

DATA VALIDATION REPORT

Boeing SSFL RFI Group 8 Data Gap

SAMPLE DELIVERY GROUP: IQB2449

Prepared by

MEC^X, LLC 12269 East Vassar Drive Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL RFI Group 8 Data Gap

Contract Task Order: 1261.500D.08.001

Sample Delivery Group: IQB2449

Project Manager: Dixie Hambrick

Matrix: soil QC Level: V

No. of Samples: 2

No. of Reanalyses/Dilutions: 0

Laboratory: Test America

Table 1. Sample Identification

Sample Name	Lab Sample Name	Sub-Lab Sample Name	Matrix	Collection	Method
BLBS0030D01	IQB2449-01	N/A	Soil	2/21/2007 1:59:00 PM	7199, 9045C
BLBS0030S01	IQB2449-02	N/A	Soil	2/21/2007 1:59:00 PM	7199, 9045C

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of $4^{\circ}C$ $\pm 2^{\circ}C$. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. As the samples were couriered directly from the field to the laboratory, custody seals were not required. If necessary, the client ID was added to the sample result summary by the reviewer.

1

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
Н	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
С	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
В	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
Е	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
Α	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present. Not applicable.	
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
Р	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
* , *	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: March 31, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^{\times} Data Validation Procedure for General Minerals (DVP-6, Rev. 0), EPA Methods 7199 and 9045C, and the National Functional Guidelines for Inorganic Data Review (2/94).

- Holding Times: Analytical holding times, 24 hours from preparation for pH and 24 hours from preparation for hexavalent chromium, were met.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Hexavalent chromium was detected in a CCB at 0.45 μg/L; therefore, hexavalent chromium detected in BLBS0030D01 was qualified as estimated, "UJ."
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Laboratory Duplicates: Laboratory duplicate analyses were performed for pH on BLBS0030D01 and the RPD was within the laboratory-established control limit of ≤5%.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on BLBS0030D01. Recoveries and RPDs were within laboratory-established QC limits.
- Sample Result Verification: Review is not applicable at a Level V validation. Reported nondetects are valid to the reporting limit.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: Hexavalent chromium was not detected in either field blank BLQW0018F01 (IQB1202) or equipment rinsate (IBQ1486).
 - Field Duplicates: The samples in this SDG were identified as field duplicates. Hexavalent chromium was detected in the primary sample but was qualified as an estimated nondetect in the duplicate due to CCB contamination. The RPD for pH was ≤100.



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MWH-San Diego/Boeing

9444 Farnham Street, Suite 300

San Diego, CA 92123 Attention: Lisa J. Tucker Project ID: SSFL Group 8 - DOE

1891264

Report Number: IQB2449

Sampled: 02/21/07

Received: 02/22/07

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQB2449-01 (BLBS0030D0) Reporting Units: % **Percent Solids**	I - Soil) EPA 160.3 MOD	7C02139	0.10	0.10	93	1	03/02/07	03/05/07	
Sample ID: IQB2449-02 (BLBS0030S01 Reporting Units: % Percent Solids	- Soil) EPA 160.3 MOD	7C02139	0.10	0.10	80	1	03/02/07	03/05/07	
Sample ID: IQB2449-01 (BLBS0030D0 Reporting Units: mg/kg dry Chromium VI Uゴ/B	EPA 7199	7C03038	0.022	0.22	0.12	1	03/03/07	03/03/07	J
Sample ID: IQB2449-02 (BLBS0030S0) Reporting Units: mg/kg dry Chromium VI	EPA 7199	7C03038	0.025	0.25	0.30	1	03/03/07	03/03/07	
Sample ID: IQB2449-01 (BLBS0030D0 Reporting Units: pH Units pH	1 - Soil) EPA 9045C	7B23117	0.00	NA	9.51	1	02/23/07	02/23/07	
Sample ID: IQB2449-02 (BLBS0030S0) Reporting Units: pH Units pH	I - Soil) EPA 9045C	7B23117	0.00	NA	8.98	1	02/23/07	02/23/07	



DATA VALIDATION REPORT

Boeing SSFL RFI Group 8 Data Gap

SAMPLE DELIVERY GROUP: IQB1507

Prepared by

MEC^X, LLC 12269 East Vassar Drive Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL RFI Group 8 Data Gap

Contract Task Order: 1261.500D.08.001

Sample Delivery Group: IQB1507

Project Manager: Dixie Hambrick

Matrix: Soil

QC Level: V No. of Samples: 4

No. of Reanalyses/Dilutions: 0

Laboratory: Test America

Table 1. Sample Identification

Sample Name	Lab Sample Name	Sub-Lab Sample name	Matrix Type	Collection Date	Method
BLBS0035S01	IQB1507-01	N/A	Soil	13-Feb-07	6010B, 6020, 7471A, 9045C
BLBS0033S01	IQB1507-02	N/A	Soil	13-Feb-07	6010B, 6020, 7471A, 9045C
BLBS0034S01	IQB1507-03	N/A	Soil	13-Feb-07	8270C SIM
BLBS0034S02	IQB1507-04	N/A	Soil	13-Feb-07	8270C SIM

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of $4^{\circ}C$ $\pm 2^{\circ}C$. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. As the samples were couriered directly from the field to the laboratory, custody seals were not required. If necessary, the client ID was added to the sample result summary by the reviewer.

1

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
Н	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
С	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
В	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
Α	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
Т	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present. Not applicable.	
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
Р	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
* , *	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHODS 6010B, 6020, 7470A/7471A—Metals and Mercury

Reviewed By: P. Meeks Date Reviewed: 3/28/07

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^X Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0), EPA Methods 6010B, 6020, 7470A/7471A, and the National Functional Guidelines for Inorganic Data Review (2/94).

- Holding Times: Analytical holding times, six months for ICP and ICP-MS metals and 28 days for mercury, were met.
- Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Method blanks had no applicable detects. Boron was detected in a CCB at 10.5 µg/L; therefore boron detected in both samples was qualified as estimated, "UJ."
- Interference Check Samples: Review is not applicable at a Level V validation.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed.
- Serial Dilution: No serial dilution analyses were performed.
- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. All CCV and CCB internal standard intensities were within 80-120% of the internal standard intensities measured in the initial calibration.
- Sample Result Verification: Review is not applicable at a Level V validation. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

Project: Boeing SSFL RFI Group 8 Data Gap SDG: IQB1507

 Field Blanks and Equipment Rinsates: There were no detects in the field blank BLQW0018F01 (IQB1202) or the equipment rinsate BLQW0018E01 (IQB1486). It should be noted that the equipment rinsate was not analyzed for the 6010B analytes.

Field Duplicates: There were no field duplicate samples identified for this SDG.

B. EPA METHOD 8270C SIM—Polynuclear Aromatic Hydrocarbons (PAHs)

Reviewed By: L. Calvin

Date Reviewed: March 28, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^{\times} Data Validation Procedure for Semivolatile Organics (DVP-3, Rev. 0), EPA Method 8270C, and the National Functional Guidelines for Organic Data Review (2/94).

- Holding Times: Extraction and analytical holding times were met. The soil samples were extracted within 14 days of collection and analyzed within 40 days of extraction.
- GC/MS Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries and RPDs were within laboratory-established QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the samples of this SDG.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - $_{\odot}$ Field Blanks and Equipment Rinsates: Field blank BLQW0018F01 and equipment rinsate BLQW0018E01 had detects between the MDL and the reporting limit for naphthalene at 0.13 μ g/L and 0.098 μ g/L, respectively. Naphthalene detects below the reporting limits in associated site samples BLBS0034S01 and BLBS0034S02 were qualified as estimated, "J."
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

Project: Boeing SSFL RFI Group 8 Data Gap SDG: IQB1507

DATA VALIDATION REPORT

- Internal Standards Performance: Review is not applicable at a Level V validation.
- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for PAH compounds and added phthalates.
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. Results reported between the MDL and the reporting limit were qualified as estimated, "J." Reported nondetects are valid to the reporting limit.
- Tentatively Identified Compounds: TICs were not reported by the laboratory for this SDG.
- System Performance: Review is not applicable at a Level V validation.

C. EPA METHOD 9045C—General Minerals

Reviewed By: P. Meeks Date Reviewed: 3/28/07

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0), EPA Method 9045C, and the National Functional Guidelines for Inorganic Data Review (2/94).

- Holding Times: the analytical holding time, 24 hours from preparation for pH, was met.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Not applicable to this analysis.
- Blank Spikes and Laboratory Control Samples: Not applicable to this analysis.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: Not applicable to this analysis.
- Sample Result Verification: Review is not applicable at a Level V validation.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples.
 Following are findings associated with field QC samples:
 - o Field Blanks and Equipment Rinsates: Not applicable to this analysis.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.



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MWH-San Diego/Boeing

Project ID: SSFL Group 8 - DOE

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 1891264
 Sampled: 02/13/07

 Report Number: IQB1507
 Received: 02/14/07

Attention: Lisa J. Tucker

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQB1507-01 (BLBS0035S	01 - Soil)								
Reporting Units: mg/kg dry									
Aluminum	EPA 6010B	7B15107	5.9	12	9500	1	02/15/07	02/15/07	
Antimony	EPA 6020	7B15106	0.035	1.2	0.15	1	02/15/07	02/15/07	J
Arsenic	EPA 6020	7B15106	0.29	0.59	3.2	1	02/15/07	02/15/07	
Barium	EPA 6020	7B15106	0.094	0.59	55	1	02/15/07	02/15/07	
Beryllium	EPA 6020	7B15106	0.047	0.35	0.47	1	02/15/07	02/15/07	
Boron UT/B	EPA 6010B	7B15107	1.2	5.9	3.7	1	02/15/07	02/15/07	J
Cadmium	EPA 6020	7B15106	0.029	0.59	0.12	1	02/15/07	02/15/07	J
Chromium	EPA 6020	7B15106	0.41	1.2	13	1	02/15/07	02/15/07	
Cobalt	EPA 6020	7B15106	0.094	0.59	5.6	1	02/15/07	02/15/07	
Copper	EPA 6020	7B15106	0.24	1.2	6.6	1	02/15/07	02/15/07	
Lead	EPA 6020	7B15106	0.059	0.59	6.8	1	02/15/07	02/15/07	
Lithium	EPA 6010B	7B15107	4.5	7.4	20	1	02/15/07	02/15/07	
Molybdenum	EPA 6020	7B15106	0.12	1.2	0.31	1	02/15/07	02/15/07	J
Nickel	EPA 6020	7B15106	0.53	1.2	8.4	1	02/15/07	02/15/07	
Potassium	EPA 6010B	7B15107	22	59	2500	1	02/15/07	02/15/07	
Selenium	EPA 6020	7B15106	0.24	1.2	0.39	1	02/15/07	02/15/07	J
Silver U	EPA 6020	7B15106	0.059	0.59	ND	1	02/15/07	02/15/07	
Sodium	EPA 6010B	7B15107	28	59	76	1	02/15/07	02/15/07	
Thallium	EPA 6020	7B15106	0.12	0.59	0.23	1	02/15/07	02/15/07	J
Vanadium	EPA 6020	7B15106	0.47	1.2	27	1	02/15/07	02/15/07	
Zinc	EPA 6020	7B15106	1.5	12	36	1	02/15/07	02/15/07	
Zirconium ()	EPA 6010B	7B16119	1.8	29	ND	1	02/16/07	02/16/07	



TestAmerica, Inc. - Irvine 17461 Derian Ave, Suite 100 Irvine CA, 92614 Weck Laboratories, Inc. 14859 E. Clark Ave. Industry, CA 91745 Phone 626 336 2139 Fax

Phone 626.336.2139 Fax 626.336.2634

Date Received: 02/16/07 11:18 Date Reported: 03/02/07 16:55

BLBS003550]

IQB1507-01 7021615-01 (Soil)

Report ID: 7021615

Project ID: IQB1507

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Analyte	Result	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
% Solids 🗡	85.1	% by Weight	0.100	1	Gravimetric	W7B0880	02/22/07	02/28/07 dj	

Metals (Non-Aqueous) by EPA 6000/7000 Series Methods

Analyte	Result	MDL	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
Mercury, Total	0.016	0.00076	mg/kg dry	0.012	1	EPA 7471A	W7B0833	02/21/07	02/22/07 jl	

* Analysis not validated





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MWH-San Diego/Boeing

9444 Farnham Street, Suite 300

San Diego, CA 92123 Attention: Lisa J. Tucker Project ID: SSFL Group 8 - DOE

1891264

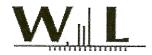
Report Number: IQB1507

Sampled: 02/13/07

Received: 02/14/07

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQB1507-02 (BLBS003380	1 - Soil)								
Reporting Units: mg/kg dry	,								
Aluminum	EPA 6010B	7B15107	6.0	12	9500	0.995	02/15/07	02/15/07	
Antimony	EPA 6020	7B15106	0.036	1.2	0.12	0.995	02/15/07	02/16/07	J
Arsenic	EPA 6020	7B15106	0.30	0.60	2.7	0.995	02/15/07	02/16/07	
Barium	EPA 6020	7B15106	0.095	0.60	69	0.995	02/15/07	02/16/07	
Beryllium	EPA 6020	7B15106	0.048	0.36	0.39	0.995	02/15/07	02/16/07	
Boron UJ/B	EPA 6010B	7B15107	1.2	6.0	4.4	0.995	02/15/07	02/15/07	J
Cadmium	EPA 6020	7B15106	0.030	0.60	0.19	0.995	02/15/07	02/16/07	J
Chromium	EPA 6020	7B15106	0.42	1.2	13	0.995	02/15/07	02/16/07	
Cobalt	EPA 6020	7B15106	0.095	0.60	4.9	0.995	02/15/07	02/16/07	
Copper	EPA 6020	7B15106	0.24	1.2	8.3	0.995	02/15/07	02/16/07	
Lead	EPA 6020	7B15106	0.060	0.60	8.3	0.995	02/15/07	02/16/07	
Lithium	EPA 6010B	7B15107	4.5	7.5	17	0.995	02/15/07	02/15/07	
Molybdenum	EPA 6020	7B15106	0.12	1.2	0.38	0.995	02/15/07	02/16/07	J
Nickel	EPA 6020	7B15106	0.54	1.2	8.6	0.995	02/15/07	02/16/07	
Potassium	EPA 6010B	7B15107	23	60	2400	0.995	02/15/07	02/15/07	
Selenium	EPA 6020	7B15106	0.24	1.2	0.25	0.995	02/15/07	02/16/07	J
Silver ()	EPA 6020	7B15106	0.060	0.60	ND	0.995	02/15/07	02/16/07	
Sodium	EPA 6010B	7B15107	29	60	190	0.995	02/15/07	02/15/07	
Thallium	EPA 6020	7B15106	0.12	0.60	0.17	0.995	02/15/07	02/16/07	J
Vanadium	EPA 6020	7B15106	0.48	1.2	30	0.995	02/15/07	02/16/07	
Zinc	EPA 6020	7B15106	1.5	12	64	0.995	02/15/07	02/16/07	
Zirconium ()	EPA 6010B	7B16119	1.8	30	ND	1	02/16/07	02/16/07	



Weck Laboratories, Inc. 14859 E. Clark Ave. Industry, CA 91745 Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine 17461 Derian Ave, Suite 100 Irvine CA, 92614

Report ID: 7021615 Project ID: IQB1507

Date Received: 02/16/07 11:18 Date Reported: 03/02/07 16:55

BLB50033501

IQB1507-02 7021615-02 (Soil)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

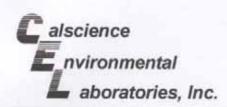
Analyte	Result	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
% Solids —	83.5	% by Weight	0.100	1	Gravimetric	W7B0880	02/22/07	02/28/07 dj	

Metals (Non-Aqueous) by EPA 6000/7000 Series Methods

Analyte	Result	MDL	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
Mercury, Total	0.036	0.00078	mg/kg dry	0.012	1	EPA 7471A	W7B0833	02/21/07	02/22/07 jl	

* Analysis not validate





Analytical Report

TestAmerica 17461 Derian Avenue, Suite 100

Irvine, CA 92614-5845

Project: IQB1507

Date Received:

Work Order No: Preparation:

Method: Units:

02/16/07

07-02-1062 **EPA 3545**

EPA 8270C SIM mg/kg

Page 1 of 2

Lab Sample Date Date Analyzed QC Batch ID Client Sample Number Matrix Instrument Number Collected Prepared IQB1507-03 07-02-1062-2 02/13/07 Solid GC/MS N 02/19/07 02/22/07 070219L05

Comment(s) Results are reported on a dry weight basis.

-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Result	RL	MDL	DE	Qual	Parameter	Result	RL	MDL	DE C	Qual
ND	0.035	0.0031	1.74		Chrysene U.	ND	0.035	0.0036	1.74	
ND	0.035	0.0030	1.74		Di-n-Butyl Phthalate	0.27	0.035	0.0037	1.74	
ND	0.035	0.0032	1.74		Dibenz (a,h) Anthracene U	ND	0.035	0.0034	1.74	
ND	0.035	0.0029	1.74		Diethyl Phthalate T	0.017	0.035	0.0035	1.74	J
ND	0.035	0.0031	1.74		Fluoranthene	ND	0.035	0.0033	1.74	
ND	0.035	0.0037	1.74		Fluorene	ND	0.035	0.0030	1.74	
ND	0.035	0.0030	1.74		Indeno (1,2,3-c,d) Pyrene	ND	0.035	0.0031	1.74	
ND	0.035	0.0031	1.74		N-Nitrosodimethylamine	ND	0.035	0.0034	1.74	
ND	0.035	0.0032	1.74		Naphthalene T/F	0.022	0.035	0.0032	1.74	J
ND	0.035	0.0044	1.74		Phenanthrene T	0.013	0.035	0.0033	1.74	1
0.028	0.035	0.0054	1.74	J	Pyrene W	ND	0.035	0.0044	1.74	
REC (%)	Control	Limits		Qual	Surrogates:	REC (%)	Control	Limits	2	Qual
94	32-143				2-Fluorobiphenyl	92	14-146			
91	15-138				Nitroberizene-d5	115	18-162			
102	34-148				Phenol-d6	91	17-141			
	ND ND ND ND ND ND ND ND ND ND 0.028 REC (%)	ND 0.035 ND 0.035	ND 0.035 0.0031 ND 0.035 0.0030 ND 0.035 0.0032 ND 0.035 0.0029 ND 0.035 0.0031 ND 0.035 0.0037 ND 0.035 0.0030 ND 0.035 0.0031 ND 0.035 0.0031 ND 0.035 0.0032 ND 0.035 0.0032 ND 0.035 0.0044 0.028 0.035 0.0054 REC (%) Control Limits 94 32-143 91 15-138	ND 0.035 0.0031 1.74 ND 0.035 0.0030 1.74 ND 0.035 0.0032 1.74 ND 0.035 0.0029 1.74 ND 0.035 0.0031 1.74 ND 0.035 0.0037 1.74 ND 0.035 0.0030 1.74 ND 0.035 0.0031 1.74 ND 0.035 0.0031 1.74 ND 0.035 0.0031 1.74 ND 0.035 0.0031 1.74 ND 0.035 0.0032 1.74 ND 0.035 0.0034 1.74 ND 0.035 0.0054 1.74 REC (%) Control Limits 94 32-143 91 15-138	ND 0.035 0.0031 1.74 ND 0.035 0.0030 1.74 ND 0.035 0.0032 1.74 ND 0.035 0.0029 1.74 ND 0.035 0.0031 1.74 ND 0.035 0.0031 1.74 ND 0.035 0.0037 1.74 ND 0.035 0.0030 1.74 ND 0.035 0.0031 1.74 ND 0.035 0.0031 1.74 ND 0.035 0.0031 1.74 ND 0.035 0.0031 1.74 ND 0.035 0.0034 1.74 ND 0.035 0.0044 1.74 0.028 0.035 0.0064 1.74 J REC (%) Control Limits Qual 94 32-143 91 15-138	ND 0.035 0.0031 1.74 Chrysene U ND 0.035 0.0030 1.74 Di-n-Butyl Phthalate ND 0.035 0.0032 1.74 Diethyl Phthalate ND 0.035 0.0029 1.74 Diethyl Phthalate ND 0.035 0.0031 1.74 Flucranthene ND 0.035 0.0037 1.74 Flucrene ND 0.035 0.0030 1.74 Indeno (1,2,3-c,d) Pyrene ND 0.035 0.0031 1.74 N-Nitrosodimethylamine ND 0.035 0.0032 1.74 Naphthalene ND 0.035 0.0044 1.74 Phenanthrene ND 0.035 0.0054 1.74 Pyrene ND 0.035 0.0054 1.74 Pyrene ND 0.028 0.035 0.0054 1.74 Pyrene ND 0.028 0.035 0.0054 1.74 Pyrene Naphthalene	ND 0.035 0.0031 1.74 Chrysene U ND ND 0.035 0.0030 1.74 Di-n-Butyl Phthalate 0.27 ND 0.035 0.0032 1.74 Dibenz (a,h) Anthracene ND ND 0.035 0.0029 1.74 Diethyl Phthalate 0.017 ND 0.035 0.0031 1.74 Fluoranthene ND ND 0.035 0.0037 1.74 Fluorene ND ND 0.035 0.0030 1.74 Indeno (1,2,3-c,d) Pyrene ND ND 0.035 0.0031 1.74 N-Nitrosodimethylamine ND ND 0.035 0.0031 1.74 Naphthalene JF 0.022 ND 0.035 0.0032 1.74 Naphthalene JF 0.013 ND 0.035 0.0044 1.74 Phenanthrene ND ND ND 0.028 0.035 0.0064 1.74 JPyrene ND	ND 0.035 0.0031 1.74 Chrysene U ND 0.035 ND 0.035 0.0030 1.74 Di-n-Butyl Phthalate 0.27 0.035 ND 0.035 0.0032 1.74 Dibenz (a,h) Anthracene U ND 0.035 ND 0.035 0.0029 1.74 Diethyl Phthalate 0.017 0.035 ND 0.035 0.0031 1.74 Fluoranthene ND 0.035 ND 0.035 0.0037 1.74 Fluorene ND 0.035 ND 0.035 0.0030 1.74 Indeno (1,2,3-c,d) Pyrene ND 0.035 ND 0.035 0.0031 1.74 N-Nitrosodimethylamine ND 0.035 ND 0.035 0.0032 1.74 Naphthalene Penanthrene 0.022 0.035 ND 0.035 0.0044 1.74 Phenanthrene ND 0.035 ND 0.035 0.0054 1.74 Phenanthrene <t< td=""><td>ND 0.035 0.0031 1.74 Chrysene U ND 0.035 0.0036 ND 0.035 0.0030 1.74 Di-n-Butyl Phthalate 0.27 0.035 0.0037 ND 0.035 0.0032 1.74 Dibenz (a,h) Anthracene U ND 0.035 0.0034 ND 0.035 0.0029 1.74 Diethyl Phthalate 0.017 0.035 0.0035 ND 0.035 0.0031 1.74 Fluoranthene ND 0.035 0.0035 ND 0.035 0.0037 1.74 Fluorene ND 0.035 0.0030 ND 0.035 0.0030 1.74 Indeno (1,2,3-c,d) Pyrene ND 0.035 0.0031 ND 0.035 0.0031 1.74 N-Nitrosodimethylamine ND 0.035 0.0034 ND 0.035 0.0032 1.74 Naphthalene TF 0.022 0.035 0.0032 ND 0.035 0.0044 1.74 P</td><td> ND</td></t<>	ND 0.035 0.0031 1.74 Chrysene U ND 0.035 0.0036 ND 0.035 0.0030 1.74 Di-n-Butyl Phthalate 0.27 0.035 0.0037 ND 0.035 0.0032 1.74 Dibenz (a,h) Anthracene U ND 0.035 0.0034 ND 0.035 0.0029 1.74 Diethyl Phthalate 0.017 0.035 0.0035 ND 0.035 0.0031 1.74 Fluoranthene ND 0.035 0.0035 ND 0.035 0.0037 1.74 Fluorene ND 0.035 0.0030 ND 0.035 0.0030 1.74 Indeno (1,2,3-c,d) Pyrene ND 0.035 0.0031 ND 0.035 0.0031 1.74 N-Nitrosodimethylamine ND 0.035 0.0034 ND 0.035 0.0032 1.74 Naphthalene TF 0.022 0.035 0.0032 ND 0.035 0.0044 1.74 P	ND

Results are reported on a dry weight basis.

-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DE	Qual	Parameter	Result	RL	MDL	DE C	Qual
1-Methylnaphthalene	ND	0.027	0.0024	1.35		Chrysene	ND	0.027	0.0028	1.35	
2-Methylnaphthalene	ND	0.027	0.0024	1.35		Di-n-Butyl Phthalate	0.21	0.027	0.0028	1.35	
Acenaphthene	ND	0.027	0.0025	1.35		Dibenz (a,h) Anthracene U	ND	0.027	0.0026	1.35	
Acenaphthylene	ND	0:027	0.0022	1.35		Diethyl Phthalate	0.014	0.027	0.0027	1.35	3
Anthracene	ND	0.027	0.0024	1.35		Fluoranthene	ND	0.027	0.0026	1.35	
Benzo (a) Anthracene	ND	0.027	0.0029	1.35		Fluorene	ND	0.027	0.0024	1.35	
Benzo (a) Pyrene	ND	0.027	0.0024	1.35		Indeno (1,2,3-c,d) Pyrene	ND	0.027	0.0024	1.35	
Benzo (b) Fluoranthene	ND	0.027	0.0024	1.35		N-Nitrosodimethylamine 🗸	ND	0.027	0.0026	1.35	
Benzo (g,h,i) Perylene	ND	0.027	0.0025	1.35		Naphthalene T/F	0.0089	0.027	0.0025	1.35	J
Benzo (k) Fluoranthene	ND	0.027	0.0034	1.35		Phenanthrene T	0.010	0.027	0.0026	1.35	J
Bis(2-Ethylhexyl) Phthalate	0.032	0.027	0.0042	1.35		Pyrene U	ND	0.027	0.0034	1.35	
Surrogates	REC (%)	Control	Limits		Qual	Surrogates:	REC (%)	Control	Limits	9	Qual
2,4,6-Tribromophenol	99	32-143				2-Fluorobiphenyl	96	14-146			
2-Fluorophenol	96	15-138				Nitrobenzene-d5	119	18-162			
p-Terphenyl-d14	106	34-148				Phenol-d6	93	17-141			

RL - Reporting Limit ,

DF - Dilution Factor

Qual - Qualifiers



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MWH-San Diego/Boeing

9444 Farnham Street, Suite 300

San Diego, CA 92123 Attention: Lisa J. Tucker Project ID: SSFL Group 8 - DOE

1891264

Report Number: IQB1507

Sampled: 02/13/07 Received: 02/14/07

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQB1507-01 (BLBS0035S0)	l - Soil)							·	
Reporting Units: %									
Percent Solids	EPA 160.3 MOD	7B16117	0.10	0.10	85	1	02/16/07	02/19/07	
Sample ID: IQB1507-02 (BLBS0033S01 Reporting Units: %	- Soil)							02,19,07	
Percent Solids	EPA 160.3 MOD	7B16117	0.10	0.10	84	1	02/16/07	02/19/07	
Sample ID: IQB1507-01 (BLBS0035S01	- Soil)							020, 13707	
Reporting Units: pH Units	,								
pН	EPA 9045C	7B15099	0.00	NA	6.57	1	02/15/07	02/15/07	
Sample ID: IQB1507-02 (BLBS0033S01	- Soil)							02/15/07	
Reporting Units: pH Units	,								
рН	EPA 9045C	7B15099	0.00	NA	7.37	1	02/15/07	02/15/07	

* Analysis not validated

TestAmerica - Irvine, CANicholas Marz For Michele Chamberlin
Project Manager

LEVEL V



DATA VALIDATION REPORT

Boeing SSFL RFI Group 8 Data Gap

SAMPLE DELIVERY GROUP: IQB1505

Prepared by

MEC^X, LLC 12269 East Vassar Drive Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL RFI Group 8 Data Gap

Contract Task Order: 1261.500D.08.001

Sample Delivery Group: IQB1505

Project Manager: Dixie Hambrick

Matrix: Soil C Level: V

QC Level: V No. of Samples: 1

No. of Reanalyses/Dilutions: 0

Laboratory: Test America

Table 1. Sample Identification

Sample Name	Lab Sample Name	Sub-Lab Sample name	Matrix Type	Collection Date	Method
BHBS0005S01	IQB1505-01	N/A	Soil	13-Feb-07	1613B, 6010B, 6020, 7471A, 9045C

II. Sample Management

No anomalies were observed regarding sample management. The sample in this SDG was received at the laboratory within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the sample was received intact, on ice, and properly preserved, if applicable. The COC was appropriately signed and dated by field and/or laboratory personnel. As the sample was couriered directly from the field to the laboratory, custody seals were not required. If necessary, the client ID was added to the sample result summary by the reviewer.

1

Data Qualifier Reference Table

Qualifie	r Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
Н	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
С	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
В	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
Е	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
Α	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present. Not applicable.	
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
Р	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*11, *111	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: K. Shadowlight Date Reviewed: March 26, 2007

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^{\times} Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0), USEPA Method 1613, and the National Functional Guidelines Chlorinated Dioxin/Furan Data Review (8/02).

- Holding Times: Extraction and analytical holding times were met. The soil sample was extracted and analyzed within one year of collection.
- Instrument Performance: Review is not applicable at a level V validation.
- Calibration: Review is not applicable at a level V validation.
- Blanks: The method blank had detects for OCDD, 2,3,4,7,8-PeCDF, and total PeCDFs above the EDL. Target compound 2,3,4,7,8-PeCDF was reported in the site sample at a concentration less than five times the concentration of the method blank; therefore, the result was qualified as an estimated nondetect, "UJ," at the level of interference. As a portion of total PeCDFs included 2,3,4,7,8-PeCDF the result was qualified as estimated, "J," due to method blank contamination.
- Blank Spikes and Laboratory Control Samples: Recoveries were within the acceptance criteria listed in Table 6 of Method 1613.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: There were several detects in the field blank, BLQW0018F01 (IQB1202), and equipment rinsate, BLQW0018E01 (IQB1486). The results for 2,3,7,8-TCDF and 1,2,3,7,8-PeCDF were qualified as estimated, "J," in the site sample.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: Internal standard recoveries are not routinely evaluated at a Level V validation; however, the recoveries were reported on the sample result summaries. The labeled standard recoveries were within the acceptance criteria listed in Table 7 of Method 1613.
- Compound Identification: Review is not applicable at a level V validation. The laboratory

analyzed for polychlorinated dioxins/furans by EPA Method 1613. A confirmation analysis was not performed for the 2,3,7,8-TCDF detect reported in the site sample; therefore, the result for 2,3,7,8-TCDF was qualified as estimated, "J."

 Compound Quantification and Reported Detection Limits: Review is not applicable at a level V validation. The laboratory calculated and reported compound-specific detection limits. Any detects below the laboratory lower calibration level were qualified as estimated, "J." Reported nondetects are valid to the estimated detection limit (EDL).

B. EPA METHODS 6010B, 6020, 7470A/7471A—Metals and Mercury

Reviewed By: Patti Meeks Date Reviewed: 3/26/07

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^{\times} Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0), EPA Methods 6010B, 6020, 7470A/7471A, and the National Functional Guidelines for Inorganic Data Review (2/94).

- Holding Times: Analytical holding times, six months for ICP and ICP-MS metals and 28 days for mercury, were met.
- Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Method blanks and CCBs had no applicable detects.
- Interference Check Samples: Not applicable.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed.
- Serial Dilution: No serial dilution analyses were performed.
- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. All CCV and CCB internal standard intensities were within 80-120% of the internal standard intensities measured in the initial calibration.

- Sample Result Verification: Review is not applicable at a Level V validation. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples.
 Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: There were no detects in the field blank, BLQW0018F01 (IQB1202), or the equipment rinsate, BLQW0018E01 (IQB1486).
 - o Field Duplicates: There were no field duplicate samples identified for this SDG.

C. EPA METHOD 9045C—General Minerals

Reviewed By: Patti Meeks Date Reviewed: 3/26/07

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^{\times} Data Validation Procedure for General Minerals (DVP-6, Rev. 0), EPA Method 9045C, and the National Functional Guidelines for Inorganic Data Review (2/94).

- Holding Times: The analytical holding times, 24 hours from preparation for pH, was met.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Not applicable to this analysis.
- Blank Spikes and Laboratory Control Samples: Not applicable to this analysis.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: Not applicable to this analysis.
- Sample Result Verification: Review is not applicable at a Level V validation.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site sample. Following are findings associated with field QC samples:
 - o Field Blanks and Equipment Rinsates: Not applicable to this analysis.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

Method 1613 IQB1505-01 BHB50005501

Test America

		Analy	tical Data Si	ummary Shee	et		
	Analyte	Amount	EDL	Adj. RL	RT	Ratio	Qualifier
	**************************************	(pg/g)	(pg/g)	(pg/g)	(min.)		
u	2,3,7,8-TCDD	ND	0.148	0.914			
ゴ	1,2,3,7,8-PeCDD	0.397	0.161	4.57	34:03	1.34	A
1	1,2,3,4,7,8-HxCDD	0.634	0.495	4.57	36:36	1.29	A
	1,2,3,6,7,8-HxCDD	2.73	0.546	4.57	36:42	1.38	A
1	1,2,3,7,8,9-HxCDD	2.03	0.516	4.57	36:56	1.28	A
	1,2,3,4,6,7,8-HpCDD	131	0.299	4.57	39:58	1.05	
*	OCDD	1890	0.319	9.14	44:09	0.89	
J/F地丁/*/6	2.3.7.8-TCDF	0.384	0.154	0.914	30:26	0.82	A
J/F	1,2,3,7,8-PeCDF	0.190	0.153	4.57	33:14	1.59	A
4713	2,3,4,7,8-PeCDF	0.386	0.154	4.57	33:51	1.67	A
7	1,2,3,4,7,8-HxCDF	0.375	0.250	4.57	35:54	1.32	A
9	1,2,3,6,7,8-HxCDF	0.375	0.240	4.57	36:00	1.13	A
	2,3,4,6,7,8-HxCDF	0.424	0.250	4.57	36:29	1.14	A
u	1,2,3,7,8,9-HxCDF	ND	0.315	4.57			1
	1,2,3,4,6,7,8-HpCDF	5.06	0.232	4.57	38:43	1.08	
7	1,2,3,4,7,8,9-HpCDF	0.488	0.348	4.57	40:37	0.98	A
	OCDF	14.1	0.233	9.14	44:26	0.88	
u	Total TCDDs	ND	0.148	0.914			
ゴ	Total PeCDDs	3.31	0.161	4.57			A
	Total HxCDDs	24.8	0.519	4.57			
	Total HpCDDs	257	0.299	4.57			
	Total TCDFs	1.72	0.154	0.914			
丁B	Total PeCDFs	4.61	0.153	4.57			
0 10	Total HxCDFs	6.73	0.262	4.57			
	Total HpCDFs	18.2	0.284	4.57		### ### #### #########################	
	ITEF TEQ (ND=0)	4.37				nascenites N to	
	TTER TEO (NID-I/)	1.16		1	1		

Client Information			Sample Information		
Project Name:	IQB1505		Report Basis:	Dry Weig	ght
The state of the s			Matrix:	Soil	
Sample ID:	IQB1505-01		Weight / Volume:	13.35	Grams
5.			Solids / Lipids:	81.9	%
			Original pH:	NA	
Laboratory Information			Batch ID:	WG1412	3
Project ID:	G579-224				
Sample ID:	G579-224-1	В	Filename:	a22feb07	a-9
Collection Date/Time:	13-Feb-07	14:30	Retchk:	a22feb07	a-l
Receipt Date:	16-Feb-07	11:55	Begin ConCal:	a22feb07	a-1
Extraction Date:	19-Feb-07				
Analysis Date:	22-Feb-07	22:49	Initial Cal:	m1613-0	71006e

Level I

1/2

PM 3/28/07



17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-San Diego/Boeing

9444 Farnham Street, Suite 300

San Diego, CA 92123 Attention: Lisa J. Tucker Project ID: SSFL Group 8 - DOE

1891264

Report Number: IQB1505

Sampled: 02/13/07

Received: 02/14/07

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQB1505-01 (BHBS0005S01	- Soil)								
Reporting Units: mg/kg dry				10	1,5000		02/15/07	02/15/07	
Aluminum	EPA 6010B	7B15107	6.2	12	15000	1		02/15/07	J
Antimony	EPA 6020	7B15106	0.037	1.2	0.41	1	02/15/07		J
Arsenic	EPA 6020	7B15106	0.31	0.62	2.5	1	02/15/07	02/15/07	
Barium	EPA 6020	7B15106	0.10	0.62	84	1	02/15/07	02/15/07	
Beryllium	EPA 6020	7B15106	0.050	0.37	0.51	1	02/15/07	02/15/07	
Boron	EPA 6010B	7B15107	1.2	6.2	4.8	1	02/15/07	02/15/07	J
Cadmium	EPA 6020	7B15106	0.031	0.62	0.25	1	02/15/07	02/15/07	J
Chromium	EPA 6020	7B15106	0.44	1.2	17	1	02/15/07	02/15/07	
Cobalt	EPA 6020	7B15106	0.10	0.62	5.3	1	02/15/07	02/15/07	
Copper	EPA 6020	7B15106	0.25	1.2	8.7	1	02/15/07	02/15/07	
Lead	EPA 6020	7B15106	0.062	0.62	9.3	1	02/15/07	02/15/07	
Lithium	EPA 6010B	7B15107	4.7	7.9	20	1	02/15/07	02/15/07	
Molybdenum	EPA 6020	7B15106	0.12	1.2	0.46	1	02/15/07	02/15/07	J
Nickel	EPA 6020	7B15106	0.56	1.2	10	1	02/15/07	02/15/07	
Potassium	EPA 6010B	7B15107	24	62	3200	1	02/15/07	02/15/07	
Selenium	EPA 6020	7B15106	0.25	1.2	0.35	1	02/15/07	02/15/07	J
Silver	EPA 6020	7B15106	0.062	0.62	0.067	1	02/15/07	02/15/07	J
Sodium	EPA 6010B	7B15107	30	62	68	1	02/15/07	02/15/07	
Thallium	EPA 6020	7B15106	0.12	0.62	0.27	1	02/15/07	02/15/07	J
Vanadium	EPA 6020	7B15106	0.50	1.2	30	1	02/15/07	02/15/07	
Zinc	EPA 6020	7B15106	1.6	12	77	1	02/15/07	02/15/07	
Zirconium ()	EPA 6010B	7B16119	1.9	31	ND	1	02/16/07	02/16/07	



Weck Laboratories, Inc. 14859 E. Clark Ave. Industry, CA 91745 Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine 17461 Derian Ave, Suite 100 Irvine CA, 92614

Report ID: 7021613 Project ID: IQB1505 Date Received: 02/16/07 11:18 Date Reported: 03/02/07 16:56

BHBS0005501 IQB1505-01 7021613-01 (Soil)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Analyte	Result	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
% Solids	80.2	% by Weight	0.100	1	Gravimetric	W7B0880	02/22/07	02/28/07 dj	

Metals (Non-Aqueous) by EPA 6000/7000 Series Methods

Analyte	Result	MDL	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
Mercury, Total	0.039	0.00081	mg/kg drv	0.012	1	EPA 7471A	W7B0833	02/21/07	02/22/07 jl	

* Analysis not validated

LEVEL V



17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-San Diego/Boeing

9444 Farnham Street, Suite 300

San Diego, CA 92123 Attention: Lisa J. Tucker Project ID: SSFL Group 8 - DOE

1891264

Report Number: IQB1505

Sampled: 02/13/07

Received: 02/14/07

INORGANICS

	Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
,	Sample ID: IQB1505-01 (BHBS0005S01 Reporting Units: %	- Soil) - cont. EPA 160.3 MOD	7B16117	0.10	0.10	80	1	02/16/07	02/19/07	
	Percent Solids Sample ID: IQB1505-01 (BHBS0005S01 Reporting Units: pH Units		7.010117	0.10	0110					
	pH	EPA 9045C	7B15099	N/A	NA	6.38	1	02/15/07	02/15/07	

* Analysis not validated

TestAmerica - Irvine, CANicholas Marz For Michele Chamberlin
Project Manager





DATA VALIDATION REPORT

Boeing SSFL RFI Group 8 Data Gap

SAMPLE DELIVERY GROUP: IQB1219

Prepared by

MEC^x, LLC 12269 East Vassar Drive Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL RFI Group 8 Data Gap

Contract Task Order: 1261.500D.08.001

Sample Delivery Group: IQB1219

Project Manager: Dixie Hambrick

Matrix: water

QC Level: V No. of Samples: 8

No. of Reanalyses/Dilutions: 0

Laboratory: Test America

Table 1. Sample Identification

Sample Name	Lab Sample Name	Sub-Lab Sample name	Matrix Type	Collection Date	Method
BLBS0031S01	IQB1219-06	n/a	Soil	12-Feb-07	8270C SIM, 9045C
BLBS0032D01	IQB1219-07	D7B150320001	Soil	12-Feb-07	6010B, 6020, 7471A, 8082, 8330, 9045C
BLBS0032S01	IQB1219-08	D7B150320002	Soil	12-Feb-07	6010B, 6020, 7471A, 8082, 8330, 9045C
BLBS0036S01	IQB1219-04	n/a	Soil	12-Feb-07	6010B, 6020, 7471A, 8015B, 8082, 8270C SIM, 9045C
BLBS0036S02	IQB1219-05	n/a	Soil	12-Feb-07	9045C
BLBS0037S01	IQB1219-01	n/a	Soil	12-Feb-07	6010B, 6020, 7471A, 8015B, 8082, 8270C SIM, 9045C
BLBS0037S02	IQB1219-02	n/a	Soil	12-Feb-07	9045C
BLBS0038S01	IQB1219-03	n/a	Soil	12-Feb-07	6010B, 6020, 7471A, 8015B, 8082, 8270C SIM, 9045C

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were signed and dated by appropriate field and/or laboratory personnel. As the samples were couriered directly from the field to the laboratory, custody seals were not required. If necessary, the client ID was added to the sample result summary by the reviewer.

