

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

METHOD: Trace metals (EPA SW 864 Method 6010C/6020A/7471A)

Soil preparation factor applied: NA

Sample Concentration units, unless otherwise noted: ug/L

Associated Samples: All Water

Analyte	Maximum PB ^a (mg/Kg)	Maximum PB ^a (mg/L)	Maximum ICB/CCB ^a (ug/L)	Action Level	Sample Identification										
					5	6									
Zr			9.0	45.0	9.9	9.7									

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
Field Blanks

METHOD: Trace Metals (EPA SW846 6010C/6020A/7471A)

Blank units: ug/L **Associated sample units:** mg/kg
Sampling date: 5/21/14 and 6/12/14 Soil factor applied 100
Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: 1-2

Analyte	Blank ID	Blank ID	Sample Identification								
	<u>6</u>	FB-052114 SDG#PH191	Action Limit	1	2						
Mn	1.3		0.65								
Zr	9.7	11.0	5.50	1.84	1.77						

METHOD: Trace Metals (EPA SW846 6010C/6020A/7471A)

Blank units: ug/L **Associated sample units:** mg/kg
Sampling date: 5/21/14 and 6/12/14 Soil factor applied 100
Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: 3-4

Analyte	Blank ID	Blank ID	Sample Identification								
	<u>5</u>	FB-052114 SDG#PH191	Action Limit	3	4						
Mn	1.3		0.65								
Zr	9.9	11.0	5.50	1.94	3.29						

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".

**Data Validation Report
Santa Susana Field Laboratory
Go Backs, Subgroup FDG Block 2**

SDG: PH233

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August 23, 2014

INTRODUCTION

This Data Validation Report (DVR) presents Level III data validation results for samples collected on June 13, 2014. Data validation was performed in accordance with the Quality Assurance Project Plan (QAPP) 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 (CLPNFGs) for Superfund Organic Methods Data Review (June 2008). Where specific guidance is not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Polychlorinated Biphenyls (PCBs) by EPA SW 846 Method 8082A
Total Petroleum Hydrocarbons (TPH) as Gasoline by EPA SW 846 Method 8015M
TPH as Extractables with and without Silica Gel Clean Up by EPA SW 846 Method 8015M

The sample identification and methods of analyses performed on each sample is presented in Attachment 1. Please note that field sample IDs have been truncated due to database limitations. Overall data qualification summary is presented in Attachment 2. Level III Automated Data Review outliers are presented in Enclosure I.

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results for sample holding times, surrogates, laboratory control sample/laboratory control sample duplicates (LCS/LCSD), method blanks, trip blanks, equipment blanks, and field blanks. No samples in this SDG were subjected to Level IV evaluation.

Automated data review was performed on all QC summary results using the Automated Data Review (ADR) software program (LDC, 2013). Quality assurance (QA)/QC criteria specified in the QAPP and CLPNFGs were incorporated with the program's reference library to assess compliance with project requirements.

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.

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 QC criteria.

II. Initial Calibration

Initial Calibration data were not reviewed for level III.

III. Continuing Calibration

Continuing calibration data were not reviewed for level III.

IV. Blanks

Method blanks were performed at the required frequencies. No contaminant concentrations were detected in the method and preparation blanks.

V. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the exception of four samples for TPH as extractables with silica gel clean up. The associated sample results were qualified as detected estimated (J) or non-detected estimated (UJ) as applicable. The details regarding the qualification of data are provided in Enclosure I.

VI. ICP Interference Check Sample (ICS) Analysis

ICP interference check data were not reviewed for level III.

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.

VIII. Laboratory Duplicates Sample

The laboratory has indicated that there were no laboratory duplicate (DUP) analyses specified for the samples in this SDG, and therefore laboratory duplicate analyses were not performed for this SDG.

IV. 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 exception of one LCS samples for TPH as extractables with silica gel clean up. The associated sample results were qualified as detected estimated (J) or non-detected estimated (UJ) as applicable. The details regarding the qualification of data are provided in Enclosure I.

X. Internal Standards

Internal standards were not reviewed for Level III.

XI. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

XII. Compound Quantitation

The laboratory reporting limits were evaluated. All laboratory reporting limits met the specified requirements.

All compounds reported below the RL as detected were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PH233	All compounds reported as detected below the RL.	J (all detects)	A

XIII. Field Duplicate Samples

No field duplicates were identified in this SDG.

XIV. Field Blank Samples

One trip blank was collected and analyzed for TPH as gasoline. No contaminant concentrations were found in the trip blank.

One equipment blank (from SDG PH231) were collected and analyzed for PCBs, TPH as gasoline, and TPH as extractables with and without silica gel clean up. No contaminant concentrations were found in the equipment blank.

One field blank (from SDG PH191) was collected and analyzed for PCBs, TPH as gasoline, and TPH as extractables with and without silica gel clean up. No contaminant concentrations were found in the field blank.

XV. Overall Assessment of Data

The overall assessment of QA/QC data review by automated and manual validation of this sampling event met project requirements and analytical completeness levels with the exceptions noted in the above sections. The remainder of the data are deemed useable for the intended use.

Data flags are summarized and are presented as Attachment 2.

Attachment 1
Sample Cross Reference

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
13-Jun-2014	FDG2-SL-582-NBZ-SB-0.0-0.	7499517	N	3546	8015M	III
13-Jun-2014	FDG2-SL-582-NBZ-SB-0.0-0.	7499517	N	3546	8082A	III
13-Jun-2014	TB-061314	7499516	TB	5030B	8015M	III
13-Jun-2014	FDG2-SL-582-NBZ-SB-3.0-3.	7499518	N	3546	8015M	III
13-Jun-2014	FDG2-SL-582-NBZ-SB-3.0-3.	7499518	N	3546	8082A	III
13-Jun-2014	FDG2-SL-582-NBZ-SB-3.0-3.	7499518	N	5035A	8015M	III
13-Jun-2014	FDG2-SL-586-NBZ-SB-0.0-0.	7499521	N	3546	8015M	III
13-Jun-2014	FDG2-SL-586-NBZ-SB-0.0-0.	7499521	N	3546	8082A	III
13-Jun-2014	FDG2-SL-585-NBZ-SB-0.0-0.	7499520	N	3546	8015M	III
13-Jun-2014	FDG2-SL-585-NBZ-SB-0.0-0.	7499520	N	3546	8082A	III
13-Jun-2014	FDG2-SL-584-NBZ-SB-0.0-0.	7499519	N	3546	8015M	III
13-Jun-2014	FDG2-SL-584-NBZ-SB-0.0-0.	7499519	N	3546	8082A	III

Attachment 2
Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: PH233

Laboratory: LL

EDD Filename: PH233_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method Category:	SVOA	
Method:	8015M	Matrix: SO

Sample ID: FDG2-SL-582-NBZ-SB-0.0-0.5 Collected: 6/13/2014 7:50:00 Analysis Type: REA Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C12-C14) SG	5.2	U	2.1	MDL	5.2	PQL	mg/Kg	UJ	L
EFH (C15-C20) SG	5.2	U	2.1	MDL	5.2	PQL	mg/Kg	UJ	L
EFH (C21-C30) SG	3.0	J	2.1	MDL	5.2	PQL	mg/Kg	J	Z, L
EFH (C30-C40) SG	6.2	J	4.2	MDL	10	PQL	mg/Kg	J	Z
EFH (C8-C11) SG	5.2	U	2.1	MDL	5.2	PQL	mg/Kg	UJ	L

Sample ID: FDG2-SL-582-NBZ-SB-0.0-0.5 Collected: 6/13/2014 7:50:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	3.7	J	2.1	MDL	5.2	PQL	mg/Kg	J	Z

Sample ID: FDG2-SL-582-NBZ-SB-3.0-3.5 Collected: 6/13/2014 8:05:00 Analysis Type: REA2 Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C12-C14) SG	5.5	U	2.2	MDL	5.5	PQL	mg/Kg	UJ	L, S
EFH (C15-C20) SG	5.5	U	2.2	MDL	5.5	PQL	mg/Kg	UJ	L, S
EFH (C21-C30) SG	5.5	U	2.2	MDL	5.5	PQL	mg/Kg	UJ	L, S
EFH (C30-C40) SG	11	U	4.4	MDL	11	PQL	mg/Kg	UJ	S
EFH (C8-C11) SG	5.5	U	2.2	MDL	5.5	PQL	mg/Kg	UJ	L, S

Sample ID: FDG2-SL-584-NBZ-SB-0.0-0.5 Collected: 6/13/2014 9:50:00 Analysis Type: REA Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C12-C14) SG	5.0	U	2.0	MDL	5.0	PQL	mg/Kg	UJ	L, S
EFH (C15-C20) SG	5.0	U	2.0	MDL	5.0	PQL	mg/Kg	UJ	L, S
EFH (C21-C30) SG	6.8		2.0	MDL	5.0	PQL	mg/Kg	J	L, S
EFH (C30-C40) SG	10	U	4.0	MDL	10	PQL	mg/Kg	UJ	S
EFH (C8-C11) SG	5.0	U	2.0	MDL	5.0	PQL	mg/Kg	UJ	L, S

Sample ID: FDG2-SL-585-NBZ-SB-0.0-0.5 Collected: 6/13/2014 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
EFH (C12-C14) SG	5.1	U	2.1	MDL	5.1	PQL	mg/Kg	UJ	L, S
EFH (C15-C20) SG	5.1	U	2.1	MDL	5.1	PQL	mg/Kg	UJ	L, S
EFH (C21-C30) SG	5.1	U	2.1	MDL	5.1	PQL	mg/Kg	UJ	L, S

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH233

Laboratory: LL

EDD Filename: PH233_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method Category:	SVOA	
Method:	8015M	Matrix: SO

Sample ID: FDG2-SL-585-NBZ-SB-0.0-0.5	Collected: 6/13/2014 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
EFH (C30-C40) SG	10	U	4.1	MDL	10	PQL	mg/Kg	UJ	S
EFH (C8-C11) SG	5.1	U	2.1	MDL	5.1	PQL	mg/Kg	UJ	L, S

Sample ID: FDG2-SL-585-NBZ-SB-0.0-0.5	Collected: 6/13/2014 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
EFH (C15-C20)	3.5	J	2.1	MDL	5.1	PQL	mg/Kg	J	Z

Sample ID: FDG2-SL-586-NBZ-SB-0.0-0.5	Collected: 6/13/2014 9:00:00	Analysis Type: REA	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C12-C14) SG	5.1	U	2.1	MDL	5.1	PQL	mg/Kg	UJ	L, S
EFH (C15-C20) SG	5.1	U	2.1	MDL	5.1	PQL	mg/Kg	UJ	L, S
EFH (C21-C30) SG	5.1	U	2.1	MDL	5.1	PQL	mg/Kg	UJ	L, S
EFH (C30-C40) SG	10	U	4.1	MDL	10	PQL	mg/Kg	UJ	S
EFH (C8-C11) SG	5.1	U	2.1	MDL	5.1	PQL	mg/Kg	UJ	L, S

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH233

Laboratory: LL

EDD Filename: PH233_v1

eQAPP Name: CDM_SSFL_140617_Lan

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
L	Laboratory Control Spike Lower Estimation
S	Surrogate/Tracer Recovery Lower Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

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Enclosure I

Level III ADR Outliers

Quality Control Outlier Reports

PH233

Surrogate Outlier Report

Lab Reporting Batch ID: PH233

Laboratory: LL

EDD Filename: PH233_v1.

eQAPP Name: CDM_SSFL_140617_Lan

Method: 8015M

Matrix: SO

Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
FDG2-SL-582-NBZ- SB-3.0-3.5 (REA2)	O-TERPHENYL	65	66.00-123.00	All Target Analytes	J (all detects) UJ (all non-detects)
FDG2-SL-584-NBZ- SB-0.0-0.5 (REA)	O-TERPHENYL	62	66.00-123.00	All Target Analytes	J(all detects) UJ(all non-detects)
FDG2-SL-585-NBZ- SB-0.0-0.5 (REA)	O-TERPHENYL	60	66.00-123.00	All Target Analytes	J(all detects) UJ(all non-detects)
FDG2-SL-586-NBZ- SB-0.0-0.5 (REA)	O-TERPHENYL	61	66.00-123.00	All Target Analytes	J(all detects) UJ(all non-detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH233

Laboratory: LL

EDD Filename: PH233_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P41675AQ321921A (FDG2-SL-582-NBZ-SB-0.0-0.5 FDG2-SL-582-NBZ-SB-3.0-3.5 FDG2-SL-584-NBZ-SB-0.0-0.5 FDG2-SL-585-NBZ-SB-0.0-0.5 FDG2-SL-586-NBZ-SB-0.0-0.5)	EFH (C12-C14) SG EFH (C15-C20) SG EFH (C21-C30) SG EFH (C8-C11) SG	68 71 70 52	- - - -	76.00-115.00 78.00-127.00 77.00-127.00 60.00-115.00	- - - -	EFH (C12-C14) SG EFH (C15-C20) SG EFH (C21-C30) SG EFH (C8-C11) SG	J (all detects) UJ (all non-detects)

Reporting Limit Outliers

Lab Reporting Batch ID: PH233

Laboratory: LL

EDD Filename: PH233_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 8015M

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>
FDG2-SL-582-NBZ-SB-0.0-0.5	EFH (C15-C20)	J	3.7	5.2	PQL	mg/Kg	J (all detects)
	EFH (C21-C30) SG	J	3.0	5.2	PQL	mg/Kg	
	EFH (C30-C40) SG	J	6.2	10	PQL	mg/Kg	
FDG2-SL-585-NBZ-SB-0.0-0.5	EFH (C15-C20)	J	3.5	5.1	PQL	mg/Kg	J (all detects)

Data Validation Report
Santa Susana Field Laboratory
Go Backs, Subgroup FDG Block 2

SDG: PH234

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August 23, 2014

INTRODUCTION

This Data Validation Report (DVR) presents Level IV data validation results for samples collected on June 16, 2014. Data validation was performed in accordance with the Quality Assurance Project Plan (QAPP) 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 (CLPNFGs) for Superfund Organic Methods Data Review (June 2008), Polychlorinated Dioxins/Dibenzofurans Data Review (September 2005) and for Inorganic Data Review (January 2010). Where specific guidance is not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Volatiles (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260B
1,4-Dioxane by EPA SW 846 Method 8260B utilizing Selective Ion Monitoring (SIM)
Semivolatiles (SVOCs) by EPA SW 846 Method 8270D utilizing SIM
Polychlorinated Biphenyls (PCBs) by EPA SW 846 Method 8082A
Metals by EPA SW 846 Method 6010C, 6020A, and 7471B
Total Petroleum Hydrocarbons (TPH) as Gasoline by EPA SW 846 Method 8015M
TPH as Extractables with and without Silica Gel Clean Up by EPA SW 846 Method 8015M
Dioxins and Dibenzofurans by EPA Method 1613B

The sample identification and methods of analyses performed on each sample is presented in Attachment 1. Note that field sample IDs have been truncated due to database limitations. Overall data qualification summary is presented in Attachment II. Level III Automated Data Review outliers are presented in Enclosure I. Level IV DVRs are presented in Enclosure II.

All sample results were subjected to Level IV data validation, which comprises an evaluation of quality control (QC) summary results for sample holding times, initial and continuing calibrations, initial and continuing calibration blanks (ICB/CCBs), surrogates, internal standards, interference check (ICSA and ICSAB) samples, matrix spike/matrix spike duplicates (MS/MSD), laboratory duplicates (DUP), laboratory control sample/laboratory control sample duplicates (LCS/LCSD), ICP serial dilutions, method blanks, trip blanks, equipment blanks, field blanks, field duplicate samples, and the raw data to confirm sample quantitation and identification.

Automated data review was performed on all QC summary results using the Automated Data Review (ADR) software program (LDC, 2013) with exception of the initial and continuing calibrations, ICB/CCBs, interference check samples, internal standards (except dioxins), and ICP serial dilutions, which were validated manually. Quality assurance (QA)/QC criteria specified in the QAPP and CLPNFGs were incorporated with the program's reference library to assess compliance with project requirements.

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.

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 QC criteria.

II. Initial Calibration

All criteria for the initial calibration of each method were met.

III. Continuing Calibration

All criteria for the initial calibration verifications and continuing calibration of each method were met with the exception of several VOCs. The associated sample results were qualified as non-detected estimated (UJ). The details regarding the qualification of data are provided in Enclosure II.

IV. Blanks

Method blanks were performed at the required frequencies. No contaminant concentrations were detected in the method or preparation blanks with the exception of several blanks for metals, and dioxins and dibenzofurans. The associated sample results were qualified as non-detected (U) due to method blank contamination as applicable. The sample results that were not detected or were significantly greater than the concentrations found in the associated blanks were not qualified. The details regarding the qualification of data are provided in Enclosures I and II.

No contaminant concentrations were detected in the initial or continuing calibration blanks with the exception of several metals. The associated sample results were not detected or were significantly greater than the concentrations found in the associated blanks, therefore no data were qualified.

V. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the exception of one sample for PCBs, and two samples for 1,4-Dioxane. The associated sample results were qualified as detected estimated (J) or non-detected estimated (UJ) as applicable. The details regarding the qualification of data are provided in Enclosures I and II.

VI. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were performed at the required frequency. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the exception of one MS/MSD pair for VOCs, SVOCs, TPH as extractables, metals,

and dioxins and dibenzofurans. The associated sample results were qualified as detected estimated (J) or non-detected estimated (UJ) as applicable. The details regarding the qualification of data are provided in Enclosures I and II.

VIII. Laboratory Duplicates Sample

Laboratory duplicates (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

IX. 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 exception of two LCS/LCSD pairs for SVOCs and TPH as extractables. The associated sample results were qualified as detected estimated (J) or non-detected estimated (UJ) as applicable. The details regarding the qualification of data are provided in Enclosures I and II.

X. Internal Standards

All internal standard areas and retention times or percent recoveries were within QC limits.

XI. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met.

XII. Compound Quantitation

The laboratory reporting limits were evaluated. All laboratory reporting limits met the specified requirements.

All compounds reported below the RL as detected were qualified as follows:

Sample	Finding	Flag
All samples in SDG PH234	All compounds reported as detected below the RL.	J (all detects)

XIII. Field Duplicate Samples

One field duplicate pair was collected and analyzed for VOCs, 1,4-Dioxane, SVOCs, PCBs, metals, TPH as extractables with and without silica gel clean up, and dioxins and dibenzofurans. All RPDs were within QC limits with the exception of SVOCs, TPH as extractables with and without silica gel clean up, and dioxins and dibenzofurans. The associated sample results were qualified as detected estimated (J) or non-detected estimated (UJ) as applicable. The field duplicate result comparisons are provided in Enclosures I and II.

XIV. Field Blank Samples

One trip blank was collected and analyzed for TPH as gasoline. No contaminant concentrations were found in the trip blank.

One equipment blank (from SDG PH237) was collected and analyzed for VOCs, 1,4-Dioxane, SVOCs, PCBs, metals, TPH as gasoline, TPH as extractables with and without silica gel clean up, and dioxins and dibenzofurans. The equipment blank had detections for VOCs, SVOCs, metals, and dioxins and dibenzofurans. The associated sample results were qualified as non-detected (U) due to equipment blank contamination as applicable. The sample results that were not detected or were significantly greater than the concentrations found in the equipment blanks were not qualified. The equipment blank outlier reports are presented in Enclosures I and II.

One field blank (from SDG PH191) was collected and analyzed for VOCs, 1,4-Dioxane, SVOCs, PCBs, metals, TPH as gasoline, TPH as extractables with and without silica gel clean up, and dioxins and dibenzofurans. The field blank had detections for VOCs, SVOCs, metals, and dioxins and dibenzofurans. The associated sample results were qualified as non-detected (U) due to field blank contamination as applicable. The sample results that were not detected or were significantly greater than the concentrations found in the field blanks were not qualified. The field blank outlier reports are presented in Enclosures I and II.

XV. Overall Assessment of Data

No data associated with this sampling event were rejected. The overall assessment of QA/QC data review by automated and manual validation of this sampling event met project requirements and analytical completeness levels with the exceptions noted in the above sections. All data are deemed useable for the intended use.

Data flags are summarized and are presented as Attachment 2.

Attachment 1
Sample Cross Reference

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Jun-2014	TB-061614	7501186	TB	5030B	8015M	IV
16-Jun-2014	TB-061614	7501186	TB	5030B	8260B	IV
16-Jun-2014	TB-061614	7501186	TB	5030B	8260B SIM	IV
16-Jun-2014	SL-875-SA5A-SB-0.0-0.5	7501187	N	3050B	6010C	IV
16-Jun-2014	SL-875-SA5A-SB-0.0-0.5	7501187	N	3050B	6020A	IV
16-Jun-2014	SL-875-SA5A-SB-0.0-0.5	7501187	N	3546	8015M	IV
16-Jun-2014	SL-875-SA5A-SB-0.0-0.5	7501187	N	3546	8082A	IV
16-Jun-2014	SL-875-SA5A-SB-0.0-0.5	7501187	N	3546	8270D SIM	IV
16-Jun-2014	SL-875-SA5A-SB-0.0-0.5	7501187	N	METHOD	1613B	IV
16-Jun-2014	SL-875-SA5A-SB-0.0-0.5	7501187	N	METHOD	7471B	IV
16-Jun-2014	SL-875-SA5A-SB-0.0-0.5MSD	P501187M241621A	MSD	3546	8082A	IV
16-Jun-2014	SL-875-SA5A-SB-0.0-0.5MS	P501187R241602A	MS	3546	8082A	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0	7501188	N	3050B	6010C	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0	7501188	N	3050B	6020A	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0	7501188	N	3546	8015M	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0	7501188	N	3546	8082A	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0	7501188	N	3546	8270D SIM	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0	7501188	N	5035	8260B	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0	7501188	N	5035	8260B SIM	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0	7501188	N	5035A	8015M	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0	7501188	N	METHOD	1613B	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0	7501188	N	METHOD	7471B	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0MS	7501189	MS	3050B	6010C	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0MS	7501189	MS	3050B	6020A	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0MS	7501189	MS	3546	8015M	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0MS	7501189	MS	3546	8082A	IV

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0MS	7501189	MS	3546	8270D SIM	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0MS	7501189	MS	5035	8260B	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0MS	7501189	MS	5035	8260B SIM	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0MS	7501189	MS	5035A	8015M	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0MS	7501189	MS	METHOD	1613B	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0MS	7501189	MS	METHOD	7471B	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0MSD	7501190	MSD	3050B	6010C	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0MSD	7501190	MSD	3050B	6020A	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0MSD	7501190	MSD	3546	8015M	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0MSD	7501190	MSD	3546	8082A	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0MSD	7501190	MSD	3546	8270D SIM	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0MSD	7501190	MSD	5035	8260B	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0MSD	7501190	MSD	5035	8260B SIM	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0MSD	7501190	MSD	5035A	8015M	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0MSD	7501190	MSD	METHOD	1613B	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0MSD	7501190	MSD	METHOD	7471B	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0DUP	7501191	DUP	3050B	6010C	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0DUP	7501191	DUP	3050B	6020A	IV
16-Jun-2014	SL-875-SA5A-SB-2.0-3.0DUP	7501191	DUP	METHOD	7471B	IV
16-Jun-2014	SL-1175-SA5A-SB-2.0-3.0	7501194	FD	3050B	6010C	IV
16-Jun-2014	SL-1175-SA5A-SB-2.0-3.0	7501194	FD	3050B	6020A	IV
16-Jun-2014	SL-1175-SA5A-SB-2.0-3.0	7501194	FD	3546	8015M	IV
16-Jun-2014	SL-1175-SA5A-SB-2.0-3.0	7501194	FD	3546	8082A	IV
16-Jun-2014	SL-1175-SA5A-SB-2.0-3.0	7501194	FD	3546	8270D SIM	IV
16-Jun-2014	SL-1175-SA5A-SB-2.0-3.0	7501194	FD	5035	8260B	IV
16-Jun-2014	SL-1175-SA5A-SB-2.0-3.0	7501194	FD	5035	8260B SIM	IV

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Jun-2014	SL-1175-SA5A-SB-2.0-3.0	7501194	FD	5035A	8015M	IV
16-Jun-2014	SL-1175-SA5A-SB-2.0-3.0	7501194	FD	METHOD	1613B	IV
16-Jun-2014	SL-1175-SA5A-SB-2.0-3.0	7501194	FD	METHOD	7471B	IV
16-Jun-2014	SL-876-SA5A-SB-0.0-0.5	7501192	N	3546	8015M	IV
16-Jun-2014	SL-876-SA5A-SB-0.0-0.5	7501192	N	3546	8270D SIM	IV
16-Jun-2014	SL-876-SA5A-SB-4.0-5.0	7501193	N	3546	8015M	IV
16-Jun-2014	SL-876-SA5A-SB-4.0-5.0	7501193	N	3546	8270D SIM	IV
16-Jun-2014	SL-876-SA5A-SB-4.0-5.0	7501193	N	5035A	8015M	IV
16-Jun-2014	SL-876-SA5A-SB-4.0-5.0	7501193	N	METHOD	1613B	IV
16-Jun-2014	SL-877-SA5A-SB-0.0-0.5	7501195	N	3546	8015M	IV
16-Jun-2014	SL-877-SA5A-SB-0.0-0.5	7501195	N	3546	8270D SIM	IV
16-Jun-2014	SL-877-SA5A-SB-3.0-4.0	7501196	N	3546	8015M	IV
16-Jun-2014	SL-877-SA5A-SB-3.0-4.0	7501196	N	3546	8270D SIM	IV
16-Jun-2014	SL-877-SA5A-SB-3.0-4.0	7501196	N	5035A	8015M	IV
16-Jun-2014	SL-877-SA5A-SB-3.0-4.0	7501196	N	METHOD	1613B	IV

Attachment 2
Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method Category:	METALS		
Method:	6010C	Matrix:	SO

	Collected: 6/16/2014 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	
ANTIMONY	3.98	U	0.736	MDL	3.98	PQL	mg/Kg	UJ	Q	
BERYLLIUM	0.548	J	0.0666	MDL	0.995	PQL	mg/Kg	J	Z	
BORON	4.08	J	0.836	MDL	9.95	PQL	mg/Kg	U	B	
MOLYBDENUM	0.410	J	0.169	MDL	1.99	PQL	mg/Kg	U	F	
SODIUM	76.3	J	16.6	MDL	99.5	PQL	mg/Kg	J	Z	
TIN	2.42	J	0.219	MDL	9.95	PQL	mg/Kg	U	B	
Zirconium	3.05	J	0.836	MDL	4.97	PQL	mg/Kg	U	F	
LEAD	13.1		0.497	MDL	2.98	PQL	mg/Kg	J	Q, E	

	Collected: 6/16/2014 8:20:00	Analysis Type: RES	Dilution: 1							
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	3.92	U	0.725	MDL	3.92	PQL	mg/Kg	UJ	Q	
BERYLLIUM	0.455	J	0.0656	MDL	0.979	PQL	mg/Kg	J	Z	
BORON	4.21	J	0.822	MDL	9.79	PQL	mg/Kg	U	B	
LEAD	13.8		0.490	MDL	2.94	PQL	mg/Kg	J	Q, E	
MOLYBDENUM	0.478	J	0.166	MDL	1.96	PQL	mg/Kg	U	F	
SODIUM	65.1	J	16.4	MDL	97.9	PQL	mg/Kg	J	Z	
TIN	2.23	J	0.215	MDL	9.79	PQL	mg/Kg	U	B	
Zirconium	3.16	J	0.822	MDL	4.90	PQL	mg/Kg	U	F	

	Collected: 6/16/2014 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	
ANTIMONY	4.03	U	0.746	MDL	4.03	PQL	mg/Kg	UJ	Q	
BERYLLIUM	0.581	J	0.0675	MDL	1.01	PQL	mg/Kg	J	Z	
BORON	4.43	J	0.846	MDL	10.1	PQL	mg/Kg	U	B	
LEAD	10.7		0.504	MDL	3.02	PQL	mg/Kg	J	Q, E	
MOLYBDENUM	0.415	J	0.171	MDL	2.02	PQL	mg/Kg	U	F	
SODIUM	78.1	J	16.8	MDL	101	PQL	mg/Kg	J	Z	
TIN	2.61	J	0.222	MDL	10.1	PQL	mg/Kg	U	B	
Zirconium	3.03	J	0.846	MDL	5.04	PQL	mg/Kg	U	F	

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method Category: METALS
Method: 6020A **Matrix:** SO

Sample ID: FDG2-SL-1175-SA5A-SB-2.0-3.0 Collected: 6/16/2014 8:50:00 Analysis Type: REA Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.268	J	0.0995	MDL	0.398	PQL	mg/Kg	J	Z

Sample ID: FDG2-SL-1175-SA5A-SB-2.0-3.0 Collected: 6/16/2014 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
SILVER	0.0426	J	0.0259	MDL	0.199	PQL	mg/Kg	J	Z, Q
STRONTIUM	19.8		0.0676	MDL	0.398	PQL	mg/Kg	J	Q, Q, E

Sample ID: FDG2-SL-875-SA5A-SB-0.0-0.5 Collected: 6/16/2014 8:20:00 Analysis Type: REA Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.255	J	0.0979	MDL	0.392	PQL	mg/Kg	J	Z

Sample ID: FDG2-SL-875-SA5A-SB-0.0-0.5 Collected: 6/16/2014 8:20:00 Analysis Type: RES Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0370	J	0.0255	MDL	0.196	PQL	mg/Kg	J	Z, Q
STRONTIUM	25.2		0.0666	MDL	0.392	PQL	mg/Kg	J	Q, Q, E

Sample ID: FDG2-SL-875-SA5A-SB-2.0-3.0 Collected: 6/16/2014 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	0.272	J	0.101	MDL	0.403	PQL	mg/Kg	J	Z

Sample ID: FDG2-SL-875-SA5A-SB-2.0-3.0 Collected: 6/16/2014 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
SILVER	0.0425	J	0.0262	MDL	0.202	PQL	mg/Kg	J	Z, Q
STRONTIUM	22.6		0.0685	MDL	0.403	PQL	mg/Kg	J	Q, Q, E

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

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

Sample ID: FDG2-SL-1175-SA5A-SB-2.0-3.0	Collected: 6/16/2014 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
1,2,3,4,6,7,8-HPCDD	104	B	0.140	MDL	4.88	PQL	ng/Kg	J	FD
1,2,3,4,6,7,8-HPCDF	8.99	B	0.0270	MDL	4.88	PQL	ng/Kg	J	FD
1,2,3,4,7,8,9-HPCDF	0.366	JB	0.0420	MDL	4.88	PQL	ng/Kg	J	Z, FD
1,2,3,4,7,8-HxCDD	0.590	J	0.0628	MDL	4.88	PQL	ng/Kg	J	Z, FD
1,2,3,4,7,8-HxCDF	0.529	JB	0.0454	MDL	4.88	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HxCDD	2.81	JB	0.0636	MDL	4.88	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HxCDF	0.290	JBQ	0.0449	MDL	4.88	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HxCDD	1.80	JB	0.0584	MDL	4.88	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HxCDF	0.505	J	0.0379	MDL	4.88	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.257	JBQ	0.0592	MDL	4.88	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8-PECDF	0.359	JBQ	0.0372	MDL	4.88	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HxCDF	0.491	JB	0.0451	MDL	4.88	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.310	JBQ	0.0381	MDL	4.88	PQL	ng/Kg	J	Z, FD
2,3,7,8-TCDF	0.172	JQ	0.0835	MDL	0.976	PQL	ng/Kg	J	Z, FD
OCDD	2800	B	0.111	MDL	9.76	PQL	ng/Kg	J	FD
OCDF	32.0	B	0.0424	MDL	9.76	PQL	ng/Kg	J	FD

Sample ID: FDG2-SL-875-SA5A-SB-0.0-0.5	Collected: 6/16/2014 8:20:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	4.51	JB	0.0267	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.386	JB	0.0369	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.464	JQ	0.0566	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDF	0.424	JB	0.0475	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HxCDD	1.57	JB	0.0612	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HxCDF	0.298	JBQ	0.0430	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HxCDD	1.16	JB	0.0580	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HxCDF	0.331	J	0.0481	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.324	JB	0.0583	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.398	JB	0.0364	MDL	4.99	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HxCDF	0.373	JBQ	0.0443	MDL	4.99	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.406	JB	0.0350	MDL	4.99	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0601	JB	0.0593	MDL	0.997	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.138	JQ	0.0669	MDL	0.997	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

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

Sample ID: FDG2-SL-875-SA5A-SB-2.0-3.0 Collected: 6/16/2014 8:45:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	35.5	B	0.112	MDL	5.01	PQL	ng/Kg	J	FD
1,2,3,4,6,7,8-HPCDF	3.21	JB	0.0232	MDL	5.01	PQL	ng/Kg	J	Z, FD
1,2,3,4,7,8,9-HPCDF	0.114	JB	0.0339	MDL	5.01	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8-HxCDD	0.225	JQ	0.0598	MDL	5.01	PQL	ng/Kg	J	Z, FD
1,2,3,4,7,8-HxCDF	0.252	JB	0.0456	MDL	5.01	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HxCDD	1.31	JB	0.0609	MDL	5.01	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HxCDF	0.219	JBQ	0.0413	MDL	5.01	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HxCDD	1.19	JB	0.0570	MDL	5.01	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HxCDF	0.406	JQ	0.0490	MDL	5.01	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.140	JBQ	0.0590	MDL	5.01	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8-PECDF	0.251	JB	0.0336	MDL	5.01	PQL	ng/Kg	U	B
2,3,4,6,7,8-HxCDF	0.304	JBQ	0.0425	MDL	5.01	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.162	JBQ	0.0317	MDL	5.01	PQL	ng/Kg	J	Z, FD
2,3,7,8-TCDF	0.102	J	0.0812	MDL	1.00	PQL	ng/Kg	J	Z, FD
OCDD	980	B	0.0783	MDL	10.0	PQL	ng/Kg	J	Q, FD
OCDF	10.0	JB	0.0347	MDL	10.0	PQL	ng/Kg	J	Z,FD

Sample ID: FDG2-SL-876-SA5A-SB-4.0-5.0 Collected: 6/16/2014 9:45:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	0.592	JB	0.0154	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.123	JBQ	0.0269	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.193	JQ	0.0391	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDF	0.134	JBQ	0.0299	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,6,7,8-HxCDD	0.350	JBQ	0.0397	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HxCDF	0.120	JBQ	0.0274	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8,9-HxCDD	0.350	JB	0.0364	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HxCDF	0.211	J	0.0314	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.157	JBQ	0.0413	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.149	JB	0.0218	MDL	5.09	PQL	ng/Kg	U	B
2,3,4,6,7,8-HxCDF	0.149	JBQ	0.0288	MDL	5.09	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.117	JBQ	0.0208	MDL	5.09	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0631	JBQ	0.0619	MDL	1.02	PQL	ng/Kg	U	B
OCDF	1.84	JBQ	0.0411	MDL	10.2	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method Category:	SVOA	
Method:	1613B	Matrix: SO

Sample ID: FDG2-SL-877-SA5A-SB-3.0-4.0 Collected: 6/16/2014 11:10:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.38	JB	0.0527	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.322	JB	0.0168	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0376	JBQ	0.0268	MDL	4.99	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0520	J	0.0318	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDF	0.0813	JBQ	0.0221	MDL	4.99	PQL	ng/Kg	U	B
1,2,3,6,7,8-HxCDD	0.161	JBQ	0.0325	MDL	4.99	PQL	ng/Kg	U	B
1,2,3,6,7,8-HxCDF	0.0336	JBQ	0.0186	MDL	4.99	PQL	ng/Kg	U	B
1,2,3,7,8,9-HxCDD	0.144	JBQ	0.0291	MDL	4.99	PQL	ng/Kg	U	B
1,2,3,7,8,9-HxCDF	0.105	JQ	0.0240	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0588	JBQ	0.0423	MDL	4.99	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0428	JBQ	0.0242	MDL	4.99	PQL	ng/Kg	U	B
2,3,4,6,7,8-HxCDF	0.0452	JBQ	0.0201	MDL	4.99	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0261	JBQ	0.0241	MDL	4.99	PQL	ng/Kg	U	B
OCDF	1.08	JB	0.0393	MDL	9.99	PQL	ng/Kg	J	Z

Method Category:	SVOA	
Method:	8015M	Matrix: SO

Sample ID: FDG2-SL-1175-SA5A-SB-2.0-3.0 Collected: 6/16/2014 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
EFH (C21-C30)	13		2.0	MDL	5.1	PQL	mg/Kg	J	FD
EFH (C30-C40)	36		4.0	MDL	10	PQL	mg/Kg	J	FD

Sample ID: FDG2-SL-1175-SA5A-SB-2.0-3.0 Collected: 6/16/2014 8:50:00 Analysis Type: REA2 Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30) SG	3.6	J	2.0	MDL	5.1	PQL	mg/Kg	J	Z, FD
EFH (C30-C40) SG	14		4.1	MDL	10	PQL	mg/Kg	J	FD

Sample ID: FDG2-SL-875-SA5A-SB-2.0-3.0 Collected: 6/16/2014 8:45:00 Analysis Type: DL Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	33		4.1	MDL	10	PQL	mg/Kg	J	Q, FD
EFH (C30-C40)	85		8.2	MDL	20	PQL	mg/Kg	J	FD

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method Category: SVOA
Method: 8015M **Matrix:** SO

Sample ID: FDG2-SL-875-SA5A-SB-2.0-3.0 Collected: 6/16/2014 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
EFH (C21-C30) SG	26		2.1	MDL	5.1	PQL	mg/Kg	J	Q, FD
EFH (C30-C40) SG	67		4.1	MDL	10	PQL	mg/Kg	J	FD

Sample ID: FDG2-SL-877-SA5A-SB-0.0-0.5 Collected: 6/16/2014 10:55:00 Analysis Type: REA Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C12-C14) SG	5.0	U	2.0	MDL	5.0	PQL	mg/Kg	UJ	L
EFH (C15-C20) SG	5.0	U	2.0	MDL	5.0	PQL	mg/Kg	UJ	L
EFH (C21-C30) SG	5.0	U	2.0	MDL	5.0	PQL	mg/Kg	UJ	L
EFH (C30-C40) SG	10	U	4.0	MDL	10	PQL	mg/Kg	UJ	L
EFH (C8-C11) SG	5.0	U	2.0	MDL	5.0	PQL	mg/Kg	UJ	L

Method Category: SVOA
Method: 8082A **Matrix:** SO

Sample ID: FDG2-SL-875-SA5A-SB-0.0-0.5 Collected: 6/16/2014 8:20:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	9.7	J	4.4	MDL	17	PQL	ug/Kg	J	Z

Method Category: SVOA
Method: 8270D SIM **Matrix:** SO

Sample ID: FDG2-SL-1175-SA5A-SB-2.0-3.0 Collected: 6/16/2014 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
BENZO(A)PYRENE	0.81	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.68	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z, FD
BENZO(K)FLUORANTHENE	1.3	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	2.7		0.34	MDL	1.7	PQL	ug/Kg	J	L
FLUORANTHENE	1.3	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.7	U	0.68	MDL	1.7	PQL	ug/Kg	UJ	FD
PYRENE	1.0	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method Category: SVOA
Method: 8270D SIM **Matrix:** SO

Sample ID: FDG2-SL-875-SA5A-SB-0.0-0.5 Collected: 6/16/2014 8:20:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.87	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(E)PYRENE	4.0	J	3.4	MDL	17	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	15	J	6.1	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	9.0		0.34	MDL	1.7	PQL	ug/Kg	J	L
INDENO(1,2,3-CD)PYRENE	1.3	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: FDG2-SL-875-SA5A-SB-2.0-3.0 Collected: 6/16/2014 8:45:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.84	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.7	U	0.68	MDL	1.7	PQL	ug/Kg	UJ	FD
BENZO(K)FLUORANTHENE	1.5	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	2.4		0.34	MDL	1.7	PQL	ug/Kg	J	L
FLUORANTHENE	1.4	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.70	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z, FD
PYRENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: FDG2-SL-876-SA5A-SB-0.0-0.5 Collected: 6/16/2014 9:15:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	6.9	J	6.7	MDL	17	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	7.0	J	6.7	MDL	17	PQL	ug/Kg	J	Z
CHRYSENE	29		3.4	MDL	17	PQL	ug/Kg	J	L

Sample ID: FDG2-SL-876-SA5A-SB-4.0-5.0 Collected: 6/16/2014 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
CHRYSENE	0.47	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z, L

Sample ID: FDG2-SL-877-SA5A-SB-0.0-0.5 Collected: 6/16/2014 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
BENZO(A)PYRENE	0.73	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	8.3	J	6.0	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	2.2		0.33	MDL	1.7	PQL	ug/Kg	J	L

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method Category: SVOA
Method: 8270D SIM **Matrix:** SO

Sample ID: FDG2-SL-877-SA5A-SB-0.0-0.5 Collected: 6/16/2014 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
PHENANTHRENE	1.3	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: FDG2-SL-877-SA5A-SB-3.0-4.0 Collected: 6/16/2014 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
Di-n-octylphthalate	8.1	J	6.2	MDL	18	PQL	ug/Kg	J	Z

Method Category: VOA
Method: 8260B **Matrix:** AQ

Sample ID: TB-061614 Collected: 6/16/2014 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
VINYL ACETATE	10	U	2	MDL	10	PQL	ug/L	UJ	C

Method Category: VOA
Method: 8260B **Matrix:** SO

Sample ID: FDG2-SL-1175-SA5A-SB-2.0-3.0 Collected: 6/16/2014 8:50:00 Analysis Type: RES Dilution: 1.02

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMOMETHANE	5	U	2	MDL	5	PQL	ug/Kg	UJ	C
CHLOROETHANE	5	U	2	MDL	5	PQL	ug/Kg	UJ	C
DICHLORODIFLUOROMETHANE	5	U	2	MDL	5	PQL	ug/Kg	UJ	C

Sample ID: FDG2-SL-875-SA5A-SB-2.0-3.0 Collected: 6/16/2014 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
BROMOMETHANE	5	U	2	MDL	5	PQL	ug/Kg	UJ	C
CHLOROETHANE	5	U	2	MDL	5	PQL	ug/Kg	UJ	C
DICHLORODIFLUOROMETHANE	5	U	2	MDL	5	PQL	ug/Kg	UJ	C
VINYL ACETATE	10	U	2	MDL	10	PQL	ug/Kg	UJ	Q

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method Category: VOA
Method: 8260B SIM **Matrix:** SO

Sample ID: FDG2-SL-1175-SA5A-SB-2.0-3.0 Collected: 6/16/2014 8:50:00 Analysis Type: RES Dilution: 24.08

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,4-DIOXANE	15	U	4.9	MDL	15	PQL	ug/Kg	UJ	S

Sample ID: FDG2-SL-875-SA5A-SB-2.0-3.0 Collected: 6/16/2014 8:45:00 Analysis Type: RES Dilution: 26.71

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,4-DIOXANE	16	U	5.5	MDL	16	PQL	ug/Kg	UJ	S

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
B	Method Blank Contamination
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Estimation
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination
F	Field Blank Contamination
FD	Field Duplicate Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Upper Estimation
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

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Enclosure I
Level III ADR Outliers
(Including Manual Review Outliers)

Quality Control Outlier Reports

PH234

Method Blank Outlier Report

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK1700B370205	6/21/2014 2:05:00 AM	1,2,3,4,6,7,8-HPCDD 1,2,3,4,6,7,8-HPCDF 1,2,3,4,7,8,9-HPCDF 1,2,3,4,7,8-HXCDF 1,2,3,6,7,8-HXCDD 1,2,3,6,7,8-HXCDF 1,2,3,7,8,9-HXCDD 1,2,3,7,8-PECDD 1,2,3,7,8-PECDF 2,3,4,6,7,8-HXCDF 2,3,4,7,8-PECDF 2,3,7,8-TCDD OCDD OCDF	0.0853 ng/Kg 0.0561 ng/Kg 0.0335 ng/Kg 0.0457 ng/Kg 0.0329 ng/Kg 0.0297 ng/Kg 0.0404 ng/Kg 0.0524 ng/Kg 0.0517 ng/Kg 0.0358 ng/Kg 0.0235 ng/Kg 0.0713 ng/Kg 0.231 ng/Kg 0.165 ng/Kg	FDG2-SL-1175-SA5A-SB-2.0-3.0 FDG2-SL-875-SA5A-SB-0.0-0.5 FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-876-SA5A-SB-4.0-5.0 FDG2-SL-877-SA5A-SB-3.0-4.0

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

Sample ID	Analyte	Reported Result	Modified Final Result
FDG2-SL-1175-SA5A-SB-2.0-3.0(RES)	1,2,3,7,8-PECDD	0.257 ng/Kg	0.257U ng/Kg
FDG2-SL-875-SA5A-SB-0.0-0.5(RES)	2,3,7,8-TCDD	0.0601 ng/Kg	0.0601U ng/Kg
FDG2-SL-875-SA5A-SB-2.0-3.0(RES)	1,2,3,4,7,8,9-HPCDF	0.114 ng/Kg	0.114U ng/Kg
FDG2-SL-875-SA5A-SB-2.0-3.0(RES)	1,2,3,7,8-PECDD	0.140 ng/Kg	0.140U ng/Kg
FDG2-SL-875-SA5A-SB-2.0-3.0(RES)	1,2,3,7,8-PECDF	0.251 ng/Kg	0.251U ng/Kg
FDG2-SL-876-SA5A-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.123 ng/Kg	0.123U ng/Kg
FDG2-SL-876-SA5A-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.134 ng/Kg	0.134U ng/Kg
FDG2-SL-876-SA5A-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.120 ng/Kg	0.120U ng/Kg
FDG2-SL-876-SA5A-SB-4.0-5.0(RES)	1,2,3,7,8-PECDD	0.157 ng/Kg	0.157U ng/Kg
FDG2-SL-876-SA5A-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.149 ng/Kg	0.149U ng/Kg
FDG2-SL-876-SA5A-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.149 ng/Kg	0.149U ng/Kg
FDG2-SL-876-SA5A-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.117 ng/Kg	0.117U ng/Kg
FDG2-SL-876-SA5A-SB-4.0-5.0(RES)	2,3,7,8-TCDD	0.0631 ng/Kg	0.0631U ng/Kg
FDG2-SL-877-SA5A-SB-3.0-4.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0376 ng/Kg	0.0376U ng/Kg
FDG2-SL-877-SA5A-SB-3.0-4.0(RES)	1,2,3,4,7,8-HXCDF	0.0813 ng/Kg	0.0813U ng/Kg
FDG2-SL-877-SA5A-SB-3.0-4.0(RES)	1,2,3,6,7,8-HXCDD	0.161 ng/Kg	0.161U ng/Kg
FDG2-SL-877-SA5A-SB-3.0-4.0(RES)	1,2,3,6,7,8-HXCDF	0.0336 ng/Kg	0.0336U ng/Kg
FDG2-SL-877-SA5A-SB-3.0-4.0(RES)	1,2,3,7,8,9-HXCDD	0.144 ng/Kg	0.144U ng/Kg
FDG2-SL-877-SA5A-SB-3.0-4.0(RES)	1,2,3,7,8-PECDD	0.0588 ng/Kg	0.0588U ng/Kg
FDG2-SL-877-SA5A-SB-3.0-4.0(RES)	1,2,3,7,8-PECDF	0.0428 ng/Kg	0.0428U ng/Kg
FDG2-SL-877-SA5A-SB-3.0-4.0(RES)	2,3,4,6,7,8-HXCDF	0.0452 ng/Kg	0.0452U ng/Kg
FDG2-SL-877-SA5A-SB-3.0-4.0(RES)	2,3,4,7,8-PECDF	0.0261 ng/Kg	0.0261U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 6010C				
Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P16837BB221618	6/19/2014 4:18:00 PM	ALUMINUM BORON CALCIUM TIN ZINC	10.0 mg/Kg 1.76 mg/Kg 24.6 mg/Kg 1.46 mg/Kg 0.386 mg/Kg	FDG2-SL-1175-SA5A-SB-2.0-3.0 FDG2-SL-875-SA5A-SB-0.0-0.5 FDG2-SL-875-SA5A-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
FDG2-SL-1175-SA5A-SB-2.0-3.0(RES)	BORON	4.08 mg/Kg	4.08U mg/Kg
FDG2-SL-1175-SA5A-SB-2.0-3.0(RES)	TIN	2.42 mg/Kg	2.42U mg/Kg
FDG2-SL-875-SA5A-SB-0.0-0.5(RES)	BORON	4.21 mg/Kg	4.21U mg/Kg
FDG2-SL-875-SA5A-SB-0.0-0.5(RES)	TIN	2.23 mg/Kg	2.23U mg/Kg
FDG2-SL-875-SA5A-SB-2.0-3.0(RES)	BORON	4.43 mg/Kg	4.43U mg/Kg
FDG2-SL-875-SA5A-SB-2.0-3.0(RES)	TIN	2.61 mg/Kg	2.61U mg/Kg

Method: 6020A				
Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P16837BB220645A	6/19/2014 6:45:00 AM	STRONTIUM	0.134 mg/Kg	FDG2-SL-1175-SA5A-SB-2.0-3.0 FDG2-SL-875-SA5A-SB-0.0-0.5 FDG2-SL-875-SA5A-SB-2.0-3.0

Field Blank Outlier Report

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 6010C
Matrix: SO

Field Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
FB-052114(RES)	5/21/2014 2:00:00 PM	Zirconium	0.011 mg/L	FDG2-SL-1175-SA5A-SB-2.0-3.0 FDG2-SL-875-SA5A-SB-0.0-0.5 FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-876-SA5A-SB-0.0-0.5 FDG2-SL-876-SA5A-SB-4.0-5.0 FDG2-SL-877-SA5A-SB-0.0-0.5 FDG2-SL-877-SA5A-SB-3.0-4.0

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

Sample ID	Analyte	Reported Result	Modified Final Result
FDG2-SL-1175-SA5A-SB-2.0-3.0(RES)	Zirconium	3.05 mg/Kg	3.05U mg/Kg
FDG2-SL-875-SA5A-SB-0.0-0.5(RES)	Zirconium	3.16 mg/Kg	3.16U mg/Kg
FDG2-SL-875-SA5A-SB-2.0-3.0(RES)	Zirconium	3.03 mg/Kg	3.03U mg/Kg

Equipment Rinsate Blank Outlier Report

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 6010C
Matrix: SO

Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB1-061814(REA2)	6/18/2014 3:00:00 PM	BORON CADMIUM MANGANESE MOLYBDENUM	0.0061 mg/L 0.00037 mg/L 0.00085 mg/L 0.01 mg/L	FDG2-SL-1175-SA5A-SB-2.0-3.0 FDG2-SL-875-SA5A-SB-0.0-0.5 FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-876-SA5A-SB-0.0-0.5 FDG2-SL-876-SA5A-SB-4.0-5.0 FDG2-SL-877-SA5A-SB-0.0-0.5 FDG2-SL-877-SA5A-SB-3.0-4.0

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

Sample ID	Analyte	Reported Result	Modified Final Result
FDG2-SL-1175-SA5A-SB-2.0-3.0(RES)	MOLYBDENUM	0.410 mg/Kg	0.410U mg/Kg
FDG2-SL-875-SA5A-SB-0.0-0.5(RES)	MOLYBDENUM	0.478 mg/Kg	0.478U mg/Kg
FDG2-SL-875-SA5A-SB-2.0-3.0(RES)	MOLYBDENUM	0.415 mg/Kg	0.415U mg/Kg

Surrogate Outlier Report

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 8082A
Matrix: SO

Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
FDG2-SL-1175- SA5A-SB-2.0-3.0	TETRACHLORO-M-XYLENE	122	45.00-120.00	All Target Analytes	J (all detects)

Method: 8260B SIM
Matrix: SO

Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
FDG2-SL-1175- SA5A-SB-2.0-3.0	TOLUENE-D8	45	70.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
FDG2-SL-875- SA5A-SB-2.0-3.0	TOLUENE-D8	47	70.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 1613B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
FDG2-SL-875-SA5A-SB-2.0-3.0MS FDG2-SL-875-SA5A-SB-2.0-3.0MSD (FDG2-SL-875-SA5A-SB-2.0-3.0)	OCDD	232	210	40.00-135.00	-	OCDD	J (all detects)

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
FDG2-SL-875-SA5A-SB-2.0-3.0MS FDG2-SL-875-SA5A-SB-2.0-3.0MSD (FDG2-SL-875-SA5A-SB-2.0-3.0)	EFH (C12-C14) EFH (C15-C20)	- 127	126 137	49.00-123.00 49.00-123.00	- -	EFH (C12-C14) EFH (C15-C20)	J(all detects)
FDG2-SL-875-SA5A-SB-2.0-3.0MS FDG2-SL-875-SA5A-SB-2.0-3.0MSD (FDG2-SL-875-SA5A-SB-2.0-3.0)	EFH (C21-C30) EFH (C30-C40)	-71 -318	-43 -264	49.00-123.00 49.00-123.00	- 21 (20.00)	EFH (C21-C30) EFH (C30-C40)	J(all detects) R(all non-detects) EFH (C30-C40), No Qual, >4x
FDG2-SL-875-SA5A-SB-2.0-3.0MS FDG2-SL-875-SA5A-SB-2.0-3.0MSD (FDG2-SL-875-SA5A-SB-2.0-3.0)	EFH (C21-C30) SG EFH (C30-C40) SG	-82 -262	-58 -217	49.00-123.00 49.00-123.00	- 22 (20.00)	EFH (C21-C30) SG EFH (C30-C40) SG	J(all detects) R(all non-detects) EFH (C30-C40), No Qual, >4x

