed
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:

1	SL-018-SA5DN-SB-7.5-8.5	11		21		31	
2	SL-016-SA5DN-SB-4.0-5.0	12		22		32	
3	SL-016-SA5DN-SB-12.0-13.0	13		23		33	
4	SL-021-SA5DN-SB-4.0-5.0	14		24		34	
5	SL-021-SA5DN-SB-19.5-20.5	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# **SAMPLE DELIVERY GROUP**

**DE173**

## **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
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5	6306847	N	3050B	6010B	IV
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5	6306847	N	3050B	6020	IV
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5	6306847	N	3060A	7199	IV
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5	6306847	N	3546	1625C	IV
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5	6306847	N	3550B	8015B	IV
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5	6306847	N	3550B	8015M	IV
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5	6306847	N	3550B	8081A	IV
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5	6306847	N	3550B	8082	IV
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5	6306847	N	3550B	8151A	IV
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5	6306847	N	3550B	8270C	IV
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5	6306847	N	3550B	8270C SIM	IV
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5	6306847	N	8330	8330A	IV
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5	6306847	N	METHOD	300.0	IV
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5	6306847	N	METHOD	314.0	IV
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5	6306847	N	METHOD	7471A	IV
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5	6306847	N	METHOD	8015B	IV
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5	6306847	N	METHOD	8015M	IV
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5	6306847	N	METHOD	8315A	IV
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5	6306847	N	METHOD	9012B	IV
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5DU	P306847D271809A	DUP	METHOD	9012B	IV
03-Jun-2011	SL-207-SA5DN-SS-0.0-0.5MS	P306847R271810A	MS	METHOD	9012B	IV
03-Jun-2011	SL-159-SA5DN-SS-0.0-0.5	6306843	N	3050B	6010B	IV
03-Jun-2011	SL-159-SA5DN-SS-0.0-0.5	6306843	N	3050B	6020	IV
03-Jun-2011	SL-159-SA5DN-SS-0.0-0.5	6306843	N	3060A	7199	IV
03-Jun-2011	SL-159-SA5DN-SS-0.0-0.5	6306843	N	3550B	8081A	IV
03-Jun-2011	SL-159-SA5DN-SS-0.0-0.5	6306843	N	3550B	8082	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Jun-2011	SL-159-SA5DN-SS-0.0-0.5	6306843	N	3550B	8151A	IV
03-Jun-2011	SL-159-SA5DN-SS-0.0-0.5	6306843	N	3550B	8270C	IV
03-Jun-2011	SL-159-SA5DN-SS-0.0-0.5	6306843	N	3550B	8270C SIM	IV
03-Jun-2011	SL-159-SA5DN-SS-0.0-0.5	6306843	N	METHOD	300.0	IV
03-Jun-2011	SL-159-SA5DN-SS-0.0-0.5	6306843	N	METHOD	314.0	IV
03-Jun-2011	SL-159-SA5DN-SS-0.0-0.5	6306843	N	METHOD	7471A	IV
03-Jun-2011	SL-156-SA5DN-SS-0.0-0.5	6306840	N	3050B	6010B	IV
03-Jun-2011	SL-156-SA5DN-SS-0.0-0.5	6306840	N	3050B	6020	IV
03-Jun-2011	SL-156-SA5DN-SS-0.0-0.5	6306840	N	3060A	7199	IV
03-Jun-2011	SL-156-SA5DN-SS-0.0-0.5	6306840	N	3550B	8081A	IV
03-Jun-2011	SL-156-SA5DN-SS-0.0-0.5	6306840	N	3550B	8082	IV
03-Jun-2011	SL-156-SA5DN-SS-0.0-0.5	6306840	N	3550B	8151A	IV
03-Jun-2011	SL-156-SA5DN-SS-0.0-0.5	6306840	N	3550B	8270C	IV
03-Jun-2011	SL-156-SA5DN-SS-0.0-0.5	6306840	N	3550B	8270C SIM	IV
03-Jun-2011	SL-156-SA5DN-SS-0.0-0.5	6306840	N	METHOD	300.0	IV
03-Jun-2011	SL-156-SA5DN-SS-0.0-0.5	6306840	N	METHOD	314.0	IV
03-Jun-2011	SL-156-SA5DN-SS-0.0-0.5	6306840	N	METHOD	7471A	IV
03-Jun-2011	SL-157-SA5DN-SS-0.0-0.5	6306841	N	3050B	6010B	IV
03-Jun-2011	SL-157-SA5DN-SS-0.0-0.5	6306841	N	3050B	6020	IV
03-Jun-2011	SL-157-SA5DN-SS-0.0-0.5	6306841	N	3060A	7199	IV
03-Jun-2011	SL-157-SA5DN-SS-0.0-0.5	6306841	N	3550B	8081A	IV
03-Jun-2011	SL-157-SA5DN-SS-0.0-0.5	6306841	N	3550B	8082	IV
03-Jun-2011	SL-157-SA5DN-SS-0.0-0.5	6306841	N	3550B	8151A	IV
03-Jun-2011	SL-157-SA5DN-SS-0.0-0.5	6306841	N	3550B	8270C	IV
03-Jun-2011	SL-157-SA5DN-SS-0.0-0.5	6306841	N	3550B	8270C SIM	IV
03-Jun-2011	SL-157-SA5DN-SS-0.0-0.5	6306841	N	METHOD	300.0	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Jun-2011	SL-157-SA5DN-SS-0.0-0.5	6306841	N	METHOD	314.0	IV
03-Jun-2011	SL-157-SA5DN-SS-0.0-0.5	6306841	N	METHOD	7471A	IV
03-Jun-2011	SL-158-SA5DN-SS-0.0-0.5	6306842	N	3050B	6010B	IV
03-Jun-2011	SL-158-SA5DN-SS-0.0-0.5	6306842	N	3050B	6020	IV
03-Jun-2011	SL-158-SA5DN-SS-0.0-0.5	6306842	N	3060A	7199	IV
03-Jun-2011	SL-158-SA5DN-SS-0.0-0.5	6306842	N	3550B	8081A	IV
03-Jun-2011	SL-158-SA5DN-SS-0.0-0.5	6306842	N	3550B	8082	IV
03-Jun-2011	SL-158-SA5DN-SS-0.0-0.5	6306842	N	3550B	8151A	IV
03-Jun-2011	SL-158-SA5DN-SS-0.0-0.5	6306842	N	3550B	8270C	IV
03-Jun-2011	SL-158-SA5DN-SS-0.0-0.5	6306842	N	3550B	8270C SIM	IV
03-Jun-2011	SL-158-SA5DN-SS-0.0-0.5	6306842	N	METHOD	300.0	IV
03-Jun-2011	SL-158-SA5DN-SS-0.0-0.5	6306842	N	METHOD	314.0	IV
03-Jun-2011	SL-158-SA5DN-SS-0.0-0.5	6306842	N	METHOD	7471A	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5	6306836	N	3050B	6010B	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5	6306836	N	3050B	6020	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5	6306836	N	3060A	7199	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5	6306836	N	3550B	8081A	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5	6306836	N	3550B	8082	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5	6306836	N	3550B	8151A	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5	6306836	N	3550B	8270C	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5	6306836	N	3550B	8270C SIM	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5	6306836	N	METHOD	300.0	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5	6306836	N	METHOD	314.0	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5	6306836	N	METHOD	7471A	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5MS	6306837	MS	3050B	6010B	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5MS	6306837	MS	3050B	6020	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5MS	6306837	MS	3060A	7199	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5MS	6306837	MS	3550B	8081A	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5MS	6306837	MS	3550B	8082	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5MS	6306837	MS	3550B	8151A	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5MS	6306837	MS	3550B	8270C	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5MS	6306837	MS	3550B	8270C SIM	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5MS	6306837	MS	METHOD	300.0	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5MS	6306837	MS	METHOD	314.0	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5MS	6306837	MS	METHOD	7471A	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5DU	6306839	DUP	3050B	6010B	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5DU	6306839	DUP	3050B	6020	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5DU	6306839	DUP	3060A	7199	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5DU	6306839	DUP	METHOD	300.0	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5DU	6306839	DUP	METHOD	314.0	IV
03-Jun-2011	SL-155-SA5DN-SS-0.0-0.5DU	6306839	DUP	METHOD	7471A	IV
03-Jun-2011	DUP-13-SA5DN-QC-060311	6306848	FD	3050B	6010B	IV
03-Jun-2011	DUP-13-SA5DN-QC-060311	6306848	FD	3050B	6020	IV
03-Jun-2011	DUP-13-SA5DN-QC-060311	6306848	FD	3060A	7199	IV
03-Jun-2011	DUP-13-SA5DN-QC-060311	6306848	FD	3550B	8081A	IV
03-Jun-2011	DUP-13-SA5DN-QC-060311	6306848	FD	3550B	8082	IV
03-Jun-2011	DUP-13-SA5DN-QC-060311	6306848	FD	3550B	8151A	IV
03-Jun-2011	DUP-13-SA5DN-QC-060311	6306848	FD	3550B	8270C	IV
03-Jun-2011	DUP-13-SA5DN-QC-060311	6306848	FD	3550B	8270C SIM	IV
03-Jun-2011	DUP-13-SA5DN-QC-060311	6306848	FD	METHOD	300.0	IV
03-Jun-2011	DUP-13-SA5DN-QC-060311	6306848	FD	METHOD	314.0	IV
03-Jun-2011	DUP-13-SA5DN-QC-060311	6306848	FD	METHOD	7471A	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	3050B	6010B	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	3050B	6020	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	3060A	7199	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	3546	1625C	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	3550B	8015B	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	3550B	8015M	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	3550B	8082	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	3550B	8270C	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	3550B	8270C SIM	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	5035	8015M	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	5035	8260B	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	5035	8260B SIM	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	8330	8330A	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	METHOD	300.0	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	METHOD	314.0	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	METHOD	6850	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	METHOD	7471A	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	METHOD	8015B	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	METHOD	8015M	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	METHOD	8315A	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0	6306851	N	METHOD	9012B	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0MS	P306851R320924A	MS	3550B	8015M	IV
03-Jun-2011	SL-019-SA5DN-SB-4.0-5.0MS	P306851R322336A	MS	METHOD	8015B	IV
03-Jun-2011	SL-154-SA5DN-SS-0.0-0.5	6306835	N	3050B	6010B	IV
03-Jun-2011	SL-154-SA5DN-SS-0.0-0.5	6306835	N	3050B	6020	IV
03-Jun-2011	SL-154-SA5DN-SS-0.0-0.5	6306835	N	3060A	7199	IV



## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Jun-2011	SL-154-SA5DN-SS-0.0-0.5	6306835	N	3550B	8081A	IV
03-Jun-2011	SL-154-SA5DN-SS-0.0-0.5	6306835	N	3550B	8082	IV
03-Jun-2011	SL-154-SA5DN-SS-0.0-0.5	6306835	N	3550B	8151A	IV
03-Jun-2011	SL-154-SA5DN-SS-0.0-0.5	6306835	N	3550B	8270C	IV
03-Jun-2011	SL-154-SA5DN-SS-0.0-0.5	6306835	N	3550B	8270C SIM	IV
03-Jun-2011	SL-154-SA5DN-SS-0.0-0.5	6306835	N	METHOD	300.0	IV
03-Jun-2011	SL-154-SA5DN-SS-0.0-0.5	6306835	N	METHOD	314.0	IV
03-Jun-2011	SL-154-SA5DN-SS-0.0-0.5	6306835	N	METHOD	7471A	IV
03-Jun-2011	SL-152-SA5DN-SS-0.0-0.5	6306833	N	3050B	6010B	IV
03-Jun-2011	SL-152-SA5DN-SS-0.0-0.5	6306833	N	3050B	6020	IV
03-Jun-2011	SL-152-SA5DN-SS-0.0-0.5	6306833	N	3060A	7199	IV
03-Jun-2011	SL-152-SA5DN-SS-0.0-0.5	6306833	N	3550B	8081A	IV
03-Jun-2011	SL-152-SA5DN-SS-0.0-0.5	6306833	N	3550B	8082	IV
03-Jun-2011	SL-152-SA5DN-SS-0.0-0.5	6306833	N	3550B	8151A	IV
03-Jun-2011	SL-152-SA5DN-SS-0.0-0.5	6306833	N	3550B	8270C	IV
03-Jun-2011	SL-152-SA5DN-SS-0.0-0.5	6306833	N	3550B	8270C SIM	IV
03-Jun-2011	SL-152-SA5DN-SS-0.0-0.5	6306833	N	METHOD	300.0	IV
03-Jun-2011	SL-152-SA5DN-SS-0.0-0.5	6306833	N	METHOD	314.0	IV
03-Jun-2011	SL-152-SA5DN-SS-0.0-0.5	6306833	N	METHOD	7471A	IV
03-Jun-2011	SL-153-SA5DN-SS-0.0-0.5	6306834	N	3050B	6010B	IV
03-Jun-2011	SL-153-SA5DN-SS-0.0-0.5	6306834	N	3050B	6020	IV
03-Jun-2011	SL-153-SA5DN-SS-0.0-0.5	6306834	N	3060A	7199	IV
03-Jun-2011	SL-153-SA5DN-SS-0.0-0.5	6306834	N	3550B	8081A	IV
03-Jun-2011	SL-153-SA5DN-SS-0.0-0.5	6306834	N	3550B	8082	IV
03-Jun-2011	SL-153-SA5DN-SS-0.0-0.5	6306834	N	3550B	8151A	IV
03-Jun-2011	SL-153-SA5DN-SS-0.0-0.5	6306834	N	3550B	8270C	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Jun-2011	SL-153-SA5DN-SS-0.0-0.5	6306834	N	3550B	8270C SIM	IV
03-Jun-2011	SL-153-SA5DN-SS-0.0-0.5	6306834	N	METHOD	300.0	IV
03-Jun-2011	SL-153-SA5DN-SS-0.0-0.5	6306834	N	METHOD	314.0	IV
03-Jun-2011	SL-153-SA5DN-SS-0.0-0.5	6306834	N	METHOD	7471A	IV
03-Jun-2011	EB14-SA5DN-SB-060311	6306849	EB	3005A	6010B	IV
03-Jun-2011	EB14-SA5DN-SB-060311	6306849	EB	3020A	6020	IV
03-Jun-2011	EB14-SA5DN-SB-060311	6306849	EB	3510C	8082	IV
03-Jun-2011	EB14-SA5DN-SB-060311	6306849	EB	3510C	8270C	IV
03-Jun-2011	EB14-SA5DN-SB-060311	6306849	EB	3510C	8270C SIM	IV
03-Jun-2011	EB14-SA5DN-SB-060311	6306849	EB	Gen Prep	300.0	IV
03-Jun-2011	EB14-SA5DN-SB-060311	6306849	EB	Gen Prep	314.0	IV
03-Jun-2011	EB14-SA5DN-SB-060311	6306849	EB	Gen Prep	7199	IV
03-Jun-2011	EB14-SA5DN-SB-060311	6306849	EB	METHOD	7470A	IV
03-Jun-2011	EB13-SA5DN-SS-060311	6306850	EB	3005A	6010B	IV
03-Jun-2011	EB13-SA5DN-SS-060311	6306850	EB	3020A	6020	IV
03-Jun-2011	EB13-SA5DN-SS-060311	6306850	EB	3510C	8081A	IV
03-Jun-2011	EB13-SA5DN-SS-060311	6306850	EB	3510C	8082	IV
03-Jun-2011	EB13-SA5DN-SS-060311	6306850	EB	3510C	8270C	IV
03-Jun-2011	EB13-SA5DN-SS-060311	6306850	EB	3510C	8270C SIM	IV
03-Jun-2011	EB13-SA5DN-SS-060311	6306850	EB	Gen Prep	300.0	IV
03-Jun-2011	EB13-SA5DN-SS-060311	6306850	EB	Gen Prep	314.0	IV
03-Jun-2011	EB13-SA5DN-SS-060311	6306850	EB	Gen Prep	7199	IV
03-Jun-2011	EB13-SA5DN-SS-060311	6306850	EB	METHOD	7470A	IV
03-Jun-2011	EB13-SA5DN-SS-060311	6306850	EB	METHOD	8151A	IV
03-Jun-2011	SL-162-SA5DN-SS-0.0-0.5	6306845	N	3050B	6010B	IV
03-Jun-2011	SL-162-SA5DN-SS-0.0-0.5	6306845	N	3050B	6020	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Jun-2011	SL-162-SA5DN-SS-0.0-0.5	6306845	N	3060A	7199	IV
03-Jun-2011	SL-162-SA5DN-SS-0.0-0.5	6306845	N	3550B	8081A	IV
03-Jun-2011	SL-162-SA5DN-SS-0.0-0.5	6306845	N	3550B	8082	IV
03-Jun-2011	SL-162-SA5DN-SS-0.0-0.5	6306845	N	3550B	8151A	IV
03-Jun-2011	SL-162-SA5DN-SS-0.0-0.5	6306845	N	3550B	8270C	IV
03-Jun-2011	SL-162-SA5DN-SS-0.0-0.5	6306845	N	3550B	8270C SIM	IV
03-Jun-2011	SL-162-SA5DN-SS-0.0-0.5	6306845	N	METHOD	300.0	IV
03-Jun-2011	SL-162-SA5DN-SS-0.0-0.5	6306845	N	METHOD	314.0	IV
03-Jun-2011	SL-162-SA5DN-SS-0.0-0.5	6306845	N	METHOD	7471A	IV
03-Jun-2011	TB-060311	6306857	TB	5030B	8015M	IV
03-Jun-2011	TB-060311	6306857	TB	5030B	8260B	IV
03-Jun-2011	TB-060311	6306857	TB	5030B	8260B SIM	IV
03-Jun-2011	SL-019-SA5DN-SB-9.0-10.0	6306852	N	3050B	6010B	IV
03-Jun-2011	SL-019-SA5DN-SB-9.0-10.0	6306852	N	3050B	6020	IV
03-Jun-2011	SL-019-SA5DN-SB-9.0-10.0	6306852	N	3060A	7199	IV
03-Jun-2011	SL-019-SA5DN-SB-9.0-10.0	6306852	N	3546	1625C	IV
03-Jun-2011	SL-019-SA5DN-SB-9.0-10.0	6306852	N	3550B	8015B	IV
03-Jun-2011	SL-019-SA5DN-SB-9.0-10.0	6306852	N	3550B	8015M	IV
03-Jun-2011	SL-019-SA5DN-SB-9.0-10.0	6306852	N	3550B	8082	IV
03-Jun-2011	SL-019-SA5DN-SB-9.0-10.0	6306852	N	3550B	8270C	IV
03-Jun-2011	SL-019-SA5DN-SB-9.0-10.0	6306852	N	3550B	8270C SIM	IV
03-Jun-2011	SL-019-SA5DN-SB-9.0-10.0	6306852	N	5035	8015M	IV
03-Jun-2011	SL-019-SA5DN-SB-9.0-10.0	6306852	N	5035	8260B	IV
03-Jun-2011	SL-019-SA5DN-SB-9.0-10.0	6306852	N	5035	8260B SIM	IV
03-Jun-2011	SL-019-SA5DN-SB-9.0-10.0	6306852	N	8330	8330A	IV
03-Jun-2011	SL-019-SA5DN-SB-9.0-10.0	6306852	N	METHOD	300.0	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Jun-2011	SL-019-SA5DN-SB-9.0-10.0	6306852	N	METHOD	314.0	IV
03-Jun-2011	SL-019-SA5DN-SB-9.0-10.0	6306852	N	METHOD	7471A	IV
03-Jun-2011	SL-019-SA5DN-SB-9.0-10.0	6306852	N	METHOD	8015B	IV
03-Jun-2011	SL-019-SA5DN-SB-9.0-10.0	6306852	N	METHOD	8015M	IV
03-Jun-2011	SL-019-SA5DN-SB-9.0-10.0	6306852	N	METHOD	8315A	IV
03-Jun-2011	SL-019-SA5DN-SB-9.0-10.0	6306852	N	METHOD	9012B	IV
03-Jun-2011	SL-027-SA5DN-SB-4.0-5.0	6306853	N	3050B	6010B	IV
03-Jun-2011	SL-027-SA5DN-SB-4.0-5.0	6306853	N	3050B	6020	IV