1

Data Qualifier Reference Table

Qualifie	r Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
Н	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
С	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
В	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
Е	Not applicable.	Duplicates showed poor agreement.
1	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
Α	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
Т	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present. Not applicable.	
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
Р	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*11, *111	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA Method 8330 - Energetics

Reviewed By: E. Wessling Date Reviewed: March 27, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^{x} Data Validation Procedure for Explosives, Nitroaromatics, and Nitramines (DVP-16, Rev. 0), EPA Method 8330, and the National Functional Guidelines for Organic Data Review (2/94).

- Holding Times: Extraction and analytical holding times were met. The soil samples were extracted within 14 days of collection and analyzed within 40 days of extraction.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blank, JPP3F1AA, had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits for LCS JPP3F1AC.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample BLBS0032S01 from this SDG. All recoveries and RPDs were within the laboratory established QC limits with the exception of 4-amino-2,6-dinitrotoluene recovered below QC limits in the MS only. No qualification of the data was deemed necessary.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples.
 Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: The associated field blank, BLQW0018F01 (IQB1202), and the equipment rinsate, BLQW0018E01 (IQB1486), were free of target compound contamination.
 - Field Duplicates: The two samples in this SDG were field duplicate samples identified for this SDG. As neither sample contained target compound detects, the pair were considered to be in good agreement
- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for energetic compounds by Method 8330.
- Compound Quantification and Reported Detection Limits: Review is not applicable at a

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Level V validation. The reporting limits (RLs) and/or method detection limits (MDLs) were not adjusted by the laboratory for the actual sample weights extracted. The RLs and/or MDLs were adjusted by the reviewer as necessary. Reported nondetects are valid to the reporting limit.

B. EPA METHODS 6010B, 6020, 7470A/7471A—Metals and Mercury

Reviewed By: P. Meeks Date Reviewed: 3/28/07

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^x Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0), EPA Methods 6010B, 6020, 7470A/7471A, and the National Functional Guidelines for Inorganic Data Review (2/94).

- Holding Times: Analytical holding times, six months for ICP and ICP-MS metals and 28 days for mercury, were met.
- Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Method blanks and CCBs had no applicable detects.
- Interference Check Samples: Boron was detected in the ICSA solution at 19.5 μ g/L; therefore, boron detected in BLBS0037S01 and LBS0038S01 was qualified as estimated, "J."
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed.
- Serial Dilution: No serial dilution analyses were performed.
- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. All CCV and CCB internal standard intensities were within 80-120% of the internal standard intensities measured in the initial calibration.
- Sample Result Verification: Review is not applicable at a Level V validation. Reported nondetects are valid to the MDL.

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- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: There were no detects in the field blank, BLQW0018F01 (IQB1202), or the equipment rinsate, BLQW0018E01 (IQB1486).
 It should be noted that the equipment rinsate was not analyzed for the 6010B analytes.
 - Field Duplicates: BLBS0032S01 and BLBS0032D01 were identified as field duplicates. Silver and zirconium were detected in the duplicate sample but were not detected in the primary sample. All other detects were in common and all RPDs were ≤100%.

C. EPA METHOD 8270C SIM—Polynuclear Aromatic Hydrocarbons (PAHs)

Reviewed By: L. Calvin

Date Reviewed: March 28, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^{X} Data Validation Procedure for Semivolatile Organics (DVP-3, Rev. 0), EPA Method 8270C, and the National Functional Guidelines for Organic Data Review (2/94).

- Holding Times: Extraction and analytical holding times were met. The soil samples were extracted within 14 days of collection and analyzed within 40 days of extraction.
- GC/MS Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries and RPDs were within laboratory-established QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the samples of this SDG.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- $_{\odot}$ Field Blanks and Equipment Rinsates: Field blank BLQW0018F01 (IQB1202) and equipment rinsate BLQW0018E01 had detects between the MDL and the reporting limit for naphthalene at 0.13 μ g/L and 0.098 μ g/L, respectively. Naphthalene was not detected in the associated site samples.
- Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: Review is not applicable at a Level V validation.
- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for PAH compounds and added phthalates.
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. Results reported between the MDL and the reporting limit were qualified as estimated, "J." Reported nondetects are valid to the reporting limit.
- Tentatively Identified Compounds: TICs were not reported by the laboratory for this SDG.
- System Performance: Review is not applicable at a Level V validation.

D. EPA Method 8082 – PCBs

Reviewed By: L. Calvin

Date Reviewed: March 28, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^X Data Validation Procedure for Organochlorine Pesticides/PCBs by GC (DVP-4, Rev. 0), EPA Method 8082, and the National Functional Guidelines for Organic Data Review (2/94).

- Holding Times: Extraction and analytical holding times were met. The soil samples were extracted within 14 days of collection and analyzed within 40 days of extraction.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the samples of this SDG.

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- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: Field blank BLQW0018F01 (IQB1202) and equipment rinsate FSQW0002E01 (IQB2570) had no reported target compound detects above the MDL.
 - Field Duplicates: Samples BLBS0032S01 and BLBS0032D01 had no target compound detects above the MDL. The reviewer noted the samples were analyzed at different dilutions, 1x and 2x dilutions, respectively.
- Compound Identification: Review is not applicable at a Level V validation.
- Compound Quantification and Reported Detection Limits: Review is not applicable at a
 Level V validation. The laboratory analyzed samples BLBS0037S01, BLBS0038S01, and
 BLBS0032D01 at 2× dilutions due to sample matrix effect. Results reported between the
 MDL and the reporting limit were qualified as estimated, "J." Reported nondetects are
 valid to the reporting limit.

E. EPA METHOD 8015B—Extractable Total Fuel Hydrocarbons (EFHs)

Reviewed By: Kristin Shadowlight Date Reviewed: March 26, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^{X} Data Validation Procedure for Total Fuel Hydrocarbons (DVP-8, Rev. 0), EPA Method 8015B, and the National Functional Guidelines for Organic Data Review (2/94).

- Holding Times: Extraction and analytical holding times were met. The soil samples were extracted within 14 days of collection and analyzed within 40 days of extraction.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recovery was within laboratoryestablished QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed for the sample in this SDG.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: There were no target compound detects in the field blank, BLQW0018F01 (IQB1202), or the equipment rinsate, BLQW0018E01 (IQB1486).
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Compound Identification: Review is not applicable at a Level V validation. Four EFH hydrocarbon ranges were reported: C8-C11, C12-C14, C15-C20, and C21-C30.
- Compound Quantification and Reported Detection Limits: Review is not applicable at a
 Level V validation. The samples in this SDG were each analyzed and reported at a 2×
 dilution. The MDL and reporting limits were appropriately adjusted for the dilution. Results
 reported between the MDL and the reporting limit were qualified as estimated, "J."
 Reported nondetects are valid to the reporting limit.

F. EPA METHOD 9045C—General Minerals

Reviewed By: P. Meeks Date Reviewed: 3/28/07

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0), EPA Method 9045C, and the National Functional Guidelines for Inorganic Data Review (2/94).

- Holding Times: The analytical holding time, 24 hours from preparation for pH, was met.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Not applicable to this analysis.
- Blank Spikes and Laboratory Control Samples: Not applicable to this analysis.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: Not applicable to this analysis.
- Sample Result Verification: Review is not applicable at a Level V validation.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based

10 Revision 0

on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- Field Blanks and Equipment Rinsates: Not applicable to this analysis.
- Field Duplicates: BLBS0032S01 and BLBS0032D01 were identified as field duplicates. The RPD was ≤100%.

TestAmerica Analytical Testing Corp

Client Sample ID: IQB1219-07

36BS0032DO1

HPLC

Lot-Sample #...: D7B150320-001 Work Order #...: JPHN81AA Matrix.....: SOLID

Date Sampled...: 02/12/07 14:05 Date Received..: 02/15/07
Prep Date....: 02/20/07 Analysis Date..: 02/23/07
Prep Batch #...: 7051331 Analysis Time..: 00:43

Dilution Factor: 1

Method....: SW846 8330

			REPORTING		
PARAMETER	RESULT		LIMIT	UNITS	MDL
4-Amino-2,6-	ND	0.24	0.25	mg/kg	0-039 6.038
2-Amino-4,6- dinitrotoluene	ND	45.0	0.25	mg/kg	0.046 0.044
1,3-Dinitrobenzene	ND	0.ZY	0.25	mg/kg	0.061 0.059
2,4-Dinitrotoluene	ND	0.24	0.25	mg/kg	0.050 0-048
2,6-Dinitrotoluene	ND	027	0.25	mg/kg	0.054 0.052
HMX	ND	0.ZY		mg/kg	0.078 0.075
Nitrobenzene	ND	0.24	0.25	mg/kg	0.061 0.059
Nitroglycerin	ND		5.0	mg/kg	1.7 1.6
4-Nitrotoluene	ND	0,39	0.40	mg/kg	0.11
2-Nitrotoluene	ND	0.24	0.25	mg/kg	180 - a 480-0
3-Nitrotoluene	ND	4.24	0.25	mg/kg	D-0420-041
PETN	ND	3.9	4.0	mg/kg	1.3
RDX	ND		0.25	mg/kg	280.0 380.0
Tetryl	ND	0.48	0.50	mg/kg	0.055 0.053
1,3,5-Trinitrobenzene	ND	0.27	0.25	mg/kg	0-071 0.069
2,4,6-Trinitrotoluene	ND	0.27	0.25	mg/kg	0.058 0.050
2,4-diamino-6-nitrotoluene	ND	6.97		mg/kg	0.10 0.09 F
2,6-diamino-4-nitrotoluene	, ND	0,97	1-0	mg/kg	0.18 0.17
SURROGATE	PERCENT		RECOVERY LIMITS		
1,2-Dinitrobenzene	99		(83 - 122)	

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3/27/07

TestAmerica Analytical Testing Corp

Client Sample ID: IQB1219-08

BLBS 00 32301

HPLC

Lot-Sample #...: D7B150320-002 Work Order #...: JPHPC1AA Matrix.....: SOLID

101

Date Sampled...: 02/12/07 14:05 Date Received..: 02/15/07 Prep Date....: 02/20/07 Analysis Date..: 02/23/07

Prep Batch #...: 7051331 Analysis Time..: 01:19

Dilution Factor: 1

1,2-Dinitrobenzene

PERSONAL DISCUSSIONS AND THE STATE OF THE ST

Method....: SW846 8330

		1	REPORTING		
PARAMETER	RESULT		LIMIT	UNITS	MDL
4-Amino-2,6- dinitrotoluene	ND ND	0.24-	0.25	mg/kg	0.039 0.038
2-Amino-4,6-	ND	0.24	0.25	mg/kg	0.046 0.044
1,3-Dinitrobenzene	ND	0.24.	0.25	mg/kg	0.061 0.059
2,4-Dinitrotoluene	ND	0.24	0.25	mg/kg	0-050-0.048
2,6-Dinitrotoluene	ND	0.24	0.25	mg/kg	0.054 0.952
HMX	ND	0.24		mg/kg	0.078 0.075
Nitrobenzene	ND	0.24	0.25	mg/kg	0.061 0-059
Nitroglycerin /	ND	4.8	5.0	mg/kg	1.7 1.6
4-Nitrotoluene (ND		0.40	mg/kg	0-11 -17 0
2-Nitrotoluene \	ND	0.24	0.25	mg/kg	0.084 2.081
3-Nitrotoluene	ND .		0.25	mg/kg	0.042 0.01/
PETN	ND	3.8	4.0	mg/kg	1.3 1.2
RDX	ND	0.24		mg/kg	0.085 0.082
Tetryl	ND	0.43		mg/kg	0.055 0.053
1,3,5-Trinitrobenzene	ND	0.24	0.25	mg/kg	0_071 6.060
2,4,6-Trinitrotoluene	/ ND	0.24	0.25	mg/kg	0.058 1.056
2,4-diamino-6-nitrotoluene	ND	0.94	1.0	mg/kg	0.10 0.097
2,6-diamino-4-nitrotoluene	√ × ND	0-96	1.0	mg/kg	0.18 0.LT
	PERCENT		RECOVERY		
SURROGATE	RECOVERY		LIMITS		

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3/27/5/



MWH-San Diego/Boeing 9444 Farnham Street, Suite 300

Project ID: SSFL Group 8 - DOE

1891264

San Diego, CA 92123 Attention: Lisa J. Tucker Report Number: IQB1219

Sampled: 02/12/07 Received: 02/13/07

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQB1219-01 (BLBS0037S0)	l - Soil)								
Reporting Units: mg/kg dry									
Aluminum	EPA 6010B	7B14110	5.8	12	12000	1	02/14/07	02/15/07	
Antimony	EPA 6020	7B14108	0.035	1.2	0.13	1	02/14/07	02/15/07	
Arsenic	EPA 6020	7B14108	0.29	0.58	2.0	1	02/14/07	02/15/07	J
Barium	EPA 6020	7B14108	0.094	0.58	96	1	02/14/07		
Beryllium	EPA 6020	7B14108	0.047	0.35	0.40	1	02/14/07	02/15/07	
Boron J/I	EPA 6010B	7B14110	1.2	5.8	4.6	1	02/14/07	02/15/07	
Cadmium	EPA 6020	7B14108	0.029	0.58	0.23	1	02/14/07	02/15/07	J
Chromium	EPA 6020	7B14108	0.41	1.2	14	1	02/14/07	02/15/07	J
Cobalt	EPA 6020	7B14108	0.094	0.58	4.7	1	02/14/07	02/15/07	
Copper	EPA 6020	7B14108	0.23	1.2	8.6	1	02/14/07	02/15/07	
Lead	EPA 6020	7B14108	0.058	0.58	12	1	02/14/07	02/15/07	
Lithium	EPA 6010B	7B14110	4.4	7.4	21	1	02/14/07	02/15/07	
Molybdenum	EPA 6020	7B14108	0.12	1.2	0.48	1	02/14/07	02/15/07	_
Nickel	EPA 6020	7B14108	0.53	1.2	9.1	1	02/14/07	02/15/07	J
Potassium	EPA 6010B	7B14110	22	58	4000	1	02/14/07	02/15/07	
Selenium	EPA 6020	7B14108	0.23	1.2	0.28	1	02/14/07	02/15/07	_
Silver	EPA 6020	7B14108	0.058	0.58	0.26	1	02/14/07	02/15/07	J
Sodium	EPA 6010B	7B14110	28	58	61	1	02/14/07	02/15/07	J
Thallium	EPA 6020	7B14108	0.12	0.58	0.25	1		02/15/07	_
Vanadium	EPA 6020	7B14108	0.47	1.2	22	1	02/14/07	02/15/07	J
Zinc	EPA 6020	7B14108	1.5	1.2	47	1	02/14/07	02/15/07	_
Zirconium U	EPA 6010B	7B14100	1.8	29	ND	1	02/14/07	02/15/07	В
_		. 210117	1.0	23	ND	1	02/16/07	02/16/07	





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TestAmerica, Inc. - Irvine 17461 Derian Ave, Suite 100 Irvine CA, 92614

Report ID: 7021428 Project ID: IQB1219

Date Received: 02/14/07 11:40 Date Reported: 03/02/07 16:54

BLB50037501

IQB1219-01 7021428-01 (Solid)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Analyte	Result	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
% Solids 🔭	85.5	% by Weight	0.100	1	Gravimetric	W7B0880	02/22/07	02/28/07 dj	

Metals (Non-Aqueous) by EPA 6000/7000 Series Methods

Analyte	Result	MDL	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
Mercury, Total	0.030	0.00076	mg/kg dry	0.012	1	EPA 7471A	W7B0623	02/15/07	02/22/07 jì	

+ Analysis not validated





MWH-San Diego/Boeing

9444 Farnham Street, Suite 300

San Diego, CA 92123 Attention: Lisa J. Tucker Project ID: SSFL Group 8 - DOE

1891264

Report Number: IQB1219

Sampled: 02/12/07

Received: 02/13/07

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQB1219-03 (BLBS0038S0)	1 - Soil)								
Reporting Units: mg/kg dry									
Aluminum	EPA 6010B	7B14110	5.7	11	13000	0.995	02/14/07	02/15/07	
Antimony	EPA 6020	7B14108	0.034	1.1	0.20	0.995	02/14/07	02/15/07	J
Arsenic	EPA 6020	7B14108	0.29	0.57	2.0	0.995	02/14/07	02/15/07	,
Barium	EPA 6020	7B14108	0.091	0.57	94	0.995	02/14/07	02/15/07	
Beryllium	EPA 6020	7B14108	0.046	0.34	0.48	0.995	02/14/07	02/15/07	
Boron J/I	EPA 6010B	7B14110	1.1	5.7	3.4	0.995	02/14/07	02/15/07	J
Cadmium	EPA 6020	7B14108	0.029	0.57	1.1	0.995	02/14/07	02/15/07	J
Chromium	EPA 6020	7B14108	0.40	1.1	15	0.995	02/14/07	02/15/07	
Cobalt	EPA 6020	7B14108	0.091	0.57	4.9	0.995	02/14/07	02/15/07	
Copper	EPA 6020	7B14108	0.23	1.1	8.8	0.995	02/14/07	02/15/07	
Lead	EPA 6020	7B14108	0.057	0.57	11	0.995	02/14/07	02/15/07	
Lithium	EPA 6010B	7B14110	4.3	7.2	20	0.995	02/14/07	02/15/07	
Molybdenum	EPA 6020	7B14108	0.11	1.1	0.62	0.995	02/14/07	02/15/07	J
Nickel	EPA 6020	7B14108	0.51	1.1	9.4	0.995	02/14/07	02/15/07	J
Potassium	EPA 6010B	7B14110	22	57	3800	0.995	02/14/07	02/15/07	
Selenium	EPA 6020	7B14108	0.23	1.1	0.34	0.995	02/14/07	02/15/07	J
Silver	EPA 6020	7B14108	0.057	0.57	0.42	0.995	02/14/07	02/15/07	J
Sodium	EPA 6010B	7B14110	27	57	68	0.995	02/14/07	02/15/07	J
Thallium	EPA 6020	7B14108	0.11	0.57	0.33	0.995	02/14/07	02/15/07	J
Vanadium	EPA 6020	7B14108	0.46	1.1	23	0.995	02/14/07	02/15/07	J
Zine	EPA 6020	7B14108	1.5	11	52	0.995	02/14/07	02/15/07	В
Zirconium U	EPA 6010B	7B16119	1.7	29	ND	1	02/16/07	02/16/07	Б





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Report ID: 7021428 Project ID: IQB1219

Date Received: 02/14/07 11:40 Date Reported: 03/02/07 16:54

BLBS00 38501

IQB1219-03 7021428-02 (Solid)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Analyte	Result	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
% Solids *	87.0	% by Weight	0.100	1	Gravimetric	W7B0880	02/22/07	02/28/07 dj	

Metals (Non-Aqueous) by EPA 6000/7000 Series Methods

Analyte	Result	MDL	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
Mercury, Total	0.061	0.00075	mg/kg dry	0.011	1	EPA 7471A	W7B0623	02/15/07	02/22/07 jl	

* Analysis not validated





MWH-San Diego/Boeing

9444 Farnham Street, Suite 300

San Diego, CA 92123 Attention: Lisa J. Tucker Project ID: SSFL Group 8 - DOE

1891264

Report Number: IQB1219

Sampled: 02/12/07

Received: 02/13/07

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQB1219-04 (BLBS0036S	01 - Soil)								
Reporting Units: mg/kg dry									
Aluminum	EPA 6010B	7B14110	10	21	11000	1.98	02/14/07	02/20/07	
Antimony	EPA 6020	7B14108	0.031	1.0	0.13	0.99	02/14/07	02/15/07	J
Arsenic	EPA 6020	7B14108	0.26	0.52	2.3	0.99	02/14/07	02/15/07	,
Barium	EPA 6020	7B14108	0.082	0.52	82	0.99	02/14/07	02/15/07	
Beryllium	EPA 6020	7B14108	0.041	0.31	0.34	0.99	02/14/07	02/15/07	
Boron	EPA 6010B	7B14110	2.1	10	4.1	1.98	02/14/07	02/20/07	RL1, J
Cadmium	EPA 6020	7B14108	0.026	0.52	0.31	0.99	02/14/07	02/15/07	J
Chromium	EPA 6020	7B14108	0.36	1.0	14	0.99	02/14/07	02/15/07	3
Cobalt	EPA 6020	7B14108	0.082	0.52	7.1	0.99	02/14/07	02/15/07	
Copper	EPA 6020	7B14108	0.21	1.0	14	0.99	02/14/07	02/15/07	
Lead	EPA 6020	7B14108	0.052	0.52	11	0.99	02/14/07	02/15/07	
Lithium	EPA 6010B	7B14110	7.8	13	27	1.98	02/14/07	02/20/07	
Molybdenum	EPA 6020	7B14108	0.10	1.0	0.80	0.99	02/14/07	02/15/07	J
Nickel	EPA 6020	7B14108	0.46	1.0	9.3	0.99	02/14/07	02/15/07	3
Potassium	EPA 6010B	7B14110	39	100	4200	1.98	02/14/07	02/20/07	
Selenium	EPA 6020	7B14108	0.21	1.0	0.25	0.99	02/14/07	02/15/07	J
Silver	EPA 6020	7B14108	0.052	0.52	0.072	0.99	02/14/07	02/15/07	J
Sodium	EPA 6010B	7B14110	49	100	100	1.98	02/14/07	02/20/07	ŭ
Thallium	EPA 6020	7B14108	0.10	0.52	0.28	0.99	02/14/07	02/15/07	J
Vanadium	EPA 6020	7B14108	0.41	1.0	20	0.99	02/14/07	02/15/07	3
Zinc	EPA 6020	7B14108	1.3	10	41	0.99	02/14/07	02/15/07	В
Zirconium ()	EPA 6010B	7B16119	1.6	26	ND	1	02/16/07	02/16/07	D





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Report ID: 7021428 Project ID: IQB1219 Date Received: 02/14/07 11:40 Date Reported: 03/02/07 16:54

BLBS0036501

IQB1219-04 7021428-03 (Solid)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Analyte	Result	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
% Solids	96.1	% by Weight	0.100	1	Gravimetric	W7B0880	02/22/07	02/28/07 dj	

Metals (Non-Aqueous) by EPA 6000/7000 Series Methods

Analyte	Result	MDL	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
Mercury, Total	0.017	0.00068	mg/kg dry	0.010	1	EPA 7471A	W7B0623	02/15/07	02/22/07 jl	

Amalysis not validated





MWH-San Diego/Boeing

9444 Farnham Street, Suite 300

San Diego, CA 92123 Attention: Lisa J. Tucker Project ID: SSFL Group 8 - DOE

1891264

Report Number: IQB1219

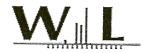
Sampled: 02/12/07 Received: 02/13/07

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQB1219-07 (BLBS0032D	01 - Soil)								
Reporting Units: mg/kg dry									
Aluminum	EPA 6010B	7B22115	5.7	11	12000	1	02/22/07	02/23/07	
Antimony	EPA 6020	7B14108	0.034	1.1	0.13	0.99	02/14/07	02/15/07	J
Arsenic	EPA 6020	7B14108	0.28	0.57	2.6	0.99	02/14/07	02/15/07	ū
Barium	EPA 6020	7B14108	0.091	0.57	64	0.99	02/14/07	02/15/07	
Beryllium	EPA 6020	7B14108	0.045	0.34	0.47	0.99	02/14/07	02/15/07	
Boron U	EPA 6010B	7B22115	1.1	5.7	ND	1	02/22/07	02/23/07	
Cadmium	EPA 6020	7B14108	0.028	0.57	0.089	0.99	02/14/07	02/15/07	J
Chromium	EPA 6020	7B14108	0.40	1.1	18	0.99	02/14/07	02/15/07	J
Cobalt	EPA 6020	7B14108	0.091	0.57	4.2	0.99	02/14/07	02/15/07	
Copper	EPA 6020	7B14108	0.23	1.1	7.0	0.99	02/14/07	02/15/07	
Lead	EPA 6020	7B14108	0.057	0.57	8.0	0.99	02/14/07	02/15/07	
Lithium	EPA 6010B	7B22115	4.4	7.2	21	1	02/22/07	02/23/07	
Molybdenum	EPA 6020	7B14108	0.11	1.1	0.35	0.99	02/14/07	02/15/07	J
Nickel	EPA 6020	7B14108	0.51	1.1	9.7	0.99	02/14/07	02/15/07	J
Potassium	EPA 6010B	7B22115	22	57	2700	1	02/22/07	02/23/07	
Selenium	EPA 6020	7B14108	0.23	1.1	0.30	0.99	02/14/07	02/15/07	J
Silver	EPA 6020	7B14108	0.057	0.57	0.059	0.99	02/14/07	02/15/07	J
Sodium	EPA 6010B	7B22115	28	57	160	1	02/22/07	02/23/07	•
Thallium	EPA 6020	7B14108	0.11	0.57	0.24	0.99	02/14/07	02/15/07	J
Vanadium	EPA 6020	7B14108	0.45	1.1	29	0.99	02/14/07	02/15/07	·
Zinc	EPA 6020	7B14108	1.5	11	43	0.99	02/14/07	02/15/07	В
Zirconium	EPA 6010B	7B22115	1.7	29	1.7	1	02/22/07	02/23/07	J







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Report ID: 7021428 Project ID: IQB1219

Date Received: 02/14/07 11:40 Date Reported: 03/02/07 16:54

BLBSOG3ZDOI

IQB1219-07 7021428-04 (Solid)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Analyte	Result	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
% Solids 🕌	87.2	% by Weight	0.100	I	Gravimetric	W7B0880	02/22/07	02/28/07 dj	

Metals (Non-Aqueous) by EPA 6000/7000 Series Methods

Analyte	Result	MDL	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
Mercury, Total	0.026	0.00075	mg/kg dry	0.011	1	EPA 7471A	W7B0623	02/15/07	02/22/07 jl	

* Analysis not validated





MWH-San Diego/Boeing

9444 Farnham Street, Suite 300

San Diego, CA 92123 Attention: Lisa J. Tucker Project ID: SSFL Group 8 - DOE

1891264

Report Number: IQB1219

Sampled: 02/12/07

Received: 02/13/07

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQB1219-08 (BLBS0032S))1 - Soil)								
Reporting Units: mg/kg dry									
Aluminum	EPA 6010B	7B22115	5.8	12	10000	1	02/22/07	02/23/07	
Antimony	EPA 6020	7B14108	0.035	1.2	0.12	0.995	02/14/07	02/15/07	J
Arsenic	EPA 6020	7B14108	0.29	0.58	2.5	0.995	02/14/07	02/15/07	•
Barium	EPA 6020	7B14108	0.092	0.58	63	0.995	02/14/07	02/15/07	
Beryllium	EPA 6020	7B14108	0.046	0.35	0.43	0.995	02/14/07	02/15/07	
Boron U	EPA 6010B	7B22115	1.2	5.8	ND	1	02/22/07	02/23/07	
Cadmium	EPA 6020	7B14108	0.029	0.58	0.088	0.995	02/14/07	02/15/07	J
Chromium	EPA 6020	7B14108	0.40	1.2	16	0.995	02/14/07	02/15/07	J
Cobalt	EPA 6020	7B14108	0.092	0.58	4.5	0.995	02/14/07	02/15/07	
Copper	EPA 6020	7B14108	0.23	1.2	7.1	0.995	02/14/07	02/15/07	
Lead	EPA 6020	7B14108	0.058	0.58	7.7	0.995	02/14/07	02/15/07	
Lithium	EPA 6010B	7B22115	4.4	7.3	19	1	02/22/07	02/23/07	
Molybdenum	EPA 6020	7B14108	0.12	1.2	0.34	0.995	02/14/07	02/15/07	J
Nickel	EPA 6020	7B14108	0.52	1.2	9.1	0.995	02/14/07	02/15/07	3
Potassium	EPA 6010B	7B22115	22	58	2400	1	02/22/07	02/23/07	
Selenium	EPA 6020	7B14108	0.23	1.2	0.29	0.995	02/14/07	02/15/07	J
Silver U	EPA 6020	7B14108	0.058	0.58	ND	0.995	02/14/07	02/15/07	J
Sodium	EPA 6010B	7B22115	28	58	100	1	02/22/07	02/23/07	
Thallium	EPA 6020	7B14108	0.12	0.58	0.22	0.995	02/14/07	02/25/07	J
Vanadium	EPA 6020	7B14108	0.46	1.2	27	0.995	02/14/07	02/15/07	J
Zinc	EPA 6020	7B14108	1.5	12	44	0.995	02/14/07	02/15/07	В
Zirconium U	EPA 6010B	7B22115	1.7	29	ND	1	02/22/07	02/23/07	ь





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Report ID: 7021428 Project ID: IQB1219

Date Received: 02/14/07 11:40 Date Reported: 03/02/07 16:54

BCBSGG3Z SO/ IQB1219-08 7021428-05 (Solid)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

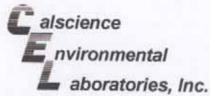
Analyte	Result	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
% Solids	86.4	% by Weight	0.100	1	Gravimetric	W7B0880	02/22/07	02/28/07 dj	

Metals (Non-Aqueous) by EPA 6000/7000 Series Methods

Analyte	Result	MDL	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
Mercury, Total	0.029	0.00075	mg/kg dry	0.012	I	EPA 7471A	W7B0623	02/15/07	02/22/07 jl	

* Analysis not validated





Analytical Report

TestAmerica Date Received:

17461 Derian Avenue, Suite 100 Work Order No: Preparation:

Method: Units: 02/14/07 07-02-0875 EPA 3545 EPA 8270C SIM

> mg/kg Page 1 of 3

Project: IQB1219

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
IQB1219-01	07-02-0875-1	02/12/07	Solid	GC/MS N	02/15/07		070215L09

BDS50037501 Results are reported on a dry weight basis.

-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

IQB1219-03			07-02-0	0875-3		02/12/07 Solid	GC/MS N	02/15/0	7 02/2	2/07 0703	215L09
p-Terphenyl-d14	68	34-148				Phenol-d6		59	17-141		
2-Fluorophenol	60	15-138				Nitrobenzene-d5		68	18-162		
2,4,6-Tribromophenol	57	32-143				2-Fluorobiphenyl		60	14-146		
Surrogates:	REC (%) Control	Limits		Qual	Surrogates		REC (%)	Control	Limits	Qual
Bis(2-Ethylhexyl) Phthalate	0.0085	A second	0.0038	1.23	J	Pyrene	1	ND	0.025	0.0031	1.23
Benzo (k) Fluoranthene	ND	0.025	0.0031	1.23		Phenanthrene		ND	0.025	0.0023	1.23
Berizo (g,h,i) Perylene	ND	0.025	0.0023	1.23		Naphthalene		ND	0.025	0.0023	1.23
Benzo (b) Fluoranthene	ND	0.025	0.0022	1.23		N-Nitrosodimethylamine	1	ND	0.025	0.0024	1.23
Benzo (a) Pyrene	ND	0.025	0.0022	1.23		Indeno (1,2,3-c,d) Pyrene		ND	0.025	0.0022	1.23
Benzo (a) Anthracene	ND	0.025	0.0026	1.23		Fluorene		ND	0.025	0.0022	1.23
Anthracene	ND	0.025	0.0022	1.23		Fluoranthene		ND	0.025	0.0023	1.23
Acenaphthylene	ND	0.025	0.0020	1.23		Diethyl Phthalate	1.0	ND	0.025	0.0025	1.23
Acenaphthene	ND	0.025	0.0023	1.23		Dibenz (a,h) Anthracene		ND	0.025	0.0024	1.23
2-Methylnaphthalene	ND	0.025	0.0022	1.23		Di-n-Butyl Phthalate	1	ND	0.025	0.0026	1.23
1-Methylnaphthalene	ND	0.025	0.0022	1.23		Chrysene	u	ND	0.025	0.0025	1.23
<u>Parameter</u>	Result		MDL	DF	Qual	Parameter	241	Result	BL	MDL	DE Qual

Comment(s): Results are reported on a dry weight basis.

-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag

<u>Parameter</u>	Result	RL	MDL	DE	Qual	Parameter	Result	RL	MDL	DE Q	ical
1-Methylnaphthalene	ND	0.024	0.0022	1.2		Chrysene U	ND	0.024	0.0025	1.2	Jen .
2-Methylnaphthalene	ND	0.024	0.0021	1.2		Di-n-Butyl Phthalate T	0.015	0.024			
Acenaphthene		0.024	0.0022	1.2		Dibenz (a,h) Anthracene (J			0.0025	1.2	J
Acenaphthylene	ND	0.024	0.0020	1.2		Diethyl Phthalate	ND	0.024	0.0023	1.2	
Anthracene	ND	0.024	0.0022	1.2		Fluoranthene	ND	0.024	0.0024	1.2	
Benzo (a) Anthracene	ND	0.024	0.0028	1.2		A CONTRACTOR OF THE PARTY OF TH	ND	0.024	0.0023	1.2	
Benzo (a) Pyrene	ND	0.024	0.0025	1.2		Fluorene	ND	0.024	0.0021	1.2	
Benzo (b) Fluoranthene	ND	Charles In Addition		27.55		Indeno (1,2,3-c,d) Pyrene	ND	0.024	0.0022	1.2	
Benzo (g,h,i) Perylene		0.024	0.0022	1.2		N-Nitrosodimethylamine	ND	0.024	0.0023	1.2	
Benzo (k) Fluoranthene	ND	0.024	0.0022	1.2		Naphthalene	ND	0.024	0.0022	1.2	
Big(2 Sthulberg() Shift and	ND	0.024	0.0030	1.2		Phenanthrene	ND	0.024	0.0023	1.2	
Bis(2-Ethylhexyl) Phthalate	0.015	0.024	0.0037	1.2	J	Pyrene 🗸	ND.	0.024	0.0030	1.2	
Surrogates:	REC (%)	Control	Limits		Qual	Surrogates:	REC (%)	Control	Limits	Qt	tel
2,4,6-Tribromophenol	76	32-143				2-Fluorobiphenyl	73	14-146			
2-Fluorophenol	76	15-138				Nitrobenzene-d5	87	18-162			
p-Terphenyl-d14	91	34-148				Phenol-d6	79	17-141			

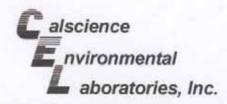
RL - Reporting Limit ,

DF - Dilution Factor

Qual - Qualifiers

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Mulum.



17461 Derian Avenue, Suite 100

Irvine, CA 92614-5845

TestAmerica

Analytical Report

 Date Received:
 02/14/07

 Work Order No:
 07-02-0875

 Preparation:
 EPA 3545

Method: EPA 8270C SIM Units: mg/kg

Project: IQB1219 Page 2 of 3

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
IQB1219-04	07-02-0875-4	02/12/07	Solid	GC/MS N	02/15/07	02/22/07	070215L09

Comment(s): -Results are reported on a dry weight basis.

-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

1-Methylnaphthalene	ND	RL 0.021	0.0019	DF 1.03	Qual	Chrysene U	Result ND	0.021	MDL 0.0021	DF Q 1.03	
2-Methylnaphthalene	ND	0.021	0.0018	1.03		Di-n-Butyl Phthalate	0.0079	0.021	0.0022	1.03	3
Acenaphthene	ND	0.021	0.0019	1.03		Dibenz (a,h) Anthracene U	ND	0.021	0.0020	1.03	- 3
Acenaphthylene	ND	0.021	0.0017	1.03		Diethyl Phthalate	ND	0.021	0.0021	1.03	
Anthracene	ND	0.021	0.0019	1.03		Fluoranthene	ND	0.021	0.0020	1.03	
Benzo (a) Anthracene	ND	0.021	0.0022	1.03		Fluorene	ND	0.021	0.0018	1.03	
Benzo (a) Pyrene	ND	0.021	0.0018	1.03		Indeno (1,2,3-c,d) Pyrene	ND	0.021	0.0019	1.03	
Benzo (b) Fluoranthene	ND	0.021	0.0019	1.03		N-Nitrosodimethylamine	ND	0.021	0.0020	1.03	
Benzo (g,h,i) Perylene	ND	0.021	0.0019	1.03		Naphthalene	ND	0.021	0.0019	1.03	
Benzo (k) Fluoranthene	ND	0.021	0.0026	1.03		Phenanthrene	ND	0.021	0.0020	1.03	
Bis(2-Ethylhexyl) Phthalate T	0.013	0.021	0.0032	1.03	J	Pyrene	ND	0.021	0.0026	1.03	
Surrogates:	REC (%)	Control	Limits		Qual	Surrogates:	REC (%)	Control	Limits	Ω	lual
2,4,6-Tribromophenol	49	32-143				2-Fluorobiphenyl	75	14-146			
2-Fluorophenol	62	15-138				Nitrobenzene-d5	84	18-162			
p-Terphenyl-d14	87	34-148				Phenol-d6	55	17-141			

IQB1219-06 07-02-0875-6 02/12/07 Solid GC/MS N 02/15/07 02/22/07 070215L09

Comment(s). Results are reported on a dry weight basis.