Method: 6010C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
FDG2-SL-875-SA5A-SB-2.0-3.0MS (TOT) FDG2-SL-875-SA5A-SB-2.0-3.0MSD (TOT) (FDG2-SL-1175-SA5A-SB-2.0-3.0 FDG2-SL-875-SA5A-SB-0.0-0.5 FDG2-SL-875-SA5A-SB-2.0-3.0)	ALUMINUM CALCIUM PHOSPHORUS TITANIUM	1032 150 - 244	806 - 151 196	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ALUMINUM CALCIUM PHOSPHORUS TITANIUM	No Qual, >4x
FDG2-SL-875-SA5A-SB-2.0-3.0MS (TOT) FDG2-SL-875-SA5A-SB-2.0-3.0MSD (TOT) (FDG2-SL-1175-SA5A-SB-2.0-3.0 FDG2-SL-875-SA5A-SB-0.0-0.5 FDG2-SL-875-SA5A-SB-2.0-3.0)	IRON MAGNESIUM	-493 -	-449 21	75.00-125.00 75.00-125.00	- -	IRON MAGNESIUM	No Qual, >4x

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

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Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 6010C

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
FDG2-SL-875-SA5A-SB-2.0-3.0MS (TOT)	ANTIMONY	47	49	75.00-125.00	-	ANTIMONY	J(all detects)
FDG2-SL-875-SA5A-SB-2.0-3.0MSD (TOT)	LEAD	132	-	75.00-125.00	28 (20.00)	LEAD	UJ(all non-detects)
(FDG2-SL-1175-SA5A-SB-2.0-3.0)	MANGANESE	73	41	75.00-125.00	-	MANGANESE	
FDG2-SL-875-SA5A-SB-0.0-0.5							Mn, No Qual, >4x
FDG2-SL-875-SA5A-SB-2.0-3.0)							

Method: 6020A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
FDG2-SL-875-SA5A-SB-2.0-3.0MS (TOT)	SILVER	128	128	75.00-125.00	-	SILVER	J(all detects)
FDG2-SL-875-SA5A-SB-2.0-3.0MSD (TOT)							
(FDG2-SL-1175-SA5A-SB-2.0-3.0)							
FDG2-SL-875-SA5A-SB-0.0-0.5							
FDG2-SL-875-SA5A-SB-2.0-3.0)							
FDG2-SL-875-SA5A-SB-2.0-3.0MS (TOT)	STRONTIUM	148	71	75.00-125.00	21 (20.00)	STRONTIUM	J(all detects)
FDG2-SL-875-SA5A-SB-2.0-3.0MSD (TOT)							UJ(all non-detects)
(FDG2-SL-1175-SA5A-SB-2.0-3.0)							
FDG2-SL-875-SA5A-SB-0.0-0.5							
FDG2-SL-875-SA5A-SB-2.0-3.0)							

Method: 8270D SIM

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
FDG2-SL-875-SA5A-SB-2.0-3.0MSD	BIS(2-ETHYLHEXYL)PHTHALAT	-	408	48.00-164.00	125 (30.00)	BIS(2-ETHYLHEXYL)PHTHALA	J(all detects)
(FDG2-SL-875-SA5A-SB-2.0-3.0)							

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 8260B

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
FDG2 -SL-875-SA5A -SB-2.0-3.0MSD (FDG2 -SL-875-SA5A -SB-2.0-3.0)	1,2,3-TRICHLOROBENZENE	-	-	10.00-140.00	40 (30.00)	1,2,3-TRICHLOROBENZENE	J(all detects)
	1,2,4-TRICHLOROBENZENE	-	-	10.00-136.00	44 (30.00)	1,2,4-TRICHLOROBENZENE	
	1,2,4-TRIMETHYLBENZENE	-	-	37.00-149.00	41 (30.00)	1,2,4-TRIMETHYLBENZENE	
	1,2-DICHLOROBENZENE	-	-	36.00-133.00	37 (30.00)	1,2-DICHLOROBENZENE	
	1,3,5-TRIMETHYLBENZENE	-	-	38.00-150.00	41 (30.00)	1,3,5-TRIMETHYLBENZENE	
	1,3-DICHLOROBENZENE	-	-	34.00-134.00	40 (30.00)	1,3-DICHLOROBENZENE	
	1,4-DICHLOROBENZENE	-	-	45.00-165.00	41 (30.00)	1,4-DICHLOROBENZENE	
	1-CHLOROHEXANE	-	-	60.00-130.00	33 (30.00)	1-CHLOROHEXANE	
	2-CHLOROTOLUENE	-	-	42.00-146.00	37 (30.00)	2-CHLOROTOLUENE	
	4-CHLOROTOLUENE	-	-	50.00-150.00	38 (30.00)	4-CHLOROTOLUENE	
	BROMOBENZENE	-	-	43.00-139.00	32 (30.00)	BROMOBENZENE	
	HEXACHLOROBUTADIENE	-	-	10.00-155.00	59 (30.00)	HEXACHLOROBUTADIENE	
	ISOPROPYLBENZENE	-	-	38.00-144.00	34 (30.00)	ISOPROPYLBENZENE	
	N-BUTYLBENZENE	-	-	40.00-140.00	54 (30.00)	N-BUTYLBENZENE	
	N-PROPYLBENZENE	-	-	50.00-150.00	41 (30.00)	N-PROPYLBENZENE	
	P-ISOPROPYLTOLUENE	-	-	29.00-152.00	48 (30.00)	P-ISOPROPYLTOLUENE	
SEC-BUTYLBENZENE	-	-	33.00-157.00	46 (30.00)	SEC-BUTYLBENZENE		
TERT-BUTYLBENZENE	-	-	41.00-152.00	39 (30.00)	TERT-BUTYLBENZENE		
FDG2 -SL-875-SA5A -SB-2.0-3.0MS FDG2 -SL-875-SA5A -SB-2.0-3.0MSD (FDG2 -SL-875-SA5A -SB-2.0-3.0)	VINYL ACETATE	11	13	21.00-139.00	-	VINYL ACETATE	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 6010C
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
FDG2-SL-875-SA5A-SB-2.0-3.0DUP (TOT) (FDG2-SL-1175-SA5A-SB-2.0-3.0 FDG2-SL-875-SA5A-SB-0.0-0.5 FDG2-SL-875-SA5A-SB-2.0-3.0)	LEAD	26	20.00	No Qual, OK by Difference

Method: 6020A
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
FDG2-SL-875-SA5A-SB-2.0-3.0DUP (TOT) (FDG2-SL-1175-SA5A-SB-2.0-3.0 FDG2-SL-875-SA5A-SB-0.0-0.5 FDG2-SL-875-SA5A-SB-2.0-3.0)	SILVER	25	20.00	No Qual OK by Difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 8015M

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P41706AQ322335A (FDG2-SL-877-SA5A-SB-0.0-0.5)	EFH (C12-C14)	22	-	76.00-115.00	-	EFH (C12-C14)	J (all detects) UJ (all non-detects)
	EFH (C15-C20)	21	-	78.00-127.00	-	EFH (C15-C20)	
	EFH (C21-C30)	21	-	77.00-127.00	-	EFH (C21-C30)	
	EFH (C30-C40)	15	-	44.00-134.00	-	EFH (C30-C40)	
	EFH (C8-C11)	21	-	60.00-115.00	-	EFH (C8-C11)	

Method: 8270D SIM

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P9LALCSQ260036 (FDG2-SL-1175-SA5A-SB-2.0-3.0 FDG2-SL-875-SA5A-SB-0.0-0.5 FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-876-SA5A-SB-0.0-0.5 FDG2-SL-876-SA5A-SB-4.0-5.0 FDG2-SL-877-SA5A-SB-0.0-0.5 FDG2-SL-877-SA5A-SB-3.0-4.0)	CHRYSENE	114	-	84.00-113.00	-	CHRYSENE	J(all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	FDG2-SL-875-SA5A-SB-2.0-3.0	FDG2-SL-1175-SA5A-SB-2.0-3.0			
MOISTURE	2.7	2.4	12		No Qualifiers Applied

Method: 1613B
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	FDG2-SL-875-SA5A-SB-2.0-3.0	FDG2-SL-1175-SA5A-SB-2.0-3.0			
1,2,3,6,7,8-HXCDF	0.219	0.290	28	50.00	No Qualifiers Applied
1,2,3,7,8,9-HXCDD	1.19	1.80	41	50.00	
1,2,3,7,8,9-HXCDF	0.406	0.505	22	50.00	
1,2,3,7,8-PECDF	0.251	0.359	35	50.00	
2,3,4,6,7,8-HXCDF	0.304	0.491	47	50.00	
1,2,3,4,6,7,8-HPCDD	35.5	104	98	50.00	J(all detects)
1,2,3,4,6,7,8-HPCDF	3.21	8.99	95	50.00	
1,2,3,4,7,8,9-HPCDF	0.114	0.366	105	50.00	
1,2,3,4,7,8-HxCDD	0.225	0.590	90	50.00	
1,2,3,4,7,8-HXCDF	0.252	0.529	71	50.00	
1,2,3,6,7,8-HXCDD	1.31	2.81	73	50.00	
1,2,3,7,8-PECDD	0.140	0.257	59	50.00	
2,3,4,7,8-PECDF	0.162	0.310	63	50.00	
2,3,7,8-TCDF	0.102	0.172	51	50.00	
OCDD	980	2800	96	50.00	
OCDF	10.0	32.0	105	50.00	

Method: 6010C
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	FDG2-SL-875-SA5A-SB-2.0-3.0 (TOT)	FDG2-SL-1175-SA5A-SB-2.0-3.0 (TOT)			
ALUMINUM	15500	14600	6	50.00	No Qualifiers Applied
ARSENIC	5.84	5.50	6	50.00	
BARIUM	107	96.4	10	50.00	
BERYLLIUM	0.581	0.548	6	50.00	
BORON	4.43	4.08	8	50.00	
CALCIUM	2270	2090	8	50.00	
CHROMIUM	19.5	18.4	6	50.00	
COBALT	4.91	4.77	3	50.00	
COPPER	11.9	11.5	3	50.00	
IRON	19400	18600	4	50.00	
LEAD	10.7	13.1	20	50.00	
LITHIUM	20.7	19.9	4	50.00	
MAGNESIUM	4140	4010	3	50.00	
MANGANESE	321	306	5	50.00	
MOLYBDENUM	0.415	0.410	1	50.00	
NICKEL	13.1	11.7	11	50.00	
PHOSPHORUS	436	467	7	50.00	
POTASSIUM	3650	3440	6	50.00	
SODIUM	78.1	76.3	2	50.00	
TIN	2.61	2.42	8	50.00	
TITANIUM	1070	1000	7	50.00	
VANADIUM	36.0	32.5	10	50.00	
ZINC	58.7	57.5	2	50.00	
Zirconium	3.03	3.05	1	50.00	

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

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Field Duplicate RPD Report

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 6020A
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	FDG2-SL-875-SA5A-SB-2.0-3.0 (TOT)	FDG2-SL-1175-SA5A-SB-2.0-3.0 (TOT)			
SELENIUM	0.272	0.268	1	50.00	No Qualifiers Applied
SILVER	0.0425	0.0426	0	50.00	
STRONTIUM	22.6	19.8	13	50.00	
THALLIUM	0.274	0.284	4	50.00	

Method: 7471B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	FDG2-SL-875-SA5A-SB-2.0-3.0 (TOT)	FDG2-SL-1175-SA5A-SB-2.0-3.0 (TOT)			
MERCURY	0.0206	0.0197	4	50.00	No Qualifiers Applied

Method: 8015M
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	FDG2-SL-875-SA5A-SB-2.0-3.0	FDG2-SL-1175-SA5A-SB-2.0-3.0			
EFH (C21-C30)	33	13	87	50.00	J(all detects)
EFH (C21-C30) SG	26	3.6	151	50.00	
EFH (C30-C40)	85	36	81	50.00	
EFH (C30-C40) SG	67	14	131	50.00	

Method: 8270D SIM
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	FDG2-SL-875-SA5A-SB-2.0-3.0	FDG2-SL-1175-SA5A-SB-2.0-3.0			
BENZO(A)PYRENE	0.84	0.81	4	50.00	No Qualifiers Applied
BENZO(B)FLUORANTHENE	2.0	2.4	18	50.00	
BENZO(K)FLUORANTHENE	1.5	1.3	14	50.00	
CHRYSENE	2.4	2.7	12	50.00	
FLUORANTHENE	1.4	1.3	7	50.00	
PYRENE	1.2	1.0	18	50.00	
BENZO(G,H,I)PERYLENE	1.7 U	0.68	200	50.00	J(all detects)
PHENANTHRENE	0.70	1.7 U	200	50.00	UJ(all non-detects)

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	FDG2-SL-875-SA5A-SB-2.0-3.0	FDG2-SL-1175-SA5A-SB-2.0-3.0			
PH	6.11	5.86	4	50.00	No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 1613B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG2-SL-1175-SA5A-SB-2.0-3.0	1,2,3,4,7,8,9-HPCDF	JB	0.366	4.88	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8-HxCDD	J	0.590	4.88	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDF	JB	0.529	4.88	PQL	ng/Kg	
	1,2,3,6,7,8-HxCDD	JB	2.81	4.88	PQL	ng/Kg	
	1,2,3,6,7,8-HxCDF	JBQ	0.290	4.88	PQL	ng/Kg	
	1,2,3,7,8,9-HxCDD	JB	1.80	4.88	PQL	ng/Kg	
	1,2,3,7,8,9-HxCDF	J	0.505	4.88	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.257	4.88	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.359	4.88	PQL	ng/Kg	
	2,3,4,6,7,8-HxCDF	JB	0.491	4.88	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.310	4.88	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.172	0.976	PQL	ng/Kg	
	FDG2-SL-875-SA5A-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	4.51	4.99	PQL	
1,2,3,4,7,8,9-HPCDF		JB	0.386	4.99	PQL	ng/Kg	
1,2,3,4,7,8-HxCDD		JQ	0.464	4.99	PQL	ng/Kg	
1,2,3,4,7,8-HxCDF		JB	0.424	4.99	PQL	ng/Kg	
1,2,3,6,7,8-HxCDD		JB	1.57	4.99	PQL	ng/Kg	
1,2,3,6,7,8-HxCDF		JBQ	0.298	4.99	PQL	ng/Kg	
1,2,3,7,8,9-HxCDD		JB	1.16	4.99	PQL	ng/Kg	
1,2,3,7,8,9-HxCDF		J	0.331	4.99	PQL	ng/Kg	
1,2,3,7,8-PECDD		JB	0.324	4.99	PQL	ng/Kg	
1,2,3,7,8-PECDF		JB	0.398	4.99	PQL	ng/Kg	
2,3,4,6,7,8-HxCDF		JBQ	0.373	4.99	PQL	ng/Kg	
2,3,4,7,8-PECDF		JB	0.406	4.99	PQL	ng/Kg	
2,3,7,8-TCDD		JB	0.0601	0.997	PQL	ng/Kg	
2,3,7,8-TCDF	JQ	0.138	0.997	PQL	ng/Kg		
FDG2-SL-875-SA5A-SB-2.0-3.0	1,2,3,4,6,7,8-HPCDF	JB	3.21	5.01	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	JB	0.114	5.01	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.225	5.01	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDF	JB	0.252	5.01	PQL	ng/Kg	
	1,2,3,6,7,8-HxCDD	JB	1.31	5.01	PQL	ng/Kg	
	1,2,3,6,7,8-HxCDF	JBQ	0.219	5.01	PQL	ng/Kg	
	1,2,3,7,8,9-HxCDD	JB	1.19	5.01	PQL	ng/Kg	
	1,2,3,7,8,9-HxCDF	JQ	0.406	5.01	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.140	5.01	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.251	5.01	PQL	ng/Kg	
	2,3,4,6,7,8-HxCDF	JBQ	0.304	5.01	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.162	5.01	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.102	1.00	PQL	ng/Kg	
OCDF	JB	10.0	10.0	PQL	ng/Kg		
FDG2-SL-876-SA5A-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDF	JB	0.592	5.09	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	JBQ	0.123	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.193	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDF	JBQ	0.134	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HxCDD	JBQ	0.350	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HxCDF	JBQ	0.120	5.09	PQL	ng/Kg	
	1,2,3,7,8,9-HxCDD	JB	0.350	5.09	PQL	ng/Kg	
	1,2,3,7,8,9-HxCDF	J	0.211	5.09	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.157	5.09	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.149	5.09	PQL	ng/Kg	
	2,3,4,6,7,8-HxCDF	JBQ	0.149	5.09	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.117	5.09	PQL	ng/Kg	
	2,3,7,8-TCDD	JBQ	0.0631	1.02	PQL	ng/Kg	
OCDF	JBQ	1.84	10.2	PQL	ng/Kg		

Reporting Limit Outliers

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 1613B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG2-SL-877-SA5A-SB-3.0-4.0	1,2,3,4,6,7,8-HPCDD	JB	3.38	4.99	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.322	4.99	PQL	ng/Kg	
	1,2,3,4,7,8-HPCDF	JBQ	0.0376	4.99	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.0520	4.99	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDF	JBQ	0.0813	4.99	PQL	ng/Kg	
	1,2,3,6,7,8-HxCDD	JBQ	0.161	4.99	PQL	ng/Kg	
	1,2,3,6,7,8-HxCDF	JBQ	0.0336	4.99	PQL	ng/Kg	
	1,2,3,7,8,9-HxCDD	JBQ	0.144	4.99	PQL	ng/Kg	
	1,2,3,7,8,9-HxCDF	JQ	0.105	4.99	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0588	4.99	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0428	4.99	PQL	ng/Kg	
	2,3,4,6,7,8-HxCDF	JBQ	0.0452	4.99	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0261	4.99	PQL	ng/Kg	
	OCDF	JB	1.08	9.99	PQL	ng/Kg	

Method: 6010C
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG2-SL-1175-SA5A-SB-2.0-3.0	BERYLLIUM	J	0.548	0.995	PQL	mg/Kg	J (all detects)
	BORON	J	4.08	9.95	PQL	mg/Kg	
	MOLYBDENUM	J	0.410	1.99	PQL	mg/Kg	
	SODIUM	J	76.3	99.5	PQL	mg/Kg	
	TIN	J	2.42	9.95	PQL	mg/Kg	
	Zirconium	J	3.05	4.97	PQL	mg/Kg	
FDG2-SL-875-SA5A-SB-0.0-0.5	BERYLLIUM	J	0.455	0.979	PQL	mg/Kg	J (all detects)
	BORON	J	4.21	9.79	PQL	mg/Kg	
	MOLYBDENUM	J	0.478	1.96	PQL	mg/Kg	
	SODIUM	J	65.1	97.9	PQL	mg/Kg	
	TIN	J	2.23	9.79	PQL	mg/Kg	
	Zirconium	J	3.16	4.90	PQL	mg/Kg	
FDG2-SL-875-SA5A-SB-2.0-3.0	BERYLLIUM	J	0.581	1.01	PQL	mg/Kg	J (all detects)
	BORON	J	4.43	10.1	PQL	mg/Kg	
	MOLYBDENUM	J	0.415	2.02	PQL	mg/Kg	
	SODIUM	J	78.1	101	PQL	mg/Kg	
	TIN	J	2.61	10.1	PQL	mg/Kg	
	Zirconium	J	3.03	5.04	PQL	mg/Kg	

Method: 6020A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG2-SL-1175-SA5A-SB-2.0-3.0	SELENIUM	J	0.268	0.398	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0426	0.199	PQL	mg/Kg	
FDG2-SL-875-SA5A-SB-0.0-0.5	SELENIUM	J	0.255	0.392	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0370	0.196	PQL	mg/Kg	
FDG2-SL-875-SA5A-SB-2.0-3.0	SELENIUM	J	0.272	0.403	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0425	0.202	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH234

Laboratory: LL

EDD Filename: PH234_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG2-SL-1175-SA5A-SB-2.0-3.0	EFH (C21-C30) SG	J	3.6	5.1	PQL	mg/Kg	J (all detects)

Method: 8082A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG2-SL-875-SA5A-SB-0.0-0.5	AROCLOR 1254	J	9.7	17	PQL	ug/Kg	J (all detects)

Method: 8270D SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG2-SL-1175-SA5A-SB-2.0-3.0	BENZO(A)PYRENE	J	0.81	1.7	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	0.68	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.3	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.3	1.7	PQL	ug/Kg	
	PYRENE	J	1.0	1.7	PQL	ug/Kg	
FDG2-SL-875-SA5A-SB-0.0-0.5	ANTHRACENE	J	0.87	1.7	PQL	ug/Kg	J (all detects)
	BENZO(E)PYRENE	J	4.0	17	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	15	18	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.3	1.7	PQL	ug/Kg	
FDG2-SL-875-SA5A-SB-2.0-3.0	BENZO(A)PYRENE	J	0.84	1.7	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	1.5	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.4	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.70	1.7	PQL	ug/Kg	
	PYRENE	J	1.2	1.7	PQL	ug/Kg	
FDG2-SL-876-SA5A-SB-0.0-0.5	BENZO(A)ANTHRACENE	J	6.9	17	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	7.0	17	PQL	ug/Kg	
FDG2-SL-876-SA5A-SB-4.0-5.0	CHRYSENE	J	0.47	1.7	PQL	ug/Kg	J (all detects)
FDG2-SL-877-SA5A-SB-0.0-0.5	BENZO(A)PYRENE	J	0.73	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.3	18	PQL	ug/Kg	
	PHENANTHRENE	J	1.3	1.7	PQL	ug/Kg	
FDG2-SL-877-SA5A-SB-3.0-4.0	Di-n-octylphthalate	J	8.1	18	PQL	ug/Kg	J (all detects)

Enclosure II

Level IV Data Validation Reports

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Santa Susana Field Laboratory
Collection Date: June 16, 2014
LDC Report Date: August 14, 2014
Matrix: Soil/Water
Parameters: Volatiles
Validation Level: Level IV
Laboratory: Eurofins
Sample Delivery Group (SDG): PH234

Sample Identification

TB-061614
FDG2-SL-875-SA5A-SB-2.0-3.0
FDG2-SL-1175-SA5A-SB-2.0-3.0
FDG2-SL-875-SA5A-SB-2.0-3.0MS
FDG2-SL-875-SA5A-SB-2.0-3.0MSD

Introduction

This data review covers 4 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 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
6/19/14	Vinyl acetate	35	All water samples in SDG PH234	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 with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
6/24/14	Dichlorodifluoromethane Bromomethane Chloroethane	27 43 47	All soil samples in SDG PH234	J (all detects) UJ (all non-detects)	A

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

Sample TB-061614 was identified as a trip blank. No volatile contaminants were found.

Sample EB1-061814 (from SDG PH237) was identified as an equipment blank. No volatile contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB1-061814	6/18/14	2-Butanone	3 ug/L	All soil samples in SDG PH234

Sample FB-052114 (from SDG PH191) was identified as a field blank. No volatile contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
FB-052114	5/21/14	Chloroform Methylene chloride	0.7 ug/L 7 ug/L	All soil samples in SDG PH234

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated field blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

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

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
FDG2-SL-875-SA5A-SB-2.0-3.0MS/MSD (FDG2-SL-875-SA5A-SB-2.0-3.0)	Vinyl acetate	11 (21-139)	13 (21-139)	-	J (all detects) UJ (all non-detects)	A
FDG2-SL-875-SA5A-SB-2.0-3.0MS/MSD (FDG2-SL-875-SA5A-SB-2.0-3.0)	1-Chlorohexane	-	-	33 (≤30)	J (all detects)	A
	Bromobenzene	-	-	32 (≤30)	J (all detects)	
	Isopropylbenzene	-	-	34 (≤30)	J (all detects)	
	n-Propylbenzene	-	-	41 (≤30)	J (all detects)	
	2-Chlorotoluene	-	-	37 (≤30)	J (all detects)	
	1,3,5-Trimethylbenzene	-	-	41 (≤30)	J (all detects)	
	4-Chlorotoluene	-	-	38 (≤30)	J (all detects)	
	1,2,4-Trimethylbenzene	-	-	41 (≤30)	J (all detects)	
	sec-Butylbenzene	-	-	46 (≤30)	J (all detects)	
	tert-Butylbenzene	-	-	39 (≤30)	J (all detects)	
	1,2-Dichlorobenzene	-	-	37 (≤30)	J (all detects)	
	1,3-Dichlorobenzene	-	-	40 (≤30)	J (all detects)	
	1,4-Dichlorobenzene	-	-	41 (≤30)	J (all detects)	
	n-Butylbenzene	-	-	54 (≤30)	J (all detects)	
	p-Isopropyltoluene	-	-	48 (≤30)	J (all detects)	
	1,2,3-Trichlorobenzene	-	-	40 (≤30)	J (all detects)	
	1,2,4-Trichlorobenzene	-	-	44 (≤30)	J (all detects)	
	Hexachlorobutadiene	-	-	59 (≤30)	J (all detects)	

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 PH234	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

Samples FDG2-SL-875-SA5A-SB-2.0-3.0 and FDG2-SL-1175-SA5A-SB-2.0-3.0 were identified as field duplicates. No volatiles were detected in any of the samples.

**Santa Susana Field Laboratory
Volatiles - Data Qualification Summary - SDG PH234**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
PH234	TB-061614	Vinyl acetate	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
PH234	FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-1175-SA5A-SB-2.0-3.0	Dichlorodifluoromethane Bromomethane Chloroethane	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
PH234	FDG2-SL-875-SA5A-SB-2.0-3.0	Vinyl acetate	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
PH234	FDG2-SL-875-SA5A-SB-2.0-3.0	1-Chlorohexane Bromobenzene Isopropylbenzene n-Propylbenzene 2-Chlorotoluene 1,3,5-Trimethylbenzene 4-Chlorotoluene 1,2,4-Trimethylbenzene sec-Butylbenzene tert-Butylbenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene n-Butylbenzene p-Isopropyltoluene 1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene Hexachlorobutadiene	J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (RPD) (Q)
PH234	TB-061614 FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-1175-SA5A-SB-2.0-3.0	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 PH234**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory
Volatiles - Field Blank Data Qualification Summary - SDG PH234**

LDC #: 32270D1a
 SDG #: PH234
 Laboratory: Eurofins

VALIDATION COMPLETENESS WORKSHEET
 Level IV

Date: 8/4/14
 Page: 1 of 1
 Reviewer: BR
 2nd Reviewer: SA

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

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

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 6/16/14
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	RSD ≤ 30% r2
IV.	Continuing calibration/ICV	SW	CCV/W ≤ 25%
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	ND	FD = 2 + 3
XVII.	Field blanks	SW	*TB = 1 EB = EB1-061814 (SDG # PH234) PH

Note: A = Acceptable
 N = Not provided/applicable
 SW = See worksheet

ND = No compounds detected
 R = Rinsate
 FB = Field blank

FB = FB-052114 (SDG # 191)
 D = Duplicate
 TB = Trip blank
 EB = Equipment blank

Validated Samples: Water + Soil

1	TB-061614	11		21		31	VBZKBU
2	FDG2-SL-875-SA5A-SB-2.0-3.0	12		22		32	VBZKY71
3	FDG2-SL-1175-SA5A-SB-2.0-3.0	13		23		33	
4	FDG2-SL-875-SA5A-SB-2.0-3.0MS	14		24		34	
5	FDG2-SL-875-SA5A-SB-2.0-3.0MSD	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	<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"/>	
II. GC/MS Instrument performance check				
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"/>	
III. Initial calibration				
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 > 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"/>	
IV. Continuing calibration				
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) ≥ 0.05 ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
V. Blanks				
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"/>	
VI. Surrogate spikes				
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"/>	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	<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"/>	
VIII. Laboratory control samples				
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?	/			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	/			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		/		
Were the performance evaluation (PE) samples within the acceptance limits?			/	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	/			
Were retention times within ± 30 seconds of the associated calibration standard?	/			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	/			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	/			
Were chromatogram peaks verified and accounted for?	/			
XII. Compound quantitation/RLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	/			
Were compound quantitation and RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			/	
Were relative intensities of the major ions within $\pm 20\%$ 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)?		/		
XIV. System performance				
System performance was found to be acceptable.	/			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	/			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.	/			
Target compounds were detected in the field duplicates.		/		
XVII. Field blanks				
Field blanks were identified in this SDG.	/			
Target compounds were detected in the field blanks.	/		/	

TARGET COMPOUND WORKSHEET

METHOD: VOA

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-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene	BB. 1,1,2,2-Tetrachloroethane	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane	CC. Toluene	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform	EE. Ethylbenzene	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Iodomethane
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO. 1,1-Difluoroethane
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

LDC #: 3227001a

VALIDATION FINDINGS WORKSHEET Field Blanks

Page: 1 of 1

Reviewer: BR

2nd Reviewer: SM

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

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

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

Blank units: ug/L Associated sample units: ug/kg

Sampling date: 6/18/14

Field blank type: (circle one) Field Blank / Rinsate / Trip Blank / Other: EB

Associated Samples: All soil (ND)

EB = EB1-061814
(SDG# PH237)

Lab: F

Compound	Blank ID	Sample Identification							
	EB								
M	3								

Blank units: ug/L Associated sample units: ug/kg

Sampling date: 5/21/14

Field blank type: (circle one) Field Blank / Rinsate / Trip Blank / Other: _____

PB = PB-052114 (SDG# PH191)

Associated Samples: All soil (ND)

Compound	Blank ID	Sample Identification							
	PB								
K	0.7								
E	7								

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Common contaminants such as Methylene chloride, Acetone, 2-Butanone and Carbon disulfide that were detected in samples within ten times the associated field blank concentration were qualified as not detected, "U". Other contaminants within five times the field blank concentration were also qualified as not detected, "U".

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

METHOD : GC/MS VOA (EPA SW 846 Method 8260B)

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

N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

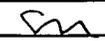
N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		<u>4/5</u>	<u>HH</u>	<u>11 (21-139)</u>	<u>13 (21-139)</u>	()	<u>2</u>	<u>See: Q</u> <u>J/HJ/A</u> <u>J det/A</u>
			<u>CCCC</u>	()	()	<u>33 (30)</u>		
			<u>WW</u>	()	()	<u>32 (30)</u>		
			<u>VV</u>	()	()	<u>34 ()</u>		
			<u>YY</u>	()	()	<u>41 ()</u>		
			<u>ZZ</u>	()	()	<u>37 ()</u>		
			<u>AAA</u>	()	()	<u>41 ()</u>		
			<u>BBB</u>	()	()	<u>38 ()</u>		
			<u>DDD</u>	()	()	<u>41 ()</u>		
			<u>EEE</u>	()	()	<u>46 ()</u>		
			<u>CC</u>	()	()	<u>39 ()</u>		
			<u>JJJ</u>	()	()	<u>37 ()</u>		
			<u>FFF</u>	()	()	<u>40 ()</u>		
			<u>HHH</u>	()	()	<u>4 ()</u>		
			<u>III</u>	()	()	<u>54 ()</u>		
			<u>GGG</u>	()	()	<u>48 ()</u>		
			<u>NNN</u>	()	()	<u>40 ()</u>		
			<u>KKK</u>	()	()	<u>44 ()</u>		
			<u>LLL</u>	()	()	<u>59 ()</u>		<u>✓</u>
			()	()	()	()		
			()	()	()	()		
			()	()	()	()		
			()	()	()	()		
			()	()	()	()		

LDC # 32270D1a

VALIDATION FINDINGS WORKSHEET
Initial Calibration Results Verification

Page: 1 of 1
 Reviewer: BR
 2nd Reviewer: 

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:

$$RRF = (A_x)(C_{is}) / (A_{is})(C_x)$$

average RRF = sum of the RRFs/number of standards

$$\%RSD = 100 * (S/X)$$

A_x = Area of Compound

C_x = Concentration of compound,

S = Standard deviation of the RRFs,

A_{is} = Area of associated internal standard

C_{is} = Concentration of internal standard

X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (50 std)	Recalculated RRF (50 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL HP09953	6/24/2014	tert-Butyl alcohol (IS1)	1.2130	1.2130	1.1556	1.1556	12	12
			Trichloroethene (IS2)	0.2457	0.2457	0.2504	0.2504	5	5
			Tetrachloroethene (IS3)	0.3769	0.3769	0.3760	0.3760	6	6
			1,1,2,2-Tetrachloroethane (IS4)	0.6541	0.6541	0.6408	0.6408	6	6

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 # 32270D1a

VALIDATION FINDINGS WORKSHEET
Initial Calibration Results Verification

Page: 1 of 1
 Reviewer: BR
 2nd Reviewer: SM

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:

$RRF = (A_x)(C_{is}) / (A_{is})(C_x)$

average RRF = sum of the RRFs/number of standards

$\%RSD = 100 * (S/X)$

A_x = Area of Compound

C_x = Concentration of compound,

S= Standard deviation of the RRFs,

A_{is} = Area of associated internal standard

C_{is} = Concentration of internal standard

X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (300 std)	Recalculated RRF (300 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL HP09953	6/24/2014	Vinyl acetate (IS1)	0.1851	0.1851	0.1905	0.1905	6	6

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 # 32270D1a

VALIDATION FINDINGS WORKSHEET
Initial Calibration Results Verification

Page: 1 of 1
 Reviewer: BR
 2nd Reviewer: 

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:

$$RRF = (A_x)(C_{is}) / (A_{is})(C_x)$$

average RRF = sum of the RRFs/number of standards

$$\%RSD = 100 * (S/X)$$

A_x = Area of Compound

C_x = Concentration of compound,

S= Standard deviation of the RRFs,

A_{is} = Area of associated internal standard

C_{is} = Concentration of internal standard

X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (100 std)	Recalculated RRF (100 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL HP09355	6/18/2014	tert-Butyl alcohol (IS1)	1.2413	1.2413	1.2052	1.2052	7	7
			Trichloroethene (IS2)	0.3365	0.03366	0.3093	0.3093	9	9
			Tetrachloroethene (IS3)	0.5414	0.5414	0.4899	0.4899	10	10
			1,1,2,2-Tetrachloroethane (IS4)	1.3163	1.3163	1.2307	1.2307	6	6

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 # 32270D1a

VALIDATION FINDINGS WORKSHEET
Initial Calibration Results Verification

Page: 1 of 1
 Reviewer: BR
 2nd Reviewer: 

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:

$$RRF = (A_x)(C_{is}) / (A_{is})(C_x)$$

average RRF = sum of the RRFs/number of standards

$$\%RSD = 100 * (S/X)$$

A_x = Area of Compound

C_x = Concentration of compound,

S= Standard deviation of the RRFs,

A_{is} = Area of associated internal standard

C_{is} = Concentration of internal standard

X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (50 std)	Recalculated RRF (50 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL HP09355	3/27/2014	Vinyl acetate (IS1)	0.7194	0.7194	0.6990	0.6990	5	5

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 Calculation Verification

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

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

Where:
 % Difference = $100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$
 RRF = $(A_x)(C_{is}) / (A_{is})(C_x)$
 Ax = Area of compound,
 ave. RRF = initial calibration average RRF
 RRF = continuing calibration RRF
 Cx = Concentration of compound,
 Ais = Area of associated internal standard
 Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (IS)	Average RRF (Initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported % D	Recalculated %D
1	bu25c01	6/25/2014	tert-Butyl alcohol (IS1)	1.1556	1.0034	1.0034	13	13
			Trichloroethene (IS2)	0.2504	0.2440	0.2440	3	3
			Tetrachloroethene (IS3)	0.3760	0.3787	0.3787	1	1
			1,1,2,2-Tetrachloroethane (IS4)	0.6408	0.6459	0.6459	1	1
2	bu25c02	6/25/2014	Vinyl acetate (IS1)	0.1905	0.2061	0.2061	8	8

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
Continuing Calibration Calculation Verification

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

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

Where:

% Difference = $100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$

$\text{RRF} = (\text{Ax})(\text{Cis}) / (\text{Ais})(\text{Cx})$

ave. RRF = initial calibration average RRF

RRF = continuing calibration RRF

Ax = Area of compound,

Cx = Concentration of compound,

Ais = Area of associated internal standard

Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (IS)	Average RRF (Initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported % D	Recalculated %D
1	yu19c01	6/19/2014	tert-Butyl alcohol (IS1)	1.2052	1.3342	1.3342	11	11
			Trichloroethene (IS2)	0.3093	0.3125	0.3125	1	1
			Tetrachloroethene (IS3)	0.4899	0.4915	0.4915	0	0
			1,1,2,2-Tetrachloroethane (IS4)	1.2307	1.2675	1.2675	3	3
2	yu19c02	6/19/2014	Vinyl acetate (IS1)	0.6990	0.4549	0.4549	35	35

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 VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: $SF/SS * 100$

Where: SF = Surrogate Found
 SS = Surrogate Spiked

Sample ID: 1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane	50	50.433	101	101	0
1,2-Dichloroethane-d4	↓	51.373	103	103	0
Toluene-d8	↓	49.311	99	99	0
Bromofluorobenzene	↓	48.508	97	97	0

Sample ID: 2

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane	50	49.813	100	100	0
1,2-Dichloroethane-d4	↓	50.631	101	101	0
Toluene-d8	↓	51.210	102	102	0
Bromofluorobenzene	↓	46.250	93	93	0

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
Matrix Spike/Matrix Spike Duplicates Results Verification

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

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

% Recovery = $100 * (SSC - SC) / SA$

Where: SSC = Spiked sample concentration
 SA = Spike added

SC = Sample concentration

RPD = $|MSC - MSC1| * 2 / (MSC + MSC1)$

MSC = Matrix spike concentration

MSC1 = Matrix spike duplicate concentration

MS/MSD sample: 415

Compound	Spike Added		Sample Concentration	Spiked Sample Concentration		Matrix Spike		Matrix Spike Duplicate		MS/MSD	
	MS	MSD		MS	MSD	Percent Recovery		Percent Recovery		RPD	
						Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
1,1-Dichloroethene	19.88	19.88	0	23.14	24.66	116	116	124	124	6	6
Trichloroethene	↓	↓	↓	20.49	23.5	103	103	118	118	14	14
Benzene	↓	↓	↓	20.8	23.51	105	105	118	118	12	12
Toluene	↓	↓	↓	20.04	24.38	101	101	122	122	20	20
Chlorobenzene	↓	↓	↓	17.53	22.38	88	88	112	112	24	24

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

LDC #: 3227006

VALIDATION FINDINGS WORKSHEET Laboratory Control Sample Results Verification

Page: 1 of 1
Reviewer: BR
2nd Reviewer: SM

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

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

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

LCS ID: LCS/0771

Compound	Spike Added (ug/L)		Spiked Sample Concentration (ug/L)		LCS		LCSD		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	Percent Recovery		Percent Recovery		RPD	
					Reported	Recalc	Reported	Recalc	Reported	Recalc
1,1-Dichloroethene	20	20	18.87	19.65	94	94	98	98	4	4
Trichloroethene	↓	↓	21.01	21.19	105	105	106	106	1	1
Benzene	↓	↓	20.64	20.92	103	103	105	105	1	1
Toluene	↓	↓	20.79	21.11	104	104	106	106	2	2
Chlorobenzene	↓	↓	20.44	20.9	102	102	105	105	2	2

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.

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Santa Susana Field Laboratory
Collection Date: June 16, 2014
LDC Report Date: August 15, 2014
Matrix: Soil/Water
Parameters: 1,4-Dioxane
Validation Level: Level IV
Laboratory: Eurofins
Sample Delivery Group (SDG): PH234

Sample Identification

TB-061614
FDG2-SL-875-SA5A-SB-2.0-3.0
FDG2-SL-1175-SA5A-SB-2.0-3.0
FDG2-SL-875-SA5A-SB-2.0-3.0MS
FDG2-SL-875-SA5A-SB-2.0-3.0MSD

Introduction

This data review covers 4 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 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-061614 was identified as a trip blank. No 1,4-dioxane was found.

Sample EB1-061814 (from SDG PH237) was identified as an equipment blank. No 1,4-dioxane was found.

Sample FB-052114 (from SDG PH191) was identified as a field 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 with the following exceptions:

Sample	Surrogate	%R (Limits)	Compound	Flag	A or P
FDG2-SL-875-SA5A-SB-2.0-3.0	Toluene-d8	47 (70-130)	1,4-Dioxane	J (all detects) UJ (all non-detects)	P
FDG2-SL-1175-SA5A-SB-2.0-3.0	Toluene-d8	45 (70-130)	1,4-Dioxane	J (all detects) UJ (all non-detects)	P

VII. Matrix Spike/Matrix Spike Duplicates

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

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 PH234	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

Samples FDG2-SL-875-SA5A-SB-2.0-3.0 and FDG2-SL-1175-SA5A-SB-2.0-3.0 were identified as field duplicates. No 1,4-dioxane was detected in any of the samples.

**Santa Susana Field Laboratory
1,4-Dioxane - Data Qualification Summary - SDG PH234**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
PH234	FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-1175-SA5A-SB-2.0-3.0	1,4-Dioxane	J (all detects) UJ (all non-detects)	P	Surrogate spikes (%R)(S)
PH234	TB-061614 FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-1175-SA5A-SB-2.0-3.0	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 PH234**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory
1,4-Dioxane - Field Blank Data Qualification Summary - SDG PH234**

No Sample Data Qualified in this SDG

LDC #: 32270D1b
 SDG #: PH234
 Laboratory: Eurofins

VALIDATION COMPLETENESS WORKSHEET
 Level IV

Date: 8/4/14
 Page: 1 of 1
 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	A	Sampling dates: 6/16/14
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	RSD ≤ 30%
IV.	Continuing calibration/ICV	A	1W/1CV ≤ 25%
V.	Blanks	A	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	ND	FD = 2 + 3
XVII.	Field blanks	ND	TB = 1 EB = EB1-061814 (SDG# PH237) FB = FB-052114 (SDG# PH191)

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 + WWA

1	TB-061614	11		21		31	VBLKE02
2	FDG2-SL-875-SA5A-SB-2.0-3.0	12		22		32	VBLKE91
3	FDG2-SL-1175-SA5A-SB-2.0-3.0	13		23		33	
4	FDG2-SL-875-SA5A-SB-2.0-3.0MS	14		24		34	
5	FDG2-SL-875-SA5A-SB-2.0-3.0MSD	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	/			
Cooler temperature criteria was met.	/			
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	/			
Were all samples analyzed within the 12 hour clock criteria?	/			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	/			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	/			
Was a curve fit used for evaluation?		/		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990 ?			/	
Were all percent relative standard deviations (%RSD) $\leq 30\%$ and relative response factors (RRF) ≥ 0.05 ?	/			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	/			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	/			
Were all percent differences (%D) $\leq 25\%$ and relative response factors (RRF) ≥ 0.05 ?	/			
V. Blanks				
Was a method blank associated with every sample in this SDG?	/			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	/			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		/		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?		/		
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?		/		
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	/			
Was a MS/MSD analyzed every 20 samples of each matrix?	/			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	/			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	/			

VALIDATION FINDINGS CHECKLIST

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	/			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	/			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		/		
Were the performance evaluation (PE) samples within the acceptance limits?			/	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	/			
Were retention times within ± 30 seconds of the associated calibration standard?	/			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	/			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	/			
Were chromatogram peaks verified and accounted for?	/			
XII. Compound quantitation/RLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	/			
Were compound quantitation and RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			/	
Were relative intensities of the major ions within $\pm 20\%$ 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)?		/		
XIV. System performance				
System performance was found to be acceptable.	/			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	/			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.	/			
Target compounds were detected in the field duplicates.		/		
XVII. Field blanks				
Field blanks were identified in this SDG.	/			
Target compounds were detected in the field blanks.		/		

TARGET COMPOUND WORKSHEET

METHOD: VOA

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-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene	BB. 1,1,2,2-Tetrachloroethane	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane	CC. Toluene	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform	EE. Ethylbenzene	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Iodomethane
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO. 1,1-Difluoroethane
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

LDC # 32270D1b

VALIDATION FINDINGS WORKSHEET
Initial Calibration Results Verification

Page: 1 of 1
 Reviewer: BR
 2nd Reviewer: 

METHOD: GC/MS 1,4-Dioxane (EPA SW 846 Method 8260B-SIM)

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

$$RRF = (A_x)(C_{is}) / (A_{is})(C_x)$$

average RRF = sum of the RRFs/number of standards

$$\%RSD = 100 * (S/X)$$

A_x = Area of Compound

C_x = Concentration of compound,

S= Standard deviation of the RRFs,

A_{is} = Area of associated internal standard

C_{is} = Concentration of internal standard

X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (10 std)	Recalculated RRF (10 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL HP15648	3/28/2014	1,4-Dioxane (IS1)	1.3211	1.3211	1.2948	1.2947	2	2

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 # 32270D1b

VALIDATION FINDINGS WORKSHEET
Initial Calibration Results Verification

Page: 1 of 1
 Reviewer: BR
 2nd Reviewer: *sm*

METHOD: GC/MS 1,4-Dioxane (EPA SW 846 Method 8260B-SIM)

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

$RRF = (A_x)(C_{is}) / (A_{is})(C_x)$

average RRF = sum of the RRFs/number of standards

$\%RSD = 100 * (S/X)$

A_x = Area of Compound

C_x = Concentration of compound,

S= Standard deviation of the RRFs,

A_{is} = Area of associated internal standard

C_{is} = Concentration of internal standard

X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (10 std)	Recalculated RRF (10 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL HP15648	6/2/2014	1,4-Dioxane (IS1)	1.2677	1.2677	1.3456	1.3456	6	6

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#: 32270D1b

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Calculation Verification

Page: 1 of 1
Reviewer: BR
2nd Reviewer: SM

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:

Where:
% Difference = $100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$ ave. RRF = initial calibration average RRF Cx = Concentration of compound,
RRF = $(Ax)(Cis) / (Ais)(Cx)$ RRF = continuing calibration RRF Ais = Area of associated internal standard
Ax = Area of compound, Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (IS)	Average RRF (Initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported % D	Recalculated %D
1	eu25c01	6/25/2014	1,4-Dioxane (IS1)	1.3465	1.3265	1.3265	1	1
2	eu17c31	6/17/2014	1,4-Dioxane (IS1)	1.2948	1.2466	1.2466	4	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

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8	10	9.883	99	99	0
Bromofluorobenzene					

Sample ID: 2

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8	110	51.322	47	47	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					

LDC #: 32270016
32770-3m

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
 Reviewer: BR
 2nd Reviewer: SM

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

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

% Recovery = 100 * (SSC - SC)/SA

Where: SSC = Spiked sample concentration
 SA = Spike added

SC = Sample concentration

RPD = |MSC - MSC| * 2/(MSC + MSCD)

MSC = Matrix spike concentration

MSCD = Matrix spike duplicate concentration

MS/MSD sample: 415

Compound	Spike Added		Sample Concentration	Spiked Sample Concentration		Matrix Spike		Matrix Spike Duplicate		MS/MSD	
	MS	MSD		MS	MSD	Percent Recovery		Percent Recovery		RPD	
						Reported	Recalc	Reported	Recalc	Reported	Recalc
1,4-Dioxane											
1,1-Dichloroethene	119.73	119.73	0	104.59	119.5	87	87	96	99.8	13	13
Trichloroethene		124.25						96			
Benzene											
Toluene											
Chlorobenzene											

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

LDC #: 32270016

VALIDATION FINDINGS WORKSHEET Laboratory Control Sample Results Verification

Page: 1 of 1
Reviewer: BR
2nd Reviewer: Sm

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

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 = $100 * \text{SSC} / \text{SA}$ Where: SSC = Spiked sample concentration
SA = Spike added

RPD = $| \text{LCS} - \text{LCSD} | * 2 / (\text{LCS} + \text{LCSD})$ LCS = Laboratory control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS ID: LCSE71/LCDE91

Compound	Spike Added		Spiked Sample Concentration		LCS		LCSD		LCS/LCSD	
	<i>(ug/L)</i>		<i>(ug/L)</i>		Percent Recovery		Percent Recovery		RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalc
1,1-Dichloroethene										
Trichloroethene										
Benzene										
Toluene										
Chlorobenzene										
1,4-Dioxane	5.00	5.00	5.15	5.23	103	103	105	105	2	1.5

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

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Santa Susana Field Laboratory
Collection Date: June 16, 2014
LDC Report Date: August 25, 2014
Matrix: Soil
Parameters: Semivolatiles
Validation Level: Level IV
Laboratory: Eurofins
Sample Delivery Group (SDG): PH234

Sample Identification

FDG2-SL-875-SA5A-SB-0.0-0.5
FDG2-SL-875-SA5A-SB-2.0-3.0
FDG2-SL-876-SA5A-SB-0.0-0.5
FDG2-SL-876-SA5A-SB-4.0-5.0
FDG2-SL-1175-SA5A-SB-2.0-3.0
FDG2-SL-877-SA5A-SB-0.0-0.5
FDG2-SL-877-SA5A-SB-3.0-4.0
FDG2-SL-875-SA5A-SB-2.0-3.0MS
FDG2-SL-875-SA5A-SB-2.0-3.0MSD

Introduction

This data review covers 9 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270D 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.
- 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.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method.

Sample EB1-061814 (from SDG PH237) was identified as an equipment blank. No semivolatile contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB1-061814	6/18/14	Di-n-butylphthalate Diethylphthalate Bis(2-ethylhexyl)phthalate 1-Methylnaphthalene 2-Methylnaphthalene Naphthalene	0.13 ug/L 0.11 ug/L 0.094 ug/L 0.011 ug/L 0.015 ug/L 0.036 ug/L	All samples in SDG PH234

Sample FB-052114 (from SDG PH191) was identified as a field blank. No semivolatile contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
FB-052114	5/21/14	Di-n-butylphthalate Bis(2-ethylhexyl)phthalate 1-Methylnaphthalene 2-Methylnaphthalene Naphthalene	0.089 ug/L 0.058 ug/L 0.022 ug/L 0.032 ug/L 0.11 ug/L	All samples in SDG PH234

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

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
FDG2-SL-875-SA5A-SB-2.0-3.0MS/MSD (FDG2-SL-875-SA5A-SB-2.0-3.0)	Bis(2-ethylhexyl)phthalate	-	408 (48-164)	125 (≤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
169LALCS	Chrysene	114 (84-113)	All samples in SDG PH234	J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation

All compound quantitation were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PH234	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

Samples FDG2-SL-875-SA5A-SB-2.0-3.0 and FDG2-SL-1175-SA5A-SB-2.0-3.0 were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD (Limits)	Flag	A or P
	FDG2-SL-875-SA5A-SB-2.0-3.0	FDG2-SL-1175-SA5A-SB-2.0-3.0			
Benzo(a)pyrene	0.84	0.81	4 (≤50)	-	-
Benzo(b)fluoranthene	2.0	2.4	18 (≤50)	-	-
Benzo(k)fluoranthene	1.5	1.3	14 (≤50)	-	-
Chrysene	2.4	2.7	12 (≤50)	-	-
Fluoranthene	1.4	1.3	7 (≤50)	-	-
Phenanthrene	0.70	1.7U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Pyrene	1.2	1.0	18 (≤50)	-	-
Benzo(g,h,i)perylene	1.7U	0.68	200 (≤50)	J (all detects) UJ (all non-detects)	A

**Santa Susana Field Laboratory
Semivolatiles - Data Qualification Summary - SDG PH234**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
PH234	FDG2-SL-875-SA5A-SB-2.0-3.0	Di-n-octylphthalate	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (Q)
PH234	FDG2-SL-875-SA5A-SB-0.0-0.5 FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-876-SA5A-SB-0.0-0.5 FDG2-SL-876-SA5A-SB-4.0-5.0 FDG2-SL-1175-SA5A-SB-2.0-3.0 FDG2-SL-877-SA5A-SB-0.0-0.5 FDG2-SL-877-SA5A-SB-3.0-4.0	Chrysene	J (all detects)	P	Laboratory control samples (%R) (L)
PH234	FDG2-SL-875-SA5A-SB-0.0-0.5 FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-876-SA5A-SB-0.0-0.5 FDG2-SL-876-SA5A-SB-4.0-5.0 FDG2-SL-1175-SA5A-SB-2.0-3.0 FDG2-SL-877-SA5A-SB-0.0-0.5 FDG2-SL-877-SA5A-SB-3.0-4.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)
PH234	FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-1175-SA5A-SB-2.0-3.0	Phenanthrene Benzo(g,h,i)perylene	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

**Santa Susana Field Laboratory
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG PH234**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG PH234**

No Sample Data Qualified in this SDG

METHOD: GC/MS Polynuclear Aromatic Hydrocarbons (EPA SW 846 Method 8270C-SIM)
 SVOCs

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: 6/16/14
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	RSD ≤ 30%
IV.	Continuing calibration/ICV	A	ICV (CV = 25)
V.	Blanks	A	
VI.	Surrogate spikes	A 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	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	FD = 2 + 5
XVII.	Field blanks	SW	EB = EB1-061814 (SDG # PH237)

Note: A = Acceptable
 N = Not provided/applicable
 SW = See worksheet

ND = No compounds detected
 R = Rinsate
 FB = Field blank

FB = FB-052114 (SDG # PH191)
 D = Duplicate
 TB = Trip blank
 EB = Equipment blank

Validated Samples: Soil

1	FDG2-SL-875-SA5A-SB-0.0-0.5	11		21		31	SBLKLA169
2	FDG2-SL-875-SA5A-SB-2.0-3.0	12		22		32	
3	FDG2-SL-876-SA5A-SB-0.0-0.5	13		23		33	
4	FDG2-SL-876-SA5A-SB-4.0-5.0	14		24		34	
5	FDG2-SL-1175-SA5A-SB-2.0-3.0	15		25		35	
6	FDG2-SL-877-SA5A-SB-0.0-0.5	16		26		36	
7	FDG2-SL-877-SA5A-SB-3.0-4.0	17		27		37	
8	FDG2-SL-875-SA5A-SB-2.0-3.0MS	18		28		38	
9	FDG2-SL-875-SA5A-SB-2.0-3.0MSD	19		29		39	
10		20		30		40	

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	/			
Cooler temperature criteria was met.	/			
II. GC/MS Instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	/			
Were all samples analyzed within the 12 hour clock criteria?	/			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	/			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	/			
Was a curve fit used for evaluation?		/		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990 ?			/	
Were all percent relative standard deviations (%RSD) $\leq 30\%$ 15% and relative response factors (RRF) ≥ 0.05 ? <i>25</i>	/			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	/			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	/			
Were all percent differences (%D) $\leq 20\%$ 20% and relative response factors (RRF) ≥ 0.05 ? <i>25</i>	/			
V. Blanks				
Was a method blank associated with every sample in this SDG?	/			
Was a method blank analyzed for each matrix and concentration?	/			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		/		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	/			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			/	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			/	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	/			
Was a MS/MSD analyzed every 20 samples of each matrix?	/			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		/		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	/			

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	/			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		/		
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		/		
Were the performance evaluation (PE) samples within the acceptance limits?			/	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	/			
Were retention times within + 30 seconds from the associated calibration standard?	/			
XI. Target compound identification				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	/			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	/			
Were chromatogram peaks verified and accounted for?	/			
XII. Compound quantitation/RLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	/			
Were compound quantitation and RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			/	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			/	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?		/		
XIV. System performance				
System performance was found to be acceptable.	/			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	/			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.	/			
Target compounds were detected in the field duplicates.	/			
XVII. Field blanks				
Field blanks were identified in this SDG.	/			
Target compounds were detected in the field blanks.	/			

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS SVOA

A. Phenol	T. 4-Chloroaniline	MM. 4-Chlorophenyl-phenyl ether	FFF. Di-n-octylphthalate	YYY. 2,3,5-Trimethylnaphthalene
B. Bis (2-chloroethyl) ether	U. Hexachlorobutadiene	NN. Fluorene	GGG. Benzo(b)fluoranthene	ZZZ. Perylene
C. 2-Chlorophenol	V. 4-Chloro-3-methylphenol	OO. 4-Nitroaniline	HHH. Benzo(k)fluoranthene	AAAA. Dibenzothiophene
D. 1,3-Dichlorobenzene	W. 2-Methylnaphthalene	PP. 4,6-Dinitro-2-methylphenol	III. Benzo(a)pyrene	BBBB. Benzo(a)fluoranthene
E. 1,4-Dichlorobenzene	X. Hexachlorocyclopentadiene	QQ. N-Nitrosodiphenylamine	JJJ. Indeno(1,2,3-cd)pyrene	CCCC. Benzo(b)fluorene
F. 1,2-Dichlorobenzene	Y. 2,4,6-Trichlorophenol	RR. 4-Bromophenyl-phenylether	KKK. Dibenz(a,h)anthracene	DDDD. cis/trans-Decalin
G. 2-Methylphenol	Z. 2,4,5-Trichlorophenol	SS. Hexachlorobenzene	LLL. Benzo(g,h,i)perylene	EEEE. Biphenyl
H. 2,2'-Oxybis(1-chloropropane)	AA. 2-Chloronaphthalene	TT. Pentachlorophenol	MMM. Bis(2-Chloroisopropyl)ether	FFFF. Retene
I. 4-Methylphenol	BB. 2-Nitroaniline	UU. Phenanthrene	NNN. Aniline	GGGG. C30-Hopane
J. N-Nitroso-di-n-propylamine	CC. Dimethylphthalate	VV. Anthracene	OOO. N-Nitrosodimethylamine	HHHH. 1-Methylphenanthrene
K. Hexachloroethane	DD. Acenaphthylene	WW. Carbazole	PPP. Benzoic Acid	IIII. 1,4-Dioxane
L. Nitrobenzene	EE. 2,6-Dinitrotoluene	XX. Di-n-butylphthalate	QQQ. Benzyl alcohol	JJJJ. Acetophenone
M. Isophorone	FF. 3-Nitroaniline	YY. Fluoranthene	RRR. Pyridine	KKKK. Atrazine
N. 2-Nitrophenol	GG. Acenaphthene	ZZ. Pyrene	SSS. Benzidine	LLLL. Benzaldehyde
O. 2,4-Dimethylphenol	HH. 2,4-Dinitrophenol	AAA. Butylbenzylphthalate	TTT. 1-Methylnaphthalene	MMMM. Caprolactam
P. Bis(2-chloroethoxy)methane	II. 4-Nitrophenol	BBB. 3,3'-Dichlorobenzidine	UUU. Benzo(b)thiophene	NNNN.
Q. 2,4-Dichlorophenol	JJ. Dibenzofuran	CCC. Benzo(a)anthracene	VVV. Benzonaphthothiophene	OOOO.
R. 1,2,4-Trichlorobenzene	KK. 2,4-Dinitrotoluene	DDD. Chrysene	WWW. Benzo(e)pyrene	PPPP.
S. Naphthalene	LL. Diethylphthalate	EEE. Bis(2-ethylhexyl)phthalate	XXX. 2,6-Dimethylnaphthalene	QQQQ.