03-Jun-2011	SL-027-SA5DN-SB-4.0-5.0	6306853	N	3060A	7199	IV
03-Jun-2011	SL-027-SA5DN-SB-4.0-5.0	6306853	N	3546	1625C	IV
03-Jun-2011	SL-027-SA5DN-SB-4.0-5.0	6306853	N	3550B	8015B	IV
03-Jun-2011	SL-027-SA5DN-SB-4.0-5.0	6306853	N	3550B	8015M	IV
03-Jun-2011	SL-027-SA5DN-SB-4.0-5.0	6306853	N	3550B	8082	IV
03-Jun-2011	SL-027-SA5DN-SB-4.0-5.0	6306853	N	3550B	8270C	IV
03-Jun-2011	SL-027-SA5DN-SB-4.0-5.0	6306853	N	3550B	8270C SIM	IV
03-Jun-2011	SL-027-SA5DN-SB-4.0-5.0	6306853	N	5035	8015M	IV
03-Jun-2011	SL-027-SA5DN-SB-4.0-5.0	6306853	N	5035	8260B	IV
03-Jun-2011	SL-027-SA5DN-SB-4.0-5.0	6306853	N	5035	8260B SIM	IV
03-Jun-2011	SL-027-SA5DN-SB-4.0-5.0	6306853	N	8330	8330A	IV
03-Jun-2011	SL-027-SA5DN-SB-4.0-5.0	6306853	N	METHOD	300.0	IV
03-Jun-2011	SL-027-SA5DN-SB-4.0-5.0	6306853	N	METHOD	314.0	IV
03-Jun-2011	SL-027-SA5DN-SB-4.0-5.0	6306853	N	METHOD	7471A	IV
03-Jun-2011	SL-027-SA5DN-SB-4.0-5.0	6306853	N	METHOD	8015B	IV
03-Jun-2011	SL-027-SA5DN-SB-4.0-5.0	6306853	N	METHOD	8015M	IV
03-Jun-2011	SL-027-SA5DN-SB-4.0-5.0	6306853	N	METHOD	8315A	IV
03-Jun-2011	SL-027-SA5DN-SB-4.0-5.0	6306853	N	METHOD	9012B	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Jun-2011	SL-160-SA5DN-SS-0.0-0.5	6306844	N	3050B	6010B	IV
03-Jun-2011	SL-160-SA5DN-SS-0.0-0.5	6306844	N	3050B	6020	IV
03-Jun-2011	SL-160-SA5DN-SS-0.0-0.5	6306844	N	3060A	7199	IV
03-Jun-2011	SL-160-SA5DN-SS-0.0-0.5	6306844	N	3550B	8081A	IV
03-Jun-2011	SL-160-SA5DN-SS-0.0-0.5	6306844	N	3550B	8082	IV
03-Jun-2011	SL-160-SA5DN-SS-0.0-0.5	6306844	N	3550B	8151A	IV
03-Jun-2011	SL-160-SA5DN-SS-0.0-0.5	6306844	N	3550B	8270C	IV
03-Jun-2011	SL-160-SA5DN-SS-0.0-0.5	6306844	N	3550B	8270C SIM	IV
03-Jun-2011	SL-160-SA5DN-SS-0.0-0.5	6306844	N	METHOD	300.0	IV
03-Jun-2011	SL-160-SA5DN-SS-0.0-0.5	6306844	N	METHOD	314.0	IV
03-Jun-2011	SL-160-SA5DN-SS-0.0-0.5	6306844	N	METHOD	7471A	IV
03-Jun-2011	SL-027-SA5DN-SB-14.0-15.0	6306854	N	3050B	6010B	IV
03-Jun-2011	SL-027-SA5DN-SB-14.0-15.0	6306854	N	3050B	6020	IV
03-Jun-2011	SL-027-SA5DN-SB-14.0-15.0	6306854	N	3060A	7199	IV
03-Jun-2011	SL-027-SA5DN-SB-14.0-15.0	6306854	N	3546	1625C	IV
03-Jun-2011	SL-027-SA5DN-SB-14.0-15.0	6306854	N	3550B	8015B	IV
03-Jun-2011	SL-027-SA5DN-SB-14.0-15.0	6306854	N	3550B	8015M	IV
03-Jun-2011	SL-027-SA5DN-SB-14.0-15.0	6306854	N	3550B	8082	IV
03-Jun-2011	SL-027-SA5DN-SB-14.0-15.0	6306854	N	3550B	8270C	IV
03-Jun-2011	SL-027-SA5DN-SB-14.0-15.0	6306854	N	3550B	8270C SIM	IV
03-Jun-2011	SL-027-SA5DN-SB-14.0-15.0	6306854	N	5035	8015M	IV
03-Jun-2011	SL-027-SA5DN-SB-14.0-15.0	6306854	N	5035	8260B	IV
03-Jun-2011	SL-027-SA5DN-SB-14.0-15.0	6306854	N	5035	8260B SIM	IV
03-Jun-2011	SL-027-SA5DN-SB-14.0-15.0	6306854	N	8330	8330A	IV
03-Jun-2011	SL-027-SA5DN-SB-14.0-15.0	6306854	N	METHOD	300.0	IV
03-Jun-2011	SL-027-SA5DN-SB-14.0-15.0	6306854	N	METHOD	314.0	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Jun-2011	SL-027-SA5DN-SB-14.0-15.0	6306854	N	METHOD	7471A	IV
03-Jun-2011	SL-027-SA5DN-SB-14.0-15.0	6306854	N	METHOD	8015B	IV
03-Jun-2011	SL-027-SA5DN-SB-14.0-15.0	6306854	N	METHOD	8015M	IV
03-Jun-2011	SL-027-SA5DN-SB-14.0-15.0	6306854	N	METHOD	8315A	IV
03-Jun-2011	SL-027-SA5DN-SB-14.0-15.0	6306854	N	METHOD	9012B	IV
03-Jun-2011	SL-166-SA5DN-SS-0.0-0.5	6306846	N	3050B	6010B	IV
03-Jun-2011	SL-166-SA5DN-SS-0.0-0.5	6306846	N	3050B	6020	IV
03-Jun-2011	SL-166-SA5DN-SS-0.0-0.5	6306846	N	3060A	7199	IV
03-Jun-2011	SL-166-SA5DN-SS-0.0-0.5	6306846	N	3550B	8081A	IV
03-Jun-2011	SL-166-SA5DN-SS-0.0-0.5	6306846	N	3550B	8082	IV
03-Jun-2011	SL-166-SA5DN-SS-0.0-0.5	6306846	N	3550B	8151A	IV
03-Jun-2011	SL-166-SA5DN-SS-0.0-0.5	6306846	N	3550B	8270C	IV
03-Jun-2011	SL-166-SA5DN-SS-0.0-0.5	6306846	N	3550B	8270C SIM	IV
03-Jun-2011	SL-166-SA5DN-SS-0.0-0.5	6306846	N	METHOD	300.0	IV
03-Jun-2011	SL-166-SA5DN-SS-0.0-0.5	6306846	N	METHOD	314.0	IV
03-Jun-2011	SL-166-SA5DN-SS-0.0-0.5	6306846	N	METHOD	7471A	IV
03-Jun-2011	SL-166-SA5DN-SS-0.0-0.5DU	P306846D270302B	DUP	METHOD	300.0	IV
03-Jun-2011	SL-166-SA5DN-SS-0.0-0.5DU	P306846D271907B	DUP	METHOD	314.0	IV
03-Jun-2011	SL-166-SA5DN-SS-0.0-0.5MS	P306846R270316B	MS	METHOD	300.0	IV
03-Jun-2011	SL-166-SA5DN-SS-0.0-0.5MS	P306846R271930B	MS	METHOD	314.0	IV
03-Jun-2011	SL-052-SA5DN-SB-4.0-5.0	6306855	N	3050B	6010B	IV
03-Jun-2011	SL-052-SA5DN-SB-4.0-5.0	6306855	N	3050B	6020	IV
03-Jun-2011	SL-052-SA5DN-SB-4.0-5.0	6306855	N	3060A	7199	IV
03-Jun-2011	SL-052-SA5DN-SB-4.0-5.0	6306855	N	3550B	8082	IV
03-Jun-2011	SL-052-SA5DN-SB-4.0-5.0	6306855	N	3550B	8270C	IV
03-Jun-2011	SL-052-SA5DN-SB-4.0-5.0	6306855	N	3550B	8270C SIM	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Jun-2011	SL-052-SA5DN-SB-4.0-5.0	6306855	N	5035	8260B	IV
03-Jun-2011	SL-052-SA5DN-SB-4.0-5.0	6306855	N	5035	8260B SIM	IV
03-Jun-2011	SL-052-SA5DN-SB-4.0-5.0	6306855	N	METHOD	300.0	IV
03-Jun-2011	SL-052-SA5DN-SB-4.0-5.0	6306855	N	METHOD	314.0	IV
03-Jun-2011	SL-052-SA5DN-SB-4.0-5.0	6306855	N	METHOD	7471A	IV
03-Jun-2011	SL-052-SA5DN-SB-9.0-10.0	6306856	N	3050B	6010B	IV
03-Jun-2011	SL-052-SA5DN-SB-9.0-10.0	6306856	N	3050B	6020	IV
03-Jun-2011	SL-052-SA5DN-SB-9.0-10.0	6306856	N	3060A	7199	IV
03-Jun-2011	SL-052-SA5DN-SB-9.0-10.0	6306856	N	3550B	8082	IV
03-Jun-2011	SL-052-SA5DN-SB-9.0-10.0	6306856	N	3550B	8270C	IV
03-Jun-2011	SL-052-SA5DN-SB-9.0-10.0	6306856	N	3550B	8270C SIM	IV
03-Jun-2011	SL-052-SA5DN-SB-9.0-10.0	6306856	N	METHOD	300.0	IV
03-Jun-2011	SL-052-SA5DN-SB-9.0-10.0	6306856	N	METHOD	314.0	IV
03-Jun-2011	SL-052-SA5DN-SB-9.0-10.0	6306856	N	METHOD	7471A	IV