-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DE	Qual	Parameter		Result	RL.	MDL	DE C	Qual
1-Methylnaphthalene	ND	0.024	0.0021	1.18		Chrysene	u	ND	0.024	0.0024	1.18	
2-Methylnaphthalene	ND	0.024	0.0021	1.18		Di-n-Butyl Phthalate	7	0.0077	0.024	0.0025	1.18	J
Acenaphthene	ND	0.024	0.0022	1.18		Dibenz (a,h) Anthracer	neul	ND	0.024	0.0023	1.18	
Acenaphthylene	ND	0.024	0.0019	1.18		Diethyl Phthalate	1	ND	0.024	0.0024	1.18	
Anthracene	ND	0.024	0.0021	1.18		Fluoranthene		ND	0.024	0.0022	1.18	
Benzo (a) Anthracene	ND	0.024	0.0025	1.18		Fluorene		ND	0.024	0.0021	1.18	
Benzo (a) Pyrene	ND	0.024	0.0021	1.18		Indeno (1,2,3-c,d) Pyre	ene	ND	0.024	0.0021	1.18	
Benzo (b) Fluoranthene	ND	0.024	0.0021	1.18		N-Nitrosodimethylamin	e	ND	0.024	0.0023	1.18	
Benzo (g,h,i) Perylene	ND	0.024	0.0022	1.18		Naphthalene		ND	0.024	0.0022	1.18	
Benzo (k) Fluoranthene	ND	0.024	0.0030	1.18		Phenanthrene		ND	0.024	0.0022	1.18	
Bis(2-Ethylhexyl) Phthalate T	0.0086	0.024	0.0037	1.18	J	Pyrene	V	ND	0.024	0.0030	1.18	
Surrogates:	REC (%)	Control	Limits		Qual	Surrogates:	1	REC (%)	Control	Limits	2	Qual
2,4,6-Tribromophenol	86	32-143				2-Fluorobiphenyl		79	14-146			
2-Fluorophenol	88	15-138				Nitrobenzene-d5		100	18-162			
p-Terphenyl-d14	109	34-148				Phenol-d6		90	17-141			

LevelI

RL - Reporting Limit ,

DF - Dilution Factor ,

Qual - Qualifier



MWH-San Diego/Boeing

9444 Farnham Street, Suite 300

San Diego, CA 92123 Attention: Lisa J. Tucker Project ID: SSFL Group 8 - DOE

1891264

Report Number: IQB1219

Sampled: 02/12/07

Received: 02/13/07

POLYCHLORINATED BIPHENYLS (EPA 3545/8082)

	Mr. d 1	D.4-I	MDL	Reporting	_	Dilution	Date	Date	Data Qualifiers
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Quantitis
Sample ID: IQB1219-01 (BLBS0037S01 - S	oil)								RL1
Reporting Units: ug/kg dry									
Aroclor 1016	EPA 8082	7B14097	35	120	ND	2.01	02/14/07	02/15/07	
Aroclor 1221	EPA 8082	7B14097	35	120	ND	2.01	02/14/07	02/15/07	
Aroclor 1232	EPA 8082	7B14097	23	120	ND	2.01	02/14/07	02/15/07	
Aroclor 1242	EPA 8082	7B14097	23	120	ND	2.01	02/14/07	02/15/07	
Aroclor 1248	EPA 8082	7B14097	23	120	ND	2.01	02/14/07	02/15/07	
Aroclor 1254	EPA 8082	7B14097	23	120	ND	2.01	02/14/07	02/15/07	
Aroclor 1260	EPA 8082	7B14097	23	120	ND	2.01	02/14/07	02/15/07	
Surrogate: Decachlorobiphenyl (45-120%)					85 %				
Sample ID: IQB1219-03 (BLBS0038S01 - S	Soil)								RL1
Reporting Units: ug/kg dry									
Aroclor 1016 U	EPA 8082	7B14097	34	110	ND	1.99	02/14/07	02/15/07	
Aroclor 1221	EPA 8082	7B14097	34	110	ND	1.99	02/14/07	02/15/07	
Aroclor 1232	EPA 8082	7B14097	23	110	ND	1.99	02/14/07	02/15/07	
Aroclor 1242	EPA 8082	7B14097	23	110	ND	1.99	02/14/07	02/15/07	
Aroclor 1248	EPA 8082	7B14097	23	110	ND	1.99	02/14/07	02/15/07	
Aroclor 1254	EPA 8082	7B14097	23	110	ND	1.99	02/14/07	02/15/07	
Aroclor 1260	EPA 8082	7B14097	23	110	ND	1.99	02/14/07	02/15/07	
Surrogate: Decachlorobiphenyl (45-120%)					95 %				
Sample ID: IQB1219-04 (BLBS0036S01 - S	Soil)								
Reporting Units: ug/kg dry								0.00 (11.00 10.00	
Aroclor 1016 U	EPA 8082	7B14097	16	52	ND	1	02/14/07	02/15/07	
Aroclor 1221	EPA 8082	7B14097	16	52	ND	1	02/14/07	02/15/07	
Aroclor 1232	EPA 8082	7B14097	10	52	ND	1	02/14/07	02/15/07	
Aroclor 1242	EPA 8082	7B14097	10	52	ND	1	02/14/07	02/15/07	
Aroclor 1248	EPA 8082	7B14097	10	52	ND	1	02/14/07	02/15/07	
Aroclor 1254	EPA 8082	7B14097	10	52	ND	1	02/14/07	02/15/07	
Aroclor 1260	EPA 8082	7B14097	10	52	ND	1	02/14/07	02/15/07	
Surrogate: Decachlorobiphenyl (45-120%)					86 %				

LEVEL V



MWH-San Diego/Boeing

9444 Farnham Street, Suite 300

San Diego, CA 92123 Attention: Lisa J. Tucker Project ID: SSFL Group 8 - DOE

1891264

Report Number: IQB1219

Sampled: 02/12/07

Received: 02/13/07

POLYCHLORINATED BIPHENYLS (EPA 3545/8082)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: IQB1219-07 (BLBS0032D01 - 5	Soil)								RL1
Reporting Units: ug/kg dry									
Aroclor 1016 U	EPA 8082	7B14097	34	110	ND	1.96	02/14/07	02/15/07	
Aroclor 1221	EPA 8082	7B14097	34	110	ND	1.96	02/14/07	02/15/07	
Aroclor 1232	EPA 8082	7B14097	22	110	ND	1.96	02/14/07	02/15/07	
Aroclor 1242	EPA 8082	7B14097	22	110	ND	1.96	02/14/07	02/15/07	
Aroclor 1248	EPA 8082	7B14097	22	110	ND	1.96	02/14/07	02/15/07	
Aroclor 1254	EPA 8082	7B14097	22	110	ND	1.96	02/14/07	02/15/07	
Aroclor 1260	EPA 8082	7B14097	22	110	ND	1.96	02/14/07	02/15/07	
Surrogate: Decachlorobiphenyl (45-120%)					84 %				
Sample ID: IQB1219-08 (BLBS0032S01 - S	Soil)								
Reporting Units: ug/kg dry									
Aroclor 1016 U	EPA 8082	7B14097	17	58	ND	0.995	02/14/07	02/15/07	
Aroclor 1221	EPA 8082	7B14097	17	58	ND	0,995	02/14/07	02/15/07	
Aroclor 1232	EPA 8082	7B14097	12	58	ND	0.995	02/14/07	02/15/07	
Aroclor 1242	EPA 8082	7B14097	12	58	ND	0.995	02/14/07	02/15/07	
Aroclor 1248	EPA 8082	7B14097	12	58	ND	0.995	02/14/07	02/15/07	
Aroclor 1254	EPA 8082	7B14097	12	58	ND	0.995	02/14/07	02/15/07	
Aroclor 1260	EPA 8082	7B14097	12	58	ND	0.995	02/14/07	02/15/07	
Surrogate: Decachlorobiphenyl (45-120%)					82 %				

LEVEL V



MWH-San Diego/Boeing

9444 Farnham Street, Suite 300

San Diego, CA 92123 Attention: Lisa J. Tucker Project ID: SSFL Group 8 - DOE

1891264

Report Number: IQB1219

Sampled: 02/12/07

Received: 02/13/07

EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQB1219-01 (BLBS0037S01 -	· Soil)								
Reporting Units: mg/kg dry									
EFH (C8 - C11)	EPA 8015B	7B14102	8.2	12	ND	2	02/14/07	02/17/07	
EFH (C12 - C14)	EPA 8015B	7B14102	8.2	12	ND	2	02/14/07	02/17/07	
EFH (C15 - C20)	EPA 8015B	7B14102	8.2	12	ND	2	02/14/07	02/17/07	
EFH (C21 - C30)	EPA 8015B	7B14102	8.2	12	ND	2	02/14/07	02/17/07	
Surrogate: n-Octacosane (40-125%)					92 %				
Sample ID: IQB1219-03 (BLBS0038S01 -	· Soil)								
Reporting Units: mg/kg dry									
EFH (C8 - C11)	EPA 8015B	7B14102	8.0	11	ND	2	02/14/07	02/17/07	
EFH (C12 - C14)	EPA 8015B	7B14102	8.0	11	ND	2	02/14/07	02/17/07	
EFH (C15 - C20)	EPA 8015B	7B14102	8.0	11	ND	2	02/14/07	02/17/07	
EFH (C21 - C30)	EPA 8015B	7B14102	8.0	11	9.5	2	02/14/07	02/17/07	J
Surrogate: n-Octacosane (40-125%)					83 %				
Sample ID: IQB1219-04 (BLBS0036S01 -	· Soil)								
Reporting Units: mg/kg dry									
EFH (C8 - C11)	EPA 8015B	7B14102	7.3	10	ND	2	02/14/07	02/17/07	
EFH (C12 - C14)	EPA 8015B	7B14102	7.3	10	ND	2	02/14/07	02/17/07	
EFH (C15 - C20)	EPA 8015B	7B14102	7.3	10	ND	2	02/14/07	02/17/07	
EFH (C21 - C30)	EPA 8015B	7B14102	7.3	10	ND	2	02/14/07	02/17/07	
Surrogate: n-Octacosane (40-125%)					91%				





MWH-San Diego/Boeing

9444 Farnham Street, Suite 300

San Diego, CA 92123 Attention: Lisa J. Tucker Project ID: SSFL Group 8 - DOE

1891264

Report Number: IQB1219

Sampled: 02/12/07

Received: 02/13/07

INORGANICS

	Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
	Sample ID: IQB1219-01 (BLBS0037S01 Reporting Units: %	- Soil)								
X	Percent Solids	EPA 160.3 MOD	7B15123	0.10	0.10	86	1	02/15/07	02/16/07	
And the Residence of the Association	Sample ID: IQB1219-03 (BLBS0038S01 Reporting Units: %	- Soil)								
-	Percent Solids	EPA 160.3 MOD	7B15123	0.10	0.10	87	1	02/15/07	02/16/07	
The state of the s	Sample ID: IQB1219-04 (BLBS0036S01 Reporting Units: %	- Soil)								
	Percent Solids	EPA 160.3 MOD	7B15123	0.10	0.10	96	1	02/15/07	02/16/07	
eathers - dense de l'entre de la	Sample ID: IQB1219-06 (BLBS0031S01 Reporting Units: %	- Soil)								
and an overland	Percent Solids	EPA 160.3 MOD	7B15123	0.10	0.10	86	1	02/15/07	02/16/07	
and the community of the contract of the contr	Sample ID: IQB1219-07 (BLBS0032D01 Reporting Units: %	- Soil)								
deminer income	Percent Solids	EPA 160.3 MOD	7B15123	0.10	0.10	87	1	02/15/07	02/16/07	
THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	Sample ID: IQB1219-08 (BLBS0032S01 Reporting Units: %	- Soil)								
V	Percent Solids	EPA 160.3 MOD	7B15123	0.10	0.10	86	1	02/15/07	02/16/07	
	Sample ID: IQB1219-01 (BLBS0037S01 Reporting Units: pH Units	- Soil)								
	рН	EPA 9045C	7B13136	N/A	NA	6.63	1	02/13/07	02/13/07	
	Sample ID: IQB1219-02 (BLBS0037S02 Reporting Units: pH Units	- Soil)								
	рН	EPA 9045C	7B13136	N/A	NA	7.05	1	02/13/07	02/13/07	
	Sample ID: IQB1219-03 (BLBS0038S01 Reporting Units: pH Units	- Soil)								
	рН	EPA 9045C	7B13136	N/A	NA	6.82	1	02/13/07	02/13/07	
	Sample ID: IQB1219-04 (BLBS0036S01 Reporting Units: pH Units	- Soil)								
	pH	EPA 9045C	7B13136	N/A	NA	6.61	1	02/13/07	02/13/07	

* Analysis not validated

TestAmerica - Irvine, CA Nicholas Marz For Michele Chamberlin Project Manager





MWH-San Diego/Boeing

9444 Farnham Street, Suite 300

San Diego, CA 92123 Attention: Lisa J. Tucker Project ID: SSFL Group 8 - DOE

1891264

Report Number: IQB1219

Sampled: 02/12/07

Received: 02/13/07

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQB1219-05 (BLBS0036S02	2 - Soil)								
Reporting Units: pH Units pH	EPA 9045C	7B13136	N/A	NA	6.75	1	02/13/07	02/13/07	
Sample ID: IQB1219-06 (BLBS0031S01	l - Soil)								
Reporting Units: pH Units pH	EPA 9045C	7B13136	N/A	NA	7.41	1	02/13/07	02/13/07	
Sample ID: IQB1219-07 (BLBS0032D0	1 - Soil)								
Reporting Units: pH Units pH	EPA 9045C	7B13136	N/A	NA	7.65	1	02/13/07	02/13/07	
Sample ID: IQB1219-08 (BLBS0032S01	l - Soil)								
Reporting Units: pH Units pH	EPA 9045C	7B13136	N/A	NA	7.28	1	02/13/07	02/13/07	



DATA VALIDATION REPORT

Boeing SSFL RFI Group 8 Data Gap

SAMPLE DELIVERY GROUP: D7E180378

Prepared by

MEC^X, LLC 12269 East Vassar Drive Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL RFI Group 8 Data Gap

Contract Task Order: 1261.500D.08.001

Sample Delivery Group: D7E180378

Project Manager: Dixie Hambrick

Matrix: soil QC Level: V

No. of Samples: 4

No. of Reanalyses/Dilutions: 0

Laboratory: STL-Denver

Table 1. Sample Identification

Sample Name	Lab Sample Name	Sub-Lab Sample Name	Matrix	Collection	Method
BLBS0063S01SP	D7E180378004	N/A	Soil	5/17/2007	9056
				8:45:00 AM	
FSBS0084S01SP	D7E180378002	N/A	Soil	5/17/2007	6010B, 9056
				8:43:00 AM	
FSBS0086S01SP	D7E180378003	N/A	Soil	5/17/2007	6010B, 9056
				9:12:00 AM	
FSBS0093S01SP	D7E180378001	N/A	Soil	5/17/2007	1613B, 6010B,
				7:57:00 AM	7471A, 8082,
					9056

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of $4^{\circ}C$ $\pm 2^{\circ}C$. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Custody seals were intact. If necessary, the client ID was added to the sample result summary by the reviewer.

1

Data Qualifier Reference Table

Qualifie	r Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
Н	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
С	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
В	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
Е	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
Α	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
Т	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
Р	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*11, *111	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: K. Shadowlight Date Reviewed: June 15, 2007

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^{X} Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0), USEPA Method 1613, and the National Functional Guidelines Chlorinated Dioxin/Furan Data Review (8/02).

- Holding Times: Extraction and analytical holding times were met. The samples were extracted and analyzed within one year of collection.
- Instrument Performance: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: OCDD was reported as an EMPC in the method blank; however, there were no target compound detects above the EDL in the sample.
- Blank Spikes and Laboratory Control Samples: Recoveries were within the acceptance criteria listed in Table 6 of Method 1613.
- Matrix Spike/ Matrix Spike Duplicate: MS/MSD analyses were performed on FSBS0093S01SP. The recoveries and RPDs were within the laboratory-established control limits.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: There were no reportable detects in field blank BLQW0019F01 (186235) or equipment rinsate FSQW0005E01 (186348).
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: Internal standard recoveries are not routinely evaluated at a Level V validation; however, the recoveries were reported on the sample result summaries. The labeled standard recoveries were within the acceptance criteria listed in Table 7 of Method 1613.
- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613.

Compound Quantification and Reported Detection Limits: Review is not applicable at a
Level V validation. The laboratory calculated and reported compound-specific detection
limits. Any reported estimated maximum possible concentration (EMPC) was qualified
as an estimated nondetect, "UJ." Any detect below the laboratory lower calibration level
was qualified as estimated, "J." The laboratory reported results in two significant figures
rather that three. Nondetects are valid to the estimated detection limit (EDL).

B. EPA METHODS 6010B, 6020, 7470A/7471A—Metals and Mercury

Reviewed By: P. Meeks

Date Reviewed: June 15, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^X Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0), EPA Methods 6010B, 6020, 7470A/7471A, and the National Functional Guidelines for Inorganic Data Review (2/94).

- Holding Times: Analytical holding times, six months for ICP metals and 28 days for mercury, were met.
- Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: There were no applicable method blanks or CCBs detects.
- Interference Check Samples: Review is not applicable at a Level V validation.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Laboratory Duplicates: Laboratory duplicate analyses were not performed on a sample from this SDG.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on a sample from this SDG.
- Serial Dilution: Serial dilution analyses were not performed on a sample from this SDG.
- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. All CCV and CCB internal standard intensities were within 80-120% of the internal standard intensities measured in the initial calibration.

- Sample Result Verification: Review is not applicable at a Level V validation. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples.
 Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: There were no applicable detects in field blank BLQW0019F01 (186235) or equipment rinsate FSQW0005E01 (186348).
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

C. EPA METHOD 8082—PCBs

Reviewed By: K. Shadowlight Date Reviewed: June 15, 2007

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^{\times} Data Validation Procedure for Organochlorine Pesticides/PCBs by GC (DVP-4, Rev. 0), EPA Method 8082, and the National Functional Guidelines for Organic Data Review (2/94).

- Holding Times: Extraction and analytical holding times were met. The soil samples were extracted within 14 days of collection and analyzed within 40 days of extraction.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample FSBS0093S01SP. The recoveries and RPDs were within the laboratory-established control limits.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples.
 Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: There were no reportable detects in field blank BLQW0019F01 (186235) or equipment rinsate FSQW0005E01 (186348).

- Field Duplicates: There were no field duplicate samples identified for this SDG.
- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for Aroclors by Method 8082.
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. The laboratory reported results in two significant figures rather that three. Reported nondetects are valid to the reporting limit.

D. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: June 15, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0), EPA Method 300.0, and the National Functional Guidelines for Inorganic Data Review (2/94).

- Holding Times: Analytical holding times, 28 days from collection for fluoride, were met.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Method blanks and CCBs had no detects.
- Blank Spikes and Laboratory Control Samples: Recoveries and the RPD were within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on FSBS0093S01SP. Recoveries and the RPD were within laboratory-established QC limits.
- Sample Result Verification: Review is not applicable at a Level V validation. Nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples.
 Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: Fluoride was not detected in field blank ESQW0002F01 (186314) or equipment rinsates BLQW0019E01 (186235) and FSQW0005E01 (186348).

o Field Duplicates: There were no field duplicate samples identified for this SDG.

MWH Americas, Inc. Sample ID: FSBS0093S01SP Trace Level Organic Compounds

Lot - Sample #....: Date Sampled:

D7E180378 - 001

Work Order #....: JXAPE1AH

Matrix...: SO

Prep Date....:

05/17/07 05/25/07

Date Received: 05/18/07 Analysis Date: 06/01/07 Dilution Factor: 1 Percent Moisture: 1.9

Prep Batch #: Initial Wgt/Vol:

7145343 10.2 g

Instrument ID....: M2A

Method: EPA-5 1613B

Analyst ID....:

Patricia(Trish) M. Parsly

PARAMETER		RESULT	•	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	u	ND		1.0	0.64	ng/kg
Total TCDD	. 1	ND '	•	1.0	0.64	ng/kg
1,2,3,7,8-PeCDD		ND		5.0	0.24	ng/kg
Total PeCDD		ND		5.0	0.24	ng/kg
1,2,3,4,7,8-HxCDD		ND		5.0	0.19	ng/kg
1,2,3,6,7,8-HxCDD		ND		5.0	0.24	ng/kg
1,2,3,7,8,9-HxCDD		ND		5.0	0.20	ng/kg
Total HxCDD	4	ND		5.0	0.21	ng/kg
1,2,3,4,6,7,8-HpCDD	4	1.9	J	5.0	0.30	ng/kg
Total HpCDD	7	4.7	J	5.0	0.30	ng/kg
OCDD		16	В	10	0.34	ng/kg
2,3,7,8-TCDF	U	ND		1.0	0.47	ng/kg
Total TCDF	45/4	2.6	Q	1.0	0.47	ng/kg
1,2,3,7,8-PeCDF	Ц	ND		5.0	0.26	ng/kg
2,3,4,7,8-PeCDF	U	ND		5.0	0.18	ng/kg
Total PeCDF	40/x1II	3.1	J Q	5.0	0.22	ng/kg
1,2,3,4,7,8-HxCDF	u	ND.		5.0	0.11	ng/kg
1,2,3,6,7,8-HxCDF	1.	ND		5.0	0.11	ng/kg
2,3,4,6,7,8-HxCDF		ND		5.0	0.12	ng/kg
1,2,3,7,8,9-HxCDF	1	ND		5.0	0.18	ng/kg
Total HxCDF	UT/AII	1.4	QJ	5.0	0.12	ng/kg
1,2,3,4,6,7,8-HpCDF	灯/紅	0.55	QJ	5.0	0.18	ng/kg
1,2,3,4,7,8,9-HpCDF	'U	ND		5.0	0.25	ng/kg
Total HpCDF	UTXI	0.55	QJ	5.0	0.21	ng/kg
OCDF	WHI	0.69	QJ	10	0.29	ng/kg

Level F

Total Metals Analysis Data Sheet

Lab Name:

STL DENVER

Client Sample ID:

FSBS0093S01SP

Lot/SDG Number:

D7E180378

Lab Sample ID:

D7E180378-001

Matrix:

SOLID

Lab WorkOrder:

JXAPE

% Moisture:

1.9

Date/Time Collected:

05/17/07 07:57

Basis:

Dry

Date/Time Received:

05/18/07 08:45

Analysis Method:

6010B

Date Leached:

05/23/07 08:00

Unit: QC Batch ID: mg/kg 7142591 Date/Time Extracted: Date/Time Analyzed:

05/25/07 03:58

Sample Aliquot:

1.01 g

Dilution Factor:

1

Instrument ID:

025

CAS No.	,	Analyte	Conc.	MDL	RL	· Q
7440-67-7	Zirconium	•	2.8	0.69	3.1	J

Total Metals Analysis Data Sheet

Lab Name:

STL DENVER

Client Sample ID:

FSBS0093S01SP

Lot/SDG Number:

D7E180378

Lab Sample ID:

Matrix:

D7E180378-001

SOLID

Lab WorkOrder:

JXAPE

% Moisture: Basis:

1.9 Dry Date/Time Collected:

05/17/07 07:57

Analysis Method:

Date/Time Received: Date Leached:

05/18/07 08:45

Unit:

7471A

Date/Time Extracted:

05/23/07 10:40

QC Batch ID:

ug/kg 7141529

Date/Time Analyzed:

05/23/07 20:48

Sample Aliquot:

0.31 g

Instrument ID:

023

Dilution Factor:

1

CAS No.	Analyte	Conc.	MDL	RL	Q
7439-97-6	Mercury	3.9	2.9	34	J



Total Metals Analysis Data Sheet

Lab Name:

STL DENVER

Client Sample ID:

FSBS0084S01SP

Lot/SDG Number:

D7E180378

Lab Sample ID:

D7E180378-002

Matrix:

SOLID

Lab WorkOrder:

JXAPF

% Moisture:

3.3

Date/Time Collected:

05/17/07 08:43

Basis:

Unit:

Dry

Date/Time Received:

05/18/07: 08:45

Analysis Method:

6010B

Date Leached:

05/23/07 08:00

QC Batch ID:

mg/kg 7142591 Date/Time Extracted: Date/Time Analyzed:

05/25/07 04:03

Sample Aliquot:

1.01 g

Instrument ID:

<u>025</u>

Dilution	Factor:

Dilution	Factor:	1
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CAS No.	Analyte	Conc.	MDL	RL	Q
7440-67-7	Zirconium	3.8	0.70	3.1	

Total Metals Analysis Data Sheet

Lab Name:

STL DENVER

Client Sample ID:

FSBS0086S01SP

Lot/SDG Number:

D7E180378

Lab Sample ID:

D7E180378-003

Matrix:

SOLID

Lab WorkOrder:

JXAPG

% Moisture: Basis:

7.7

Date/Time Collected: Date/Time Received:

05/17/07 09:12 05/18/07 08:45

Analysis Method:

Dry

Date Leached:

Unit:

6010B mg/kg

Date/Time Extracted:

05/23/07 08:00

QC Batch ID:

7142591

Date/Time Analyzed:

05/25/07 04:08

Sample Aliquot: **Dilution Factor:** 1.01 g

1

Instrument ID:

025

CAS No.	Analyte	Conc.	MDL	· RL	Q
7440-67-7	Zirconium	4.0	0.74	3.3	

STL

MWH Americas, Inc. **Analysis Data Sheet**

Lot/SDG Number:

STL DENVER

Client Sample ID:

FSBS0093S01SP

Lab Name:

D7E180378

Matrix:

Lab Sample ID:

D7E180378-001

SOLID

Lab WorkOrder:

JXAPEIAK

% Moisture:

Basis:

1.9

Date/Time Collected: Date/Time Received:

05/17/07 07:57 05/18/07 08:45

Analysis Method:

<u>Dry</u> <u>8082</u>

Date Leached:

05/21/07 07:15

Unit: QC Batch ID: ug/kg

Date/Time Extracted: Date/Time Analyzed:

7141093

05/24/07 19:50

Sample Aliquot:

30.3 g

Instrument ID:

<u>W1</u>

Dilution Factor:

1

CAS No.	Analy	te	Conc.	MDL	RL	Q
12674-11-2	Aroclor 1016	U	5.2	5.2	34	U
11104-28-2	Aroclor 1221	1	16	16	48	U
11141-16-5	Aroclor 1232	1.	5.2	5.2	34	U
53469-21-9	Aroclor 1242		9.3	9.3	34	U
12672-29-6	Aroclor 1248		5.7	5.7	34	U
1097-69-1	Aroclor 1254		5.6	5.6	34	U
1096-82-5	Aroclor 1260	\	2.7	2.7	34	U

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
2051-24-3	Decachlorobiphenyl	96	38	162	
377-09-8	Tetrachloro-m-xylene	87	53	132	

Level I

Client Sample ID: FSBS0093S01SP

General Chemistry

Lot-Sample #...: D7E180378-001

Work Order #...: JXAPE

Matrix..... SO

Date Sampled...: 05/17/07 07:57 Date Received..: 05/18/07

PREPARATION-PREP ANALYSIS DATE BATCH # METHOD UNITS RESULT RLPARAMETER 7146065 05/25/07 SW846 9056 10 mg/kg 1.2 J Fluoride MDL....: 0.84 Analysis Time..: 19:40 Dilution Factor: 1

Total Solids

98

0.10

MCAWW 160.3 MOD

05/23/07

7143403

Dilution Factor: 1

Analysis Time..: 11:30

MDL....:

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

J Estimated result; result is less than RL and greater than or equal to the MDL.

* Analysis not validated

Client Sample ID: FSBS0084S01SP

General Chemistry

Lot-Sample #...: D7E180378-002

Work Order #...: JXAPF

Matrix..... SO

Date Sampled...: 05/17/07 08:43 Date Received..: 05/18/07

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Fluoride	2.0 J	10 ution Facto	mg/kg	SW846 9056 Analysis Time: 20:28	05/25/07 MDL	7146065 : 0.85
Total Solids 💥	97	0.10	% or: 1	MCAWW 160.3 MOD Analysis Time: 11:45	05/21/07 MDL	7141589

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

I Estimated result: result is less than RL and greater than or equal to the MDL.

* Analysis not validated

RL Reporting Limit

Client Sample ID: FSBS0086S01SP

General Chemistry

Lot-Sample #...: D7E180378-003

Work Order #...: JXAPG

Matrix..... SO

Date Sampled...: 05/17/07 09:12 Date Received..: 05/18/07

PARAMETER	RESULT	RL	UNITS		PREPARATION- ANALYSIS DATE	PREP BATCH #
Fluoride	2.0 J	11 ution Facto	mg/kg	SW846 9056 Analysis Time: 20:43	05/25/07 MDL	7146065 .: 0.89
Total Solids 🙏	92	0.10	% or: 1	MCAWW 160.3 MOD Analysis Time: 11:45	05/21/07 MDL	7141589 .:

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

* Analysis not validated

RL Reporting Limit

J Estimated result: result is less than RL and greater than or equal to the MDL.

Client Sample ID: BLBS0063S01SP

General Chemistry

Lot-Sample #...: D7E180378-004 Work Order #...: JXAPH Matrix.....: SO

Date Sampled...: 05/17/07 08:45 Date Received..: 05/18/07

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Fluoride	5.5 J	11 ution Facto	mg/kg	SW846 9056 Analysis Time: 20:59	05/25/07 MDL	7146065
Total Solids 🗡	95	0.10 ution Fact	% or: 1	MCAWW 160.3 MOD Analysis Time: 11:45	05/21/07 MDL	7141589

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

* Analysis not validated

RL Reporting Limit

J Estimated result: result is less than RL and greater than or equal to the MDL.



DATA VALIDATION REPORT

Boeing SSFL RFI Group 8 Data Gap

SAMPLE DELIVERY GROUP: D7E170351

Prepared by

MEC^X, LLC 12269 East Vassar Drive Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL RFI Group 8 Data Gap

Project:

Contract Task Order: 1261.500D.08.001

Sample Delivery Group: D7E170351

Project Manager: Dixie Hambrick

Matrix: soil QC Level: V

No. of Samples: 2
No. of Reanalyses/Dilutions: 0

Laboratory: STL-Denver

Table 1. Sample Identification

Sample Name	Lab Sample Name	Sub-Lab Sample Name	Matrix	Collection	Method
BLBS0058S01SP	D7E170351001	N/A	Soil	5/16/2007	9056
				9:45:00 AM	
BLBS0060S01SP	D7E170351002	N/A	Soil	5/16/2007	9056
				11:00:00 AM	

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory below the temperature limits of $4^{\circ}C$ $\pm 2^{\circ}C$; the sample was not noted to be frozen or damaged. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Custody seals were intact. If necessary, the client ID was added to the sample result summary by the reviewer.

1

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
Н	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
С	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
В	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
Е	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
Α	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
Р	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*11, *111	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: June 15, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0), EPA Methods 7196A and 9045C, and the National Functional Guidelines for Inorganic Data Review (2/94).

- Holding Times: The analytical holding time, 28 days from collection for fluoride, was met.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Method blanks and CCBs had no detects.
- Blank Spikes and Laboratory Control Samples: Recoveries and RPD were within laboratory-established QC limits.
- Laboratory Duplicates: Laboratory duplicate analyses were performed or BLBS0058S01SP. The RPD was within the laboratory-established control limit.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on BLBS0058S01SP. Both recoveries were marginally below the control limit; therefore, fluoride detected in both samples was qualified as estimated, "J." The RPD was within laboratory-established QC limits.
- Sample Result Verification: Review is not applicable at a Level V validation. Nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: Fluoride was not detected in field blank ESQW0002F01 (186314) or equipment rinsate BLQW0019E01 (186235).
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

Client Sample ID: BLBS0058S01SP

General Chemistry

Lot-Sample #...: D7E170351-001

Work Order #...: JW7C8

Matrix..... SO

Date Sampled...: 05/16/07 09:45 Date Received..: 05/17/07

PARAMETER Fluoride	RESULT	RL	UNITS	METHOD	PREPARATION- PREP ANALYSIS DATE BATCH #
2,70	1.2 0	10	mg/kg	SW846 9056	05/23-05/24/07 7144342
	Dil	ution Fact	or: 1	Analysis Time: 02:3	1 MDL 0.84
Total Solids \checkmark	98 Dil	0.10 ution Fact	% or: 1	MCAWW 160.3 MOD Analysis Time: 11:4	05/21/07 7141589 5 MDL

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

* Analysis not validated

RL Reporting Limit

J Estimated result: result is less than RL and greater than or equal to the MDL.

Client Sample ID: BLBS0060S01SP

General Chemistry

Lot-Sample #...: D7E170351-002

Work Order #...: JW7DA

Matrix..... SO

Date Sampled...: 05/16/07 11:00 Date Received..: 05/17/07

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Fluoride T/Q	1.1 J	11 ution Facto	mg/kg	SW846 9056 Analysis Time: 03:21	05/23-05/24/07 MDL	
Total Solids	95	0.10 ution Facto	% or: 1	MCAWW 160.3 MOD Analysis Time: 11:45	05/21/07 MDL	7141589

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

* Analysis not validated

RL Reporting Limit

J Estimated result: result is less than RL and greater than or equal to the MDL.



DATA VALIDATION REPORT

Boeing SSFL RFI Group 8 Data Gap

SAMPLE DELIVERY GROUP: D7B150349

Prepared by

MEC^X, LLC 12269 East Vassar Drive Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL RFI Group 8 Data Gap

Contract Task Order: 1261.500D.08.001

Sample Delivery Group: D7B150349 Dixie Hambrick

Project Manager:

Matrix: Soil QC Level: V

2 No. of Samples:

No. of Reanalyses/Dilutions:

Laboratory: STL-DENVER

Table 1. Sample Identification

Sample Name	Lab Sample Name	Sub-Lab Sample Name	Matrix	Collection	Method			
BHBS0005S01SP	D7B150	N/A	Soil	2/13/2007	1613B,	6010B,	6020,	7471A,
	349001			2:30:00 PM	9045C			
BLBS0036S01SP	D7B150	N/A	Soil	2/12/2007	6010B, 6	020, 747	1A, 8015	B, 8082,
	349002			11:20:00 AM	8270C S	IM, 9045C		

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if The COCs were appropriately signed and dated by field and/or laboratory personnel. As the samples were couriered directly from the field to the laboratory, custody seals were not required. If necessary, the client ID was added to the sample result summary by the reviewer.

1

Data Qualifier Reference Table

Qualifie	r Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
Н	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
С	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
В	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
Α	Not applicable.	ICP Serial Dilution %D were not within control limits.
М	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
Т	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present. Not applicable.	
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
Р	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
* , *	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: K. Shadowlight Date Reviewed: March 28, 2007

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^{\times} Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0), USEPA Method 1613, and the National Functional Guidelines Chlorinated Dioxin/Furan Data Review (8/02).

- Holding Times: Extraction and analytical holding times were met. The soil sample was extracted and analyzed within one year of collection.
- Instrument Performance: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blank had no target compound detects above the EDL; however, OCDD was reported as an EMPC (estimated maximum possible concentration). No qualifications were required.
- Blank Spikes and Laboratory Control Samples: Recoveries were within the acceptance criteria listed in Table 6 of Method 1613.
- Matrix Spike /Matrix Spike Duplicate: The recovery for OCDD in the MS only and the RPD for OCDD exceeded laboratory QC limits. No qualification was required. The remaining recoveries were within the laboratory QC limits.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site sample. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: There were several detects in the field blank, BLQW0018F01 (IQB1202), and the equipment rinsate, BLQW0018E01 (IQB1486) however, qualification of the sample was not required.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: Internal standard recoveries are not routinely evaluated at a Level V validation; however, the recoveries were reported on the sample result summaries. The labeled standard recoveries were within the acceptance criteria listed in Table 7 of Method 1613.
- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613.

• Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. The laboratory calculated and reported compound-specific detection limits. The detect for 1,2,3,6,7,8-HxCDD was reported as an EMPC and was qualified as an estimated nondetect, "UJ," in the site sample. The results for total HxCDD, total TCDF, total PeCDF, and total HxCDF were identified as EMPCs by the laboratory. As the total concentrations for these compounds included one or more valid peaks, the results for total HxCDD, total TCDF, and total PeCDF were qualified as estimated, "J," in the site sample. Any detects below the laboratory lower calibration level were qualified as estimated, "J." Reported nondetects are valid to the estimated detection limit (EDL).

B. EPA METHODS 6010B, 6020, 7470A/7471A—Metals and Mercury

Reviewed By: Patti Meeks Date Reviewed: 3/24/07

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^X Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0), EPA Methods 6010B, 6020, 7470A/7471A, and the National Functional Guidelines for Inorganic Data Review (2/94).

- Holding Times: Analytical holding times, six months for ICP and ICP-MS metals and 28 days for mercury, were met.
- Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Method blanks had no applicable detects. Boron was detected in a CCB at 12.2 μg/L and mercury was reported in a CCB at -0.039 μg/L. The boron detect was qualified as estimated, "UJ," and mercury was qualified as estimated, "UJ" or "J."
- Interference Check Samples: Not applicable at a Level V validation.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on BHBS0005S01SP. Antimony was recovered below 30% in both the MS and the MSD; therefore, nondetected antimony was rejected, "R." Molybdenum was recovered below the laboratory-established control limit in both the MS and the MSD and nickel was recovered above the control limit in the MS. Molybdenum and nickel detects were qualified as estimated, "J."

• Serial Dilution: Serial dilution analyses were performed on BHBS0005S01SP. The %Ds for arsenic, chromium, cobalt, copper, nickel, and zinc exceeded 10%; therefore, detects for these analytes were qualified as estimated, "J."

- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. All CCV and CCB internal standard intensities were within 80-120% of the internal standard intensities measured in the initial calibration.
- Sample Result Verification: Review is not applicable at a Level V validation. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: There were no detects in the field blank, BLQW0018F01 (IQB1202), or the equipment rinsate, BLQW0018E01 (IQB1486).
 - o Field Duplicates: There were no field duplicate samples identified for this SDG.

A. EPA METHOD 8270C SIM—Polynuclear Aromatic Hydrocarbons (PAHs)

Reviewed By: L. Calvin

Date Reviewed: March 27, 2007

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^{\times} Data Validation Procedure for Semivolatile Organics (DVP-3, Rev. 0), EPA Method 8270C, and the National Functional Guidelines for Organic Data Review (2/94).

- Holding Times: Extraction and analytical holding times were met. The soil sample was extracted within 14 days of collection and analyzed within 40 days of extraction.
- GC/MS Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blank had detects between the MDL and the reporting limit for fluoranthene (0.21 μg/Kg) and naphthalene (0.41 μg/Kg). Both compounds were detected in sample BLBS0036S01SP below the reporting limit, and were qualified as nondetects, "U," at the reporting limit.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.

- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: BLBS0036S01SP was analyzed as the batch MS/MSD. Recoveries and RPDs were within laboratory-established QC limits.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples.
 Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: Field blank BLQW0018F01 had a detect for naphthalene; however, naphthalene was not detected in the site sample. Equipment rinsate FSQW0002E01 (IQB2570) had no reported target compound detects above the MDL.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: Review is not applicable at a Level V validation.
- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for PAH compounds and added phthalates.
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. Any results reported between the MDL and the reporting limit were qualified as estimated, "J." Reported nondetects are valid to the reporting limit.
- Tentatively Identified Compounds: TICs were not reported by the laboratory for this SDG.
- System Performance: Review is not applicable at a Level V validation.

B. EPA METHOD 8082—PCBs

Reviewed By: L. Calvin

Date Reviewed: March 27, 2007

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^{\times} Data Validation Procedure for Organochlorine Pesticides/PCBs by GC (DVP-4, Rev. 0), EPA Method 8082, and the National Functional Guidelines for Organic Data Review (2/94).

- Holding Times: Extraction and analytical holding times were met. The soil sample was extracted within 14 days of collection and analyzed within 40 days of extraction.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blank had no target compound detects above the MDL.

- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: BLBS0036S01SP was analyzed as the batch MS/MSD. Recoveries and RPDs were within laboratory-established QC limits.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: Field blank BLQW0018F01 and equipment rinsate FSQW0002E01 (IQB2570) had no reported target compound detects above the MDL.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Compound Identification: Review is not applicable at a Level V validation.
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. Any results reported between the MDL and the reporting limit were qualified as estimated, "J." Reported nondetects are valid to the reporting limit.

C. EPA METHOD 8015B—Extractable Total Fuel Hydrocarbons (EFHs)

Reviewed By: K. Shadowlight Date Reviewed: March 28, 2007

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^{\times} Data Validation Procedure for Total Fuel Hydrocarbons (DVP-8, Rev. 0), EPA Method 8015B, and the National Functional Guidelines for Organic Data Review (2/94).

- Holding Times: Extraction and analytical holding times were met. The soil sample was extracted within 14 days of collection and analyzed within 40 days of extraction.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries and RPD were within laboratory-established QC limits for the LCS/LCSD pair.
- Surrogate Recovery: The recovery was within laboratory-established QC limits.

DATA VALIDATION REPORT

 Matrix Spike/Matrix Spike Duplicate: Recoveries and RPD were within laboratoryestablished QC limits.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site sample. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: There were no detects reported in the field blank, BSQW0018F01 (IQB1202), or the equipment rinsate BSQW0018E01 (IQB1486).
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Compound Identification: Review is not applicable at a Level V validation. Four EFH hydrocarbon ranges were reported: C8-C11, C12-C14, C15-C20, and C21-C30.
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. Reported nondetects are valid to the reporting limit.

D. EPA METHOD 9045C—General Minerals

Reviewed By: P. Meeks Date Reviewed: 3/30/07

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0), EPA Method 9045C, and the National Functional Guidelines for Inorganic Data Review (2/94).

- Holding Times: The analytical holding time, 24 hours from preparation for pH, was met.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Not applicable to this analysis.
- Blank Spikes and Laboratory Control Samples: Not applicable to this analysis.
- Laboratory Duplicates: Laboratory duplicate analyses were performed on BHBS0005S01SP and the RPD was within the laboratory-established limit of ≤5%.
- Matrix Spike/Matrix Spike Duplicate: Not applicable to this analysis.
- Sample Result Verification: Review is not applicable at a Level V validation.

DATA VALIDATION REPORT

 Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- o Field Blanks and Equipment Rinsates: Not applicable to this analysis.
- Field Duplicates: There were no field duplicate samples identified for this SDG.