VALIDATION FINDINGS WORKSHEET
Field Blanks

METHOD: GC/MS BNA (EPA SW 846 Method 8270D)

Y/N/N/A Were field blanks identified in this SDG?
Y/N/N/A Were target compounds detected in the field blanks?

EB = EB1-061814
SD6 # PH237

Code: F

Blank units: ug/L Associated sample units: ug/L

Sampling date: 6/18/14

Field blank type: (circle one) Field Blank / Rinsate / Other EB Associated Samples: AU (ND + 75X)

Compound	Blank ID	Sample Identification							
	<u>EB</u>								
<u>XX</u>	<u>0.13</u>								
<u>LL</u>	<u>0.11</u>								
<u>EEE</u>	<u>0.094</u>								
<u>TTT</u>	<u>0.011</u>								
<u>W</u>	<u>0.015</u>								
<u>S</u>	<u>0.036</u>								

Blank units: ug/L Associated sample units: ug/L

FB = FB-052114 (SD6 # PH191)

Code: F

Sampling date: 5/21/14

Field blank type: (circle one) Field Blank / Rinsate / Other: _____ Associated Samples: AU (ND + 75X)

Compound	Blank ID	Sample Identification							
	<u>FB</u>								
<u>XX</u>	<u>0.089</u>								
<u>EEE</u>	<u>0.058</u>								
<u>TTT</u>	<u>0.022</u>								
<u>W</u>	<u>0.032</u>								
<u>S</u>	<u>0.11</u>								

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

Common contaminants such as the phthalates and TICs noted above that were detected in samples within ten times the associated field blank concentration were qualified as not detected, "U". Other contaminants within five times the field blank concentration were also qualified as not detected, "U".

LDC #: 32270D2b

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
 Reviewer: BR
 2nd Reviewer: SM

METHOD: GC/MS SVOA (EPA SW 846 Method 8270DSIM)

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

$$RRF = (A_x)(C_{is}) / (A_{is})(C_x)$$

average RRF = sum of the RRFs/number of standards

$$\%RSD = 100 * (S/X)$$

A_x = Area of Compound

C_x = Concentration of compound,

S = Standard deviation of the RRFs,

A_{is} = Area of associated internal standard

C_{is} = Concentration of internal standard

X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (1 std)	Recalculated RRF (1 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	HP10976	5/26/2014	N-Nitrosodimethylamine (IS1)	0.955	0.955	0.934	0.934	2	2
			Naphthalene (IS2)	1.038	1.038	1.040	1.040	2	2
			Fluorene (IS3)	1.251	1.251	1.228	1.228	2	2
			Anthracene (IS4)	1.104	1.104	1.087	1.087	3	3
			Chrysene (IS5)	1.092	1.092	1.089	1.089	2	2
			Benzo(a)pyrene (IS6)	1.131	1.131	1.086	1.086	3	3

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 SVOA (EPA SW 846 Method 8270DSIM)

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:

$$\% \text{ Difference} = 100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$$

$$\text{RRF} = (\text{Ax})(\text{Cis}) / (\text{Ais})(\text{Cx})$$

Where:

ave. RRF = initial calibration average RRF

RRF = continuing calibration RRF

Ax = Area of compound

Cx = Concentration of compound

Ais = Area of associated internal standard

Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (IS)	Average RRF (Initial RRF)	Reported (CC RRF)	Recalculated (CC RRF)	Reported %D	Recalculated %D
1	if0501	06/23/14	N-Nitrosodimethylamine (IS1)	0.934	1.124	1.124	20	20
			Naphthalene (IS2)	1.040	1.066	1.066	3	2.5
			Fluorene (IS3)	1.228	1.275	1.275	4	4
			Anthracene (IS4)	1.087	1.111	1.111	2	2
			Chrysene (IS5)	1.089	1.133	1.133	4	4
			Benzo(a)pyrene (IS6)	1.086	1.119	1.119	3	3

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
Continuing Calibration Results Verification

METHOD: GC/MS SVOA (EPA SW 846 Method 8270DSIM)

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:

$$\% \text{ Difference} = 100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$$

$$\text{RRF} = (\text{Ax})(\text{Cis}) / (\text{Ais})(\text{Cx})$$

Where:

ave. RRF = initial calibration average RRF

RRF = continuing calibration RRF

Ax = Area of compound

Cx = Concentration of compound

Ais = Area of associated internal standard

Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (IS)	Average RRF (Initial RRF)	Reported (CC RRF)	Recalculated (CC RRF)	Reported %D	Recalculated %D
2	if0541	06/25/14	N-Nitrosodimethylamine (IS1)	0.934	1.081	1.081	16	16
			Naphthalene (IS2)	1.040	1.050	1.050	1	1
			Fluorene (IS3)	1.228	1.283	1.283	4	4
			Anthracene (IS4)	1.087	1.121	1.121	3	3
			Chrysene (IS5)	1.089	1.116	1.116	2	2
			Benzo(a)pyrene (IS6)	1.086	1.113	1.113	2	2

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
Continuing Calibration Results Verification

METHOD: GC/MS SVOA (EPA SW 846 Method 8270DSIM)

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:

$$\% \text{ Difference} = 100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$$

$$\text{RRF} = (\text{Ax})(\text{Cis}) / (\text{Ais})(\text{Cx})$$

Where:

ave. RRF = initial calibration average RRF

RRF = continuing calibration RRF

Ax = Area of compound

Cx = Concentration of compound

Ais = Area of associated internal standard

Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (IS)	Average RRF (Initial RRF)	Reported (CC RRF)	Recalculated (CC RRF)	Reported %D	Recalculated %D
3	if2581	06/26/14	N-Nitrosodimethylamine (IS1)	0.934	1.110	1.110	19	19
			Naphthalene (IS2)	1.040	1.068	1.068	3	3
			Fluorene (IS3)	1.228	1.302	1.302	6	6
			Anthracene (IS4)	1.087	1.115	1.115	3	3
			Chrysene (IS5)	1.089	1.105	1.105	2	2
			Benzo(a)pyrene (IS6)	1.086	1.110	1.110	2	2

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 #: 32270024

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page 1 of 1
 Reviewer: BR
 2nd Reviewer: sm

METHOD: GC/MS Semivolatiles (EPA Method 8270D)

The percent recoveries (%R) of surrogate compounds were recalculated for the compounds identified below using the following calculation:

%Recovery: SF/SS * 100

Where: SF = Surrogate Found
 SS = Surrogate Spiked

Sample ID: 1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Fluoranthene-d10	1.500	1.027	102	103	0
Benzo(a)pyrene-d12	↓	1.278	108	108	0
1-Methylnaphthalene-d10	↓	0.916	92	92	0

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Fluoranthene-d10					
Benzo(a)pyrene-d12					
1-Methylnaphthalene-d10					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Fluoranthene-d10					
Benzo(a)pyrene-d12					
1-Methylnaphthalene-d10					

VALIDATION FINDINGS WORKSHEET Matrix Spike/Matrix Spike Duplicates Results Verification

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

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

% Recovery = $100 * (SSC - SC) / SA$

Where: SSC = Spiked sample concentration
SA = Spike added

SC = Sample concentration

RPD = $100 * (MSC - MSC1) / (MSC + MSC1)$

MSC = Matrix spike concentration

MSC1 = Matrix spike duplicate concentration

MS/MSD samples: 8/9

Compound	Spike Added		Sample Concentration	Spiked Sample Concentration		Matrix Spike		Matrix Spike Duplicate		MS/MSD	
	MS	MSD		MS	MSD	Percent Recovery		Percent Recovery		RPD	
						Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
Phenol											
N-Nitroso-di-n-propylamine											
4-Chloro-3-methylphenol											
Acenaphthene	32.89	33.33	0	29.51	30.45	90	90	91	91	3	3.1
Pentachlorophenol											
Pyrene	32.89	33.33	1.16	29.98	37.62	88	88	109	109	23	22.2

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

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

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

% Recovery = 100 * (SC/SA)

Where: SSC = Spike concentration
 SA = Spike added

RPD = | LCS - LCSD | * 2 / (LCS + LCSD)

LCS = Laboratory control sample percent recovery

LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: 169LALCS

Compound	Spike Added		Spike Concentration		LCS		LCSD		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	Percent Recovery		Percent Recovery		RPD	
					Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
Phenol										
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene	33.33	—	37.14	—	111	111				
Pentachlorophenol										
Pyrene	33.33	—	34.3	—	103	103				

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.

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Santa Susana Field Laboratory
Collection Date: June 16, 2014
LDC Report Date: August 14, 2014
Matrix: Soil
Parameters: Polychlorinated Biphenyls
Validation Level: Level IV
Laboratory: Eurofins
Sample Delivery Group (SDG): PH234

Sample Identification

FDG2-SL-875-SA5A-SB-0.0-0.5
FDG2-SL-875-SA5A-SB-2.0-3.0
FDG2-SL-1175-SA5A-SB-2.0-3.0
FDG2-SL-875-SA5A-SB-2.0-3.0MS
FDG2-SL-875-SA5A-SB-2.0-3.0MSD
FDG2-SL-875-SA5A-SB-0.0-0.5MS
FDG2-SL-875-SA5A-SB-0.0-0.5MSD

Introduction

This data review covers 7 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082A 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.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- NJ Presumptive evidence of presence of the compound at an estimated quantity.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

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

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

Sample EB1-061814 (from SDG PH237) was identified as an equipment blank. No polychlorinated biphenyl contaminants were found.

Sample FB-052114 (from SDG PH191) was identified as a field blank. No polychlorinated biphenyl contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Column	Surrogate	%R (Limits)	Compound	Flag	A or P
FDG2-SL-1175-SA5A-SB-2.0-3.0	ZB MR2	Tetrachloro-m-xylene	122 (45-120)	All TCL compounds	J (all detects)	P
PBLK17175	ZB MR2	Tetrachloro-m-xylene	125 (45-120)	All TCL compounds	J (all detects)	P

VII. Matrix Spike/Matrix Spike Duplicates

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

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

All compound quantitations were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PH234	All compounds reported below the RL.	J (all detects)	A

XIV. Overall Assessment of Data

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

XV. Field Duplicates

Samples FDG2-SL-875-SA5A-SB-2.0-3.0 and FDG2-SL-1175-SA5A-SB-2.0-3.0 were identified as field duplicates. No polychlorinated biphenyls were detected in any of the samples.

**Santa Susana Field Laboratory
Polychlorinated Biphenyls - Data Qualification Summary - SDG PH234**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
PH234	FDG2-SL-1175-SA5A-SB-2.0-3.0	All TCL compounds	J (all detects)	P	Surrogate spikes (%R) (S)
PH234	FDG2-SL-875-SA5A-SB-0.0-0.5 FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-1175-SA5A-SB-2.0-3.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)

**Santa Susana Field Laboratory
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG PH234**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG PH234**

No Sample Data Qualified in this SDG

METHOD: GC Polychlorinated Biphenyls (EPA SW 846 Method 8082A)

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: 6/16/14
II.	GC Instrument Performance Check	N	
III.	Initial calibration	A	≤ 20
IV.	Continuing calibration/ICV	A	CCV/ICV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS/LCSD
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	A	
XIII.	Compound quantitation/RL/LOQ/LODs	A	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	ND	D=2+3
XVI.	Field blanks	ND	EB=EB1-061814 (PH 237)

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

FB=FB-052114 (PH 191)

Validated Samples: *Soil*

1	2	FDG2-SL-875-SA5A-SB-0.0-0.5	11		21		31
2	1	FDG2-SL-875-SA5A-SB-2.0-3.0	12		22		32
3	1	FDG2-SL-1175-SA5A-SB-2.0-3.0	13		23		33
4	1	FDG2-SL-875-SA5A-SB-2.0-3.0MS	14		24		34
5	1	FDG2-SL-875-SA5A-SB-2.0-3.0MSD	15		25		35
6	2	#1MS	16		26		36
7	2	#1MSD	17		27		37
8			18		28		38
9			19	PBLK 09172	29		39
10			20	PBLK 17175	30		40

Notes: _____

Method: Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	/			
Cooler temperature criteria was met.	/			
II. GC/ECD Instrument performance check				
Was the instrument performance found to be acceptable?			/	
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	/			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) \leq 20%?	/			
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?		/		
Did the initial calibration meet the curve fit acceptance criteria?			/	
Were the RT windows properly established?	/			
Were the required standard concentrations analyzed in the initial calibration?	/			
IV. Continuing calibration				
Were Evaluation mix standards analyzed prior to the initial calibration and sample analysis?			/	
Were endrin and 4,4'-DDT breakdowns \leq 15%.0 for individual breakdown in the Evaluation mix standards?			/	
Was a continuing calibration analyzed daily?	/			
Were all percent differences (%D) \leq 20%.0?	/			
Were all the retention times within the acceptance windows?	/			
V. Blanks				
Was a method blank associated with every sample in this SDG?	/			
Was a method blank analyzed for each matrix and concentration?	/			
Were extract cleanup blanks analyzed with every batch requiring clean-up?			/	
Was there contamination in the method blanks or clean-up blanks? If yes, please see the Blanks validation completeness worksheet.		/		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?		/		
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?		/		
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			/	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	/			

VALIDATION FINDINGS CHECKLIST

Validation Area	Yes	No	NA	Findings/Comments
Was a MS/MSD analyzed every 20 samples of each matrix?	/			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	/			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	/			
Was an LCS analyzed per extraction batch?	/			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	/			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		/		
Were the performance evaluation (PE) samples within the acceptance limits?			/	
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, dry weight factors, and clean-up activities 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 (EPA SW 846 Method 8081/8082)

A. alpha-BHC	I. Dieldrin	Q. Endrin ketone	Y. Aroclor-1242	GG. Chlordane
B. beta-BHC	J. 4,4'-DDE	R. Endrin aldehyde	Z. Aroclor-1248	HH. Chlordane (Technical)
C. delta-BHC	K. Endrin	S. alpha-Chlordane	AA. Aroclor-1254	II. oxy-Chlordane
D. gamma-BHC	L. Endosulfan II	T. gamma-Chlordane	BB. Aroclor-1260	JJ. Mirex
E. Heptachlor	M. 4,4'-DDD	U. Toxaphene	CC. 2,4'-DDD	KK.
F. Aldrin	N. Endosulfan sulfate	V. Aroclor-1016	DD. 2,4'-DDE	LL.
G. Heptachlor epoxide	O. 4,4'-DDT	W. Aroclor-1221	EE. 2,4'-DDT	MM.
H. Endosulfan I	P. Methoxychlor	X. Aroclor-1232	FF. Hexachlorobenzene	NN.

Notes: _____

VALIDATION FINDINGS WORKSHEET
Surrogate Spikes

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081A/8082A)

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

- N N/A Were surrogates spiked into all samples, standards and blanks?
- Y N N/A Were all DCB surrogate recoveries within advisory QC limits on each column.

Level IV/D ONLY

- Y N N/A Were surrogate retention times (RTs) on each column within the established RT windows for all samples, standards and blanks?

#	Date	Lab ID/Reference	Column	Surrogate %R (Limits:)		Associated Samples	Qualifications	Code
				TCMX	DCB			
			ZB MR2	122(45-120)		3	Idets/P	(S)
			↓	125(45-120)		PBLK17175	↓	

TCX = Tetrachloro-m-xylene
 DCB = Decachlorobiphenyl

Comments: _____

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

The calibration factors (CF) and relative standard deviation (%RSD) were recalculated using the following calculations:

CF = A/C
 Average CF = sum of the CF/number of standards
 %RSD = 100 * (S/X)

Where: A = Area of compound
 C = Concentration of compound
 S = Standard deviation of calibration factors
 X = Mean of calibration factors

#	Standard ID	Calibration Date	Compound	Reported	Recalculated	Reported	Recalculated	Reported	Recalculated
				CF (<u>3</u> std)	CF (<u>3</u> std)	CF (initial)	CF (initial)	%RSD	%RSD
1	07PCTS	6-22-14	AR1260(i) (ZB MR1)	2304	2304	2364	2363.4	8	8
	1417301		(ZB MR2)	2691	2691	2732	2731.6	9	9
	(19843A/B)								
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

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

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 (%D) = $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$
 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/Time	Compound	Average CF/ CCV <u>Conc</u>	Reported	Recalculated	Reported	Recalculated
				CF/ <u>Conc</u> CCV	CF/ <u>Conc</u> CCV	%D	%D
07PCTS 14173001.0006	6-23-14 16:51	AR1260 (ZB MR1)	200.00	207.72	207.71	4	4
		(ZB MR2)	200.00	210.35	210.35	5	5
07PCTS 14173003.0005	6-25-14 12:58	AR1260 (ZB MR1)	200.00	201.96	201.94	1	1
		(ZB MR2)	200.00	204.49	204.49	2	2

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 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 * 100

Where: SF = Surrogate Found
 SS = Surrogate Spiked

Sample ID: 1

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetrachloro-m-xylene	ZBMR1	10.000	11.4203	114	114	0
Decachlorobiphenyl	↓	↓	10.1158	100	101	1
Tetrachloro-m-xylene	ZBMR2	↓	11.9963	120	120	0
Decachlorobiphenyl	↓	↓	9.9565	99	99.6	0.6

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetrachloro-m-xylene						
Decachlorobiphenyl						
Tetrachloro-m-xylene						
Decachlorobiphenyl						

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetrachloro-m-xylene						
Decachlorobiphenyl						
Tetrachloro-m-xylene						
Decachlorobiphenyl						

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetrachloro-m-xylene						
Decachlorobiphenyl						
Tetrachloro-m-xylene						
Decachlorobiphenyl						

Notes: _____

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

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

% Recovery = 100 * (SSC-SC)/SA

Where: SSC = Spiked sample concentration
 SA = Spike added

SC = Concentration

RPD = | SSCMS - SSCMSD | * 2 / (SSCMS + SSCMSD)

MS = Matrix spike percent recovery

MSD = Matrix spike duplicate percent recovery

MS/MSD samples: 4/5

Compound	Spike Added (mg/Kg)		Sample Concentration (mg/Kg)	Spiked Sample Concentration (mg/Kg)		Matrix Spike		Matrix Spike Duplicate		MS/MSD	
	MS	MSD		MS	MSD	Percent Recovery		Percent Recovery		RPD	
						Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
gamma-BHC			--								
4,4'-DDT											
Aroclor 1260	165	165	ND	167.66	185	102	102	112	112	10	10

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

LDC # 32270D36

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

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

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:

% Recovery = 100 * (SSC-SC)/SA

Where: SSC = Spiked sample concentration
 SA = Spike added

SC = Concentration

RPD = | LCS - LCSD | * 2 / (LCS + LCSD)

LCS = Laboratory control sample percent recovery

LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS 09172

Compound	Spike Added (µg/kg)		Spiked Sample Concentration (µg/kg)		LCS		LCSD		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	Percent Recovery		Percent Recovery		RPD	
					Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
gamma-BHC										
4,4'-DDT										
Aroclor 1260	167	NA	176.37	NA	106	106				

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.

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Santa Susana Field Laboratory
Collection Date: June 16, 2014
LDC Report Date: August 19, 2014
Matrix: Soil
Parameters: Metals
Validation Level: Level IV
Laboratory: Eurofins
Sample Delivery Group (SDG): PH234

Sample Identification

FDG2-SL-875-SA5A-SB-0.0-0.5
FDG2-SL-875-SA5A-SB-2.0-3.0
FDG2-SL-1175-SA5A-SB-2.0-3.0
FDG2-SL-875-SA5A-SB-2.0-3.0MS
FDG2-SL-875-SA5A-SB-2.0-3.0MSD
FDG2-SL-875-SA5A-SB-2.0-3.0DUP

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 Methods 6010C, 6020A, and 7471A for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, 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.
- 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

The initial and continuing calibrations were performed at the required frequency.

The calibration standards criteria 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 Tin Zinc Strontium	10.0 mg/Kg 1.76 mg/Kg 24.6 mg/Kg 1.46 mg/Kg 0.386 mg/Kg 0.134 mg/Kg	All samples in SDG PH234
ICB/CCB	Copper	2.1 ug/L	All samples in SDG PH234
ICB/CCB	Aluminum Phosphorus	4.1 ug/L 2.6 ug/L	FDG2-SL-875-SA5A-SB-0.0-0.5 FDG2-SL-1175-SA5A-SB-2.0-3.0

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
FDG2-SL-875-SA5A-SB-0.0-0.5	Boron Tin	4.21 mg/Kg 2.23 mg/Kg	4.21U mg/Kg 2.23U mg/Kg

Sample	Analyte	Reported Concentration	Modified Final Concentration
FDG2-SL-875-SA5A-SB-2.0-3.0	Boron Tin	4.43 mg/Kg 2.61 mg/Kg	4.43U mg/Kg 2.61U mg/Kg
FDG2-SL-1175-SA5A-SB-2.0-3.0	Boron Tin	4.08 mg/Kg 2.42 mg/Kg	4.08U mg/Kg 2.42U mg/Kg

Sample EB1-061814 (from PH237) was identified as an equipment blank. No metal contaminants were found with the following exceptions:

Blank ID	Sampling Date	Analyte	Concentration	Associated Samples
EB1061814	6/18/14	Boron Cadmium Manganese Molybdenum	6.10 ug/L 0.37 ug/L 0.85 ug/L 10.0 ug/L	All samples in SDG PH234

Sample FB-052114 (from SDG PH191) was identified as an equipment blank. No metal contaminants were found with the following exceptions:

Blank ID	Sampling Date	Analyte	Concentration	Associated Samples
FB-052114	5/21/14	Zirconium	11.0 ug/L	All samples in SDG PH234

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

Sample	Analyte	Reported Concentration	Modified Final Concentration
FDG2-SL-875-SA5A-SB-0.0-0.5	Molybdenum Zirconium	0.478 mg/Kg 3.16 mg/Kg	0.478U mg/Kg 3.16U mg/Kg
FDG2-SL-875-SA5A-SB-2.0-3.0	Molybdenum Zirconium	0.415 mg/Kg 3.03 mg/Kg	0.415U mg/Kg 3.03U mg/Kg
FDG2-SL-1175-SA5A-SB-2.0-3.0	Molybdenum Zirconium	0.410 mg/Kg 3.05 mg/Kg	0.410U mg/Kg 3.05U mg/Kg

V. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

VI. Matrix Spike Analysis

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

Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
FDG2-SL-875-SA5A-SB-2.0-3.0MS/MSD (All samples in SDG PH234)	Antimony Lead Strontium	47 (75-125) 132 (75-125) 148 (75-125)	49 (75-125) - 71 (75-125)	- 28 (≤20) 21 (≤20)	J (all detects) UJ (all non-detects)	A
FDG2-SL-875-SA5A-SB-2.0-3.0MS/MSD (All samples in SDG PH234)	Silver	128 (75-125)	128 (75-125)	-	J (all detects)	A

For FDG2-SL-875-SA5A-SB-2.0-3.0MS/MSD, no data were qualified for Aluminum, Calcium, Iron, Magnesium, Manganese, Phosphorus, and Titanium percent recoveries outside the QC limits since the parent sample results were greater than 4X the spike concentration.

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) were within QC limits.

IX. Internal Standards

All internal standard percent recoveries (%R) were within QC limits.

X. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met.

XI. 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 PH234	All analytes reported below the RL and above the MDL.	J (all detects)	A

XII. Overall Assessment of Data

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

XIII. Field Duplicates

Samples FDG2-SL-875-SA5A-SB-2.0-3.0 and FDG2-SL-1175-SA5A-SB-2.0-3.0 were identified as field duplicates. No metals were detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flag	A or P
	FDG2-SL-875-SA5A-SB-2.0-3.0	FDG2-SL-1175-SA5A-SB-2.0-3.0			
Aluminum	15500	14600	6 (≤50)	-	-
Arsenic	5.84	5.50	6 (≤50)	-	-
Barium	107	96.4	10 (≤50)	-	-
Beryllium	0.581	0.548	6 (≤50)	-	-
Boron	4.43	4.08	8 (≤50)	-	-
Calcium	2270	2090	8 (≤50)	-	-
Chromium	19.5	18.4	6 (≤50)	-	-
Cobalt	4.91	4.77	3 (≤50)	-	-
Copper	11.9	11.5	3 (≤50)	-	-
Iron	19400	18600	4 (≤50)	-	-
Lead	0.7	13.1	20 (≤50)	-	-
Lithium	20.7	19.9	4 (≤50)	-	-
Magnesium	4140	4010	3 (≤50)	-	-
Manganese	321	306	5 (≤50)	-	-

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flag	A or P
	FDG2-SL-875-SA5A-SB-2.0-3.0	FDG2-SL-1175-SA5A-SB-2.0-3.0			
Molybdenum	0.415	0.410	1 (≤50)	-	-
Nickel	13.1	11.7	11 (≤50)	-	-
Phosphorus	436	467	7 (≤50)	-	-
Potassium	3650	3440	6 (≤50)	-	-
Sodium	78.1	76.3	2 (≤50)	-	-
Tin	2.61	2.42	8 (≤50)	-	-
Titanium	1070	1000	7 (≤50)	-	-
Vanadium	36.0	32.5	10 (≤50)	-	-
Zinc	58.7	57.5	2 (≤50)	-	-
Zirconium	3.03	3.05	1 (≤50)	-	-
Selenium	0.272	0.268	1 (≤50)	-	-
Silver	0.0425	0.0426	0 (≤50)	-	-
Strontium	22.6	19.8	13 (≤50)	-	-
Thallium	0.274	0.284	4 (≤50)	-	-
Mercury	0.0206	0.0197	4 (≤50)	-	-

**Santa Susana Field Laboratory
Metals - Data Qualification Summary - SDG PH234**

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
PH234	FDG2-SL-875-SA5A-SB-0.0-0.5 FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-1175-SA5A-SB-2.0-3.0	Antimony	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
PH234	FDG2-SL-875-SA5A-SB-0.0-0.5 FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-1175-SA5A-SB-2.0-3.0	Lead Strontium	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (Q, E)
PH234	FDG2-SL-875-SA5A-SB-0.0-0.5 FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-1175-SA5A-SB-2.0-3.0	Silver	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
PH234	FDG2-SL-875-SA5A-SB-0.0-0.5 FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-1175-SA5A-SB-2.0-3.0	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 PH234**

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
PH234	FDG2-SL-875-SA5A-SB-0.0-0.5	Boron Tin	4.21U mg/Kg 2.23U mg/Kg	A	B
PH234	FDG2-SL-875-SA5A-SB-2.0-3.0	Boron Tin	4.43U mg/Kg 2.61U mg/Kg	A	B
PH234	FDG2-SL-1175-SA5A-SB-2.0-3.0	Boron Tin	4.08U mg/Kg 2.42U mg/Kg	A	B

**Santa Susana Field Laboratory
Metals - Field Blank Data Qualification Summary - SDG PH234**

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
PH234	FDG2-SL-875-SA5A-SB-0.0-0.5	Molybdenum Zirconium	0.478U mg/Kg 3.16U mg/Kg	A	F
PH234	FDG2-SL-875-SA5A-SB-2.0-3.0	Molybdenum Zirconium	0.415U mg/Kg 3.03U mg/Kg	A	F
PH234	FDG2-SL-1175-SA5A-SB-2.0-3.0	Molybdenum Zirconium	0.410U mg/Kg 3.05U mg/Kg	A	F

LDC #: 32270D4

VALIDATION COMPLETENESS WORKSHEET

Date: 8/7/14

SDG #: PH234

Level IV

Page: 1 of 1

Laboratory: Eurofins Lancaster Laboratories

Reviewer: *JK*

7471A

2nd Reviewer: *[Signature]*

METHOD: Metals (EPA SW 846 Method 6010C/6020A/7900)

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: 6/16/14
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	A	
VI.	Matrix Spike Analysis	SW	MS/D 4/5 (Al, Ca, Fe, Mg, Mn, P, Ti, > 4x)
VII.	Duplicate Sample Analysis	A	DUP (Pb, Ag OK by Diff)
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	A	
X.	ICP Serial Dilution	A	
XI.	Sample Result Verification	A	
XII.	Overall Assessment of Data	A	
XIII.	Field Duplicates	N	2+3
XIV.	Field Blanks	SW	EB = EBLD01814 SDG# PH237 FB = FB-052114SDG#PH 191

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: *8.1*

1	FDG2-SL-875-SA5A-SB-0.0-0.5	11	21	31
2	FDG2-SL-875-SA5A-SB-2.0-3.0	12	22	32
3	FDG2-SL-1175-SA5A-SB-2.0-3.0	13	23	33
4	FDG2-SL-875-SA5A-SB-2.0-3.0MS	14	24	34
5	FDG2-SL-875-SA5A-SB-2.0-3.0MSD	15	25	35
6	FDG2-SL-875-SA5A-SB-2.0-3.0DUP	16	26	36
7		17	27	37
8		18	28	38
9		19	29	39
10		20	30	40

Notes: _____

Method:Metals (EPA SW 846 Method 6010/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. ICP/MS Tune				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	✓			
Were %RSD of isotopes in the tuning solution $\leq 5\%$?	✓			
III. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	✓			
Were all initial calibration correlation coefficients ≥ 0.995 ?	✓			
IV. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
V. ICP Interference Check Sample				
Were ICP interference check samples performed daily?	✓			
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?	✓			
VI. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.		✓		
Were the MS/MSD or duplicate relative percent differences (RPD) $\leq 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\pm RL$ ($\pm 2X RL$ for soil) was used for samples that were $\leq 5X$ the RL, including when only one of the duplicate sample values were $< 5X$ the RL.		✓		
VII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% QC limits for water samples and laboratory established QC limits for soils?	✓			

Validation Area	Yes	No	NA	Findings/Comments
VIII. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?	✓			
If the %Rs were outside the criteria, was a reanalysis performed?			✓	
IX. ICP Serial Dilution				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL(ICP/MS)?	✓			
Were all percent differences (%Ds) < 10%?	✓			
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.		✓		
X. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XI. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XII. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓	✓		
Target analytes were detected in the field duplicates.			✓	
XIII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.	✓			

**VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES**

(B)

METHOD: Trace metals (EPA SW 864 Method 6010C/6020A/7471A)

Soil preparation factor applied: 100

Sample Concentration units, unless otherwise noted: mg/kg

Associated Samples: All

				Sample Identification												
Analyte	Maximum PB ^a (mg/Kg)	Maximum PB ^a (mg/l)	Maximum ICB/CCB ^a (ug/l)	Action Level	1	2	3									
Cu			2.1	1.05												
Al	10.021			50.11												
B	1.764			8.82	4.21	4.43	4.08									
Ca	24.640			123												
Sn	1.460			7.30	2.23	2.61	2.42									
Zn	0.386			1.93												
Sr	0.134			0.67												

METHOD: Trace metals (EPA SW 864 Method 6010C/6020A/7471A)

Soil preparation factor applied: 100

Sample Concentration units, unless otherwise noted: mg/kg

Associated Samples: 1, 3

				Sample Identification												
Analyte	Maximum PB ^a (mg/Kg)	Maximum PB ^a (mg/l)	Maximum ICB/CCB ^a (ug/l)	Action Level	no quals											
Al			54.1	27.1												
P			2.6	1.3												

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".

Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC#: 32270D4**VALIDATION FINDINGS WORKSHEET**
Field DuplicatesPage: 1 of 2
Reviewer: KK
2nd Reviewer: ca**METHOD:** Metals (EPA Method 6010C/6020A/7471A)

Analyte	Concentration (mg/kg)		RPD (≤ 50)
	2	3	
Aluminum	15500	14600	6
Arsenic	5.84	5.50	6
Barium	107	96.4	10
Beryllium	0.581	0.548	6
Boron	4.43	4.08	8
Calcium	2270	2090	8
Chromium	19.5	18.4	6
Cobalt	4.91	4.77	3
Copper	11.9	11.5	3
Iron	19400	18600	4
Lead	10.7	13.1	20
Lithium	20.7	19.9	4
Magnesium	4140	4010	3
Manganese	321	306	5
Molybdenum	0.415	0.410	1
Nickel	13.1	11.7	11
Phosphorus	436	467	7
Potassium	3650	3440	6
Sodium	78.1	76.3	2
Tin	2.61	2.42	8

LDC#: 32270D4

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 2 of 2
Reviewer: KK
2nd Reviewer: a

METHOD: Metals (EPA Method 6010C/6020A/7471A)

Analyte	Concentration (mg/kg)		RPD (≤ 50)
	2	3	
Titanium	1070	1000	7
Vanadium	36.0	32.5	10
Zinc	58.7	57.5	2
Zirconium	3.03	3.05	1
Selenium	0.272	0.268	1
Silver	0.0425	0.0426	0
Strontium	22.6	19.8	13
Thallium	0.274	0.284	4
Mercury	0.0206	0.0197	4

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VALIDATION FINDINGS WORKSHEET
Initial and Continuing Calibration Calculation Verification

6010C/6020A/7471A

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 (15:47)	ICP (Initial calibration)	Al	30,500	30,000	101.7	101.7	Y ↓
ICV (6:24)	ICP/MS (Initial calibration)	Se	50.59	50.0	101.2	101.2	
ICV (10:17)	CVAA (Initial calibration)	Hg	2.5508	2.5	102.0	102.0	
CCV (16:11)	ICP (Continuing calibration)	Zr	508.94	500	101.8	101.8	
CCV (6:41)	ICP/MS (Continuing calibration)	Tl	24.513	25.0	98.0	98.0	
CCV (10:24)	CVAA (Continuing calibration)	Hg	0.9482	1.00	95.0	95.0	
	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.

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

6010C/6020A/7471A

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	mg/kg Found / S / I (units)	mg/kg True / D / SDR (units)	Recalculated	Reported	Acceptable (Y/N)
					%R / RPD / %D	%R / RPD / %D	
ICSAB (18:01)	ICP interference check	Sb	579.08 µg/L	600 µg/L	97.0	97.0	Y
LCS (6:48)	Laboratory control sample	Se	1025 µg/L	1000 µg/L	103	103	↓
4	Matrix spike	P	(SSR-SR) 92.44	100.0	92	92	
0	Duplicate	Zn	58.67	57.6	2	2	
2	ICP serial dilution	Fe	192202 µg/L	189460 µg/L	1	1	

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.

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Santa Susana Field Laboratory
Collection Date: June 16, 2014
LDC Report Date: August 14, 2014
Matrix: Soil/Water
Parameters: Total Petroleum Hydrocarbons as Gasoline
Validation Level: Level IV
Laboratory: Eurofins
Sample Delivery Group (SDG): PH234

Sample Identification

TB-061614
FDG2-SL-875-SA5A-SB-2.0-3.0
FDG2-SL-876-SA5A-SB-4.0-5.0
FDG2-SL-1175-SA5A-SB-2.0-3.0
FDG2-SL-877-SA5A-SB-3.0-4.0
FDG2-SL-875-SA5A-SB-2.0-3.0MS
FDG2-SL-875-SA5A-SB-2.0-3.0MSD

Introduction

This data review covers 6 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for 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.
- 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 all compounds were less than or equal to 20.0%.

III. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 20.0% for all compounds.

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-061614 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found.

Sample EB1-061814 (from SDG PH237) was identified as an equipment blank. No total petroleum hydrocarbons as gasoline contaminants were found.

Sample FB-052114 (from SDG PH191) was identified as a field 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

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

All compound quantitations were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PH234	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

Samples FDG2-SL-875-SA5A-SB-2.0-3.0 and FDG2-SL-1175-SA5A-SB-2.0-3.0 were identified as field duplicates. No total petroleum hydrocarbons as gasoline were detected in any of the samples.

**Santa Susana Field Laboratory
 Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG
 PH234**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
PH234	TB-061614 FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-876-SA5A-SB-4.0-5.0 FDG2-SL-1175-SA5A-SB-2.0-3.0 FDG2-SL-877-SA5A-SB-3.0-4.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)

**Santa Susana Field Laboratory
 Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification
 Summary - SDG PH234**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory
 Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification
 Summary - SDG PH234**

No Sample Data Qualified in this SDG

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: 6/11/14
II	Initial calibration	A	≤ 20
III.	Calibration verification/ICV	A	CCV/ICV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LCS/LCSD
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	ND	D=2+4
XIII.	Field blanks	ND	TB=1, EB=EB1-061814(PH237)

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

FB=FB-052114(PH191)

Validated Samples:

water/soil

1	TB-061614	W	11		21		31	
2	FDG2-SL-875-SA5A-SB-2.0-3.0		12		22		32	
3	FDG2-SL-876-SA5A-SB-4.0-5.0		13		23		33	
4	FDG2-SL-1175-SA5A-SB-2.0-3.0		14		24		34	
5	FDG2-SL-877-SA5A-SB-3.0-4.0		15		25		35	
6	FDG2-SL-875-SA5A-SB-2.0-3.0MS		16		26		36	
7	FDG2-SL-875-SA5A-SB-2.0-3.0MSD		17		27		37	
8			18		28		38	
9			19	BLK05	29		39	
10			20	BLK0F	30		40	

Notes: _____

Method: GC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	/			
Cooler temperature criteria was met.	/			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	/			
Were all percent relative standard deviations (%RSD) < 20%?	/			
Was a curve fit used for evaluation?			/	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?			/	
Were the RT windows properly established?	/			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	/			
Were all percent differences (%D) < 20%?	/			
Were all the retention times within the acceptance windows?	/			
V. Blanks				
Was a method blank associated with every sample in this SDG?	/			
Was a method blank analyzed for each matrix and concentration?	/			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		/		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	/			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			/	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			/	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	/			
Was a MS/MSD analyzed every 20 samples of each matrix?			/	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	/			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	/			
Was an LCS analyzed per extraction batch?	⊖		✓	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	/			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		/		
Were the performance evaluation (PE) samples within the acceptance limits?			/	

VALIDATION FINDINGS CHECKLIST

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
Initial Calibration Calculation Verification

METHOD: GC X HPLC _____

The calibration factors (CF) and relative standard deviation (%RSD) were recalculated using the following calculations:

CF = A/C
 Average CF = sum of the CF/number of standards
 %RSD = 100 * (S/X)

Where: A = Area of compound
 C = Concentration of compound
 S = Standard deviation of calibration factors
 X = Mean of calibration factors

#	Standard ID	Calibration Date	Compound	Reported	Recalculated	Reported	Recalculated	Reported	Recalculated
				CF (3 std)	CF (3 std)	Ave CF (initial)	Ave CF (initial)	%RSD	%RSD
1	LUFT16270	9-27-13	GRO	55255	55244.5	55635	55635	4	4
2	LUFT94280	10-8-13	GRO	29610	29610	28046	28046	6	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 #: 3227057

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1

Reviewer: SM

2nd Reviewer: SM

METHOD: GC X 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(Ical)/ CCV (Conc)	Reported	Recalculated	Reported	Recalculated
					CF/ Conc. CCV	CF/ Conc. CCV	%D	%D
1	SGCKYDD (LUFT16270)	6-19-14 17:21	GRO	220.04	219.73	219.73	0	0.1
2	WGCCYDP (LUFT94280)	6-20-14 12:11	GRO	550.10	502.87	502.87	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.

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

METHOD: GC HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
 SS = Surrogate Spiked

Sample ID: 1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
TFT-F	—	30.0	23.6909	79	79	∅

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	

VALIDATION FINDINGS WORKSHEET
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:

$\%Recovery = 100 * (SSC - SC) / SA$

Where

SSC = Spiked sample concentration

SC = Sample concentration

SA = Spike added

$RPD = ((SSCMS - SSCMSD) * 2) / (SSCMS + SSCMSD) * 100$

MS = Matrix spike

MSD = Matrix spike duplicate

MS/MSD samples: 6/7

Compound	Spike Added (mg/Kg)		Sample Conc. (mg/Kg)	Spike Sample Concentration (mg/Kg)		Matrix spike		Matrix Spike Duplicate		MS/MSD	
	MS	MSD		MS	MSD	Percent Recovery		Percent Recovery		RPD	
						Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)	11.1	11.1	ND	8.34	8.46	75	75	77	76	1	1
Diesel (8015)											

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.

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

METHOD: X GC HPLC

The percent recoveries (%R) and relative percent differences (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

Where SSC = Spiked sample concentration
 SA = Spike added
 LCS = Laboratory Control Sample

SC = Sample concentration

RPD = (((SSCLCS - SSCLCSD) * 2) / (SSCLCS + SSCLCSD)) * 100

LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: LCSG7

Compound	Spike Added (mg/kg)		Sample Conc. ()	Spike Sample Concentration (mg/kg)		LCS		LCSD		LCS/LCSD	
	LCS	LCSD		LCS	LCSD	Percent Recovery		Percent Recovery		RPD	
						Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)	11	NA	NA	9.00	NA	82	82				
Diesel (8015)											

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.

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Santa Susana Field Laboratory
Collection Date: June 16, 2014
LDC Report Date: August 22, 2014
Matrix: Soil
Parameters: Total Petroleum Hydrocarbons as Extractables
Validation Level: Level IV
Laboratory: Eurofins
Sample Delivery Group (SDG): PH234

Sample Identification

FDG2-SL-875-SA5A-SB-0.0-0.5
FDG2-SL-875-SA5A-SB-2.0-3.0
FDG2-SL-876-SA5A-SB-0.0-0.5
FDG2-SL-876-SA5A-SB-4.0-5.0
FDG2-SL-1175-SA5A-SB-2.0-3.0
FDG2-SL-877-SA5A-SB-0.0-0.5
FDG2-SL-877-SA5A-SB-3.0-4.0
FDG2-SL-875-SA5A-SB-0.0-0.5(SGCU)
FDG2-SL-875-SA5A-SB-2.0-3.0(SGCU)
FDG2-SL-876-SA5A-SB-0.0-0.5(SGCU)
FDG2-SL-876-SA5A-SB-4.0-5.0(SGCU)
FDG2-SL-1175-SA5A-SB-2.0-3.0(SGCU)
FDG2-SL-877-SA5A-SB-0.0-0.5(SGCU)
FDG2-SL-877-SA5A-SB-3.0-4.0(SGCU)
FDG2-SL-875-SA5A-SB-2.0-3.0MS
FDG2-SL-875-SA5A-SB-2.0-3.0MSD
FDG2-SL-875-SA5A-SB-2.0-3.0(SGCU)MS
FDG2-SL-875-SA5A-SB-2.0-3.0(SGCU)MSD

Samples appended with SGCU underwent Silica Gel Clean Up

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 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.
- 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 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. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 20.0% for all compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

Sample EB1-061814 (from SDG PH237) was identified as an equipment blank. No total petroleum hydrocarbons as extractable contaminants were found.

Sample FB-052114 (from SDG PH191) was identified as a field blank. No total petroleum hydrocarbons as extractable contaminants were found.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Surrogate	%R (Limits)	Compound	Flag	A or P
PBLK26170	Ortho-Terphenyl	56 (66-123)	All TCL Compounds	J (all detects) UJ (all non-detects)	A

VI. Matrix Spike/Matrix Spike Duplicates/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
FDG2-SL-875-SA5A-SB-2.0-3.0MS/MSD (FDG2-SL-875-SA5A-SB-2.0-3.0)	EFH (C12-C14) EFH (C15-C20)	- 127 (49-123)	126 (49-123) 137 (49-123)	- -	J (all detects) J (all detects)	A
FDG2-SL-875-SA5A-SB-2.0-3.0MS/MSD (FDG2-SL-875-SA5A-SB-2.0-3.0)	EFH (C21-C30)	-71 (49-123)	-43 (49-123)	-	J (all detects) R (all non-detects)	A
FDG2-SL-875-SA5A-SB-2.0-3.0(SGCU)MS/MSD (FDG2-SL-875-SA5A-SB-2.0-3.0(SGCU))	EFH (C21-C30)	-82 (49-123)	-58 (49-123)	-	J (all detects) R (all non-detects)	A

VII. 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
LCS26170	EFH (C8-C11) EFH (C12-C14) EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	21 (60-115) 22 (76-115) 21 (78-127) 21 (77-127) 15 (44-134)	FDG2-SL-877-SA5A-SB-0.0-0.5(SGCU)	J (all detects) UJ (all non-detects)	P

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation

All compound quantitations were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PH234	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

The overall assessment of data was acceptable.

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

XII. Field Duplicates

Samples FDG2-SL-875-SA5A-SB-2.0-3.0 and FDG2-SL-1175-SA5A-SB-2.0-3.0, samples FDG2-SL-875-SA5A-SB-2.0-3.0(SGCU) and FDG2-SL-1175-SA5A-SB-2.0-3.0(SGCU), and samples FDG2-SL-875-SA5A-SB-2.0-3.0(SGCU)RE and FDG2-SL-1175-SA5A-SB-2.0-3.0(SGCU) were identified as field duplicates. No total petroleum hydrocarbons as extractables were detected in any of the samples with the following exceptions:

Compound	Concentration (mg/Kg)		RPD (Limits)	Flag	A or P
	FDG2-SL-875-SA5A-SB-2.0-3.0	FDG2-SL-1175-SA5A-SB-2.0-3.0			
EFH (C30-C40)	85	36	81 (≤50)	J (all detects)	A
EFH (C21-C30)	33	13	87 (≤50)	J (all detects)	A

Compound	Concentration (mg/Kg)		RPD (Limits)	Flag	A or P
	FDG2-SL-875-SA5A-SB-2.0-3.0(SGCU)	FDG2-SL-1175-SA5A-SB-2.0-3.0(SGCU)			
EFH (C30-C40)	67	14	131 (≤50)	J (all detects)	A
EFH (C21-C30)	26	3.6	151 (≤50)	J (all detects)	A

**Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -
SDG PH234**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
PH234	FDG2-SL-875-SA5A-SB-2.0-3.0	EFH (C12-C14) EFH (C15-C20)	J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
PH234	FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-875-SA5A-SB-2.0-3.0(SGCU)	EFH (C21-C30)	J (all detects) R (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
PH234	FDG2-SL-877-SA5A-SB-0.0-0.5(SGCU)	EFH (C8-C11) EFH (C12-C14) EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R) (L)
PH234	FDG2-SL-875-SA5A-SB-0.0-0.5 FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-876-SA5A-SB-0.0-0.5 FDG2-SL-876-SA5A-SB-4.0-5.0 FDG2-SL-1175-SA5A-SB-2.0-3.0 FDG2-SL-877-SA5A-SB-0.0-0.5 FDG2-SL-877-SA5A-SB-3.0-4.0 FDG2-SL-875-SA5A-SB-0.0-0.5(SGCU) FDG2-SL-875-SA5A-SB-2.0-3.0(SGCU) FDG2-SL-876-SA5A-SB-0.0-0.5(SGCU) FDG2-SL-876-SA5A-SB-4.0-5.0(SGCU) FDG2-SL-1175-SA5A-SB-2.0-3.0(SGCU) FDG2-SL-877-SA5A-SB-0.0-0.5(SGCU) FDG2-SL-877-SA5A-SB-3.0-4.0(SGCU)	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)
PH234	FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-1175-SA5A-SB-2.0-3.0 FDG2-SL-875-SA5A-SB-2.0-3.0(SGCU) FDG2-SL-1175-SA5A-SB-2.0-3.0(SGCU)	EFH (C30-C40) EFH (C21-C30)	J (all detects) J (all detects)	A	Field duplicates (RPD) (FD)

**Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data
Qualification Summary - SDG PH234**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification
Summary - SDG PH234**

No Sample Data Qualified in this SDG

LDC #: 32270D8

VALIDATION COMPLETENESS WORKSHEET

Date: 8-5-14

SDG #: PH234

Level IV

Page: 1 of 1

Laboratory: Eurofins Lancaster Laboratories

Reviewer: CR

2nd Reviewer: SM

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: 4/16/14
II.	Initial calibration	A	≤ 20
III.	Calibration verification/ICV	A	CV/ICV ≤ 20
IV.	Blanks	A	
V.	Surrogate recovery	SW	
VI.	Matrix spike/Matrix spike duplicates	SW	
VII.	Laboratory control samples	SW	LCS
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	ASW sm	
XII.	Field duplicates	SW	D = 2+5, 9+12, 19+10
XIII.	Field blanks	ND	EB = EB1-061814 (PH237); FB = FB-052114 (PH191)

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, 1

1	FDG2-SL-875-SA5A-SB-0.0-0.5	4	FDG2-SL-876-SA5A-SB-4.0-5.0(SGCU)	21	#18 RE ~	31
2	FDG2-SL-875-SA5A-SB-2.0-3.0	4	FDG2-SL-1175-SA5A-SB-2.0-3.0(SGCU)	22	#13 RE ~	32
3	FDG2-SL-876-SA5A-SB-0.0-0.5	3	FDG2-SL-877-SA5A-SB-0.0-0.5(SGCU)	23		33
4	FDG2-SL-876-SA5A-SB-4.0-5.0	4	FDG2-SL-877-SA5A-SB-3.0-4.0(SGCU)	24		34
5	FDG2-SL-1175-SA5A-SB-2.0-3.0	1	FDG2-SL-875-SA5A-SB-2.0-3.0MS	25		35
6	FDG2-SL-877-SA5A-SB-0.0-0.5	1	FDG2-SL-875-SA5A-SB-2.0-3.0MSD	26		36
7	FDG2-SL-877-SA5A-SB-3.0-4.0	3	FDG2-SL-875-SA5A-SB-2.0-3.0(SGCU) MS	27	PBLK 25170	37
8	FDG2-SL-875-SA5A-SB-0.0-0.5(SGCU)	3	FDG2-SL-875-SA5A-SB-2.0-3.0(SGCU) MSD	28	PBLK 27177	38
9	FDG2-SL-875-SA5A-SB-2.0-3.0(SGCU)	4	#9 RE ~	29	PBLK 26170	39
10	FDG2-SL-876-SA5A-SB-0.0-0.5(SGCU)	4	#17 RE ~	30	PBLK 26177	40

Notes:

Method: GC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	/			
Cooler temperature criteria was met.	/			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	/			
Were all percent relative standard deviations (%RSD) < 20%?	/			
Was a curve fit used for evaluation?			/	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?			/	
Were the RT windows properly established?	/			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	/			
Were all percent differences (%D) < 20%?	/			
Were all the retention times within the acceptance windows?	/			
V. Blanks				
Was a method blank associated with every sample in this SDG?	/			
Was a method blank analyzed for each matrix and concentration?	/			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		/		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?		/		
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?	/			
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			/	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	/			
Was a MS/MSD analyzed every 20 samples of each matrix?	/			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		/		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	/			
Was an LCS analyzed per extraction batch?	/			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		/		
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		/		
Were the performance evaluation (PE) samples within the acceptance limits?			/	

VALIDATION FINDINGS CHECKLIST

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
Field Duplicates

METHOD: GC

Y N/A
 Y N/A

Were field duplicate pairs identified in this SDG?
Were target compounds detected in the field duplicate pairs?