## **Attachment II**

### **Overall Data Qualification Summary**



# Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

Sample ID: DUP-13-SA5DN-QC-060311

Collected: 6/3/2011 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
FLUORIDE	1.7		0.84	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-019-SA5DN-SB-4.0-5.0

Collected: 6/3/2011 11:16:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.1		0.93	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.6	J	0.93	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-019-SA5DN-SB-9.0-10.0

Collected: 6/3/2011 2:50:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.5		0.89	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.5	J	0.89	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-027-SA5DN-SB-14.0-15.0

Collected: 6/3/2011 3:00:00 PM

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		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-027-SA5DN-SB-4.0-5.0

Collected: 6/3/2011 2:50:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.3		0.92	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-052-SA5DN-SB-4.0-5.0

Collected: 6/3/2011 4:04:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	20.8		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-052-SA5DN-SB-9.0-10.0

Collected: 6/3/2011 4:08:00 PM

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		0.92	MDL	1.1	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

10/20/2011 10:08:18 AM

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## Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

Sample ID: SL-152-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 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
FLUORIDE	1.8		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-153-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 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	2.9		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-154-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 11:20:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.9		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-155-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 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	1.6		0.84	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-156-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 9:45:00 AM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.89	U	0.89	MDL	1.1	PQL	mg/Kg	UJ	Q