Sample ID: BHBS0005S01SP

Trace Level Organic Compounds

Lot - Sample #....:

D7B150349 - 001

Melissa A. Davidson

Work Order #....: JPH1T1AE

Matrix....:

SO

Date Sampled:

02/13/07 02/20/07 Date Received: Analysis Date....:

02/15/07

Dilution Factor: 1

Prep Date:

Analyst ID....:

02/23/07

Percent Moisture: 3.8

Prep Batch #: Initial Wgt/Vol: 7051334 10 g

Instrument ID...: M2A

Method:

EPA-5 1613B

	PARAMETER	RESULT		MINIMUM LEVEĻ	ESTIMATED DETECTION LIMIT	UNITS
u	2,3,7,8-TCDD	ND		1.0	0.41	ng/kg
1	Total TCDD	ND		1.0	0.41	ng/kg
	1,2,3,7,8-PeCDD	ND		5.2	0.17	ng/kg
	Total PeCDD	ND		5.2	0.17	ng/kg
	1,2,3,4,7,8-HxCDD	ND		5.2	0.16	ng/kg
UT/XI	1,2,3,6,7,8-HxCDD	0.43	QJ	5.2	0.18	ng/kg
/u	1,2,3,7,8,9-HxCDD	ND	•	5.2	0.16	ng/kg
T/m	Total HxCDD	1.8	QJ	5.2	0.17	ng/kg
1/24	1,2,3,4,6,7,8-HpCDD	12		5.2	0.23	ng/kg
	Total HpCDD	25		5.2	0.23	ng/kg
	OCDD	310	В	10	0.18	ng/kg
U	2,3,7,8-TCDF	ND		1.0	0.28	ng/kg
NILATE	Total TCDF	4.6	Q	1.0	0.28	ng/kg
11	1,2,3,7,8-PeCDF	ND		5.2	0.13	ng/kg
ŭ	2,3,4,7,8-PeCDF	ND		5.2	0.11	ng/kg
JATIL	Total PeCDF	4.8	QJ	5.2	0.12	ng/kg
'u	1,2,3,4,7,8-HxCDF	ND		5.2	0.097	ng/kg
į	1,2,3,6,7,8-HxCDF	ND		5.2	0.10	ng/kg
	2,3,4,6,7,8-HxCDF	ND		5.2	0.11	ng/kg
	1,2,3,7,8,9-HxCDF	ND		5.2	0.14	ng/kg
J 600	Total HxCDF	3,4	3 Q	5.2	0.11	ng/kg
5	1,2.3,4.6.7,8-HpCDF	1.3	*	5.2	6.16	ng/kg
ŭ	1,2,3,4,7,8,9-HpCDF	ND		5.2	0.19	ng/kg
T	Total HpCDF	3.9	I	5.2	0.17	ng/kg
77	OCDF	2.2	4	10	0.15	⊕ ਉk <u>प</u>

Level I





Total Metals Analysis Data Sheet

Lab Name:

STL DENVER

BHBS0005S01SP

Lot/SDG Number:

D7B150349

Client Sample ID: D7B150349-001 Lab Sample ID:

Matrix:

% Moisture:

SOLID

ЈРН1Т

3.8 Dry Lab WorkOrder: Date/Time Collected:

02/13/07 14:30

Basis: Analysis Method:

6020

Date/Time Received: Date Leached:

02/15/07 10:00

Unit:

mg/kg

Date/Time Extracted:

02/22/07 08:00

QC Batch ID:

7052575

Date/Time Analyzed:

02/23/07 16:45

Sample Aliquot:

1.01 g

Instrument ID:

004

Dilution Factor:

1

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-36-0	Antimony R/Q	0.066	0.066	0.21	U
7440-38-2	Arsenic T/A	3.0	0.015	0.62	L
7440-39-3	Barium	100	0.054	0.21	
7440-41-7	Beryllium	0.59	0.021	0.10	
7440-43-9	Cadmium	0.18	0.0064	0.10	
7440-47-3	Chromium J/A	19	0.062	0.21	BL
7440-48-4	Cobalt J /A	6.1	0.0026	0.10	L
7440-50-8	Copper J /A	9.2	0.084	0.26	L
7439-92-1	Lead	9.0	0.052	0.16	
7439-98-7	Molybdenum J/Q	0.38	0.017	0.21	
7440-02-0	Nickel J/A &	13	0.042	0.16	L
7782-49-2	Selenium	0.36	0.083	0.52	J
	Silver	0.048	0.016	0.10	J
7440-22-4		0.28	0.0031	0.10	
7440-28-0	Thallium	37	0.031	0.52	
7440-62-2	Vanadium				
7440-66-6	Zine J/A	55	0.26	1.0	1 10



Total Metals Analysis Data Sheet

Lab Name:

STL DENVER

Client Sample ID:

BHBS0005S01SP

Lot/SDG Number:

D7B150349

Lab Sample ID:

D7B150349-001

Matrix:

SOLID

Lab WorkOrder:

JPHIT

% Moisture:

3.8

Date/Time Collected:

02/13/07 14:30

Basis:

Dry

Date/Time Received:

02/15/07 10:00

Analysis Method:

6010B

Date Leached:

02/22/07 08:00

Unit:

mg/kg

Date/Time Extracted: Date/Time Analyzed:

02/23/07 13:08

QC Batch ID: Sample Aliquot: 7052568 <u>1 g</u>

Instrument ID:

021

Dilution Factor:

1

CAS No.	Analyte	Conc.	MDL	RL	Q
7429-90-5	Aluminum	15000	5.1	10	***************************************
7440-42-8	Boron U	1.0	1.0	10	U
7439-93-2	Lithium	21	0.31	5.2	
7440-09-7	Potassium	3400	43	310	
7440-23-5	Sodium	71	61	520	J
7440-67-7	Zirconium	2.9	0.71	3.1	J



Total Metals Analysis Data Sheet

Lab Name:

STL DENVER

Client Sample ID:

BHBS0005S01SP

Lot/SDG Number:

D7B150349

Lab Sample ID:

D7B150349-001

Matrix:

SOLID

Lab WorkOrder:

<u>JPH1T</u>

% Moisture:

<u>3.8</u>

Date/Time Collected: Date/Time Received: 02/13/07 14:30

Basis:

7439-97-6

Dry

Date Leached:

02/15/07 10:00

Analysis Method: Unit: 7471A mg/kg

Date/Time Extracted:

02/19/07 11:20

RL

0.034

Q

J

QC Batch ID:

7050153

Date/Time Analyzed: Instrument ID: 02/19/07 21:08 023

Sample Aliquot:

Mercury

<u>0.3 g</u>

Dilution Fac	tor: <u>1</u>	1				
CAS No.	Analyte	Conc.	MDL			
	- 10	0.0031	0.0029			

Mys/



Total Metals Analysis Data Sheet

Lab Name:

STL DENVER

BLBS0036S01SP

D7B150349

Lot/SDG Number:

D7B150349-002

Matrix: % Moisture: SOLID

<u>JPKXG</u>

<u>10</u>

Basis:

Dry

Date/Time Collected:

02/12/07 11:20

Analysis Method:

6020

Date/Time Received: Date Leached:

Client Sample ID:

Lab Sample ID:

Lab WorkOrder:

02/16/07 09:30

Unit:

Date/Time Extracted:

02/22/07 08:00

QC Batch ID:

mg/kg 7052575

Date/Time Analyzed:

02/23/07 17:03

Sample Aliquot:

1 g

Instrument ID:

004

Dilution Factor:

1

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-36-0	Antimony R/Q	0.071	0.071	0.22	U
7440-38-2	Arsenic VJ/A	2.7	0.016	0.67	L
7440-39-3	Barium	110	0.058	0.22	
7440-41-7	Beryllium	0.46	0.022	0.11	
7440-43-9	Cadmium	0.18	0.0068	0.11	
7440-47-3	Chromium J/A	17	0.067	0.22	BL
7440-48-4	Cobalt J/A	6.0	0.0028	0.11	L
7440-50-8	Copper J/A	10	0.090	0.28	L
7439-92-1	Lead	4.9	0.056	0.17	
7439-98-7	Molybdenum J/Q	0.36	0.018	0.22	
7440-02-0	Nickel J/A,Q	12	0.045	0.17	L
7782-49-2	Selenium	0.36	0.089	0.56	J
7440-22-4	Silver	0.044	0.018	0.11	J
7440-28-0	Thallium	0.27	0.0033	0.11	
	Vanadium	34	0.033	0.56	
7440-62-2 7440-66-6	Zinc J/A	63	0.28	1.1	BL

LEVEL V



Total Metals Analysis Data Sheet

Lab Name:

STL DENVER

Client Sample ID:

BLBS0036S01SP

Lot/SDG Number:

D7B150349

Lab Sample ID:

D7B150349-002

Matrix:

SOLID

Lab WorkOrder:

JPKXG

10

% Moisture:

Dry

Date/Time Collected: Date/Time Received:

02/12/07 11:20 02/16/07 09:30

Basis: Analysis Method:

6010B

Date Leached:

Unit:

mg/kg

Date/Time Extracted:

02/22/07 08:00

QC Batch ID:

7052568

Date/Time Analyzed:

02/23/07 13:37

Sample Aliquot:

1.01 g

Instrument ID:

021

Dilution Factor:

1

Analyte	Conc.	MDL	RL	Q
Aluminum	12000	5.5	11	
Boron 117 /B	1.4	1.1	11	J
0070	24	0.33	5.6	
	4200	46	330	
	72	66	560	J
	2.4	0.76	3.3	J
		Aluminum 12000	Aluminum 12000 5.5 Boron UJ/B 1.4 1.1 Lithium 24 0.33 Potassium 4200 46 Sodium 72 66	Analyte Colic. Aluminum 12000 5.5 11 Boron UJ/B 1.4 1.1 11 Lithium 24 0.33 5.6 Potassium 4200 46 330 Sodium 72 66 560





Total Metals Analysis Data Sheet

Lab Name:

STL DENVER

Client Sample ID:

BLBS0036S01SP

Lot/SDG Number:

D7B150349

Lab Sample ID:

D7B150349-002

Matrix:

<u>SOLID</u>

Lab WorkOrder:

JPKXG

% Moisture:

10

Date/Time Collected: Date/Time Received: 02/12/07 11:20

Basis: Analysis Method: Dry <u>7471A</u>

Date Leached:

Instrument ID:

02/16/07 09:30

Unit:

mg/kg

Date/Time Extracted:

02/19/07 11:20

QC Batch ID: Sample Aliquot: 7050153 0.31 g

Date/Time Analyzed:

02/19/07 21:11 023

Dilution Factor:

1

CAS No.		Ana	alyte	Conc.	MDL	RL	Q	
7439-97-6	Mercury	UJ/B		0.0031	0.0031	0.037	U	
		0010						

EVEL V



MECX LLC Analysis Data Sheet

Lab Name: Lot/SDG Number: STL DENVER

BLBS0036S01SP

D7B150349

Client Sample ID:

Matrix:

SOLID

D7B150349-002

% Moisture:

10

Lab Sample 1D: Lab WorkOrder: JPKXG1A5 Date/Time Collected:

Basis: Analysis Method: Dry

02/12/07 11:20 02/16/07 09:30

Unit:

8270C-SIM ug/kg

Date/Time Received: Date Leached:

QC Batch ID:

7051144

Date/Time Extracted: Date/Time Analyzed:

02/20/07 09:00 02/28/07_11:22

Sample Aliquot: Dilution Factor:

29.5 € 1.02

Instrument ID:

CAS No.	Analyte	Conc.	MDL	RL	Q
90-12-0	1-Methylnaphthalene	0.30	0.30	5.7	U
91-57-6	2-Methylnaphthalene	0.35	0.35	5.7	U
83-32-9	Acenaphthene	0.18	0.18	5.7	U
208-96-8	Acenaphthylene	0.19	0.19	5.7	U
120-12-7	Anthracene	0.15	0.15	5.7	U
56-55-3	Benzo(a)anthracene	0.17	0.17	5.7	U
50-32-8	Benzo(a)pyrene	0.16	0.16	5.7	U
205-99-2	Benzo(b)fluoranthene	0.22	0.16	5.7	1
191-24-2	Benzo(ghi)perylene	0.23	0.23	5.7	U
207-08-9	Benzo(k)fluoranthene	0.15	0.15	5.7	U
218-01-9	Chrysene	0.27	0.22	5.7	1
53-70-3	Dibenzo(a,h)anthracene	0.28	0.28	5.7	U
206-44-0	Fluoranihene u/B	0.41	0.24	5.7	JE
86-73-7	Fluorene	0.26	0.26	5.7	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.28	0.28	5.7	U
91-20-3	Naphthulene UB	0.49	2,37	5.7	2.1
85-01-8	Phonanticene	0.49	0.35	5.7	1
129-00-0	Pyrene	0,32	0.20	5.7	-

CAS No.	Surregate	. dec	Lower Limit	* pper famin	02
321-60-X	2-i ² luorohiphenyl	83	39	104	
165-60-0	Nitrobenzene-d5	76	42	112	
718-51-0	Terphenyl-d14	88	35	112	



MECX LLC Analysis Data Sheet

Lab Name: Lot/SDG Number: Matrix:

% Moisture:

Basis:

STL DENVER D7B150349

SOLID 10 Dry

Unit: QC Batch ID: Sample Aliquot:

Dilution Factor:

Analysis Method:

ug/kg 7051139

29 € 1.03

8082

Client Sample ID:

Lab Sample ID:

Lab WorkOrder: Date/Time Collected:

Date/Time Received: Date Leached:

Date/Time Extracted:

Date/Time Analyzed:

Instrument ID:

02/23/07 17:25 P3

BLBS0036S01SP

D7B150349-002

02/12/07 11:20

02/16/07 09:30

02/20/07 09:00

JPKXG1A5

CAS No.	Analyte	Conc.	MDL	RL.	Q
12674-11-2	Aroclor 1016	5.8	5.8	38	U
11104-28-2	Aroclor 1221	18	18	54	U
11141-16-5	Aroclor 1232	5.9	5.9	38	U
53469-21-9	Aroclor 1242	10	10	38	U
12672-29-6	Aroclor 1248	6.4	6.4	38	U
11097-69-1	Aroclor 1254	6.3	6.3	38	U
11096-82-5	Aroelor 1260	3.0	3.0	38	U

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
2051-24-3	Decachlorobiphenyl	88	68	125	
877-09-8	Tetrachioro-m-xylene	81	67	129	

Level I



Analysis Data Sheet

Lab Name:

STL DENVER

Client Sample ID:

BLBS0036S01SP

Lot/SDG Number:

D7B150349

Lab Sample ID:

D7B150349-002

Matrix:

SOLID

Lab WorkOrder:

JPKXG1A7

% Moisture:

10

Basis:

Dry

Date/Time Collected: Date/Time Received:

02/12/07 11:20 02/16/07 09:30

Analysis Method: Unit:

8015B

Date Leached:

02/19/07 08:30

QC Batch ID:

mg/kg 7050144

Date/Time Extracted: Date/Time Analyzed:

02/28/07 02:01

Sample Aliquot:

30 g

Instrument ID:

Dilution Factor:

1

U

CAS No.	Analyte	Conc.	MDL	RL	Q
Q937	EFH (C12-C14) U	1.1	1.1	4.5	U
Q1124	EFH (C15-C20)	1.1	1.1	4.5	U
Q853	EFH (C21-C30)	1.1	1.1	4.5	U
Q743	EFH (C8-C11)	1.1	1.1	4.5	U

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
84-15-1	o-Terphenyl	86	45	115	

Level V

MBCX LLC

Client Sample ID: BHBS0005S01SP

General Chemistry

Lot-Sample #...: D7B150349-001 Work Order #...: JPH1T Matrix....: S0
Date Sampled...: 02/13/07 14:30 Date Received..: 02/15/07

PREPARATION- PREP

					PREPARATION-	PREP
PARAMETER	RESULT	RL	UNITS	METHOD	ANALYSIS DATE	BATCH #
pH	6.6	0.10	No Units	SW846 9045C	02/21/07	7053187
	. 1	Dilution Fact	or: 1	Analysis Time: 17:54	MDL	• :
Total Solids	96	0.10	*	MCAWW 160.3 MOD	02/19/07	7059400
		Dilution Fact	or: 1	Analysis Time: 15:15	MDL	.:

X Amalysis not validated

LEVEL V

Client Sample ID: BLBS0036S01SP

General Chemistry

Lot-Sample #...: D7B150349-002 Work Order #...: JPKXG Matrix.....: S

Date Sampled...: 02/12/07 11:20 Date Received..: 02/16/07

PARAMETER	RESULT	RL UNITS	METHOD	PREPARATION- PREP ANALYSIS DATE BATCH #
рН	7.2	0.10 No Uni	ts SW846 9045C Analysis Time: 17:53	02/21/07 7053187 MDL
Total Solids	90	0.10 %	MCAWW 160.3 MOD Analysis Time: 15:15	02/19/07 7059400 MDL

* Analysis not validated



DATA VALIDATION REPORT

Boeing SSFL RFI Group 8 Data Gap

SAMPLE DELIVERY GROUP: 186359

Prepared by

MEC^X, LLC 12269 East Vassar Drive Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL RFI Group 8 Data Gap

Contract Task Order: 1261.500D.08.001

Sample Delivery Group: 186359

Project Manager: Dixie Hambrick

Matrix: water/soil

QC Level: V

No. of Samples: 10

No. of Reanalyses/Dilutions: 0

Laboratory: GEL

Table 1. Sample Identification

Sample Name	Lab Sample Name	Sub-Lab Sample Name	Matrix	Collection	Method
BLBS0049S01	186359007	N/A	Soil	5/17/2007 12:50:00 PM	6010B, 6020, 7471A, 8015B, 8082, 8270C (PAH)
BLBS0050D01	186359008	N/A	Soil	5/17/2007 1:15:00 PM	6010B, 6020, 7471A, 8015B, 8082, 8270C (PAH)
BLBS0050S01	186359009	N/A	Soil	5/17/2007 1:15:00 PM	6010B, 6020, 7471A, 8015B, 8082, 8270C (PAH)
BLBS0051S01	186359006	N/A	Soil	5/17/2007 12:30:00 PM	6010B, 6020, 7471A, 8015B, 8082, 8270C (PAH)
BLBS0056S01	186359004	N/A	Soil	5/17/2007 9:15:00 AM	300.0, 8015B, 8270C
BLBS0056S02	186359005	N/A	Soil	5/17/2007 9:30:00 AM	300.0, 8015B, 8270C
BLBS0062D01	186359001	N/A	Soil	5/17/2007 8:00:00 AM	300.0, 8015B, 8270C
BLBS0062S01	186359002	N/A	Soil	5/17/2007 8:00:00 AM	300.0, 8015B, 8270C
BLBS0063S01	186359003	N/A	Soil	5/17/2007 8:45:00 AM	300.0, 8015B, 8270C
BLQW0019E01	186361001	N/A	Water	5/17/2007 1:00:00 PM	300.0, 6010B, 6020, 7470A 8015B, 8082, 8270C

1

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of $4^{\circ}C$ $\pm 2^{\circ}C$. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Sample custody seals were intact. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

Qualifie	r Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
Н	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
С	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
В	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
Е	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
Α	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
Р	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*11, *111	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHODS 6010B, 6020, 7470A/7471A—Metals and Mercury

Reviewed By: P. Meeks

Date Reviewed: June 1, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^{\times} Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0), EPA Methods 6020, 7470A/7471A, and the National Functional Guidelines for Inorganic Data Review (2/94).

- Holding Times: Analytical holding times, six months for ICP and ICP-MS metals and 28 days for mercury, were met.
- Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Molybdenum was detected in method blank 635856 at 0.0365 mg/kg and mercury was reported in method blank 635900 at -0.00283 mg/kg. Molybdenum detected in BLBS0050D01 was qualified as estimated, "UJ." Mercury detected in BLBS0049S01, BLBS0050S01, and BLBS0050D01 was qualified as estimated, "J." Arsenic was detected in method blank 635858 at 2.19 μg/L, therefore, arsenic detected in BLQW0019E01 was qualified as estimated, "UJ."
- Interference Check Samples: Review is not applicable at a Level V validation.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed.
- Serial Dilution: No serial dilution analyses were performed.
- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. All CCV and CCB internal standard intensities were within 80-120% of the internal standard intensities measured in the initial calibration.
- Sample Result Verification: Review is not applicable at a Level V validation. Nondetects are valid to the MDL.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - \circ Field Blanks and Equipment Rinsates: There were no detects in equipment rinsate BLBS0019E01. Thallium was detected in field blank BLQW0019E01 (186235) at 0.440 μ g/L; therefore, thallium detected in BLBS0049S01, BLBS50S01, and BLBS0050D01 was qualified as estimated, "J."
 - Field Duplicates: Samples BLBS0050S01 and BLBS050D01 were identified as field duplicate samples. Sodium and molybdenum were reported in BLBS0050D01 but not in BLBS0050S01 and molybdenum was reported in BLBS0050S01 but not in BLBS0050D01. All remaining detects were in common and all RPDS were ≤100%.

B. EPA METHOD 8270C—Polynuclear Aromatic Hydrocarbons (PAHs)

Reviewed By: L. Calvin

Date Reviewed: June 4, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^X Data Validation Procedure for Semivolatile Organics (DVP-3, Rev. 0), EPA Method 8270C, and the National Functional Guidelines for Organic Data Review (2/94).

- Holding Times: Extraction and analytical holding times were met. The soil samples were extracted within 14 days of collection and analyzed within 40 days of extraction.
- GC/MS Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blank had a detect between the MDL and the RL for bis(2-ethylhexyl) phthalate at 6.41 μg/Kg. Any sample detects for bis(2-ethylhexyl) phthalate less than ten times the blank concentration were qualified as estimated nondetects, "UJ."
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on a soil sample from this SDG. Evaluation of method accuracy was based on the blank spike results.

Project: Boeing SSFL RFI Group 8 Data Gap SDG: 186359

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: No target compounds were detected in field blank BLQW0019F01 (186235). This SDG had no identified equipment rinsate for this analysis.
 - Field Duplicates: Field duplicates BLBS0050S01 and BLBS0050D01 had a common detect between the MDL and the RL for di-n-butyl phthalate. The pair was considered to be in agreement.
- Internal Standards Performance: Review is not applicable at a Level V validation.
- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for PAH compounds, NDMA, and added phthalates by Method 8270C/SIM.
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. Any result reported between the MDL and the reporting limit was qualified as estimated, "J." Reported nondetects are valid to the reporting limit.
- Tentatively Identified Compounds: TICs were not reported by the laboratory for this analysis.
- System performance: System performance is not evaluated at a Level V validation.

C. EPA METHOD 8082—PCBs

Reviewed By: K. Shadowlight Date Reviewed: June 2, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^X Data Validation Procedure for Organochlorine Pesticides/PCBs by GC (DVP-4, Rev. 0), EPA Method 8082, and the National Functional Guidelines for Organic Data Review (2/94).

- Holding Times: Extraction and analytical holding times were met. The soil samples were extracted within 14 days of collection and the water sample was extracted within seven days of collection. All samples were analyzed within 40 days of extraction.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blanks had no target compound detects above the MDL.

- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed for sample BLQW0019E01. The sample was identified as field QC and was not a good candidate for MS/MSD; therefore, the results were not assessed.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples.
 Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: There were no target compounds detected in the field blank, BLQW001901 (186235) or equipment rinsate, BLQW0019E01.
 - o Field Duplicates: Samples BLBS0050S01 and BLBS0050D01 were identified as the field duplicate pair for this SDG. There were common detects for Aroclor 1248 and Aroclor 1254 with calculated RPDs ≤100%. The pair was considered to be in good agreement.
- Compound Identification: Intercolumn %D comparison is not routinely evaluated at a Level V validation; however, the laboratory flagged a result on the summary report for an intercolumn %D comparison that exceeded 40%. The laboratory denoted this detect with a P flag. Therefore, the result for Aroclor 1248 was qualified as estimated, "J," in site sample BLBS0051S01. The laboratory analyzed for Aroclors by Method 8082.
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. According to the case narrative for this SDG, samples BLBS0050S01 and BLBS0050D01 were each analyzed at a 10× dilution to report target compounds within linear range. Reported nondetects are valid to the reporting limit.

D. EPA METHOD 8015B—Extractable Total Fuel Hydrocarbons (EFHs)

Reviewed By: K. Shadowlight Date Reviewed: June 2, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^{\times} Data Validation Procedure for Total Fuel Hydrocarbons (DVP-8, Rev. 0), EPA Method 8015B, and the National Functional Guidelines for Organic Data Review (2/94).

 Holding Times: Extraction and analytical holding times were met. The soil samples were extracted within 14 days of collection and the water sample was extracted within seven days of collection. All samples were analyzed within 40 days of extraction.

- Calibration: Review is not applicable at a Level V validation.
- Blanks: Target compound EFH (C8-C11) was reported at 1.34 mg/kg in the soil method blank. Any detects for EFH (C8-C11) reported at concentration less than five times the concentration of the method blank were qualified as nondetects, "U," and raised to the reporting limit in the soil site samples. There were no other target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: The recoveries were within laboratoryestablished QC limits.
- Surrogate Recovery: The surrogate recovery exceeded QC limits in sample BLBS0049S01; therefore, detects were qualified as estimated, "J," in the sample. The remaining recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed for a sample in this SDG. Evaluation of method accuracy was based on blank spike results.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: There were no target compounds detected in the field blank, BLQW0019F01 (186235), or equipment rinsate, BLQW0019E01.
 - o Field Duplicates: Samples BLBS0050S01/BLBS0050D01 and BLBS0062S01/BLBS0062D01 were the field duplicate pairs identified for this SDG. Target compound EFH (C21-C30) was reported in field duplicate pair BLBS0050S01/D01, with a calculated RPD ≤100%. Target compound EFH (C15-C20) was reported at a concentration between the MDL and the reporting limit in BLBS0050D01 only. There were no other reportable target compounds detected in the field duplicate pairs. The pairs were considered to be in agreement.
- Compound Identification: Review is not applicable at a Level V validation. Four EFH
 hydrocarbon ranges were reported: C8-C11, C12-C14, C15-C20, and C21-C30. In
 addition the laboratory reported m-terphenyl, o-terphenyl, and p-terphenyl. For a
 selection of samples only terphenyls were reported.
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. Any results reported between the MDL and the reporting limit were qualified as estimated, "J." Reported nondetects are valid to the reporting limit.

E. EPA METHOD 8270C —Semivolatile Organic Compounds (SVOC)

Reviewed By: L. Calvin

Date Reviewed: June 4, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^{\times} Data Validation Procedure for Semivolatile Organics (DVP-3, Rev. 0), EPA Method 8270C, and the National Functional Guidelines for Organic Data Review (2/94).

- Holding Times: Extraction and analytical holding times were met. The soil samples were extracted within 14 days of collection and were analyzed within 40 days of extraction.
- GC/MS Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blanks had no target compound detects above the MDL. Three TICs
 were reported in the soil method blank, and six TICs were reported in the water method
 blank. Any sample TICs at the same retention times as the blank TICs were rejected, "R."
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on a soil sample from this SDG. The laboratory performed MS/MSD analyses on the equipment rinsate BLQW0019E01; however, as field QC samples are not valid MS/MSD candidates, the results were not evaluated. Evaluation of method accuracy was based on the blank spike results.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: No target compounds were detected in field blank BLQW0019F01 (186235) or equipment rinsate BLQW0019E01.
 - Field Duplicates: Field duplicates BLBS0062S01 and BLBS0062D01 had no target compounds detected above the MDL. Both samples had nine reportable TICs. The pair was considered to be in agreement.
- Internal Standards Performance: Review is not applicable at a Level V validation.

- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for SVOC compounds by Method 8270C. Any reportable TICs in the samples of this SDG were qualified as tentatively identified, "N."
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. Any result reported between the MDL and the reporting limit was qualified as estimated, "J." Reported nondetects are valid to the reporting limit.
- Tentatively Identified Compounds: The laboratory performed a TIC search for the samples. Any reportable TICs in the samples of this SDG were qualified as estimated, "J."
- System performance: System performance is not evaluated at a Level V validation.

A. EPA METHOD 300.0—General Minerals

Reviewed By: P. Meeks Date Reviewed: June 1, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0), EPA Method 300.0, and the National Functional Guidelines for Inorganic Data Review (2/94).

- Holding Times: The analytical holding time, 28 days from collection for fluoride, was met.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Method blanks and CCBs had no detects.
- Blank Spikes and Laboratory Control Samples: The recovery was within laboratoryestablished QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed.
- Sample Result Verification: Review is not applicable at a Level V validation. Reported nondetects are valid to the reporting limit.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: Fluoride was not detected in field blank BLQW0019F01 (186235) or equipment rinsate BLQW0019E01.

 Field Duplicates: Samples BLBS0062S01 and BLBS0062D01 were identified as field duplicate samples. Fluoride was detected in both samples and the RPD was ≤100%.

INORGANICS ANALYSIS DATA PACKAGE

SDG No: 186359S

CONTRACT: SSFL00507

METHOD TYPE: SW846

SAMPLE ID: 186359006

BASIS: Dry Weight

DATE COLLECTED 17-MAY-07

CLIENT ID: BLBS0051S01

LEVEL: Low

DATE RECEIVED 18-MAY-07

MATRIX: SOIL

%SOLIDS: 96

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10300	mg/kg		6.87	20.2	20	1	P	JWJ	05/24/07 00:39	052307B-3	635831
7440-36-0	Antimony ()	0.103	mg/kg	U	0.103	.413	1	2	MS	BAJ	05/23/07 03:42	070522-4	635857
7440-38-2	Arsenic	3.2	mg/kg		0.31	1.03	1	2	MS	BAJ	05/23/07 03:42	070522-4	635857
7440-39-3	Barium	76.9	mg/kg		0.103	.413	0.5	2	MS	BAJ	05/23/07 03:42	070522-4	635857
7440-41-7	Beryllium	0.470	mg/kg	1	0.103	.517	0.3	10	MS	BAJ	05/23/07 02:29	070522-4	635857
7440-42-8	Boron	2.2	mg/kg	J	1.01	5.05	5	1	Р	JWJ	05/24/07 00:39	052307B-3	635831
7440-43-9	Cadmium	0.250	mg/kg		0.0207	.207	0.5	2	MS	BAJ	05/23/07 03:42	0705224	635857
7440-47-3	Chromium	15.4	mg/kg		1.03	3.1	1	10	MS	BAJ	05/23/07 02:29	070522-4	635857
7440-48-4	Cobalt	5.3	mg/kg		0.103	1.03	0.5	10	MS	BAJ	05/23/07 02:29	070522-4	635857
7440-50-8	Copper	8.4	mg/kg		0.207	1.03	1	10	MS	BAJ	05/23/07 02:29	070522-4	635857
7439-92-1	Lead	10.3	mg/kg		0.103	.413	0.5	2	MS	BAJ	05/23/07 16:02	070523-8	635857
7439-93-2	Lithium	21	mg/kg		2.07	10.3	6.3	10	MS	BAJ	05/23/07 02:29	070522-4	635857
7439-97-6	Mercury	0.034	mg/kg		0.00227	.00906	0.2	1	AV	ETL	05/22/07 08:53	05220781-1	635902
7439-98-7	Molybdenum	0.290	mg/kg		0.0207	.103	1	2	MS	BAJ	05/23/07 11:35	070523-5	635857
7440-02-0	Nickel	9	mg/kg	***************************************	0.517	2.07	1	10	MS	BAJ	05/23/07 02:29	070522-4	635857
7440-09-7	Potassium	2750	mg/kg		82.7	310	50	10	MS	BAJ	05/23/07 15:31	070523-8	635857
7782-49-2	Selenium	0.517	mg/kg	U	0.517	1.03	1	2	MS	BAJ	05/23/07 03:42	070522-4	635857
7440-22-4	Silver	0.047	mg/kg	J	0.0413	.207	0.5	2	MS	BAJ	05/23/07 03:42	070522-4	635857
7440-23-5	Sodium	109	mg/kg	J	82.7	258	50	10	MS	BAJ	05/23/07 15:31	070523-8	635857
7440-28-0	Thallium	0.230	mg/kg		0.0827	.207	0.5	2	MS	BAJ	05/23/07 03:42	070522-4	635857
7440-62-2	Vanadium	26.5	mg/kg		2.07	10.3	2	10	MS	BAJ	05/23/07 02:29	070522-4	635857
7440-66-6	Zinc	94.1	mg/kg		0.413	2.07	10	. 2	MS	BAJ	05/23/07 03:42	0705224	635857
7440-67-7	Zirconium	1.9	mg/kg		0.103	.413	25	2	MS	BAJ	05/23/07 15:29	070523-2	635857

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
635831	635829	SW846 3050B	0.516	g	50	mL	05/21/07	SXJ1
635857	635856	SW846 3050B	0.504	g	50	mL	05/21/07	SXJ1
635902	635900	SW846 7471 A Prep	0.69	g	30	mL	05/21/07	RDD1



-1-

Low

INORGANICS ANALYSIS DATA PACKAGE

SDG No: 186359S

CONTRACT: SSFL00507

METHOD TYPE: SW846

SAMPLE ID: 186359007

BASIS: Dry Weight

DATE COLLECTED 17-MAY-07

CLIENT ID: BLBS0049S01

LEVEL:

DATE RECEIVED 18–MAY–07

MATRIX: SOIL

%SOLIDS: 97.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7540	mg/kg		6.69	19.7	20	1	P	JWJ	05/24/07 00:46	052307B-3	635831
7440-36-0	Antimony ()	0.103	mg/kg	U	0.103	.41	. 1	2	MS	BAJ	05/23/07 03:47	070522-4	635857
7440-38-2	Arsenic	2.6	mg/kg		0.308	1.03	1	2	MS	BAJ	05/23/07 03:47	070522-4	635857
7440-39-3	Barium	57	mg/kg		0.103	.41	0.5	2	MS	BAJ	05/23/07 03:47	070522-4	635857
7440-41-7	Beryllium	0.390	mg/kg	J	0.103	.513	0.3	10	MS	BAJ	05/23/07 02:34	070522-4	635857
7440-42-8	Boron	1.7	mg/kg	1	0.984	4.92	5	1	Р	JWJ	05/24/07 00:46	052307B-3	635831
7440-43-9	Cadmium	0.240	mg/kg		0.0205	.205	0.5	2	MS	BAJ	05/23/07 03:47	070522-4	635857
7440-47-3	Chromium	13	mg/kg		1.03	3.08	1	10	MS	BAJ	05/23/07 02:34	070522-4	635857
7440-48-4	Cobalt	4.6	mg/kg		0.103	1.03	0.5	10	MS	BAJ	05/23/07 02:34	070522-4	635857
7440508	Copper	10.2	mg/kg		0.205	1.03	1	10	MS	BAJ	05/23/07 02:34	070522-4	635857
7439-92-1	Lead	9.3	mg/kg		0.103	.41	0.5	2	MS	BAJ	05/23/07 16:04	070523-8	635857
7439-93-2	Lithium	20.4	mg/kg		2.05	10.3	6.3	10	MS	BAJ	05/23/07 02:34	070522-4	635857
7439-97-6	Mercury J/B	0.013	mg/kg		0.0023	.00919	0.2	ı	AV	ETL	05/22/07 08:55	05220781-1	635902
7439-98-7	Molybdenum	0.190	mg/kg		0.0205	.103	1	2	MS	BAJ	05/23/07 11:40	070523-5	635857
7440-02-0	Nickel	7.6	mg/kg		0.513	2.05	1	10	MS	BAJ	05/23/07 02:34	070522-4	635857
7440-09-7	Potassium	2200	mg/kg		82	308	50	10	MS	BAJ	05/23/07 15:33	070523-8	635857
7782-49-2	Selenium ()	0.513	mg/kg	U	0.513	1.03	1	2	MS	BAJ	05/23/07 03:47	070522-4	635857
7440-22-4	Silver	0.041	mg/kg	U	0.041	.205	0.5	2	MS	BAJ	05/23/07 03:47	070522-4	635857
7440-23-5	Sodium	105	mg/kg	J	82	256	50	10	MS	BAJ	05/23/07 15:33	070523-8	635857
7440-28-0	Thallium J	0.20	mg/kg	J	0.082	.205	0.5	2	MS	BAJ	05/23/07 03:47	070522-4	635857
7440-62-2	Vanadium	23	mg/kg		2.05	10.3	2	10	MS	BAJ	05/23/07 02:34	070522-4	635857
7440-66-6	Zinc	116	mg/kg		0.41	2.05	10	2	MS	BAJ	05/23/07 03:47	070522-4	635857
7440-67-7	Zirconium	1.4	mg/kg		0.103	.41	25	2	MS	BAJ	05/23/07 15:31	070523-2	635857

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
635831	635829	SW846 3050B	0.523	g	50	mL	05/21/07	SXJ1
635857	635856	SW846 3050B	0.502	g	50	mL	05/21/07	SXJ1
635902	635900	SW846 7471A Prep	0.672	g	30	mL	05/21/07	RDD1



INORGANICS ANALYSIS DATA PACKAGE

SDG No: 186359S

CONTRACT: SSFL00507

METHOD TYPE: SW846

SAMPLE ID: 186359008

BASIS: Dry Weight

DATE COLLECTED 17-MAY-07

CLIENT ID: BLBS0050D01

LEVEL: Low

DATE RECEIVED

18-MAY-07

MATRIX: SOIL

%SOLIDS: 97.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6740	mg/kg		6.9	20.3	20	1	P	JWJ	05/24/07 00:53	052307B-3	635831
7440-36-0	Antimony ()	0.102	mg/kg	U	0.102	.406	1	2	MS	BAJ	05/23/07 03:52	070522-4	635857
7440-38-2	Arsenic	2	mg/kg		0.305	1.02	1	2	MS	BAJ	05/23/07 03:52	070522-4	635857
7440-39-3	Barium	50.4	mg/kg		0.102	.406	0.5	2	MS	BAJ	05/23/07 03:52	070522-4	635857
7440-41-7	Beryllium	0.270	mg/kg	J	0.102	.508	0.3	10	MS	BAJ	05/23/07 02:39	070522-4	635857
7440-42-8	Boron ()	1.02	mg/kg	U	1.02	5.08	5	1	Р	JWJ	05/24/07 00:53	052307B-3	635831
7440-43-9	Cadmium	0.110	mg/kg	J	0.0203	.203	0.5	2	MS	BAJ	05/23/07 03:52	070522-4	635857
7440-47-3	Chromium	9.5	mg/kg		1.02	3.05	I	10	MS	BAJ	05/23/07 02:39	070522-4	635857
7440-48-4	Cobalt	3.7	mg/kg	1	0.102	1.02	0.5	10	MS	BAJ	05/23/07 02:39	070522-4	635857
7440-50-8	Copper	5.1	mg/kg		0.203	1.02	1	10	MS	BAJ	05/23/07 02:39	070522-4	635857
7439-92-1	Lead	4.3	mg/kg		0.102	.406	0.5	2	MS	BAJ	05/23/07 16:06	070523-8	635857
7439-93-2	Lithium	16	mg/kg		2.03	10.2	6.3	10	MS	BAJ	05/23/07 02:39	070522-4	635857
	Mercury J/R	0.004	mg/kg	- 1	0.00248	.00992	0.2	1	AV	ETL	05/22/07 08:57	05220781-1	635902
7439-98-7	Molybdenum W/B	0.160	mg/kg		0.0203	.102	1	2	MS	BAJ	05/23/07 11:44	070523-5	635857
7440-02-0		5.3	mg/kg		0.508	2.03	1	10	MS	BAJ	05/23/07 02:39	070522-4	635857
7440-09-7	Potassium	1730	mg/kg		81.2	305	50	10	MS	BAJ	05/23/07 15:35	070523-8	635857
7782-49-2	Selenium	0.508	mg/kg	U	0.508	1.02	1	2	MS	BAJ	05/23/07 03:52	070522-4	635857
7440-22-4	Silver	0.0406	mg/kg	U	0.0406	.203	0.5	2	MS	BAJ	05/23/07 03:52	070522-4	635857
7440-23-5	Sodium	88.2	mg/kg	3	81.2	254	50	10	MS	BAJ	05/23/07 15:35	0705238	635857
7440-28-0	Thallium T	0.160	mg/kg	J	0.0812	.203	0.5	2	MS	BAJ	05/23/07 03:52	070522-4	635857
7440-62-2	Vanadium	17.7	mg/kg		2.03	10.2	2	10	MS	BAJ	05/23/07 02:39	0705224	635857
7440-66-6	Zinc	40.6	mg/kg		0.406	2.03	10	2	MS	BAJ	05/23/07 03:52	070522-4	635857
7440-67-7	Zirconium	1.1	mg/kg		0.102	.406	25	2	MS	BAJ	05/23/07 15:32	0705232	635857

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
635831	635829	SW846 3050B	0.505	g	50	mL	05/21/07	SXJ1
635857	635856	SW846 3050B	0.505	g	50	mL	05/21/07	SXJ1
635902	635900	SW846 7471A Prep	0.62	g	30	mL	05/21/07	RDD1