Code: FD

Compound	Concentration (mg/kg)		(≤ 50) RPD	Qualification (Parent Only)
	2	5		
C30-C40	85	36	81	Jdets/A
C21-C30	33	13	87	↓

Compound	Concentration (mg/kg)		(≤ 50) RPD	Qualification (Parent Only)
	9	12		
C30-C40	67	14	131	Jdets/A
C21-C30	26	3.6	151	↓

Compound	Concentration (mg/kg)		(≤ 50) RPD	Qualification (Parent Only)
	19	12		
C30-C40	32	14	78	Jdets/A
C21-C30	14	3.6	118	↓

NR

Compound	Concentration ()		RPD	Qualification (Parent Only)

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

METHOD: GC X HPLC _____

The calibration factors (CF) and relative standard deviation (%RSD) were recalculated using the following calculations:

CF = A/C
 Average CF = sum of the CF/number of standards
 %RSD = 100 * (S/X)

Where: A = Area of compound
 C = Concentration of compound
 S = Standard deviation of calibration factors
 X = Mean of calibration factors

#	Standard ID	Calibration Date	Compound	Reported	Recalculated	Reported	Recalculated	Reported	Recalculated
				CF (LVL3 std)	CF (LVL3 std)	Ave CF (initial)	Ave CF (initial)	%RSD	%RSD
1	TPHJ125A	5-5-14 → 6/25/14	(A)	21678	21678	23612	23612.6	7	7
			(B)	28643	28643	24315	24315.2	11	11
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 #: 3227018

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 2 of 2
 Reviewer: Th
 2nd Reviewer: SM

METHOD: GC X 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 (lcal)/ CCV (Conc)	Reported	Recalculated	Reported	Recalculated
					CF/ (Conc) CCV	CF/ (Conc) CCV	%D	%D
1	J178.0018	6-28-14	C8-C40 (A)	288.01	318.48	318.47	11	11
2	S178.0023	6-30-14	C8-C40 (A)	288.01	270.88	270.88	6	6
3	S178.0037	6-30-14	C8-C40 (A)	288.01	290.00	290.00	1	0.7
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

METHOD: GC HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
 SS = Surrogate Spiked

Sample ID: 1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Chlorobenzene	ZB-5	1.980198	1.7471	88	88	∅
Ortho-terphenyl	↓	1.980198	1.7408	88	88	∅

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	

VALIDATION FINDINGS WORKSHEET
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:

%Recovery = 100 * (SSC - SC)/SA

Where

SSC = Spiked sample concentration

SC = Sample concentration

SA = Spike added

RPD = ((SSCMS - SSCMSD) * 2) / (SSCMS + SSCMSD) * 100

MS = Matrix spike

MSD = Matrix spike duplicate

MS/MSD samples: 15/16

Compound	Spike Added (mg/kg)		Sample Conc. (mg/kg)	Spike Sample Concentration (mg/kg)		Matrix spike		Matrix Spike Duplicate		MS/MSD	
	MS	MSD		MS	MSD	Percent Recovery		Percent Recovery		RPD	
						Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (C ₁₂ -C ₁₄) (8015)	4.97	4.97	ND	5.30	6.21	107	107	126	125	16	16

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.

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: June 16, 2014

LDC Report Date: August 15, 2014

Matrix: Soil

Parameters: Dioxins/Dibenzofurans

Validation Level: Level IV

Laboratory: Eurofins

Sample Delivery Group (SDG): PH234

Sample Identification

FDG2-SL-875-SA5A-SB-0.0-0.5
FDG2-SL-875-SA5A-SB-2.0-3.0
FDG2-SL-876-SA5A-SB-4.0-5.0
FDG2-SL-1175-SA5A-SB-2.0-3.0
FDG2-SL-877-SA5A-SB-3.0-4.0
FDG2-SL-875-SA5A-SB-2.0-3.0MS
FDG2-SL-875-SA5A-SB-2.0-3.0MSD

Introduction

This data review covers 7 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 1613B for Polychlorinated Dioxins/Dibenzofurans.

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

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

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- NJ Presumptive evidence of presence of the compound at an estimated quantity.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

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

II. HRGC/HRMS Instrument Performance Check

Instrument performance was checked at the required daily frequency.

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

PFK and static resolving power were within validation criteria.

III. Initial Calibration

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

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

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

The minimum S/N ratio was greater than or equal to 2.5 for target compounds and 10 for recovery and internal standard compounds.

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 within QC limits.

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

V. Blanks

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

Method Blank ID	Extraction Date	Compound	Concentration	Associated Samples
BLK170002	6/19/14	2,3,7,8-TCDD 1,2,3,7,8-PeCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDD OCDD 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	0.0713 ng/Kg 0.0524 ng/Kg 0.0329 ng/Kg 0.0404 ng/Kg 0.0853 ng/Kg 0.231 ng/Kg 0.0517 ng/Kg 0.0235 ng/Kg 0.0457 ng/Kg 0.0297 ng/Kg 0.0358 ng/Kg 0.0561 ng/Kg 0.0335 ng/Kg 0.165 ng/Kg	All samples in SDG PH234

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

Sample	Compound	Reported Concentration	Modified Final Concentration
FDG2-SL-875-SA5A-SB-0.0-0.5	2,3,7,8-TCDD	0.0601 ng/Kg	0.0601U ng/Kg
FDG2-SL-875-SA5A-SB-2.0-3.0	1,2,3,7,8-PeCDD 1,2,3,7,8-PeCDF 1,2,3,4,7,8,9-HpCDF	0.140 ng/Kg 0.251 ng/Kg 0.114 ng/Kg	0.140U ng/Kg 0.251U ng/Kg 0.114U ng/Kg
FDG2-SL-876-SA5A-SB-4.0-5.0	2,3,7,8-TCDD 1,2,3,7,8-PeCDD 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8,9-HpCDF	0.0631 ng/Kg 0.157 ng/Kg 0.149 ng/Kg 0.117 ng/Kg 0.134 ng/Kg 0.120 ng/Kg 0.149 ng/Kg 0.123 ng/Kg	0.0631 ng/Kg 0.157U ng/Kg 0.149U ng/Kg 0.117U ng/Kg 0.134U ng/Kg 0.120U ng/Kg 0.149U ng/Kg 0.123U ng/Kg
FDG2-SL-1175-SA5A-SB-2.0-3.0	1,2,3,7,8-PeCDD	0.257 ng/Kg	0.257U ng/Kg
FDG2-SL-877-SA5A-SB-3.0-4.0	1,2,3,7,8-PeCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8,9-HpCDF	0.0588 ng/Kg 0.161 ng/Kg 0.144 ng/Kg 0.0428 ng/Kg 0.0261 ng/Kg 0.0813 ng/Kg 0.0336 ng/Kg 0.0452 ng/Kg 0.0376 ng/Kg	0.0588U ng/Kg 0.161U ng/Kg 0.144U ng/Kg 0.0428U ng/Kg 0.0261U ng/Kg 0.0813U ng/Kg 0.0336U ng/Kg 0.0452U ng/Kg 0.0376U ng/Kg

Sample EB1-061814 (from PH237) was identified as an equipment blank. No polychlorinated dioxin/dibenzofuran contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB1-061814	6/18/14	2,3,7,8-TCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDD OCDD 2,3,4,7,8-PeCDF 1,2,3,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	0.812 pg/L 2.08 pg/L 1.57 pg/L 29.4 pg/L 157 pg/L 0.761 pg/L 0.613 pg/L 2.78 pg/L 2.52 pg/L 1.08 pg/L 6.09 pg/L	All samples in SDG PH234

Sample FB-052114 (from SDG PH191) was identified as a field blank. No polychlorinated dioxin/dibenzofuran contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
FB-052114	5/21/14	1,2,3,4,6,7,8-HpCDD OCDD 1,2,3,7,8-PeCDF 1,2,3,4,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	1.23 pg/L 6.37 pg/L 0.333 pg/L 0.108 pg/L 0.188 pg/L 0.182 pg/L 0.176 pg/L 0.328 pg/L 0.531 pg/L	All samples in SDG PH234

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

VI. Matrix Spike/Matrix Spike Duplicates

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

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
FDG2-SL-875-SA5A-SB-2.0-3.0MS/MSD (FDG2-SL-875-SA5A-SB-2.0-3.0)	OCDD	232 (40-135)	210 (40-135)	-	J (all detects)	A

VII. Ongoing Precision Recovery (OPR)

Ongoing precision recovery samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Regional Quality Assurance and Quality Control

Not applicable.

IX. Internal Standards

All internal standard recoveries were within QC limits.

X. Target Compound Identifications

All target compound identifications were within validation criteria.

XI. Compound Quantitation

All compound quantitations were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PH234	All compounds reported below the RL.	J (all detects)	A

XII. System Performance

The system performance was acceptable.

XIII. Overall Assessment of Data

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

XIV. Field Duplicates

Samples FDG2-SL-875-SA5A-SB-2.0-3.0 and FDG2-SL-1175-SA5A-SB-2.0-3.0 were identified as field duplicates. No polychlorinated dioxins/dibenzofurans were detected in any of the samples with the following exceptions:

Compound	Concentration (ng/Kg)		RPD (Limits)	Flag	A or P
	FDG2-SL-875-SA5A-SB-2.0-3.0	FDG2-SL-1175-SA5A-SB-2.0-3.0			
1,2,3,7,8-PeCDD	0.140	0.257	59 (≤50)	J (all detects)	A
1,2,3,4,7,8-HxCDD	0.225	0.590	90 (≤50)	J (all detects)	A
1,2,3,6,7,8-HxCDD	1.31	2.81	73 (≤50)	J (all detects)	A

Compound	Concentration (ng/Kg)		RPD (Limits)	Flag	A or P
	FDG2-SL-875-SA5A-SB-2.0-3.0	FDG2-SL-1175-SA5A-SB-2.0-3.0			
1,2,3,7,8,9-HxCDD	1.19	1.90	41 (≤50)	-	-
1,2,3,4,6,7,8-HpCDD	35.5	104	98 (≤50)	J (all detects)	A
OCDD	980	2800	96 (≤50)	J (all detects)	A
2,3,7,8-TCDF	0.102	0.172	51 (≤50)	J (all detects)	A
1,2,3,7,8-PeCDF	0.251	0.359	35 (≤50)	-	-
2,3,4,7,8-PeCDF	0.162	0.310	63 (≤50)	J (all detects)	A
1,2,3,4,7,8-HxCDF	0.252	0.529	71 (≤50)	J (all detects)	A
1,2,3,6,7,8-HxCDF	0.219	0.290	28 (≤50)	-	-
1,2,3,7,8,9-HxCDF	0.406	0.505	22 (≤50)	-	-
2,3,4,6,7,8-HxCDF	0.304	0.491	47 (≤50)	-	-
1,2,3,4,6,7,8-HpCDF	3.21	8.99	95 (≤50)	J (all detects)	A
1,2,3,4,7,8,9-HpCDF	0.114	0.366	105 (≤50)	J (all detects)	A
OCDF	10.0	32.0	105 (≤50)	J (all detects)	A

**Santa Susana Field Laboratory
Dioxins/Dibenzofurans - Data Qualification Summary - SDG PH234**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
PH234	FDG2-SL-875-SA5A-SB-2.0-3.0	OCDD	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
PH234	FDG2-SL-875-SA5A-SB-0.0-0.5 FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-876-SA5A-SB-4.0-5.0 FDG2-SL-1175-SA5A-SB-2.0-3.0 FDG2-SL-877-SA5A-SB-3.0-4.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)
PH234	FDG2-SL-875-SA5A-SB-2.0-3.0 FDG2-SL-1175-SA5A-SB-2.0-3.0	1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,4,6,7,8-HpCDD OCDD 2,3,7,8-TCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	J (all detects) J (all detects)	A	Field duplicates (RPD) (FD)

**Santa Susana Field Laboratory
Dioxins/Dibenzofurans - Laboratory Blank Data Qualification Summary - SDG PH234**

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
PH234	FDG2-SL-875-SA5A-SB-0.0-0.5	2,3,7,8-TCDD	0.0601U ng/Kg	A	B
PH234	FDG2-SL-875-SA5A-SB-2.0-3.0	1,2,3,7,8-PeCDD 1,2,3,7,8-PeCDF 1,2,3,4,7,8,9-HpCDF	0.140U ng/Kg 0.251U ng/Kg 0.114U ng/Kg	A	B
PH234	FDG2-SL-876-SA5A-SB-4.0-5.0	2,3,7,8-TCDD 1,2,3,7,8-PeCDD 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8,9-HpCDF	0.0631 ng/Kg 0.157U ng/Kg 0.149U ng/Kg 0.117U ng/Kg 0.134U ng/Kg 0.120U ng/Kg 0.149U ng/Kg 0.123U ng/Kg	A	B
PH234	FDG2-SL-1175-SA5A-SB-2.0-3.0	1,2,3,7,8-PeCDD	0.257U ng/Kg	A	B

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
PH234	FDG2-SL-877-SA5A-SB-3.0-4.0	1,2,3,7,8-PeCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8,9-HpCDF	0.0588U ng/Kg 0.161U ng/Kg 0.144U ng/Kg 0.0428U ng/Kg 0.0261U ng/Kg 0.0813U ng/Kg 0.0336U ng/Kg 0.0452U ng/Kg 0.0376U ng/Kg	A	B

**Santa Susana Field Laboratory
Dioxins/Dibenzofurans - Field Blank Data Qualification Summary - SDG PH234**

No Sample Data Qualified in this SDG

LDC #: 32270D21

VALIDATION COMPLETENESS WORKSHEET

Date: 8-4-14

SDG #: PH234

Level IV

Page: 1 of 1

Laboratory: Eurofins Lancaster Laboratories

Reviewer: SM

2nd Reviewer: SM

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

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

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 6/16/14
II.	HRGC/HRMS Instrument performance check	A	
III.	Initial calibration	A	≤ 20/35
IV.	Continuing Calibration	A	QC Limits
V.	Blanks	SW	
VI.	Matrix spike/Matrix spike duplicates	SW	
VII.	Laboratory control samples	A	OPR
VIII.	Regional quality assurance and quality control	N	
IX.	Internal standards	A	
X.	Target compound identifications	A	
XI.	Compound quantitation/RL/LOQ/LODs	A	
XII.	System performance	A	
XIII.	Overall assessment of data	A	
XIV.	Field duplicates	SW	D=2+4
XV.	Field blanks	SW	EB=EB1-0161814 (PH237); FB=FB-052114 (PH91)

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	FDG2-SL-875-SA5A-SB-0.0-0.5	11		21		31	
2	FDG2-SL-875-SA5A-SB-2.0-3.0	12		22		32	
3	FDG2-SL-876-SA5A-SB-4.0-5.0	13		23		33	
4	FDG2-SL-1175-SA5A-SB-2.0-3.0	14		24		34	
5	FDG2-SL-877-SA5A-SB-3.0-4.0	15		25		35	
6	FDG2-SL-875-SA5A-SB-2.0-3.0MS	16		26		36	
7	FDG2-SL-875-SA5A-SB-2.0-3.0MSD	17		27		37	
8		18		28		38	
9		19		29		39	
10		20	BLK 170002	30		40	

Notes: _____

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

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

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

VALIDATION FINDINGS WORKSHEET

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

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

Notes: _____

VALIDATION FINDINGS WORKSHEET

Blanks

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

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

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

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

Y N N/A Was the method blank contaminated?

Blank extraction date: 06/19/14 **Blank analysis date:** 06/21/14 **Associated samples:** All Qual U

Conc. units: ng/kg

Compound	Blank ID	Sample Identification							
		5x	1	2	3	4	5		
	BLK170002								
A	0.0713	0.357	0.0601		0.0631*				
B	0.0524	0.262		0.140*	0.157*	0.257*	0.0588*		
D	0.0329	0.165					0.161*		
E	0.0404	0.202					0.144*		
F	0.0853	0.427							
G	0.231	1.16							
I	0.0517	0.259		0.251	0.149		0.0428*		
J	0.0235	0.118			0.117*		0.0261*		
K	0.0457	0.229			0.134*		0.0813*		
L	0.0297	0.149			0.120*		0.0336*		
M	0.0358	0.179			0.149*		0.0452*		
O	0.0561	0.281							
P	0.0335	0.168		0.114	0.123*		0.0376*		
Q	0.165	0.825							

*EMPC
 All contaminants within five times the method blank concentration were qualified.

VALIDATION FINDINGS WORKSHEET
Field Blanks

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

Blank units: pg/L **Associated sample units:** ng/kg

Sampling date: 06/18/14

Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: all >5x

Compound	Blank ID	Sample Identification							
	EB1-061814	5X							
A	0.812*	0.00406							
D	2.08	0.01040							
E	1.57	0.00785							
F	29.4	0.14700							
G	157	0.78500							
J	0.761*	0.00381							
L	0.613*	0.00307							
N	2.78*	0.01390							
O	2.52*	0.01260							
P	1.08	0.00540							
Q	6.09	0.03045							

*EMPC

EB1-061814 (PH237)

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

V:\Field Blanks\Dx-EB1-061814.wpd

VALIDATION FINDINGS WORKSHEET
Field Blanks

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

Blank units: pg/L **Associated sample units:** ng/kg

Sampling date: 05/21/14

Field blank type: (circle one) Field Blank / Rinsate / Other: FB Associated Samples: all 75x

Compound	Blank ID	Sample Identification							
	FB-052114	5X							
F	1.23*	0.00615							
G	6.37*	0.03185							
I	0.333*	0.00167							
K	0.108*	0.00054							
M	0.188*	0.00094							
N	0.182*	0.00091							
O	0.176*	0.00088							
P	0.328*	0.00164							
Q	0.531*	0.00266							

*EMPC
FB-052114 (PH191)

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

LDC#: 3227DD21VALIDATION FINDINGS WORKSHEET
Field DuplicatesPage: 1 of 1
Reviewer: SA
2nd Reviewer: SA

Dioxins/Furans (EPA Method 1613B)

Compound	Concentration (ng/kg)		RPD ($\leq 50\%$)	Qualifiers (Parents Only)
	2	4		
B	0.140	0.257	59	J/dets/A (FD)
C	0.225	0.590	90	J/dets/A (FD)
D	1.31	2.81	73	J/dets/A (FD)
E	1.19	1.80	41	--
F	35.5	104	98	J/dets/A (FD)
G	980	2800	96	J/dets/A (FD)
H	0.102	0.172	51	J/dets/A (FD)
I	0.251	0.359	35	--
J	0.162	0.310	63	J/dets/A (FD)
K	0.252	0.529	71	J/dets/A (FD)
L	0.219	0.290	28	--
N	0.406	0.505	22	--
M	0.304	0.491	47	--
O	3.21	8.99	95	J/dets/A (FD)
P	0.114	0.366	105	J/dets/A (FD)
Q	10.0	32.0	105	J/dets/A (FD)

**VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification**

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

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

$$RRF = (A_x)(C_{is}) / (A_{is})(C_x)$$

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	Reported	Recalculated
				Average RRF (initial)	Average RRF (initial)	RRF (CS3 std)	RRF (CS3 std)	%RSD	%RSD
1	DF19780	3/28/14	2,3,7,8-TCDF (¹³ C-2,3,7,8-TCDF)	1.005	1.005	0.964	0.964	10.23	10.22
			2,3,7,8-TCDD (¹³ C-2,3,7,8-TCDD)	1.151	1.151	1.038	1.037	15.75	15.73
			1,2,3,6,7,8-HxCDD (¹³ C-1,2,3,6,7,8-HxCDD)	0.977	0.977	0.939	0.939	7.84	7.85
			1,2,3,4,6,7,8-HpCDD (¹³ C-1,2,4,6,7,8,-HpCDD)	1.080	1.0805	1.010	1.010	11.00	11.00
			OCDF (¹³ C-OCDF)	0.997	0.997	0.945	0.945	8.27	8.28
2			2,3,7,8-TCDF (¹³ C-2,3,7,8-TCDF)						
			2,3,7,8-TCDD (¹³ C-2,3,7,8-TCDD)						
			1,2,3,6,7,8-HxCDD (¹³ C-1,2,3,6,7,8-HxCDD)						
			1,2,3,4,6,7,8-HpCDD (¹³ C-1,2,4,6,7,8,-HpCDD)						
			OCDF (¹³ C-OCDF)						
3			2,3,7,8-TCDF (¹³ C-2,3,7,8-TCDF)						
			2,3,7,8-TCDD (¹³ C-2,3,7,8-TCDD)						
			1,2,3,6,7,8-HxCDD (¹³ C-1,2,3,6,7,8-HxCDD)						
			1,2,3,4,6,7,8-HpCDD (¹³ C-1,2,4,6,7,8,-HpCDD)						
			OCDF (¹³ C-OCDF)						

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

VALIDATION FINDINGS WORKSHEET Routine Calibration Results Verification

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

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

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

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

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Spiked Conc (ng/mL)	Reported	Recalculated	Reported	Recalculated
					Conc (ng/mL)	Conc (ng/mL)	%R	%R
1	14 JUN 20-09	6-20-14	2,3,7,8-TCDF (¹³ C-2,3,7,8-TCDF)	10	10.648	10.643	106	106
			2,3,7,8-TCDD (¹³ C-2,3,7,8-TCDD)	10	10.173	10.172	102	102
			1,2,3,6,7,8-HxCDD (¹³ C-1,2,3,6,7,8-HxCDD)	50	52.19	52.20	104	104
			1,2,3,4,6,7,8-HpCDD (¹³ C-1,2,4,6,7,8,-HpCDD)	50	51.61	51.62	103	103
			OCDF (¹³ C-OCDF)	100	100.3	100.3	100	100
2			2,3,7,8-TCDF (¹³ C-2,3,7,8-TCDF)	10				
			2,3,7,8-TCDD (¹³ C-2,3,7,8-TCDD)	10				
			1,2,3,6,7,8-HxCDD (¹³ C-1,2,3,6,7,8-HxCDD)	50				
			1,2,3,4,6,7,8-HpCDD (¹³ C-1,2,4,6,7,8,-HpCDD)	50				
			OCDF (¹³ C-OCDF)	100				
3			2,3,7,8-TCDF (¹³ C-2,3,7,8-TCDF)	10				
			2,3,7,8-TCDD (¹³ C-2,3,7,8-TCDD)	10				
			1,2,3,6,7,8-HxCDD (¹³ C-1,2,3,6,7,8-HxCDD)	50				
			1,2,3,4,6,7,8-HpCDD (¹³ C-1,2,4,6,7,8,-HpCDD)	50				
			OCDF (¹³ C-OCDF)	100				

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

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

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

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

% Recovery = 100 * (SSR - SR)/SA

Where: SSR = Spiked sample result, SR = Sample result
 SA = Spike added

RPD = |MSR - MSDR| * 2 / (MSR + MSDR)

MSR = Matrix spike percent recovery MSDR = Matrix spike duplicate percent recovery

MS/MSD samples: 6/7

Compound	Spike Added (ng/kg)		Sample Concentration (ng/kg)	Spiked Sample Concentration (ng/kg)		Matrix Spike		Matrix Spike Duplicate		Reported	Recalculated
	MS	MSD		MS	MSD	Percent Recovery		Percent Recovery		RPD	RPD
						Reported	Recalc.	Reported	Recalc.		
2,3,7,8-TCDD	19.8	20.0	ND	19.6	19.2	99	99	96	96	2	2
1,2,3,7,8-PeCDD	99.4	100	0.140	102	104	103	103	104	104	2	2
1,2,3,4,7,8-HxCDD	99.4	100	0.225	101	102	102	102	101	101.5	0	0.9
1,2,3,4,7,8,9-HpCDF	99.4	100	0.114	97.4	99.7	98	98	99	99.6	2	2
OCDF	198	200	10.0	209	214	100	100	102	102	2	2

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

**Data Validation Report
Santa Susana Field Laboratory
Go Backs, Subgroup FDG Block 2**

SDG: PH235

Prepared for

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Prepared by

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August 23, 2014

INTRODUCTION

This Data Validation Report (DVR) presents Level III data validation results for samples collected on June 17, 2014. Data validation was performed in accordance with the Quality Assurance Project Plan (QAPP) 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 (CLPNFGs) for Superfund Organic Methods Data Review (June 2008) and for Inorganic Data Review (January 2010). Where specific guidance is not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Semivolatiles (SVOCs) by Environmental Protection Agency (EPA) SW 846 Method 8270D utilizing Selective Ion Monitoring (SIM)

Polychlorinated Biphenyls (PCBs) by EPA SW 846 Method 8082A

Metals by EPA SW 846 Method 6010C, 6020A, and 7471B.

Total Petroleum Hydrocarbons (TPH) as Gasoline by EPA SW 846 Method 8015M

TPH as Extractables with and without Silica Gel Clean Up by EPA SW 846 Method 8015M

The sample identification and methods of analyses performed on each sample is presented in Attachment 1. Please note that field sample IDs have been truncated due to database limitations. Overall data qualification summary is presented in Attachment 2. Level III Automated Data Review outliers are presented in Enclosure I.

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results for sample holding times, initial and continuing calibration blanks (ICB/CCBs), surrogates, matrix spike/matrix spike duplicates (MS/MSD), laboratory duplicates (DUP), laboratory control sample/laboratory control sample duplicates (LCS/LCSD), ICP serial dilutions, method blanks, trip blanks, equipment blanks, and field blanks. No samples in this SDG were subjected to Level IV evaluation.

Automated data review was performed on all QC summary results using the Automated Data Review (ADR) software program (LDC, 2013) with the exception of ICB/CCBs and ICP serial dilutions which were validated manually. Quality assurance (QA)/QC criteria specified in the QAPP and CLPNFGs were incorporated with the program's reference library to assess compliance with project requirements.

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.

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 QC criteria.

II. Initial Calibration

Initial Calibration data were not reviewed for level III.

III. Continuing Calibration

Continuing calibration data were not reviewed for level III.

IV. Blanks

Method blanks were performed at the required frequencies. No contaminant concentrations were detected in the method or preparation blanks with the exception of one blank for several metals. The associated sample results were qualified as non-detected (U) due to method blank contamination as applicable. The sample results that were not detected or were significantly greater than the concentrations found in the associated blanks were not qualified. The details regarding the qualification of data are provided in Enclosure I.

No contaminant concentrations were detected in the initial or continuing calibration blanks

V. Surrogate Spikes

Surrogate percent recoveries (%R) were within QC limits.

VI. ICP Interference Check Sample (ICS) Analysis

ICP interference check data were not reviewed for level III.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were performed at the required frequency. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the exception of one MS/MSD pair for SVOCs, TPH as extractables with and without silica gel clean up, and metals. The associated sample results were qualified as detected estimated (J) or non-detected estimated (UJ) as applicable. The details regarding the qualification of data are provided in Enclosure I.

VIII. Laboratory Duplicates Sample

Laboratory duplicates (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits with the exception of one DUP for metals. The associated sample results were qualified as detected estimated (J) or non-detected estimated (UJ) as applicable. The details regarding the qualification of data are provided in Enclosure I.

IV. 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 exception of one LCS samples for TPH as extractables with silica gel clean up. The associated sample results were qualified as detected estimated (J) or non-detected estimated (UJ) as applicable. The details regarding the qualification of data are provided in Enclosure I.

X. Internal Standards

Internal standards were not reviewed for Level III.

XI. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met.

XII. Compound Quantitation

The laboratory reporting limits were evaluated. All laboratory reporting limits met the specified requirements.

All compounds reported below the RL as detected were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PH235	All compounds reported as detected below the RL.	J (all detects)	A

XIII. Field Duplicate Samples

No field duplicates were identified in this SDG.

XIV. Field Blank Samples

One trip blank was collected and analyzed for TPH as gasoline. No contaminant concentrations were found in the trip blank.

One equipment blank (from SDG PH237) was collected and analyzed for SVOCs, PCBs, metals, TPH as gasoline, and TPH as extractables with and without silica gel clean up. The equipment blanks had detections for SVOCs and metals. The associated sample results were qualified as non-detected (U) due to equipment blank contamination as applicable. The sample results that were not detected or were significantly greater than the concentrations found in the equipment blanks were not qualified. The equipment blank outlier reports are presented in Enclosure I.

One field blank (from SDG PH191) was collected and analyzed for SVOCs, PCBs, metals, TPH as gasoline and TPH as extractables with and without silica gel clean up. The field blank had detections for SVOCs and metals. The associated sample results were qualified as non-detected (U) due to field blank contamination as applicable. The sample results that were not detected or were significantly greater than the concentrations found in the field blank were not qualified. The field blank outlier reports are presented in Enclosure I.

XV. Overall Assessment of Data

The overall assessment of QA/QC data review by automated and manual validation of this sampling event met project requirements and analytical completeness levels with the exceptions noted in the above sections. The remainder of the data are deemed useable for the intended use.

Data flags are summarized and are presented as Attachment 2.

Attachment 1
Sample Cross Reference

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Jun-2014	SL-568-NBZ-SB-0.0-0.5	7502708	N	3050B	6010C	III
17-Jun-2014	SL-568-NBZ-SB-0.0-0.5	7502708	N	3050B	6020A	III
17-Jun-2014	SL-568-NBZ-SB-0.0-0.5	7502708	N	3546	8015M	III
17-Jun-2014	SL-568-NBZ-SB-0.0-0.5	7502708	N	3546	8082A	III
17-Jun-2014	SL-568-NBZ-SB-0.0-0.5	7502708	N	3546	8270D SIM	III
17-Jun-2014	SL-568-NBZ-SB-0.0-0.5	7502708	N	METHOD	7471B	III
17-Jun-2014	SL-567-NBZ-SB-0.0-0.5	7502707	N	3050B	6010C	III
17-Jun-2014	SL-567-NBZ-SB-0.0-0.5	7502707	N	3050B	6020A	III
17-Jun-2014	SL-567-NBZ-SB-0.0-0.5	7502707	N	3546	8015M	III
17-Jun-2014	SL-567-NBZ-SB-0.0-0.5	7502707	N	3546	8082A	III
17-Jun-2014	SL-567-NBZ-SB-0.0-0.5	7502707	N	3546	8270D SIM	III
17-Jun-2014	SL-567-NBZ-SB-0.0-0.5	7502707	N	METHOD	7471B	III
17-Jun-2014	SL-567-NBZ-SB-0.0-0.5DUP	P502707D220600A	DUP	3050B	6020A	III
17-Jun-2014	SL-567-NBZ-SB-0.0-0.5DUP	P502707D220600B	DUP	3050B	6020A	III
17-Jun-2014	SL-567-NBZ-SB-0.0-0.5DUP	P502707D222010	DUP	3050B	6010C	III
17-Jun-2014	SL-567-NBZ-SB-0.0-0.5MSD	P502707M220605A	MSD	3050B	6020A	III
17-Jun-2014	SL-567-NBZ-SB-0.0-0.5MSD	P502707M220605B	MSD	3050B	6020A	III
17-Jun-2014	SL-567-NBZ-SB-0.0-0.5MSD	P502707M222018	MSD	3050B	6010C	III
17-Jun-2014	SL-567-NBZ-SB-0.0-0.5MSD	P502707M260711	MSD	3546	8270D SIM	III
17-Jun-2014	SL-567-NBZ-SB-0.0-0.5MSD	P502707M322134A	MSD	3546	8015M	III
17-Jun-2014	SL-567-NBZ-SB-0.0-0.5MS	P502707R220603A	MS	3050B	6020A	III
17-Jun-2014	SL-567-NBZ-SB-0.0-0.5MS	P502707R220603B	MS	3050B	6020A	III
17-Jun-2014	SL-567-NBZ-SB-0.0-0.5MS	P502707R222014	MS	3050B	6010C	III
17-Jun-2014	SL-567-NBZ-SB-0.0-0.5MS	P502707R260638	MS	3546	8270D SIM	III
17-Jun-2014	SL-567-NBZ-SB-0.0-0.5MS	P502707R322112A	MS	3546	8015M	III
17-Jun-2014	SL-572-NBZ-SB-0.0-0.5	7502709	N	3546	8015M	III

Attachment 2
Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: PH235

Laboratory: LL

EDD Filename: PrepPH235_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method Category: METALS
Method: 6010C **Matrix:** SO

Sample ID: FDG2-SL-567-NBZ-SB-0.0-0.5 Collected: 6/17/2014 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
ANTIMONY	4.07	U	0.335	MDL	4.07	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.548	J	0.0681	MDL	1.02	PQL	mg/Kg	J	Z
BORON	3.75	J	0.854	MDL	10.2	PQL	mg/Kg	J	Z
CALCIUM	5720		3.85	MDL	20.3	PQL	mg/Kg	J	E
COBALT	6.34		0.0976	MDL	1.02	PQL	mg/Kg	J	E
MOLYBDENUM	0.671	J	0.173	MDL	2.03	PQL	mg/Kg	U	F
POTASSIUM	3630		13.2	MDL	102	PQL	mg/Kg	J	Q
SODIUM	66.8	J	17.0	MDL	102	PQL	mg/Kg	J	Z
TIN	3.48	J	0.437	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	2.16	J	0.823	MDL	5.08	PQL	mg/Kg	U	F
PHOSPHORUS	409		0.325	MDL	10.2	PQL	mg/Kg	J	E

Sample ID: FDG2-SL-568-NBZ-SB-0.0-0.5 Collected: 6/17/2014 7:55:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.23	U	0.349	MDL	4.23	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.535	J	0.0708	MDL	1.06	PQL	mg/Kg	J	Z
BORON	1.86	J	0.888	MDL	10.6	PQL	mg/Kg	U	F
CALCIUM	5850		4.01	MDL	21.1	PQL	mg/Kg	J	E
COBALT	5.59		0.101	MDL	1.06	PQL	mg/Kg	J	E
MOLYBDENUM	0.312	J	0.180	MDL	2.11	PQL	mg/Kg	U	F
PHOSPHORUS	489		0.338	MDL	10.6	PQL	mg/Kg	J	E
POTASSIUM	4070		13.7	MDL	106	PQL	mg/Kg	J	Q
SODIUM	79.9	J	17.7	MDL	106	PQL	mg/Kg	J	Z
TIN	3.52	J	0.455	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	1.69	J	0.856	MDL	5.29	PQL	mg/Kg	U	F

Method Category: METALS
Method: 6020A **Matrix:** SO

Sample ID: FDG2-SL-567-NBZ-SB-0.0-0.5 Collected: 6/17/2014 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	0.200	J	0.102	MDL	0.407	PQL	mg/Kg	J	Z, Q

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH235

Laboratory: LL

EDD Filename: PrepPH235_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method Category:	METALS	
Method:	6020A	Matrix: SO

Sample ID: FDG2-SL-567-NBZ-SB-0.0-0.5	Collected: 6/17/2014 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
SILVER	0.0264	J	0.0203	MDL	0.203	PQL	mg/Kg	J	Z, Q, E
STRONTIUM	34.9		0.0581	MDL	0.407	PQL	mg/Kg	J	E, E
THALLIUM	0.284		0.0305	MDL	0.203	PQL	mg/Kg	J	Q, E

Sample ID: FDG2-SL-568-NBZ-SB-0.0-0.5	Collected: 6/17/2014 7:55:00	Analysis Type: REA	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.151	J	0.106	MDL	0.423	PQL	mg/Kg	J	Z, Q

Sample ID: FDG2-SL-568-NBZ-SB-0.0-0.5	Collected: 6/17/2014 7:55:00	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	0.0211	MDL	0.211	PQL	mg/Kg	J	Z, Q, E
STRONTIUM	29.6		0.0605	MDL	0.423	PQL	mg/Kg	J	E, E
THALLIUM	0.273		0.0317	MDL	0.211	PQL	mg/Kg	J	Q, E

Method Category:	SVOA	
Method:	8015M	Matrix: SO

Sample ID: FDG2-SL-567-NBZ-SB-0.0-0.5	Collected: 6/17/2014 8:55:00	Analysis Type: REA	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	3.1	J	2.0	MDL	5.1	PQL	mg/Kg	J	Z

Sample ID: FDG2-SL-567-NBZ-SB-0.0-0.5	Collected: 6/17/2014 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
EFH (C15-C20)	2.4	J	2.0	MDL	5.1	PQL	mg/Kg	J	Z
EFH (C21-C30)	16		2.0	MDL	5.1	PQL	mg/Kg	J	Q
EFH (C30-C40)	37		4.1	MDL	10	PQL	mg/Kg	J	Q, Q

Sample ID: FDG2-SL-568-NBZ-SB-0.0-0.5	Collected: 6/17/2014 7:55:00	Analysis Type: REA	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C12-C14)	5.3	U	2.1	MDL	5.3	PQL	mg/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH235

Laboratory: LL

EDD Filename: PrepPH235_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method Category:	SVOA	
Method:	8015M	Matrix: SO

Sample ID: FDG2-SL-568-NBZ-SB-0.0-0.5	Collected: 6/17/2014 7:55:00	Analysis Type: REA	Dilution: 1
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20) SG	5.3	U	2.1	MDL	5.3	PQL	mg/Kg	UJ	L
EFH (C21-C30) SG	4.9	J	2.1	MDL	5.3	PQL	mg/Kg	J	Z, L
EFH (C30-C40) SG	8.3	J	4.2	MDL	11	PQL	mg/Kg	J	Z, L
EFH (C8-C11) SG	5.3	U	2.1	MDL	5.3	PQL	mg/Kg	UJ	L

Method Category:	SVOA	
Method:	8082A	Matrix: SO

Sample ID: FDG2-SL-568-NBZ-SB-0.0-0.5	Collected: 6/17/2014 7:55:00	Analysis Type: RES	Dilution: 1
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	8.0	J	4.7	MDL	18	PQL	ug/Kg	J	Z

Method Category:	SVOA	
Method:	8270D SIM	Matrix: SO

Sample ID: FDG2-SL-567-NBZ-SB-0.0-0.5	Collected: 6/17/2014 8:55:00	Analysis Type: RES-BASE/NEUTRAL	Dilution: 1
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.71	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.69	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	0.75	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.69	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	6.4	J	6.1	MDL	18	PQL	ug/Kg	J	Z
FLUORANTHENE	1.7	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
PHENANTHRENE	1.4	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.5	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: FDG2-SL-568-NBZ-SB-0.0-0.5	Collected: 6/17/2014 7:55:00	Analysis Type: RES-BASE/NEUTRAL	Dilution: 10
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	9.8	J	7.0	MDL	18	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	13	J	7.0	MDL	18	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH235

Laboratory: LL

EDD Filename: PrepPH235_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method Category: SVOA
Method: 8270D SIM **Matrix:** SO

Sample ID: FDG2-SL-568-NBZ-SB-0.0-0.5 Collected: 6/17/2014 7:55:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORANTHENE	17	J	7.0	MDL	18	PQL	ug/Kg	J	Z
PYRENE	16	J	7.0	MDL	18	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

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Data Qualifier Summary

Lab Reporting Batch ID: PH235

Laboratory: LL

EDD Filename: PrepPH235_v1

eQAPP Name: CDM_SSFL_140617_Lan

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
B	Method Blank Contamination
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination
F	Field Blank Contamination
L	Laboratory Control Spike Lower Estimation
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

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Enclosure I
Level III ADR Outliers
(Including Manual Review Outliers)

Quality Control Outlier Reports

PH235

Method Blank Outlier Report

Lab Reporting Batch ID: PH235

Laboratory: LL

EDD Filename: PH235_v1.

eQAPP Name: CDM_SSFL_140617_Lan

Method: 6010C
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P17537AB221955	6/25/2014 7:55:00 PM	CALCIUM PHOSPHORUS TIN	10.7 mg/Kg 1.76 mg/Kg 1.49 mg/Kg	FDG2-SL-567-NBZ-SB-0.0-0.5 FDG2-SL-568-NBZ-SB-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
FDG2-SL-567-NBZ-SB-0.0-0.5(RES)	TIN	3.48 mg/Kg	3.48U mg/Kg
FDG2-SL-568-NBZ-SB-0.0-0.5(RES)	TIN	3.52 mg/Kg	3.52U mg/Kg

Method: 6020A
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P17537AB220553A	6/25/2014 5:53:00 AM	STRONTIUM	0.0581 mg/Kg	FDG2-SL-567-NBZ-SB-0.0-0.5 FDG2-SL-568-NBZ-SB-0.0-0.5

Field Blank Outlier Report

Lab Reporting Batch ID: PH235

Laboratory: LL

EDD Filename: PH235_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 6010C
Matrix: SO

Field Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
FB-052114(RES)	5/21/2014 2:00:00 PM	Zirconium	0.011 mg/L	FDG2-SL-567-NBZ-SB-0.0-0.5 FDG2-SL-568-NBZ-SB-0.0-0.5 FDG2-SL-572-NBZ-SB-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
FDG2-SL-567-NBZ-SB-0.0-0.5(RES)	Zirconium	2.16 mg/Kg	2.16U mg/Kg
FDG2-SL-568-NBZ-SB-0.0-0.5(RES)	Zirconium	1.69 mg/Kg	1.69U mg/Kg

Equipment Rinsate Blank Outlier Report

Lab Reporting Batch ID: PH235

Laboratory: LL

EDD Filename: PH235_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 6010C
Matrix: SO

Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB1-061814(REA2)	6/18/2014 3:00:00 PM	BORON CADMIUM MANGANESE MOLYBDENUM	0.0061 mg/L 0.00037 mg/L 0.00085 mg/L 0.01 mg/L	FDG2-SL-567-NBZ-SB-0.0-0.5 FDG2-SL-568-NBZ-SB-0.0-0.5 FDG2-SL-572-NBZ-SB-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
FDG2-SL-567-NBZ-SB-0.0-0.5(RES)	MOLYBDENUM	0.671 mg/Kg	0.671U mg/Kg
FDG2-SL-568-NBZ-SB-0.0-0.5(RES)	BORON	1.86 mg/Kg	1.86U mg/Kg
FDG2-SL-568-NBZ-SB-0.0-0.5(RES)	MOLYBDENUM	0.312 mg/Kg	0.312U mg/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH235

Laboratory: LL

EDD Filename: PH235_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
FDG2 -SL-567-NBZ-SB-0.0-0.5MS FDG2 -SL-567-NBZ-SB-0.0-0.5MSD (FDG2 -SL-567-NBZ-SB-0.0-0.5)	EFH (C21-C30) EFH (C30-C40)	- 135	153 250	49.00-123.00 49.00-123.00	- 26 (20.00)	EFH (C21-C30) EFH (C30-C40)	J (all detects)

Method: 8270D SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
FDG2 -SL-567-NBZ-SB-0.0-0.5MS FDG2 -SL-567-NBZ-SB-0.0-0.5MSD (FDG2 -SL-567-NBZ-SB-0.0-0.5)	Di-n-octylphthalate	172	178	52.00-162.00	-	Di-n-octylphthalate	J(all detects)

Method: 6010C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
FDG2 -SL-567-NBZ-SB-0.0-0.5MS (TOT) FDG2 -SL-567-NBZ-SB-0.0-0.5MSD (TOT) (FDG2 -SL-567-NBZ-SB-0.0-0.5 FDG2-SL-568-NBZ-SB-0.0-0.5)	ALUMINIUM MAGNESIUM POTASSIUM TITANIUM	1388 156 - 321	1481 162 128 271	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ALUMINIUM MAGNESIUM POTASSIUM TITANIUM	J(all detects) Al, Mg, Ti, No Qual, >4x
FDG2 -SL-567-NBZ-SB-0.0-0.5MS (TOT) FDG2 -SL-567-NBZ-SB-0.0-0.5MSD (TOT) (FDG2 -SL-567-NBZ-SB-0.0-0.5 FDG2-SL-568-NBZ-SB-0.0-0.5)	CALCIUM IRON MANGANESE	-182 -94 14	-374 632 23	75.00-125.00 75.00-125.00 75.00-125.00	- - -	CALCIUM IRON MANGANESE	No Qual, >4x
FDG2 -SL-567-NBZ-SB-0.0-0.5MS (TOT) FDG2 -SL-567-NBZ-SB-0.0-0.5MSD (TOT) (FDG2 -SL-567-NBZ-SB-0.0-0.5 FDG2-SL-568-NBZ-SB-0.0-0.5)	ANTIMONY PHOSPHORUS	47 260	43 50	75.00-125.00 75.00-125.00	- 37 (20.00)	ANTIMONY PHOSPHORUS	J(all detects) UJ(all non-detects) P, No Qual %R, >4x

Method: 6020A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
FDG2 -SL-567-NBZ-SB-0.0-0.5MS (TOT) FDG2 -SL-567-NBZ-SB-0.0-0.5MSD (TOT) (FDG2 -SL-567-NBZ-SB-0.0-0.5 FDG2-SL-568-NBZ-SB-0.0-0.5)	STRONTIUM	152	26	75.00-125.00	24 (20.00)	STRONTIUM	J(all detects) UJ(all non-detects) No Qual %R, >4x

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

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Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH235

Laboratory: LL

EDD Filename: PH235_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 6020A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
FDG2-SL-567-NBZ-SB-0.0-0.5MS (TOT) FDG2-SL-567-NBZ-SB-0.0-0.5MSD (TOT) (FDG2-SL-567-NBZ-SB-0.0-0.5 FDG2-SL-568-NBZ-SB-0.0-0.5)	SILVER THALLIUM	144 158	- -	75.00-125.00 75.00-125.00	21 (20.00) 21 (20.00)	SILVER THALLIUM	J(all detects) UJ(all non-detects)
FDG2-SL-567-NBZ-SB-0.0-0.5MS (TOT) (FDG2-SL-567-NBZ-SB-0.0-0.5 FDG2-SL-568-NBZ-SB-0.0-0.5)	SELENIUM	131	-	75.00-125.00	-	SELENIUM	J(all detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: PH235

Laboratory: LL

EDD Filename: PH235_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 6010C
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
FDG2-SL-567-NBZ-SB-0.0-0.5DUP (TOT) (FDG2-SL-567-NBZ-SB-0.0-0.5) FDG2-SL-568-NBZ-SB-0.0-0.5)	BORON	46	20.00	J (all detects) UJ (all non-detects) B, Mo, No Qual, OK by Difference
	CALCIUM	49	20.00	
	COBALT	29	20.00	
	MOLYBDENUM	71	20.00	

Method: 6020A
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
FDG2-SL-567-NBZ-SB-0.0-0.5DUP (TOT) (FDG2-SL-567-NBZ-SB-0.0-0.5) FDG2-SL-568-NBZ-SB-0.0-0.5)	SELENIUM	23	20.00	J(all detects) UJ(all non-detects) Se, Ag, No Qual, OK by Difference
	SILVER	48	20.00	
	STRONTIUM	40	20.00	

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH235

Laboratory: LL

EDD Filename: PH235_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P41706AQ322335A (FDG2 -SL-568-NBZ-SB-0.0-0.5)	EFH (C12-C14) SG	22	-	76.00-115.00	-	EFH (C12-C14) SG	J (all detects) UJ (all non-detects)
	EFH (C15-C20) SG	21	-	78.00-127.00	-	EFH (C15-C20) SG	
	EFH (C21-C30) SG	21	-	77.00-127.00	-	EFH (C21-C30) SG	
	EFH (C30-C40) SG	15	-	44.00-134.00	-	EFH (C30-C40) SG	
	EFH (C8-C11) SG	21	-	60.00-115.00	-	EFH (C8-C11) SG	

Reporting Limit Outliers

Lab Reporting Batch ID: PH235

Laboratory: LL

EDD Filename: PrepPH235_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 6010C
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG2-SL-567-NBZ-SB-0.0-0.5	BERYLLIUM	J	0.548	1.02	PQL	mg/Kg	J (all detects)
	BORON	J	3.75	10.2	PQL	mg/Kg	
	MOLYBDENUM	J	0.671	2.03	PQL	mg/Kg	
	SODIUM	J	66.8	102	PQL	mg/Kg	
	TIN	J	3.48	10.2	PQL	mg/Kg	
	Zirconium	J	2.16	5.08	PQL	mg/Kg	
FDG2-SL-568-NBZ-SB-0.0-0.5	BERYLLIUM	J	0.535	1.06	PQL	mg/Kg	J (all detects)
	BORON	J	1.86	10.6	PQL	mg/Kg	
	MOLYBDENUM	J	0.312	2.11	PQL	mg/Kg	
	SODIUM	J	79.9	106	PQL	mg/Kg	
	TIN	J	3.52	10.6	PQL	mg/Kg	
	Zirconium	J	1.69	5.29	PQL	mg/Kg	

Method: 6020A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG2-SL-567-NBZ-SB-0.0-0.5	SELENIUM	J	0.200	0.407	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0264	0.203	PQL	mg/Kg	
FDG2-SL-568-NBZ-SB-0.0-0.5	SELENIUM	J	0.151	0.423	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0410	0.211	PQL	mg/Kg	

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG2-SL-567-NBZ-SB-0.0-0.5	EFH (C15-C20)	J	2.4	5.1	PQL	mg/Kg	J (all detects)
	EFH (C21-C30) SG	J	3.1	5.1	PQL	mg/Kg	
FDG2-SL-568-NBZ-SB-0.0-0.5	EFH (C21-C30) SG	J	4.9	5.3	PQL	mg/Kg	J (all detects)
	EFH (C30-C40) SG	J	8.3	11	PQL	mg/Kg	

Method: 8082A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG2-SL-568-NBZ-SB-0.0-0.5	AROCLOR 1254	J	8.0	18	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: PH235

Laboratory: LL

EDD Filename: PrepPH235_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 8270D SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG2-SL-567-NBZ-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	0.71	1.7	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	0.69	1.7	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	0.75	1.7	PQL	ug/Kg	
	BENZO(A)PYRENE	J	0.69	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	6.4	18	PQL	ug/Kg	
	FLUORANTHENE	J	1.7	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	1.0	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.4	1.7	PQL	ug/Kg	
PYRENE	J	1.5	1.7	PQL	ug/Kg		
FDG2-SL-568-NBZ-SB-0.0-0.5	BENZO(B)FLUORANTHENE	J	9.8	18	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	13	18	PQL	ug/Kg	
	FLUORANTHENE	J	17	18	PQL	ug/Kg	
	PYRENE	J	16	18	PQL	ug/Kg	

LDC #: 32270E4

VALIDATION COMPLETENESS WORKSHEET

Date: 8/7/14

SDG #: PH235

ADR

Page: 1 of 1

Laboratory: Eurofins Lancaster Laboratories

Reviewer: KK

2nd Reviewer: G

747(A)

METHOD: Metals (EPA SW 846 Method 6010C/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	—	Sampling dates: 6/17/14
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	—	CCB hits, no quals
V.	ICP Interference Check Sample (ICS) Analysis	—	
VI.	Matrix Spike Analysis	SW	MS/D
VII.	Duplicate Sample Analysis	SW	DUP
VIII.	Laboratory Control Samples (LCS)	N	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	N	
XV.	Field Blanks	SW	EB = EB1-060814 SDG#PH 237 FB = FB-052114 SDGPH 191

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	FDG2-567-NBZ-SB-0.0-0.5	11		21		31	
2	FDG2-568-NBZ-SB-0.0-0.5	12		22		32	
3	#1 MS	13		23		33	
4	#1 MSD	14		24		34	
5	#1 DUP	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____



Lancaster Laboratories
Environmental

QUALITY ASSURANCE SUMMARY

FORM 5A (MS/MSD)

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

SDG No.: PH235

Matrix: SOIL Level (low/med): LOW

(P, Sr out by RPD)

Background Lab Sample ID: 7502707BKG Matrix Spike Lab Sample ID: 7502707MS Matrix Spike Duplicate Lab Sample ID: 7502707MSD
Batch Id(s): P17537A

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	RPD	Q	%R	RPD
Aluminum		12983.4350		15704.2716		15886.4451		196.0784	196.0784	MG/KG	1388		1481		1			20P
Antimony		0.3300	U	23.1461		21.1686		49.0196	49.0196	MG/KG	47	N	43	N	9		75 - 125	20P
Arsenic		6.8390		21.5333		21.4098		14.7059	14.7059	MG/KG	100		99		1		75 - 125	20P
Barium		90.4130		277.0343		273.9676		196.0784	196.0784	MG/KG	95		94		1		75 - 125	20P
Beryllium		0.5390	B	5.4637		5.4000		4.9020	4.9020	MG/KG	100		99		1		75 - 125	20P
Boron		3.6940	B	193.0069		188.0275		196.0784	196.0784	MG/KG	97		94		3		75 - 125	20P
Cadmium		0.0330	U	4.5794		4.5490		4.9020	4.9020	MG/KG	93		93		1		75 - 125	20P
Calcium		5624.3580		4910.1608		4158.2843		392.1569	392.1569	MG/KG	-182		-374		17			20P
Chromium		14.0350		35.6882		33.4843		19.6078	19.6078	MG/KG	110		99		6		75 - 125	20P
Cobalt		6.2370		52.2608		52.6873		49.0196	49.0196	MG/KG	94		95		1		75 - 125	20P
Copper		10.7550		35.5382		35.1559		24.5098	24.5098	MG/KG	101		100		1		75 - 125	20P
Iron		19220.5020		19128.0569		19840.5647		98.0392	98.0392	MG/KG	-94		632		4			20P
Lead		13.7030		26.7971		26.7118		14.7059	14.7059	MG/KG	89		88		0		75 - 125	20P
Lithium		22.5440		124.5647		126.0039		98.0392	98.0392	MG/KG	104		106		1		75 - 125	20P
Magnesium		4183.7970		4489.4696		4500.9598		196.0784	196.0784	MG/KG	156		162		0			20P
Manganese		340.1910		346.8167		351.3069		49.0196	49.0196	MG/KG	14		23		1			20P
Molybdenum		0.6600	B	188.4451		188.1520		196.0784	196.0784	MG/KG	96		96		0		75 - 125	20P
Nickel		8.6320		56.6029		56.6912		49.0196	49.0196	MG/KG	98		98		0		75 - 125	20P
Phosphorus		402.9090		657.5049		451.7137		98.0392	98.0392	MG/KG	260		50		37	*		20P
Potassium		3570.4060		4758.1137		4830.0588		980.3922	980.3922	MG/KG	121		128	N	2		75 - 125	20P
Selenium	78	0.1964	B	2.7647		2.4039		1.9608	1.9608	MG/KG	131	N	113		14		75 - 125	20MS
Silver	107	0.0260	B	14.1510		11.5098		9.8039	9.8039	MG/KG	144	N	117		21	*	75 - 125	20MS
Sodium		65.7690	B	1077.7069		1080.3196		980.3922	980.3922	MG/KG	103		103		0		75 - 125	20P
Strontium	88	34.3000		46.2157		36.3137		7.8431	7.8431	MG/KG	152		26		24	*		20MS
Thallium	203	0.2790		0.8986		0.7267		0.3922	0.3922	MG/KG	158	N	114		21	*	75 - 125	20MS
Tin		3.4280	B	361.1627		358.9225		392.1569	392.1569	MG/KG	91		91		1		75 - 125	20P
Titanium		894.4200		1208.9618		1160.4794		98.0392	98.0392	MG/KG	321		271		4			20P
Vanadium		29.6650		82.4431		77.5745		49.0196	49.0196	MG/KG	108		98		6		75 - 125	20P
Zinc		56.9540		102.8451		102.9029		49.0196	49.0196	MG/KG	94		94		0		75 - 125	20P
Zirconium		2.1300	B	95.8461		96.2255		98.0392	98.0392	MG/KG	96		96		0		75 - 125	20P

Note: Results shown are reported on an as-received basis.