Sample ID: SL-157-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 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
FLUORIDE	1.8		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-158-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 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
FLUORIDE	1.2		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-159-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 9:25:00 AM

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

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** GENCHEM

**Method:** 300.0

**Matrix:** SO

Sample ID: SL-160-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 3:00:00 PM

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-162-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 2:25:00 PM

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-166-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 3:25:00 PM

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		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-207-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 8:35:00 AM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.8		0.86	MDL	1.1	PQL	mg/Kg	J	Q

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: DUP-13-SA5DN-QC-060311

Collected: 6/3/2011 10:55:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	92.0	J	37.6	MDL	101	PQL	mg/Kg	J	Z
TIN	3.19	J	1.01	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: SL-019-SA5DN-SB-4.0-5.0

Collected: 6/3/2011 11:16:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.37	J	1.14	MDL	11.4	PQL	mg/Kg	U	B

Sample ID: SL-019-SA5DN-SB-9.0-10.0

Collected: 6/3/2011 2:50:00 PM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.22	J	1.09	MDL	10.9	PQL	mg/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: SL-027-SA5DN-SB-14.0-15.0

Collected: 6/3/2011 3:00:00 PM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.33	J	1.08	MDL	10.8	PQL	mg/Kg	U	B

Sample ID: SL-027-SA5DN-SB-4.0-5.0

Collected: 6/3/2011 2:50:00 PM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.29	J	1.15	MDL	11.5	PQL	mg/Kg	U	B

Sample ID: SL-052-SA5DN-SB-4.0-5.0

Collected: 6/3/2011 4:04:00 PM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.13	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	5.50	J	0.938	MDL	5.58	PQL	mg/Kg	J	Z

Sample ID: SL-052-SA5DN-SB-9.0-10.0

Collected: 6/3/2011 4:08:00 PM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.27	J	1.13	MDL	11.3	PQL	mg/Kg	U	B

Sample ID: SL-052-SA5DN-SB-9.0-10.0

Collected: 6/3/2011 4:08:00 PM

Analysis Type: REA3

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	10.4	J	2.03	MDL	28.1	PQL	mg/Kg	J	Z

Sample ID: SL-152-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 11:45:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	4.34	J	1.05	MDL	10.5	PQL	mg/Kg	U	B

Sample ID: SL-152-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 11:45:00

Analysis Type: REA3

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	14.0	J	1.89	MDL	26.3	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: SL-153-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 12:10:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	87.4	J	39.4	MDL	106	PQL	mg/Kg	J	Z
TIN	3.34	J	1.06	MDL	10.6	PQL	mg/Kg	U	B

Sample ID: SL-154-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 11:20:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	94.4	J	40.2	MDL	108	PQL	mg/Kg	J	Z
TIN	3.45	J	1.08	MDL	10.8	PQL	mg/Kg	U	B

Sample ID: SL-155-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 10:45:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	90.7	J	38.6	MDL	104	PQL	mg/Kg	J	Z
TIN	3.35	J	1.04	MDL	10.4	PQL	mg/Kg	U	B

Sample ID: SL-156-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 9:45:00 AM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	79.6	J	40.4	MDL	108	PQL	mg/Kg	J	Z
TIN	3.31	J	1.08	MDL	10.8	PQL	mg/Kg	U	B

Sample ID: SL-157-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 10:05:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	90.7	J	40.1	MDL	108	PQL	mg/Kg	J	Z
TIN	3.24	J	1.08	MDL	10.8	PQL	mg/Kg	U	B

Sample ID: SL-158-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 10:25:00

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	87.7	J	39.5	MDL	106	PQL	mg/Kg	J	Z
TIN	3.26	J	1.06	MDL	10.6	PQL	mg/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6010B

**Matrix:** SO

Sample ID: SL-159-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 9:25:00 AM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	93.5	J	40.3	MDL	108	PQL	mg/Kg	J	Z
TIN	3.40	J	1.08	MDL	10.8	PQL	mg/Kg	U	B

Sample ID: SL-160-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 3:00:00 PM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.29	J	1.02	MDL	10.2	PQL	mg/Kg	U	B

Sample ID: SL-162-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 2:25:00 PM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	98.6	J	40.4	MDL	108	PQL	mg/Kg	J	Z
TIN	3.70	J	1.08	MDL	10.8	PQL	mg/Kg	U	B

Sample ID: SL-166-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 3:25:00 PM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	87.7	J	40.3	MDL	108	PQL	mg/Kg	J	Z
TIN	3.40	J	1.08	MDL	10.8	PQL	mg/Kg	U	B

Sample ID: SL-207-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 8:35:00 AM

Analysis Type: REA2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	94.7	J	39.3	MDL	105	PQL	mg/Kg	J	Z
TIN	3.47	J	1.05	MDL	10.5	PQL	mg/Kg	U	B

**Method Category:** METALS

**Method:** 6020

**Matrix:** AQ

Sample ID: EB13-SA5DN-SS-060311

Collected: 6/3/2011 1:30:00 PM

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	0.000062	J	0.00005 2	MDL	0.0010	PQL	mg/L	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** AQ

Sample ID: EB14-SA5DN-SB-060311

Collected: 6/3/2011 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
LEAD	0.000064	J	0.000052	MDL	0.0010	PQL	mg/L	J	Z

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: DUP-13-SA5DN-QC-060311

Collected: 6/3/2011 10:55:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.252		0.0760	MDL	0.206	PQL	mg/Kg	UJ	Q, B
ARSENIC	6.29		0.0822	MDL	0.411	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.636		0.0164	MDL	0.103	PQL	mg/Kg	J	Q, E
CADMIUM	0.365		0.0452	MDL	0.103	PQL	mg/Kg	J	Q
CHROMIUM	27.8		0.123	MDL	0.411	PQL	mg/Kg	J	Q
COBALT	9.72		0.0206	MDL	0.103	PQL	mg/Kg	J	Q, E
COPPER	14.7		0.0822	MDL	0.411	PQL	mg/Kg	J	Q
LEAD	8.67		0.0105	MDL	0.206	PQL	mg/Kg	J	Q, E
NICKEL	17.7		0.103	MDL	0.411	PQL	mg/Kg	J	Q, A
SILVER	0.0381	J	0.0146	MDL	0.103	PQL	mg/Kg	J	Z, Q
THALLIUM	0.298		0.0308	MDL	0.103	PQL	mg/Kg	J	Q

Sample ID: DUP-13-SA5DN-QC-060311

Collected: 6/3/2011 10:55:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.204	J	0.0596	MDL	0.411	PQL	mg/Kg	J	Z, Q

Sample ID: DUP-13-SA5DN-QC-060311

Collected: 6/3/2011 10:55:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.736		0.0514	MDL	0.103	PQL	mg/Kg	J	Q, E

Sample ID: DUP-13-SA5DN-QC-060311

Collected: 6/3/2011 10:55:00

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	116		0.109	MDL	0.411	PQL	mg/Kg	J	E, A

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-019-SA5DN-SB-4.0-5.0

Collected: 6/3/2011 11:16:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.303		0.0850	MDL	0.230	PQL	mg/Kg	UJ	Q, B
ARSENIC	6.77		0.0919	MDL	0.459	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.910		0.0184	MDL	0.115	PQL	mg/Kg	J	Q, E
CADMIUM	0.165		0.0505	MDL	0.115	PQL	mg/Kg	J	Q
CHROMIUM	31.9		0.138	MDL	0.459	PQL	mg/Kg	J	Q
COBALT	6.54		0.0230	MDL	0.115	PQL	mg/Kg	J	Q, E
COPPER	31.5		0.0919	MDL	0.459	PQL	mg/Kg	J	Q
LEAD	8.39		0.0117	MDL	0.230	PQL	mg/Kg	J	Q, E
NICKEL	19.8		0.115	MDL	0.459	PQL	mg/Kg	J	Q, A
SILVER	0.0629	J	0.0163	MDL	0.115	PQL	mg/Kg	J	Z, Q
THALLIUM	0.276		0.0345	MDL	0.115	PQL	mg/Kg	J	Q