INORGANICS ANALYSIS DATA PACKAGE

SDG No: 186359S

CONTRACT: SSFL00507

METHOD TYPE: SW846

SAMPLE ID: 186359009

BASIS: Dry Weight

DATE COLLECTED 17-MAY-07

CLIENT ID: BLBS0050S01

LEVEL:

Low

DATE RECEIVED

18-MAY-07

MATRIX: SOIL

%SOLIDS: 97.9

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6140	mg/kg		6.78	20	20	1	Р	JWJ	05/24/07 01:00	052307B-3	635831
7440-36-0	Antimony ()	0.0994	mg/kg	U	0.0994	.398	1	2	MS	BAJ	05/23/07 03:57	0705224	635857
7440-38-2	Arsenic	2	mg/kg		0.298	.994	1	2	MS	BAJ	05/23/07 03:57	0705224	635857
7440-39-3	Barium	49.4	mg/kg		0.0994	.398	0.5	2	MS	BAJ	05/23/07 03:57	070522-4	635857
7440-41-7	Beryllium	0.330	mg/kg	J	0.0994	.497	0.3	10	MS	BAJ	05/23/07 02:45	070522-4	635857
7440-42-8	Boron	1.1	mg/kg	J	0.998	4.99	5	П	Р	JWJ	05/24/07 01:00	052307В-3	635831
7440-43-9	Cadmium	0.130	mg/kg		0.0199	.199	0.5	2	MS	BAJ	05/23/07 03:57	070522-4	635857
7440-47-3	Chromium	10.1	mg/kg		0.994	2.98	1	10	MS	BAJ	05/23/07 02:45	070522-4	635857
7440-48-4	Cobalt	4.3	mg/kg		0.0994	.994	0.5	10	MS	BAJ	05/23/07 02:45	0705224	635857
7440-50-8	Copper	4.8	mg/kg		0.199	.994	1	10	MS	BAJ	05/23/07 02:45	070522-4	635857
7439-92-1	Lead	4.3	mg/kg		0.0994	.398	0.5	2	MS	BAJ	05/23/07 16:09	070523-8	635857
7439-93-2	Lithium	11.7	mg/kg		1.99	9.94	6.3	10	MS	BAJ	05/23/07 02:45	070522-4	635857
7439-97-6	Mercury	0.0087	mg/kg	1	0.00225	.00902	0.2	1	AV	ETL	05/22/07 08:59	052207S1-1	635902
7439-98-7	Molybdenum	0.190	mg/kg		0.0199	.0994	1	2	MS	BAJ	05/23/07 11:49	070523-5	635857
7440-02-0	Nickel	6.1	mg/kg		0.497	1.99	1	10	MS	BAJ	05/23/07 02:45	070522-4	635857
7440-09-7	Potassium	1310	mg/kg		79.5	298	50	10	MS	BAJ	05/23/07 15:37	070523-8	635857
7782-49-2	Selenium	0.497	mg/kg	U	0.497	.994	1	2	MS	BAJ	05/23/07 03:57	070522-4	635857
7440-22-4	Silver	0.0398	mg/kg	U	0.0398	.199	0.5	2	MS	BAJ	05/23/07 03:57	070522-4	635857
7440-23-5	Sodium	79.5	mg/kg	U	79.5	248	50	10	MS	BAJ	05/23/07 15:37	070523-8	635857
7440-28-0	Thallium -/-	0.130	mg/kg	J	0.0795	.199	0.5	2	MS	BAJ	05/23/07 03:57	070522-4	635857
7440-62-2	Vanadium	17.9	mg/kg		1.99	9.94	2	10	MS	BAJ	05/23/07 02:45	070522-4	635857
7440-66-6	Zinc	28.8	mg/kg		0.398	1.99	10	2	MS	BAJ	05/23/07 03:57	070522-4	635857
7440-67-7	Zirconium	1.5	mg/kg		0.0994	.398	25	2	MS	BAJ	05/23/07 15:34	070523-2	635857

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
635831	635829	SW846 3050B	0.512	g	50	mL	05/21/07	SXJ1
635857	635856	SW846 3050B	0.514	g	50	mL	05/21/07	SXJI
635902	635900	SW846 7471 A Prep	0.68	g	30	mL	05/21/07	RDD1



METALS INORGANICS ANALYSIS DATA PACKAGE

SDG No: 186359W

CONTRACT: SSFL00507

METHOD TYPE: SW846

SAMPLE ID: 186361001

BASIS: As Received

DATE COLLECTED 17-MAY-07

CLIENT ID: BLQW0019E01

LEVEL: Low

DATE RECEIVED 18–MAY–07

MATRIX: WATER

%SOLIDS:

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum ()	0.068	mg/L	0	0.068	.2	0.05	1	Р	JWJ	05/23/07 21:03	052307B-2	635838
7440-36-0	Antimony	0.50	ug/L	U	0.5	2	2		MS	BAJ	05/23/07 08:06	070522-7	635859
7440-38-2	Arsenic UJ/B	2	ug/L	J	1.5	5	1	1	MS	BAJ	05/22/07 19:15	070522-3	635859
7440-39-3	Barium ()	0.50	ug/L	U	0.5	2	1	Т	MS	BAJ	05/22/07 19:15	070522-3	635859
7440-41-7	Beryllium	0.10	ug/L	U	0.1	.5	0.5	1	MS	BAJ	05/22/07 19:15	070522-3	635859
7440-42-8	Boron	0.010	mg/L	U	0.01	.05	0.05	1	Р	JWJ	05/23/07 21:03	052307B-2	635838
7440-43-9	Cadmium	0.10	ug/L	U	0.1	1	1	1	MS	BAJ	05/22/07 19:15	070522-3	635859
7440-47-3	Chromium	1	ug/L	U	1	3	2	I	MS	BAJ	05/22/07 19:15	070522-3	635859
7440-48-4	Cobalt	0.10	ug/L	U	0.1	1	1	1	MS	BAJ	05/22/07 19:15	070522-3	635859
7440-50-8	Copper	0.20	ug/L	U	0.2	1	2		MS	BAJ	05/22/07 19:15	070522-3	635859
7439-92-1	Lead	0.50	ug/L	U	0.5	2	1	1	MS	BAJ	05/23/07 14:55	070523-8	635859
7439-93-2	Lithium	0.002	mg/L	U	0.002	.01	0.05	1	MS	BAJ	05/22/07 19:15	070522-3	635859
7439-98-7	Molybdenum	0.10	ug/L	U	0.1	.5	2	1	MS	BAJ	05/23/07 08:06	070522-7	635859
7440-02-0	Nickel	0.50	ug/L	U	0.5	2	2	1	MS	BAJ	05/22/07 19:15	070522-3	635859
7440-09-7	Potassium	0.080	mg/L	U	0.08	.3	0.5	I	MS	BAJ	05/23/07 14:55	070523-8	635859
7782-49-2	Selenium	2.5	ug/L	U	2.5	5	2	I	MS	BAJ	05/22/07 19:15	070522-3	635859
7440-22-4	Silver	0.20	ug/L	U	0.2	1	1	1	MS	BAJ	05/22/07 19:15	070522-3	635859
7440-23-5	Sodium	0.080	mg/L	U	0.08	.25	0.5	I	MS	BAJ	05/23/07 14:55	070523-8	635859
7440-28-0	Thallium	0.40	ug/L	U	0.4	1	1	1	MS	BAJ	05/22/07 19:15	070522-3	635859
7440-62-2	Vanadium	10	ug/L	UN	10	30	2	1	MS	BAJ	05/23/07 14:55	070523-8	635859
7440-66-6	Zinc	2	ug/L	U	2	10	20	1	MS	BAJ	05/22/07 19:15	070522-3	635859
7440-67-7	Zirconium	0.0005	mg/L	U	0.0005	.002	0.2	1	MS	BAJ	05/23/07 15:45	070523-1	635859

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
635838	635835	SW846 3005A	50	mL	50	mL	05/21/07	SXJ1
635859	635858	SW846 3005A	50	mL	50	mL	05/21/07	SXJ1



Semi-Volatile Certificate of Analysis Sample Summary

Page 1 of 1

62-75-9	N-Nitrosodimethylamine	U	11. 17.4	uo/ko 3.47	17.4 20.0	
CAS No.	Parmname	Qual	Result	Units MDL/LOD	PQL/LOQ RDL	
Prep Date:	05/21/2007 10:30		Aliquot:	30 g	Final Volume:	.5 mL
Prep Batch:	635764		Prep Method:	SW846 3550B	Prep SOP Ref:	GL-OA-E-010
Data File:	s8e2147.d		Inj. Vol:	.5 uL	Dilution:	1
Run Date:	05/22/2007 04:07		Analyst:	NAG1	Instrument:	MSD8.I
Batch ID:	635765		Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Client ID:	BLBS0051S01				Prep Basis:	Dry Weight
SDG Number: Lab Sample ID Client Sample:): 186359006		Client: Date Collected: Date Received:	SSFL001 05/17/2007 12:30 05/18/2007 10:30	Project: Matrix: %Moisture:	SSFL00507 SOIL 4

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine N-Methyl-N-nitrosomethylamin	U	17.4	ug/kg	3.47	17.4	20.0
83-32-9	Acenaphthene	U	17.4	ug/kg	5.80	17.4	20.0
129-00-0	Pyrene	U	17.4	ug/kg	5.45	17.4	20.0
91-20-3	Naphthalene	U	17.4	ug/kg	5.21	17.4	20.0
91-57-6	2-Methylnaphthalene	U	17.4	ug/kg	3,47	17.4	20.0
90-12-0	1-Methylnaphthalene	U	17.4	ug/kg	5.21	17.4	20.0
131-11-3	Dimethyl phthalate	U	17.4	ug/kg	5.21	17.4	20.0
208-96-8	Acenaphthylene	U	17.4	ug/kg	5.21	17.4	20.0
84-66-2	Diethyl phthalate Diethylphthalate	U	17.4	ug/kg	5.21	17.4	20.0
36-73-7	Pluorene	U	17.4	ug/kg	5.21	17.4	20.0
85-01-8	Phenanthrene	U	17.4	ug/kg	5.21	17.4	20.0
120-12-7	Anthracene	U	17.4	ug/kg	3.47	17.4	20.0
84-74-2	Di-n-butyl phthalate Di-n-burylphthalate	J	J 19.5	ug/kg	5.21	17.4	20.0
206-44-0	Fluoranthene	U	U 17.4	ug/kg	5.21	17.4	20.0
85-68-7	Butyl benzyl phthalate Butylbenzylphthalate	U	17.4	ug/kg	5.21	17.4	20.0
56-55-3	Benzo(a)anthracene	U	17.4	ug/kg	5.21	17.4	20.0
218-01-9	Chrysene	U	17.4	ug/kg	5.21	17.4	20.0
117-81-7	Bis(2-ethylhexyl)phthalate bis(2-Ethylhexyl)phthalate	В	72.4	ug/kg	3.47	17.4	20.0
117-84-0	Di-n-octyl phthalate Di-n-octylphthalate	U	U 17.4	ug/kg	5.21	17.4	20.0
205-99-2	Benzo(b)fluoranthene	U	17.4	ug/kg	5.21	17.4	20.0
207-08-9	Benzo(k)fluoranthene	U	17.4	ug/kg	5.21	17.4	20.0
60-32-8	Benzo(a)pyrene	U	17.4	ug/kg	5.21	17.4	20.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	17,4	ug/kg	5.21	17.4	20.0
53-70-3	Dibenzo(a,h)anthracene	U	17.4	ug/kg	5.21	17.4	20.0
191-24-2	Benzo(ghi)perylene	U	17.4	ug/kg	5.21	17.4	20.0

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2,4,6-Tribromophenol	1300	1740	ug/kg	75	(45%-97%)
2-Fluorophenol	1260	1740	ug/kg	73	(35%-98%)
Phenol-d5	1250	1740	ug/kg	72	(45%-95%)
2-Fluorobiphenyl	646	868	ug/kg	74	(45%-101%)
Nitrobenzene-d5	643	868	ug/kg	74	(45%-101%)
p-Terphenyl-d14	834	868	ug/kg	96	(41%-114%)

- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- J Value is estimated
 U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level

SSFL00507

Semi-Volatile Certificate of Analysis Sample Summary

30 g

SSFL001

05/17/2007 12:50

Page 1 of 1

SDG Number: 186359S Lab Sample ID: 186359007 Client Sample: EH VOC Client ID: BLBS0049S01 Batch ID: 635765 Run Date: 05/22/2007 04:30 Data File: s8e2148.d Prep Batch: 635764 Prep Date: 05/21/2007 10:30

Date Received: 05/18/2007 10:30

Method: SW846 8270C

Analyst: NAG1

Inj. Vol: 5 uL

Prep Method: SW846 3550B

Client:

Aliquot:

Date Collected:

Pr SO In Di

Project:

Matrix:

%Moisture: 2.8

Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD8.I
Dilution: 1

SOIL

Prep SOP Ref: GL-OA-E-010 Final Volume: .5 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
52-75-9	N-Nitrosodimethylamine N-Methyl-N-nitrosomethylamin	U	17.2	ug/kg	3.43	17.2	20.0
83-32-9	Acenaphthene	U	17.2	ug/kg	5.73	17.2	20.0
129-00-0	Pyrene	U	17.2	ug/kg	5.39	17.2	20.0
91-20-3	Naphthalene	U	17.2	ug/kg	5.15	17.2	20.0
91-57-6	2-Methylnaphthalene	U	17.2	ug/kg	3.43	17.2	20.0
90-12-0	1-Methylnaphthalene	U	17.2	ug/kg	5.15	17.2	20.0
131-11-3	Dimethyl phthalate Dimethylphthalate	U	17.2	ug/kg	5.15	17.2	20.0
208-96-8	Acenaphthylene	U	17.2	ug/kg	5.15	17.2	20.0
84-66-2	Diethyl phthalate Diethylphthalate	U	17.2	ug/kg	5.15	17.2	20.0
86-73-7	Fluorene	U	17.2	ug/kg	5.15	17.2	20.0
85-01-8	Phenanthrene	U	17.2	ug/kg	5.15	17.2	20.0
120-12-7	Anthracene	U	17.2	ug/kg	3.43	17.2	20.0
84-74-2	Di-n-butyl phthalate Di-n-butylphthalate	U	17.2	ug/kg	5.15	17.2	20.0
206-44-0	Fluoranthene	U	17.2	ug/kg	5.15	17.2	20.0
85-68-7	Butyl benzyl phthalate Butylbenzylphthalate	U	17.2	ug/kg	5.15	17.2	20.0
56-55-3	Benzo(a)anthracene	U	17.2	ug/kg	5.15	17.2	20.0
218-01-9	Chrysene	U	17.2	ug/kg	5.15	17.2	20.0
117-81-7	Bis(2-ethylhexyl)phthalate bis(2-Ethylhexyl)phthalate	U	17.2	ug/kg	3.43	17.2	20.0
117-84-0	Di-n-octyl phthalate Di-n-octylphthalate	U	17.2	ug/kg	5.15	17.2	20.0
205-99-2	Benzo(b)fluoranthene	U	17.2	ug/kg	5.15	17.2	20.0
207-08-9	Benzo(k)fluoranthene	U	17.2	ug/kg	5.15	17.2	20.0
50-32-8	Benzo(a)pyrene	U	17.2	ug/kg	5.15	17.2	20.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	17.2	ug/kg	5.15	17.2	20.0
53-70-3	Dibenzo(a,b)anthracene	U	17.2	ug/kg	5.15	17.2	20.0
191-24-2	Benzo(ghi)perylene	U	17.2	ug/kg	5.15	17.2	20.0

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2,4,6—Tribromophenol	977	1720	ug/kg	57	(45%-97%)
2-Fluorophenol	1050	1720	ug/kg	61	(35%-98%)
Phenol-d5	1010	1720	ug/kg	59	(45%-95%)
2-Fluorobiphenyl	536	858	ug/kg	62	(45%-101%)
Nitrobenzene-d5	550	858	ug/kg	64	(45%-101%)
p-Terphenyl-d14	605	858	ug/kg	71	(41%-114%)

Comments

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Semi-Volatile Certificate of Analysis Sample Summary

Page 1 of 1

SDG Number:	18635908	Client:	SSFL001	ý.	Project:	SSFL00507
Lab Sample ID:	186359008	Date Collected:	05/17/2007 13:15		Matrix:	SOIL
Client Sample:	EH VOC	Date Received:	05/18/2007 10:30		%Moisture:	2.5
Client ID: Batch ID: Run Date: Data File: Prep Batch: Prep Date:	BLBS0050D01 635765 05/22/2007 04:53 s8e2149.d 635764 05/21/2007 10:30	Method: Analyst: Inj. Vol: Prep Method: Aliquot:	SW846 8270C NAG1 5 uL SW846 3550B 30 g	· .	Prep Basis: SOP Ref: Instrument: Dilution: Prep SOP Ref: Final Volume:	Dry Weight GL-OA-E-009 MSD8.I 1 GL-OA-E-010 .5 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine N-Methyl-N-nitrosomethylamin	U	JC 17.1	ug/kg	3.42	17.1	20.0
83-32-9	Acenaphthene	U	17.1	ug/kg	5.71	17.1	20.0
129-00-0	Pyrene	U	17.1	ug/kg	5.37	17.1	20.0
91-20-3	Naphthalene	U	17.1	ug/kg	5.13	17.1	20.0
91-57-6	2-Methylnaphthalene	U	17.1	ug/kg	3.42	17.1	20.0
90-12-0	1-Methylnaphthalene	U	17.1	ug/kg	5.13	17.1	20.0
131-11-3	Dimethyl phthalate Dimethylphthalate	U	17.1	ug/kg	5.13	17.1	20.0
208-96-8	Acenaphthylene	U	17.1	ug/kg	5.13	17.1	20.0
84-66-2	Diethyl phthalate Diethylphthalate	U	17.1	ug/kg	5.13	17.1	20.0
86-73-7	Fluorene	U	17.1	ug/kg	5.13	17.1	20.0
85-01-8	Phenanthrene	U	17.1	ug/kg	5.13	17.1	20.0
120-12-7	Anthracene	U	17.1	ug/kg	3.42	17.1	20.0
84-74-2	Di-n-butyl phthalate Di-n-butylphthalate	J	T 6.54	ug/kg	5.13	17.1	20.0
206-44-0	Fluoranthene	U	1/ 17.1	ug/kg	5.13	17.1	20.0
85-68-7	Butyl benzyl phthalate Butylbenzylphthalate	U	17.1	ug/kg	5.13	17.1	20.0
56-55-3	Benzo(a)anthracene	U	17.1	ug/kg	5.13	17.1	20.0
218-01-9	Chrysene	U	, 17.1	ug/kg	5.13	17.1	20.0
117-81-7	Bis(2-ethylhexyl)phthalate bis(2-Ethylhexyl)phthalate	BJ	UJ B19.3	ug/kg	3.42	17.1	20.0
117-84-0	Di-n-octyl phthalate Di-n-octylphthalate	U	U 17.1	ug/kg	5.13	17.1	20.0
205-99-2	Benzo(b)fluoranthene	U	17.1	ug/kg	5.13	17.1	20.0
207-08-9	Benzo(k)fluoranthene	U	17.1	ug/kg	5.13	17.1	20.0
50-32-8	Benzo(a)pyrene	U	17.1	ug/kg	5.13	17.1	20.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	17.1	ug/kg	5.13	17.1	20.0
53-70-3	Dibenzo(a,h)anthracene	U	17.1	ug/kg	5.13	17.1	20.0
191-24-2	Benzo(ghi)perylene	U	17.1	ug/kg	5.13	17.1	20.0

Result	Nominal	Units	Recovery%	Acceptable Limits
1370	1710	ug/kg	80	(45%-97%)
1180	1710	ug/kg	69	(35%-98%)
1180	1710	ug/kg	69	(45%-95%)
614	855	ug/kg	72	(45%-101%)
627	855	ug/kg	73	(45%-101%)
717	855	ug/kg	84	(41%-114%)
	1370 1180 1180 614 627	1370 1710 1180 1710 1180 1710 614 855 627 855	1370 1710 ug/kg 1180 1710 ug/kg 1180 1710 ug/kg 1180 1710 ug/kg 614 855 ug/kg 627 855 ug/kg	1370 1710 ug/kg 80 1180 1710 ug/kg 69 1180 1710 ug/kg 69 614 855 ug/kg 72 627 855 ug/kg 73

- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- J Value is estimated
 U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

LevelI

Semi-Volatile Certificate of Analysis Sample Summary

Page 1 of 1

Lab Sample ID: Client Sample: Client ID:	186359S 186359009 EH VOC BLBS0050S01		Client: Date Collected: Date Received:	SSFL001 05/17/200 05/18/200	7 13:15	Projec Matrix %Moi	c:	SSFL00507 SOIL 2.1
Batch ID: Run Date: Data File: Prep Batch: Prep Date:	635765 05/22/2007 05:16 s8e2150.d 635764 05/21/2007 10:30		Method: Analyst: Inj. Vol: Prep Method: Aliquot:	SW846 8: NAG1 .5 uL SW846 3 30 g		September 1 to 1 to 1	ef: ment:	Dry Weight GL-OA-E-009 MSD8.I 1 GL-OA-E-010 .5 mL
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine N-Methyl-N-nitrosomethylamin	U	U 17.0	ug/kg	3.41	17.0	20.0
83-32-9	Acenaphthene	U	17.0	ug/kg	5.69	17.0	20.0
129-00-0	Pyrene	U	17.0	ug/kg	5.35	17.0	20.0
91-20-3	Naphthalene	U	17.0	ug/kg	5.11	17.0	20.0
91-57-6	2-Methylnaphthalene	U	17.0	ug/kg	3.41	17.0	20.0
90-12-0	1-Methylnaphthalene	U	17.0	ug/kg	5.11	17.0	20.0
131-11-3	Dimethyl phthalate Dimethylphthalate	U	17.0	ug/kg	5.11	17.0	20.0
208-96-8	Acenaphthylene	U	17.0	ug/kg	5.11	17.0	20.0
84-66-2	Diethyl phthalate Diethylphthalate	U	17.0	ug/kg	5.11	17.0	20.0
86-73-7	Fluorene	U	17.0	ug/kg	5.11	17.0	20.0
35-01-8	Phenanthrene	U	17.0	ug/kg	5.11	17.0	20.0
20-12-7	Anthracene	U	17.0	ug/kg	3.41	17.0	20.0
84-74-2	Di-n-butyl phthalate Di-n-butylphthalate	J	₹ 8.60	ug/kg	5.11	17.0	20.0
206-44-0	Fluoranthene	U	U 17.0	ug/kg	5.11	17.0	20.0
85-68-7	Butyl benzyl phthalate Butylbenzylphthalate	U	17.0	ug/kg	5.11	17.0	20.0
56-55-3	Benzo(a)anthracene	U	17.0	ug/kg	5.11	17.0	20.0
218-01-9	Chrysene	U	, 17.0	ug/kg	5.11	17.0	20.0
117-81-7	Bis(2-ethylhexyl)phthalate bis(2-Ethylhexyl)phthalate	В	WJ/B20.0	ug/kg	3.41	17.0	20.0
17-84-0	Di-n-octyl phthalate Di-n-octylphthalate	U	U 17.0	ug/kg	5.11	17.0	20.0
205-99-2	Benzo(b)fluoranthene	U	17.0	ug/kg	5.11	17.0	20.0
207-08-9	Benzo(k)fluoranthene	U	17.0	ug/kg	5.11	17.0	20.0
0-32-8	Benzo(a)pyrene	U	17.0	ug/kg	5.11	17.0	20.0
93-39-5	Indeno(1,2,3-cd)pyrene	U	17.0	ug/kg	5.11	17.0	20.0
3-70-3	Dibenzo(a,h)anthracene	U	17.0	ug/kg	5.11	17.0	20.0
191-24-2	Benzo(ghi)perylene	U	17.0	ug/kg	5.11	17.0	20.0

Result	Nominal	Units	Recovery%	Acceptable Limits
1260	1700	ug/kg	74	(45%–97%)
1160	1700	ug/kg	68	(35%–98%)
1160	1700	ug/kg	68	(45%–95%)
594	851	ug/kg	70	(45%-101%)
614	851	ug/kg	72	(45%-101%)
892	851	ug/kg	105	(41%-114%)
	1260 1160 1160 594 614	1260 1700 1160 1700 1160 1700 594 851 614 851	1260 1700 ug/kg 1160 1700 ug/kg 1160 1700 ug/kg 1160 1700 ug/kg 594 851 ug/kg 614 851 ug/kg	1260 1700 ug/kg 74 1160 1700 ug/kg 68 1160 1700 ug/kg 68 1160 1700 ug/kg 68 594 851 ug/kg 70 614 851 ug/kg 72

- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

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Page 1

Flame Ionization Detector Certificate of Analysis Sample Summary

SDG Number: 186359S 186359001 Lab Sample ID:

Client: Date Collected: Date Received:

SSFL001 05/17/2007 08:00 05/18/2007 10:30 Project: Matrix: %Moisture:

Prep Basis:

SSFL00507 SOIL

Client ID: Batch ID: BLBS0062D01 635778

Method: 05/22/2007 17:04

SW846 8015A/B SVOC JAOC

SOP Ref: Instrument: Dry Weight GL-OA-E-003 FID4A.I

Run Date: Data File: Prep Batch:

043b4301.d 635777

Analyst: Prep Method:

SW846 3550B

Dilution:

Prep SOP Ref: GL-OA-E-010 1 mL

2.4

Final Volume:

Aliquot: 30 g Prep Date: 05/21/2007 10:30 MDL/LOD PQL/LOQ Result Units CAS No. Parmname Qual

CAS ING.	2 44 11111	11110	Zan.	242247			
92-06-8	m-Terphenyl	h	U	0.171	mg/kg	0.171	0.171
84-15-1	o-Terphenyl	1	U	0.171	mg/kg	0.171	0.171
92-94-4	p-Terphenyl	-	U	0.171	mg/kg	0.171	0.171

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits	
5-alpha-Androstane	1.47	1.71	mg/kg	86	(50%–150%)	

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.



186359S

635778

635777

186359002

BLBS0062S01

044b4401.d

05/22/2007 17:42

05/21/2007 10:30

Report Date: May 23, 2007

Page 1

of 1

Flame Ionization Detector Certificate of Analysis Sample Summary

SSFL001

JAOC

30 g

SW846 3550B

SW846 8015A/B SVOC

Project: 05/17/2007 08:00 Matrix: 05/18/2007 10:30 %Moisture:

SSFL00507 SOIL 2.4

Prep Basis: Dry Weight GL-OA-E-003 SOP Ref:

Instrument: FID4A.I

GL-OA-E-010

Dilution:

Prep SOP Ref: Final Volume: 1 mL

CAS No.	Parmname	Qual	Qual Result		MDL/LOD	PQL/LOQ
92-06-8	m-Terphenyl	U	0.171	mg/kg	0.171	0.171
84-15-1	o-Terphenyl	U	0.171	mg/kg	0.171	0.171
92-94-4	p-Terphenyl	U	0.171	mg/kg	0.171	0.171

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits	
5-alpha-Androstane	1.41	1.71	mg/kg	82	(50%–150%)	

Client:

Method:

Analyst:

Aliquot:

Date Collected:

Date Received:

Prep Method:

Comments:

SDG Number:

Client ID:

Batch ID:

Run Date:

Data File:

Prep Batch:

Prep Date:

Lab Sample ID:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.



186359S

635778

635777

186359003

BLBS0063S01

046b4601.d

05/22/2007 18:57

Report Date: May 23, 2007 Page 1 of 1

Flame Ionization Detector Certificate of Analysis Sample Summary

JAOC

30 g

SW846 3550B

Client: SSFL001 05/17/2007 08:45 Date Collected:

Project: Matrix: %Moisture:

SSFL00507 SOIL 4.6

05/18/2007 10:30 SW846 8015A/B SVOC

Prep Basis: SOP Ref:

Dry Weight GL-OA-E-003

FID4A.I Instrument:

Dilution; Prep SOP Ref: GL-OA-E-010

Final Volume: 1 mL

Prep Date:	05/21/2007 10:30		Aliquot:	30 g		Final	
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	
92-06-8	m-Terphenyl (U	0.175	mg/kg	0.175	0.175	
84-15-1	o-Terphenyl	U	0.175	mg/kg	0.175	0.175	
92-94-4	p-Terphenyl	U	0.175	mg/kg	0.175	0.175	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits	
5-alpha-Androstane	1.45	1.75	mg/kg	83	(50%-150%)	

Date Received:

Prep Method:

Method:

Analyst:

Aliquot:

Comments:

SDG Number:

Client ID:

Batch ID:

Run Date:

Data File:

Prep Batch:

Lab Sample ID:

LevelI

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Page 1

Flame Ionization Detector

Certificate of Analysis

Sample Summary

1863598 SDG Number: 186359004 Lab Sample ID:

Client: Date Collected: Date Received: SSFL001 05/17/2007 09:15 05/18/2007 10:30 Project: Matrix: %Moisture: SSFL00507 SOIL

5.4

Client ID: Batch ID:

BLBS0056S01

635778

Method: Analyst: SW846 8015A/B SVOC JAOC

Prep Basis: SOP Ref: Instrument: Dry Weight GL-OA-E-003 FID4A.I

Run Date: Data File:

05/22/2007 18:20 045b4501.d Prep Batch: 635777

Prep Method:

SW846 3550B

Dilution:

Prep SOP Ref: GL-OA-E-010

Prep Date:

05/21/2007 10:30

Aliquot: 30 g

Final Volume: 1 mL

CAS No.	No. Parmame (Result	Units	MDL/LOD	PQL/LOQ	
92-06-8	m-Terphenyl	U	0.176	mg/kg	0.176	0.176	
84-15-1	o-Terphenyl	U	0.176	mg/kg	0.176	0.176	
92-94-4	p-Terphenyl	U	0.176	mg/kg	0.176	0.176	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
5-alpha-Androstane	1.32	1.76	mg/kg	75	(50%-150%)

Comments:

Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.



Page 1

Flame Ionization Detector

Certificate of Analysis Sample Summary

Client: SDG Number: 1863598 186359005 Lab Sample ID:

SSFL001 05/17/2007 09:30 Date Collected: 05/18/2007 10:30 Date Received:

Project: Matrix: %Moisture: SSFL00507 SOIL 5.2

Client ID: Batch ID:

BLBS0056S02 635778

Method: 05/22/2007 14:32 Analyst:

SW846 8015A/B SVOC JAOC

Prep Basis: SOP Ref: Instrument: Dry Weight GL-OA-E-003 FID4A.I

Run Date: Data File: Prep Batch:

039b3901.d

Dilution:

Prep SOP Ref: GL-OA-E-010

Prep Date:

635777 05/21/2007 10:30 Prep Method: Allquot:

SW846 3550B 30 g

Final Volume: 1 mL

CAS No.	S No. Parmianie		No. Parmame		Result	Units	MDL/LOD	PQL/LOQ	
92-06-8	m-Terphenyl	U	0.176	mg/kg	0.176	0.176			
84-15-1	o-Terphenyl	U	0.176	mg/kg	0.176	0.176			
92-94-4	p-Terphenyl	Ū	0.176	mg/kg	0.176	0.176			

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits	
5-alpha-Androstane	1.25	1.76	mg/kg	71	(50%-150%)	

Comments:

Wel I

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

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of 1

Flame Ionization Detector Certificate of Analysis

Sample Summary

JAOC

SDG Number: 186359S 186359006 Lab Sample ID: Client Sample: EH VOC Client ID: BLBS0051S01

SSFL001 Client: 05/17/2007 12:30 Date Collected: 05/18/2007 10:30 Date Received:

Project: Matrix:

SSFL00507 SOIL

%Moisture: Prep Basis:

Dry Weight GL-OA-E-003

SOP Ref: FID4A.I Instrument:

Dilution: GL-OA-E-010 Prep SOP Ref:

Prep Batch:	635782
Prep Date:	05/21/2007 11:00
CAS No.	Parmname

635783

05/21/2007 21:05

009b0901.d

Prep	Method:
Aliqu	ot:

Result

Method:

Analyst:

SW846 3550B 30 g

Units

SW846 8015A/B SVOC

Final Volume: 1 mL

MDL/LOD	PQL/LOQ	RDL
1.15	3.47	5.00
115	2.47	5.00

EFHD (C12-C14)	EFH C12-C14 EFH (>C11 - C14)	u	U	3.47	mg/kg	1.15	3.47	5.00
EFHD (C15-C20)	EFH C15-C20	U	U	3.47	mg/kg	1.15	3.47	5.00
EFHD (C21-C30)				11.1	mg/kg	1.15	3.47	5.00
EFHD (C8-C11)	EFH (>C20 - C30) EFH C8-C11	1112	ВЈ	1.54	mg/kg	1.15	3.47	5.00
	EFH (C8 - C11)	MID					1	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Linus
o-Terphenyl	0.511	0.695	mg/kg	74	(43%-136%)

Comments:

Batch ID:

Run Date:

Data File:

For General Chemistry and Organic analysis the target analyte was detected in the associated blank. \mathbf{B}

Qual

- Value is estimated
- Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.



1863598

186359007

EH VOC

635783

635782

BLBS0049S01

05/21/2007 21:43

010b1001.d

SDG Number:

Lab Sample ID:

Client Sample:

Client 1D:

Batch ID:

Run Date:

Data File:

Prep Batch:

Report Date: May 23, 2007

Page 1

Flame Ionization Detector Certificate of Analysis Sample Summary

SW846 3550B

Date Received: Method:	05/18/2007 10:30 SW846 8015A/B SVOC	%Moisture: Prep Basis: SOP Ref:	2.8 Dry Weight GL-OA-E-003
Analyst:	JAOC	Instrument:	FID4A.I

Dilution:

Prep SOP Ref: GL-OA-E-010

Prep Date:	05/21/2007 11:00		Aliquot:	30 g		Final	Volume:	1 mL
CAS No.	Parmuaine	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	
EFHD (C12-C14)	EFH (>C11 - C14)	U	3.43	mg/kg	1.13	3.43	5.00	
EFHD (C15-C20)	EFH C15-C20		16.5	mg/kg	1.13	3.43	5.00	

Prep Method:

EFHD (C12-C14)	EFH C12-C14 EFH (>C11 - C14)	U	3.43	mg/kg	1.13	3.43	5.00
EFHD (C15-C20)	EFH C15-C20 EFH (>C14 - C20) 5 15		16.5	mg/kg	1.13	3.43	5.00
3FHD (C21-C30)	EFH C21-C30 J S EFH (>C20 - C30)		107	mg/kg	1.13	3.43	5.00
EFHD (C8-C11)	EFH C8-C11 UB	BJ	2.04	mg/kg	1.13	3.43	5.00

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits	
o-Terphenyl	1.05	0.686	mg/kg	154 *	(43%136%)	

Comments:

Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.



B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

Value is estimated

Report Date: May 23, 2007 Page 1 of 1

Flame Ionization Detector Certificate of Analysis

Sample	Summary
--------	---------

SDG Number: Lab Sample ID: Client Sample:	186359S 186359008 EH VOC	Client: Date Collected: Date Received:	SSFL001 05/17/2007 13:15 05/18/2007 10:30	Project: Matrix: %Molsture:	SSFL00507 SOIL 2.5
Client ID: Batch ID: Run Date:	BLBS0050D01 635783 05/21/2007 19:48	Method: Analyst:	SW846 8015A/B SVOC JAOC	Prep Basis: SOP Ref: Instrument:	Dry Weight GL-OA-E-003 FID4A.I
Data File: Prep Batch: Prep Date:	007b0701.d 635782 05/21/2007 11:00	Prep Method: Aliquot:	SW846 3550B 30 g	-	1 GL-OA-E-010 1 mL

CAS No.	Parmam	e	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
EFHD (C12-C14)	EFH C12-C14 EFH (>C11 - C14)	4	U	3,42	mg/kg	1.13	3.42	5.00
EFHD (C15-C20)		J	J	2.42	mg/kg	1.13	3.42	5.00
EFHD (C21-C30)		J	J	2.02	mg/kg	1.13	3.42	5.00
EFHD (C8-C11)		UB	BJ	1.63	mg/kg	1.13	3.42	5.00

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits	
o-Terphenyl	0.520	0.684	mg/kg	76	(43%–136%)	

Comments:

- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- Value is estimated
- Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.



Flame Ionization Detector Certificate of Analysis Sample Summary

Page I

Lab Sample ID: 186359009 Date Collected: 05/17/2007 13:15 Matrix: SOIL Client Sample: EII VOC Date Received: 05/18/2007 10:30 %Moisture: 2.1 Client ID: BLBS0050S01 Prep Basis: Dry Weight Batch ID: 635783 Method: SW846 8015A/B SVOC SOP Ref: GL-OA-E Run Date: 05/21/2007 20:26 Analyst: JAOC Instrument: FID4A.I Data File: 008b0801.d Dilution: 1											
Client Sample: EII VOC Date Received: 05/18/2007 10:30 %Moisture: 2.1	07	SSFL00507	ct:	Proje		SSFL001	lient:	c		186359S	SDG Number:
Client ID: BLBS0050S01 Batch ID: 635783 Method: SW846 8015A/B SVOC SOP Ref: GL-OA-ER Run Date: 05/21/2007 20:26 Analyst: JAOC Instrument: FID4A.I		SOIL	ix;	Matrix:		05/17/2007 13:15		D		: 186359009	Lab Sample ID:
Batch ID: 635783 Method: SW846 8015A/B SVOC SOP Ref: GL-OA-E Run Date: 05/21/2007 20:26 Analyst: JAOC Instrument: FID4A.I Data File: 008b0801.d Dilution: 1 Prep Batch: 635782 Prep Method: SW846 3550B Prep SOP Ref: GL-OA-E Prep Date: 05/21/2007 11:00 Aliquot: 30 g Final Volume: 1 mL CAS No. Parmname Qual Result Units MDL/LOD PQL/LOQ RDL EFHD (C12-C14) EFH C12-C14 U 3.41 mg/kg 1.12 3.41 5.00 EFHID (C15-C20) EFH (>C14 - C20) U 3.41 mg/kg 1.12 3.41 5.00 EFH (>C21-C30) EFH (>C20 - C30) J 1.41 mg/kg 1.12 3.41 5.00 EFHD (C8-C11) EFH C8-C11 BJ 1.63 mg/kg 1.12 3.41 5.00		2.1	isture:	%Mo	7 10:30	05/18/2007	ate Received:	D		EII VOC	Client Sample:
Run Date: 05/21/2007 20:26 Analyst: JAOC Instrument: FID4A.I Data File: 008b0801.d Dilution: 1 Prep Batch: 635782 Prep Method: SW846 3550B Prep SOP Ref: GL-OA-E-Prep Date: Prep Date: 05/21/2007 11:00 Aliquot: 30 g Final Volume: 1 mL CAS No. Parmname Qual Result Units MDL/LOD PQL/LOQ RDL EFHD (C12-C14) EFH C12-C14 U 3.41 mg/kg 1.12 3.41 5.00 EFHID (C15-C20) EFH (>C14 - C20) U 3.41 mg/kg 1.12 3.41 5.00 EFHID (C21-C30) EFH (>C14 - C20) U 3.41 mg/kg 1.12 3.41 5.00 EFHD (C8-C11) EFH C3-C11 BJ 1.63 mg/kg 1.12 3.41 5.00	ht	Dry Weight	Basis:	Prep						BLBS0050S01	Client ID:
Data File: 008b0801.d Dilution: 1	E-003	GL-OA-E-0	Ref:	SOP	15A/B SVOC	SW846 80	ethod:	M		635783	Batch ID:
Prep Batch: 635782 Prep Method: SW846 3550B Prep SOP Ref: GL-OA-E-Prep Date: 05/21/2007 11:00 Aliquot: 30 g Final Volume: 1 mL		FID4A.I	ıment:	Instrument:		JAOC		A		05/21/2007 20:26	Run Date:
Prep Date: 05/21/2007 11:00 Aliquot: 30 g Final Volume: 1 mL		1	on:	Diluti			-			008b0801.d	Data File:
CAS No. Parmanne Qual Result Units MDL/LOD PQL/LOQ RDL EFHD (C12-C14) EFH C12-C14 U 3.41 mg/kg 1.12 3.41 5.00	E-010	GL-OA-E-0	SOP Ref:	Prep 3	50B	SW846 35	ep Method:	Pı		635782	Prep Batch:
EFHD (C12-C14) EFH C12-C14		1 mL	Volume:	Final		30 g	iquot:	A		05/21/2007 11:00	Prep Date:
EFH (>C11 - C14) U 3.41 mg/kg 1.12 3.41 5.00			RDL	PQL/LOQ	MDL/LOD	Units	Result	Qual	e Qı	Parmame	CAS No.
EFH (>C11 - C14) U 3.41 mg/kg 1.12 3.41 5.00			5.00	3.41	1.12	mg/kg	3.41	U		EFH C12-C14	EFHD (C12-C14)
EFH (>C14 - C20) EFIID (C21-C30) EFH C21-C30 J 1.41 mg/kg 1.12 3.41 5.00 EFH (>C20 - C30) EFH C8-C11 BJ 1.63 mg/kg 1.12 3.41 5.00		1							u		
EFH (>C14 - C20) EFH (>C21-C30) EFH C21-C30			5.00	3.41	1.12	mg/kg	3.41	บ	u	4	EFIID (C15-C20)
EFH (>C20 - C30) EFHD (C8-C11) EFH C8-C11							1 41	-		EFH (>C14 - C20)	CEUD (C21, C20)
EFHD (C8-C11) EFH C8-C11		1	5.00	3.41	1.12	mg/kg	1.41	,			Criii (C21-C30)
1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			5.00	3 41	1.12	me/ke	1.63	BI	8 10 P		EFHD (C8-C11)
			5.00	2.74					110	1 1 1	
Surrogate/Tracer recovery Result Nominal Units Recovery% Acceptable Limits			ole Limits	Acceptat	Recovery%	al Units	nit Nomin	Res		er recovery	Surrogate/Trace
o-Terphenyl 0.468 0.681 mg/kg 69 (43%-136%)		1	136%)	(43%-	69	mg/kg	58 0.681	0.4			o-Terphenyl

Comments:

B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Flame Ionization Detecto	1
Certificate of Analysis	
Sample Summary	

SSFL001

Project: S

SSFL00507

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Client Sample: EH

186359W 186361001 EH VOC Client:
Date Collected:
Date Received:

05/17/2007 13:00 05/18/2007 10:30 Matrix:
Prep Basis:

WATER

Client ID: Batch ID: Run Date:

Data File:

SDG Number:

Lab Sample ID:

BLQW0019E01

635941 05/22/2007 23:38 055b5501.d

Method: Analyst: Aliquot: SW846 8015A/B SVOC JAOC 1060 mL SOP Ref: Instrument: Dllution:

As Received GL-OA-E-003 FID4A.I

 Prep Batch:
 635940
 Prep Method:
 SW846 3510C

 Prep Date:
 05/21/2007 21:25
 Aliquot:
 1060 mL

Prep SOP Ref: GL-OA-E-013
Final Volume: 1 mL

-			-				
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
EFHD (C12-C14)	EFH C12-C14 EFH (>C11 - C14)	U	0.0943	mg/L	0.0311	0.0943	0.500
EFHD (C15-C20)	EFH C15-C20 EFH (>C14 - C20)	υ	0.0943	mg/L	0.0311	0.0943	0.500
EFIID (C21-C30)	EFII C21-C30 EFH (>C20 - C30)	U	0.0943	mg/L,	0.0311	0.0943	0.500
EFHD (C8-C11)	EFH C8-C11 EFH (C8 - C11)	U	0.0943	mg/L	0.0311	0.0943	0.500
92-06-8	m-Terphenyl	U	0.00472	mg/L	0.00472	0.00472	
84-15-1	o-Terphenyl	U	0.00472	mg/L	0.00472	0.00472	
92-94-4	p-Terphenyl 🕠	U	0.00472	mg/L	0.00472	0.00472	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits	
5-alpha-Androstane	0.0315	0.0472	mg/L	67	(50%-150%)	

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.