<p>METHODS:</p> <p>P = ICP Atomic Emission Spectrometer CV = Cold Vapor MS = ICP Mass Spectrometry AF = Cold Vapor Atomic Fluorescence</p>	<p>CONCENTRATION QUALIFIERS:</p> <p>U = Below MDL, B = Below LOQ</p> <p>FLAGS:</p> <p>N = Matrix Spike OOS, * = Duplicate OOS</p>
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Lancaster Laboratories
Environmental

QUALITY ASSURANCE SUMMARY

FORM 6

DUPLICATES

SDG No.: PH235

Matrix: SOIL

Level (low/med): LOW

Background Lab Sample ID: 7502707BKG

Duplicate Lab Sample ID: 7502707DUP

Batch ID(s): P17537A

Concentration Units: MG/KG

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			12983.4350		13039.3140		0		P
Antimony			-0.6570	B	-0.8120	B	-21		P
Arsenic		4.0	6.8390		6.0660		12		P
Barium			90.4130		80.5430		12		P
Beryllium			0.5390	B	0.5300	B	2		P
Boron			3.6940	B	2.3240	B	46		P
Cadmium			-0.1030	B	-0.1430	B	-33		P
Calcium			5624.3580		3428.3640		49	*	P
Chromium		3.0	14.0350		13.7780		2		P
Cobalt		1.0	6.2370		4.6560		29	*	P
Copper		2.0	10.7550		9.0810		17		P
Iron			19220.5020		18734.4570		3		P
Lead		3.0	13.7030		13.7920		1		P
Lithium			22.5440		23.3590		4		P
Magnesium			4183.7970		4007.0680		4		P
Manganese			340.1910		305.3070		11		P
Molybdenum			0.6600	B	0.3130	B	71		P
Nickel		2.0	8.6320		8.3440		3		P
Phosphorus			402.9090		366.2000		10		P
Potassium			3570.4060		3470.2100		3		P
Selenium	78		0.1964	B	0.1552	B	23		MS
Silver	107		0.0260	B	0.0423	B	48		MS
Sodium			65.7690	B	65.7610	B	0		P
Strontium	88		34.3000		22.8200		40	*	MS
Thallium	203	0.2	0.2790		0.2582		8		MS
Tin			3.4280	B	3.2830	B	4		P
Titanium			894.4200		930.5890		4		P
Vanadium			29.6650		28.9840		2		P
Zinc			56.9540		52.5780		8		P
Zirconium			2.1300	B	2.0350	B	5		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.

Note: Results shown are reported on an as-received basis.

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
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Data Validation Report
Santa Susana Field Laboratory
Go Backs, Subgroup FDG Block 2

SDG: PH237

Prepared for

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Prepared by

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August 23, 2014

INTRODUCTION

This Data Validation Report (DVR) presents Level III data validation results for samples collected on June 18, 2014. Data validation was performed in accordance with the Quality Assurance Project Plan (QAPP) 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 (CLPNFGs) for Superfund Organic Methods Data Review (June 2008), Polychlorinated Dioxins/Dibenzofurans Data Review (September 2005) and for Inorganic Data Review (January 2010). Where specific guidance is not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Volatiles (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260B
1,4-Dioxane by EPA SW 846 Method 8260B utilizing Selective Ion Monitoring (SIM)
Semivolatiles (SVOCs) by EPA SW 846 Method 8270D utilizing SIM
Polychlorinated Biphenyls (PCBs) by EPA SW 846 Method 8082A
Metals by EPA SW 846 Method 6010C, 6020A, 7470A, and 7471B
Total Petroleum Hydrocarbons (TPH) as Gasoline by EPA SW 846 Method 8015M
TPH as Extractables with and without Silica Gel Clean Up by EPA SW 846 Method 8015M
Dioxins and Dibenzofurans by EPA Method 1613B

The sample identification and methods of analyses performed on each sample is presented in Attachment 1. Please note field sample IDs have been truncated due to database limitations. Overall data qualification summary is presented in Attachment 2. Level III Automated Data Review outliers are presented in Enclosure I.

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results for sample holding times, initial and continuing calibration blanks (ICB/CCBs), surrogates, internal standards (dioxins and dibenzofurans only), matrix spike/matrix spike duplicates (MS/MSD), laboratory duplicates (DUP), laboratory control sample/laboratory control sample duplicates (LCS/LCSD), ICP serial dilutions, method blanks, equipment blanks, and field blanks. No samples in this SDG were subjected to Level IV evaluation.

Automated data review was performed on all QC summary results using the Automated Data Review (ADR) software program (LDC, 2013) with the exception of ICB/CCBs and ICP serial dilutions which were validated manually. Quality assurance (QA)/QC criteria specified in the QAPP and CLPNFGs were incorporated with the program's reference library to assess compliance with project requirements.

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.

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 QC criteria.

II. Initial Calibration

Initial Calibration data were not reviewed for level III.

III. Continuing Calibration

Continuing calibration data were not reviewed for level III.

IV. Blanks

Method blanks were performed at the required frequencies. No contaminant concentrations were detected in the method or preparation blanks with the exception of several blanks for SVOCs, metals, and dioxins and dibenzofurans. The associated sample results were qualified as non-detected (U) due to method blank contamination as applicable. The sample results that were not detected or were significantly greater than the concentrations found in the associated blanks were not qualified. The details regarding the qualification of data are provided in Enclosure I.

No contaminant concentrations were detected in the initial or continuing calibration blanks with the following exceptions:

SDG/Method	Method Blank ID	Analyte	Maximum Concentration	Associated Samples
PH237 (6010C)	ICB/CCB	Arsenic	5.3 ug/L	FDG2-SL-575-NBZ-SB-0.0-0.5

Sample concentrations were compared to concentrations detected in the initial and continuing blanks. The sample concentrations were not detected or were significantly greater than the concentrations found in the associated blanks with the following exceptions:

SDG/Method	Sample	Compound	Reported Concentration	Modified Final Concentration
PH237 (6010C)	FDG2-SL-575-NBZ-SB-0.0-0.5	Arsenic	2.50 mg/Kg	2.50U mg/Kg

V. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the exception of one sample for PCBs. No data were qualified due to high %Rs since the associated results were non-detected.

VI. ICP Interference Check Sample (ICS) Analysis

ICP interference check data were not reviewed for level III.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were performed at the required frequency. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the exception of one MS/MSD pairs for metals from SDG PH235. The associated sample results were qualified as detected estimated (J) or non-detected estimated (UJ) as applicable. The details regarding the qualification of data are provided in Enclosure I of the DVR for PH235.

VIII. Laboratory Duplicates Sample

Laboratory duplicates (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits with the exception of one DUP for metals from SDG PH235. The associated sample results were qualified as detected estimated (J) or non-detected estimated (UJ) as applicable. The details regarding the qualification of data are provided in Enclosure I of the DVR for PH235.

IV. 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 exception of several LCS/LCSD pairs for VOCs, PCBs, and TPH as extractables with and without silica gel clean up. The associated sample results were qualified as detected estimated (J) or non-detected estimated (UJ) as applicable. The details regarding the qualification of data are provided in Enclosure I.

X. Internal Standards

Internal standards were reviewed for dioxins/dibenzofurans. Percent recoveries (%R) were within QC limits.

XI. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met.

XII. Compound Quantitation

The laboratory reporting limits were evaluated. All laboratory reporting limits met the specified requirements.

All compounds reported below the RL as detected were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PH237	All compounds reported as detected below the RL.	J (all detects)	A

XIII. Field Duplicate Samples

No field duplicates were identified in this SDG.

XIV. Field Blank Samples

No trip blank was identified in this SDG.

One equipment blank was collected and analyzed for VOCs, 1,4-Dioxane, SVOCs, PCBs, metals, TPH as gasoline, TPH as extractables with and without silica gel clean up, and dioxins and dibenzofurans. The equipment blank had detections for VOCs, SVOCs, metals, and dioxins and dibenzofurans. The associated sample results were qualified as non-detected (U) due to equipment blank contamination as applicable. The sample results that were not detected or were significantly greater than the concentrations found in the equipment blanks were not qualified. The equipment blank outlier reports are presented in Enclosure I.

One field blank (from SDG PH191) was collected and analyzed for VOCs, 1,4-Dioxane, SVOCs, PCBs, metals, TPH as gasoline, TPH as extractables with and without silica gel clean up, and dioxins and dibenzofurans. The field blank had detections for VOCs, SVOCs, metals, and dioxins and dibenzofurans. The associated sample results were qualified as non-detected (U) due to field blank contamination as applicable. The sample results that were not detected or were significantly greater than the concentrations found in the field blank were not qualified. The field blank outlier reports are presented in Enclosure I.

XV. Overall Assessment of Data

The overall assessment of QA/QC data review by automated and manual validation of this sampling event met project requirements and analytical completeness levels with the exceptions noted in the above sections. The remainder of the data are deemed useable for the intended use.

Data flags are summarized and are presented as Attachment 2.

Attachment 1
Sample Cross Reference

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Jun-2014	SL-575-NBZ-SB-0.0-0.5	7504495	N	3050B	6010C	III
18-Jun-2014	SL-575-NBZ-SB-0.0-0.5	7504495	N	3050B	6020A	III
18-Jun-2014	SL-575-NBZ-SB-0.0-0.5	7504495	N	3546	8015M	III
18-Jun-2014	SL-575-NBZ-SB-0.0-0.5	7504495	N	3546	8082A	III
18-Jun-2014	SL-575-NBZ-SB-0.0-0.5	7504495	N	3546	8270D SIM	III
18-Jun-2014	SL-575-NBZ-SB-0.0-0.5	7504495	N	METHOD	7471B	III
18-Jun-2014	SL-574-NBZ-SB-0.0-0.5	7504494	N	3050B	6010C	III
18-Jun-2014	SL-574-NBZ-SB-0.0-0.5	7504494	N	3050B	6020A	III
18-Jun-2014	SL-574-NBZ-SB-0.0-0.5	7504494	N	3546	8015M	III
18-Jun-2014	SL-574-NBZ-SB-0.0-0.5	7504494	N	3546	8082A	III
18-Jun-2014	SL-574-NBZ-SB-0.0-0.5	7504494	N	METHOD	7471B	III
18-Jun-2014	SL-574-NBZ-SB-0.0-0.5DUP	P504494D221049	DUP	METHOD	7471B	III
18-Jun-2014	SL-574-NBZ-SB-0.0-0.5MSD	P504494M221053	MSD	METHOD	7471B	III
18-Jun-2014	SL-574-NBZ-SB-0.0-0.5MS	P504494R221051	MS	METHOD	7471B	III
18-Jun-2014	SL-573-NBZ-SB-0.0-0.5	7504493	N	3546	8015M	III
18-Jun-2014	EB1-061814	7504496	EB	3005A	6010C	III
18-Jun-2014	EB1-061814	7504496	EB	3510C	8015M	III
18-Jun-2014	EB1-061814	7504496	EB	3510C	8082A	III
18-Jun-2014	EB1-061814	7504496	EB	3510C	8270D SIM	III
18-Jun-2014	EB1-061814	7504496	EB	5030B	8015M	III
18-Jun-2014	EB1-061814	7504496	EB	5030B	8260B	III
18-Jun-2014	EB1-061814	7504496	EB	5030B	8260B SIM	III
18-Jun-2014	EB1-061814	7504496	EB	M3010A	6020A	III
18-Jun-2014	EB1-061814	7504496	EB	METHOD	1613B	III
18-Jun-2014	EB1-061814	7504496	EB	METHOD	7470A	III

Attachment 2
Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: PH237

Laboratory: LL

EDD Filename: PH237_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method Category:	METALS									
Method:	6010C	Matrix:			AQ					

Sample ID: EB1-061814 Collected: 6/18/2014 3:00:00 Analysis Type: REA2 Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.0061	J	0.0046	MDL	0.100	PQL	mg/L	J	Z
CADMIUM	0.00037	J	0.00033	MDL	0.0100	PQL	mg/L	J	Z
MOLYBDENUM	0.0100	J	0.0017	MDL	0.0200	PQL	mg/L	J	Z
MANGANESE	0.00085	J	0.00083	MDL	0.0100	PQL	mg/L	U	B

Method Category:	METALS									
Method:	6010C	Matrix:			SO					

Sample ID: FDG2-SL-574-NBZ-SB-0.0-0.5 Collected: 6/18/2014 8:20:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.10	U	0.338	MDL	4.10	PQL	mg/Kg	UJ	Q
ARSENIC	3.96	J	0.656	MDL	4.10	PQL	mg/Kg	J	Z
BERYLLIUM	0.886	J	0.0687	MDL	1.03	PQL	mg/Kg	J	Z
CALCIUM	4700		3.89	MDL	20.5	PQL	mg/Kg	J	E
COBALT	7.56		0.0985	MDL	1.03	PQL	mg/Kg	J	E
MOLYBDENUM	0.339	J	0.174	MDL	2.05	PQL	mg/Kg	U	F
PHOSPHORUS	509		0.328	MDL	10.3	PQL	mg/Kg	J	E
POTASSIUM	5720		13.3	MDL	103	PQL	mg/Kg	J	Q
SODIUM	86.7	J	17.1	MDL	103	PQL	mg/Kg	J	Z
TIN	4.07	J	0.441	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	2.28	J	0.831	MDL	5.13	PQL	mg/Kg	U	F

Sample ID: FDG2-SL-575-NBZ-SB-0.0-0.5 Collected: 6/18/2014 7:55:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.03	U	0.332	MDL	4.03	PQL	mg/Kg	UJ	Q
ARSENIC	2.50	J	0.645	MDL	4.03	PQL	mg/Kg	U	B
BERYLLIUM	0.411	J	0.0675	MDL	1.01	PQL	mg/Kg	J	Z
BORON	0.892	J	0.846	MDL	10.1	PQL	mg/Kg	U	F
CALCIUM	3070		3.82	MDL	20.1	PQL	mg/Kg	J	E
COBALT	4.12		0.0967	MDL	1.01	PQL	mg/Kg	J	E
PHOSPHORUS	374		0.322	MDL	10.1	PQL	mg/Kg	J	E
POTASSIUM	3390		13.1	MDL	101	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH237

Laboratory: LL

EDD Filename: PH237_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: FDG2-SL-575-NBZ-SB-0.0-0.5

Collected: 6/18/2014 7:55:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	58.4	J	16.8	MDL	101	PQL	mg/Kg	J	Z
TIN	3.18	J	0.433	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	1.39	J	0.816	MDL	5.04	PQL	mg/Kg	U	F

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: FDG2-SL-574-NBZ-SB-0.0-0.5

Collected: 6/18/2014 8:20:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.240	J	0.103	MDL	0.410	PQL	mg/Kg	J	Z, Q

Sample ID: FDG2-SL-574-NBZ-SB-0.0-0.5

Collected: 6/18/2014 8:20:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0517	J	0.0205	MDL	0.205	PQL	mg/Kg	J	Z, Q, E
STRONTIUM	34.1		0.0587	MDL	0.410	PQL	mg/Kg	J	E, E
THALLIUM	0.355		0.0308	MDL	0.205	PQL	mg/Kg	J	E, Q

Sample ID: FDG2-SL-575-NBZ-SB-0.0-0.5

Collected: 6/18/2014 7:55:00

Analysis Type: REA

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.175	J	0.101	MDL	0.403	PQL	mg/Kg	J	Z, Q

Sample ID: FDG2-SL-575-NBZ-SB-0.0-0.5

Collected: 6/18/2014 7:55:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0288	J	0.0201	MDL	0.201	PQL	mg/Kg	J	Z, Q, E
STRONTIUM	15.2		0.0576	MDL	0.403	PQL	mg/Kg	J	E, E
THALLIUM	0.211		0.0302	MDL	0.201	PQL	mg/Kg	J	E, Q

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

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Data Qualifier Summary

Lab Reporting Batch ID: PH237

Laboratory: LL

EDD Filename: PH237_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method Category: METALS
Method: 7471B **Matrix: SO**

Sample ID: FDG2-SL-575-NBZ-SB-0.0-0.5 Collected: 6/18/2014 7:55:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0145	J	0.0095	MDL	0.0158	PQL	mg/Kg	J	Z

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

Sample ID: EB1-061814 Collected: 6/18/2014 3:00:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	2.52	JBQ	0.796	MDL	10.4	PQL	pg/L	U	B
1,2,3,4,7,8,9-HPCDF	1.08	JB	1.01	MDL	10.4	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDD	2.08	JB	0.874	MDL	10.4	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDF	0.613	JBQ	0.562	MDL	10.4	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDD	1.57	JB	0.805	MDL	10.4	PQL	pg/L	J	Z
1,2,3,7,8,9-HXCDF	2.78	JBQ	0.679	MDL	10.4	PQL	pg/L	J	Z
2,3,4,7,8-PECDF	0.761	JBQ	0.272	MDL	10.4	PQL	pg/L	U	B
2,3,7,8-TCDD	0.812	JQ	0.522	MDL	2.08	PQL	pg/L	J	Z
OCDD	157	B	1.60	MDL	20.8	PQL	pg/L	U	B
OCDF	6.09	JB	1.12	MDL	20.8	PQL	pg/L	U	B

Method Category: SVOA
Method: 8015M **Matrix: AQ**

Sample ID: EB1-061814 Collected: 6/18/2014 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
EFH (C30-C40)	0.49	U	0.098	MDL	0.49	PQL	mg/L	UJ	E

Sample ID: EB1-061814 Collected: 6/18/2014 3:00:00 Analysis Type: REA2 Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C12-C14) SG	0.098	U	0.049	MDL	0.098	PQL	mg/L	UJ	L
EFH (C15-C20) SG	0.098	U	0.049	MDL	0.098	PQL	mg/L	UJ	L
EFH (C21-C30) SG	0.098	U	0.049	MDL	0.098	PQL	mg/L	UJ	L
EFH (C30-C40) SG	0.49	U	0.098	MDL	0.49	PQL	mg/L	UJ	L, E

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH237

Laboratory: LL

EDD Filename: PH237_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method Category:	SVOA	
Method:	8015M	Matrix: AQ

Sample ID: EB1-061814	Collected: 6/18/2014 3:00:00	Analysis Type: REA2	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C8-C11) SG	0.098	U	0.049	MDL	0.098	PQL	mg/L	UJ	L

Method Category:	SVOA	
Method:	8015M	Matrix: SO

Sample ID: FDG2-SL-573-NBZ-SB-0.0-0.5	Collected: 6/18/2014 9:40:00	Analysis Type: DL	Dilution: 5						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	14	J	10	MDL	25	PQL	mg/Kg	J	Z

Sample ID: FDG2-SL-574-NBZ-SB-0.0-0.5	Collected: 6/18/2014 8:20:00	Analysis Type: REA	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30) SG	3.9	J	2.1	MDL	5.1	PQL	mg/Kg	J	Z
EFH (C30-C40) SG	5.7	J	4.1	MDL	10	PQL	mg/Kg	J	Z

Sample ID: FDG2-SL-574-NBZ-SB-0.0-0.5	Collected: 6/18/2014 8:20:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	4.2	J	2.0	MDL	5.1	PQL	mg/Kg	J	Z

Sample ID: FDG2-SL-575-NBZ-SB-0.0-0.5	Collected: 6/18/2014 7:55:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	4.5	J	2.0	MDL	5.0	PQL	mg/Kg	J	Z

Method Category:	SVOA	
Method:	8082A	Matrix: AQ

Sample ID: EB1-061814	Collected: 6/18/2014 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
Aroclor 5432	0.43	U	0.087	MDL	0.43	PQL	ug/L	UJ	E
Aroclor 5442	0.43	U	0.087	MDL	0.43	PQL	ug/L	UJ	E
Aroclor 5460	0.43	U	0.095	MDL	0.43	PQL	ug/L	UJ	E

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH237

Laboratory: LL

EDD Filename: PH237_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method Category: SVOA
Method: 8082A **Matrix:** AQ

Method Category: SVOA
Method: 8270D SIM **Matrix:** AQ

Sample ID: EB1-061814 Collected: 6/18/2014 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
1-METHYLNAPHTHALENE	0.011	J	0.010	MDL	0.052	PQL	ug/L	J	Z
2-METHYLNAPHTHALENE	0.015	J	0.010	MDL	0.052	PQL	ug/L	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	0.094	J	0.052	MDL	1.0	PQL	ug/L	U	B
Diethylphthalate	0.11	J	0.052	MDL	1.0	PQL	ug/L	J	Z
Di-n-butylphthalate	0.13	J	0.052	MDL	1.0	PQL	ug/L	U	B
NAPHTHALENE	0.036	J	0.031	MDL	0.052	PQL	ug/L	J	Z

Method Category: SVOA
Method: 8270D SIM **Matrix:** SO

Sample ID: FDG2-SL-575-NBZ-SB-0.0-0.5 Collected: 6/18/2014 7:55:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(K)FLUORANTHENE	10	J	6.7	MDL	17	PQL	ug/Kg	J	Z

Method Category: VOA
Method: 8260B **Matrix:** AQ

Sample ID: EB1-061814 Collected: 6/18/2014 3:00:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-BUTANONE (MEK)	3	J	3	MDL	10	PQL	ug/L	J	Z
VINYL ACETATE	10	U	2	MDL	10	PQL	ug/L	UJ	L

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH237

Laboratory: LL

EDD Filename: PH237_v1

eQAPP Name: CDM_SSFL_140617_Lan

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
B	Calibration Blank Contamination
B	Method Blank Contamination
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination
F	Field Blank Contamination
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

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Enclosure I
Level III ADR Outliers
(Including Manual Review Outliers)

Quality Control Outlier Reports

PH237

Method Blank Outlier Report

Lab Reporting Batch ID: PH237

Laboratory: LL

EDD Filename: PH237_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 1613B
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK1770B371629	6/30/2014 4:29:00 PM	1,2,3,4,6,7,8-HPCDD 1,2,3,4,6,7,8-HPCDF 1,2,3,4,7,8,9-HPCDF 1,2,3,4,7,8-HXCDF 1,2,3,6,7,8-HXCDD 1,2,3,6,7,8-HXCDF 1,2,3,7,8,9-HXCDD 1,2,3,7,8,9-HXCDF 2,3,4,6,7,8-HXCDF 2,3,4,7,8-PECDF OCDD OCDF	4.82 pg/L 0.721 pg/L 0.278 pg/L 0.326 pg/L 0.492 pg/L 0.343 pg/L 0.308 pg/L 0.237 pg/L 0.174 pg/L 0.312 pg/L 32.9 pg/L 2.02 pg/L	EB1-061814

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
EB1-061814(RES)	1,2,3,4,6,7,8-HPCDF	2.52 pg/L	2.52U pg/L
EB1-061814(RES)	1,2,3,4,7,8,9-HPCDF	1.08 pg/L	1.08U pg/L
EB1-061814(RES)	1,2,3,6,7,8-HXCDD	2.08 pg/L	2.08U pg/L
EB1-061814(RES)	1,2,3,6,7,8-HXCDF	0.613 pg/L	0.613U pg/L
EB1-061814(RES)	2,3,4,7,8-PECDF	0.761 pg/L	0.761U pg/L
EB1-061814(RES)	OCDD	157 pg/L	157U pg/L
EB1-061814(RES)	OCDF	6.09 pg/L	6.09U pg/L

Method: 6010C
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P17835BB222037	6/30/2014 8:37:00 PM	MANGANESE	0.0011 mg/L	EB1-061814

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
EB1-061814(REA2)	MANGANESE	0.00085 mg/L	0.00085U mg/L

Method: 6010C
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P17537AB221955	6/25/2014 7:55:00 PM	CALCIUM PHOSPHORUS TIN	10.7 mg/Kg 1.76 mg/Kg 1.49 mg/Kg	FDG2-SL-574-NBZ-SB-0.0-0.5 FDG2-SL-575-NBZ-SB-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
FDG2-SL-574-NBZ-SB-0.0-0.5(RES)	TIN	4.07 mg/Kg	4.07U mg/Kg
FDG2-SL-575-NBZ-SB-0.0-0.5(RES)	TIN	3.18 mg/Kg	3.18U mg/Kg

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

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Method Blank Outlier Report

Lab Reporting Batch ID: PH237

Laboratory: LL

EDD Filename: PH237_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 6020A
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P17537AB220553A	6/25/2014 5:53:00 AM	STRONTIUM	0.0581 mg/Kg	FDG2-SL-574-NBZ-SB-0.0-0.5 FDG2-SL-575-NBZ-SB-0.0-0.5

Method: 8270D SIM
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWC17B262114	6/26/2014 9:14:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE Di-n-butylphthalate	0.11 ug/L 0.057 ug/L	EB1-061814

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
EB1-061814(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.094 ug/L	1.0U ug/L
EB1-061814(RES)	Di-n-butylphthalate	0.13 ug/L	1.0U ug/L

Field Blank Outlier Report

Lab Reporting Batch ID: PH237

Laboratory: LL

EDD Filename: PH237_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 6010C
Matrix: SO

Field Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
FB-052114(RES)	5/21/2014 2:00:00 PM	Zirconium	0.011 mg/L	FDG2-SL-573-NBZ-SB-0.0-0.5 FDG2-SL-574-NBZ-SB-0.0-0.5 FDG2-SL-575-NBZ-SB-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
FDG2-SL-574-NBZ-SB-0.0-0.5(RES)	Zirconium	2.28 mg/Kg	2.28U mg/Kg
FDG2-SL-575-NBZ-SB-0.0-0.5(RES)	Zirconium	1.39 mg/Kg	1.39U mg/Kg

Equipment Rinsate Blank Outlier Report

Lab Reporting Batch ID: PH237

Laboratory: LL

EDD Filename: PH237_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 6010C
Matrix: SO

Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB1-061814(REA2)	6/18/2014 3:00:00 PM	BORON CADMIUM MANGANESE MOLYBDENUM	0.0061 mg/L 0.00037 mg/L 0.00085 mg/L 0.01 mg/L	FDG2-SL-573-NBZ-SB-0.0-0.5 FDG2-SL-574-NBZ-SB-0.0-0.5 FDG2-SL-575-NBZ-SB-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
FDG2-SL-574-NBZ-SB-0.0-0.5(RES)	MOLYBDENUM	0.339 mg/Kg	0.339U mg/Kg
FDG2-SL-575-NBZ-SB-0.0-0.5(RES)	BORON	0.892 mg/Kg	0.892U mg/Kg

Surrogate Outlier Report

Lab Reporting Batch ID: PH237

Laboratory: LL

EDD Filename: PH237_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 8082A
Matrix: SO

Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
FDG2-SL-575-NBZ- SB-0.0-0.5	TETRACHLORO-M-XYLENE	123	45.00-120.00	All Target Analytes	J (all detects)

Method: 8270D SIM
Matrix: SO

Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
FDG2-SL-575-NBZ- SB-0.0-0.5	Fluoranthene-d10	116	59.00-115.00	No Affected Compounds	

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH237

Laboratory: LL

EDD Filename: PH237_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 8015M
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P41749AY321944A (EB1-061814)	EFH (C30-C40)	-	-	44.00-134.00	32 (30.00)	EFH (C30-C40)	J (all detects) UJ (all non-detects)
P41740AQ321455A P41740AY321517A (EB1-061814)	EFH (C12-C14) SG EFH (C15-C20) SG EFH (C21-C30) SG EFH (C30-C40) SG EFH (C8-C11) SG	63 67 65 32 47	62 67 66 - 44	67.00-109.00 71.00-119.00 75.00-117.00 44.00-134.00 55.00-86.00	- - - 45 (30.00) -	EFH (C12-C14) SG EFH (C15-C20) SG EFH (C21-C30) SG EFH (C30-C40) SG EFH (C8-C11) SG	J(all detects) UJ(all non-detects)

Method: 8082A
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P41758AY241907A (EB1-061814)	Aroclor 5442	-	-	34.00-115.00	55 (30.00)	Aroclor 5442, 5432, 5460	J(all detects) UJ(all non-detects)

Method: 8260B
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSY95Q211023A LCSY95Y211044A (EB1-061814)	VINYL ACETATE	47	48	56.00-135.00	-	VINYL ACETATE	J(all detects) UJ(all non-detects)

Reporting Limit Outliers

Lab Reporting Batch ID: PH237

Laboratory: LL

EDD Filename: PH237_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 1613B
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB1-061814	1,2,3,4,6,7,8-HPCDF	JBQ	2.52	10.4	PQL	pg/L	J (all detects)
	1,2,3,4,7,8,9-HPCDF	JB	1.08	10.4	PQL	pg/L	
	1,2,3,6,7,8-HXCDD	JB	2.08	10.4	PQL	pg/L	
	1,2,3,6,7,8-HXCDF	JBQ	0.613	10.4	PQL	pg/L	
	1,2,3,7,8,9-HXCDD	JB	1.57	10.4	PQL	pg/L	
	1,2,3,7,8,9-HXCDF	JBQ	2.78	10.4	PQL	pg/L	
	2,3,4,7,8-PECDF	JBQ	0.761	10.4	PQL	pg/L	
	2,3,7,8-TCDD	JQ	0.812	2.08	PQL	pg/L	
	OCDF	JB	6.09	20.8	PQL	pg/L	

Method: 6010C
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB1-061814	BORON	J	0.0061	0.100	PQL	mg/L	J (all detects)
	CADMIUM	J	0.00037	0.0100	PQL	mg/L	
	MANGANESE	J	0.00085	0.0100	PQL	mg/L	
	MOLYBDENUM	J	0.0100	0.0200	PQL	mg/L	

Method: 8260B
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB1-061814	2-BUTANONE (MEK)	J	3	10	PQL	ug/L	J (all detects)

Method: 8270D SIM
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB1-061814	1-METHYLNAPHTHALENE	J	0.011	0.052	PQL	ug/L	J (all detects)
	2-METHYLNAPHTHALENE	J	0.015	0.052	PQL	ug/L	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.094	1.0	PQL	ug/L	
	Diethylphthalate	J	0.11	1.0	PQL	ug/L	
	Di-n-butylphthalate	J	0.13	1.0	PQL	ug/L	
NAPHTHALENE	J	0.036	0.052	PQL	ug/L		

Method: 6010C
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG2-SL-574-NBZ-SB-0.0-0.5	ARSENIC	J	3.96	4.10	PQL	mg/Kg	J (all detects)
	BERYLLIUM	J	0.886	1.03	PQL	mg/Kg	
	MOLYBDENUM	J	0.339	2.05	PQL	mg/Kg	
	SODIUM	J	86.7	103	PQL	mg/Kg	
	TIN	J	4.07	10.3	PQL	mg/Kg	
	Zirconium	J	2.28	5.13	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH237

Laboratory: LL

EDD Filename: PH237_v1

eQAPP Name: CDM_SSFL_140617_Lan

Method: 6010C
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG2-SL-575-NBZ-SB-0.0-0.5	ARSENIC	J	2.50	4.03	PQL	mg/Kg	J (all detects)
	BERYLLIUM	J	0.411	1.01	PQL	mg/Kg	
	BORON	J	0.892	10.1	PQL	mg/Kg	
	SODIUM	J	58.4	101	PQL	mg/Kg	
	TIN	J	3.18	10.1	PQL	mg/Kg	
	Zirconium	J	1.39	5.04	PQL	mg/Kg	

Method: 6020A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG2-SL-574-NBZ-SB-0.0-0.5	SELENIUM	J	0.240	0.410	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0517	0.205	PQL	mg/Kg	
FDG2-SL-575-NBZ-SB-0.0-0.5	SELENIUM	J	0.175	0.403	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0288	0.201	PQL	mg/Kg	

Method: 7471B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG2-SL-575-NBZ-SB-0.0-0.5	MERCURY	J	0.0145	0.0158	PQL	mg/Kg	J (all detects)

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG2-SL-573-NBZ-SB-0.0-0.5	EFH (C15-C20)	J	14	25	PQL	mg/Kg	J (all detects)
FDG2-SL-574-NBZ-SB-0.0-0.5	EFH (C15-C20)	J	4.2	5.1	PQL	mg/Kg	J (all detects)
	EFH (C21-C30) SG	J	3.9	5.1	PQL	mg/Kg	
	EFH (C30-C40) SG	J	5.7	10	PQL	mg/Kg	
FDG2-SL-575-NBZ-SB-0.0-0.5	EFH (C15-C20)	J	4.5	5.0	PQL	mg/Kg	J (all detects)

Method: 8270D SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG2-SL-575-NBZ-SB-0.0-0.5	BENZO(K)FLUORANTHENE	J	10	17	PQL	ug/Kg	J (all detects)

LDC #: 32270F4

VALIDATION COMPLETENESS WORKSHEET

Date: 8/7/14

SDG #: PH237

ADR

Page: 1 of 1

Laboratory: Eurofins Lancaster Laboratories

Reviewer: W

2nd Reviewer: a

METHOD: Metals (EPA SW 846 Method 6010C/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	—	Sampling dates 6/18/14 6/18/14
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	CCB/ICB hits but no quals for water
V.	ICP Interference Check Sample (ICS) Analysis	—	
VI.	Matrix Spike Analysis	A N N	MS/D FB ^{6003/6020} from SDG# PH235
VII.	Duplicate Sample Analysis	A N ↓	DUP ↓
VIII.	Laboratory Control Samples (LCS)	N	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	N	
XV.	Field Blanks	SW	EB = 3 FB = FB-052114 SDG#191

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	FDG2-SL-575-NBZ-SB-0.0-0.5	11		21		31	
2	FDG2-SL-575-NBZ-SB-0.0-0.5	12		22		32	
3	EB1-061814 Water	13		23		33	
4	#1 MS	14		24		34	
5	#1 MSD	15		25		35	
6	#1 DUP	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

VALIDATION FINDINGS WORKSHEET
Sample Specific Element Reference

All circled elements are applicable to each sample.

Sample ID	Matrix	Target Analyte List (TAL)
1-2	S	Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr
3	W	Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr
QC4-6	S	Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, <u>Hg</u> , Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr
Analysis Method		
ICP		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr
ICP-MS		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, <u>Se, Ag, Na, Sr, Ti, Sn, Ti, V, Zn, Zr</u>

Comments: Mercury by CVAA if performed

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

METHOD: Trace metals (EPA SW 864 Method 6010C/6020A/7471A)

Soil preparation factor applied: 100

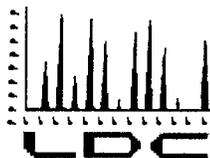
Sample Concentration units, unless otherwise noted: mg/kg

Associated Samples: ~~All Soil~~ 2 (B)

					Sample Identification										
Analyte	Maximum PB ^a (mg/Kg)	Maximum PB ^a (mg/L)	Maximum ICB/CCB ^a (ug/L)	Action Level	2										
As			5.3	2.65	2.50										

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.



LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

CDM
555 17th Street, Suite 1100
Denver, CO 80202
ATTN: Mrs. Cherie Zakowski

August 26, 2014

SUBJECT: Santa Susana Field Laboratory, SVL, Data Validation

Dear Mrs. Zakowski,

Enclosed is the final validation report for the fraction listed below. This SDG was received on August 4, 2014. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #32369:

<u>SDG #</u>	<u>Fraction</u>
PH198	Volatiles

The data validation was performed under Level III guidelines. The analyses were validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan for Santa Susana Field Laboratory, RCRA Facility Investigation, Surficial Media Operable Unit, March 2009, Revision 4
- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; Update IV, February 2007

Please feel free to contact us if you have any questions.

Sincerely,

Shauna McKellar
Project Manager/Chemist

**Data Validation Report
Santa Susana Field Laboratory**

Go Backs, Subgroup SVL

SDG: PH198

Prepared for

CDM Smith
555 17th Street, Suite 1100
Denver, CO 80202

Prepared by

Laboratory Data Consultants, Inc.
2701 Loker Ave West, Suite 220
Carlsbad, CA 92010

August 25, 2014

INTRODUCTION

This Data Validation Report (DVR) presents Level III data validation results for samples collected on May 23, 2014. Data validation was performed in accordance with the Quality Assurance Project Plan (QAPP) 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 (CLPNFGs) for Superfund Organic Methods Data Review (June 2008). Where specific guidance is not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Volatiles (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260B

The sample identification and methods of analyses performed on each sample is presented in Attachment 1. Overall data qualification summary is presented in Attachment 2. Level III Automated Data Review outliers are presented in Enclosure I.

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results for sample holding times, surrogates, laboratory control sample/laboratory control sample duplicates (LCS/LCSD), method blanks, trip blanks, equipment blanks and field blanks. No samples in this SDG were subjected to Level IV evaluation.

Automated data review was performed on all QC summary results using the Automated Data Review (ADR) software program (LDC, 2013). Quality assurance (QA)/QC criteria specified in the QAPP and CLPNFGs were incorporated with the program's reference library to assess compliance with project requirements.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected.
- 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.

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 QC criteria.

II. Initial Calibration

Initial Calibration data were not reviewed for level III.

III. Continuing Calibration

Continuing calibration data were not reviewed for level III.

IV. Blanks

Method blanks were performed at the required frequencies. No contaminant concentrations were detected in the method or preparation blanks.

V. Surrogate Spikes

Surrogate percent 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.

VII. Laboratory Duplicates Sample

The laboratory has indicated that there were no laboratory duplicate (DUP) analyses specified for the samples in this SDG, and therefore laboratory 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 exception of one LCS/LCSD pair for chlorotrifluorethylene. The associated sample results were qualified as non-detected estimated (UJ). The details regarding the qualification of data are provided in Enclosure I.

IX. Internal Standards

Internal standards were not reviewed for level III.

X. Compound Quantitation

The laboratory reporting limits were evaluated. All laboratory reporting limits met the specified requirements.

All compounds reported below the RL as detected were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PH198	All compounds reported as detected below the RL.	J (all detects)	A

XI. Field Duplicate Samples

No field duplicate samples were identified in this SDG.

XII. Field Blank Samples

One trip blank was collected and analyzed for VOCs. No contaminant concentrations were found in the trip blank.

One equipment blank (from SDG PH190) was collected and analyzed for VOCs. No contaminant concentrations were found in the equipment blank.

One field blank (from SDG PH176) was collected and analyzed for VOCs. No contaminant concentrations were found in the field blank.

XIII. Overall Assessment of Data

The overall assessment of QA/QC data review by automated and manual validation of this sampling event met project requirements and analytical completeness levels with the exceptions noted in the above sections. The remainder of the data are deemed useable for the intended use.

Data flags are summarized and are presented as Attachment 2.

Attachment 1
Sample Cross Reference

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-May-2014	TB2-052314	7476635	TB	5030B	8260B	III
23-May-2014	SVL-536-SA5D-SB-1.8-2.3	7476636	N	5035A	8260B	III

Attachment 2
Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: PH198

Laboratory: LL

EDD Filename: PH198_v2.

eQAPP Name: CDM_SSFL_140617_Lan

Method Category: VOA
Method: 8260B **Matrix:** AQ

Sample ID: TB2-052314 Collected: 5/23/2014 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
Chlorotrifluoroethylene	5	U	2	MDL	5	PQL	ug/L	UJ	L

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH198

Laboratory: LL

EDD Filename: PH198_v2.

eQAPP Name: CDM_SSFL_140617_Lan

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
L	Laboratory Control Spike Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

8/25/2014 9:27:15 AM

ADR version 1.8.0.248

Page 2 of 2

Enclosure I

Level III ADR Outliers

Quality Control Outlier Reports

PH198

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH198

Laboratory: LL

EDD Filename: PH198_v2.

eQAPP Name: CDM_SSFL_140617_Lan

Method: 8260B

Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSY18Q211044A (TB2-052314)	Chlorotrifluoroethylene	46	-	47.00-120.00	-	Chlorotrifluoroethylene	J (all detects) UJ (all non-detects)

Appendix D
Master Database Table
(On CD)

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	160.3M	5/22/2014	PH188	7.9	1	MOIST	MOISTURE	7.9		0.10	0.10	%				1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	1613B	5/30/2014	PH188	7.9	1	1746-01-6	2,3,7,8-TCDD	1.08	U	0.0787	1.08	ng/kg	U			1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	1613B	5/30/2014	PH188	7.9	1	19408-74-3	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	0.392	J	0.0425	5.38	ng/kg	JB	J	Z	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	1613B	5/30/2014	PH188	7.9	1	3268-87-9	OCDD	6.72	J	0.0407	10.8	ng/kg	JB	J	FD, Z	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	1613B	5/30/2014	PH188	7.9	1	35822-46-9	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	0.842	J	0.0545	5.38	ng/kg	JB	J	FD, Z	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	1613B	5/30/2014	PH188	7.9	1	39001-02-0	OCDF	0.5	J	0.0752	10.8	ng/kg	JB	J	FD, Z	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	1613B	5/30/2014	PH188	7.9	1	39227-28-6	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	5.38	UJ	0.0451	5.38	ng/kg	U	UJ	FD	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	1613B	5/30/2014	PH188	7.9	1	40321-76-4	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	5.38	U	0.0644	5.38	ng/kg	JBQ	U	B	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	1613B	5/30/2014	PH188	7.9	1	51207-31-9	2,3,7,8-TETRACHLORODIBENZOFURAN	0.122	J	0.0719	1.08	ng/kg	JQ	J	FD, Z	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	1613B	5/30/2014	PH188	7.9	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	5.38	U	0.0268	5.38	ng/kg	JBQ	U	B	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	1613B	5/30/2014	PH188	7.9	1	57117-31-4	2,3,4,7,8-PECDF	5.38	U	0.0333	5.38	ng/kg	JBQ	U	B	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	1613B	5/30/2014	PH188	7.9	1	57117-41-6	1,2,3,7,8-PENTACHLORODIBENZOFURAN	5.38	U	0.0344	5.38	ng/kg	JBQ	U	B	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	1613B	5/30/2014	PH188	7.9	1	57117-44-9	1,2,3,6,7,8-HXCDF	5.38	U	0.0367	5.38	ng/kg	JBQ	U	B	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	1613B	5/30/2014	PH188	7.9	1	57653-85-7	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	0.297	J	0.0445	5.38	ng/kg	JBQ	J	Z	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	1613B	5/30/2014	PH188	7.9	1	60851-34-5	2,3,4,6,7,8-HXCDF	5.38	U	0.0391	5.38	ng/kg	JBQ	U	B	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	1613B	5/30/2014	PH188	7.9	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	5.38	UJ	0.0159	5.38	ng/kg	JB	UJ	B, FD	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	1613B	5/30/2014	PH188	7.9	1	70648-26-9	1,2,3,4,7,8-HXCDF	5.38	U	0.0399	5.38	ng/kg	JBQ	U	B	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	1613B	5/30/2014	PH188	7.9	1	72918-21-9	1,2,3,7,8,9-HXCDF	0.37	J	0.0440	5.38	ng/kg	JB	J	Z	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	6010C	5/28/2014	PH188	7.9	1	7429-90-5	ALUMINUM (FUME OR DUST)	14900		7.53	41.8	mg/kg				1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	6010C	5/28/2014	PH188	7.9	1	7439-89-6	IRON	20100		3.78	41.8	mg/kg				1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	6010C	5/28/2014	PH188	7.9	1	7439-92-1	LEAD	5.67		0.522	3.13	mg/kg				1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	6010C	5/28/2014	PH188	7.9	1	7439-93-2	LITHIUM	23.1		0.35	4.2	mg/kg				1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	6010C	5/28/2014	PH188	7.9	1	7439-95-4	MAGNESIUM	4420		1.74	10.4	mg/kg				1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	6010C	5/28/2014	PH188	7.9	1	7439-96-5	MANGANESE	367		0.0867	1.04	mg/kg				1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	6010C	5/28/2014	PH188	7.9	1	7439-98-7	MOLYBDENUM	0.277	J	0.177	2.09	mg/kg			FD, Z	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	6010C	5/28/2014	PH188	7.9	1	7440-02-0	NICKEL	11		0.136	2.09	mg/kg				1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	6010C	5/28/2014	PH188	7.9	1	7440-09-7	POTASSIUM	3450		8.71	104	mg/kg				1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	6010C	5/28/2014	PH188	7.9	1	7440-23-5	SODIUM	104		17.4	104	mg/kg	J			1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	6010C	5/28/2014	PH188	7.9	1	7440-31-5	TIN	10.4	U	0.230	10.4	mg/kg	J	U	B	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	6010C	5/28/2014	PH188	7.9	1	7440-32-6	TITANIUM METAL POWDER	1100		0.177	1.04	mg/kg				1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	6010C	5/28/2014	PH188	7.9	1	7440-36-0	ANTIMONY	4.18	UJ	0.773	4.18	mg/kg	U	UJ	Q	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	6010C	5/28/2014	PH188	7.9	1	7440-38-2	ARSENIC	3.84	J	0.731	4.18	mg/kg	J	J	Z	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	6010C	5/28/2014	PH188	7.9	1	7440-39-3	BARIUM	106	J	0.0345	1.04	mg/kg			FD, E, Q	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	6010C	5/28/2014	PH188	7.9	1	7440-41-7	BERYLLIUM	0.529	J	0.0699	1.04	mg/kg	J	J	Z	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft</																								

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	131-11-3	DIMETHYL PHTHALATE	19	U	6.5	19	ug/kg	U			1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	191-24-2	BENZO(G,H,I)PERYLENE	1.8	U	0.72	1.8	ug/kg	U			1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	192-97-2	Benzo(e)pyrene	18	U	3.6	18	ug/kg	U			1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	193-39-5	INDENO(1,2,3-CD)PYRENE	1.8	U	0.72	1.8	ug/kg	U			1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	205-99-2	BENZO(B)FLUORANTHENE	0.93	J	0.72	1.8	ug/kg	J	J	Z	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	206-44-0	FLUORANTHENE	1.7	J	0.72	1.8	ug/kg	J	J	Z	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	207-08-9	BENZO(K)FLUORANTHENE	1.8	U	0.72	1.8	ug/kg	U			1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	208-96-8	ACENAPHTHYLENE	1.8	U	0.36	1.8	ug/kg	U			1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	218-01-9	Chrysene	1.2	J	0.36	1.8	ug/kg	J	J	Z	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	50-32-8	BENZO(A)PYRENE	1.8	U	0.72	1.8	ug/kg	U			1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	53-70-3	DIBENZO(A,H)ANTHRACENE	1.8	U	0.72	1.8	ug/kg	U			1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	56-55-3	BENZO(A)ANTHRACENE	1.8	U	0.72	1.8	ug/kg	U			1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	62-75-9	METHANAMINE, N-METHYL-N-NITROSO	1.8	U	0.72	1.8	ug/kg	U			1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	83-32-9	ACENAPHTHENE	1.8	U	0.72	1.8	ug/kg	U			1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	84-66-2	DIETHYL PHTHALATE	19	U	6.5	19	ug/kg	U			1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	84-74-2	Di-n-butylphthalate	19	U	6.5	19	ug/kg	U			1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	85-01-8	PHENANTHRENE	1.7	J	0.72	1.8	ug/kg	J	J	FD, Z	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	85-68-7	BENZYL BUTYL PHTHALATE	19	U	6.5	19	ug/kg	U			1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	86-73-7	FLUORENE	1.8	U	0.72	1.8	ug/kg	U			1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	90-12-0	1-METHYLNAPHTHALENE	1.8	U	0.72	1.8	ug/kg	U			1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	91-20-3	NAPHTHALENE	1.8	U	0.72	1.8	ug/kg	U			1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	8270D SIM	5/27/2014	PH188	7.9	1	91-57-6	2-METHYLNAPHTHALENE	1.8	UJ	0.72	1.8	ug/kg	U	UJ	FD	1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/2014	FD	4	5	ft	SO	Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	7471509	LL	9045M	5/21/2014	PH188	7.9	1	pH	PH	7.24	U	0.0100	0.0100	pH unit	U			1785652.76	267516.853	-118.70914	34.23303
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	160.3M	6/23/2014	PH234	2.4	1	MOIST	MOISTURE	2.4	U	0.10	0.10	%	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	161.3B	6/21/2014	PH234	2.4	1	1746-01-6	2,3,7,8-TCDD	0.976	U	0.0539	0.976	ng/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	161.3B	6/21/2014	PH234	2.4	1	19408-74-3	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	1.8	J	0.0584	4.88	ng/kg	JB	J	Z	1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	161.3B	6/21/2014	PH234	2.4	1	3268-87-9	OCDD	2800	J	0.111	9.76	ng/kg	B	J	FD	1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	161.3B	6/21/2014	PH234	2.4	1	35822-46-9	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	104	J	0.140	4.88	ng/kg	B	J	FD	1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	161.3B	6/21/2014	PH234	2.4	1	39001-02-0	OCDF	32	J	0.0424	9.76	ng/kg	B	J	FD	1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	161.3B	6/21/2014	PH234	2.4	1	39227-28-6	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	0.59	J	0.0628	4.88	ng/kg	J	J	FD, Z	1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	161.3B	6/21/2014	PH234	2.4	1	40321-76-4	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	4.88	UJ	0.0592	4.88	ng/kg	JBQ	UJ	B, FD	1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	161.3B	6/21/2014	PH234	2.4	1	51207-31-9	2,3,7,8-TETRACHLORODIBENZOFURAN	0.172	J	0.0835	0.976	ng/kg	JQ	J	FD, Z	1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	161.3B	6/21/2014	PH234	2.4	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	0.366	J	0.0420	4.88	ng/kg	JB	J	FD, Z	1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	161.3B	6/21/2014	PH234	2.4	1	57117-31-4	2,3,4,7,8-PCDF	0.31	J	0.0381	4.88	ng/kg	JBQ	J	FD, Z	1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	161.3B	6/21/2014																	