Sample ID: SL-019-SA5DN-SB-4.0-5.0

Collected: 6/3/2011 11:16:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.590		0.0574	MDL	0.115	PQL	mg/Kg	J	Q, E

Sample ID: SL-019-SA5DN-SB-4.0-5.0

Collected: 6/3/2011 11:16:00

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	143		0.122	MDL	0.459	PQL	mg/Kg	J	E, A

Sample ID: SL-019-SA5DN-SB-9.0-10.0

Collected: 6/3/2011 2:50:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.212	J	0.0808	MDL	0.218	PQL	mg/Kg	UJ	Q, B
ARSENIC	6.64		0.0873	MDL	0.437	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.661		0.0175	MDL	0.109	PQL	mg/Kg	J	Q, E
CADMIUM	0.231		0.0480	MDL	0.109	PQL	mg/Kg	J	Q
CHROMIUM	23.1		0.131	MDL	0.437	PQL	mg/Kg	J	Q
COBALT	11.0		0.0218	MDL	0.109	PQL	mg/Kg	J	Q, E
COPPER	13.0		0.0873	MDL	0.437	PQL	mg/Kg	J	Q
LEAD	7.34		0.0111	MDL	0.218	PQL	mg/Kg	J	Q, E
NICKEL	16.2		0.109	MDL	0.437	PQL	mg/Kg	J	Q, A
SILVER	0.0445	J	0.0155	MDL	0.109	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-019-SA5DN-SB-9.0-10.0

Collected: 6/3/2011 2:50:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.259		0.0328	MDL	0.109	PQL	mg/Kg	J	Q

Sample ID: SL-019-SA5DN-SB-9.0-10.0

Collected: 6/3/2011 2:50:00 PM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.455		0.0546	MDL	0.109	PQL	mg/Kg	J	Q, E

Sample ID: SL-019-SA5DN-SB-9.0-10.0

Collected: 6/3/2011 2:50:00 PM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	94.4		0.116	MDL	0.437	PQL	mg/Kg	J	E, A

Sample ID: SL-027-SA5DN-SB-14.0-15.0

Collected: 6/3/2011 3:00:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.117	J	0.0788	MDL	0.213	PQL	mg/Kg	UJ	Q, B
ARSENIC	5.75		0.0852	MDL	0.426	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.619		0.0170	MDL	0.106	PQL	mg/Kg	J	Q, E
CADMIUM	0.137		0.0469	MDL	0.106	PQL	mg/Kg	J	Q
CHROMIUM	24.8		0.128	MDL	0.426	PQL	mg/Kg	J	Q
COBALT	6.79		0.0213	MDL	0.106	PQL	mg/Kg	J	Q, E
COPPER	12.1		0.0852	MDL	0.426	PQL	mg/Kg	J	Q
LEAD	5.92		0.0109	MDL	0.213	PQL	mg/Kg	J	Q, E
NICKEL	16.1		0.106	MDL	0.426	PQL	mg/Kg	J	Q, A
SILVER	0.0434	J	0.0151	MDL	0.106	PQL	mg/Kg	J	Z, Q
THALLIUM	0.249		0.0319	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-027-SA5DN-SB-14.0-15.0

Collected: 6/3/2011 3:00:00 PM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.313		0.0532	MDL	0.106	PQL	mg/Kg	J	Q, E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-027-SA5DN-SB-14.0-15.0

Collected: 6/3/2011 3:00:00 PM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	91.0		0.113	MDL	0.426	PQL	mg/Kg	J	E, A

Sample ID: SL-027-SA5DN-SB-4.0-5.0

Collected: 6/3/2011 2:50:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.245		0.0825	MDL	0.223	PQL	mg/Kg	UJ	Q, B
ARSENIC	6.66		0.0892	MDL	0.446	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.773		0.0178	MDL	0.111	PQL	mg/Kg	J	Q, E
CADMIUM	0.231		0.0490	MDL	0.111	PQL	mg/Kg	J	Q
CHROMIUM	28.4		0.134	MDL	0.446	PQL	mg/Kg	J	Q
COBALT	9.90		0.0223	MDL	0.111	PQL	mg/Kg	J	Q, E
COPPER	15.4		0.0892	MDL	0.446	PQL	mg/Kg	J	Q
LEAD	8.59		0.0114	MDL	0.223	PQL	mg/Kg	J	Q, E
NICKEL	17.2		0.111	MDL	0.446	PQL	mg/Kg	J	Q, A
SILVER	0.0659	J	0.0158	MDL	0.111	PQL	mg/Kg	J	Z, Q
THALLIUM	0.273		0.0334	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: SL-027-SA5DN-SB-4.0-5.0

Collected: 6/3/2011 2:50:00 PM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0939	J	0.0647	MDL	0.446	PQL	mg/Kg	J	Z, Q

Sample ID: SL-027-SA5DN-SB-4.0-5.0

Collected: 6/3/2011 2:50:00 PM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.367		0.0557	MDL	0.111	PQL	mg/Kg	J	Q, E

Sample ID: SL-027-SA5DN-SB-4.0-5.0

Collected: 6/3/2011 2:50:00 PM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	121		0.118	MDL	0.446	PQL	mg/Kg	J	E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-052-SA5DN-SB-4.0-5.0

Collected: 6/3/2011 4:04:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.273		0.0794	MDL	0.215	PQL	mg/Kg	UJ	Q, B
ARSENIC	8.10		0.0859	MDL	0.429	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.892		0.0172	MDL	0.107	PQL	mg/Kg	J	Q, E
CADMIUM	0.215		0.0472	MDL	0.107	PQL	mg/Kg	J	Q
CHROMIUM	32.0		0.129	MDL	0.429	PQL	mg/Kg	J	Q
COBALT	10.1		0.0215	MDL	0.107	PQL	mg/Kg	J	Q, E
COPPER	17.5		0.0859	MDL	0.429	PQL	mg/Kg	J	Q
LEAD	9.98		0.0109	MDL	0.215	PQL	mg/Kg	J	Q, E
NICKEL	19.6		0.107	MDL	0.429	PQL	mg/Kg	J	Q, A
SILVER	0.0528	J	0.0152	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.321		0.0322	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-052-SA5DN-SB-4.0-5.0

Collected: 6/3/2011 4:04:00 PM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.136	J	0.0622	MDL	0.429	PQL	mg/Kg	J	Z, Q

Sample ID: SL-052-SA5DN-SB-4.0-5.0

Collected: 6/3/2011 4:04:00 PM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.547		0.0537	MDL	0.107	PQL	mg/Kg	J	Q, E

Sample ID: SL-052-SA5DN-SB-4.0-5.0

Collected: 6/3/2011 4:04:00 PM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	162		0.114	MDL	0.429	PQL	mg/Kg	J	E, A

Sample ID: SL-052-SA5DN-SB-9.0-10.0

Collected: 6/3/2011 4:08:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.226		0.0825	MDL	0.223	PQL	mg/Kg	UJ	Q, B
ARSENIC	5.51		0.0892	MDL	0.446	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.793		0.0178	MDL	0.111	PQL	mg/Kg	J	Q, E
CADMIUM	0.189		0.0490	MDL	0.111	PQL	mg/Kg	J	Q
CHROMIUM	31.5		0.134	MDL	0.446	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-052-SA5DN-SB-9.0-10.0

Collected: 6/3/2011 4:08:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	5.80		0.0223	MDL	0.111	PQL	mg/Kg	J	Q, E
COPPER	12.9		0.0892	MDL	0.446	PQL	mg/Kg	J	Q
LEAD	7.47		0.0114	MDL	0.223	PQL	mg/Kg	J	Q, E
NICKEL	15.5		0.111	MDL	0.446	PQL	mg/Kg	J	Q, A
SILVER	0.173		0.0158	MDL	0.111	PQL	mg/Kg	J	Q
THALLIUM	0.325		0.0334	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: SL-052-SA5DN-SB-9.0-10.0