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of 1

PCB

Certificate of Analysis Sample Summary

SDG Number:	186359S		Client:	SSFL001		Projec	t:	SSFL00507
Lab Sample ID:	186359006		Date Collected:	05/17/2001	7 12:30	Matrix	:	SOIL
Client Sample:	EH VOC		Date Received:	05/18/2001	7 10:30	%Moi:	sture:	4
Client ID:	BLBS0051S01					Prep B	asis:	Dry Weight
Batch ID:	635757		Method:	SW846 80	82	SOP R	ef:	GL-OA-E-040
Run Date:	05/22/2007 18:33		Analyst:	RAW2		Instru	ment:	ECD1A.I
Data File:	Dual Column		Inj. Vol:	1 uL		Dilutio	n:	1
Prep Batch:	635756		Prep Method:	SW846 35	550B	Prep S	OP Ref:	GL-OA-E-010
Prep Date:	05/21/2007 10:45		Aliquot:	30 g		Final V	olume:	1 mI.
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	Data File

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	Data File
12674-11-2	Aroclor-1016 U	U	3.47	ug/kg	1.16	3.47	50.0	042f4201.d
11104-28-2	Aroclor-1221	U	3.47	ug/kg	1.16	3.47	50.0	042f4201.d
11141-16-5	Aroclor-1232	U	3.47	ug/kg	1.16	3.47	50.0	042f4201.d
53469-21-9	Aroclor-1242	U	3.47	ug/kg	1.16	3.47	50.0	042f4201.d
12672-29-6	Aroclor-1248 J X	P	111	ug/kg	1.16	3.47	50.0	042f4201.d
11097-69-1	Aroclor-1254		52.4	ug/kg	1.16	3.47	50.0	042b4201.d
11096-82-5	Aroclor-1260		32.7	ug/kg	1.16	3.47	50.0	042b4201.d

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits	Data File
4cmx	6.61	6.95	ug/kg	95	(41%-112%)	042b4201.d
Decachlorobiphenyl	5.16	6.95	ug/kg	74	(40%-109%)	042b4201.d

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.



P Organics—The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%

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043b4301.d

043f4301.d

of 1

PCB Certificate of Analysis

Sample Summary

SDG Number: Lab Sample II Client Sample	D: 186359007 : EH VOC		Client: Date Collected: Date Received:	SSFL001 05/17/200 05/18/200			ix: isture:	SSFL00507 SOIL 2.8	
Client ID: BLBS0049S01 Batch ID: 635757 Run Date: 05/22/2007 18:44 Data File: Dual Column Prep Batch: 635756 Prep Date: 05/21/2007 10:45			Method: Analyst: Inj. Vol: Prep Method: Aliquot:	SW846 80 RAW2 1 uL SW846 33 30 g		SOP I Instru Diluti Prep	ıment:	Dry Weight GL-OA-E-040 ECD1A.I I GL-OA-E-010 I mI,	
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	Data File	
12674-11-2	Aroclor-1016	U	3.43	ug/kg	1.14	3.43	50.0	043f4301.d	
11104-28-2	Aroclor-1221	U	3.43	ug/kg	1.14	3.43	50.0	043f4301.d	
11141-16-5	Aroclor-1232	U	3.43	ug/kg	1.14	3.43	50.0	043f4301.d	
53469-21-9	Aroclor-1242	U	3.43	ug/kg	1.14	3.43	50.0	043f4301.d	
12672-29-6	Aroclor-1248	U	3.43	ug/kg	1.14	3.43	50.0	043f4301.d	
	Aroclor-1254	U	3.43	ug/kg	1.14	3.43	50.0	043f4301.d	
11097-69-1			The second secon	ug/kg	1.14	3.43	50.0	043f4301.d	

6.86

6.86

ug/kg

ug/kg

88

60

(40%-109%)

(41%-112%)

Comments:

4cmx

Decachlorobiphenyl

6.05

4.14

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

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0.1011110

of 1

PCB
Certificate of Analysis
Sample Summary

SDG Number: Lab Sample ID Client Sample:			Client: Date Collected: Date Received:	SSFL001 05/17/2007 13:15 05/18/2007 10:30		Project: Matrix: %Moisture:		SSFL00507 SOIL 2.5
Client ID: Batch ID: Run Date: Data File: Prep Batch: Prep Date:	BLBS0050D01 635757 05/23/2007 10:48 Dual Column 635756 05/21/2007 10:45	Method: SW846 8082 007 10:48 Analyst: RAW2 olumn Inj. Vol: 1 uL Prep Method: SW846 3550B			•	Ref: ment:	Dry Weight GL-OA-E-040 ECD1A.I 10 GL-OA-E-010 I ml.	
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	Data File
12674-11-2	Aroclor-1016	U	34.2	ug/kg	11.4	34.2	50.0	011f1101.d
11104-28-2	Aroclor-1221	U	34.2	ug/kg	11.4	34.2	50.0	011f1101.d
11141-16-5	Aroclor-1232	U	34.2	ug/kg	11.4	34.2	50.0	011f1101.d
53469-21-9	Aroclor-1242	U	34.2	ug/kg	11.4	34.2	50.0	011f1101.d
12672-29-6	Aroclor-1248		246	ug/kg	11.4	34.2	50.0	011f1101.d
	Aroclor-1254		134	ug/kg	11.4	34.2	50.0	011b1101.d
11097-69-1								1

6.84

6.84

ug/kg

ug/kg

80

87

(41%-112%)

(40%-109%)

Comments:

Decachlorobiphenyl

4cmx

5.49

5.95

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

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012f1201.d

of l

PCB

Certificate of Analysis Sample Summary

				Sump	CDUMMAN	ar y				
SDG Number: Lab Sample II Client Sample:	D: 186359009		Client: SSFL001 Date Collected: 05/17/2007 13:15 Date Received: 05/18/2007 10:30		Projec Matri: %Moi		SSFL00507 SOIL 2.1			
Client ID: BLBS0050S01 Batch ID: 635757 Run Date: 05/23/2007 10:59 Data File: Dual Column Prep Batch: 635756 Prep Date: 05/21/2007 10:45			Method: Analyst: Inj. Vol: Prep Method: Aliquot:		SW846 80 RAW2 1 uL SW846 35		•	Ref: ment:	Dry Weight GL-OA-E-040 ECD1A.I 10 GL-OA-E-010 I mI,	
CAS No.	Parmname	Qual	Resi	ult	Units	MDL/LOD	PQL/LOQ	RDL	Data File	
12674-11-2	Aroclor-1016	U	34.	1	ug/kg	11.3	34.1	50.0	012f1201.d	
11104-28-2	Aroclor-1221	U	34.	1	ug/kg	11.3	34.1	50.0	012f1201.d	
11141-16-5	Aroclor-1232	U	34.	1	ug/kg	11.3	34.1	50.0	012f1201.d	
53469-21-9	Aroclor-1242	U	34.	1	ug/kg	11.3	34.1	50.0	012f1201.d	
12672-29-6	Aroclor-1248		200	0	ug/kg	11.3	34.1	50.0	012f1201.d	
11097-69-1	Aroclor-1254		99.	8	ug/kg	11.3	34.1	50.0	012b1201.d	
11096-82-5	Aroclor-1260	U	34.	1	ug/kg	11.3	34.1	50.0	012f1201.d	
Surrogate/Tra	cer recovery		Result	Nomina	l Units	Recovery %	Acceptab	le Limits	Data File	
4cmx		5.82 6.81 u		ug/kg	85	(41%-	112%)	012f1201.d		
				1		1	i			

6.81

ug/kg

101

(40%-109%)

Comments:

Decachlorobiphenyl

6.88

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

PCB

Report Date: May 22, 2007 Page 1

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Certificate of Analysis Sample Summary

SSFL001

05/17/2007 13:00

Client Sample: EH VOC Client ID: BLQW0019E01

Lab Sample ID: 186361001

SDG Number:

Batch ID:

Run Date:

Data File:

Prep Batch:

Prep Date:

186359W

635738 05/21/2007 11:15 **Dual Column**

635737 05/18/2007 17:25

05/18/2007 10:30 Date Received: Method: SW846 8082 Analyst: RAW2

Client:

Date Collected:

Inj. Vol: 1 uL Prep Method: SW846 3510C Aliquot: 1140 mL

Project: Matrix:

SSFL00507 WATER

Prep Basis: As Received SOP Ref: GL-OA-E-040 Instrument: ECD1A.I

Dilution: Prep SOP Ref: GL-OA-E-013 Final Volume: 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	Data File
12674-11-2	Aroclor-1016	U	0.0877	ug/L	0.0292	0.0877	1.00	015f1501.d
11104-28-2	Aroclor-1221	U	0.0877	ug/L	0.0292	0.0877	1.00	015f1501.d
11141-16-5	Aroclor-1232	U	0.0877	ug/L	0.0292	0.0877	1.00	015f1501.d
53469-21-9	Aroclor-1242	U	0.0877	ug/L	0.0292	0.0877	1.00	015f1501.d
12672-29-6	Aroclor-1248	U	0.0877	ug/L	0.0292	0.0877	1.00	015f1501.d
1097-69-1	Aroclor-1254	U	0.0877	ug/L	0.0292	0.0877	1.00	015f1501.d
11096-82-5	Aroclor-1260	U	0.0877	ug/L	0.0292	0.0877	1.00	015f1501.d

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits	Data File
4cmx	0.114	0.175	ug/L	65	(42%-107%)	015b1501.d
Decachlorobiphenyl	0.0979	0.175	ug/L	56	(37%–115%)	015b1501.d

 $U-\Lambda nalyte$ was analyzed for, but not detected above the MDL, MDA, or LOD.

Lab Sample ID: 186359001

186359S

SDG Number:

Report Date: May 23, 2007

Page 1 of 3

Semi-Volatile Certificate of Analysis Sample Summary

Client: SSFL001 Project: SSFL00507 05/17/2007 08:00 Matrix: Date Collected: SOIL 05/18/2007 10:30 %Moisture: Date Received:

Client ID: BLBS0062D01 Prep Basis: Dry Weight Batch ID: 635762 Method: SW846 8270C SOP Ref: GL-OA-E-009 Run Date: 05/22/2007 01:45 Analyst: Inj. Vol: Instrument: CAK MSD1.I Data File: s1e2152.d .5 uL Dilution: Prep Batch: Prep SOP Ref: GL-OA-E-010

Prep Method: SW846 3550B ıL.

Prep Date:	05/21/2007 11:00		Aliquot:	30 g		Final Volume:		1 ml
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	
62-75-9	N-Nitrosodimethylamine N-Methyl-N-nitrosomethylamin	U	W 342	ug/kg	68.3	342	330	
108-95-2	Phenol	U	342	ug/kg	68.3	342	330	
95-57-8	2-Chlorophenol	U	342	ug/kg	68.3	342	330	
106-46-7	1,4-Dichlorobenzene	U	342	ug/kg	68.3	342	330	
621-64-7	N-Nitrosodi-n-propylamine N-Nitrosodipropylamine	U	342	ug/kg	68.3	342	250	
59-50-7	4-Chloro-3-methylphenol	U	342	ug/kg	34.2	342	330	
83-32-9	Acenaphthene	U	34.2	ug/kg	11.4	34.2	330	
121-14-2	2,4-Dinitrotoluene	U	342	ug/kg	34.2	342	330	
100-02-7	4-Nitrophenol	U	342	ug/kg	68.3	342	830	
87-86-5	Pentachlorophenol	U	342	ug/kg	68.3	342	830	
129-00-0	Pyrene	U	34.2	ug/kg	10.7	34.2	330	
62-53-3	Aniline	U	342	ug/kg	120	342	420	
111-44-4	Bis(2-chloroethyl)ether bis(2-Chloroethyl) ether	U	342	ug/kg	68.3	342	330	
541-73-1	1,3-Dichlorobenzene	U	342	ug/kg	68.3	342	330	
100-51-6	Benzyl alcohol	U	342	ug/kg	103	342	330	
95-50-1	1,2-Dichlorobenzene	U	342	ug/kg	68.3	342	330	
108-60-1	Bis(2-chloroisopropyl)ether bis(2-Chloroisopropyl)ether	U	342	ug/kg	68.3	342	330	
95-48-7	2-Methylphenol o-Cresol	U	342	ug/kg	68.3	342	330	
65794-96-9	4-Methylphenol m,p-Cresols	U	342	ug/kg	137	342	330	
67-72-1	Hexachloroethane	U	342	ug/kg	68.3	342	330	- 10
98-95-3	Nitrobenzene	U	342	ug/kg	68.3	342	330	
78-59-1	Isophorone	U	342	ug/kg	68.3	342	330	
88-75-5	2-Nitrophenol	U	342	ug/kg	34.2	342	330	
105-67-9	2,4-Dimethylphenol	U	342	ug/kg	68.3	342	330	
111-91-1	Bis(2-chloroethoxy)methane bis(2-Chloroethoxy)methane	U	342	ug/kg	68.3	342	330	
65-85-0	Benzoic acid	U	683	ug/kg	171	683	830	
91-20-3	Naphthalene	U	34.2	ug/kg	10.3	34.2	330	
106-47-8	4-Chloroaniline	U	342	ug/kg	68.3	342	330	
87-68-3	Hexachlorobutadiene	U	342	ug/kg	68.3	342	330	
91-57-6	2-Methylnaphthalene	U	34.2	ug/kg	6.83	34.2	330	
77-47-4	Hexachlorocyclopentadiene	U	342	ug/kg	68.3	342	830	
88-06-2	2,4,6-Trichlorophenol	U	342	ug/kg	68.3	342	330	

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Lab Sample ID: 186359001

186359S

635762

s1e2152.d

BLBS0062D01

05/22/2007 01:45

SDG Number:

Client ID:

Batch ID:

Run Date:

Data File:

Report Date: May 23, 2007

Page 2 of 3

Semi-Volatile Certificate of Analysis Sample Summary

SSFL001

05/17/2007 08:00

05/18/2007 10:30

Project: SSFL00507 Matrix: SOIL %Moisture: 2.4

 Method:
 SW846 8270C
 Prep Basis:
 Dry Weight

 Analyst:
 CAK
 Instrument:
 MSD1.I

 Inj. Vol:
 .5 uL
 Dilution:
 1

 Prep Batch:
 635761
 Prep Method:
 SW846 3550B
 Prep SOP Ref:
 GL-OA-E-010

 Prep Date:
 05/21/2007 11:00
 Aliquot:
 30 g
 Final Volume:
 1 mL

Date Collected:

Date Received:

Prep Date:	05/21/2007 11:00		Aliquot:	30 g		Final V	olume:	1 m
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	
95-95-4	2,4,5-Trichlorophenol	U	11 342	ug/kg	68.3	342	330	-
91-58-7	2-Chloronaphthalene	U	1 34.2	ug/kg	12.0	34.2	330	-
88-74-4	2-Nitroaniline o-Nitroaniline	U	342	ug/kg	68.3	342	330	
99-09-2	3-Nitroaniline m-Nitroaniline	U	342	ug/kg	68.3	342	330	-
131-11-3	Dimethyl phthalate Dimethylphthalate	U	342	ug/kg	68.3	342	330	\exists
606-20-2	2,6-Dinitrotoluene	U	342	ug/kg	34.2	342	330	-
208-96-8	Acenaphthylene	U	34.2	ug/kg	10.3	34.2	330	-
51-28-5	2,4-Dinitrophenol	U	683	ug/kg	130	683	660	-
132-64-9	Dibenzofuran	U	342	ug/kg	68.3	342	100,000	
84-66-2	Diethyl phthalate Diethylphthalate	U	342	ug/kg	68.3	342	330	
86-73-7	Fluorene	U	34.2	ug/kg	10.3	34.2	330	_
7005-72-3	4-Chlorophenyl phenyl ether 4-Chlorophenylphenylether	U	342	ug/kg	34.2	342	330	-
534-52-1	4,6-Dinitro-2-methylphenol 2-Methyl-4,6-dinitrophenol	U	342	ug/kg	68.3	342	420	
100-01-6	4-Nitroaniline p-Nitroaniline	U	342	ug/kg	68.3	342	830	
122-39-4	Diphenylamine	U	342	ug/kg	68.3	342	330	
122-66-7	1,2-Diphenylhydrazine/Azobenzen 1,2-Diphenylhydrazine	U	342	ug/kg	68.3	342	330	
101-55-3	4-Bromophenyl phenyl ether 4-Bromophenylphenylether	U	342	ug/kg	34.2	342	330	
118-74-1	Hexachlorobenzene	U	342	ug/kg	68.3	342	330	-
85-01-8	Phenanthrene	U	34.2	ug/kg	10.3	34.2	330	
120-12-7	Anthracene	U	34.2	ug/kg	6.83	34.2	330	\rightarrow
84-74-2	Di-n-butyl phthalate Di-n-butylphthalate	U	342	ug/kg	34.2	342	330	1
206-44-0	Fluoranthene	U	34.2	ug/kg	10.3	34.2	330	-
92-87-5	Benzidine	U	342	ug/kg	342	342	660	-
85-68-7	Butyl benzyl phthalate Butylbenzylphthalate	U	342	ug/kg	68.3	342	330	
56-55-3	Benzo(a)anthracene	U	34.2	ug/kg	10.3	34.2	330	-
91-94-1	3,3*-Dichlorobenzidine	U	342	ug/kg	103	342	830	-
218-01-9	Chrysene	U	34.2	ug/kg	10,3	34.2	330	-
117-81-7	Bis(2-ethylhexyl)phthalate bis(2-Ethylhexyl)phthalate	U	171	ug/kg	68.3	171	330	-
117-84-0	Di-n-octyl phthalate Di-n-octylphthalate	U	342	ug/kg	68.3	342	330	-
205-99-2	Benzo(b)fluoranthene	U	34.2	ug/kg	10.3	34.2	330	
207-08-9	Benzo(k)fluoranthene	U	, 34.2	ug/kg	10.3	34.2	330	-
50-32-8	Benzo(a)pyrene	U	34.2	ug/kg	10.3	34.2	330	-

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Semi-Volatile Certificate of Analysis Sample Summary

Page 3 of 3

				Samp	ie Summ	ary			
SDG Number: Lab Sample ID:			Client: Date Co Date Re		SSFL001 05/17/2007 05/18/2007		Projec Matri %Moi		SSFL00507 SOIL 2.4
Client ID: Batch ID: Run Date: Data File: Prep Batch: Prep Date:	BLBS0062D01 635762 05/22/2007 01:45 s1e2152.d 635761 05/21/2007 11:00		Method Analyst Inj. Vol Prep Me Aliquot:	: : ethod:	SW846 82 CAK .5 uL SW846 35 30 g		100000000000000000000000000000000000000	tef: ment:	Dry Weight GL-OA-E-009 MSDLI 1 GL-OA-E-010 1 mL
CAS No.	Parmname	Qual	Res	ult	Units	MDL/LOD	PQL/LOQ	RDL	
193-39-5	Indeno(1,2,3-cd)pyrene	U	U 34	.2	ug/kg	10.3	34.2	330	
53-70-3	Dibenzo(a,h)anthracene	U	34	.2	ug/kg	10.3	34.2	420	
191-24-2	Benzo(ghi)perylene	U	34	.2	ug/kg	10.3	34.2	330	
87-65-0	2,6-Dichlorophenol	U	34	12	ug/kg	68.3	342	330	
120-82-1	1,2,4-Trichlorobenzene	U	34	2	ug/kg	68.3	342	330	
Surrogate/Trace	er recovery		Result	Nomin	al Units	Recovery%	Acceptab	le Limits	
2-Fluorobipheny	1		1250	1710	ug/kg	73	(45%-	101%)	7
Nitrobenzene-d5			1290	1710		76	(45%-		

1710

1710

3420

3420

3420

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

67

81

74

73

(45%-101%)

(41%-114%)

(45%-97%)

(35%-98%)

(45%-95%)

1140

2770

2530

2500

Phenol-d5 Comments:

p-Terphenyl-d14

2-Fluorophenol

2,4,6-Tribromophenol

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Semi-Volatile
Fentatively Identified Compound
Sample Summary

Page 1 of 1

SDG Number:	186359S
Lab Sample ID:	186359001

Date Collected:

05/17/2007 08:00 05/18/2007 10:30 Matrix:

SOIL

Date Received: 05/18/200 Client: SSFL001 %Moisture: Project: 2.4 SSFL00507

Client ID: Batch ID: BLBS0062D01 635762 Method: Inst: SW846 8270C MSD1.I SOP Ref: Dilution:

GL-OA-E-009

Run Date: Prep Date: 05/22/2007 01:45 05/21/2007 11:00

Analyst: CAK Aliquot: 30 g Inj. Vol: .5 uL Final Volume: 1 mL

CAS No.	Tentatively Identified Compoun	d (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown	H2	10.81	1270	ug/kg		J
1000194-64-2	4,4,6a,6b,8a,11,12,14b-Octamethyl-1,4	,4a	11.39	189	ug/kg	93	NJ
	Unknown		11.61	143	ug/kg		J
	Unknown	V	12.37	236	ug/kg		1
	Unknown Aldol Condensate	RB	2.74	1080	ug/kg		1
	Unknown Hydrocarbon	1'1	3.17	190	ug/kg		1
1291-79-6	Cyclohexane, 1-methyl-2-propyl-	11	3.34	168	ug/kg	90	NJ
593-45-3	Octadecane	NJ	8.59	326	ug/kg	95	NJ
529-92-5	Nonadecane		8.82	154	ug/kg	95	NJ
13475-75-7	Pentadecane, 8-hexyl-		9.07	868	ug/kg	93	NJ
	Unknown		9.22	155	ug/kg		1
7098-21-7	Tritetracontane	V	9.73	609	ug/kg	91	NJ

Semi-Volatile Certificate of Analysis Sample Summary

Page 1 of 3

SDG Number: Lab Sample ID:			Da	ent: te Collected: te Received:	SSFL001 05/17/2007 08:00 05/18/2007 10:30		Projec Matri %Moi		SSFL00507 SOIL 2.4
Client ID: Batch ID: Run Date: Data File: Prep Batch: Prep Date:	BLBS0062S01 635762 05/22/2007 02:06 s1e2153.d 635761 05/21/2007 11:00	Method: Analyst: Inj. Vol: Prep Method: Aliquot:		alyst: . Vol: ep Method:	SW846 82 CAK .5 uL SW846 33 30 g	C-1	Prep Basis: SOP Ref: Instrument: Dilution: Prep SOP Ref: Final Volume:		Dry Weight GL-OA-E-009 MSD1.I 1 GL-OA-E-010 I mL
CAS No.	Parmname	Qual		Result	Units	MDL/LOD	PQL/LOQ	RDL	
62-75-9	N-Nitrosodimethylamine N-Methyl-N-nitrosomethylamin		u	342	ug/kg	68.3	342	330	
108-95-2	Phenol	U		342	ug/kg	68.3	342	330	
95-57-8	2-Chlorophenol	U		342	ug/kg	68.3	342	330	
106-46-7	1,4-Dichlorobenzene	U		342	ug/kg	68.3	342	330	
621-64-7	N-Nitrosodi-n-propylamine N-Nitrosodipropylamine	U		342	ug/kg	68.3	342	250	
59-50-7	4-Chloro-3-methylphenol	U		342	ug/kg	34.2	342	330	
83-32-9	Acenaphthene	U		34.2	ug/kg	11.4	34.2	330	
121-14-2	2,4-Dinitrotoluene	U		342	ug/kg	34.2	342	330	-
100-02-7	4-Nitrophenol	U	+	342	ug/kg	68.3	342	830	-
87-86-5	Pentachlorophenol	U	+	342	ug/kg	68.3	342	830	
129-00-0	Pyrene	U	1	34.2	ug/kg	10.7	34.2	330	
62-53-3	Aniline	U		342	ug/kg	120	342	420	
111-44-4	Bis(2-chloroethyl)ether bis(2-Chloroethyl) ether	U		342	ug/kg	68.3	342	330	
541-73-1	1,3-Dichlorobenzene	U		342	ug/kg	68.3	342	330	
100-51-6	Benzyl alcohol	U	+	342	ug/kg	102	342	330	
95-50-1	1,2-Dichlorobenzene	U	+	342	ug/kg	68.3	342	330	
108-60-1	Bis(2-chloroisopropyl)ether	U	-	342	ug/kg	68.3	342	330	-
	bis(2-Chloroisopropyl)ether				00,00	00.5	342	330	
95-48-7	2-Methylphenol a-Cresol	U		342	ug/kg	68.3	342	330	
65794-96-9	4-Methylphenol m,p-Cresols	U		342	ug/kg	137	342	330	
67-72-1	Hexachloroethane	U		342	ug/kg	68.3	342	330	
98-95-3	Nitrobenzene	U		342	ug/kg	68.3	342	330	
78-59-1	Isophorone	U		342	ug/kg	68.3	342	330	
88-75-5	2-Nitrophenol	U		342	ug/kg	34.2	342	330	
105-67-9	2,4-Dimethylphenol	U		342	ug/kg	68.3	342	330	
111-91-1	Bis(2-chloroethoxy)methane bis(2-Chloroethoxy)methane	U		342	ug/kg	68.3	342	330	
65-85-0	Benzoic acid	U	1	683	ug/kg	171	683	830	
91-20-3	Naphthalene	U	-	34.2	ug/kg	10.2	34.2	330	
106-47-8	4-Chloroaniline	U	+	342	ug/kg	68.3	34.2	330	-
87-68-3	Hexachlorobutadiene	U		342	ug/kg	68.3	342		
91-57-6	2-Methylnaphthalene	U	-	34.2		6.83	25.00	330	
77-47-4	Hexachlorocyclopentadiene	U	-	34.2	ug/kg	CEOPES!	34.2	330	
0.00		U	11/	342	ug/kg	68.3	342	830	

342

Comments:

88-06-2

2,4,6-Trichlorophenol

68.3

342

330

ug/kg

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Report Date: May 23, 2007

Semi-Volatile Certificate of Analysis Sample Summary

Page 2 of 3

SDG Number: 1863598 Lab Sample ID: 186359002 Client ID: BLBS0062S01			Client: Date Collected: Date Received:	SSFL001 05/17/200 05/18/200	7 08:00	Projec Matri %Mo		SSFL00507 SOIL 2.4
Batch ID: Run Date: Data File; Prep Batch: Prep Date:	BLBS0062S01 635762 05/22/2007 02:06 s1e2153.d 635761 05/21/2007 11:00		Method: Analyst: Inj. Vol: Prep Method: Aliquot:	SW846 82 CAK .5 uL SW846 3 30 g		Prep Basis: SOP Ref: Instrument: Dilution: Prep SOP Ref: Final Volume:		Dry Weight GL-OA-E-009 MSD1.I 1 GL-OA-E-010 1 mL
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	
95-95-4	2,4,5-Trichlorophenol	U	1 342	ug/kg	68.3	342	330	
91-58-7	2-Chloronaphthalene	U	34.2	ug/kg	12.0	34.2	330	
88-74-4	2-Nitroaniline	U	342	ug/kg	68.3	342		
99-09-2	o-Nitroaniline	- 2	512	ug/kg	00.3	342	330	
39-09-2	3-Nitroaniline m-Nitroaniline	U	342	ug/kg	68.3	342	330	
131-11-3	Dimethyl phthalate	U	342	ug/kg	68,3	242	220	
606 20 2	Dimethylphthalate		312	ug/kg	00.3	342	330	
606-20-2	2,6-Dinitrotoluene	U	342	ug/kg	34.2	342	330	
208-96-8	Acenaphthylene	U	34.2	ug/kg	10.2	34.2	330	
51-28-5	2,4-Dinitrophenol	U	683	ug/kg	130	683	660	
132-64-9	Dibenzofuran	U	342	ug/kg	68.3	342	330	
84-66-2	Diethyl phthalate	U	342	ug/kg	68.3	342	330	
86-73-7	Diethylphthalate Fluorene		2.00	-0-0	00.5	342	330	
7005-72-3	C.W. Tolling:	U	34.2	ug/kg	10.2	34.2	330	
1003-12-3	4-Chlorophenyl phenyl ether 4-Chlorophenylphenylether	U	342	ug/kg	34.2	342	330	
534-52-1	4,6-Dinitro-2-methylphenol 2-Methyl-4,6-dinitrophenol	U	342	ug/kg	68.3	342	420	
100-01-6	4-Nitroaniline	U	342	ug/kg	68.3	342	830	
122-39-4	p-Nitroaniline Diphenylamine	U	240		The state of	32.100	112-13	
122-66-7	1,2-Diphenylhydrazine/Azobenzen		342	ug/kg	68.3	342	330	
	1,2—Diphenylhydrazine	U	342	ug/kg	68.3	342	330	
101-55-3	4-Bromophenyl phenyl ether 4-Bromophenylphenylether	U	342	ug/kg	34.2	342	330	
118-74-1	Hexachlorobenzene	U	342	ug/kg	68.3	342	330	
85-01-8	Phenanthrene	U	34.2	ug/kg	10.2	34.2	330	-
120-12-7	Anthracene	U	34.2	ug/kg	6.83	34.2	330	
84-74-2	Di-n-butyl phthalate Di-n-butylphthalate	U	342	ug/kg	34.2	342	330	
206-44-0	Fluoranthene	U	34.2	ug/kg	10.2	34.2	330	
92-87-5	Benzidine	U	342	ug/kg	342	342	660	-
85-68-7	Butyl benzyl phthalate Butylbenzylphthalate	U	342	ug/kg	68.3	342	330	
56-55-3	Benzo(a)anthracene	U	34.2	ug/kg	10.2	34.2	330	-
91-94-1	3,3'-Dichlorobenzidine	U	342	ug/kg	102	342	830	-
218-01-9	Chrysene	U	34.2	ug/kg	10.2	34.2	330	
117-81-7	Bis(2-ethylhexyl)phthalate bis(2-Ethylhexyl)phthalate	U	171	ug/kg	68.3	171	330	
117-84-0 205-99-2	Di-n-octyl phthalate Di-n-octylphthalate Benzo(b)fluoranthene	U	342	ug/kg	68.3	342	330	
207-08-9		U	34.2	ug/kg	10.2	34.2	330	
50-32-8	Benzo(k)fluoranthene Benzo(a)pyrene	U	34.2	ug/kg	10.2	34.2	330	
WW 06 0	DCHZOLD DVDene	11 2	1/ 2/4					

Comments:

Benzo(a)pyrene

50-32-8

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

10.2

34.2

330

ug/kg

05/22/2007 02:06

Report Date: May 23, 2007

Page 3

GL-OA-E-009

SOP Ref:

of 3

Semi-Volatile Certificate of Analysis Sample Summary

SW846 8270C

SDG Number: 1863598 Client: SSFL001 Project: SSFL00507 Lab Sample ID: 186359002 05/17/2007 08:00 Date Collected: Matrix: SOIL Date Received: 05/18/2007 10:30 %Moisture: 2.4 Client ID: BLBS0062S01 Prep Basis: Dry Weight Batch ID: 635762 Method:

Analyst: CAK Instrument: MSD1.I Data File: s1e2153.d Inj. Vol: 5 uL Dilution: Prep Batch: 635761 Prep Method: Prep SOP Ref: GL-OA-E-010 SW846 3550B Prep Date: 05/21/2007 11:00 30 g Aliquot: Final Volume: 1 mL

CAS No. Parmname Qual MDL/LOD PQL/LOQ Result Units RDL 193-39-5 Indeno(1,2,3-cd)pyrene U 34.2 ug/kg 10.2 34.2 330 53-70-3 Dibenzo(a,h)anthracene U 34.2 ug/kg 10.2 34.2 420 191-24-2 Benzo(ghi)perylene U 34.2 ug/kg 10.2 34.2 330 87-65-0 2,6-Dichlorophenol U 342 ug/kg 68.3 342 330 120-82-1 1,2,4-Trichlorobenzene U 342 68.3 ug/kg 342 330

Result	Nominal	Units	Recovery%	Acceptable Limits
1180	1710	ug/kg	69	(45%-101%)
1160	1710	ug/kg	68	(45%–101%)
1180	1710	ug/kg	69	(41%-114%)
2860	3420	ug/kg	84	(45%-97%)
2240	3420	ug/kg	65	(35%-98%)
2260	3420	ug/kg	66	(45%-95%)
	1180 1160 1180 2860 2240	1180 1710 1160 1710 1180 1710 2860 3420 2240 3420	1180 1710 ug/kg 1160 1710 ug/kg 1180 1710 ug/kg 2860 3420 ug/kg 2240 3420 ug/kg	1180 1710 ug/kg 69 1160 1710 ug/kg 68 1180 1710 ug/kg 68 1180 1710 ug/kg 69 2860 3420 ug/kg 84 2240 3420 ug/kg 65

Comments:

Run Date:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

SDG Number: 186359S

Lab Sample ID: 186359002

Page 1 of 1

Semi-Volatile **Tentatively Identified Compound**

Sample Summary

Date Collected: 05/17/2007 08:00 05/18/2007 10:30 Date Received:

Client: SSFL001 Matrix:

SOIL

%Moisture: 2.4

SSFL00507 Project:

Client ID: Batch ID:

Run Date:

BLBS0062S01

635762

05/22/2007 02:06

Method: Inst:

Analyst:

SW846 8270C

MSD1.I CAK

SOP Ref:

GL-OA-E-009

Dilution: Inj. Vol:

.5 uL Final Volume: 1 mL

Prep Date:	05/21/2007 11:00	Aliquot:	30 g		Final Volume:	1 mL	
CAS No.	Tentatively Identified Compo	RT	Estimated Concentration	Units	Fit	Qual	
	Unknown Hydrocarbon	MI	10.8	363	ug/kg		J
	Unknown Aldol Condensate	RB	2.74	1010	ug/kg		JA
	Unknown	1, 1	3.17	206	ug/kg		J
4291-79-6	Cyclohexane, 1-methyl-2-propyl-	1 1	3.34	157	ug/kg	90	NJ
	Unknown Sulfur	NJ	8.22	161	ug/kg		J
1000130-81-0	11,13-Dimethyl-12-tetradecen-1-o	8.64	159	ug/kg	87	NJ	
	Unknown Amide		8.82	246	ug/kg		1
	Unknown		8.89	171	ug/kg		1 ,
	Unknown		8.93	161	ug/kg		J
	Unknown Hydrocarbon		8.97	155	ug/kg		J
7098-21-7	Tritetracontane		9.07	783	ug/kg	91	NJ
112-95-8	Eicosane	1	9.73	483	ug/kg	95	NJ

05/21/2007 11:00

Prep Date:

Report Date: May 23, 2007

Final Volume: 1 mL

Page 1

of 3

Semi-Volatile Certificate of Analysis Sample Summary

30 g

SDG Number: 186359S Client: SSFL001 Project: SSFL00507 Lab Sample ID: 186359003 05/17/2007 08:45 Date Collected: Matrix: SOIL 05/18/2007 10:30 Date Received: %Moisture: Client ID: BLBS0063S01 Prep Basis: Dry Weight Batch ID: 635762 Method: SW846 8270C SOP Ref: GL-OA-E-009 Run Date: 05/22/2007 02:28 Analyst: CAK Instrument: MSD1.I Data File: s1e2154.d Inj. Vol: 5 uL Dilution: Prep Batch: 635761 Prep SOP Ref: GL-OA-E-010 Prep Method: SW846 3550B

Aliquot:

							· OILLINE
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine N-Methyl-N-nitrosomethylami	U	350	ug/kg	69.9	350	330
108-95-2	Phenol	U	350	ug/kg	69.9	350	330
95-57-8	2-Chlorophenol	U	350	ug/kg	69.9	350	330
106-46-7	1,4-Dichlorobenzene	U	350	ug/kg	69.9	350	330
621-64-7	N-Nitrosodi-n-propylamine N-Nitrosodipropylamine	U	350	ug/kg	69.9	350	250
59-50-7	4-Chloro-3-methylphenol	U	350	ug/kg	35.0	350	330
3-32-9	Acenaphthene	U	35.0	ug/kg	11.7	35.0	330
21-14-2	2,4-Dinitrotoluene	U	350	ug/kg	35.0	350	330
00-02-7	4-Nitrophenol	U	350	ug/kg	69.9	350	830
7-86-5	Pentachlorophenol	U	350	ug/kg	69.9	350	830
29-00-0	Pyrene	1	35.6	ug/kg	11.0	35.0	
52-53-3	Aniline	U	350				330
11-44-4	Bis(2-chloroethyl)ether	U	350	ug/kg	122	350	420
	bis(2-Chloroethyl) ether		330	ug/kg	69.9	350	330
41-73-1	1,3~Dichlorobenzene	U	350	ug/kg	69.9	350	330
00-51-6	Benzył alcohol	U	350	ug/kg	105	350	330
5-50-1	1,2-Dichlorobenzene	U	350	ug/kg	69.9	350	330
08-60-1	Bis(2-chloroisopropyl)ether bis(2-Chloroisopropyl)ether	U	350	ug/kg	69.9	350	330
5-48-7	2-Methylphenol o-Cresol	U	350	ug/kg	69.9	350	330
5794-96-9	4-Methylphenol m,p-Cresols	U	350	ug/kg	140	350	330
7-72-1	Hexachloroethane	U	350	ug/kg	69.9	350	330
8-95-3	Nitrobenzene	U	350	ug/kg	69.9	350	330
8-59-1	Isophorone	U	350	ug/kg	69.9	350	330
8-75-5	2-Nitrophenol	U	350	ug/kg	35.0	350	330
05-67-9	2.4-Dimethylphenol	U	350	ug/kg	69.9	350	330
11-91-1	Bis(2-chloroethoxy)methane bis(2-Chloroethoxy)methane	U	350	ug/kg	69.9	350	330
5-85-0	Benzoic acid	U	699	ug/kg	175	699	830
1-20-3	Naphthalese	U	35.0	ug/kg	10.5	35.0	330
06-47-8	4-Chloroaniline	U	350	ug/kg	69.9	350	330
7-68-3	Hexachlorobutadiene	U	350	ug/kg	69.9	350	330
1-57-6	2-Methylnaphthalene	U	35.0	ug/kg	6.99	35.0	1000
7-47-4	Hexachlorocyclopentadiene	U	350	ug/kg	69.9		330
8-06-2	2,4,6-Trichlorophenol	U	350		200.00	350	830
	- Trouble product	U	330	ug/kg	69.9	350	330