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8015M	6/20/2014	PH234	2.4	1	PHCC30C40	EFH (C30-C40)	36	J	4.0	10	mg/kg		J	FD	1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8015M	6/20/2014	PH234	2.4	1	PHCC8C11	EFH (C8-C11)	5.1	U	2.0	5.1	mg/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8015M	6/30/2014	PH234	2.4	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5.1	U	2.0	5.1	mg/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8015M	6/30/2014	PH234	2.4	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5.1	U	2.0	5.1	mg/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8015M	6/30/2014	PH234	2.4	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	3.6	J	2.0	5.1	mg/kg	J	J	FD, Z	1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8015M	6/30/2014	PH234	2.4	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	14	J	4.1	10	mg/kg		J	FD	1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8015M	6/30/2014	PH234	2.4	1	PHCC8C11SI	EFH (C8-C11) w/ SiGel	5.1	U	2.0	5.1	mg/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8082A	6/23/2014	PH234	2.4	1	11141-16-5	Aroclor 1232	17	U	4.2	17	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8082A	6/23/2014	PH234	2.4	1	12642-23-8	Aroclor 5442	34	U	10	34	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8082A	6/23/2014	PH234	2.4	1	12672-29-6	Aroclor 1248	17	U	3.4	17	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8082A	6/23/2014	PH234	2.4	1	12674-11-2	Aroclor 1016	17	U	3.4	17	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8082A	6/23/2014	PH234	2.4	1	37324-23-5	Aroclor 1262	17	U	3.4	17	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8082A	6/23/2014	PH234	2.4	1	53469-21-9	Aroclor 1242	17	U	4.2	17	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8082A	6/23/2014	PH234	2.4	1	63496-31-1	Aroclor 5432	34	U	10	34	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8082A	6/23/2014	PH234	2.4	1	11096-82-5	Aroclor 1260	17	U	4.0	17	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8082A	6/23/2014	PH234	2.4	1	11097-69-1	Aroclor 1254	17	U	4.5	17	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8082A	6/23/2014	PH234	2.4	1	11100-14-4	Aroclor 1268	17	U	3.4	17	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8082A	6/23/2014	PH234	2.4	1	11104-28-2	Aroclor 1221	17	U	5.2	17	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8082A	6/23/2014	PH234	2.4	1	11126-42-4	Aroclor 5460	34	U	10	34	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	100-41-4	ETHYLBENZENE	5	U	1	5	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	100-42-5	STYRENE	5	U	1	5	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	10061-01-5	CIS-1,3-DICHLOROPROPENE	5	U	1	5	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	10061-02-6	TRANS-1,3-DICHLOROPROPENE	5	U	1	5	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	103-65-1	N-PROPYLBENZENE	5	U	1	5	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	104-51-8	N-BUTYLBENZENE	5	U	1	5	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	106-43-4	4-CHLOROTOLUENE	5	U	1	5	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	106-46-7	1,4-DICHLOROBENZENE	5	U	1	5	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	106-93-4	1,2-DIBROMOETHANE	5	U	1	5	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	107-02-8	ACROLEIN	100	U	21	100	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	107-06-2	1,2-DICHLOROETHANE	5	U	1	5	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	107-13-1	ACRYLONITRILE	21	U	4	21	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	108-05-4	VINYL ACETATE	10	U	2	10	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	108-10-1	4-Methyl-2-Pentanone (MIBK)	10	U	3	10	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	108-20-3	DIISOPROPYL ETHER	5	U	1	5	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	108-67-8	1,3,5-Trimethylbenzene	5	U	1	5	ug/kg	U			1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0																													

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	75-88-7	2-Chloro-1,1,1-trifluoroethane	5	U	2	5	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	5	U	2	5	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	78-87-5	1,2-DICHLOROPROPANE	5	U	1	5	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	78-93-3	2-Butanone (MEK)	10	U	4	10	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	79-00-5	1,1,2-TRICHLOROETHANE	5	U	1	5	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	79-01-6	TRICHLOROETHENE	5	U	1	5	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	79-34-5	1,1,2,2-TETRACHLOROETHANE	5	U	1	5	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	79-38-9	Chlorotrifluoroethylene	5	U	2	5	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	87-61-6	1,2,3-TRICHLOROBENZENE	5	U	1	5	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	87-68-3	HEXACHLORO-1,3-BUTADIENE	5	U	2	5	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	95-47-6	O-XYLENE	5	U	1	5	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	95-49-8	2-CHLOROTOLUENE	5	U	1	5	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	95-50-1	1,2-DICHLOROBENZENE	5	U	1	5	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	95-63-6	1,2,4-TRIMETHYLBENZENE	5	U	1	5	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	96-12-8	1,2-Dibromo-3-Chloropropane	5	U	2	5	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	96-18-4	1,2,3-Trichloropropane	5	U	1	5	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	98-06-6	TERT-BUTYLBENZENE	5	U	1	5	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	98-82-8	Isopropylbenzene	5	U	1	5	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	99-87-6	CYMENE	5	U	1	5	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B	6/25/2014	PH234	2.4	1.02	994-05-8	Tert-Amyl-Methyl-Ether	5	U	1	5	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8260B SIM	6/25/2014	PH234	2.4	24.08	123-91-1	1,4-DIOXANE	15	UJ	4.9	15	ug/kg	U	UJ	S	1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8270D SIM	6/25/2014	PH234	2.4	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	18	U	6.1	18	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8270D SIM	6/25/2014	PH234	2.4	1	117-84-0	Di-n-octylphthalate	18	U	6.1	18	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8270D SIM	6/25/2014	PH234	2.4	1	120-12-7	ANTHRACENE	1.7	U	0.34	1.7	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8270D SIM	6/25/2014	PH234	2.4	1	129-00-0	PYRENE	1	J	0.68	1.7	ug/kg	J		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8270D SIM	6/25/2014	PH234	2.4	1	131-11-3	DIMETHYL PHTHALATE	18	U	6.1	18	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8270D SIM	6/25/2014	PH234	2.4	1	191-24-2	BENZO(G,H,I)PERYLENE	0.68	J	0.68	1.7	ug/kg	J	J	FD, Z	1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8270D SIM	6/25/2014	PH234	2.4	1	192-97-2	Benzo(e)pyrene	1.7	U	3.4	17	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8270D SIM	6/25/2014	PH234	2.4	1	193-39-5	INDENO(1,2,3-CD)PYRENE	1.7	U	0.68	1.7	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8270D SIM	6/25/2014	PH234	2.4	1	205-99-2	BENZO(B)FLUORANTHENE	2.4	U	0.68	1.7	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8270D SIM	6/25/2014	PH234	2.4	1	206-44-0	FLUORANTHENE	1.3	J	0.68	1.7	ug/kg	J	J	Z	1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8270D SIM	6/25/2014	PH234	2.4	1	207-08-9	BENZO(K)FLUORANTHENE	1.3	J	0.68	1.7	ug/kg	J	J	Z	1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8270D SIM	6/25/2014	PH234	2.4	1	208-96-8	ACENAPHTHYLENE	1.7	U	0.34	1.7	ug/kg	U		1786382.57	267368.726	-118.70673	34.23263	
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8270D SIM	6/25/2014	PH234	2.4	1	218-01-9	Chrysene	2.7	J	0.34	1.7	ug/kg	J	L		1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8270D SIM	6/25/2014	PH234	2.4	1	50-32-8	BENZO(A)PYRENE	0.81	J	0.68	1.7	ug/kg	J	Z		1786382.57	267368.726	-118.70673	34.23263
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/2014	FD	2	3	ft	SO	Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	7501194	LL	8270D SIM	6/25/2014	PH234	2.4															

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	6010C	6/12/2014	PH224	1.9	1	7440-02-0	NICKEL	14.4	J	0.133	2.04	mg/kg		J	E	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	6010C	6/12/2014	PH224	1.9	1	7440-09-7	POTASSIUM	4310	J	8.50	102	mg/kg		J	E	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	6010C	6/12/2014	PH224	1.9	1	7440-23-5	SODIUM	80.3	J	17.0	102	mg/kg	J	J	Z	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	6010C	6/12/2014	PH224	1.9	1	7440-31-5	TIN	10.2	U	0.224	10.2	mg/kg	J	U	B	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	6010C	6/12/2014	PH224	1.9	1	7440-32-6	TITANIUM METAL POWDER	1030		0.173	1.02	mg/kg				1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	6010C	6/12/2014	PH224	1.9	1	7440-36-0	ANTIMONY	4.08	UJ	0.754	4.08	mg/kg	U	UJ	Q	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	6010C	6/12/2014	PH224	1.9	1	7440-38-2	ARSENIC	3.91	J	0.714	4.08	mg/kg	J	J	Z	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	6010C	6/12/2014	PH224	1.9	1	7440-39-3	BARIUM	106	J	0.0336	1.02	mg/kg		J	E	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	6010C	6/12/2014	PH224	1.9	1	7440-41-7	BERYLLIUM	0.672	J	0.0683	1.02	mg/kg	J	J	Z	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	6010C	6/12/2014	PH224	1.9	1	7440-42-8	BORON	8.75	J	0.856	10.2	mg/kg	J	J	Z	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	6010C	6/12/2014	PH224	1.9	1	7440-43-9	CADMIUM	0.356	J	0.0775	1.02	mg/kg	J	J	Z	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	6010C	6/12/2014	PH224	1.9	1	7440-47-3	CHROMIUM	19.2		0.163	3.06	mg/kg				1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	6010C	6/12/2014	PH224	1.9	1	7440-48-4	COBALT	5.6		0.101	1.02	mg/kg				1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	6010C	6/12/2014	PH224	1.9	1	7440-50-8	COPPER	9.55		0.296	2.04	mg/kg				1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	6010C	6/12/2014	PH224	1.9	1	7440-62-2	VANADIUM (FUME OR DUST)	36.3		0.133	1.02	mg/kg				1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	6010C	6/12/2014	PH224	1.9	1	7440-66-6	ZINC	62.2		0.204	4.08	mg/kg				1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	6020A	6/12/2014	PH224	1.9	2	7782-49-2	SELENIUM	0.351	J	0.102	0.408	mg/kg	J	J	Z	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	6020A	6/12/2014	PH224	1.9	2	7440-22-4	SILVER	0.0524	J	0.0265	0.204	mg/kg	J	J	Z	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	6020A	6/12/2014	PH224	1.9	2	7440-24-6	STRONTIUM	27.2	J	0.0693	0.408	mg/kg	J	J	E, Q	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	6020A	6/12/2014	PH224	1.9	2	7440-28-0	THALLIUM	0.277	J	0.0306	0.204	mg/kg	J	J	Q	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	7471B	6/12/2014	PH224	1.9	1	7439-97-6	MERCURY	0.0199		0.0099	0.0164	mg/kg				1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8015M	6/19/2014	PH224	1.9	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5.1	UJ	2.0	5.1	mg/kg	U	UJ	S, L	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8015M	6/19/2014	PH224	1.9	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5.1	UJ	2.0	5.1	mg/kg	U	UJ	S, L	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8015M	6/19/2014	PH224	1.9	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	4.1	J	2.0	5.1	mg/kg	J	J	S, L, Z	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8015M	6/19/2014	PH224	1.9	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	10	UJ	4.1	10	mg/kg	U	UJ	FD, S	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8015M	6/19/2014	PH224	1.9	1	PHCC8C11SI	EFH (C8-C11) w/ SiGel	5.1	UJ	2.0	5.1	mg/kg	U	UJ	S, Q, L	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8015M	6/18/2014	PH224	1.9	1	PHCC12C14	EFH (C12-C14)	5.1	U	2.0	5.1	mg/kg	U			1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8015M	6/18/2014	PH224	1.9	1	PHCC15C20	EFH (C15-C20)	3.4	J	2.0	5.1	mg/kg	J	J	Z	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8015M	6/18/2014	PH224	1.9	1	PHCC21C30	EFH (C21-C30)	28	J	2.0	5.1	mg/kg	J	Q	Z	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8015M	6/18/2014	PH224	1.9	1	PHCC30C40	EFH (C30-C40)	47	J	4.1	10	mg/kg	J	Q		1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8015M	6/18/2014	PH224	1.9	1	PHCC8C11	EFH (C8-C11)	5.1	U	2.0	5.1	mg/kg	U			1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8081B	6/16/2014	PH224	1.9	1	1024-57-3	HEPTACHLOR EPOXIDE	0.83	U	0.17	0.83	ug/kg	U			1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8081B	6/16/2014	PH224	1.9	1	1031-07-8	ENDOSULFAN SULFATE	1.7	U	0.33	1.7	ug/kg	U			1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8081B	6/16/2014	PH224	1.9	1	2385-85-5	MIREX	1.7	UJ	0.35	1.7	ug/kg	U	UJ	FD	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8081B	6/16/2014	PH224	1.9	1	309-00-2	ALDRIN	0.83	U	0.17	0.83	ug/kg	U			1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8081B	6/16/2014	PH224	1.9	1	319-84-6	ALPHA-BHC	0.83	U	0.17	0.83	ug/kg	U			1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8081B	6/16/2014	PH224	1.9	1	319-85-7	BETA-BHC	1.9	U	0.97	1.9	ug/kg	U			1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8081B	6/16/2014	PH224	1.9	1	319-86-8	DELTA-BHC	0.83	U	0.45	0.83	ug/kg	U			1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8081B	6/16/2014	PH224	1.9	1	33213-65-9	ENDOSULFAN II	1.7	UJ	0.33	1.7	ug/kg	U			1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8081B	6/16/2014	PH224	1.9	1	50-29-3	4,4'-DDT	1.6	J	0.35	1.7	ug/kg	J	J	Z	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8081B	6/16/2014	PH224	1.9	1	53494-70-5	ENDRIN KETONE	1.8	U	0.60	1.8	ug/kg	U			1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8081B	6/16/2014	PH224	1.9	1	57-74-9	CHLORDANE	17	U	4.0	17	ug/kg	U			1784772.68	267980		

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	120-12-7	ANTHRACENE	1.7	UJ	0.34	1.7	ug/kg	U	UJ	FD	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	129-00-0	PYRENE	1.4	J	0.68	1.7	ug/kg	U	J	FD, Z	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	131-11-3	DIMETHYL PHTHALATE	18	U	6.1	18	ug/kg	U			1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	191-24-2	BENZO(G,H,I)PERYLENE	1.7	UJ	0.68	1.7	ug/kg	U	UJ	FD	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	192-97-2	Benzo(e)pyrene	17	U	3.4	17	ug/kg	U			1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	193-39-5	INDENO(1,2,3-CD)PYRENE	1.7	UJ	0.68	1.7	ug/kg	U	UJ	FD	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	205-99-2	BENZO(B)FLUORANTHENE	1.5	J	0.68	1.7	ug/kg	J	J	FD, Z	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	206-44-0	FLUORANTHENE	1.7	J	0.68	1.7	ug/kg	J	J	FD	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	207-08-9	BENZO(K)FLUORANTHENE	7.3	J	0.68	1.7	ug/kg	J	J	FD	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	208-96-8	ACENAPHTHYLENE	1.7	U	0.34	1.7	ug/kg	U			1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	218-01-9	Chrysene	1.5	J	0.34	1.7	ug/kg	J	J	FD, Q, Z	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	50-32-8	BENZO(A)PYRENE	0.76	J	0.68	1.7	ug/kg	J	J	FD, Z	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	53-70-3	DIBENZO(A,H)ANTHRACENE	1.7	U	0.68	1.7	ug/kg	U			1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	56-55-3	BENZO(A)ANTHRACENE	1.7	UJ	0.68	1.7	ug/kg	U	UJ	FD	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	62-75-9	METHANAMINE, N-METHYL-N-NITROSO	1.7	UJ	0.68	1.7	ug/kg	U	UJ	L	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	83-32-9	ACENAPHTHENE	1.7	U	0.68	1.7	ug/kg	U			1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	84-66-2	DIETHYL PHTHALATE	18	U	6.1	18	ug/kg	U			1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	84-74-2	Di-n-butylphthalate	18	U	6.1	18	ug/kg	U			1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	85-01-8	PHENANTHRENE	1.4	J	0.68	1.7	ug/kg	J	J	FD, Z	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	85-68-7	BENZYL BUTYL PHTHALATE	8.2	J	6.1	18	ug/kg	J	J	FD, Z	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	86-73-7	FLUORENE	1.7	UJ	0.68	1.7	ug/kg	U	UJ	FD	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	90-12-0	1-METHYLNAPHTHALENE	0.77	J	0.68	1.7	ug/kg	J	J	FD, Z	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	91-20-3	NAPHTHALENE	1.4	J	0.68	1.7	ug/kg	J	J	FD, Z	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	8270D SIM	6/17/2014	PH224	1.9	1	91-57-6	2-METHYLNAPHTHALENE	0.83	J	0.68	1.7	ug/kg	J	J	FD, Z	1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-558-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492863	LL	9045M	6/10/2014	PH224	1.9	1	pH	PH	6.29		0.0100	0.0100	ph/unit				1784772.68	267980.97	-118.71207	34.23429
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	160.3M	6/13/2014	PH224	1.4	1	MOIST	MOISTURE	1.4		0.10	0.10	%				1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	161.3B	6/13/2014	PH224	1.4	1	1746-01-6	2,3,7,8-TCDD	1.01	U	0.0606	1.01	ng/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	161.3B	6/13/2014	PH224	1.4	1	19408-74-3	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	0.18	J	0.0366	5.05	ng/kg	J	J	Z	1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	161.3B	6/13/2014	PH224	1.4	1	3268-87-9	OCDF	24.5		0.0316	10.1	ng/kg	B			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	161.3B	6/13/2014	PH224	1.4	1	35822-46-9	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	2.77	J	0.0353	5.05	ng/kg	J	J	Z	1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	161.3B	6/13/2014	PH224	1.4	1	39001-02-0	OCDF	10.1	U	0.0385	10.1	ng/kg	J	B		1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	161.3B	6/13/2014	PH224	1.4	1	39227-28-6	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	5.05	U	0.0386	5.05	ng/kg	J	B		1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	161.3B	6/13/2014	PH224	1.4	1	40321-76-4	1,2,3,6,7,8-PENTACHLORODIBENZO-P-DIOXIN	5.05	U	0.0477	5.05	ng/kg	J	B		1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	161.3B	6/13/2014	PH224	1.4	1	51207-31-9	2,3,7,8-TETRACHLORODIBENZOFURAN	0.0786	J	0.0712	1.01	ng/kg	J	Z		1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	161.3B	6/13/2014	PH224	1.4	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	5.05	U	0.0410	5.05	ng/kg	J	B		1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	161.3B	6/13/2014	PH224	1.4	1	57117-31-4	2,3,4,7,8-PECDF	5.05	U	0.0309	5.05	ng/kg	J	B		1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	161.3B	6/13/2014	PH224	1.4	1	57117-41-6	1,2,3,7,8-PENTACHLORODIBENZOFURAN	5.05	U	0.0320	5.05	ng/kg	J	B		1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	161.3B	6/13/2014	PH224	1.4	1	57117-44-9	1,2,3,6,7,8-HXCDF	5.05	U	0.0356	5.05	ng/kg	J	B		1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	161.3B	6/13/2014	PH224	1.4	1	57653-85-7	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	5.05	U	0.0402	5.05	ng/kg	J	B		1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	161.3B	6/13/2014	PH224	1.4	1	60851-34-5	2,3,4,6,7,8-HXCDF	5.05	U	0.0379	5.05	ng/kg	J	B		1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	161.3B	6/13/2014	PH224	1.4	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	0.558	J	0.0269	5.05	ng/kg	J	Z		1784706.03	267832.25	-118.71228	34.23388

**Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3**

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8015M	6/19/2014	PH224	1.4	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	5.1	UJ	2.0	5.1	mg/kg	U	UJ	L	1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8015M	6/19/2014	PH224	1.4	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	10	U	4.1	10	mg/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8015M	6/19/2014	PH224	1.4	1	PHCC8C11SI	EFH (C8-C11) w/ SiGel	5.1	UJ	2.0	5.1	mg/kg	U	UJ	L	1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8015M	6/17/2014	PH224	1.4	1	PHCC12C14	EFH (C12-C14)	5.1	U	2.0	5.1	mg/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8015M	6/17/2014	PH224	1.4	1	PHCC15C20	EFH (C15-C20)	5.1	U	2.0	5.1	mg/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8015M	6/17/2014	PH224	1.4	1	PHCC21C30	EFH (C21-C30)	4.4	J	2.0	5.1	mg/kg	J	J	Z	1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8015M	6/17/2014	PH224	1.4	1	PHCC30C40	EFH (C30-C40)	11	U	4.1	10	mg/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8015M	6/17/2014	PH224	1.4	1	PHCC8C11	EFH (C8-C11)	5.1	U	2.0	5.1	mg/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8082A	6/11/2014	PH224	1.4	1	11096-82-5	Aroclor 1260	17	U	3.9	17	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8082A	6/11/2014	PH224	1.4	1	11097-69-1	Aroclor 1254	17	U	4.4	17	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8082A	6/11/2014	PH224	1.4	1	11100-14-4	Aroclor 1268	17	U	3.3	17	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8082A	6/11/2014	PH224	1.4	1	11104-28-2	Aroclor 1221	17	U	5.2	17	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8082A	6/11/2014	PH224	1.4	1	11126-42-4	Aroclor 5460	33	U	10	33	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8082A	6/11/2014	PH224	1.4	1	11141-16-5	Aroclor 1232	17	U	4.1	17	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8082A	6/11/2014	PH224	1.4	1	12642-23-8	Aroclor 5442	33	U	10	33	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8082A	6/11/2014	PH224	1.4	1	12672-29-6	Aroclor 1248	17	U	3.3	17	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8082A	6/11/2014	PH224	1.4	1	12674-11-2	Aroclor 1016	17	U	3.3	17	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8082A	6/11/2014	PH224	1.4	1	37324-23-5	Aroclor 1262	17	U	3.3	17	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8082A	6/11/2014	PH224	1.4	1	53469-21-9	Aroclor 1242	17	U	4.1	17	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8082A	6/11/2014	PH224	1.4	1	63496-31-1	Aroclor 5432	33	U	10	33	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8151A	6/13/2014	PH224	1.4	1	120-36-5	DICHLOROPROP	17	U	9.1	17	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8151A	6/13/2014	PH224	1.4	1	1918-00-9	DICAMBA	12	U	4.1	12	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8151A	6/13/2014	PH224	1.4	1	75-99-0	2,2-DICHLOROPROPIONIC ACID	91	U	45	91	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8151A	6/13/2014	PH224	1.4	1	88-85-7	DINITROBUTYL PHENOL	24	U	9.1	24	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8151A	6/13/2014	PH224	1.4	1	93-65-2	MCPP	2500	U	760	2500	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8151A	6/13/2014	PH224	1.4	1	93-72-1	2,4,5-TP (Silvex)	1.7	U	0.76	1.7	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8151A	6/13/2014	PH224	1.4	1	93-76-5	2,4,5-T	1.7	U	0.83	1.7	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8151A	6/13/2014	PH224	1.4	1	94-74-6	MCPA (2-METHYL-4-CHLOROPHENOXYACETIC ACID)	2500	U	770	2500	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8151A	6/13/2014	PH224	1.4	1	94-75-7	2,4-D	37	U	12	37	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8151A	6/13/2014	PH224	1.4	1	94-82-6	2,4-DB	16	J	6.3	17	ug/kg	J	J	Z, #	1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8270D SIM	6/24/2014	PH224	1.4	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	59	U	6.1	18	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8270D SIM	6/24/2014	PH224	1.4	1	117-84-0	Di-n-octylphthalate	18	U	6.1	18	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8270D SIM	6/24/2014	PH224	1.4	1	120-12-7	ANTHRACENE	1.7	U	0.34	1.7	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8270D SIM	6/24/2014	PH224	1.4	1	129-00-0	PYRENE	1.7	U	0.68	1.7	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8270D SIM	6/24/2014	PH224	1.4	1	131-11-3	DIMETHYL PHTHALATE	18	U	6.1	18	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8270D SIM	6/24/2014	PH224	1.4	1	191-24-2	BENZO(G,H,I)PERYLENE	1.7	U	0.68	1.7	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8270D SIM	6/24/2014	PH224	1.4	1	192-97-2	Benzo(e)pyrene	17	U	3.4	17	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8270D SIM	6/24/2014	PH224	1.4	1	193-39-3	INDENO(1,2,3-CD)PYRENE	1.7	U	0.68	1.7	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8270D SIM	6/24/2014	PH224	1.4	1	205-99-2	BENZO(B)FLUORANTHENE	1.7	U	0.68	1.7	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8270D SIM	6/24/2014	PH224	1.4	1	206-44-0	FLUORANTHENE	0.8	J	0.68	1.7	ug/kg	J	J	Z	1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8270D SIM	6/24/2014	PH224	1.4	1	207-08-9	BENZO(K)FLUORANTHENE	3.3	U	0.68	1.7	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/2014	N	0	0.5	ft	SO	Go Back		7492867	LL	8270D SIM	6/24/2014	PH224	1.4	1	208-96-8	ACENAPHTHYLENE	1.7	U	0.34	1.7	ug/kg	U			1784706.03	267832.25	-118.71228	34.23388
FDG2-SL-559-NBZ-SB-																													

**Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3**

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	6010C	6/19/2014	PH229	2.7	1	7439-92-1	LEAD	9.06	J	0.489	2.94	mg/kg		J	Q, E	1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	6010C	6/19/2014	PH229	2.7	1	7439-93-2	LITHIUM	28.3		0.33	3.9	mg/kg				1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	6010C	6/19/2014	PH229	2.7	1	7439-95-4	MAGNESIUM	5010		1.63	9.79	mg/kg				1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	6010C	6/19/2014	PH229	2.7	1	7439-96-5	MANGANESE	262		0.0812	0.979	mg/kg				1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	6010C	6/19/2014	PH229	2.7	1	7439-98-7	MOLYBDENUM	1.96	U	0.166	1.96	mg/kg	U			1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	6010C	6/19/2014	PH229	2.7	1	7440-02-0	NICKEL	12.3		0.127	1.96	mg/kg				1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	6010C	6/19/2014	PH229	2.7	1	7440-09-7	POTASSIUM	3700		8.16	97.9	mg/kg				1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	6010C	6/19/2014	PH229	2.7	1	7440-23-5	SODIUM	132		16.3	97.9	mg/kg				1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	6020A	6/19/2014	PH229	2.7	2	7782-49-2	SELENIUM	0.368	J	0.0979	0.392	mg/kg	J	J	Z	1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	6020A	6/19/2014	PH229	2.7	2	7440-22-4	SILVER	0.0581	J	0.0254	0.196	mg/kg	J	J	Q, Z	1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	6020A	6/19/2014	PH229	2.7	2	7440-24-6	STRONTIUM	29	J	0.0666	0.392	mg/kg		J	Q, E	1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	6020A	6/19/2014	PH229	2.7	2	7440-28-0	THALLIUM	0.282		0.0294	0.196	mg/kg				1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	7471B	6/19/2014	PH229	2.7	1	7439-97-6	MERCURY	0.0263		0.0098	0.0163	mg/kg				1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8015M	6/24/2014	PH229	2.7	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5.1	UJ	2.1	5.1	mg/kg	U	UJ	L	1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8015M	6/24/2014	PH229	2.7	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5.1	UJ	2.1	5.1	mg/kg	U	UJ	L	1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8015M	6/24/2014	PH229	2.7	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	12	J	2.1	5.1	mg/kg		J	L	1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8015M	6/24/2014	PH229	2.7	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	5	J	4.1	10	mg/kg	J	J	Z	1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8015M	6/24/2014	PH229	2.7	1	PHCC8C11SI	EFH (C8-C11) w/ SiGel	5.1	UJ	2.1	5.1	mg/kg	U	UJ	L	1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8015M	6/18/2014	PH229	2.7	1	PHCC12C14	EFH (C12-C14)	5.1	U	2.1	5.1	mg/kg	U			1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8015M	6/18/2014	PH229	2.7	1	PHCC15C20	EFH (C15-C20)	5.6		2.1	5.1	mg/kg				1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8015M	6/18/2014	PH229	2.7	1	PHCC21C30	EFH (C21-C30)	59		2.1	5.1	mg/kg				1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8015M	6/18/2014	PH229	2.7	1	PHCC30C40	EFH (C30-C40)	96		4.1	10	mg/kg				1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8015M	6/18/2014	PH229	2.7	1	PHCC8C11	EFH (C8-C11)	5.1	U	2.1	5.1	mg/kg	U			1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8082A	6/23/2014	PH229	2.7	1	11096-82-5	Aroclor 1260	17	U	4.0	17	ug/kg	U			1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8082A	6/23/2014	PH229	2.7	1	11097-69-1	Aroclor 1254	8.9	J	4.5	17	ug/kg	J	J	Z	1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8082A	6/23/2014	PH229	2.7	1	11100-14-4	Aroclor 1268	17	U	3.4	17	ug/kg	U			1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8082A	6/23/2014	PH229	2.7	1	11104-28-2	Aroclor 1221	17	U	5.2	17	ug/kg	U			1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8082A	6/23/2014	PH229	2.7	1	11126-42-4	Aroclor 5460	34	U	10	34	ug/kg	U			1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8082A	6/23/2014	PH229	2.7	1	11141-16-5	Aroclor 1232	17	U	4.2	17	ug/kg	U			1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8082A	6/23/2014	PH229	2.7	1	12642-23-8	Aroclor 5442	34	U	10	34	ug/kg	U			1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8082A	6/23/2014	PH229	2.7	1	12672-29-6	Aroclor 1248	17	U	3.4	17	ug/kg	U			1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8082A	6/23/2014	PH229	2.7	1	12674-11-2	Aroclor 1016	17	U	3.4	17	ug/kg	U			1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8082A	6/23/2014	PH229	2.7	1	37324-23-5	Aroclor 1262	17	U	3.4	17	ug/kg	U			1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8082A	6/23/2014	PH229	2.7	1	53469-21-9	Aroclor 1242	17	U	4.2	17	ug/kg	U			1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8082A	6/23/2014	PH229	2.7	1	63496-31-1	Aroclor 5432	34	U	10	34	ug/kg	U			1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8270D SIM	6/24/2014	PH229	2.7	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	19	U	6.2	19	ug/kg	U			1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8270D SIM	6/24/2014	PH229	2.7	1	117-84-0	Di-n-octylphthalate	19	U	6.2	19	ug/kg	U			1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8270D SIM	6/24/2014	PH229	2.7	1	120-12-7	ANTHRACENE	1.7	U	0.34	1.7	ug/kg	U			1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8270D SIM	6/24/2014	PH229	2.7	1	129-00-0	PYRENE	1.7	U	0.69	1.7	ug/kg	U			1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8270D SIM	6/24/2014	PH229	2.7	1	131-11-3	DIMETHYL PHTHALATE	19	U	6.2	19	ug/kg	U			1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8270D SIM	6/24/2014	PH229	2.7	1	191-24-2	BENZO(G,H,I)PERYLENE	1.7	U	0.69	1.7	ug/kg	U			1783580.92	269236.147	-118.71604	34.23771
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496180	LL	8270D SIM	6/24/2014	PH229	2.7	1	192-97-2	Benzo(e)pyrene	17	U	3.4	17	ug/kg	U			1783580			

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	6010C	5/28/2014	PH197	2.1	1	7440-38-2	ARSENIC	3.11	J	0.701	4.01	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	6010C	5/28/2014	PH197	2.1	1	7440-39-3	BARIUM	59.4		0.0330	1.00	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	6010C	5/28/2014	PH197	2.1	1	7440-41-7	BERYLLIUM	0.373	J	0.0671	1.00	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	6010C	5/28/2014	PH197	2.1	1	7440-42-8	BORON	6.03	J	0.841	10.0	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	6010C	5/28/2014	PH197	2.1	1	7440-43-9	CADMIUM	0.445	J	0.0761	1.00	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	6010C	5/28/2014	PH197	2.1	1	7440-47-3	CHROMIUM	18.2		0.160	3.00	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	6010C	5/28/2014	PH197	2.1	1	7440-48-4	COBALT	4.1		0.0991	1.00	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	6010C	5/28/2014	PH197	2.1	1	7440-50-8	COPPER	7.78		0.290	2.00	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	6010C	5/28/2014	PH197	2.1	1	7440-62-2	VANADIUM (FUME OR DUST)	25.3		0.130	1.00	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	6010C	5/28/2014	PH197	2.1	1	7440-66-6	ZINC	59		0.200	4.01	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	6010C	5/28/2014	PH197	2.1	1	7440-67-7	ZIRCONIUM	5.01	U	0.841	5.01	mg/kg	J	U	F	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	6010C	5/28/2014	PH197	2.1	1	7440-70-2	CALCIUM METAL	3420		3.34	20.0	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	6010C	5/28/2014	PH197	2.1	1	7723-14-0	PHOSPHORUS	396		2.89	10.0	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	6020A	5/28/2014	PH197	2.1	2	7782-49-2	SELENIUM	0.117	J	0.100	0.401	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	6020A	5/28/2014	PH197	2.1	2	7440-22-4	SILVER	0.0287	J	0.0260	0.200	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	6020A	5/28/2014	PH197	2.1	2	7440-24-6	STRONTIUM	20.3		0.0681	0.401	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	6020A	5/28/2014	PH197	2.1	2	7440-28-0	THALLIUM	0.198	J	0.0300	0.200	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	7471B	6/4/2014	PH197	2.1	1	7439-97-6	MERCURY	0.0169	U	0.0101	0.0169	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8015M	5/29/2014	PH197	2.1	2	PHCC12C14	EFH (C12-C14)	10	U	4.0	10	mg/kg	U	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8015M	5/29/2014	PH197	2.1	2	PHCC15C20	EFH (C15-C20)	4.1	J	4.0	10	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8015M	5/29/2014	PH197	2.1	2	PHCC21C30	EFH (C21-C30)	44		4.0	10	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8015M	5/29/2014	PH197	2.1	2	PHCC30C40	EFH (C30-C40)	99		8.1	20	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8015M	5/29/2014	PH197	2.1	2	PHCC8C11	EFH (C8-C11)	10	U	4.0	10	mg/kg	U	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8015M	5/31/2014	PH197	2.1	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5	U	2.0	5.0	mg/kg	U	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8015M	5/31/2014	PH197	2.1	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5	U	2.0	5.0	mg/kg	U	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8015M	5/31/2014	PH197	2.1	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	16	U	2.0	5.0	mg/kg	U	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8015M	5/31/2014	PH197	2.1	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	7.2	J	4.0	10	mg/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8015M	5/31/2014	PH197	2.1	1	PHCC8C11SI	EFH (C8-C11) w/ SiGel	5	U	2.0	5.0	mg/kg	U	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8082A	6/2/2014	PH197	2.1	1	12672-29-6	Aroclor 1248	17	U	3.3	17	ug/kg	U	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8082A	6/2/2014	PH197	2.1	1	12674-11-2	Aroclor 1016	17	U	3.3	17	ug/kg	U	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8082A	6/2/2014	PH197	2.1	1	37324-23-5	Aroclor 1262	17	U	3.3	17	ug/kg	U	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8082A	6/2/2014	PH197	2.1	1	53469-21-9	Aroclor 1242	17	U	4.1	17	ug/kg	U	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8082A	6/2/2014	PH197	2.1	1	63496-31-1	Aroclor 5432	33	U	10	33	ug/kg	U	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8082A	6/2/2014	PH197	2.1	1	11096-82-5	Aroclor 1260	17	U	3.9	17	ug/kg	U	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8082A	6/2/2014	PH197	2.1	1	11097-69-1	Aroclor 1254	17	U	4.4	17	ug/kg	U	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8082A	6/2/2014	PH197	2.1	1	11100-14-4	Aroclor 1268	17	U	3.3	17	ug/kg	U	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8082A	6/2/2014	PH197	2.1	1	11104-28-2	Aroclor 1221	17	U	5.1	17	ug/kg	U	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8082A	6/2/2014	PH197	2.1	1	11126-42-4	Aroclor 5460	33	U	10	33	ug/kg	U	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8082A	6/2/2014	PH197	2.1	1	11141-16-5	Aroclor 1232	17	U	4.1	17	ug/kg	U	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8082A	6/2/2014	PH197	2.1	1	12642-23-8	Aroclor 5442	33	U	10	33	ug/kg	U	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8270D SIM	6/6/2014	PH197	2.1	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	9.7	J	6.1	18	ug/kg	J	J	Z	1783374.65	269939.514	-118.71674	34.23964
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/2014	N	0	0.5	ft	SO	Go Back		7476634	LL	8270D SIM	6/6/2014	PH197	2.1	1	117-84-0	Di-n-o												

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	1613B	6/19/2014	PH231	19.3	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	6	U	0.0466	6.00	ng/kg	JBQ	U	B	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	1613B	6/19/2014	PH231	19.3	1	57117-31-4	2,3,4,7,8-PECDF	6	U	0.0283	6.00	ng/kg	JBQ	U	B	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	1613B	6/19/2014	PH231	19.3	1	57117-41-6	1,2,3,7,8-PENTACHLORODIBENZOFURAN	6	U	0.0286	6.00	ng/kg	JBQ	U	B	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	1613B	6/19/2014	PH231	19.3	1	57117-44-9	1,2,3,6,7,8-HXCDF	0.167	J	0.0495	6.00	ng/kg	J	J	Z	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	1613B	6/19/2014	PH231	19.3	1	57653-85-7	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	0.399	J	0.0579	6.00	ng/kg	J	J	Z	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	1613B	6/19/2014	PH231	19.3	1	60851-34-5	2,3,4,6,7,8-HXCDF	6	U	0.0517	6.00	ng/kg	JBQ	U	B	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	1613B	6/19/2014	PH231	19.3	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	1.86	J	0.0228	6.00	ng/kg	JB	J	Z	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	1613B	6/19/2014	PH231	19.3	1	70648-26-9	1,2,3,4,7,8-HXCDF	0.1	J	0.0596	6.00	ng/kg	JQ	J	Z	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	1613B	6/19/2014	PH231	19.3	1	72918-21-9	1,2,3,7,8,9-HXCDF	0.0682	J	0.0619	6.00	ng/kg	JQ	J	Z	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7429-90-5	ALUMINUM (FUME OR DUST)	6530		8.85	49.1	mg/kg				1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7439-89-6	IRON	30300		4.44	49.1	mg/kg				1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7439-92-1	LEAD	9.95	J	0.613	3.68	mg/kg		J	Q, E	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7439-93-2	LITHIUM	15.4		0.42	4.9	mg/kg				1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7439-95-4	MAGNESIUM	2670		2.05	12.3	mg/kg				1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7439-96-5	MANGANESE	146		0.102	1.23	mg/kg				1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7439-98-7	MOLYBDENUM	10.7		0.209	2.45	mg/kg				1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7440-02-0	NICKEL	5.17		0.159	2.45	mg/kg				1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7440-09-7	POTASSIUM	1740		10.2	123	mg/kg				1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7440-23-5	SODIUM	119	J	20.5	123	mg/kg	J	J	Z	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7440-31-5	TIN	12.3	U	0.270	12.3	mg/kg	J	U	B	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7440-32-6	TITANIUM METAL POWDER	591		0.209	1.23	mg/kg				1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7440-36-0	ANTIMONY	4.91	UJ	0.908	4.91	mg/kg	U	UJ	Q	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7440-38-2	ARSENIC	28.9		0.859	4.91	mg/kg				1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7440-39-3	BARIUM	39.2		0.0405	1.23	mg/kg				1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7440-41-7	BERYLLIUM	0.453	J	0.0822	1.23	mg/kg	J	J	Z	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7440-42-8	BORON	12.3	U	1.03	12.3	mg/kg	J	U	B	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7440-43-9	CADMIUM	1.23	U	0.0932	1.23	mg/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7440-47-3	CHROMIUM	8.11		0.196	3.68	mg/kg				1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7440-48-4	COBALT	2.44		0.121	1.23	mg/kg				1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7440-50-8	COPPER	10.1		0.356	2.45	mg/kg				1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7440-62-2	VANADIUM (FUME OR DUST)	33.9		0.159	1.23	mg/kg				1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7440-66-6	ZINC	55.1		0.245	4.91	mg/kg				1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7440-67-7	ZIRCONIUM	6.13	U	1.03	6.13	mg/kg	J	U	F	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7440-70-2	CALCIUM METAL	3970		4.10	24.5	mg/kg				1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6010C	6/19/2014	PH231	19.3	1	7723-14-0	PHOSPHORUS	353		3.55	12.3	mg/kg				1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6020A	6/19/2014	PH231	19.3	2	7440-22-4	SILVER	0.245	U	0.0319	0.245	mg/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6020A	6/19/2014	PH231	19.3	2	7440-24-6	STRONTIUM	20.9	J	0.0834	0.491	mg/kg	J	J	Q, E	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6020A	6/19/2014	PH231	19.3	2	7440-28-0	THALLIUM	0.151	J	0.0368	0.245	mg/kg	J	J	Z	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	6020A	6/19/2014	PH231	19.3	2	7782-49-2	SELENIUM	1.04		0.123	0.491	mg/kg				1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	7471B	6/19/2014	PH231	19.3	1	7439-97-6	MERCURY	0.0138	J	0.0121	0.0202	mg/kg	J	J	Z	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8015M	6/19/2014	PH231	19.3	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	6.2	UJ	2.5	6.2	mg/kg	U	UJ	L	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8015M	6/19/2014	PH231	19.3	1	PHCC15C20S	EFH (C15-C20) w/ SiGel												

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8082A	6/23/2014	PH231	19.3	1	11141-16-5	Aroclor 1232	21	U	5.0	21	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8082A	6/23/2014	PH231	19.3	1	12642-23-8	Aroclor 5442	41	U	12	41	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8082A	6/23/2014	PH231	19.3	1	12672-29-6	Aroclor 1248	21	U	4.1	21	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8082A	6/23/2014	PH231	19.3	1	12674-11-2	Aroclor 1016	21	U	4.1	21	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8082A	6/23/2014	PH231	19.3	1	37324-23-5	Aroclor 1262	21	U	4.1	21	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8082A	6/23/2014	PH231	19.3	1	53469-21-9	Aroclor 1242	21	U	5.0	21	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8082A	6/23/2014	PH231	19.3	1	63496-31-1	Aroclor 5432	41	U	12	41	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	56-55-3	BENZO(A)ANTHRACENE	2.1	U	0.83	2.1	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	62-75-9	METHANAMINE, N-METHYL-N-NITROSO	2.1	U	0.83	2.1	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	83-32-9	ACENAPHTHENE	2.1	U	0.83	2.1	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	84-66-2	DIETHYL PHTHALATE	22	U	7.4	22	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	84-74-2	Di-n-butylphthalate	22	U	7.4	22	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	85-01-8	PHENANTHRENE	3.3	U	0.83	2.1	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	85-68-7	BENZYL BUTYL PHTHALATE	22	U	7.4	22	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	86-73-7	FLUORENE	8.7	U	0.83	2.1	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	90-12-0	1-METHYLNAPHTHALENE	2	J	0.83	2.1	ug/kg	J	J	Z	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	91-20-3	NAPHTHALENE	4.9	U	0.83	2.1	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	91-57-6	2-METHYLNAPHTHALENE	2.7	U	0.83	2.1	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	22	U	7.4	22	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	117-84-0	Di-n-octylphthalate	22	U	7.4	22	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	120-12-7	ANTHRACENE	0.55	J	0.41	2.1	ug/kg	J	J	Z	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	129-00-0	PYRENE	1.5	J	0.83	2.1	ug/kg	J	J	Z	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	131-11-3	DIMETHYL PHTHALATE	22	U	7.4	22	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	191-24-2	BENZO(G,H,I)PERYLENE	2.1	U	0.83	2.1	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	192-97-2	Benzo(e)pyrene	21	U	4.1	21	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	193-39-5	INDENO(1,2,3-CD)PYRENE	2.1	U	0.83	2.1	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	205-99-2	BENZO(B)FLUORANTHENE	0.91	J	0.83	2.1	ug/kg	J	J	Z	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	206-44-0	FLUORANTHENE	1.8	J	0.83	2.1	ug/kg	J	J	Z	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	207-08-9	BENZO(K)FLUORANTHENE	11	U	0.83	2.1	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	208-96-8	ACENAPHTHYLENE	0.48	J	0.41	2.1	ug/kg	J	J	Z	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	218-01-9	Chrysene	1.4	J	0.41	2.1	ug/kg	J	J	Z	1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	50-32-8	BENZO(A)PYRENE	2.1	U	0.83	2.1	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	8270D SIM	6/24/2014	PH231	19.3	1	53-70-3	DIBENZO(A,H)ANTHRACENE	2.1	U	0.83	2.1	ug/kg	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497920	LL	9045M	6/13/2014	PH231	19.3	1	pH	PH	7.83	U	0.0100	0.0100	pH unit	U			1786517.7	271046.8	-118.70636	34.24274
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	160.3M	6/19/2014	PH231	2.6	1	MOIST	MOISTURE	2.6	U	0.10	0.10	%	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	1613B	6/19/2014	PH231	2.6	1	1746-01-6	2,3,7,8-TCDD	1.01	U	0.0756	1.01	ng/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	1613B	6/19/2014	PH231	2.6	1	19408-74-3	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	0.305	J	0.0435	5.07	ng/kg	J	J	Z	1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	1613B	6/19/2014	PH231	2.6	1	3268-87-9	OCDD	150	U	0.0302	10.1	ng/kg	B			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	1613B	6/19/2014	PH231	2.6	1	35822-46-9	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	17.9	U	0.0383	5.07	ng/kg	B			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	1613B	6/19/2014	PH231	2.6	1	39001-02-0	OCDF	8.22	J	0.0579	10.1	ng/kg	JB	J	Z	1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	1613B	6/19/2014	PH231	2.6	1	39227-28-6	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	0.147	J	0.0457	5.07	ng/kg	JQ	J	Z	1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	1613B	6/19/2014	PH231	2.6	1	40321-76-4	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	0.128	J										

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	6010C	6/19/2014	PH231	2.6	1	7440-70-2	CALCIUM METAL	3030		3.30	19.7	mg/kg				1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	6010C	6/19/2014	PH231	2.6	1	7723-14-0	PHOSPHORUS	255		2.85	9.87	mg/kg				1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	6020A	6/19/2014	PH231	2.6	2	7440-22-4	SILVER	0.197	U	0.0257	0.197	mg/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	6020A	6/19/2014	PH231	2.6	2	7440-24-6	STRONTIUM	21.4	J	0.0671	0.395	mg/kg		J	O, E	1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	6020A	6/19/2014	PH231	2.6	2	7440-28-0	THALLIUM	0.167	J	0.0296	0.197	mg/kg	J	J	Z	1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	6020A	6/19/2014	PH231	2.6	2	7782-49-2	SELENIUM	0.171	J	0.0987	0.395	mg/kg	J	J	Z	1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	7471B	6/19/2014	PH231	2.6	1	7439-97-6	MERCURY	0.0152	J	0.0097	0.0161	mg/kg	J	J	Z	1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8015M	6/19/2014	PH231	2.6	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5.1	UJ	2.1	5.1	mg/kg	U	UJ	L	1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8015M	6/19/2014	PH231	2.6	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5.1	UJ	2.1	5.1	mg/kg	U	UJ	L	1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8015M	6/19/2014	PH231	2.6	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	5.1	UJ	2.1	5.1	mg/kg	U	UJ	L	1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8015M	6/19/2014	PH231	2.6	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	10	U	4.1	10	mg/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8015M	6/19/2014	PH231	2.6	1	PHCC8C11SI	EFH (C8-C11) w/ SiGel	5.1	UJ	2.1	5.1	mg/kg	U	UJ	L	1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8015M	6/17/2014	PH231	2.6	1	PHCC12C14	EFH (C12-C14)	5.1	U	2.1	5.1	mg/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8015M	6/17/2014	PH231	2.6	1	PHCC15C20	EFH (C15-C20)	5.1	U	2.1	5.1	mg/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8015M	6/17/2014	PH231	2.6	1	PHCC21C30	EFH (C21-C30)	7.2	U	2.1	5.1	mg/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8015M	6/17/2014	PH231	2.6	1	PHCC30C40	EFH (C30-C40)	16	U	4.1	10	mg/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8015M	6/17/2014	PH231	2.6	1	PHCC8C11	EFH (C8-C11)	5.1	U	2.1	5.1	mg/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	1024-57-3	HEPTACHLOR EPOXIDE	0.85	U	0.17	0.85	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	1031-07-8	ENDOSULFAN SULFATE	1.7	U	0.34	1.7	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	2385-85-5	MIREX	1.7	U	0.36	1.7	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	309-00-2	ALDRIN	0.85	U	0.17	0.85	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	319-84-6	ALPHA-BHC	0.85	U	0.17	0.85	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	319-85-7	BETA-BHC	1.3	J	0.99	2.0	ug/kg	J	J	Z	1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	319-86-8	DELTA-BHC	0.85	U	0.46	0.85	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	33213-65-9	ENDOSULFAN II	1.7	U	0.34	1.7	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	50-29-3	4,4'-DDT	0.39	J	0.36	1.7	ug/kg	J	J	Z	1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	53494-70-5	ENDRIN KETONE	1.8	U	0.62	1.8	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	57-74-9	CHLORDANE	1.7	U	4.1	17	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	58-89-9	gamma-BHC (Lindane)	0.85	U	0.17	0.85	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	60-57-1	DIELDRIN	1.7	U	0.34	1.7	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	72-20-8	ENDRIN	1.7	U	0.34	1.7	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	72-43-5	Methoxychlor	6.9	U	1.7	6.9	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	72-54-8	4,4'-DDD	1.7	U	0.34	1.7	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	72-55-9	4,4'-DDE	0.44	J	0.34	1.7	ug/kg	J	J	Z	1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	7421-93-4	ENDRIN ALDEHYDE	1.7	U	0.34	1.7	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	76-44-8	HEPTACHLOR	0.85	U	0.17	0.85	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	959-98-8	ENDOSULFAN I	0.85	U	0.23	0.85	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8081B	6/23/2014	PH231	2.6	1	8001-35-2	Toxaphene	34	U	14	34	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8082A	6/23/2014	PH231	2.6	1	11096-82-5	Aroclor 1260	17	U	4.0	17	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8082A	6/23/2014	PH231	2.6	1	11097-69-1	Aroclor 1254	17	U	4.5	17	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8082A	6/23/2014	PH231	2.6	1	11100-14-4	Aroclor 1268	17	U	3.4	17	ug/kg	U			1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	8082A	6/23/2014	PH231	2.6	1	11104-28-2	Aroclor 1221	17	U	5.2	1								

**Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3**

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497921	LL	9045M	6/13/2014	PH231	2.6	1	pH	PH	8.08		0.0100	0.0100	pH unit				1786435.25	271464.846	-118.70665	34.24389
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	160.3M	6/18/2014	PH227	1.8	1	MOIST	MOISTURE	1.8		0.10	0.10	%				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7429-90-5	ALUMINUM (FUME OR DUST)	14900		7.27	40.3	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7439-89-6	IRON	21300		3.65	40.3	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7439-92-1	LEAD	11.2		0.504	3.02	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7439-93-2	LITHIUM	22.4		0.34	4.0	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7439-95-4	MAGNESIUM	5450		1.68	10.1	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7439-96-5	MANGANESE	353		0.0837	1.01	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7439-98-7	MOLYBDENUM	0.298	J	0.171	2.02	mg/kg	J	J	Z	1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7440-02-0	NICKEL	12.9		0.131	2.02	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7440-09-7	POTASSIUM	3170		8.41	101	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7440-23-5	SODIUM	73.1	J	16.8	101	mg/kg	J	J	Z	1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7440-31-5	TIN	10.1	U	0.222	10.1	mg/kg	J	U	B	1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7440-32-6	TITANIUM METAL POWDER	1120		0.171	1.01	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7440-36-0	ANTIMONY	4.03	U	0.746	4.03	mg/kg	U			1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7440-38-2	ARSENIC	6.44		0.706	4.03	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7440-39-3	BARIUM	86.3		0.0333	1.01	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7440-41-7	BERYLLIUM	0.58	J	0.0676	1.01	mg/kg	J	J	Z	1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7440-42-8	BORON	10.1	U	0.847	10.1	mg/kg	J	U	B	1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7440-43-9	CADMIUM	1.01	U	0.0766	1.01	mg/kg	U			1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7440-47-3	CHROMIUM	21.7		0.161	3.02	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7440-48-4	COBALT	5.13		0.0988	1.01	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7440-50-8	COPPER	9.7		0.292	2.02	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7440-62-2	VANADIUM (FUME OR DUST)	42.2		0.131	1.01	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7440-66-6	ZINC	54.1		0.202	4.03	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7440-67-7	ZIRCONIUM	5.04	U	0.847	5.04	mg/kg	J	U	F	1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7440-70-2	CALCIUM METAL	3610		3.37	20.2	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6010C	6/19/2014	PH227	1.8	1	7723-14-0	PHOSPHORUS	382		2.91	10.1	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6020A	6/19/2014	PH227	1.8	2	7782-49-2	SELENIUM	0.459		0.101	0.403	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6020A	6/19/2014	PH227	1.8	2	7440-22-4	SILVER	0.0534	J	0.0262	0.202	mg/kg	J	J	Z	1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6020A	6/19/2014	PH227	1.8	2	7440-24-6	STRONTIUM	22.9		0.0686	0.403	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	6020A	6/19/2014	PH227	1.8	2	7440-28-0	THALLIUM	0.225		0.0302	0.202	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	7471B	6/19/2014	PH227	1.8	1	7439-97-6	MERCURY	0.0322		0.0095	0.0158	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	8015M	6/23/2014	PH227	1.8	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5.1	UJ	2.0	5.1	mg/kg	U	UJ	L	1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	8015M	6/23/2014	PH227	1.8	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5.1	UJ	2.0	5.1	mg/kg	U	UJ	L	1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	8015M	6/23/2014	PH227	1.8	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	2.5	J	2.0	5.1	mg/kg	J	J	L, Z	1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	8015M	6/23/2014	PH227	1.8	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	4.4	J	4.1	10	mg/kg	J	J	Z	1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	8015M	6/23/2014	PH227	1.8	1	PHCC8115I	EFH (C8-C11) w/ SiGel	5.1	UJ	2.0	5.1	mg/kg	U	UJ	L	1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	8015M	6/17/2014	PH227	1.8	1	PHCC12C14	EFH (C12-C14)	5.1	U	2.0	5.1	mg/kg	U			1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	8015M	6/17/2014	PH227	1.8	1	PHCC15C20	EFH (C15-C20)	3.6	J	2.0	5.1	mg/kg	J	J	Z	1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	8015M	6/17/2014	PH227	1.8	1	PHCC21C30	EFH (C21-C30)	23		2.0	5.1	mg/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	8015M	6/17/2014	PH227	1.8	1	PHCC30C40	EFH (C30-C40)	30		4.1	10	mg/kg				1787669.44	269461.925	-118.70252	34.23841

**Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3**

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	8270D SIM	6/18/2014	PH227	1.8	1	85-68-7	BENZYL BUTYL PHTHALATE	19		6.1	18	ug/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	8270D SIM	6/18/2014	PH227	1.8	1	86-73-7	FLUORENE	1.7	U	0.68	1.7	ug/kg	U			1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	8270D SIM	6/18/2014	PH227	1.8	1	90-12-0	1-METHYLNAPHTHALENE	0.74	J	0.68	1.7	ug/kg	J	J	Z	1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	8270D SIM	6/18/2014	PH227	1.8	1	91-20-3	NAPHTHALENE	2.6		0.68	1.7	ug/kg				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	8270D SIM	6/18/2014	PH227	1.8	1	91-57-6	2-METHYLNAPHTHALENE	1.1	J	0.68	1.7	ug/kg	J	J	Z	1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494369	LL	9045M	6/11/2014	PH227	1.8	1	pH	PH	5.92		0.0100	0.0100	pH unit				1787669.44	269461.925	-118.70252	34.23841
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	160.3M	6/18/2014	PH227	1.9	1	MOIST	MOISTURE	1.9		0.10	0.10	%				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7429-90-5	ALUMINUM (FUME OR DUST)	13300		7.07	39.2	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7439-89-6	IRON	21800		3.55	39.2	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7439-92-1	LEAD	11.1		0.490	2.94	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7439-93-2	LITHIUM	25.9		0.33	3.9	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7439-95-4	MAGNESIUM	6380		1.64	9.80	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7439-96-5	MANGANESE	321		0.0814	0.980	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7439-98-7	MOLYBDENUM	0.345	J	0.167	1.96	mg/kg	J	J	Z	1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7440-02-0	NICKEL	12.6		0.127	1.96	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7440-09-7	POTASSIUM	2870		8.17	98.0	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7440-23-5	SODIUM	77.3	J	16.4	98.0	mg/kg	J	J	Z	1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7440-31-5	TIN	9.8	U	0.216	9.80	mg/kg	J	U	B	1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7440-32-6	TITANIUM METAL POWDER	1200		0.167	0.980	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7440-36-0	ANTIMONY	3.92	U	0.725	3.92	mg/kg	U			1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7440-38-2	ARSENIC	6.75		0.686	3.92	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7440-39-3	BARIUM	65.9		0.0323	0.980	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7440-41-7	BERYLLIUM	0.519	J	0.0657	0.980	mg/kg	J	J	Z	1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7440-42-8	BORON	9.8	U	0.823	9.80	mg/kg	J	U	B	1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7440-43-9	CADMIUM	0.98	U	0.0745	0.980	mg/kg	U			1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7440-47-3	CHROMIUM	21.6		0.157	2.94	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7440-48-4	COBALT	5.33		0.0970	0.980	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7440-50-8	COPPER	9.7		0.284	1.96	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7440-62-2	VANADIUM (FUME OR DUST)	43.8		0.127	0.980	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7440-66-6	ZINC	55.2		0.196	3.92	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7440-67-7	ZIRCONIUM	4.9	U	0.823	4.90	mg/kg	J	U	F	1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7440-70-2	CALCIUM METAL	3510		3.27	19.6	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6010C	6/19/2014	PH227	1.9	1	7723-14-0	PHOSPHORUS	409		2.83	9.80	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6020A	6/19/2014	PH227	1.9	2	7782-49-2	SELENIUM	0.426		0.0980	0.392	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6020A	6/19/2014	PH227	1.9	2	7440-22-4	SILVER	0.0588	J	0.0255	0.196	mg/kg	J	J	Z	1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6020A	6/19/2014	PH227	1.9	2	7440-24-6	STRONTIUM	16		0.0667	0.392	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	6020A	6/19/2014	PH227	1.9	2	7440-28-0	THALLIUM	0.266		0.0294	0.196	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	7471B	6/19/2014	PH227	1.9	1	7439-97-6	MERCURY	0.0359		0.0097	0.0162	mg/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	8015M	6/23/2014	PH227	1.9	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5.1	UJ	2.0	5.1	mg/kg	U	UJ	L	1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	8015M	6/23/2014	PH227	1.9	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5.1	UJ	2.0	5.1	mg/kg	U	UJ	L	1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	8015M	6/23/2014	PH227	1.9	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	3.3	J	2.0	5.1	mg/kg	J	J	L, Z	1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	8015M	6/23/2014	PH227	1.9	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	4.8	J	4.1	10	mg/kg	J	J	Z	1787351.66	269415.685	-118.70357	34.23828

**Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3**

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	8270D SIM	6/24/2014	PH227	1.9	1	62-75-9	METHANAMINE, N-METHYL-N-NITROSO	1.7	U	0.67	1.7	ug/kg	U			1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	8270D SIM	6/24/2014	PH227	1.9	1	83-32-9	ACENAPHTHENE	1.7	U	0.67	1.7	ug/kg	U			1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	8270D SIM	6/24/2014	PH227	1.9	1	84-66-2	DIETHYL PHTHALATE	18	U	6.0	18	ug/kg	U			1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	8270D SIM	6/24/2014	PH227	1.9	1	84-74-2	Di-n-butylphthalate	18	U	6.0	18	ug/kg	U			1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	8270D SIM	6/24/2014	PH227	1.9	1	85-01-8	PHENANTHRENE	1.1	J	0.67	1.7	ug/kg	J	J	Z	1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	8270D SIM	6/24/2014	PH227	1.9	1	85-68-7	BENZYL BUTYL PHTHALATE	120		6.0	18	ug/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	8270D SIM	6/24/2014	PH227	1.9	1	86-73-7	FLUORENE	1.3	J	0.67	1.7	ug/kg	J	J	Z	1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	8270D SIM	6/24/2014	PH227	1.9	1	90-12-0	1-METHYLNAPHTHALENE	1.7	U	0.67	1.7	ug/kg	U			1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	8270D SIM	6/24/2014	PH227	1.9	1	91-20-3	NAPHTHALENE	1.7		0.67	1.7	ug/kg				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	8270D SIM	6/24/2014	PH227	1.9	1	91-57-6	2-METHYLNAPHTHALENE	0.95	J	0.67	1.7	ug/kg	J	J	Z	1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494370	LL	9045M	6/11/2014	PH227	1.9	1	pH	PH	5.96		0.0100	0.0100	pH unit				1787351.66	269415.685	-118.70357	34.23828
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	160.3M	6/18/2014	PH227	1.5	1	MOIST	MOISTURE	1.5		0.10	0.10	%				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7429-90-5	ALUMINUM (FUME OR DUST)	10500		7.04	39.0	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7439-89-6	IRON	16600		3.53	39.0	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7439-92-1	LEAD	13.8		0.488	2.93	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7439-93-2	LITHIUM	19.2		0.33	3.9	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7439-95-4	MAGNESIUM	4040		1.63	9.76	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7439-96-5	MANGANESE	230		0.0810	0.976	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7439-98-7	MOLYBDENUM	0.382	J	0.166	1.95	mg/kg	J	J	Z	1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7440-02-0	NICKEL	8.64		0.127	1.95	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7440-09-7	POTASSIUM	2840		8.14	97.6	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7440-23-5	SODIUM	60	J	16.3	97.6	mg/kg	J	J	Z	1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7440-31-5	TIN	9.76	U	0.215	9.76	mg/kg	J	U	B	1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7440-32-6	TITANIUM METAL POWDER	855		0.166	0.976	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7440-36-0	ANTIMONY	3.9	U	0.722	3.90	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7440-38-2	ARSENIC	6.31		0.683	3.90	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7440-39-3	BARIUM	61.1		0.0322	0.976	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7440-41-7	BERYLLIUM	0.436	J	0.0654	0.976	mg/kg	J	J	Z	1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7440-42-8	BORON	9.76	U	0.820	9.76	mg/kg	J	U	B	1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7440-43-9	CADMIUM	0.976	U	0.0742	0.976	mg/kg	U			1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7440-47-3	CHROMIUM	14.2		0.156	2.93	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7440-48-4	COBALT	3.66		0.0966	0.976	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7440-50-8	COPPER	7.59		0.283	1.95	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7440-62-2	VANADIUM (FUME OR DUST)	31.3		0.127	0.976	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7440-66-6	ZINC	50.4		0.195	3.90	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7440-67-7	ZIRCONIUM	4.88	U	0.820	4.88	mg/kg	J	U	F	1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7440-70-2	CALCIUM METAL	3220		3.26	19.5	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6010C	6/19/2014	PH227	1.5	1	7723-14-0	PHOSPHORUS	322		2.82	9.76	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6020A	6/19/2014	PH227	1.5	2	7782-49-2	SELENIUM	0.324	J	0.0976	0.390	mg/kg	J	J	Z	1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6020A	6/19/2014	PH227	1.5	2	7440-22-4	SILVER	0.571		0.0254	0.195	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6020A	6/19/2014	PH227	1.5	2	7440-24-6	STRONTIUM	19.4		0.0664	0.390	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494371	LL	6020A	6/19/2014	PH227	1.5	2	7440-28-0	THALLIUM	0.243		0.0293	0.195	mg/kg				1787224.14	269151.827	-118.70398	34.23755
FDG2-SL-566-NBZ-SB-0.0-0.5	6																												

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6010C	6/25/2014	PH235	1.6	1	7440-23-5	SODIUM	66.8	J	17.0	102	mg/kg	J	J	Z	1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6010C	6/25/2014	PH235	1.6	1	7440-31-5	TIN	10.2	U	0.437	10.2	mg/kg	J	U	B	1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6010C	6/25/2014	PH235	1.6	1	7440-32-6	TITANIUM METAL POWDER	909		0.173	1.02	mg/kg				1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6010C	6/25/2014	PH235	1.6	1	7440-36-0	ANTIMONY	4.07	UJ	0.335	4.07	mg/kg	U	UJ	Q	1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6010C	6/25/2014	PH235	1.6	1	7440-38-2	ARSENIC	6.95		0.650	4.07	mg/kg				1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6010C	6/25/2014	PH235	1.6	1	7440-39-3	BARIIUM	91.9		0.0335	1.02	mg/kg				1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6010C	6/25/2014	PH235	1.6	1	7440-41-7	BERYLLIUM	0.548	J	0.0681	1.02	mg/kg	J	J	Z	1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6010C	6/25/2014	PH235	1.6	1	7440-42-8	BORON	3.75	J	0.854	10.2	mg/kg	J	J	Z	1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6010C	6/25/2014	PH235	1.6	1	7440-43-9	CADMIUM	1.02	U	0.0335	1.02	mg/kg	U			1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6010C	6/25/2014	PH235	1.6	1	7440-47-3	CHROMIUM	14.3		0.112	3.05	mg/kg				1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6010C	6/25/2014	PH235	1.6	1	7440-48-4	COBALT	6.34	J	0.0976	1.02	mg/kg		J	E	1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6010C	6/25/2014	PH235	1.6	1	7440-50-8	COPPER	10.9		0.335	2.03	mg/kg				1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6010C	6/25/2014	PH235	1.6	1	7440-62-2	VANADIUM (FUME OR DUST)	30.1		0.0925	1.02	mg/kg				1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6010C	6/25/2014	PH235	1.6	1	7440-66-6	ZINC	57.9		0.264	4.07	mg/kg				1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6010C	6/25/2014	PH235	1.6	1	7440-67-7	ZIRCONIUM	5.08	U	0.823	5.08	mg/kg	J	U	F	1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6010C	6/25/2014	PH235	1.6	1	7440-70-2	CALCIUM METAL	5720	J	3.85	20.3	mg/kg		J	E	1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6010C	6/25/2014	PH235	1.6	1	7723-14-0	PHOSPHORUS	409	J	0.325	10.2	mg/kg		J	E	1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6020A	6/25/2014	PH235	1.6	2	7782-49-2	SELENIUM	0.2	J	0.102	0.407	mg/kg	J	J	Q, Z	1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6020A	6/25/2014	PH235	1.6	2	7440-22-4	SILVER	0.0264	J	0.0203	0.203	mg/kg	J	J	Q, E, Z	1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6020A	6/25/2014	PH235	1.6	2	7440-24-6	STRONTIUM	34.9	J	0.0581	0.407	mg/kg		J	E	1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	6020A	6/25/2014	PH235	1.6	2	7440-28-0	THALLIUM	0.284	J	0.0305	0.203	mg/kg		J	Q, E	1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	7471B	6/30/2014	PH235	1.6	1	7439-97-6	MERCURY	0.0297		0.0096	0.0160	mg/kg				1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	8015M	6/30/2014	PH235	1.6	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5.1	U	2.0	5.1	mg/kg	U			1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	8015M	6/30/2014	PH235	1.6	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5.1	U	2.0	5.1	mg/kg	U			1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	8015M	6/30/2014	PH235	1.6	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	3.1	J	2.0	5.1	mg/kg	J	J	Z	1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	8015M	6/30/2014	PH235	1.6	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	10	U	4.1	10	mg/kg	U			1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	8015M	6/30/2014	PH235	1.6	1	PHCC8C11S	EFH (C8-C11) w/ SiGel	5.1	U	2.0	5.1	mg/kg	U			1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	8015M	6/27/2014	PH235	1.6	1	PHCC12C14	EFH (C12-C14)	5.1	U	2.0	5.1	mg/kg	U			1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	8015M	6/27/2014	PH235	1.6	1	PHCC15C20	EFH (C15-C20)	2.4	J	2.0	5.1	mg/kg	J	J	Z	1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	8015M	6/27/2014	PH235	1.6	1	PHCC21C30	EFH (C21-C30)	16	J	2.0	5.1	mg/kg	J	J	Q	1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	8015M	6/27/2014	PH235	1.6	1	PHCC30C40	EFH (C30-C40)	37	J	4.1	10	mg/kg	J	J	Q	1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	8015M	6/27/2014	PH235	1.6	1	PHCC8C11	EFH (C8-C11)	5.1	U	2.0	5.1	mg/kg	U			1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	8082A	6/23/2014	PH235	1.6	1	11096-82-5	Aroclor 1260	17	U	3.9	17	ug/kg	U			1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	8082A	6/23/2014	PH235	1.6	1	11097-69-1	Aroclor 1254	17	U	4.4	17	ug/kg	U			1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	8082A	6/23/2014	PH235	1.6	1	11100-14-4	Aroclor 1268	17	U	3.3	17	ug/kg	U			1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	8082A	6/23/2014	PH235	1.6	1	11104-28-2	Aroclor 1221	17	U	5.1	17	ug/kg	U			1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	8082A	6/23/2014	PH235	1.6	1	11126-42-4	Aroclor 5460	33	U	10	33	ug/kg	U			1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	8082A	6/23/2014	PH235	1.6	1	11141-16-5	Aroclor 1232	17	U	4.1	17	ug/kg	U			1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	8082A	6/23/2014	PH235	1.6	1	12642-23-8	Aroclor 5442	33	U	10	33	ug/kg	U			1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	8082A	6/23/2014	PH235	1.6	1	12672-29-6	Aroclor 1248	17	U	3.3	17	ug/kg	U			1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	8082A	6/23/2014	PH235	1.6	1	12674-11-2	Aroclor 1016	17	U	3.3	17	ug/kg	U			1786031.32	269098.573	-118.70793	34.23738
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502707	LL	8082A	6/23/2014	PH235	1.6	1	37324-23-5	Aroclor 1262	17	U										

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7439-95-4	MAGNESIUM	5170		1.77	10.6	mg/kg				1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7439-96-5	MANGANESE	345		0.0877	1.06	mg/kg				1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7439-98-7	MOLYBDENUM	2.11	U	0.180	2.11	mg/kg	J	U	F	1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7440-02-0	NICKEL	11.5		0.159	2.11	mg/kg				1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7440-09-7	POTASSIUM	4070	J	13.7	106	mg/kg	J	Q		1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7440-23-5	SODIUM	79.9	J	17.7	106	mg/kg	J	J	Z	1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7440-31-5	TIN	10.6	U	0.455	10.6	mg/kg	J	U	B	1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7440-32-6	TITANIUM METAL POWDER	1010		0.180	1.06	mg/kg				1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7440-36-0	ANTIMONY	4.23	UJ	0.349	4.23	mg/kg	U	UJ	Q	1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7440-38-2	ARSENIC	13		0.677	4.23	mg/kg				1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7440-39-3	BARIUM	99		0.0349	1.06	mg/kg				1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7440-41-7	BERYLLIUM	0.535	J	0.0708	1.06	mg/kg	J	J	Z	1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7440-42-8	BORON	10.6	U	0.888	10.6	mg/kg	J	U	F	1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7440-43-9	CADMIUM	1.06	U	0.0349	1.06	mg/kg	U			1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7440-47-3	CHROMIUM	16.9		0.116	3.17	mg/kg				1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7440-48-4	COBALT	5.59	J	0.101	1.06	mg/kg		J	E	1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7440-50-8	COPPER	12.4		0.349	2.11	mg/kg				1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7440-62-2	VANADIUM (FUJME OR DUST)	30.8		0.0962	1.06	mg/kg				1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7440-66-6	ZINC	75.3		0.275	4.23	mg/kg				1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7440-67-7	ZIRCONIUM	5.29	U	0.856	5.29	mg/kg	J	U	F	1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7440-70-2	CALCIUM METAL	5850	J	4.01	21.1	mg/kg	J	E		1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6010C	6/25/2014	PH235	5.4	1	7723-14-0	PHOSPHORUS	489	J	0.338	10.6	mg/kg	J	E		1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6020A	6/25/2014	PH235	5.4	2	7440-22-4	SILVER	0.041	J	0.0211	0.211	mg/kg	J	J	Q, E, Z	1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6020A	6/25/2014	PH235	5.4	2	7440-24-6	STRONTIUM	29.6	J	0.0605	0.423	mg/kg	J	E		1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6020A	6/25/2014	PH235	5.4	2	7440-28-0	THALLIUM	0.273	J	0.0317	0.211	mg/kg	J	Q, E		1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	6020A	6/25/2014	PH235	5.4	2	7782-49-2	SELENIUM	0.151	J	0.106	0.423	mg/kg	J	J	Q, Z	1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	7471B	6/30/2014	PH235	5.4	1	7439-97-6	MERCURY	0.0371		0.0104	0.0174	mg/kg				1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	8015M	6/25/2014	PH235	5.4	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5.3	UJ	2.1	5.3	mg/kg	U	UJ	L	1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	8015M	6/25/2014	PH235	5.4	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5.3	UJ	2.1	5.3	mg/kg	U	UJ	L	1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	8015M	6/25/2014	PH235	5.4	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	4.9	J	2.1	5.3	mg/kg	J	J	L, Z	1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	8015M	6/25/2014	PH235	5.4	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	8.3	J	4.2	11	mg/kg	J	J	L, Z	1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	8015M	6/25/2014	PH235	5.4	1	PHCC8C11SI	EFH (C8-C11) w/ SiGel	5.3	UJ	2.1	5.3	mg/kg	U	UJ	L	1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	8015M	6/30/2014	PH235	5.4	5	PHCC12C14	EFH (C12-C14)	26	U	11	26	mg/kg	U			1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	8015M	6/30/2014	PH235	5.4	5	PHCC15C20	EFH (C15-C20)	27	U	11	26	mg/kg				1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	8015M	6/30/2014	PH235	5.4	5	PHCC21C30	EFH (C21-C30)	130		11	26	mg/kg				1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	8015M	6/30/2014	PH235	5.4	5	PHCC30C40	EFH (C30-C40)	260		21	53	mg/kg				1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	8015M	6/30/2014	PH235	5.4	5	PHCC8C11	EFH (C8-C11)	26	U	11	26	mg/kg	U			1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	8082A	6/25/2014	PH235	5.4	1	11096-82-5	Aroclor 1260	18	U	4.1	18	ug/kg	U			1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	8082A	6/25/2014	PH235	5.4	1	11097-69-1	Aroclor 1254	8	J	4.7	18	ug/kg	J	J	Z	1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	8082A	6/25/2014	PH235	5.4	1	11100-14-4	Aroclor 1268	18	U	3.5	18	ug/kg	U			1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	8082A	6/25/2014	PH235	5.4	1	11104-28-2	Aroclor 1221	18	U	5.4	18	ug/kg	U			1785782.87	268993.546	-118.70875	34.23709
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502708	LL	8082A	6/25/2014	PH235	5.4	1	11126-42-4	Aroclor 5460	35	U	11									

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	160.3M	6/19/2014	PH231	0.98	1	MOIST	MOISTURE	0.98		0.10	0.10	%				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7429-90-5	ALUMINUM (FUME OR DUST)	11700		7.07	39.2	mg/kg				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7439-89-6	IRON	18400		3.55	39.2	mg/kg				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7439-92-1	LEAD	13.2	J	0.490	2.94	mg/kg		J	Q, E	1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7439-93-2	LITHIUM	24.4		0.33	3.9	mg/kg				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7439-95-4	MAGNESIUM	4570		1.64	9.80	mg/kg				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7439-96-5	MANGANESE	269		0.0814	0.980	mg/kg				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7439-98-7	MOLYBDENUM	0.18	J	0.167	1.96	mg/kg	J	J	Z	1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7440-02-0	NICKEL	9.84		0.127	1.96	mg/kg				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7440-09-7	POTASSIUM	2990		8.18	98.0	mg/kg				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7440-23-5	SODIUM	51.8	J	16.4	98.0	mg/kg	J	J	Z	1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7440-31-5	TIN	9.8	U	0.216	9.80	mg/kg	J	U	B	1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7440-32-6	TITANIUM METAL POWDER	947		0.167	0.980	mg/kg				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7440-36-0	ANTIMONY	3.92	UJ	0.726	3.92	mg/kg	U	UJ	Q	1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7440-38-2	POTASSIUM	11.6		0.686	3.92	mg/kg				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7440-39-3	BARIUM	68.7		0.0324	0.980	mg/kg				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7440-41-7	BERYLLIUM	0.505	J	0.0657	0.980	mg/kg	J	J	Z	1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7440-42-8	BORON	9.8	U	0.824	9.80	mg/kg	J	U	B	1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7440-43-9	CADMIUM	0.98	U	0.0745	0.980	mg/kg	U			1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7440-47-3	CHROMIUM	15.5		0.157	2.94	mg/kg				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7440-48-4	COBALT	4.33		0.0971	0.980	mg/kg				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7440-50-8	COPPER	7.5		0.284	1.96	mg/kg				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7440-62-2	VANADIUM (FUME OR DUST)	30.3		0.127	0.980	mg/kg				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7440-66-6	ZINC	52.6		0.196	3.92	mg/kg				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7440-67-7	ZIRCONIUM	4.9	U	0.824	4.90	mg/kg			F	1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7440-70-2	CALCIUM METAL	2670		3.27	19.6	mg/kg				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6010C	6/19/2014	PH231	0.98	1	7723-14-0	PHOSPHORUS	354		2.83	9.80	mg/kg				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6020A	6/19/2014	PH231	0.98	2	7440-28-0	THALLIUM	0.258		0.0294	0.196	mg/kg				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6020A	6/19/2014	PH231	0.98	2	7782-49-2	SELENIUM	0.337	J	0.0980	0.392	mg/kg	J	J	Z	1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6020A	6/19/2014	PH231	0.98	2	7440-22-4	SILVER	0.0306	J	0.0255	0.196	mg/kg	J	J	Q, Z	1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	6020A	6/19/2014	PH231	0.98	2	7440-24-6	STRONTIUM	16.3	J	0.0667	0.392	mg/kg	J	J	Q, E	1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	7471B	6/19/2014	PH231	0.98	1	7439-97-6	MERCURY	0.0286		0.0096	0.0160	mg/kg				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	8015M	6/19/2014	PH231	0.98	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5	UJ	2.0	5.0	mg/kg	U	UJ	S, L	1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	8015M	6/19/2014	PH231	0.98	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5	UJ	2.0	5.0	mg/kg	U	UJ	S, L	1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	8015M	6/19/2014	PH231	0.98	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	5	UJ	2.0	5.0	mg/kg	U	UJ	S, L	1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	8015M	6/19/2014	PH231	0.98	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	10	UJ	4.0	10	mg/kg	U	UJ	S	1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	8015M	6/19/2014	PH231	0.98	1	PHCC8C11SI	EFH (C8-C11) w/ SiGel	5	UJ	2.0	5.0	mg/kg	U	UJ	S, L	1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	8015M	6/17/2																	

**Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3**

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	8270D SIM	6/24/2014	PH231	0.98	1	86-73-7	FLUORENE	1.1	J	0.67	1.7	ug/kg	J	J	Z	1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	8270D SIM	6/24/2014	PH231	0.98	1	90-12-0	1-METHYLNAPHTHALENE	0.89	J	0.67	1.7	ug/kg	J	J	Z	1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	8270D SIM	6/24/2014	PH231	0.98	1	91-20-3	NAPHTHALENE	2.2		0.67	1.7	ug/kg	J	J	Z	1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	8270D SIM	6/24/2014	PH231	0.98	1	91-57-6	2-METHYLNAPHTHALENE	1.2	J	0.67	1.7	ug/kg	J	J	Z	1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497922	LL	9045M	6/13/2014	PH231	0.98	1	pH	pH	6.35		0.0100	0.0100	pH unit				1785694.34	268698.166	-118.70903	34.23627
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	160.3M	6/19/2014	PH231	0.89	1	MOIST	MOISTURE	0.89		0.10	0.10	%				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7429-90-5	ALUMINUM (FUME OR DUST)	19800		1785293.75	268231.668	mg/kg				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7439-89-6	IRON	21100		3.58	39.6	mg/kg				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7439-92-1	LEAD	8.27	J	0.495	2.97	mg/kg		J	Q, E	1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7439-93-2	LITHIUM	23.7		0.34	4.0	mg/kg				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7439-95-4	MAGNESIUM	3930		1.65	9.89	mg/kg				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7439-96-5	MANGANESE	291		0.0821	0.989	mg/kg				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7439-98-7	MOLYBDENUM	0.387	J	0.168	1.98	mg/kg	J	J	Z	1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7440-02-0	NICKEL	10.8		0.129	1.98	mg/kg				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7440-09-7	POTASSIUM	3410		8.25	98.9	mg/kg				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7440-23-5	SODIUM	93	J	16.5	98.9	mg/kg	J	J	Z	1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7440-31-5	TIN	9.89	U	0.218	9.89	mg/kg	J	U	B	1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7440-32-6	TITANIUM METAL POWDER	1010		0.168	0.989	mg/kg				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7440-36-0	ANTIMONY	3.96	UJ	0.732	3.96	mg/kg	U	UJ	Q	1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7440-38-2	ARSENIC	9.17		0.692	3.96	mg/kg				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7440-39-3	BARIUM	94		0.0326	0.989	mg/kg				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7440-41-7	BERYLLIUM	0.795	J	0.0663	0.989	mg/kg	J	J	Z	1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7440-42-8	BORON	9.89	U	0.831	9.89	mg/kg	J	U	B	1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7440-43-9	CADMIUM	0.989	U	0.0752	0.989	mg/kg	U			1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7440-47-3	CHROMIUM	16.8		0.158	2.97	mg/kg				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7440-48-4	COBALT	4.76		0.0979	0.989	mg/kg				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7440-50-8	COPPER	8.37		0.287	1.98	mg/kg				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7440-62-2	VANADIUM (FUME OR DUST)	35.6		0.129	0.989	mg/kg				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7440-66-6	ZINC	48.3		0.198	3.96	mg/kg				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7440-67-7	ZIRCONIUM	4.95	U	0.831	4.95	mg/kg	J	U	F	1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7440-70-2	CALCIUM METAL	2170		3.30	19.8	mg/kg				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6010C	6/19/2014	PH231	0.89	1	7723-14-0	PHOSPHORUS	243		2.86	9.89	mg/kg				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6020A	6/19/2014	PH231	0.89	2	7440-22-4	SILVER	0.0382	J	0.0257	0.198	mg/kg	J	J	Q, Z	1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6020A	6/19/2014	PH231	0.89	2	7440-24-6	STRONTIUM	26.2	J	0.0673	0.396	mg/kg		J	Q, E	1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6020A	6/19/2014	PH231	0.89	2	7440-28-0	THALLIUM	0.347		0.0297	0.198	mg/kg				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	6020A	6/19/2014	PH231	0.89	2	7782-49-2	SELENIUM	0.451		0.0989	0.396	mg/kg				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	7471B	6/19/2014	PH231	0.89	1	7439-97-6	MERCURY	0.0263		0.0098	0.0164	mg/kg				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	8015M	6/19/2014	PH231	0.89	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5	UJ	2.0	5.0	mg/kg	U	UJ	L	1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	8015M	6/19/2014	PH231	0.89	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5	UJ	2.0	5.0	mg/kg	U	UJ	L	1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	8015M	6/19/2014	PH231	0.89	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	5	UJ	2.0	5.0	mg/kg	U	UJ	L	1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	8015M	6/19/2014	PH231	0.89	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	10	U	4.0	10	mg/kg	U			1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	8015M	6/19/2014	PH231	0.89	1	PHCC8C11S1	EFH (C8-C11) w/ SiGel	5	U	2.0									

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	8270D SIM	6/24/2014	PH231	0.89	1	83-32-9	ACENAPHTHENE	1.7	U	0.67	1.7	ug/kg	U			1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	8270D SIM	6/24/2014	PH231	0.89	1	84-66-2	DIETHYL PHTHALATE	18	U	6.1	18	ug/kg	U			1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	8270D SIM	6/24/2014	PH231	0.89	1	84-74-2	Di-n-butylphthalate	18	U	6.1	18	ug/kg	U			1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	8270D SIM	6/24/2014	PH231	0.89	1	85-01-8	PHENANTHRENE	0.68	J	0.67	1.7	ug/kg	J	J	Z	1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	8270D SIM	6/24/2014	PH231	0.89	1	85-68-7	BENZYL BUTYL PHTHALATE	18	U	6.1	18	ug/kg	U			1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	8270D SIM	6/24/2014	PH231	0.89	1	86-73-7	FLUORENE	1.7	U	0.67	1.7	ug/kg	U			1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	8270D SIM	6/24/2014	PH231	0.89	1	90-12-0	1-METHYLNAPHTHALENE	1.7	U	0.67	1.7	ug/kg	U			1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	8270D SIM	6/24/2014	PH231	0.89	1	91-20-3	NAPHTHALENE	1.7	U	0.67	1.7	ug/kg	U			1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	8270D SIM	6/24/2014	PH231	0.89	1	91-57-6	2-METHYLNAPHTHALENE	0.88	J	0.67	1.7	ug/kg	J	J	Z	1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497923	LL	9045M	6/13/2014	PH231	0.89	1	pH	PH	5.9		0.0100	0.0100	pH unit				1785293.75	268231.668	-118.71035	34.23498
FDG2-SL-571-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496183	LL	160.3M	6/19/2014	PH229	5.3	1	MOIST	MOISTURE	5.3		0.10	0.10	%				1784523.46	268061.757	-118.71289	34.2345
FDG2-SL-571-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496183	LL	8015M	6/18/2014	PH229	5.3	2	PHCC12C14	EFH (C12-C14)	11	U	4.2	11	mg/kg	U			1784523.46	268061.757	-118.71289	34.2345
FDG2-SL-571-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496183	LL	8015M	6/18/2014	PH229	5.3	2	PHCC15C20	EFH (C15-C20)	11	J	4.2	11	mg/kg	J	J	Z	1784523.46	268061.757	-118.71289	34.2345
FDG2-SL-571-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496183	LL	8015M	6/18/2014	PH229	5.3	2	PHCC21C30	EFH (C21-C30)	71		4.2	11	mg/kg				1784523.46	268061.757	-118.71289	34.2345
FDG2-SL-571-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496183	LL	8015M	6/18/2014	PH229	5.3	2	PHCC30C40	EFH (C30-C40)	140		8.4	21	mg/kg				1784523.46	268061.757	-118.71289	34.2345
FDG2-SL-571-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496183	LL	8015M	6/18/2014	PH229	5.3	2	PHCC8C11	EFH (C8-C11)	11	U	4.2	11	mg/kg	U			1784523.46	268061.757	-118.71289	34.2345
FDG2-SL-571-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496183	LL	8015M	6/24/2014	PH229	5.3	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5.3	UJ	2.1	5.3	mg/kg	U	UJ	L	1784523.46	268061.757	-118.71289	34.2345
FDG2-SL-571-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496183	LL	8015M	6/24/2014	PH229	5.3	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5.3	UJ	2.1	5.3	mg/kg	U	UJ	L	1784523.46	268061.757	-118.71289	34.2345
FDG2-SL-571-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496183	LL	8015M	6/24/2014	PH229	5.3	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	12	J	2.1	5.3	mg/kg	J	L		1784523.46	268061.757	-118.71289	34.2345
FDG2-SL-571-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496183	LL	8015M	6/24/2014	PH229	5.3	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	10	J	4.2	11	mg/kg	J	J	Z	1784523.46	268061.757	-118.71289	34.2345
FDG2-SL-571-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496183	LL	8015M	6/24/2014	PH229	5.3	1	PHCC8C11S	EFH (C8-C11) w/ SiGel	5.3	UJ	2.1	5.3	mg/kg	U	UJ	L	1784523.46	268061.757	-118.71289	34.2345
FDG2-SL-572-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502709	LL	160.3M	6/23/2014	PH235	2.1	1	MOIST	MOISTURE	2.1		0.10	0.10	%				1784255.92	267874.495	-118.71377	34.23398
FDG2-SL-572-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502709	LL	8015M	6/23/2014	PH235	2.1	1	PHCC12C14	EFH (C12-C14)	5.1	U	2.0	5.1	mg/kg	U			1784255.92	267874.495	-118.71377	34.23398
FDG2-SL-572-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502709	LL	8015M	6/23/2014	PH235	2.1	1	PHCC15C20	EFH (C15-C20)	7.3		2.0	5.1	mg/kg				1784255.92	267874.495	-118.71377	34.23398
FDG2-SL-572-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502709	LL	8015M	6/23/2014	PH235	2.1	1	PHCC21C30	EFH (C21-C30)	62		2.0	5.1	mg/kg				1784255.92	267874.495	-118.71377	34.23398
FDG2-SL-572-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502709	LL	8015M	6/23/2014	PH235	2.1	1	PHCC30C40	EFH (C30-C40)	98		4.1	10	mg/kg				1784255.92	267874.495	-118.71377	34.23398
FDG2-SL-572-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502709	LL	8015M	6/23/2014	PH235	2.1	1	PHCC8C11	EFH (C8-C11)	5.1	U	2.0	5.1	mg/kg	U			1784255.92	267874.495	-118.71377	34.23398
FDG2-SL-572-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502709	LL	8015M	6/30/2014	PH235	2.1	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5	U	2.0	5.0	mg/kg	U			1784255.92	267874.495	-118.71377	34.23398
FDG2-SL-572-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502709	LL	8015M	6/30/2014	PH235	2.1	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5	U	2.0	5.0	mg/kg	U			1784255.92	267874.495	-118.71377	34.23398
FDG2-SL-572-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502709	LL	8015M	6/30/2014	PH235	2.1	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	14		2.0	5.0	mg/kg				1784255.92	267874.495	-118.71377	34.23398
FDG2-SL-572-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502709	LL	8015M	6/30/2014	PH235	2.1	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	14		4.0	10	mg/kg				1784255.92	267874.495	-118.71377	34.23398
FDG2-SL-572-NBZ-SB-0.0-0.5	6/17/2014	N	0	0.5	ft	SO	Go Back		7502709	LL	8015M	6/30/2014	PH235	2.1	1	PHCC8C11S	EFH (C8-C11) w/ SiGel	5	U	2.0	5.0	mg/kg	U			1784255.92	267874.495	-118.71377	34.23398
FDG2-SL-573-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504493	LL	160.3M	6/23/2014	PH237	1.4	1	MOIST	MOISTURE	1.4		0.10	0.10	%				1783822.58	267747.964	-118.7152	34.23363
FDG2-SL-573-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504493	LL	8015M	6/24/2014	PH237	1.4	5	PHCC12C14	EFH (C12-C14)	25	U	10	25	mg/kg	U			1783822.58	267747.964	-118.7152	34.23363
FDG2-SL-573-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504493	LL	8015M	6/24/2014	PH237	1.4	5	PHCC15C20	EFH (C15-C20)	14	J	10	25	mg/kg	J	J	Z	1783822.58	267747.964	-118.7152	34.23363
FDG2-SL-573-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504493	LL	8015M	6/24/2014	PH237	1.4	5	PHCC21C30	EFH (C21-C30)	100		10	25	mg/kg				1783822.58	267747.964	-118.7152	34.23363
FDG2-SL-573-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504493	LL	8015M	6/24/2014	PH237	1.4	5	PHCC30C40	EFH (C30-C40)	320		20	50	mg/kg				1783822.58	267747.964	-118.7152	34.23363
FDG2-SL-573-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504493	LL	8015M	6/24/2014	PH237	1.4	5	PHCC8C11	EFH (C8-C11)	25	U	10	25	mg/kg	U			1783822.58	267747.964	-118.7152	34.23363
FDG2-SL-573-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504493	LL	8015M	6/30/2014	PH237	1.4	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5	U	2.0	5.0	mg/kg	U			1783822.58	267747.964	-118.7152	34.23363
FDG2-SL-573-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504493	LL	8015M	6/30/2014	PH237	1.4	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5	U	2.0	5.0	mg/kg	U			1783822.58	267747.964	-118.7152	34.23363
FDG2-SL-573-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504493	LL	8015M	6/30/2014	PH237	1.4	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	27		2.0	5.0	mg/kg				1783822.58	267747.964	-118.7152	34.23363
FDG2-SL-573-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504493	LL	8015M	6/30/2014	PH237	1.4	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	56		4.0	10	mg/kg				1783822.58	267747.964	-118.7152	34.23363
FDG																													

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8015M	6/30/2014	PH237	2.5	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5.1	U	2.1	5.1	mg/kg	J			1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8015M	6/30/2014	PH237	2.5	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	3.9	J	2.1	5.1	mg/kg	J	J	Z	1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8015M	6/30/2014	PH237	2.5	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	5.7	J	4.1	10	mg/kg	J	J	Z	1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8015M	6/30/2014	PH237	2.5	1	PHCC8C11SI	EFH (C8-C11) w/ SiGel	5.1	U	2.1	5.1	mg/kg	U			1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8015M	6/20/2014	PH237	2.5	1	PHCC12C14	EFH (C12-C14)	5.1	U	2.0	5.1	mg/kg	U			1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8015M	6/20/2014	PH237	2.5	1	PHCC15C20	EFH (C15-C20)	4.2	J	2.0	5.1	mg/kg	J	J	Z	1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8015M	6/20/2014	PH237	2.5	1	PHCC21C30	EFH (C21-C30)	25	J	2.0	5.1	mg/kg	J			1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8015M	6/20/2014	PH237	2.5	1	PHCC30C40	EFH (C30-C40)	38	J	4.1	10	mg/kg	J			1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8015M	6/20/2014	PH237	2.5	1	PHCC8C11	EFH (C8-C11)	5.1	U	2.0	5.1	mg/kg	U			1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8082A	6/23/2014	PH237	2.5	1	11096-82-5	Aroclor 1260	17	U	4.0	17	ug/kg	U			1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8082A	6/23/2014	PH237	2.5	1	11097-69-1	Aroclor 1254	17	U	4.5	17	ug/kg	U			1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8082A	6/23/2014	PH237	2.5	1	11100-14-4	Aroclor 1268	17	U	3.4	17	ug/kg	U			1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8082A	6/23/2014	PH237	2.5	1	11104-28-2	Aroclor 1221	17	U	5.2	17	ug/kg	U			1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8082A	6/23/2014	PH237	2.5	1	11126-42-4	Aroclor 5460	34	U	10	34	ug/kg	U			1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8082A	6/23/2014	PH237	2.5	1	11141-16-5	Aroclor 1232	17	U	4.2	17	ug/kg	U			1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8082A	6/23/2014	PH237	2.5	1	12642-23-8	Aroclor 5442	34	U	10	34	ug/kg	U			1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8082A	6/23/2014	PH237	2.5	1	12672-29-6	Aroclor 1248	17	U	3.4	17	ug/kg	U			1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8082A	6/23/2014	PH237	2.5	1	12674-11-2	Aroclor 1016	17	U	3.4	17	ug/kg	U			1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8082A	6/23/2014	PH237	2.5	1	37324-23-5	Aroclor 1262	17	U	3.4	17	ug/kg	U			1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8082A	6/23/2014	PH237	2.5	1	53469-21-9	Aroclor 1242	17	U	4.2	17	ug/kg	U			1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	8082A	6/23/2014	PH237	2.5	1	63496-31-1	Aroclor 5432	34	U	10	34	ug/kg	U			1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504494	LL	9045M	6/19/2014	PH237	2.5	1	pH	PH	5.92		0.0100	0.0100	pH unit				1783487.19	267752.502	-118.71631	34.23363
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	160.3M	6/23/2014	PH237	0.73	1	MOIST	MOISTURE	0.73		0.10	0.10	%				1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	6010C	6/25/2014	PH237	0.73	1	7429-90-5	ALUMINUM (FUME OR DUST)	10900		4.57	40.3	mg/kg				1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	6010C	6/25/2014	PH237	0.73	1	7439-89-6	IRON	17800		3.36	40.3	mg/kg				1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	6010C	6/25/2014	PH237	0.73	1	7439-92-1	LEAD	11.8		0.504	3.02	mg/kg				1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	6010C	6/25/2014	PH237	0.73	1	7439-93-2	LITHIUM	24.8		0.64	4.0	mg/kg				1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	6010C	6/25/2014	PH237	0.73	1	7439-95-4	MAGNESIUM	3810		1.68	10.1	mg/kg				1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	6010C	6/25/2014	PH237	0.73	1	7439-96-5	MANGANESE	266		0.0836	1.01	mg/kg				1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	6010C	6/25/2014	PH237	0.73	1	7439-98-7	MOLYBDENUM	2.01	U	0.171	2.01	mg/kg				1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	6010C	6/25/2014	PH237	0.73	1	7440-02-0	NICKEL	7.3		0.151	2.01	mg/kg				1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	6010C	6/25/2014	PH237	0.73	1	7440-09-7	POTASSIUM	3390	J	13.1	101	mg/kg		J	Q	1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	6010C	6/25/2014	PH237	0.73	1	7440-23-5	SODIUM	58.4	J	16.8	101	mg/kg	J	J	Z	1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	6010C	6/25/2014	PH237	0.73	1	7440-31-5	TIN	10.1	U	0.433	10.1	mg/kg	J	U	B	1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	6010C	6/25/2014	PH237	0.73	1	7440-32-6	TITANIUM METAL POWDER	843		0.171	1.01	mg/kg				1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	6010C	6/25/2014	PH237	0.73	1	7440-36-0	ANTIMONY	4.03	UJ	0.332	4.03	mg/kg	U	UJ	Q	1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	6010C	6/25/2014	PH237	0.73	1	7440-38-2	ARSENIC	4.03	U	0.645	4.03	mg/kg	J	U	B	1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	6010C	6/25/2014	PH237	0.73	1	7440-39-3	BARIUM	73.3		0.0332	1.01	mg/kg				1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	6010C	6/25/2014	PH237	0.73	1	7440-41-7	BERYLLIUM	0.411	J	0.0675	1.01	mg/kg	J	J	Z	1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	6010C	6/25/2014	PH237	0.73	1	7440-42-8	BORON	10.1	U	0.846	10.1	mg/kg	J	U	F	1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	6010C	6/25/2014	PH237	0.73	1	7440-43-9	CADMIUM	1.01	U	0.0332	1.01	mg/kg	U			1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	6010C	6/25/2014	PH237	0.73	1	7440-47-3	CHROMIUM	12.2		0.111	3.02	mg/kg				1783398.22	267490.609	-11	

**Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3**

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	180	U	60	180	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	117-84-0	Di-n-octylphthalate	180	U	60	180	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	120-12-7	ANTHRACENE	17	U	3.4	17	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	129-00-0	PYRENE	17	U	6.7	17	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	131-11-3	DIMETHYL PHTHALATE	180	U	60	180	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	191-24-2	BENZO(G,H,I)PERYLENE	17	U	6.7	17	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	192-97-2	Benzo(e)pyrene	170	U	34	170	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	193-39-5	INDENO(1,2,3-CD)PYRENE	17	U	6.7	17	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	205-99-2	FLUOR(B)FLUORANTHENE	17	U	6.7	17	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	206-44-0	FLUORANTHENE	17	U	6.7	17	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	207-08-9	BENZO(K)FLUORANTHENE	10	J	6.7	17	ug/kg	J	J	Z	1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	208-96-8	ACENAPHTHYLENE	17	U	3.4	17	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	218-01-9	Chryse	17	U	3.4	17	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	50-32-8	BENZO(A)PYRENE	17	U	6.7	17	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	53-70-3	DIBENZO(A,H)ANTHRACENE	17	U	6.7	17	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	56-55-3	BENZO(A)ANTHRACENE	17	U	6.7	17	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	62-75-9	METHANAMINE, N-METHYL-N-NITROSO	17	U	6.7	17	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	83-32-9	ACENAPHTHENE	17	U	6.7	17	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	84-66-2	DIETHYL PHTHALATE	180	U	60	180	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	84-74-2	Di-n-butylphthalate	180	U	60	180	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	85-01-8	PHENANTHRENE	17	U	6.7	17	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	85-68-7	BENZYL BUTYL PHTHALATE	180	U	60	180	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	86-73-7	FLUORENE	17	U	6.7	17	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	90-12-0	1-METHYLNAPHTHALENE	17	U	6.7	17	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	91-20-3	NAPHTHALENE	17	U	6.7	17	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	8270D SIM	6/26/2014	PH237	0.73	10	91-57-6	2-METHYLNAPHTHALENE	17	U	6.7	17	ug/kg	U		1783398.22	267490.609	-118.7166	34.23291	
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/2014	N	0	0.5	ft	SO	Go Back		7504495	LL	9045M	6/19/2014	PH237	0.73	1	pH	PH	6.41		0.0100	0.0100	pH unit				1783398.22	267490.609	-118.7166	34.23291
FDG2-SL-576-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494372	LL	160.3M	6/18/2014	PH227	2.5	1	MOIST	MOISTURE	2.5		0.10	0.10	%				1782655	266746.682	-118.71904	34.23085
FDG2-SL-576-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494372	LL	8015M	6/23/2014	PH227	2.5	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5.1	UJ	2.1	5.1	mg/kg	U	UJ	L	1782655	266746.682	-118.71904	34.23085
FDG2-SL-576-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494372	LL	8015M	6/23/2014	PH227	2.5	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5.1	UJ	2.1	5.1	mg/kg	U	UJ	L	1782655	266746.682	-118.71904	34.23085
FDG2-SL-576-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494372	LL	8015M	6/23/2014	PH227	2.5	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	3.1	J	2.1	5.1	mg/kg	J	J	L, Z	1782655	266746.682	-118.71904	34.23085
FDG2-SL-576-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494372	LL	8015M	6/23/2014	PH227	2.5	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	10	U	4.1	10	mg/kg	U			1782655	266746.682	-118.71904	34.23085
FDG2-SL-576-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494372	LL	8015M	6/23/2014	PH227	2.5	1	PHCC8C11SI	EFH (C8-C11) w/ SiGel	5.1	UJ	2.1	5.1	mg/kg	U	UJ	L	1782655	266746.682	-118.71904	34.23085
FDG2-SL-576-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494372	LL	8015M	6/17/2014	PH227	2.5	1	PHCC12C14	EFH (C12-C14)	5.1	U	2.1	5.1	mg/kg	U			1782655	266746.682	-118.71904	34.23085
FDG2-SL-576-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494372	LL	8015M	6/17/2014	PH227	2.5	1	PHCC15C20	EFH (C15-C20)	2.8	J	2.1	5.1	mg/kg	J	J	Z	1782655	266746.682	-118.71904	34.23085
FDG2-SL-576-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494372	LL	8015M	6/17/2014	PH227	2.5	1	PHCC21C30	EFH (C21-C30)	18		2.1	5.1	mg/kg				1782655	266746.682	-118.71904	34.23085
FDG2-SL-576-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494372	LL	8015M	6/17/2014	PH227	2.5	1	PHCC30C40	EFH (C30-C40)	35		4.1	10	mg/kg				1782655	266746.682	-118.71904	34.23085
FDG2-SL-576-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494372	LL	8015M	6/17/2014	PH227	2.5	1	PHCC8C11	EFH (C8-C11)	5.1	U	2.1	5.1	mg/kg	U			1782655	266746.682	-118.71904	34.23085
FDG2-SL-576-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494372	LL	8082A	6/23/2014	PH227	2.5	1	11096-82-5	Aroclor 1260	17	U	3.9	17	ug/kg	U			1782655	266746.682	-118.71904	34.23085
FDG2-SL-576-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494372	LL	8082A	6/23/2014	PH227	2.5	1	11097-69-1	Aroclor 1254	17	U	4.5	17	ug/kg	U			1782655	266746.682	-118.71904	34.23085
FDG2-SL-576-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494372	LL	8082A	6/23/2014	PH227	2.5	1	11100-14-4	Aroclor 1268	17	U	3.3	17	ug/kg	U			1782655	266746.682	-118.71904	34.23085
FDG2-SL-576-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494372	LL	8082A	6/23/2014	PH227	2.5	1	11104-28-2	Aroclor 1221	17	U	5.2	17	ug/kg	U			1782655	266746.682	-118.71904	34.23085
FDG2-SL-576-NBZ-SB-0.0-0.5	6/10/2014	N	0	0.5	ft	SO	Go Back		7494372	LL																			

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-577-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496181	LL	8015M	6/24/2014	PH229	1.5	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5.1	UJ	2.0	5.1	mg/kg	U	UJ	L	1782308.13	266551.384	-118.72019	34.23031
FDG2-SL-577-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496181	LL	8015M	6/24/2014	PH229	1.5	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	2.1	J	2.0	5.1	mg/kg	U	J	L, Z	1782308.13	266551.384	-118.72019	34.23031
FDG2-SL-577-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496181	LL	8015M	6/24/2014	PH229	1.5	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	10	U	4.1	10	mg/kg	U			1782308.13	266551.384	-118.72019	34.23031
FDG2-SL-577-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496181	LL	8015M	6/24/2014	PH229	1.5	1	PHCC8C11SI	EFH (C8-C11) w/ SiGel	5.1	UJ	2.0	5.1	mg/kg	U	UJ	L	1782308.13	266551.384	-118.72019	34.23031
FDG2-SL-577-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496181	LL	8015M	6/17/2014	PH229	1.5	1	PHCC12C14	EFH (C12-C14)	5.1	U	2.0	5.1	mg/kg	U			1782308.13	266551.384	-118.72019	34.23031
FDG2-SL-577-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496181	LL	8015M	6/17/2014	PH229	1.5	1	PHCC15C20	EFH (C15-C20)	3	J	2.0	5.1	mg/kg	J	J	Z	1782308.13	266551.384	-118.72019	34.23031
FDG2-SL-577-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496181	LL	8015M	6/17/2014	PH229	1.5	1	PHCC21C30	EFH (C21-C30)	18		2.0	5.1	mg/kg				1782308.13	266551.384	-118.72019	34.23031
FDG2-SL-577-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496181	LL	8015M	6/17/2014	PH229	1.5	1	PHCC30C40	EFH (C30-C40)	40		4.1	10	mg/kg				1782308.13	266551.384	-118.72019	34.23031
FDG2-SL-577-NBZ-SB-0.0-0.5	6/11/2014	N	0	0.5	ft	SO	Go Back		7496181	LL	8015M	6/17/2014	PH229	1.5	1	PHCC8C11	EFH (C8-C11)	5.1	U	2.0	5.1	mg/kg	U			1782308.13	266551.384	-118.72019	34.23031
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	160.3M	5/28/2014	PH196	7.8	1	MOISTURE		7.8		0.10	0.10	%				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7440-43-9	CADMIUM	0.1	J	0.0800	1.05	mg/kg	J	J	Z	1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7440-47-3	CHROMIUM	29.6		0.168	3.16	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7440-48-4	COBALT	6.92		0.104	1.05	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7440-50-8	COPPER	18.9		0.305	2.11	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7440-66-6	ZINC	88.5		0.211	4.21	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7440-70-2	CALCIUM METAL	3590		3.52	21.1	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7723-14-0	PHOSPHORUS	184		3.04	10.5	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7440-32-6	TITANIUM METAL POWDER	1230		0.179	1.05	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7440-62-2	VANADIUM (FUME OR DUST)	59.4		0.137	1.05	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7440-67-7	ZIRCONIUM	5.27	U	0.885	5.27	mg/kg	J	U	F	1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	5	7439-89-6	IRON	36900		19.1	211	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7429-90-5	ALUMINUM (FUME OR DUST)	26800		7.59	42.1	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7439-92-1	LEAD	12.2		0.527	3.16	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7439-93-2	LITHIUM	41.4		0.36	4.2	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7439-95-4	MAGNESIUM	7340		1.76	10.5	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7439-96-5	MANGANESE	239		0.0874	1.05	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7439-98-7	MOLYBDENUM	0.544	J	0.179	2.11	mg/kg	J	J	Z	1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7440-02-0	NICKEL	13.8		0.137	2.11	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7440-09-7	POTASSIUM	2460		8.78	105	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7440-23-5	SODIUM	156		17.6	105	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7440-31-5	TIN	10.5	U	0.232	10.5	mg/kg	J	U	B	1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7440-36-0	ANTIMONY	4.21	U	0.779	4.21	mg/kg	U			1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7440-38-2	ARSENIC	9.59		0.737	4.21	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7440-39-3	BARIUM	112		0.0347	1.05	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7440-41-7	BERYLLIUM	1.38		0.0706	1.05	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6010C	6/2/2014	PH196	7.8	1	7440-42-8	BORON	10.5	U	0.885	10.5	mg/kg	J	U	B	1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6020A	6/2/2014	PH196	7.8	2	7440-22-4	SILVER	0.211	U	0.0274	0.211	mg/kg	U			1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6020A	6/2/2014	PH196	7.8	2	7440-24-6	STRONTIUM	21.3		0.0716	0.421	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6020A	6/2/2014	PH196	7.8	2	7440-28-0	THALLIUM	0.335		0.0316	0.211	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	6020A	6/5/2014	PH196	7.8	2	7782-49-2	SELENIUM	0.66		0.105	0.421	mg/kg				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	7471B	6/4/2014	PH196	7.8	1	7439-97-6	MERCURY	0.0117	J	0.0105	0.0174	mg/kg	J	J	Z	1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	8015M	5/30/2014	PH196	7.8	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5.4	U	2.1	5.4	mg/kg	U			1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.																													