Collected: 6/3/2011 4:08:00 PM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.263		0.0557	MDL	0.111	PQL	mg/Kg	J	Q, E

Sample ID: SL-052-SA5DN-SB-9.0-10.0

Collected: 6/3/2011 4:08:00 PM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	101		0.118	MDL	0.446	PQL	mg/Kg	J	E, A

Sample ID: SL-152-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 11:45:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.259		0.0786	MDL	0.212	PQL	mg/Kg	UJ	Q, B
ARSENIC	15.0		0.0850	MDL	0.425	PQL	mg/Kg	J	Q, E
BERYLLIUM	1.32		0.0170	MDL	0.106	PQL	mg/Kg	J	Q, E
CADMIUM	0.284		0.0467	MDL	0.106	PQL	mg/Kg	J	Q
CHROMIUM	36.5		0.127	MDL	0.425	PQL	mg/Kg	J	Q
COBALT	15.4		0.0212	MDL	0.106	PQL	mg/Kg	J	Q, E
COPPER	26.5		0.0850	MDL	0.425	PQL	mg/Kg	J	Q
LEAD	12.4		0.0108	MDL	0.212	PQL	mg/Kg	J	Q, E
NICKEL	22.6		0.106	MDL	0.425	PQL	mg/Kg	J	Q, A
SILVER	0.147		0.0151	MDL	0.106	PQL	mg/Kg	J	Q
THALLIUM	0.422		0.0319	MDL	0.106	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-152-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 11:45:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.369	J	0.0616	MDL	0.425	PQL	mg/Kg	J	Z, Q

Sample ID: SL-152-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 11:45:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.26		0.0531	MDL	0.106	PQL	mg/Kg	J	Q, E

Sample ID: SL-152-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 11:45:00

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	151		0.113	MDL	0.425	PQL	mg/Kg	J	E, A

Sample ID: SL-153-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 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	0.239		0.0783	MDL	0.212	PQL	mg/Kg	UJ	Q, B
ARSENIC	7.54		0.0846	MDL	0.423	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.759		0.0169	MDL	0.106	PQL	mg/Kg	J	Q, E
CADMIUM	0.268		0.0465	MDL	0.106	PQL	mg/Kg	J	Q
CHROMIUM	24.9		0.127	MDL	0.423	PQL	mg/Kg	J	Q
COBALT	8.87		0.0212	MDL	0.106	PQL	mg/Kg	J	Q, E
COPPER	14.3		0.0846	MDL	0.423	PQL	mg/Kg	J	Q
LEAD	7.70		0.0108	MDL	0.212	PQL	mg/Kg	J	Q, E
NICKEL	16.5		0.106	MDL	0.423	PQL	mg/Kg	J	Q, A
SILVER	0.0737	J	0.0150	MDL	0.106	PQL	mg/Kg	J	Z, Q
THALLIUM	0.304		0.0317	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-153-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 12:10:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.176	J	0.0613	MDL	0.423	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-153-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 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
MOLYBDENUM	0.716		0.0529	MDL	0.106	PQL	mg/Kg	J	Q, E

Sample ID: SL-153-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 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
BARIUM	134		0.112	MDL	0.423	PQL	mg/Kg	J	E, A

Sample ID: SL-154-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 11:20:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.401		0.0790	MDL	0.213	PQL	mg/Kg	UJ	Q, B
ARSENIC	9.19		0.0854	MDL	0.427	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.992		0.0171	MDL	0.107	PQL	mg/Kg	J	Q, E
CADMIUM	0.383		0.0469	MDL	0.107	PQL	mg/Kg	J	Q
CHROMIUM	33.5		0.128	MDL	0.427	PQL	mg/Kg	J	Q
COBALT	12.9		0.0213	MDL	0.107	PQL	mg/Kg	J	Q, E
COPPER	21.2		0.0854	MDL	0.427	PQL	mg/Kg	J	Q
LEAD	11.8		0.0109	MDL	0.213	PQL	mg/Kg	J	Q, E
NICKEL	21.4		0.107	MDL	0.427	PQL	mg/Kg	J	Q, A
SILVER	0.0571	J	0.0151	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.403		0.0320	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-154-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 11:20:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.257	J	0.0619	MDL	0.427	PQL	mg/Kg	J	Z, Q

Sample ID: SL-154-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 11:20:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.888		0.0533	MDL	0.107	PQL	mg/Kg	J	Q, E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-154-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 11:20:00

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	188		0.113	MDL	0.427	PQL	mg/Kg	J	E, A

Sample ID: SL-155-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 10:45:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.339		0.0752	MDL	0.203	PQL	mg/Kg	UJ	Q, B
ARSENIC	7.79		0.0812	MDL	0.406	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.815		0.0162	MDL	0.102	PQL	mg/Kg	J	Q, E
CADMIUM	0.423		0.0447	MDL	0.102	PQL	mg/Kg	J	Q
CHROMIUM	33.0		0.122	MDL	0.406	PQL	mg/Kg	J	Q
COBALT	12.0		0.0203	MDL	0.102	PQL	mg/Kg	J	Q, E
COPPER	17.5		0.0812	MDL	0.406	PQL	mg/Kg	J	Q
LEAD	11.8		0.0104	MDL	0.203	PQL	mg/Kg	J	Q, E
NICKEL	20.5		0.102	MDL	0.406	PQL	mg/Kg	J	Q, A
SILVER	0.0436	J	0.0144	MDL	0.102	PQL	mg/Kg	J	Z, Q
THALLIUM	0.419		0.0305	MDL	0.102	PQL	mg/Kg	J	Q

Sample ID: SL-155-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 10:45:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.247	J	0.0589	MDL	0.406	PQL	mg/Kg	J	Z, Q

Sample ID: SL-155-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 10:45:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.903		0.0508	MDL	0.102	PQL	mg/Kg	J	Q, E

Sample ID: SL-155-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 10:45:00

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	144		0.108	MDL	0.406	PQL	mg/Kg	J	E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-156-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 9:45:00 AM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.335		0.0817	MDL	0.221	PQL	mg/Kg	UJ	Q, B
ARSENIC	7.51		0.0883	MDL	0.442	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.794		0.0177	MDL	0.110	PQL	mg/Kg	J	Q, E
CADMIUM	0.384		0.0486	MDL	0.110	PQL	mg/Kg	J	Q
CHROMIUM	38.9		0.132	MDL	0.442	PQL	mg/Kg	J	Q
COBALT	12.8		0.0221	MDL	0.110	PQL	mg/Kg	J	Q, E
COPPER	17.4		0.0883	MDL	0.442	PQL	mg/Kg	J	Q
LEAD	13.0		0.0113	MDL	0.221	PQL	mg/Kg	J	Q, E
NICKEL	26.2		0.110	MDL	0.442	PQL	mg/Kg	J	Q, A
SILVER	0.0398	J	0.0157	MDL	0.110	PQL	mg/Kg	J	Z, Q
THALLIUM	0.373		0.0331	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: SL-156-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 9:45:00 AM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.226	J	0.0640	MDL	0.442	PQL	mg/Kg	J	Z, Q

Sample ID: SL-156-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 9:45:00 AM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.971		0.0552	MDL	0.110	PQL	mg/Kg	J	Q, E

Sample ID: SL-156-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 9:45:00 AM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	146		0.117	MDL	0.442	PQL	mg/Kg	J	E, A

Sample ID: SL-157-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 10:05:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.341		0.0804	MDL	0.217	PQL	mg/Kg	UJ	Q, B
ARSENIC	7.88		0.0869	MDL	0.434	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.824		0.0174	MDL	0.109	PQL	mg/Kg	J	Q, E
CADMIUM	0.330		0.0478	MDL	0.109	PQL	mg/Kg	J	Q
CHROMIUM	36.7		0.130	MDL	0.434	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-157-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 10:05:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	12.5		0.0217	MDL	0.109	PQL	mg/Kg	J	Q, E
COPPER	17.4		0.0869	MDL	0.434	PQL	mg/Kg	J	Q
LEAD	13.2		0.0111	MDL	0.217	PQL	mg/Kg	J	Q, E
NICKEL	23.8		0.109	MDL	0.434	PQL	mg/Kg	J	Q, A
SILVER	0.0381	J	0.0154	MDL	0.109	PQL	mg/Kg	J	Z, Q
THALLIUM	0.358		0.0326	MDL	0.109	PQL	mg/Kg	J	Q