Comments:

(m 6/5/07

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Page 2 of 3

Semi-Volatile Certificate of Analysis Sample Summary

SSFL00507

CAS No.	Parmname	Qual	Result	Units MDL/LOD	PQL/LOQ RDL	
Prep Date:	05/21/2007 11:00		Aliquot:	30 g	Final Volume:	1 mL
Prep Batch:	635761		Prep Method:	SW846 3550B	Prep SOP Ref:	GL-OA-E-010
Data File:	s1e2154.d	Car	Inj. Vol:	.5 uL	Dilution:	1
Run Date:	05/22/2007 02:28		Analyst:	CAK	Instrument:	MSD1.I
Batch ID:	635762		Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Client ID:	BLBS0063S01				Prep Basis:	Dry Weight
SDG Number: Lab Sample ID:	186359S 186359003	e)	Client: Date Collected: Date Received:	SSFL001 05/17/2007 08:45 05/18/2007 10:30	Project: Matrix: %Moisture:	SSFL00507 SOIL 4.6

rich Date.	03/21/2007 11:00		Anquot.	30 g		Finan	volume.	1 11
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	
95-95-4	2,4,5-Trichlorophenol	U	人 350	ug/kg	69.9	350	330	
91-58-7	2-Chloronaphthalene	U	35.0	ug/kg	12.2	35.0	330	
88-74-4	2-Nitroaniline o-Nitroaniline	U	350	ug/kg	69.9	350	330	
99-09-2	3-Nitroaniline m-Nitroaniline	U	350	ug/kg	69.9	350	330	
131-11-3	Dimethyl phthalate Dimethylphthalate	U	350	ug/kg	69.9	350	330	
606-20-2	2,6-Dinitrotoluene	U	350	ug/kg	35.0	350	330	
208-96-8	Acenaphthylene	U	35.0	ug/kg	10.5	35.0	330	
51-28-5	2,4-Dinitrophenol	U	699	ug/kg	133	699	660	
132-64-9	Dibenzofuran	U	350	ug/kg	69.9	350	330	-
84-66-2	Diethyl phthalate Diethylphthalate	U	350	ug/kg	69.9	350	330	
86-73-7	Fluorene	U	35.0	ug/kg	10.5	35.0	330	
7005-72-3	4-Chlorophenyl phenyl ether 4-Chlorophenylphenylether	U	350	ug/kg	35.0	350	330	
534-52-1	4,6-Dinitro-2-methylphenol 2-Methyl-4,6-dinitrophenol	U	350	ug/kg	69.9	350	420	
100-01-6	4-Nitroaniline p-Nitroaniline	U	350	ug/kg	69.9	350	830	
122-39-4	Diphenylamine	U	350	ug/kg	69.9	350	330	-
122-66-7	1,2-Diphenylhydrazine/Azobenzen 1,2-Diphenylhydrazine	U	350	ug/kg	69.9	350	330	
101-55-3	4-Bromophenyl phenyl ether 4-Bromophenylphenylether	U	350	ug/kg	35.0	350	330	
118-74-1	Hexachlorobenzene	U	350	ug/kg	69.9	350	330	
85-01-8	Phenanthrene	3	17.6	ug/kg	10.5	35.0	330	-
120-12-7	Anthracene	U	U 35.0	ug/kg	6.99	35.0	330	
84-74-2	Di-n-butyl phthalate Di-n-butylphthalate	U	350	ug/kg	35.0	350	330	
206-44-0	Fluoranthene	J	39.0	ug/kg	10.5	35.0	330	
92-87-5	Benzidine	U	14 350	ug/kg	350	350	660	-
85-68-7	Butyl benzyl phthalate Butylbenzylphthalate	U	350	ug/kg	69.9	350	330	
56-55-3	Benzo(a)anthracene	U	35.0	ug/kg	10.5	35.0	330	-
91-94-1	3,3'Dichlorobenzidine	U	350	ug/kg	105	350	830	-
218-01-9	Chrysene	J	J 24.9	ug/kg	10.5	35.0	330	-
117-81-7	Bis(2-ethylhexyl)phthalate	U	175	ug/kg	69.9	175	330	
37.5	bis(2-Ethylhexyl)phthalate	U	113	ug/kg	09.9	1/3	330	
117-84-0	Di-n-octyl phthalate Di-n-octylphthalate	U	350	ug/kg	69.9	350	330	
205-99-2	Benzo(b)fluoranthene	J	J 21.7	ug/kg	10.5	35.0	330	
207-08-9	Benzo(k)fluoranthene	U	1 35.0	ug/kg	10.5	35.0	330	
50-32-8	Benzo(a)pyrene	J	16.5	ug/kg	10.5	35.0	330	

Comments:

- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Lab Sample ID: 186359003

1863598

SDG Number:

Report Date: May 23, 2007

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of 3

Semi-Volatile Certificate of Analysis Sample Summary

Client ID: BLBS0063S01 Dry Weight GL-OA-E-009 Prep Basis: Batch ID: 635762 Method: SW846 8270C SOP Ref: 05/22/2007 02:28 Run Date: Analyst: CAK Instrument: MSD1.I Data File: s1e2154.d Inj. Vol: .5 uL Dilution: Prep Batch: 635761 Prep SOP Ref: GL-OA-E-010 Prep Method: SW846 3550B

Prep Date: 05/21/2007 11:00 Aliquot: 30 g Final Volume: 1 mL

CAS No. Parmname Qual Result Units MDL/LOD POL/LOO RDL

		ATTENDED TO	12000000	Omes	MULILOD	LOUTING	KDL
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.0	ug/kg	10.5	35.0	330
53-70-3	Dibenzo(a,h)anthracene	U	35.0	ug/kg	10.5	35.0	420
191-24-2	Benzo(ghi)perylene	U	35.0	ug/kg	10.5	35.0	330
37-65-0	2,6-Dichlorophenol	U	350	ug/kg	69,9	350	330
120-82-1	1,2,4-Trichlorobenzene	U,	350	ug/kg	69.9	350	330

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	1200	1750	ug/kg	69	(45%-101%)
Nitrobenzene-d5	1230	1750	ug/kg	70	(45%-101%)
p-Terphenyl-d14	1120	1750	ug/kg	64	(41%-114%)
2,4,6-Tribromophenol	2610	3500	ug/kg	75	(45%-97%)
2—Fluorophenol	2360	3500	ug/kg	68	(35%-98%)
Phenol-d5	2350	3500	ug/kg	67	(45%-95%)

Comments:

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Page 1 of 2

Semi-Volatile Tentatively Identified Compound Sample Summary

SDG Number: 186359S Lab Sample ID: 186359003

Date Collected: Date Received:

05/17/2007 08:45 05/18/2007 10:30

Matrix:

SOIL 4.6

Client:

SSFL001

CAK

30 g

%Moisture: Project:

SSFL00507

Client ID: Batch ID: Run Date:

Prep Date:

BLBS0063S01 635762

05/22/2007 02:28 05/21/2007 11:00 Method: Inst:

Analyst:

Aliquot:

SW846 8270C MSD1.I

SOP Ref: Dilution:

GL-OA-E-009

Inj. Vol:

5 uL Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)			Estimated Concentration	Units	Fit	Qual
01-53-6	Cholestan-3-one, (5.beta.)-	H1	10.18	792	ug/kg	92	J
	Unknown		11.2	1360	ug/kg		ĵ
000194-64-2	4,4,6a,6b,8a,11,12,14b-Octamethyl-1,4	,4a	11.39	1150	ug/kg	93	NJ
	Unknown		11.43	742	ug/kg		1
	Unknown		11.63	869	ug/kg		J
	Unknown		11.69	870	ug/kg		J
1058-61-3	Stigmast-4-en-3-one	1	12.07	593	ug/kg	96	NJ
	Unknown Aldol Condensate	RB	2.74	1160	ug/kg		JA
7-10-3	n-Hexadecanoic acid	NIT	7.1	503	ug/kg	98	NJ
786-12-5	Cyclotetradecane, 1,7,11-trimethyl-4-(1	- 1	7.62	316	ug/kg	87	NJ
000259-58-5	Pentadec-7-ene, 7-bromomethyl-		7.79	395	ug/kg	87	NJ
38-67-5	Tricosane		7.82	351	ug/kg	89	NJ
	Unknown Hydrocarbon		7.9	348	ug/kg		J
639-11-0	1-Bromo-4-bromomethyldecane		8.02	584	ug/kg	91	NJ
	Unknown		8.1	399	ug/kg		1
7780-11-1	2-Dodecen-1-yl(-)succinic anhydride		8.16	298	ug/kg	83	NJ
	Unknown		8.19	363	ug/kg		J
2-95-8	Eicosane		8.22	497	ug/kg	97	NJ
	Unknown		8.32	386	ug/kg		J
25-64-1	Heptadecane, 9-octyl-		8.6	704	ug/kg	96	NJ
	Unknown Amide	V	8.89	370	ug/kg		1
		1,700					

Semi-Volatile
Tentatively Identified Compound
Sample Summary

Page 2 of 2

SDG Number:	1863598
Lab Sample ID:	186359003

Date Collected: 05/17/2007 08:45

Matrix:

SOIL

Date Received: Client:

05/18/2007 10:30 SSFL001

%Moisture: 4.6 Project:

SSFL00507

Client ID: Batch ID:

BLBS0063S01 635762

Method: Inst:

SW846 8270C MSD1.I CAK

SOP Ref: Dilution:

GL-OA-E-009

Run Date: Prep Date: 05/22/2007 02:28 05/21/2007 11:00

Analyst: Aliquot: 30 g Inj. Vol: .5 uL Final Volume: 1 mL

CAS No.	Tentativel	y Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown	HJ	9.01	623	ug/kg		J
	Unknown		9.23	650	ug/kg		ı
	Unknown		9.32	623	ug/kg		1
629-94-7	Heneicosane	V	9.73	1280	ug/kg	97	NJ

186359S

05/21/2007 11:00

SDG Number:

Prep Date:

Report Date: May 23, 2007

Page 1

of 3

Semi-Volatile Certificate of Analysis Sample Summary

30 g

SSFL001

SSFL00507 Project: Matrix: SOIL

Final Volume: 1 mL

05/17/2007 09:15 Lab Sample ID: 186359004 Date Collected: 05/18/2007 10:30 %Moisture: Date Received: Client ID: Dry Weight GL-OA-E-009 BLBS0056S01 Prep Basis: Batch ID: 635762 Method: SW846 8270C SOP Ref: Run Date: 05/22/2007 02:49 Analyst: Instrument: MSD1.I CAK Data File: s1e2155.d Inj. Vol: Dilution: 5 uL Prep Batch: Prep SOP Ref: GL-OA-E-010 635761 Prep Method: SW846 3550B

CAS No. Parmname Qual Result Units MDL/LOD PQL/LOQ RDL

Aliquot:

Client:

62-75-9	N-Nitrosodimethylamine	U	以 352	ug/kg	70.5	352	330
108-95-2	N-Methyl-N-nitrosomethylamin Phenol	U	352	ug/kg	70.5	352	330
95-57-8	2Chlorophenol	U	352	ug/kg	70.5	352	330
106-46-7	1,4-Dichlorobenzene	U	352	ug/kg	70.5	352	330
621-64-7	N-Nitrosodi-n-propylamine N-Nitrosodipropylamine	U	352	ug/kg	70.5	352	250
59-50-7	4-Chloro-3-methylphenol	U	352	ug/kg	35.2	352	330
83-32-9	Acenaphthene	U	35.2	ug/kg	11.8	35.2	330
121-14-2	2,4-Dinitrotoluene	U	352	ug/kg	35.2	352	330
100-02-7	4-Nitrophenol	U	352	ug/kg	70.5	352	830
87-86-5	Pentachlorophenol	U	352	ug/kg	70.5	352	830
129-00-0	Pyrene	U	35.2	ug/kg	11.1	35.2	330
62-53-3	Aniline	U	352	ug/kg	123	352	420
111-44-4	Bis(2-chloroethyl)ether bis(2-Chloroethyl) ether	U	352	ug/kg	70.5	352	330
541-73-1	1,3-Dichlorobenzene	U	352	ug/kg	70.5	352	330
100-51-6	Benzyl alcohol	U	352	ug/kg	106	352	330
95-50-1	1,2-Dichlorobenzene	U	352	ug/kg	70.5	352	330
108-60-1	Bis(2-chloroisopropyl)ether bis(2-Chloroisopropyl)ether	U	352	ug/kg	70.5	352	330
95-48-7	2-Methylphenol o-Cresol	U	352	ug/kg	70.5	352	330
65794-96-9	4-Methylphenol m,p-Cresols	U	352	ug/kg	141	352	330
67-72-1	Hexachloroethane	U	352	ug/kg	70.5	352	330
98-95-3	Nitrobenzene	U	352	ug/kg	70.5	352	330
78-59-1	Isophorone	U	352	ug/kg	70.5	352	330
88-75-5	2-Nitrophenol	U	352	ug/kg	35.2	352	330
105-67-9	2,4-Dimethylphenol	U	352	ug/kg	70.5	352	330
111-91-1	Bis(2-chloroethoxy)methane bis(2-Chloroethoxy)methane	U	352	ug/kg	70.5	352	330
65-85-0	Benzoic acid	U	705	ug/kg	176	705	830
91-20-3	Naphthalene	U	35.2	ug/kg	10.6	35.2	330
106-47-8	4-Chloroaniline	U	352	ug/kg	70.5	352	330
87-68-3	Hexachlorobutadiene	U	352	ug/kg	70.5	352	330
91-57-6	2-Methylnaphthalene	U	35.2	ug/kg	7.05	35.2	330
77-47-4	Hexachlorocyclopentadiene	U	352	ug/kg	70.5	352	830
88-06-2	2,4,6-Trichlorophenol	U	352	ug/kg	70.5	352	330

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

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Semi-Volatile Certificate of Analysis Sample Summary

SSFL00507

SDG Number: Lab Sample ID:	186359S 186359004	¥	Client: Date Collected: Date Received:	SSFL001 05/17/2007 09:15 05/18/2007 10:30	Project: Matrix: %Moisture:	SSFL00507 SOIL 5.4
Client ID:	BLBS0056S01				Prep Basis:	Dry Weight
Batch ID:	635762		Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Run Date:	05/22/2007 02:49		Analyst:	CAK	Instrument:	MSD1.I
Data File:	s1e2155.d	Gr.	Inj. Vol:	.5 uL	Dilution:	1
Prep Batch:	635761		Prep Method:	SW846 3550B	Prep SOP Ref:	GL-OA-E-010
Prep Date:	05/21/2007 11:00		Aliquot:	30 g	Final Volume:	I mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
95-95-4	2,4,5-Trichlorophenol	U	U 352	ug/kg	70.5	352	330
1-58-7	2-Chloronaphthalene	U	1 35.2	ug/kg	12.3	35.2	330
88-74-4	2-Nitroaniline	U	352	ug/kg	70.5	352	330
99-09-2	3-Nitroaniline m-Nitroaniline	U	352	ug/kg	70.5	352	330
131-11-3	Dimethyl phthalate Dimethylphthalate	U	352	ug/kg	70.5	352	330
506-20-2	2,6-Dinitrotoluene	U	352	ug/kg	35.2	352	330
208-96-8	Acenaphthylene	U	35.2	ug/kg	10.6	35.2	330
51-28-5	2,4-Dinitrophenol	U	705	ug/kg	134	705	660
132-64-9	Dibenzofuran	U.	352	ug/kg	70.5	352	330
84-66-2	Diethyl phthalate Diethylphthalate	U	352	ug/kg	70.5	352	330
86-73-7	Fluorene	U	35.2	ug/kg	10.6	35.2	330
7005-72-3	4-Chlorophenyl phenyl ether 4-Chlorophenylphenylether	U	352	ug/kg	35.2	352	330
534-52-1	4,6-Dinitro-2-methylphenol 2-Methyl-4,6-dinitrophenol	U	352	ug/kg	70.5	352	420
100-01-6	4-Nitroaniline	U	352	ug/kg	70.5	352	830
122-39-4	p-Nitroaniline Diphenylamine	U	352	ug/kg	70.5	352	330
122-66-7	1,2-Diphenylhydrazine/Azobenzen 1,2-Diphenylhydrazine	U	352	ug/kg	70.5	352	330
101-55-3	4-Bromophenyl phenyl ether 4-Bromophenylphenylether	U	352	ug/kg	35.2	352	330
118-74-1	Hexachlorobenzene	U	352	ug/kg	70.5	352	330
85-01-8	Phenanthrene	U	35.2	ug/kg	10.6	35.2	330
120-12-7	Anthracene	U	35.2	ug/kg	7.05	35.2	330
84-74-2	Di-n-butyl phthalate Di-n-butylphthalate	U	352	ug/kg	35.2	352	330
206440	Fluoranthene	U	35.2	ug/kg	10.6	35.2	330
92-87-5	Benzidine	U	352	ug/kg	352	352	660
85-68-7	Butyl benzyl phthalate Butylbenzylphthalate	U	352	ug/kg	70.5	352	330
56-55-3	Benzo(a)anthracene	U	35.2	ug/kg	10.6	35.2	330
91-94-1	3,3*-Dichlorobenzidine	U	352	ug/kg	106	352	830
218-01-9	Chrysene	U	35.2	ug/kg	10.6	35.2	330
117-81-7	Bis(2-ethylhexyl)phthalate bis(2-Ethylhexyl)phthalate	U	176	ug/kg	70.5	176	330
117-84-0	Di-n-octyl phthalate Di-n-octylphthalate	U	352	ug/kg	70.5	352	330
205-99-2	Benzo(b)fluoranthene	U	35.2	ug/kg	10.6	35.2	330
207-08-9	Benzo(k)fluoranthene	U	35.2	ug/kg	10.6	35.2	330
50-32-8	Benzo(a)pyrene	U	35.2	ug/kg	10.6	35.2	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Lab Sample ID: 186359004

186359S

635762

s1e2155.d

635761

BLBS0056S01

05/22/2007 02:49

05/21/2007 11:00

SDG Number:

Client ID:

Batch ID:

Run Date:

Data File:

Prep Batch:

Prep Date:

Report Date: May 23, 2007

Page 3

Semi-Volatile Certificate of Analysis Sample Summary

SSFL001

CAK

5 uL

05/17/2007 09:15

05/18/2007 10:30

SW846 8270C

Project: SSFL00507 Matrix: SOIL %Moisture: 5.4

Prep Basis: Dry Weight SOP Ref: GL-OA-E-009 Instrument: MSDLI

Dilution: 1 Prep SOP Ref: GL-OA-E-010

Prep Method: SW846 3550B Prep SOP Ref: GL-O Aliquot: 30 g Final Volume: 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
193-39-5	Indeno(1,2,3-cd)pyrene	U	J 35.2	ug/kg	10.6	35.2	330
53-70-3	Dibenzo(a,h)anthracene	U	35.2	ug/kg	10.6	35.2	420
191-24-2	Benzo(ghi)perylene	U	35.2	ug/kg	10.6	35.2	330
87-65-0	2,6-Dichlorophenol	U	352	ug/kg	70.5	352	330
120-82-1	1,2,4-Trichlorobenzene	U	352	ug/kg	70.5	352	330

Client:

Method:

Analyst:

Inj. Vol:

Date Collected:

Date Received:

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	1330	1760	ug/kg	76	(45%-101%)
Nitrobenzene-d5	1380	1760	ug/kg	79	(45%-101%)
p-Terphenyl-d14	1200	1760	ug/kg	68	(41%-114%)
2.4.6—Tribromophenol	3190	3520	ug/kg	90	(45%-97%)
2-Fluorophenol	2630	3520	ug/kg	75	(35%-98%)
Phenol-d5	2530	3520	ug/kg	72	(45%-95%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Page 1 of 2

Semi-Volatile

Tentatively Identified Compound Sample Summary

SDG Number: 186359S Lab Sample ID: 186359004 Date Collected: Date Received:

05/17/2007 09:15 05/18/2007 10:30 Matrix:

SOIL

Client:

SSFL001

%Moisture: Project:

SSFL00507

Client ID: Batch ID: Run Date:

Prep Date:

BLBS0056S01 635762

05/22/2007 02:49

05/21/2007 11:00

Method: Inst: Analyst:

Aliquot:

SW846 8270C MSD1.I CAK

30 g

SOP Ref: Dilution:

GL-OA-E-009

Inj. Vol: .5 uL

Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)		Estimated Concentration	Units	Fit	Qual
	Unknown NT	10.04	278	ug/kg		J
	Unknown Hydrocarbon	10.09	160	ug/kg		J
	Unknown Hydrocarbon	10.16	172	ug/kg		J
	Unknown	10.41	173	ug/kg		J
	Unknown	10.83	163	ug/kg		J
	Unknown	11.35	181	ug/kg		J
3-46-5	.betaSitosterol	11.37	193	ug/kg	94	NJ
	Unknown	11.5	187	ug/kg		J
	Unknown	11.68	216	ug/kg		J
058-61-3	Stigmast-4-en-3-one	12.07	333	ug/kg	89	NJ
	Unknown Aldol Condensate R/B	2.74	1140	ug/kg		JA R
	Unknown Hydrocarbon R/B	3.17	237	ug/kg		1 1
29-78-7	Heptadecane NJ	8.22	177	ug/kg	95	NJ
	Unknown	8.36	246	ug/kg		1
000309-38-2	Oxalic acid, isobutyl heptadecyl ester	8.76	392	ug/kg	83	NJ
12-95-8	Eicosane	8.82	449	ug/kg	92	NJ
11-02-4	2,6,10,14,18,22-Tetracosahexaene, 2,6,10	8.88	219	ug/kg	81	NJ
	Unknown	8.97	160	ug/kg		1
4833-23-7	Eicosane, 10-methyl-	9.07	3550	ug/kg	93	NJ
	Unknown	9.21	178	ug/kg		1
	Unknown	9.55	241	ug/kg		Ĵ

SDG Number: 186359S

Lab Sample ID: 186359004

Report Date: May 23, 2007

Page 2 of 2

Semi-Volati	le
Tentatively Identified	Compound
Sample Summ	arv

Date Collected: 05/17/2007 09:15

Date Received: 05/18/2007 10:30 Matrix: %Moisture: 5.4

SOIL

Client:

Project:

SSFL00507

Client ID: Batch ID: BLBS0056S01

635762

05/22/2007 02:49

Method: Inst:

SW846 8270C MSD1.I

SSFL001

SOP Ref: Dilution:

GL-OA-E-009

Inj. Vol:

.5 uL

Run Date: Prep Date: 05/21/2007 11:00

Analyst: Aliquot: CAK 30 g

Final Volume: 1 mL

CAS No.	CAS No. Tentatively Identified Compound (TIC)		RT	Estimated Concentration	Units	Fit	Qual
1560-92-5	Hexadecane, 2-methyl-	H1	9.73	960	ug/kg	93	NJ
	Unknown		9.84	282	ug/kg		J
	Unknown Amide	1	9.94	153	ug/kg		1

Semi-Volatile Certificate of Analysis Sample Summary

Page 1 of 3

SDG Number: Lab Sample II			Client: Date Collected: Date Received:	SSFL001 05/17/200 05/18/200		Project Matri: %Moi		SSFL00507 SOHL 5.2
Client ID: Batch ID: Run Date: Data File: Prep Batch: Prep Date:	B1.BS0056S02 635762 05/22/2007 03:11 s1e2156.d 635761 05/21/2007 11:00		Method: Analyst: Inj. Vol: Prep Method: Aliquot:	SW846 82 CAK .5 uL SW846 3 30 g			Ref: ment:	Dry Weight GL-OA-E-009 MSD1.I 1 GL-OA-E-010 1 mL
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	
62-75-9	N-Nitrosodimethylamine N-Methyl-N-nitrosomethylamin	U	JL 352	ug/kg	70.3	352	330	T
108-95-2	Phenol	U	352	ug/kg	70.3	352	330	
95-57-8	2-Chlorophenol	U	352	ug/kg	70.3	352	330	
106-46-7	1,4-Dichlorobenzene	U	352	ug/kg	70.3	352	330	
621-64-7	N-Nitrosodi-n-propylamine N-Nitrosodipropylamine	U	352	ug/kg	70.3	352	250	
59-50-7	4-Chloro-3-methylphenol	U	352	ug/kg	-35.2	352	330	
83-32-9	Acenaphthene	U	35.2	ug/kg	11.7	35.2	330	
121-14-2	2,4-Dinitrotoluene	U	352	ug/kg	35.2	352	330	
100-02-7	4-Nitrophenol	U	352	ug/kg	70.3	352	830	
87-86-5	Pentachlorophenol	U	352	ug/kg	70.3	352	830	
129-00-0	Pyrene	U	35.2	ug/kg	11.0	35.2	330	
62-53-3	Aniline	U	352	ug/kg	123	352	420	
111-44-4	Bis(2-chloroethyl)ether bis(2-Chloroethyl) ether	U	352	ug/kg	70.3	352	330	
541-73-1	1,3-Dichlorobenzene	U	352	ug/kg	70.3	352	330	
100-51-6	Benzyl alcohol	U	352	ug/kg	106	352	330	-
95-50-1	1,2-Dichlorobenzene	U	352	ug/kg	70.3	352	330	
108-60-1	Bis(2-chloroisopropyl)ether bis(2-Chloroisopropyl)ether	U	352	ug/kg	70.3	352	330	
95-48-7	2-Methylphenol o-Cresol	U	352	ug/kg	70.3	352	330	
65794-96-9	4-Methylphenol m,p-Cresols	U	352	ug/kg	141	352	330	
67-72-1	Hexachloroethane	U	352	ug/kg	70.3	352	330	
98-95-3	Nitrobenzene	U	352	ug/kg	70.3	352	330	
78-59-1	Isophorone	U	352	ug/kg	70.3	352	330	
88-75-5	2-Nitrophenol	U	352	ug/kg	35.2	352	330	
105-67-9	2,4-Dimethylphenol	U	352	ug/kg	70.3	352	330	
111-91-1	Bis(2-chloroethoxy)methane bis(2-Chloroethoxy)methane	U	352	ug/kg	70.3	352	330	
65-85-0	Benzoic acid	U	703	ug/kg	176	703	830	
91-20-3	Naphthalene	U	35.2	ug/kg	10.6	35.2	330	
106-47-8	4-Chloroaniline	U	352	ug/kg	70.3	352	330	
87-68-3	Hexachlorobutadiene	11	252		70.0	252	***	

Comments:

87-68-3

91-57-6

77-47-4

88-06-2

U

U

U

U

352

35.2

352

352

ug/kg

ug/kg

ug/kg

ug/kg

70.3

7.03

70.3

70.3

352

35.2

352

352

330

330

830

330

Hexachlorobutadiene

2-Methylnaphthalene

2,4,6-Trichlorophenol

Hexachlorocyclopentadiene

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Semi-Volatile Certificate of Analysis Sample Summary

Page 2 of 3

SDG Number: Lab Sample ID:	186359S 186359005		Client: Date Collected: Date Received:	SSFL001 05/17/2007 09:30 05/18/2007 10:30	Project: Matrix: %Moisture:	SSFL00507 SOIL 5.2
Client ID:	BLBS0056S02				Prep Basis:	Dry Weight
Batch ID:	635762		Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Run Date:	05/22/2007 03:11		Analyst:	CAK	Instrument:	MSD1.I
Data File:	s1e2156.d		Inj. Vol:	.5 uL	Dilution:	1
Prep Batch:	635761		Prep Method:	SW846 3550B	Prep SOP Ref:	GL-OA-E-010
Prep Date:	05/21/2007 11:00		Aliquot:	30 g	Final Volume:	1 mL
CAS No.	Parmname	Qual	Result	Units MDI // OD	POLITOO PDI	

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
95-95-4	2,4,5-Trichlorophenol	U	U 352	ug/kg	70.3	352	330
1-58-7	2-Chloronaphthalene	U	35.2	ug/kg	12.3	35.2	330
88-74-4	2-Nitroaniline	U	352	ug/kg	70.3	352	330
99-09-2	3-Nitroaniline m-Nitroaniline	U	352	ug/kg	70.3	352	330
131-11-3	Dimethyl phthalate Dimethylphthalate	U	352	ug/kg	70.3	352	330
506-20-2	2,6-Dinitrotoluene	U	352	ug/kg	35,2	352	330
208-96-8	Acenaphthylene	U	35.2	ug/kg	10.6	35.2	330
51-28-5	2,4-Dinitrophenol	U	703	ug/kg	134	703	660
132-64-9	Dibenzofuran	U	352	ug/kg	70.3	352	330
34-66-2	Diethyl phthalate Diethylphthalate	U	352	ug/kg	70.3	352	330
36-73-7	Fluorene	U	35.2	ug/kg	10.6	35.2	330
7005-72-3	4-Chlorophenyl phenyl ether 4-Chlorophenylphenylether	U	352	ug/kg	35.2	352	330
534-52-1	4,6-Dinitro-2-methylphenol 2-Methyl-4,6-dinitrophenol	U	352	ug/kg	70.3	352	420
100-01-6	4-Nitroaniline p-Nitroaniline	U	352	ug/kg	70.3	352	830
122-39-4	Diphenylamine	U	352	ug/kg	70.3	352	330
122-66-7	1,2-Diphenylhydrazine/Azobenzen 1,2-Diphenylhydrazine	U	352	ug/kg	70.3	352	330
101-55-3	4-Bromophenyl phenyl ether 4-Bromophenylphenylether	Ü	352	ug/kg	35.2	352	330
118-74-1	Hexachlorobenzene	U	352	ug/kg	70.3	352	330
85-01-8	Phenanthrene	U	35.2	ug/kg	10.6	35.2	330
120-12-7	Anthracene	U	35.2	ug/kg	7.03	35.2	330
84-74-2	Di-n-butyl phthalate Di-n-butylphthalate	U	352	ug/kg	35.2	352	330
206-44-0	Fluoranthene	U	35.2	ug/kg	10.6	35.2	330
92-87-5	Benzidine	U	352	ug/kg	352	352	660
85-68-7	Butyl benzyl phthalate Butylbenzylphthalate	U	352	ug/kg	70.3	352	330
56-55-3	Benzo(a)anthracene	U	35.2	ug/kg	10.6	35.2	330
91-94-1	3,3'-Dichlorobenzidine	U	352	ug/kg	106	352	830
218-01-9	Chrysene	U	35.2	ug/kg	10.6	35.2	330
117-81-7	Bis(2-ethylhexyl)phthalate bis(2-Ethylhexyl)phthalate	U	176	ug/kg	70.3	176	330
117-84-0	Di-n-octyl phthalate Di-n-octylphthalate	U	352	ug/kg	70.3	352	330
205-99-2	Benzo(b)fluoranthene	U	35.2	ug/kg	10.6	35.2	330
207-08-9	Benzo(k)fluoranthene	U	/ 35.2	ug/kg	10.6	35.2	330
50-32-8	Benzo(a)pyrene	U	35.2	ug/kg	10.6	35.2	330

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Semi-Volatile Certificate of Analysis Sample Summary

Page 3 of 3

SDG Number:	186359S		C	lient:		SFL001		Projec	et:	SSFL00507
Lab Sample ID:	: 186359005		D	ate Colle	cicu.	5/17/2007		Matri		SOIL
			D	ate Rece	ived: (5/18/2007	7 10:30	%Mo	isture:	5.2
Client ID:	BLBS0056S02							Prep l	Basis:	Dry Weight
Batch ID:	635762		Method: Analyst:		5	SW846 82	70C	SOP I	Ref:	GL-OA-E-009
Run Date:	05/22/2007 03:11				(CAK		Instru	ment:	MSD1.I
Data File:	s1e2156.d		I	nj. Vol:		5 uL		Diluti	on:	1 5
Prep Batch:	635761		P	rep Meth	od:	SW846 35	550B	Prep S	SOP Ref:	GL-OA-E-010
Prep Date:	05/21/2007 11:00		A	liquot:	3	10 g		Final	Volume:	1 mL
CAS No.	Parmname	Qual		Resul	t	Units	MDL/LOD	PQL/LOQ	RDL	
193-39-5	Indeno(1,2,3-cd)pyrene	U	u	35.2		ug/kg	10.6	35.2	330	
53-70-3	Dibenzo(a,h)anthracene	U	T	35.2		ug/kg	10.6	35.2	420	
191-24-2	Benzo(ghi)perylene	U		35.2		ug/kg	10.6	35.2	330	
87-65-0	2,6Dichlorophenol	U		352		ug/kg	70.3	352	330	
120-82-1	1,2,4-Trichlorobenzene	U	V	352		ug/kg	70.3	352	330	
Surrogate/Trac	er recovery		Re	sult	Nomina	Units	Recovery%	Acceptal	ole Limits	
2-Fluorobiphen	yl		10	080	1760	ug/kg	61	(45%-	-101%)	
			1020 176			27 1 20202	(45%-101%)			

1760

3520

3520

3520

ug/kg

ug/kg

ug/kg

ug/kg

79

81

58

58

(41%-114%)

(45%-97%)

(35%-98%)

(45%-95%)

Comments:

Phenol-d5

p-Terphenyl-d14

2-Fluorophenol

2,4,6-Tribromophenol

1400

2850

2030

2020

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Report	Date:	May	23,	200

					report	water tring and an	007
			Page 1	of 1			
SDG Number: Lab Sample ID:	186359S 186359005	Date Collected: Date Received: Client:			Matrix: %Moisture: Project:	SOIL 5.2 SSFL00507	
Client ID: Batch ID: Run Date: Prep Date:	BLBS0056S02 635762 05/22/2007 03:11 05/21/2007 11:00	Method: Inst; Analyst; Aliquot:	SW84 MSDI CAK 30 g	6 8270C I.I	SOP Ref: Dilution: Inj. Vol: Final Volume:	GL-OA-E-009 1- .5 uL 1 mL	
CAS No.	Tentatively Identified Compound (TIC)			Estimated Concentration	Units	Fit	Qual
	Unknown Aldol Condensate	KB	2.74	853	ug/kg		JA
112-95-8	Eicosane	MI	9.07	239	ug/kg	92	NJ

Report Date: May 23, 2007

SSFL00507

Semi-Volatile Certificate of Analysis Sample Summary

ЈМВ3

.5 uL

Page 1 of 3

SDG Number:	186359W	
Lab Sample ID:	186361001	
Client Sample:	EH VOC	
Client ID:	BLQW0019E01	
Batch ID:	635749	
Run Date:	05/20/2007 20:01	
Data File:	s2e2113.d	

Client:	SSFL001
Date Collected:	05/17/2007 13:00
Date Received:	05/18/2007 10:30
Method:	SW946 9270C

Analyst:

Inj. Vol:

Project:	SSFL0050
Matrix:	WATER
Prep Basis:	As Receiv
SOP Ref:	GL-OA-

Received OA-E-009

Instrument: -MSD2,1 Dilution: Prep SOP Ref: 1 GL-OA-E-013

mL

Prep Batch: Prep Date:	635748 05/19/2007 15:59		Prep Method: Aliquot:	.5 uL SW846 3 1120 mL	510C ·	Diluti Prep S Final	GL 1 n	
CAS No.	Parmname	Qual	Result	Units	WDL/LOD	PQL/LOQ	RDL	
62-75-9	N-Nitrosodimethylamine N-Methyl-N-nitrosomethylamin	U	U 8.93	ug/L	1.79 :	8.93	20.0	
108-95-2	Phenol '	U	8.93	ug/L	0.893	8.93	10.0	-
95-57-8	2-Chlorophenol	U	8.93	ug/L	1.79	8.93	10.0	-
106-46-7	1,4-Dichlorobenzene	U	8.93	ug/L	1.79	8,93	10.0	\dashv
621-64-7	N-Nitrosodi-n-propylamine N-Nitrosodipropylamine	U	8.93	ug/L	1.79	8.93.	10.0	-
59-50-7	4-Chloro-3-methylphenol	U	8.93	ug/L	1.79	8.93	20.0	-
83-32-9	Acenaphthene	U	0.893	ug/L	0.277	0.893	10.0	\dashv
121-14-2	2,4-Dinitrotolucne	U	8.93	ug/L	1.79	8.93	10.0	-
100-02-7	4-Nitrophenol	U	8.93	ug/L	1.79	8.93	20.0	\dashv
87-86-5	Pentachlorophenol	U	8.93	ug/L	1.79	8.93	20.0	-
129-00-0	Pyrone	U	0.893	ug/L	0.268	0.893	10.0	\dashv
62-53-3	Aniline	U	8.93	ug/L	2.23	8.93	10.0	\dashv
111-44-4	Bis(2-chloroethyl)ether bis(2-Chloroethyl) ether	U	· 8.93	ug/L	1.79	8.93	10.0	-
541-73-1	1,3-Dichlorobenzene	U	8.93	ug/L	1.79	8.93	10.0	-
100-51-6	Benzyl alcohol	บ	8.93	ug/L	1.79	8.93	20.0	-
95-50-1	1,2-Dichlorobenzene	U	8.93	ug/L	1.79	8.93	10.0	\dashv
108-60-1	Bis(2-chloroisopropyl)ether bis(2-Chloroisopropyl)ether	U	8.93	ug/L	1.79	8.93	10.0	1
95-48-7	2-Methylphenol o-Cresol	U	8.93	ug/L	1.79	8.93	10.0	1
65794-96-9	4-Methylphenol m.p-Cresols	U	8.93	ug/L	2.68	8.93	10.0	1
67-72-1	Hexachloroethane	U	8.93	ug/L	1.79	8.93	10.0	-
98-95-3	Nitrobenzene	U	8.93	ug/L	2.68	8.93	20.0	\dashv
78-59-1	Isophorone	U	8.93	ug/L	1.79	8.93	10.0	-
88-75-5	2-Nitrophenol	U	8.93	ug/L	1.79	8.93	10.0	-
105-67-9.	2,4-Dimethylphenol	U	8.93	ug/L	1.79	8.93	20.0	-
111-91-1	Bis(2-chloroethoxy)methane bis(2-Chloroethoxy)methane	n.	8.93	ug/L	2.68	8.93	10.0	
120-83-2	2,4-Dichtorophenol	U	8,93	ug/L	1.79	8.93	10.0	-
55-85-0	Benzoic acid	U	17.9	ug/L	5.36	17.9	20.0	-
91-20-3	Naphthalene	U	0.893	ug/L	0,268	0.893	10.0	-
106-47-8	4-Chloroaniline	U	8.93	ug/L	1.79	8.93	10.0	-
37-68-3	Hexachlorobutadiene	U	8.93	ug/L	1.79	8.93	10.0	-
1-57-6	2-Methylnaphthalene	U	0.893	ug/L	0.268	0.893	10.0	
77-47-4	Hexachlorocyclopentadiene	U	8.93	ug/L	1.79	8.93	20.0	-