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	8270D SIM	6/6/2014	PH196	7.8	1	50-32-8	BENZO(A)PYRENE	1.8	U	0.72	1.8	ug/kg	U			1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	8270D SIM	6/6/2014	PH196	7.8	1	53-70-3	DIBENZO(A,H)ANTHRACENE	1.8	U	0.72	1.8	ug/kg	U			1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	8270D SIM	6/6/2014	PH196	7.8	1	56-55-3	BENZO(A)ANTHRACENE	1.8	U	0.72	1.8	ug/kg	U			1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	8270D SIM	6/6/2014	PH196	7.8	1	62-75-9	METHANAMINE, N-METHYL-N-NITROSO	1.8	U	0.72	1.8	ug/kg	U			1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	8270D SIM	6/6/2014	PH196	7.8	1	83-32-9	ACENAPHTHENE	1.8	U	0.72	1.8	ug/kg	U			1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	8270D SIM	6/6/2014	PH196	7.8	1	84-66-2	DIETHYL PHTHALATE	20	U	6.5	20	ug/kg	U			1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	8270D SIM	6/6/2014	PH196	7.8	1	84-74-2	Di-n-butylphthalate	20	U	6.5	20	ug/kg	U			1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	8270D SIM	6/6/2014	PH196	7.8	1	85-01-8	PHENANTHRENE	1.8	U	0.72	1.8	ug/kg	U			1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	8270D SIM	6/6/2014	PH196	7.8	1	85-68-7	BENZYL BUTYL PHTHALATE	20	U	6.5	20	ug/kg	U			1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	8270D SIM	6/6/2014	PH196	7.8	1	86-73-7	FLUORENE	1.8	U	0.72	1.8	ug/kg	U			1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	8270D SIM	6/6/2014	PH196	7.8	1	90-12-0	1-METHYLNAPHTHALENE	1.8	U	0.72	1.8	ug/kg	U			1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	8270D SIM	6/6/2014	PH196	7.8	1	91-20-3	NAPHTHALENE	1.8	U	0.72	1.8	ug/kg	U			1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	8270D SIM	6/6/2014	PH196	7.8	1	91-57-6	2-METHYLNAPHTHALENE	1.8	U	0.72	1.8	ug/kg	U			1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475824	LL	9045M	5/24/2014	PH196	7.8	1	pH	PH	7.48		0.0100	0.0100	pH unit				1782209.52	266265.516	-118.72051	34.22952
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	160.3M	5/28/2014	PH196	6.2	1	MOIST	MOISTURE	6.2		0.10	0.10	%				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7429-90-5	ALUMINUM (FUME OR DUST)	26700		7.39	41.0	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7439-92-1	LEAD	12		0.513	3.08	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7439-93-2	LITHIUM	45		0.35	4.1	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7439-95-4	MAGNESIUM	8620		1.71	10.3	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7439-96-5	MANGANESE	423		0.0851	1.03	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7439-98-7	MOLYBDENUM	0.318	J	0.174	2.05	mg/kg	J	J	Z	1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7440-02-0	NICKEL	19.1		0.133	2.05	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7440-09-7	POTASSIUM	4900		8.55	103	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7440-23-5	SODIUM	119		17.1	103	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7440-31-5	TIN	10.3	U	0.226	10.3	mg/kg			B	1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7440-36-0	ANTIMONY	4.1	U	0.759	4.0	mg/kg	J	U		1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7440-38-2	ARSENIC	11.7		0.718	4.10	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7440-39-3	BARIUM	114		0.0338	1.03	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7440-41-7	BERYLLIUM	1.33		0.0687	1.03	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7440-42-8	BORON	10.6		0.861	10.3	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7440-43-9	CADMIUM	0.166	J	0.0779	1.03	mg/kg	J	J	Z	1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7440-47-3	CHROMIUM	33.3		0.164	3.08	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7440-48-4	COBALT	10.6		0.101	1.03	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7440-50-8	COPPER	21.9		0.297	2.05	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7440-66-6	ZINC	99		0.205	4.10	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7440-70-2	CALCIUM METAL	5300		3.42	20.5	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7723-14-0	PHOSPHORUS	594		2.96	10.3	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7440-32-6	TITANIUM METAL POWDER	1680		0.174	1.03	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7440-62-2	VANADIUM (FUME OR DUST)	67.6		0.133	1.03	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	1	7440-67-7	ZIRCONIUM	7.09		0.861	5.13	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6010C	6/2/2014	PH196	6.2	5	7439-89-6	IRON	36600		18.6	205	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back		7475825	LL	6020A	6/2/2014	PH196	6.2	2	7440-22-4	SILVER	0.128	J	0.0267	0.205	mg/kg	J	J	Z	1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/2014	N	0	0.5	ft	SO	Go Back																						

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	6010C	6/2/2014	PH196	8	1	7440-50-8	COPPER	27.9		0.312	2.15	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	6010C	6/2/2014	PH196	8	1	7440-66-6	ZINC	124		0.215	4.30	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	6010C	6/2/2014	PH196	8	1	7440-70-2	CALCIUM METAL	5260		3.59	21.5	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	6010C	6/2/2014	PH196	8	1	7723-14-0	PHOSPHORUS	776		3.11	10.8	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	6010C	6/2/2014	PH196	8	1	7440-32-6	TITANIUM METAL POWDER	1710		0.183	1.08	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	6010C	6/2/2014	PH196	8	1	7440-62-2	VANADIUM (FUME OR DUST)	76.1		0.140	1.08	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	6010C	6/2/2014	PH196	8	1	7440-67-7	NIODIUM	9.28		0.904	5.38	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	6010C	6/2/2014	PH196	8	5	7439-89-6	IRON	42100		19.5	215	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	6020A	6/2/2014	PH196	8	2	7440-22-4	SILVER	0.191	J	0.0280	0.215	mg/kg	J	J	Z	1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	6020A	6/2/2014	PH196	8	2	7440-24-6	STRONTIUM	23.1		0.0732	0.430	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	6020A	6/2/2014	PH196	8	2	7440-28-0	THALLIUM	0.43		0.0323	0.215	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	6020A	6/2/2014	PH196	8	2	7782-49-2	SELENIUM	0.784		0.108	0.430	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	7471B	6/4/2014	PH196	8	1	7439-97-6	MERCURY	0.0173	J	0.0106	0.0176	mg/kg	J	J	Z	1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8015M	5/30/2014	PH196	8	25.72	GROCS5C12	GASOLINE RANGE ORGANICS (C5-C12)	1.1	U	0.2	1.1	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8015M	5/30/2014	PH196	8	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5.4	U	2.2	5.4	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8015M	5/30/2014	PH196	8	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5.4	U	2.2	5.4	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8015M	5/30/2014	PH196	8	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	5.4	U	2.2	5.4	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8015M	5/30/2014	PH196	8	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	11	U	4.3	11	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8015M	5/30/2014	PH196	8	1	PHCC8C11S	EFH (C8-C11) w/ SiGel	5.4	U	2.2	5.4	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8015M	5/28/2014	PH196	8	1	PHCC12C14	EFH (C12-C14)	5.4	U	2.2	5.4	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8015M	5/28/2014	PH196	8	1	PHCC15C20	EFH (C15-C20)	5.4	U	2.2	5.4	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8015M	5/28/2014	PH196	8	1	PHCC21C30	EFH (C21-C30)	5.4	U	2.2	5.4	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8015M	5/28/2014	PH196	8	1	PHCC30C40	EFH (C30-C40)	11	U	4.3	11	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8015M	5/28/2014	PH196	8	1	PHCC8C11	EFH (C8-C11)	5.4	U	2.2	5.4	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8082A	5/28/2014	PH196	8	1	11096-82-5	Aroclor 1260	18	U	4.2	18	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8082A	5/28/2014	PH196	8	1	11097-69-1	Aroclor 1254	18	U	4.7	18	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8082A	5/28/2014	PH196	8	1	11100-14-4	Aroclor 1268	18	U	3.5	18	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8082A	5/28/2014	PH196	8	1	11104-28-2	Aroclor 1221	18	U	5.5	18	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8082A	5/28/2014	PH196	8	1	11126-42-4	Aroclor 5460	35	U	11	35	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8082A	5/28/2014	PH196	8	1	11141-16-5	Aroclor 1232	18	U	4.4	18	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8082A	5/28/2014	PH196	8	1	12642-23-8	Aroclor 5442	35	U	11	35	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8082A	5/28/2014	PH196	8	1	12672-29-6	Aroclor 1248	18	U	3.5	18	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8082A	5/28/2014	PH196	8	1	12674-11-2	Aroclor 1016	18	U	3.5	18	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8082A	5/28/2014	PH196	8	1	37324-23-5	Aroclor 1262	18	U	3.5	18	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8082A	5/28/2014	PH196	8	1	53469-21-9	Aroclor 1242	18	U	4.4	18	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8082A	5/28/2014	PH196	8	1	63496-31-1	Aroclor 5432	35	U	11	35	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8270D SIM	6/6/2014	PH196	8	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	20	U	6.5	20	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8270D SIM	6/6/2014	PH196	8	1	117-84-0	Di-n-octylphthalate	20	U	6.5	20	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8270D SIM	6/6/2014	PH196	8	1	120-12-7	ANTHRACENE	1.8	U	0.36	1.8	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8270D SIM	6/6/2014	PH196	8	1	129-00-0	PYRENE	1.8	U	0.72	1.8	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8270D SIM	6/6/2014	PH196	8	1	131-11-3	DIMETHYL PHTHALATE	20	U	6.5	20	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/2014	N	13	14	ft	SO	Go Back		7475828	LL	8270D SIM	6/6/2014	PH196	8	1	191-24-2	BENZO(G,H,I)PERYLENE	1.8	U	0.72	1.8	ug/kg	U			1781797.93			

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	6010C	6/2/2014	PH196	9.4	1	7440-39-3	BARIUM	137		0.0354	1.07	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	6010C	6/2/2014	PH196	9.4	1	7440-41-7	BERYLLIUM	1.5		0.0718	1.07	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	6010C	6/2/2014	PH196	9.4	1	7440-42-8	BORON	10.5	J	0.900	10.7	mg/kg	J	J	Z	1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	6010C	6/2/2014	PH196	9.4	1	7440-43-9	CADMIUM	0.261	J	0.0814	1.07	mg/kg	J	J	Z	1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	6010C	6/2/2014	PH196	9.4	1	7440-47-3	CHROMIUM	32.6		0.171	3.21	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	6010C	6/2/2014	PH196	9.4	1	7440-48-4	COBALT	12.9		0.106	1.07	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	6010C	6/2/2014	PH196	9.4	1	7440-50-8	COPPER	21.1		0.311	2.14	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	6010C	6/2/2014	PH196	9.4	1	7440-66-6	ZINC	98.2		0.214	4.29	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	6010C	6/2/2014	PH196	9.4	1	7440-70-2	CALCIUM METAL	4620		3.58	21.4	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	6010C	6/2/2014	PH196	9.4	1	7723-14-0	PHOSPHORUS	447		3.10	10.7	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	6010C	6/2/2014	PH196	9.4	1	7440-32-6	TITANIUM METAL POWDER	1540		0.182	1.07	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	6010C	6/2/2014	PH196	9.4	1	7440-62-2	VANADIUM (FUME OR DUST)	70.7		0.139	1.07	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	6010C	6/2/2014	PH196	9.4	1	7440-67-7	ZIRCONIUM	6.94		0.900	5.36	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	6010C	6/2/2014	PH196	9.4	5	7439-89-6	IRON	40900		19.4	214	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	6020A	6/2/2014	PH196	9.4	2	7440-22-4	SILVER	0.0997	J	0.0279	0.214	mg/kg	J	J	Z	1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	6020A	6/2/2014	PH196	9.4	2	7440-24-6	STRONTIUM	29.2		0.0729	0.429	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	6020A	6/2/2014	PH196	9.4	2	7440-28-0	THALLIUM	0.515		0.0321	0.214	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	6020A	6/2/2014	PH196	9.4	2	7782-49-2	SELENIUM	0.672		0.107	0.429	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	7471B	6/4/2014	PH196	9.4	1	7439-97-6	MERCURY	0.0178	U	0.0107	0.0178	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	8015M	5/30/2014	PH196	9.4	24.22	GROC5C12	GASOLINE RANGE ORGANICS (C5-C12)	1.1	U	0.2	1.1	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	8015M	5/30/2014	PH196	9.4	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5.5	U	2.2	5.5	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	8015M	5/30/2014	PH196	9.4	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5.5	U	2.2	5.5	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	8015M	5/30/2014	PH196	9.4	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	5.5	U	2.2	5.5	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	8015M	5/30/2014	PH196	9.4	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	11	U	4.4	11	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	8015M	5/30/2014	PH196	9.4	1	PHCC8C11S1	EFH (C8-C11) w/ SiGel	5.5	U	2.2	5.5	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	8015M	5/28/2014	PH196	9.4	1	PHCC12C14	EFH (C12-C14)	5.5	U	2.2	5.5	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	8015M	5/28/2014	PH196	9.4	1	PHCC15C20	EFH (C15-C20)	5.5	U	2.2	5.5	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	8015M	5/28/2014	PH196	9.4	1	PHCC21C30	EFH (C21-C30)	5.5	U	2.2	5.5	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	8015M	5/28/2014	PH196	9.4	1	PHCC30C40	EFH (C30-C40)	11	U	4.4	11	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	8015M	5/28/2014	PH196	9.4	1	PHCC8C11	EFH (C8-C11)	5.5	U	2.2	5.5	mg/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/2014	N	4	5	ft	SO	Go Back		7475826	LL	9045M	5/24/2014	PH196	9.4	1	pH	PH	6.56		0.0100	0.0100	% unit				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	160.3M	5/28/2014	PH196	11.7	1	MOIST	MOISTURE	11.7		0.10	0.10					1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	6010C	6/2/2014	PH196	11.7	1	7429-90-5	ALUMINUM (FUME OR DUST)	29400		8.08	44.9	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	6010C	6/2/2014	PH196	11.7	1	7439-92-1	LEAD	18.9		0.561	3.36	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	6010C	6/2/2014	PH196	11.7	1	7439-93-2	LITHIUM	49.5		0.38	4.5	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	6010C	6/2/2014	PH196	11.7	1	7439-95-4	MAGNESIUM	9500		1.87	11.2	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	6010C	6/2/2014	PH196	11.7	1	7439-96-5	MANGANESE	335		0.0931	1.12	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	6010C	6/2/2014	PH196	11.7	1	7439-98-7	MOLYBDENUM	0.457	J	0.191	2.24	mg/kg	J	J	Z	1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	6010C	6/2/2014	PH196	11.7	1	7440-02-0	NICKEL	19.4		0.146	2.24	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	6010C	6/2/2014	PH196	11.7	1	7440-09-7	POTASSIUM	4590		9.35	112	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	6010C	6/2/2014	PH196	11.7	1	7440-23-5	SODIUM	658		18.7	112	mg/kg				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	6010C	6/2/2014	PH196	11.7	1	7440-31-5	TIN	11.2	U	0.247	11.2	mg/kg	J	U	B	1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go																						

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8082A	5/28/2014	PH196	11.7	1	11100-14-4	Aroclor 1268	19	U	3.7	19	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8082A	5/28/2014	PH196	11.7	1	11104-28-2	Aroclor 1221	19	U	5.7	19	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8082A	5/28/2014	PH196	11.7	1	11126-42-4	Aroclor 5460	37	U	11	37	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8082A	5/28/2014	PH196	11.7	1	11141-16-5	Aroclor 1232	19	U	4.6	19	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8082A	5/28/2014	PH196	11.7	1	12642-23-8	Aroclor 5442	37	U	11	37	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8082A	5/28/2014	PH196	11.7	1	12672-29-6	Aroclor 1248	19	U	3.7	19	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8082A	5/28/2014	PH196	11.7	1	12674-11-2	Aroclor 1016	19	U	3.7	19	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8082A	5/28/2014	PH196	11.7	1	37324-23-5	Aroclor 1262	19	U	3.7	19	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8082A	5/28/2014	PH196	11.7	1	53469-21-9	Aroclor 1242	19	U	4.6	19	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8082A	5/28/2014	PH196	11.7	1	63496-31-1	Aroclor 5432	37	U	11	37	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	20	U	6.8	20	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	117-84-0	Di-n-octylphthalate	20	U	6.8	20	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	120-12-7	ANTHRACENE	1.9	U	0.38	1.9	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	129-00-0	PYRENE	1.9	U	0.76	1.9	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	131-11-3	DIMETHYL PHTHALATE	20	U	6.8	20	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	191-24-2	BENZO(G,H,I)PERYLENE	1.9	U	0.76	1.9	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	192-97-2	Benzo(e)pyrene	1.9	UJ	3.8	19	ug/kg	U	UJ	L	1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	193-39-5	INDENO(1,2,3-CD)PYRENE	1.9	U	0.76	1.9	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	205-99-2	BENZO(B)FLUORANTHENE	1.9	U	0.76	1.9	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	206-44-0	FLUORANTHENE	1.9	U	0.76	1.9	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	207-08-9	BENZO(K)FLUORANTHENE	1.9	U	0.76	1.9	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	208-96-8	ACENAPHTHYLENE	1.9	U	0.38	1.9	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	218-01-9	Chrysene	1.9	U	0.38	1.9	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	50-32-8	BENZO(A)PYRENE	1.9	U	0.76	1.9	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	53-70-3	DIBENZO(A,H)ANTHRACENE	1.9	U	0.76	1.9	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	56-55-3	BENZO(A)ANTHRACENE	1.9	U	0.76	1.9	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	62-75-9	METHANAMINE, N-METHYL-N-NITROSO	1.9	U	0.76	1.9	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	83-32-9	ACENAPHTHENE	1.9	U	0.76	1.9	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	84-66-2	DIETHYL PHTHALATE	20	U	6.8	20	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	84-74-2	Di-n-butylphthalate	20	U	6.8	20	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	85-01-8	PHENANTHRENE	1.9	U	0.76	1.9	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	85-68-7	BENZYL BUTYL PHTHALATE	20	U	6.8	20	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	86-73-7	FLUORENE	1.9	U	0.76	1.9	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	90-12-0	1-METHYLNAPHTHALENE	1.9	U	0.76	1.9	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	91-20-3	NAPHTHALENE	1.9	U	0.76	1.9	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	8270D SIM	6/6/2014	PH196	11.7	1	91-57-6	2-METHYLNAPHTHALENE	1.9	U	0.76	1.9	ug/kg	U			1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/2014	N	9	10	ft	SO	Go Back		7475827	LL	9045M	5/24/2014	PH196	11.7	1	pH	PH	5.74		0.0100	0.0100	pH unit				1781797.93	266898.514	-118.72188	34.23125
FDG2-SL-582-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499517	LL	160.3M	6/23/2014	PH233	3.9	1	MOIST	MOISTURE	3.9		0.10	0.10	%				1782163.68	267207.988	-118.72068	34.23211
FDG2-SL-582-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499517	LL	8015M	6/19/2014	PH233	3.9	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5.2	UJ	2.1	5.2	mg/kg	U	UJ	L	1782163.68	267207.988	-118.72068	34.23211
FDG2-SL-582-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499517	LL	8015M	6/19/2014	PH233	3.9	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5.2	UJ	2.1	5.2	mg/kg	U	UJ	L	1782163.68	267207.988	-118.72068	34.23211
FDG2-SL-582-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499517	LL	8015M	6/19/2014	PH233	3.9	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	3	J	2.1	5.2	mg/kg	J	J	L, Z	1782163.68	267207.988	-118.72068	34.23211
FDG2-SL-582-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499517	LL	8015M	6/19/2014	PH233	3.9	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	6.2											

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-582-NBZ-SB-3.0-3.5	6/13/2014	N	3	3.5	ft	SO	Go Back		7499518	LL	8082A	6/23/2014	PH233	8.7	1	11126-42-4	Aroclor 5460	36	U	11	36	ug/kg	U		1782163.68	267207.988	-118.72068	34.23211	
FDG2-SL-582-NBZ-SB-3.0-3.5	6/13/2014	N	3	3.5	ft	SO	Go Back		7499518	LL	8082A	6/23/2014	PH233	8.7	1	11141-16-5	Aroclor 1232	18	U	4.4	18	ug/kg	U		1782163.68	267207.988	-118.72068	34.23211	
FDG2-SL-582-NBZ-SB-3.0-3.5	6/13/2014	N	3	3.5	ft	SO	Go Back		7499518	LL	8082A	6/23/2014	PH233	8.7	1	12642-23-8	Aroclor 5442	36	U	11	36	ug/kg	U		1782163.68	267207.988	-118.72068	34.23211	
FDG2-SL-582-NBZ-SB-3.0-3.5	6/13/2014	N	3	3.5	ft	SO	Go Back		7499518	LL	8082A	6/23/2014	PH233	8.7	1	12672-29-6	Aroclor 1248	18	U	3.6	18	ug/kg	U		1782163.68	267207.988	-118.72068	34.23211	
FDG2-SL-582-NBZ-SB-3.0-3.5	6/13/2014	N	3	3.5	ft	SO	Go Back		7499518	LL	8082A	6/23/2014	PH233	8.7	1	12674-11-2	Aroclor 1016	18	U	3.6	18	ug/kg	U		1782163.68	267207.988	-118.72068	34.23211	
FDG2-SL-582-NBZ-SB-3.0-3.5	6/13/2014	N	3	3.5	ft	SO	Go Back		7499518	LL	8082A	6/23/2014	PH233	8.7	1	37324-23-5	Aroclor 1262	18	U	3.6	18	ug/kg	U		1782163.68	267207.988	-118.72068	34.23211	
FDG2-SL-582-NBZ-SB-3.0-3.5	6/13/2014	N	3	3.5	ft	SO	Go Back		7499518	LL	8082A	6/23/2014	PH233	8.7	1	53469-21-9	Aroclor 1242	18	U	4.4	18	ug/kg	U		1782163.68	267207.988	-118.72068	34.23211	
FDG2-SL-582-NBZ-SB-3.0-3.5	6/13/2014	N	3	3.5	ft	SO	Go Back		7499518	LL	8082A	6/23/2014	PH233	8.7	1	63496-31-1	Aroclor 5432	36	U	11	36	ug/kg	U		1782163.68	267207.988	-118.72068	34.23211	
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	160.3M	6/19/2014	PH231	0.89	1	MOIST	MOISTURE	0.89		0.10	0.10	%			1782400.71	267375.778	-118.7199	34.23258	
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8015M	6/19/2014	PH231	0.89	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5	UJ	2.0	5.0	mg/kg	U	UJ	L	1782400.71	267375.778	-118.7199	34.23258
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8015M	6/19/2014	PH231	0.89	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5	UJ	2.0	5.0	mg/kg	U	UJ	L	1782400.71	267375.778	-118.7199	34.23258
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8015M	6/19/2014	PH231	0.89	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	5	UJ	2.0	5.0	mg/kg	U	UJ	L	1782400.71	267375.778	-118.7199	34.23258
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8015M	6/19/2014	PH231	0.89	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	10	U	4.0	10	mg/kg	U		1782400.71	267375.778	-118.7199	34.23258	
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8015M	6/19/2014	PH231	0.89	1	PHCC8C11SI	EFH (C8-C11) w/ SiGel	5	UJ	2.0	5.0	mg/kg	U	UJ	L	1782400.71	267375.778	-118.7199	34.23258
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8015M	6/17/2014	PH231	0.89	1	PHCC12C14	EFH (C12-C14)	5	U	2.0	5.0	mg/kg	U		1782400.71	267375.778	-118.7199	34.23258	
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8015M	6/17/2014	PH231	0.89	1	PHCC15C20	EFH (C15-C20)	5	U	2.0	5.0	mg/kg	U		1782400.71	267375.778	-118.7199	34.23258	
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8015M	6/17/2014	PH231	0.89	1	PHCC21C30	EFH (C21-C30)	9.5		2.0	5.0	mg/kg	U		1782400.71	267375.778	-118.7199	34.23258	
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8015M	6/17/2014	PH231	0.89	1	PHCC30C40	EFH (C30-C40)	23		4.0	10	mg/kg	U		1782400.71	267375.778	-118.7199	34.23258	
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8015M	6/17/2014	PH231	0.89	1	PHCC8C11	EFH (C8-C11)	5	U	2.0	5.0	mg/kg	U		1782400.71	267375.778	-118.7199	34.23258	
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8082A	6/25/2014	PH231	0.89	1	11096-82-5	Aroclor 1260	17	U	3.9	17	ug/kg	U		1782400.71	267375.778	-118.7199	34.23258	
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8082A	6/25/2014	PH231	0.89	1	11097-69-1	Aroclor 1254	15	J	4.4	17	ug/kg	J	J	Z	1782400.71	267375.778	-118.7199	34.23258
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8082A	6/25/2014	PH231	0.89	1	11100-14-4	Aroclor 1268	17	U	3.3	17	ug/kg	U		1782400.71	267375.778	-118.7199	34.23258	
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8082A	6/25/2014	PH231	0.89	1	11104-28-2	Aroclor 1221	17	U	5.1	17	ug/kg	U		1782400.71	267375.778	-118.7199	34.23258	
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8082A	6/25/2014	PH231	0.89	1	11126-42-4	Aroclor 5460	33	U	10	33	ug/kg	U		1782400.71	267375.778	-118.7199	34.23258	
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8082A	6/25/2014	PH231	0.89	1	11141-16-5	Aroclor 1232	17	U	4.1	17	ug/kg	U		1782400.71	267375.778	-118.7199	34.23258	
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8082A	6/25/2014	PH231	0.89	1	12642-23-8	Aroclor 5442	33	U	10	33	ug/kg	U		1782400.71	267375.778	-118.7199	34.23258	
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8082A	6/25/2014	PH231	0.89	1	12672-29-6	Aroclor 1248	17	U	3.3	17	ug/kg	U		1782400.71	267375.778	-118.7199	34.23258	
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8082A	6/25/2014	PH231	0.89	1	12674-11-2	Aroclor 1016	17	U	3.3	17	ug/kg	U		1782400.71	267375.778	-118.7199	34.23258	
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8082A	6/25/2014	PH231	0.89	1	37324-23-5	Aroclor 1262	17	U	3.3	17	ug/kg	U		1782400.71	267375.778	-118.7199	34.23258	
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8082A	6/25/2014	PH231	0.89	1	53469-21-9	Aroclor 1242	17	U	4.1	17	ug/kg	U		1782400.71	267375.778	-118.7199	34.23258	
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/2014	N	0	0.5	ft	SO	Go Back		7497924	LL	8082A	6/25/2014	PH231	0.89	1	63496-31-1	Aroclor 5432	33	U	10	33	ug/kg	U		1782400.71	267375.778	-118.7199	34.23258	
FDG2-SL-584-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499519	LL	160.3M	6/23/2014	PH233	0.83	1	MOIST	MOISTURE	0.83		0.10	0.10	%			1781523.33	267489.672	-118.7228	34.23287	
FDG2-SL-584-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499519	LL	8015M	6/20/2014	PH233	0.83	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5	UJ	2.0	5.0	mg/kg	U	UJ	S, L	1781523.33	267489.672	-118.7228	34.23287
FDG2-SL-584-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499519	LL	8015M	6/20/2014	PH233	0.83	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5	UJ	2.0	5.0	mg/kg	U	UJ	S, L	1781523.33	267489.672	-118.7228	34.23287
FDG2-SL-584-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499519	LL	8015M	6/20/2014	PH233	0.83	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	6.8	J	2.0	5.0	mg/kg	U	J	S, L	1781523.33	267489.672	-118.7228	34.23287
FDG2-SL-584-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499519	LL	8015M	6/20/2014	PH233	0.83	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	10	UJ	4.0	10	mg/kg	U	UJ	S	1781523.33	267489.672	-118.7228	34.23287
FDG2-SL-584-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499519	LL	8015M	6/20/2014	PH233	0.83	1	PHCC8C11SI	EFH (C8-C11) w/ SiGel	5	UJ	2.0	5.0	mg/kg	U	UJ	S, L	1781523.33	267489.672	-118.7228	34.23287
FDG2-SL-584-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499519	LL	8015M	6/17/2014	PH233	0.83	1	PHCC12C14	EFH (C12-C14)	5	U	2.0	5.0	mg/kg	U		1781523.33	267489.672	-118.7228	34.23287	
FDG2-SL-584-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499519	LL	8015M	6/17/2014	PH233	0.83	1	PHCC15C20	EFH (C15-C20)	5	U	2.0	5.0	mg/kg	U		1781523.33	267489.672	-118.7228	34.23287	
FDG2-SL-584-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499519	LL	8015M	6/17/2014	PH233	0.83	1	PHCC21C30	EFH (C21-C30)	22		2.0	5.0	mg/kg	U		1781523.33	267489.672	-118.7228	34.23287	
FDG2-SL-584-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499519	LL	8015M	6/17/2014	PH233	0.83	1	PHCC30C40	EFH (C30-C40)	36		4.0	10	mg/kg	U		1781523.33	267489.672	-118.7228	34.23287	
FDG2-SL-584-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499519	LL	8015M	6/17/2014	PH233	0.83	1	PHCC8C11	EFH (C8-C11)	5	U	2.0	5.0	mg/kg	U		1781523.33	267489.672	-118.7228	34.23287	
FDG2-SL-584-NBZ-SB-0.0-0.5	6/13/																												

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7439-93-2	LITHIUM	28.6		0.36	4.2	mg/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7439-95-4	MAGNESIUM	5050		1.75	10.5	mg/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7439-96-5	MANGANESE	323	J	0.0869	1.05	mg/kg		J	E	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7439-98-7	MOLYBDENUM	0.348	J	0.178	2.09	mg/kg	J	J	Z	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7440-02-0	NICKEL	17.4	J	0.136	2.09	mg/kg		J	A	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7440-09-7	POTASSIUM	3650	J	8.73	105	mg/kg		J	Q	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7440-23-5	SODIUM	101	J	17.5	105	mg/kg	J	J	Z	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7440-31-5	TIN	10.5	U	0.230	10.5	mg/kg	J	U	B	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7440-32-6	TITANIUM METAL POWDER	1030		0.178	1.05	mg/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7440-36-0	ANTIMONY	4.19	UJ	0.775	4.19	mg/kg	U	UJ	Q, E	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7440-38-2	ARSENIC	7.07		0.733	4.19	mg/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7440-39-3	BARIIUM	97.4	J	0.0346	1.05	mg/kg		J	Q	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7440-41-7	BERYLLIUM	0.638	J	0.0702	1.05	mg/kg	J	J	Z	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7440-42-8	BORON	10.5	U	0.880	10.5	mg/kg	J	U	B	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7440-43-9	CADMIUM	1.26		0.0796	1.05	mg/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7440-47-3	CHROMIUM	25.4	J	0.168	3.14	mg/kg		J	Q	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7440-48-4	COBALT	6.32		0.104	1.05	mg/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7440-50-8	COPPER	37.5		0.304	2.09	mg/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7440-62-2	VANADIUM (FUME OR DUST)	37.1	J	0.136	1.05	mg/kg		J	Q	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7440-66-6	ZINC	148	J	0.209	4.19	mg/kg		J	Q, E, A	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7440-67-7	ZIRCONIUM	5.24	U	0.880	5.24	mg/kg	J	U	F	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6010C	5/30/2014	PH193	4.5	1	7440-70-2	CALCIUM METAL	7920		3.50	20.9	mg/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6020A	5/28/2014	PH193	4.5	2	7440-22-4	SILVER	3.33		0.0272	0.209	mg/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6020A	5/28/2014	PH193	4.5	2	7440-24-6	STRONTIUM	42.4	J	0.0712	0.419	mg/kg		J	Q	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6020A	5/28/2014	PH193	4.5	2	7440-28-0	THALLIUM	0.309		0.0314	0.209	mg/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	6020A	5/28/2014	PH193	4.5	2	7782-49-2	SELENIUM	0.239	J	0.105	0.419	mg/kg	J	J	Z	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	7471B	6/4/2014	PH193	4.5	1	7439-97-6	MERCURY	0.121		0.0098	0.0164	mg/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8015M	5/28/2014	PH193	4.5	1	PHCC12C14	EFH (C12-C14)	5.2	UJ	2.1	5.2	mg/kg	U	UJ	C	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8015M	5/28/2014	PH193	4.5	1	PHCC15C20	EFH (C15-C20)	3.1	J	2.1	5.2	mg/kg	J	J	Z, C	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8015M	5/28/2014	PH193	4.5	1	PHCC21C30	EFH (C21-C30)	30	J	2.1	5.2	mg/kg		J	C	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8015M	5/28/2014	PH193	4.5	1	PHCC30C40	EFH (C30-C40)	48	J	4.2	10	mg/kg		J	C	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8015M	5/28/2014	PH193	4.5	1	PHCC8C11	EFH (C8-C11)	5.2	UJ	2.1	5.2	mg/kg	U	UJ	C	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8015M	5/30/2014	PH193	4.5	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5.2	U	2.1	5.2	mg/kg	U			1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8015M	5/30/2014	PH193	4.5	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5.2	U	2.1	5.2	mg/kg	U			1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8015M	5/30/2014	PH193	4.5	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	21		2.1	5.2	mg/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8015M	5/30/2014	PH193	4.5	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	25		4.2	10	mg/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8015M	5/30/2014	PH193	4.5	1	PHCC8C11S	EFH (C8-C11) w/ SiGel	5.2	U	2.1	5.2	mg/kg	U			1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8081B	5/28/2014	PH193	4.5	1	2385-85-5	MIREX	1.8	U	0.36	1.8	ug/kg	U			1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8081B	5/28/2014	PH193	4.5	1	1024-57-3	HEPTACHLOR EPOXIDE	0.85	U	0.53	0.85	ug/kg	U			1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8081B	5/28/2014	PH193	4.5	1	1031-07-8	ENDOSULFAN SULFATE	1.8	U	0.34	1.8	ug/kg	U			1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8081B	5/28/2014	PH193	4.5	1	309-00-2	ALDRIN	0.85	U	0.18	0.85	ug/kg	U			1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8081B	5/28/2014	PH193	4.5	1	319-84-6	ALPHA-BHC	0.85	U	0.18	0.85	ug/kg	U			1785173.05	2657		

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8270D SIM	5/28/2014	PH193	4.5	1	192-97-2	Benzo(e)pyrene	64		3.5	18	ug/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8270D SIM	5/28/2014	PH193	4.5	1	193-39-5	INDENO(1,2,3-CD)PYRENE	110		0.70	1.7	ug/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8270D SIM	5/28/2014	PH193	4.5	1	205-99-2	BENZO(B)FLUORANTHENE	73		0.70	1.7	ug/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8270D SIM	5/28/2014	PH193	4.5	1	206-44-0	FLUORANTHENE	49		0.70	1.7	ug/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8270D SIM	5/28/2014	PH193	4.5	1	207-08-9	BENZO(K)FLUORANTHENE	22		0.70	1.7	ug/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8270D SIM	5/28/2014	PH193	4.5	1	208-96-8	ACENAPHTHYLENE	1.6	J	0.35	1.7	ug/kg	J	J	Z	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8270D SIM	5/28/2014	PH193	4.5	1	218-01-9	Chrysene	41		0.35	1.7	ug/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8270D SIM	5/28/2014	PH193	4.5	1	50-32-8	BENZO(A)PYRENE	31		0.70	1.7	ug/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8270D SIM	5/28/2014	PH193	4.5	1	53-70-3	DIBENZO(A,H)ANTHRACENE	14		0.70	1.7	ug/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8270D SIM	5/28/2014	PH193	4.5	1	56-55-3	BENZO(A)ANTHRACENE	25		0.70	1.7	ug/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8270D SIM	5/28/2014	PH193	4.5	1	62-75-9	METHANAMINE, N-METHYL-N-NITROSO	1.7	U	0.70	1.7	ug/kg	U			1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8270D SIM	5/28/2014	PH193	4.5	1	83-32-9	ACENAPHTHENE	1.7	U	0.70	1.7	ug/kg	U			1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8270D SIM	5/28/2014	PH193	4.5	1	84-66-2	DIETHYL PHTHALATE	19	U	6.3	19	ug/kg	U			1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8270D SIM	5/28/2014	PH193	4.5	1	84-74-2	Di-n-butylphthalate	19	U	6.3	19	ug/kg	U			1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8270D SIM	5/28/2014	PH193	4.5	1	85-01-8	PHENANTHRENE	48		0.70	1.7	ug/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8270D SIM	5/28/2014	PH193	4.5	1	85-68-7	BENZYL BUTYL PHTHALATE	19	U	6.3	19	ug/kg	U			1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8270D SIM	5/28/2014	PH193	4.5	1	86-73-7	FLUORENE	0.81	J	0.70	1.7	ug/kg	J	J	Z	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8270D SIM	5/28/2014	PH193	4.5	1	90-12-0	1-METHYLNAPHTHALENE	3.7		0.70	1.7	ug/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8270D SIM	5/28/2014	PH193	4.5	1	91-20-3	NAPHTHALENE	5.7		0.70	1.7	ug/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8270D SIM	5/28/2014	PH193	4.5	1	91-57-6	2-METHYLNAPHTHALENE	5.8		0.70	1.7	ug/kg				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	8315A	5/28/2014	PH193	4.5	1	50-00-0	FORMALDEHYDE	2100	U	1300	2100	ug/kg	U			1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473692	LL	9045M	5/22/2014	PH193	4.5	1	pH	PH	8.02		0.0100	0.0100	ph unit				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	160.3M	5/28/2014	PH193	5.1	1	MOIST	MOISTURE	5.1		0.10	0.10	%				1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	1613B	6/3/2014	PH193	5.1	1	1746-01-6	2,3,7,8-TCDD	1.04	U	0.0701	1.04	ng/kg	U			1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	1613B	6/3/2014	PH193	5.1	1	19408-74-3	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	0.0748	J	0.0302	5.19	ng/kg	JQ	J	Z	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	1613B	6/3/2014	PH193	5.1	1	3268-87-9	OCDD	7.55	J	0.0291	10.4	ng/kg	JB	J	Z	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	1613B	6/3/2014	PH193	5.1	1	35822-46-9	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	0.912	J	0.0343	5.19	ng/kg	JBQ	J	Z	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	1613B	6/3/2014	PH193	5.1	1	39001-02-0	OCDF	10.4	U	0.0434	10.4	ng/kg	JB	U	B	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	1613B	6/3/2014	PH193	5.1	1	39227-28-6	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	5.19	U	0.0294	5.19	ng/kg	JBQ	U	B	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	1613B	6/3/2014	PH193	5.1	1	40321-76-4	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	0.0676	J	0.0402	5.19	ng/kg	JQ	J	Z	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	1613B	6/3/2014	PH193	5.1	1	51207-31-9	2,3,7,8-TETRACHLORODIBENZOFURAN	1.04	U	0.0624	1.04	ng/kg	U			1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	1613B	6/3/2014	PH193	5.1	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	5.19	U	0.0281	5.19	ng/kg	JBQ	U	B	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	1613B	6/3/2014	PH193	5.1	1	57117-31-4	2,3,4,7,8-PECDF	5.19	U	0.0245	5.19	ng/kg	JBQ	U	B	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	1613B	6/3/2014	PH193	5.1	1	57117-41-6	1,2,3,7,8-PENTACHLORODIBENZOFURAN	5.19	U	0.0247	5.19	ng/kg	JBQ	U	B	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	1613B	6/3/2014	PH193	5.1	1	57117-44-9	1,2,3,6,7,8-HXCDF	5.19	U	0.0242	5.19	ng/kg	JBQ	U	B	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	1613B	6/3/2014	PH193	5.1	1	57653-85-7	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	0.126	J	0.0311	5.19	ng/kg	JQ	J	Z	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	1613B	6/3/2014	PH193	5.1	1	60851-34-5	2,3,4,6,7,8-HXCDF	5.19	U	0.0255	5.19	ng/kg	JB	U	B	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	1613B	6/3/2014	PH193	5.1	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	5.19	U	0.0155	5.19	ng/kg	JBQ	U	B	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	1613B	6/3/2014	PH193	5.1	1	70648-26-9	1,2,3,4,7,8-HXCDF	0.049	J	0.0277	5.19	ng/kg	JQ	J	Z	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	1613B	6/3/2014	PH193	5.1	1	72918-21-9	1,2,3,7,8,9-HXCDF	5.19	U	0.0313	5.19	ng/kg	JB	U	B	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	6010C	5/30/2014	PH193	5.1	1	7440-42-8	BORON	10.5	U	0.885	10.5	mg/kg	J	U	B	1785173.05	265762.993	-118.71069	34.2282
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back																						

**Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3**

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8015M	5/30/2014	PH193	5.1	1	PHCC12C14S	EFH (C12-C14) w/ SiGel	5.3	U	2.1	5.3	mg/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8015M	5/30/2014	PH193	5.1	1	PHCC15C20S	EFH (C15-C20) w/ SiGel	5.3	U	2.1	5.3	mg/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8015M	5/30/2014	PH193	5.1	1	PHCC21C30S	EFH (C21-C30) w/ SiGel	5.3	U	2.1	5.3	mg/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8015M	5/30/2014	PH193	5.1	1	PHCC30C40S	EFH (C30-C40) w/ SiGel	11	U	4.2	11	mg/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8015M	5/30/2014	PH193	5.1	1	PHCC8C11SI	EFH (C8-C11) w/ SiGel	5.3	U	2.1	5.3	mg/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8015M	5/29/2014	PH193	5.1	22.89	GROCS5C12	GASOLINE RANGE ORGANICS (C5-C12)	1	U	0.2	1	mg/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	1024-57-3	HEPTACHLOR EPOXIDE	0.86	U	0.18	0.86	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	1031-07-8	ENDOSULFAN SULFATE	1.8	U	0.34	1.8	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	2385-85-5	MIREX	1.8	U	0.36	1.8	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	309-00-2	ALDRIN	0.86	U	0.18	0.86	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	319-84-6	ALPHA-BHC	0.86	U	0.18	0.86	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	319-85-7	BETA-BHC	2	U	1.0	2.0	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	319-86-8	DELTA-BHC	0.86	U	0.47	0.86	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	33213-65-9	ENDOSULFAN II	1.8	U	0.34	1.8	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	50-29-3	4,4'-DDT	1.8	U	0.36	1.8	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	53494-70-5	ENDRIN KETONE	1.9	U	0.62	1.9	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	57-74-9	CHLORDANE	18	U	4.1	18	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	58-89-9	gamma-BHC (Lindane)	0.86	U	0.18	0.86	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	60-57-1	DIELDRIN	1.8	U	0.34	1.8	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	72-20-8	ENDRIN	1.8	U	0.34	1.8	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	72-43-5	Methoxychlor	6.9	U	1.8	6.9	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	72-54-8	4,4'-DDD	1.8	U	0.34	1.8	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	72-55-9	4,4'-DDE	1.8	U	0.34	1.8	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	7421-93-4	ENDRIN ALDEHYDE	1.8	U	0.34	1.8	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	76-44-8	HEPTACHLOR	0.86	U	0.18	0.86	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	8001-35-2	Toxaphene	34	U	15	34	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8081B	5/28/2014	PH193	5.1	1	959-98-8	ENDOSULFAN I	0.86	U	0.23	0.86	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8082A	5/28/2014	PH193	5.1	1	11096-82-5	Aroclor 1260	18	U	4.0	18	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8082A	5/28/2014	PH193	5.1	1	11097-69-1	Aroclor 1254	18	U	4.6	18	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8082A	5/28/2014	PH193	5.1	1	11100-14-4	Aroclor 1268	18	U	3.4	18	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8082A	5/28/2014	PH193	5.1	1	11104-28-2	Aroclor 1221	18	U	5.3	18	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8082A	5/28/2014	PH193	5.1	1	11126-42-4	Aroclor 5460	34	U	10	34	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8082A	5/28/2014	PH193	5.1	1	11141-16-5	Aroclor 1232	18	U	4.2	18	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8082A	5/28/2014	PH193	5.1	1	12642-23-8	Aroclor 5442	34	U	10	34	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8082A	5/28/2014	PH193	5.1	1	12672-29-6	Aroclor 1248	18	U	3.4	18	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8082A	5/28/2014	PH193	5.1	1	12674-11-2	Aroclor 1016	18	U	3.4	18	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8082A	5/28/2014	PH193	5.1	1	37324-23-5	Aroclor 1262	18	U	3.4	18	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8082A	5/28/2014	PH193	5.1	1	53469-21-9	Aroclor 1242	18	U	4.2	18	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8082A	5/28/2014	PH193	5.1	1	63496-31-1	Aroclor 5432	34	U	10	34	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8270D SIM	5/28/2014	PH193	5.1	1	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	19	U	6.3	19	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8270D SIM	5/28/2014	PH193	5.1	1	117-84-0	Di-n-octylphthalate	19	U	6.3	19	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8270D SIM	5/28/2014	PH193	5.1	1	120-12-7	ANTHRACENE	1.8	U	0.35	1.8	ug/kg	U		1785173.05	265762.993	-118.71069	34.2282	
FDG2-SL-584-SASD-SB-4.0-5.0	5/21/2014	N	4	5	ft	SO	Go Back		7473693	LL	8270D SIM	5/28/2014	PH193	5.1	1	129-00-0	PYRENE	1.8	U	0.70	1.8	ug/kg	U		1785173.05	265762.993	-118.71069		

Appendix D
Master Database Table
Go-Backs, Trenches, and Soil Vapor Locations
Phase 3

Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Depth Unit	Matrix Code	Task Code	Parent Sample Code	Lab Sample ID	Lab Name	Analytical Method	Analysis Date	Lab SDG	Percent Moisture	Dilution Factor	Cas RN	Chemical Name	Report Result Value	Final Qualifiers	Method Detection Limit	Reporting Detection Limit	Reporting Result Unit	Lab Qualifiers	DQM Qualifiers	DQM Remarks	X Coordinate	Y Coordinate	Longitude	Latitude
FDG2-SL-585-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499520	LL	8015M	6/17/2014	PH233	2.8	1	PHCC30C40	EFH (C30-C40)	40		4.1	10	mg/kg			1781808.33	267716.06	-118.72187	34.2335	
FDG2-SL-585-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499520	LL	8015M	6/17/2014	PH233	2.8	1	PHCC8C11	EFH (C8-C11)	5.1	U	2.1	5.1	mg/kg	U		1781808.33	267716.06	-118.72187	34.2335	
FDG2-SL-585-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499520	LL	8082A	6/23/2014	PH233	2.8	1	11096-82-5	Aroclor 1260	17	U	4.0	17	ug/kg	U		1781808.33	267716.06	-118.72187	34.2335	
FDG2-SL-585-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499520	LL	8082A	6/23/2014	PH233	2.8	1	11097-69-1	Aroclor 1254	17	U	4.5	17	ug/kg	U		1781808.33	267716.06	-118.72187	34.2335	
FDG2-SL-585-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499520	LL	8082A	6/23/2014	PH233	2.8	1	11100-14-4	Aroclor 1268	17	U	3.4	17	ug/kg	U		1781808.33	267716.06	-118.72187	34.2335	
FDG2-SL-585-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499520	LL	8082A	6/23/2014	PH233	2.8	1	11104-28-2	Aroclor 1221	17	U	5.2	17	ug/kg	U		1781808.33	267716.06	-118.72187	34.2335	
FDG2-SL-585-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499520	LL	8082A	6/23/2014	PH233	2.8	1	11126-42-4	Aroclor 5460	34	U	10	34	ug/kg	U		1781808.33	267716.06	-118.72187	34.2335	
FDG2-SL-585-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499520	LL	8082A	6/23/2014	PH233	2.8	1	11141-16-5	Aroclor 1232	17	U	4.2	17	ug/kg	U		1781808.33	267716.06	-118.72187	34.2335	
FDG2-SL-585-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499520	LL	8082A	6/23/2014	PH233	2.8	1	12642-23-8	Aroclor 5442	34	U	10	34	ug/kg	U		1781808.33	267716.06	-118.72187	34.2335	
FDG2-SL-585-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499520	LL	8082A	6/23/2014	PH233	2.8	1	12672-29-6	Aroclor 1248	17	U	3.4	17	ug/kg	U		1781808.33	267716.06	-118.72187	34.2335	
FDG2-SL-585-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499520	LL	8082A	6/23/2014	PH233	2.8	1	12674-11-2	Aroclor 1016	17	U	3.4	17	ug/kg	U		1781808.33	267716.06	-118.72187	34.2335	
FDG2-SL-585-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499520	LL	8082A	6/23/2014	PH233	2.8	1	37324-23-5	Aroclor 1262	17	U	3.4	17	ug/kg	U		1781808.33	267716.06	-118.72187	34.2335	
FDG2-SL-585-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499520	LL	8082A	6/23/2014	PH233	2.8	1	53469-21-9	Aroclor 1242	17	U	4.2	17	ug/kg	U		1781808.33	267716.06	-118.72187	34.2335	
FDG2-SL-585-NBZ-SB-0.0-0.5	6/13/2014	N	0	0.5	ft	SO	Go Back		7499520	LL	8082A	6/23/2014	PH233	2.8	1	63496-31-1	Aroclor 5432	34	U	10	34	ug/kg	U		1781808.33	267716.06	-118.72187	34.2335	
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	160.3M	5/28/2014	PH193	5.4	1	MOIST	MOISTURE	5.4		0.10	0.10	%			1785185.83	265684.157	-118.71065	34.22798	
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	1613B	6/3/2014	PH193	5.4	1	1746-01-6	2,3,7,8-TCDD	1.06	UJ	0.0458	1.06	ng/kg	U	UJ	FD	1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	1613B	6/3/2014	PH193	5.4	1	19408-74-3	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	3.64	J	0.0492	5.28	ng/kg	J	J	Z	1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	1613B	6/3/2014	PH193	5.4	1	32688-87-9	OCDD	1670		0.0784	10.6	ng/kg	B	J		1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	1613B	6/3/2014	PH193	5.4	1	35822-46-9	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	144	J	0.121	5.28	ng/kg	B	J	Q	1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	1613B	6/3/2014	PH193	5.4	1	39001-02-0	OCDF	50	J	0.0291	10.6	ng/kg	B	J	FD, Q	1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	1613B	6/3/2014	PH193	5.4	1	39227-28-6	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	1.51	J	0.0487	5.28	ng/kg	JB	J	Z	1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	1613B	6/3/2014	PH193	5.4	1	40321-76-4	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	0.99	J	0.0695	5.28	ng/kg	J	J	Z	1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	1613B	6/3/2014	PH193	5.4	1	51207-31-9	2,3,7,8-TETRACHLORODIBENZOFURAN	0.835	J	0.102	1.06	ng/kg	J	J	Z	1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	1613B	6/3/2014	PH193	5.4	1	55673-89-7	1,2,3,4,7,8,9-HPCDF	1.95	J	0.0363	5.28	ng/kg	JB	J	FD, Z	1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	1613B	6/3/2014	PH193	5.4	1	57117-31-4	2,3,4,7,8-PECDF	1.02	J	0.0381	5.28	ng/kg	JB	J	Z	1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	1613B	6/3/2014	PH193	5.4	1	57117-41-6	1,2,3,4,7,8-PENTACHLORODIBENZOFURAN	1.73	J	0.0388	5.28	ng/kg	JB	J	Z	1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	1613B	6/3/2014	PH193	5.4	1	57117-44-9	1,2,3,6,7,8-HXCDF	0.955	J	0.0482	5.28	ng/kg	JB	J	FD, Z	1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	1613B	6/3/2014	PH193	5.4	1	57653-85-7	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	6.21	J	0.0513	5.28	ng/kg	JB	J	FD, Z	1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	1613B	6/3/2014	PH193	5.4	1	60851-34-5	2,3,4,6,7,8-HXCDF	1.24	J	0.0486	5.28	ng/kg	JB	J	FD, Z	1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	1613B	6/3/2014	PH193	5.4	1	67562-39-4	1,2,3,4,6,7,8-HPCDF	17.1	J	0.0281	5.28	ng/kg	B	J	FD	1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	1613B	6/3/2014	PH193	5.4	1	70648-26-9	1,2,3,4,7,8-HXCDF	0.95	J	0.0492	5.28	ng/kg	J	J	FD, Z	1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	1613B	6/3/2014	PH193	5.4	1	72918-21-9	1,2,3,7,8,9-HXCDF	0.762	J	0.0557	5.28	ng/kg	JB	J	Z	1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	6010C	5/30/2014	PH193	5.4	1	7429-90-5	ALUMINUM (FUME OR DUST)	16300	J	7.62	42.3	mg/kg	J	E		1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	6010C	5/30/2014	PH193	5.4	1	7439-89-6	IRON	20100	J	3.83	42.3	mg/kg	J	E		1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	6010C	5/30/2014	PH193	5.4	1	7439-92-1	LEAD	12	J	0.529	3.17	mg/kg	J	E		1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	6010C	5/30/2014	PH193	5.4	1	7439-93-2	LITHIUM	22.1	J	0.36	4.2	mg/kg	J	E		1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	6010C	5/30/2014	PH193	5.4	1	7439-95-4	MAGNESIUM	4300	J	1.77	10.6	mg/kg	J	E		1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	6010C	5/30/2014	PH193	5.4	1	7439-96-5	MANGANESE	218	J	0.0877	1.06	mg/kg	J	E		1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	6010C	5/30/2014	PH193	5.4	1	7439-98-7	MOLYBDENUM	0.424	J	0.180	2.11	mg/kg	J	J	Z	1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	6010C	5/30/2014	PH193	5.4	1	7440-02-0	NICKEL	14	J	0.137	2.11	mg/kg	J	A		1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5	ft	SO	Go Back		7473686	LL	6010C	5/30/2014	PH193	5.4	1	7440-09-7	POTASSIUM	3600	J	8.82	106	mg/kg	J	J	Q	1785185.83	265684.157	-118.71065	34.22798
FDG2-SL-585-SASD-SB-0.0-0.5	5/21/2014	N	0	0.5																									