Sample ID: SL-157-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 10:05:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.253	J	0.0630	MDL	0.434	PQL	mg/Kg	J	Z, Q

Sample ID: SL-157-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 10:05:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.810		0.0543	MDL	0.109	PQL	mg/Kg	J	Q, E

Sample ID: SL-157-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 10:05:00

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	140		0.115	MDL	0.434	PQL	mg/Kg	J	E, A

Sample ID: SL-158-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 10:25:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.288		0.0784	MDL	0.212	PQL	mg/Kg	UJ	Q, B
ARSENIC	6.29		0.0848	MDL	0.424	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.655		0.0170	MDL	0.106	PQL	mg/Kg	J	Q, E
CADMIUM	0.277		0.0466	MDL	0.106	PQL	mg/Kg	J	Q
CHROMIUM	31.9		0.127	MDL	0.424	PQL	mg/Kg	J	Q
COBALT	10.5		0.0212	MDL	0.106	PQL	mg/Kg	J	Q, E
COPPER	13.8		0.0848	MDL	0.424	PQL	mg/Kg	J	Q
LEAD	10.2		0.0108	MDL	0.212	PQL	mg/Kg	J	Q, E
NICKEL	20.6		0.106	MDL	0.424	PQL	mg/Kg	J	Q, A
SILVER	0.0290	J	0.0151	MDL	0.106	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-158-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 10:25:00

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.296		0.0318	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-158-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 10:25:00

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.242	J	0.0615	MDL	0.424	PQL	mg/Kg	J	Z, Q

Sample ID: SL-158-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 10:25:00

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.678		0.0530	MDL	0.106	PQL	mg/Kg	J	Q, E

Sample ID: SL-158-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 10:25:00

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	107		0.112	MDL	0.424	PQL	mg/Kg	J	E, A

Sample ID: SL-159-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 9:25:00 AM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.258		0.0806	MDL	0.218	PQL	mg/Kg	UJ	Q, B
ARSENIC	6.21		0.0872	MDL	0.436	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.663		0.0174	MDL	0.109	PQL	mg/Kg	J	Q, E
CADMIUM	0.276		0.0479	MDL	0.109	PQL	mg/Kg	J	Q
CHROMIUM	30.7		0.131	MDL	0.436	PQL	mg/Kg	J	Q
COBALT	9.90		0.0218	MDL	0.109	PQL	mg/Kg	J	Q, E
COPPER	13.1		0.0872	MDL	0.436	PQL	mg/Kg	J	Q
LEAD	10.8		0.0111	MDL	0.218	PQL	mg/Kg	J	Q, E
NICKEL	16.3		0.109	MDL	0.436	PQL	mg/Kg	J	Q, A
SILVER	0.0268	J	0.0155	MDL	0.109	PQL	mg/Kg	J	Z, Q
THALLIUM	0.296		0.0327	MDL	0.109	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-159-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 9:25:00 AM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.223	J	0.0632	MDL	0.436	PQL	mg/Kg	J	Z, Q

Sample ID: SL-159-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 9:25:00 AM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.725		0.0545	MDL	0.109	PQL	mg/Kg	J	Q, E

Sample ID: SL-159-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 9:25:00 AM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	114		0.116	MDL	0.436	PQL	mg/Kg	J	E, A

Sample ID: SL-160-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 3:00:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.310		0.0737	MDL	0.199	PQL	mg/Kg	UJ	Q, B
ARSENIC	7.50		0.0797	MDL	0.399	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.773		0.0159	MDL	0.0996	PQL	mg/Kg	J	Q, E
CADMIUM	0.263		0.0438	MDL	0.0996	PQL	mg/Kg	J	Q
CHROMIUM	29.3		0.120	MDL	0.399	PQL	mg/Kg	J	Q
COBALT	9.97		0.0199	MDL	0.0996	PQL	mg/Kg	J	Q, E
COPPER	15.9		0.0797	MDL	0.399	PQL	mg/Kg	J	Q
LEAD	8.93		0.0102	MDL	0.199	PQL	mg/Kg	J	Q, E
NICKEL	15.4		0.0996	MDL	0.399	PQL	mg/Kg	J	Q, A
SILVER	0.0232	J	0.0141	MDL	0.0996	PQL	mg/Kg	J	Z, Q
THALLIUM	0.313		0.0299	MDL	0.0996	PQL	mg/Kg	J	Q

Sample ID: SL-160-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 3:00:00 PM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.257	J	0.0578	MDL	0.399	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-160-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 3:00:00 PM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.822		0.0498	MDL	0.0996	PQL	mg/Kg	J	Q, E

Sample ID: SL-160-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 3:00:00 PM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	127		0.106	MDL	0.399	PQL	mg/Kg	J	E, A

Sample ID: SL-162-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 2:25:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.326		0.0793	MDL	0.214	PQL	mg/Kg	UJ	Q, B
ARSENIC	7.63		0.0858	MDL	0.429	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.842		0.0172	MDL	0.107	PQL	mg/Kg	J	Q, E
CHROMIUM	32.5		0.129	MDL	0.429	PQL	mg/Kg	J	Q
COBALT	12.3		0.0214	MDL	0.107	PQL	mg/Kg	J	Q, E
COPPER	22.3		0.0858	MDL	0.429	PQL	mg/Kg	J	Q
LEAD	11.6		0.0109	MDL	0.214	PQL	mg/Kg	J	Q, E
NICKEL	18.3		0.107	MDL	0.429	PQL	mg/Kg	J	Q, A
SILVER	0.0322	J	0.0152	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.439		0.0322	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-162-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 2:25:00 PM

Analysis Type: REA5

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.203		0.0472	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-162-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 2:25:00 PM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.270	J	0.0622	MDL	0.429	PQL	mg/Kg	J	Z, Q

Sample ID: SL-162-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 2:25:00 PM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.773		0.0536	MDL	0.107	PQL	mg/Kg	J	Q, E

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE173

Laboratory: LL

EDD Filename: PrepDE173\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-162-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 2:25:00 PM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	142		0.114	MDL	0.429	PQL	mg/Kg	J	E, A

Sample ID: SL-166-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 3:25:00 PM

Analysis Type: REA4

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.595		0.0792	MDL	0.214	PQL	mg/Kg	J	Q
ARSENIC	11.2		0.0857	MDL	0.428	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.983		0.0171	MDL	0.107	PQL	mg/Kg	J	Q, E
CADMIUM	0.646		0.0471	MDL	0.107	PQL	mg/Kg	J	Q
CHROMIUM	39.0		0.128	MDL	0.428	PQL	mg/Kg	J	Q
COBALT	14.6		0.0214	MDL	0.107	PQL	mg/Kg	J	Q, E
COPPER	26.4		0.0857	MDL	0.428	PQL	mg/Kg	J	Q
LEAD	48.6		0.0109	MDL	0.214	PQL	mg/Kg	J	Q, E
NICKEL	25.5		0.107	MDL	0.428	PQL	mg/Kg	J	Q, A
SILVER	0.0656	J	0.0152	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.404		0.0321	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-166-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 3:25:00 PM

Analysis Type: REA6

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.267	J	0.0621	MDL	0.428	PQL	mg/Kg	J	Z, Q

Sample ID: SL-166-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 3:25:00 PM

Analysis Type: REA7

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.931		0.0535	MDL	0.107	PQL	mg/Kg	J	Q, E

Sample ID: SL-166-SA5DN-SS-0.0-0.5

Collected: 6/3/2011 3:25:00 PM

Analysis Type: REA8

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	182		0.114	MDL	0.428	PQL	mg/Kg	J	E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

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