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

186350W

SDG Number

Report Date: May 23, 2007

Semi-Volatile Certificate of Analysis Sample Summary

ug/L

1.79

1.79

1.79

0.179

0.179

1.79

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1.79

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10:0 -

Page 2

Lab Sample ID: Client Sample: Client ID: Batch ID: Run Date: Data File: Prep Batch: Prep Date:	186359W 186361001 EH VOC BLQW0019E01 635749 05/20/2007 20:01 \$262113.d 635748 05/19/2007 15:59		Client: Date Collected: Date Received: Method: Analyst: Inj. Vol: Prep Method: Aliquot:	SSFL001 05/17/200 05/18/200 SW846 8: JMB3, .5 uL SW846 3 1120 mL	77 13:00 17 10:30 270C	SOP Instru Diluti Prep	ix: Basis: Ref:	SSFL00507 WATER As Received GL-OA-E-009 MSD2.1 1 GL-OA-E-013 1 mL
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	
88-06-2	2,4,6-Trichlorophenol	· U	8.93	ug/L	1.79	8.93	20.0	
95-95-4	2,4,5-Trichlorophenol	U	1 8.93	ug/L	0.893	8.93	20.0	
91-58-7	2-Chloronaphthalene	U	0.893	ug/L	0.313	0.893	10.0	
88-74-4	2-Nitroaniline o-Nitroaniline	U	8.93	ug/L	1.79	8.93	20,0	
99-09-2	3-Nitroanilinc m-Nitroaniline	U	8.93	ug/L	1.79	8.93	20.0	
131-11-3	Dimethyl phthalate Dimethylphthalate	U	8.93	ug/L	1.79	8.93	10.0	-
	2,6-Dinitrotoluene	U	8.93	ug/L	1.79	8.93	10.0	_
208-96-8	Acenaphthylene	U	0.893	ug/L	0.179	0.893		
51-28-5	2,4-Dinitrophenol	U	17.9	ug/L	8.93		10.0	
132-64-9	Dibenzofuran	U	8.93	ug/L		17.9	20.0	
84-66-2	Diethyl phthalate Diethylphthalate	U	8.93	ug/L	1.79	8.93 8.93	10.0	-
86-73-7	Fluorene	U	0.893	ug/L	0.179	0.893	10.0	100
2	4-Chlorophenyl phenyl ether 4-Chlorophenylphenylether	υ	8.93	ug/L	1.79	8.93	10.0	-
	4,6-Dinitro-2-methylphenol 2-Mathyl-4,6-dinitrophenol	U	8.93	ug/L	2.68	8.93	20.0	-
	4-Nitroaniline	U	8.93	. ug/L	2.68	8.93	20.0	
1	Diphenylamine	U	8.93	ug/L	2.68	8.93	10.0	-
122-66-7	1.2-Diphenythydrazine/Azobenzen	11	0.00	-0-0	2.00	0.73	10.0	

8.93

8.93

8.93

0.893

0.893

8.93

0.893

8.93

8.93

0.893

8.93

0.893

8.93

8.93

0.893

-0.893

Co	mi	22.0	mi	i.	
~		-	441	6-3	۰

101-55-3

118-74-1

85-01-8

120-12-7

84-74-2

206-44-0

92-87-5

85-68-7

56-55-3

91-94-1

218-01-9

117-81-7

117-84-0

205-99-2

207-08-9

1,2-Diphenythydrazine/Azobenze

1,2-Diphenylhydrazine 4-Bromophenyl phenyl ether

4-Bromophenylphenylether Hoxachlorobenzene

Phenanthrene

Di-n-butyl phthalate

Di-n-butylphthalate Fluoranthene

Butyl benzyl phthalate

Butylbenzylphthalate Benzo(a)anthraceno

3,3,'-Dichtorobenzidine

Bis(2-ethylhexyl)phthalate

bis(2-Ethylhexyl)phthalate Di-n-octyl phthalate

Di-n-octylphthalate
Benzo(b)fluoranthene

Benzo(k)fluoranthene

Anthracene

Benzidine

Chrysene

U

U

U

U

U

U

U

U

U

U-

U

U

U

U

U

U-

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Dibenzo(a,h)anthracene

Report Date: May 23, 2007

Semi-Volatile Certificate of Analysis

Page 3

					Sam	pie Summ	lary				
SDG Number: Lab Sample ID: Client Sample:	186359W : 186361001 EH VOC			3	Client: Date Collected: Date Received:	SSFL001 05/17/200 05/18/200	7 13:00	Projec Matri		SSFL00507 WATER	
Client ID: Batch ID: Run Date; Data File: Prep Batch: Prep Date: CAS No.	BLQW0019E01 635749 05/20/2007 20:01 s2e2113.d 635748 05/19/2007 15:59	On	ıal	1	Method: Analyst: nj. Vol: Prep Method: Aliquot: Result	SW846 8 JMB3 .5 uL SW846 3 1120 mL	270C 510C	Final	tef; ment; on: SOP Ref: Volume;	As Received GL-OA-E-009 MSD2.I 1 GL-OA-E-013 1 mL	
50-32-8		ν.	Lens		Kesuit	Units	MDL/LOD	PQL/LOQ	RDL		
	Benzo(a)pyrene	ı	J	14	0.893	ug/L	0.179	0.893	10.0		 _
193-39-5	Indeno(1,2,3-cd)pyrene	I)	1	0.893	ug/L	0.179	0.893	20.0		
53-20-3	Dit		-	-			2117	0.033	20.0		

0.179

37

22

(15%-67%)

(10%-53%)

ug/L

ug/L

89.3

191-24-2	Benzo(ghi)perylono	U	0.	893	ug/L	0.179	0.893	10.0
120-82-1	1,2,4-Trichlorobenzene	· U	8.	.93	ug/L	1.79	8.93	10.0
Surrogate/Ti	racer recovery		Result	Nominal	Únits	Recovery%	Acceptabl	e Limits
2-Fluorobiph	enyl .		*34.1	44.6	ug/L	76	(41%-	99%)
Nitrobenzene	-d5		35.3	44.6	ug/L	79	(39%-	
p-Terphenyl-	-d14	3	33.9	44.6	ug/L	76	· (41%-1	,
2,4,6-Tribromophenol		61.5	89.3	ug/L	69	(35%-107%)		
7. 179							10010	

33.4

19.4

0.893

Phenol-d5 Comments:

2-Fluorophenol

53-70-3

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Page 1

of 1

Semi-Volatile
Tentatively Identified Compound
Sample Summary

SDG Number: 186359W Date Collected: 05/17/2007 13:00 Matrix: WATER Lab Sample ID: 186361001 Date Received: 05/18/2007 10:30 Client Sample: EH VOC Client: SSFL001

Project: SSFL00507 Client ID: BLQW0019E01 Method: SW846 8270C SOP Ref: GL-OA-E-009 Batch ID: 635749

MSD2.I Inst: Dilution: Run Date: 05/20/2007 20:01 Analyst: JMB3 Inj. Vol: .5 uL 05/19/2007 15:59 Prep Date: Aliquot: 1120 mL Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual	,
	Unknown	2,13	11.6	ug/L		1 K	/B
	Unknown	3.23	7.3	ug/L			1
	Unknown	3.42	17.9	ug/L			
	Unknown	3.5	7.77	ug/L		J	
	Unknown	3.57	7.36	ug/L		J	
4291-79-6	Cyclohexane, 1-methyl-2-propyl-	3.59	13	ug/L	86	NJ V	

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company:

MECx, LLC

Address:

12269 East Vassar Drive

Aurora, Colorado 80014

Contact:

Ms. Elizabeth Wessling, MECx

Project:

SSFL Group 8 Hastings Data Gap Sampling

Result

Client Sample ID:

Sample ID:

BLBS0062D01 186359001

Matrix:

SOIL 17-MAY-07 08:00

Collect Date: Receive Date:

J

18-MAY-07

Collector: Moisture:

Client 2.44%

Parameter Qualifier

Ion Chromatography EPA300.0 Fluoride in Soil

Fluoride

1.08

0.298

DL

5.00

RL

mg/kg

Units

Project: Client ID:

DF

1 RXM105/21/07 1940 635930

Time Batch Method

Report Date: May 22, 2007

SSFL00507

AnalystDate

SSFL001

The following Prep Methods were performed

Time **Prep Batch** Method Description Analyst Date EPA 300.0 PREP EPA 300.0 Total Anions in Soil RXM1 05/21/07 0735 635929

The following Analytical Methods were performed

Analyst Comments Method Description 1

EPA 300.0

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: MECx, LLC

12269 East Vassar Drive Address:

Aurora, Colorado 80014

Ms. Elizabeth Wessling, MECx Contact:

Project: SSFL Group 8 Hastings Data Gap Sampling

Client Sample ID:

Sample ID:

BLBS0062S01 186359002 SOIL

Matrix:

Collect Date:

Receive Date: Collector:

17-MAY-07 08:00 18-MAY-07

Client

Moisture: 2.44%

Parameter Qualifier Result DL RLUnits DF AnalystDate Time Batch Method

Ion Chromatography

EPA300.0 Fluoride in Soil

Fluoride

J 0.907 0.302

5.00

mg/kg

Project: Client ID:

1 RXM105/21/07 2000 635930

Report Date: May 22, 2007

SSFL00507

SSFL001

The following Prep Methods were performed

Prep Batch Date Time Analyst Method Description **EPA 300.0 PREP** EPA 300.0 Total Anions in Soil RXM1 05/21/07 0735 635929

The following Analytical Methods were performed

Analyst Comments Method Description 1 EPA 300.0

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: MECx, LLC

12269 East Vassar Drive Address:

Aurora, Colorado 80014

Contact: Ms. Elizabeth Wessling, MECx

Project: SSFL Group 8 Hastings Data Gap Sampling

Client Sample ID:

Sample ID:

BLBS0063S01 186359003 SOIL

Matrix:

Collect Date: Receive Date:

17-MAY-07 08:45 18-MAY-07 Client

Collector: Moisture:

4.64%

Parameter Qualifier Result DL RL Units DF AnalystDate Time Batch Method

Ion Chromatography

EPA300.0 Fluoride in Soil

Fluoride

1.99

0.311

5.00

mg/kg

Project: Client ID:

1 RXM105/21/07 2021 635930

Report Date: May 22, 2007

SSFL00507

SSFL001

The following Prep Methods were performed

Time **Prep Batch** Analyst Date Method Description EPA 300.0 PREP EPA 300.0 Total Anions in Soil RXM1 05/21/07 0735 635929

The following Analytical Methods were performed

Analyst Comments Method Description 1

EPA 300.0

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: MECx, LLC

12269 East Vassar Drive Address:

Aurora, Colorado 80014

Contact: Ms. Elizabeth Wessling, MECx

Project: SSFL Group 8 Hastings Data Gap Sampling

Client Sample ID:

J

Sample ID:

BLBS0056S01 186359004 SOIL

Matrix:

Collect Date: Receive Date:

17-MAY-07 09:15 18-MAY-07

Collector: Moisture:

Client 5.42%

Parameter Qualifier Result DL RL Units DF AnalystDate Time Batch Method

Ion Chromatography

EPA300.0 Fluoride in Soil

Fluoride

1.60

0.308

5.00

mg/kg

Project:

Client ID:

1 RXM105/21/07 2041 635930

Report Date: May 22, 2007

SSFL00507

SSFL001

The following Prep Methods were performed

Method Description Analyst Date Time Prep Batch EPA 300.0 PREP EPA 300.0 Total Anions in Soil RXM1 05/21/07 0735 635929

The following Analytical Methods were performed

Method Description **Analyst Comments** 1 EPA 300.0

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: MECx, LLC

Address:

12269 East Vassar Drive

Aurora, Colorado 80014

Contact:

Ms. Elizabeth Wessling, MECx

Project:

SSFL Group 8 Hastings Data Gap Sampling

Result

Client Sample ID:

Sample ID:

Matrix:

Collect Date:

Receive Date: Collector:

Oualifier

J

SOIL 17-MAY-07 09:30 18-MAY-07

BLBS0056S02

186359005

Client

Moisture:

5.22%

Time Batch Method DL RL Units DF AnalystDate

Project:

Client ID:

Ion Chromatography

EPA300.0 Fluoride in Soil

Fluoride

Parameter

2,21

0.302

5.00

mg/kg

1 RXM105/21/07 2101 635930 1

Report Date: May 22, 2007

SSFL00507

SSFL001

The following Prep Methods were performed

Date Time **Prep Batch** Analyst Method Description 0735 635929 **EPA 300.0 PREP** EPA 300.0 Total Anions in Soil RXM1 05/21/07

The following Analytical Methods were performed

Analyst Comments Method Description

1 EPA 300.0

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: MECx, LLC

12269 East Vassar Drive Address:

Aurora, Colorado 80014

Ms. Elizabeth Wessling, MECx Contact:

Project: **SSFL Group 8 Hastings Data Gap Sampling**

Client Sample ID:

U

Sample ID: Matrix:

BLQW0019E01 186361001 WATER

Collect Date: Receive Date:

17-MAY-07 13:00 18-MAY-07

Collector:

Client

Time Batch Method RLUnits DF AnalystDate Result Parameter Qualifier DL

Ion Chromatography Federal

EPA300.0 Fluoride in Liquid

Fluoride

0.00

mg/L 0.500

Proiect: Client ID:

1 RXM105/19/07 1154 635705

Report Date: May 22, 2007

SSFL00507

SSFL001

The following Analytical Methods were performed

Analyst Comments Description Method 1

0.033

EPA 300.0



DATA VALIDATION REPORT

Boeing SSFL RFI Group 8 Data Gap

SAMPLE DELIVERY GROUP: 186235

Prepared by

MEC^x, LLC 12269 East Vassar Drive Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL RFI Group 8 Data Gap

Contract Task Order: 1261.500D.08.002

Sample Delivery Group: 186235

Project Manager: Dixie Hambrick

Matrix: water/soil

QC Level: V

No. of Samples: 7

No. of Reanalyses/Dilutions: 0
Laboratory: GEL

Table 1. Sample Identification

Sample Name	Lab Sample Name	Sub-Lab Sample Name	Matrix	Collection	Method	
BLBS0052S01	186235003	N/A	Soil	5/16/2007	300.0,	8015B,
				10:05:00 AM	8270C	
BLBS0053S01	186235006	N/A	Soil	5/16/2007	300.0,	8015B,
				11:45:00 AM	8270C	
BLBS0057S01	186235004	N/A	Soil	5/16/2007	300.0,	8015B,
				10:25:00 AM	8270C	
BLBS0058S01	186235002	N/A	Soil	5/16/2007	300.0,	8015B,
				9:45:00 AM	8270C	
BLBS0060S01	186235005	N/A	Soil	5/16/2007	300.0,	8015B,
				11:00:00 AM	8270C	
BLQW0019F01	186237001	N/A	Water	5/16/2007	300.0, 601	0B, 6020,
				1:45:00 PM	8015B,	8082,
					8260B, 82	70C
BLQW0019F01	G341-287-1C	N/A	Water	5/16/2007	1613B	
				1:45:00 PM		
BLQW0019T01	186237002	N/A	Water	5/16/2007	8260B	
				2:00:00 PM		

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Sample custody seals were intact. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

Qualifie	organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
Н	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
С	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
В	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
Е	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
Α	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
Т	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
Р	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*11, *111	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: K. Shadowlight Date Reviewed: June 2, 2007

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^{X} Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0), USEPA Method 1613, and the National Functional Guidelines Chlorinated Dioxin/Furan Data Review (8/02).

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted and analyzed within one year of collection.
- Instrument Performance: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: There were numerous detects reported in the method blank; however, no detects were reported in the associated sample.
- Blank Spikes and Laboratory Control Samples: Recoveries were within the acceptance criteria listed in Table 6 of Method 1613.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: Sample BLQW0019F01 was identified as a field blank and as such was not evaluated by other field QC. There were no target compounds detected in the field blank.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: Internal standard recoveries are not routinely evaluated at a Level V validation; however, the recoveries were reported on the sample result summary. The labeled standard recoveries were within the acceptance criteria listed in Table 7 of Method 1613.
- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613.

 Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. The laboratory calculated and reported compound-specific detection limits. Reported nondetects are valid to the estimated detection limit (EDL).

B. EPA METHODS 6010B, 6020, 7470A/7471A—Metals and Mercury

Reviewed By: P. Meeks Date Reviewed: June 1, 2007

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^{\times} Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0), EPA Methods 6010B, 6020, 7470A/7471A, and the National Functional Guidelines for Inorganic Data Review (2/94).

- Holding Times: Analytical holding times, six months for ICP and ICP-MS metals and 28 days for mercury, were met.
- Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Silver and zirconium were detected in the method blank at 0.279 and 0.00070 µg/L, respectively; therefore, silver and zirconium detected in BLQW0019F01 were qualified as estimated nondetects, "UJ."
- Interference Check Samples: Review is not applicable at a Level V validation.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Laboratory Duplicates: Laboratory duplicate analyses were performed on BLQW0019F01; however, as the sample was identified as a field QC sample, the results were not assessed.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on BLQW0019F01; however, as the sample was identified as a field QC sample, the results were not assessed.
- Serial Dilution: Serial dilution analyses were performed on BLQW0019F01; however, as the sample was identified as a field QC sample, the results were not assessed.
- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. All CCV and CCB internal standard intensities were within 80-120% of the internal standard intensities measured in the initial calibration.

Project: Boeing SSFL RFI Group 8 Data Gap SDG: 186235

- Sample Result Verification: Review is not applicable at a Level V validation. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This sample in this SDG was identified as a field blank. Thallium was detected in the field blank at 0.440 μg/L.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

C. EPA METHOD 8082—PCBs

Reviewed By: K. Shadowlight Date Reviewed: June 2, 2007

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^{\times} Data Validation Procedure for Organochlorine Pesticides/PCBs by GC (DVP-4, Rev. 0), EPA Method 8082, and the National Functional Guidelines for Organic Data Review (2/94).

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted within seven days of collection and analyzed within 40 days of extraction.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed for a sample in this SDG. Evaluation of method accuracy was based on blank spike results.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: The sample in this SDG was identified as a blank, and as such was not evaluated by other field QC. There were no target compounds detected in field blank BLQW001901.

- Field Duplicates: There were no field duplicate samples identified for this SDG.
- Compound Identification: Review is not applicable at a Level V validation.
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. Reported nondetects are valid to the reporting limit.

D. EPA METHOD 8270C — Semivolatile Organic Compounds (SVOC)

Reviewed By: E. Wessling Date Reviewed: June 3, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^{\times} Data Validation Procedure for Semivolatile Organics (DVP-3, Rev. 0), EPA Method 8270C, and the National Functional Guidelines for Organic Data Review (2/94).

- Holding Times: Extraction and analytical holding times were met. The soil samples were
 extracted within 14 days of collection and the water sample was extracted within 7 days of
 collection. All samples were analyzed within 40 days of extraction.
- GC/MS Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blanks had no target compound detects above the MDL. Both method blanks had TICs detects; therefore, similar detects in the field blank were qualified as estimated nondetects, "UJ."
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample BLBS0061S01. All percent recoveries and RPDs were within laboratory-established control limits.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: No target compounds were detected in field blank BLQW0019F01. The site soil samples in this SDG had no associated equipment rinsate samples.

- Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: Review is not applicable at a Level V validation.
- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for SVOC compounds by Method 8270C. Any reported TICs in the samples of this SDG were qualified as tentatively identified, "N."
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. Any result reported between the MDL and the reporting limit was a qualified as estimated, "J." Reported nondetects are valid to the reporting limit.
- Tentatively Identified Compounds: TICs were reported by the laboratory for this SDG. Any
 reported TICs in the samples of this SDG were qualified as estimated, "J." System
 contaminant TICs were rejected, "R."
- System performance: System performance is not evaluated at a Level V validation.

E. EPA METHOD 8015B—Extractable Total Fuel Hydrocarbons (EFHs)

Reviewed By: K. Shadowlight Date Reviewed: June 2, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^X Data Validation Procedure for Total Fuel Hydrocarbons (DVP-8, Rev. 0), EPA Method 8015B, and the National Functional Guidelines for Organic Data Review (2/94).

- Holding Times: Extraction and analytical holding times were met. The soil samples were
 extracted within 14 days of collection and the water sample was extracted within seven
 days of collection. All samples were analyzed within 40 days of extraction.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blanks had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: The recoveries were within laboratoryestablished QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed for a sample in this SDG. Evaluation of method accuracy was based on blank spike results.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC

data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- Field Blanks and Equipment Rinsates: There were no target compounds detected in the field blank, BLQW0019F01 or equipment rinsate, BLQW0019E01 (I86359).
- Field Duplicates: There were no field duplicates identified for this SDG.
- Compound Identification: Review is not applicable at a Level V validation. Four EFH hydrocarbon ranges were reported: C8-C11, C12-C14, C15-C20, and C21-C30. In addition the laboratory reported m-terphenyl, o-terphenyl, and p-terphenyl. For a selection of samples only terphenyls were reported.
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. According to the case narrative for this SDG, samples BLBS0052S01, BLBS0057S01, and BLBS0058S01 were analyzed at 10× dilutions due to a thick oily matrix. Reported nondetects are valid to the reporting limit.

F. EPA METHOD 8260B—Volatile Organic Compounds (VOCs)

Reviewed By: E. Wessling Date Reviewed: June 3, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^X Data Validation Procedure for Volatile Organics (DVP-2, Rev. 0), EPA Method 8260B, and the National Functional Guidelines for Organic Data Review (2/94).

- Holding Times: Analytical holding times were met. The water samples were analyzed within 14 days of collection.
- GC/MS Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blank had a detect for naphthalene; however, no qualifications were required as naphthalene was not detected in samples in this SDG. No other target compounds were detected above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on a sample from this SDG. Evaluation of method accuracy was based on the blank spike results.

Project: Boeing SSFL RFI Group 8 Data Gap SDG: 186235

DATA VALIDATION REPORT

 Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- Trip Blanks: Trip blank BLQW0019T01 had no target compound detects.
- Field Blanks and Equipment Rinsates: Field blank BLQW0019F01 had a detect for 2-butanone at 3.09 μg/L.
- Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: Review is not applicable at a Level V validation.
- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for volatile target compounds by Method 8260B.
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. Any result reported between the MDL and the reporting limit was qualified as estimated, "J." Reported nondetects are valid to the reporting limit.
- Tentatively Identified Compounds: The laboratory performed a TIC search for the samples; however, there were no reportable TICs detected in the samples of this SDG.
- System Performance: Review is not applicable at a Level V validation.

G. EPA METHOD 300.0—General Minerals

Reviewed By: P. Meeks

Date Reviewed: May 30, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^{\times} Data Validation Procedure for General Minerals (DVP-6, Rev. 0), EPA Method 300.0, and the National Functional Guidelines for Inorganic Data Review (2/94).

- Holding Times: The analytical holding time, 28 days from collection for fluoride, was met.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Method blanks and CCBs had no detects.
- Blank Spikes and Laboratory Control Samples: The recovery was within laboratoryestablished QC limits.

Project: Boeing SSFL RFI Group 8 Data Gap SDG: 186235

DATA VALIDATION REPORT

• Laboratory Duplicates: As the laboratory duplicate analyses were performed on a field QC sample, the results were not assessed.

- Matrix Spike/Matrix Spike Duplicate: As the MS/MSD analyses were performed on a field QC sample, the results were not assessed.
- Sample Result Verification: Review is not applicable at a Level V validation. Reported nondetects are valid to the reporting limit.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples.
 Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: Fluoride was not detected in field blank
 BLQW0019F01 or equipment rinsate BLQW0019E01 (186359).
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

Method 1613--Boeing 186237001 BLQW0019F0]

General Engineering Labs

Analytical Data Summary Sheet

Analyte	Amount	EDL	Adj. RL	RT	Ratio	Qualifier
111111111111111111111111111111111111111	(ng/L)	(ng/L)	(ng/L)	(min.)		
2,3,7,8-TCDD U	ND	0.00577	0.00951			
1,2,3,7,8-PeCDD	ND	0.00333	0.0475			
1,2,3,4,7,8-HxCDD	ND	0.00392	0.0475			
1,2,3,6,7,8-HxCDD	ND	0.00405	0.0475			
1,2,3,7,8,9-HxCDD	ND	0.00395	0.0475			
1,2,3,4,6,7,8-HpCDD	ND	0.00698	0.0475			
OCDD	ND	0.0132	0.0951			
2,3,7,8-TCDF	ND	0.00459	0.00951			
1,2,3,7,8-PeCDF	ND	0.00249	0.0475			
2,3,4,7,8-PeCDF	ND	0.00254	0.0475			
1,2,3,4,7,8-HxCDF	ND	0.00310	0.0475			
1,2,3,6,7,8-HxCDF	ND	0.00294	0.0475			
2,3,4,6,7,8-HxCDF	ND	0.00300	0.0475			
1,2,3,7,8,9-HxCDF	ND	0.00430	0.0475			
1,2,3,4,6,7,8-HpCDF	ND	0.00539	0.0475			
1,2,3,4,7,8,9-HpCDF	ND	0.00816	0.0475			
OCDF	ND	0.0138	0.0951	<u> </u>		
Total TCDDs	ND	0.00577	0.00951			
Total PeCDDs	ND	0.00333	0.0475			
Total HxCDDs	ND	0.00397	0.0475			
Total HpCDDs	ND	0.00698	0.0475			
Total TCDFs	ND	0.00459	0.00951			
Total PeCDFs	ND	0.00252	0.0475			1
Total HxCDFs	ND	0.00329	0.0475			
Total HpCDFs	ND	0.00661	0.0475			
WHO-2005 TEQ (ND=0)	0.000					
WHO-2005 TEQ (ND=1/2)	0.0131			<u> </u>		

Client Information			Sample Information					
Project Name:			Matrix:	Water				
Sample ID:	186237001		Weight / Volume:	1052	mL			
•			Solids / Lipids:	NA	%			
			Original pH:	5				
Laboratory Information			Batch ID:	WG1426	2			
Project ID:	G341-287							
Sample ID:	G341-287-10	C	Filename:	a21may0				
Collection Date/Time:	16-May-07	13:45	Retchk:	a21may0	7a-1			
Receipt Date:	17-May-07	9:50	Begin ConCal:	a21may0	7a-1			
Extraction Date:	20-May-07							
Analysis Date:	21-May-07	19:24	Initial Cal:	m1613-0)71006e			

Level I

METALS -1-INORGANICS ANALYSIS DATA PACKAGE

SDG No: 186235W

CONTRACT: SSFL00507

Low

METHOD TYPE: SW846

SAMPLE ID: 186237001

BASIS: As Received

DATE COLLECTED 16-MAY-07

CLIENT ID: BLQW0019F01

LEVEL:

DATE RECEIVED

17-MAY-07

MATRIX: WATER

%SOLIDS:

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5		0.068	mg/L	U	0.068	.2	0.05	1	P	JWJ	05/18/07 22:08	051807-1	635263
7440-36-0	Antimony	0.50	ug/L	U	0.5	2	2	1	MS	BAJ	05/19/07 01:12	070518-3	635499
7440-38-2		1.5	ug/L	U	1.5	5	1	1	MS	BAJ	05/19/07 01:12	070518-3	635499
7440-39-3		0.50	ug/L	U	0.5	2	1	1	MS	BAJ	05/19/07 01:12	070518-3	635499
7440-41-7		0.10	ug/L	U	0.1	.5	0.5	1	MS	BAJ	05/21/07 12:57	070521-4	635499
7440-42-8	Boron	0.010	mg/L	U	0.01	.05	0.05	1	P	JWJ	05/18/07 22:08	051807-1	635263
7440-43-9		0.10	ug/L	U	0.1	1	1	I	MS	BAJ	05/19/07 01:12	070518-3	635499
7440-47-3	1	1	ug/L	U	1	3	2	1	MS	BAJ	05/21/07 12:57	070521-4	635499
7440-48-4		0.10	ug/L	U	0.1	1	. 1	1	MS	BAJ	05/21/07 12:57	070521-4	635499
7440-50-8		0.20	ug/L	U	0.2	1	2	1	MS	BAJ	05/21/07 12:57	070521-4	635499
7439-92-1		0.50	ug/L	U,	0.5	2	1	1	MS	BAJ	05/21/07 12:57	070521-4	635499
7439-93-2	Lithium	0.002	mg/L	U	0.002	.01	0.05	1	MS	BAJ	05/21/07 12:57	070521-4	635499
	Molybdenum	0.10	ug/L	U	0.1	.5	2	1	MS	BAJ	05/21/07 15:22	070521-6	635499
7440-02-0	Nickel	0.50	ug/L	U	0.5	2	2	1	MS	BAJ	05/21/07 12:57	070521-4	635499
7440-09-7	Potassium	0.080	mg/L	U	0.08	.3	0.5	1	MS	BAJ	05/21/07 15:22	070521-6	635499
7782-49-2	V	2.5	ug/L	U	2.5	5	2	1	MS	BAJ	05/19/07 01:12	070518-3	635499
7440-22-4	0313	0.280	ug/L	J	0.2	1	1	1	MS	BAJ	05/19/07 01:12	070518-3	635499
7440-23-5	Sodium	0.080	mg/L	U	0.08	.25	0.5	1	MS	BAJ	05/21/07 12:57	070521-4	635499
7440-28-0		0.440	ug/L	J	0.4	1	1	1	MS	BAJ	05/19/07 01:12	070518-3	635499
7440-62-2	U	10	ug/L	U	10	30	2	1	MS	BAJ	05/21/07 12:57	070521-4	635499
7440-66-6		2	ug/L	U	2	10	20	1	MS	BAJ	05/19/07 01:12	070518-3	635499
7440-67-7	Zirconium UJ/13	0.00069	mg/L	J	0.0005	.002	0.2	1	MS	PRB	05/22/07 02:15	070521-2	635499

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
635263	635262	SW846 3005A	50	mL	50	mL	05/18/07	LXH2
635499	635498	SW846 3005A	50	mL	50	mL	05/18/07	LXH2



PCB

Report Date: May 22, 2007
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013b1301.d

(37%-115%)

40

Certificate of Analysis Sample Summary

SDG Number: 186235W Lab Sample ID: 186237001			Client: Date Collected Date Received		1 07 13:45 07 09:30	Projec Matri		SSFL00507 WATER	
Client ID: BLQW0019F01 Batch ID: 635738 Run Date: 05/21/2007 10:54 Data File: Dual Column Prep Batch: 635737 Prep Date: 05/18/2007 17:25		Method: Analyst: Inj. Vol: Prep Method: Aliquot:	RAW2 1 uL SW846			Basis: tef: ment: on: GOP Ref: Volume:	As Received GL-OA-E-040 ECD1A.I I GL-OA-E-013 1 mL		
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	Data File	
12674-11-2	Aroclor–1016	U	0.0855	ug/L	0.0285	0.0855	1.00	013f1301.d	
11104-28-2	Aroclor-1221	U	0.0855	ug/L	0.0285	0.0855	1.00	013f1301.d	
11141-16-5	Aroclor-1232	U	0.0855	ug/L	0.0285	0.0855	1.00	013f1301.d	
53469-21-9	Aroclor-1242	υ	0.0855	ug/L	0.0285	0.0855	1.00	013f1301.d	
12672-29-6	Aroclor-1248	U	0.0855	ug/L	0.0285	0.0855	1.00	013f1301.d	
11097-69-1	Aroclor-1254	U	0.0855	ug/L	0.0285	0.0855	1.00	013f1301.d	
11096-82-5	Aroclor-1260	U	0.0855	ug/L	0.0285	0.0855	1.00	013f1301.d	
Surrogate/Trac	er recovery		Result No	ninal Unit	s Recovery%	6 Acceptal	ole Limits	Data File	
4cmx	A A A A A A A A A A A A A A A A A A A		0.112 0.	171 ug/I	_ 66	66 (42%-		013b1301.d	
-101111				_				0.401.1001.	

0.171

ug/L

Comments:

Decachlorobiphenyl

0.0692

Level V

 $U \quad \text{Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.} \\$

Report Date: May 24, 2007

Semi-Volatile Certificate of Analysis Sample Summary

Page 1 of 3

SDG Number: Lab Sample ID:	186235S 186235002	Client: Date Collected: Date Received:	SSFL001 05/16/2007 09:45 05/17/2007 09:30	Project: Matrix: %Moisture:	SSFL00507 SOIL 2.1
Client ID: Batch ID: Run Date:	BLBS0058S01 636303 05/22/2007 13:32	Method: Analyst:	SW846 8270C JMB3	Prep Basis: SOP Ref: Instrument:	Dry Weight GL-OA-E-009 MSD2.I
Data File: Prep Batch: Prep Date:	s2e2212.d 636302 05/21/2007 15:00	Inj. Vol: Prep Method: Aliquot:	.5 uL SW846 3550B 30 g	Dilution: Prep SOP Ref: Final Volume:	1 GL-OA-E-010 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
2-75-9	N-Nitrosodimethylamine N-Methyl-N-nitrosomethylamin	U	340	ug/kg	68.1	340	330
08-95-2	Phenol	U	340	ug/kg	68.1	340	330
95-57-8	2-Chlorophenol	U	340	ug/kg	68.1	340	330
06-46-7	1,4-Dichlorobenzene	U	340	ug/kg	68.1	340	330
521-64-7	N-Nitrosodi-n-propylamine N-Nitrosodipropylamine	U	340	ug/kg	68.1	340	250
59-50-7	4-Chloro-3-methylphenol	U	340	ug/kg	34.0	340	330
33-32-9	Acenaphthene	U	34.0	ug/kg	11.4	34.0	330
121-14-2	2,4-Dinitrotoluene	U	340	ug/kg	34.0	340	330
100-02-7	4-Nitrophenol	U	340	ug/kg	68.1	340	830
87-86-5	Pentachlorophenol	U	340	ug/kg	68.1	340	830
129-00-0	Pyrene	U	34.0	ug/kg	10.7	34.0	330
62-53-3	Aniline	U	340	ug/kg	119	340	420
111-44-4	Bis(2-chloroethyl)ether bis(2-Chloroethyl) ether	U	340	ug/kg	68.1	340	330
541-73-1	1,3-Dichlorobenzene	U	340	ug/kg	68.1	340	330
100-51-6	Benzyl alcohol	U	340	ug/kg	102	340	330
95-50-1	1,2-Dichlorobenzene	U	340	ug/kg	68.1	340	330
108-60-1	Bis(2-chloroisopropyl)ether bis(2-Chloroisopropyl)ether	U	340	ug/kg	68.1	340	330
95-48-7	2-Methylphenol o-Cresol	u	340	ug/kg	68.1	340	330
65794-96-9	4-Methylphenol m,p-Cresols	u	340	ug/kg	136	340	330
67-72-1	Hexachloroethane	U	340	ug/kg	68.1	340	330
98-95-3	Nitrobenzene	υ	340	ug/kg	68.1	340	330
78-59-1	Isophorone	U	340	ug/kg	68.1	340	330
88-75-5	2-Nitrophenol	U	340	ug/kg	34.0	340	330
105-67-9	2,4-Dimethylphenol	U	340	ug/kg	68.1	340	330
111-91-1	Bis(2-chloroethoxy)methane bis(2-Chloroethoxy)methane	U	340	ug/kg	68.1	340	330
65-85-0	Benzoic acid	U	681	ug/kg	170	681	830
91-20-3	Naphthalene	U	34.0	ug/kg	10.2	34.0	330
106-47-8	4-Chloroaniline	U	340	ug/kg	68.1	340	330
87-68-3	Hexachlorobutadiene	U	340	ug/kg	68.1	340	330
91-57-6	2-Methylnaphthalene	U	34.0	ug/kg	6.81	34.0	330
77-47-4	Hexachlorocyclopentadiene	U	340	ug/kg	68.1	340	830
88-06-2	2,4,6-Trichlorophenol	U	340	ug/kg	68.1	340	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

186235S

SDG Number:

Report Date: May 24, 2007

SSFL00507

Project:

Semi-Volatile Certificate of Analysis Sample Summary

Client:

SSFL001

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ab Sample ID:	186235S 186235002	Date Collected: Date Received:	05/16/2007 05/17/2007		Project Matrix %Moi:		SOIL 2.1	
BLBS0058S01 636303 05/22/2007 13:32 stun Date:			Method: Analyst: Inj. Vol: Prep Method: Aliquot:	SW846 82 JMB3 .5 uL SW846 35 30 g		Prep Basis: SOP Ref: Instrument: Dilution: Prep SOP Ref: Final Volume:		Dry Weight GL-OA-E-009 MSD2.I 1 GL-OA-E-010 1 mL
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	
95-95-4	2,4,5-Trichlorophenol	U	340	ug/kg	68.1	340	330	
11-58-7	2-Chloronaphthalene	U	34.0	ug/kg	11.9	34.0	330	
88-74-4	2-Nitroaniline o-Nitroaniline	U	340	ug/kg	68.1	340	330	
99-09-2	3-Nitroaniline m-Nitroaniline	U	340	ug/kg	68.1	340	330	
131-11-3	Dimethyl phthalate Dimethyl phthalate	U	340	ug/kg	68.1	340	330	
606-20-2	2,6-Dinitrotoluene	U	340	ug/kg	34.0	340	330	
208-96-8	Acenaphthylene	U	34.0	ug/kg	10.2	34.0	330	
51-28-5	2,4-Dinitrophenol	U	681	ug/kg	129	681	660	
132-64-9	Dibenzofuran	U	340	ug/kg	68.1	340	330	
84-66-2	Diethyl phthalate Diethylphthalate	U	340	ug/kg	68.1	340	330	
86-73-7	Fluorene	U	34.0	ug/kg	10.2	34.0	330	
7005-72-3	4-Chlorophenyl phenyl ether 4-Chlorophenylphenylether	U	340	ug/kg	34.0	340	330	
534-52-1	4,6-Dinitro-2-methylphenol 2-Methyl-4,6-dinitrophenol	U	340	ug/kg	68.1	340	420	
100-01-6	4-Nitroaniline p-Nitroaniline	U	340	ug/kg	68.1	340	830	
122-39-4	Diphenylamine	U	340	ug/kg	68.1	340	330	
122-66-7	1,2-Diphenylhydrazine/Azobenzen 1,2-Diphenylhydrazine	1,50	340	ug/kg	68.1	340	330	
101-55-3	4-Bromophenyl phenyl ether 4-Bromophenylphenylether	U	340	ug/kg	34.0	340	330	
118-74-1	Hexachlorobenzene	U	340	ug/kg	68.1	340	330	
85-01-8	Phenanthrene	U	34.0	ug/kg	10.2	34.0	330	(c
120-12-7	Anthracene	U	34.0	ug/kg	6.81	34.0	330	
84-74-2	Di-n-butyl phthalate Di-n-butylphthalate	U	340	ug/kg	34.0	340	330	
206-44-0	Fluoranthene	U	34.0	ug/kg	10.2	34.0	330	E
92-87-5	Benzidine	U	340	ug/kg	340	340	660)
85-68-7	Butyl benzyl phthalate Butylbenzylphthalate	U	340	ug/kg	68.1	340	330)
56-55-3	Benzo(a)anthracene	U	34.0	ug/kg	10.2	34.0	330)
91-94-1	3,3'-Dichlorobenzidine	U	340	ug/kg	102	340	830)
218-01-9	Chrysene	U	34.0	ug/kg	10.2	34.0	330)
117-81-7	Bis(2-ethylhexyl)phthalate bis(2-Ethylhexyl)phthalate	U	170	ug/kg	68.1	170	330)
117-84-0	Di-n-octyl phthalate Di-n-octylphthalate	U	340	ug/kg	68.1	340	330	0
205-99-2	Benzo(b)fluoranthene	U	34.0	ug/kg	10.2	34.0	330	0
207-08-9	Benzo(k)fluoranthene	U	34.0	ug/kg	10.2	34.0	33	0
50-32-8	Benzo(a)pyrene	U	34.0	ug/kg	10.2	34.0	-33	D

Comments:

Level I

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Lab Sample ID: 186235002

186235S

636303

s2e2212.d

BLBS0058S01

05/22/2007 13:32

SDG Number:

Client ID:

Batch ID:

Run Date:

Data File:

Report Date: May 24, 2007

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Semi-Volatile

Certificate of Analysis

Sample Summary Client:

SSFL001 05/16/2007 09:45 Date Collected: 05/17/2007 09:30 Date Received:

SW846 8270C

JMB3

5 uL

Project: Matrix: SSFL00507 SOIL

%Moisture:

Prep Basis:

Dry Weight GL-OA-E-009

SOP Ref: Instrument:

MSD2.I

Dilution: Prep SOP Ref: GL-OA-E-010

SW846 3550B Prep Method: Prep Batch: 636302 Final Volume: 1 mL Prep Date: 05/21/2007 15:00 Aliquot: 30 g

Method:

Analyst:

Inj. Vol:

CAS No.	Parmname		Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
193-39-5	Indeno(1,2,3-ed)pyrene	1	U	34.0	ug/kg	10.2	34.0	330
53-70-3	Dibenzo(a,h)anthracene	1	U	34.0	ug/kg	10.2	34.0	420
191-24-2	Benzo(ghi)perylene		U	34.0	ug/kg	10.2	34.0	330
87-65-0	2,6-Dichlorophenol	11	U	340	ug/kg	68.1	340	330
120-82-1	1,2,4-Trichlorobenzene	11	U	340	ug/kg	68.1	340	330

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	1250	1700	ug/kg	74	(45%-101%)
Nitrobenzene-d5	1160	1700	ug/kg	68	(45%-101%)
p-Terphenyl-d14	1420	1700	ug/kg	84	(41%-114%)
2,4,6-Tribromophenol	2090	3400	ug/kg	61	(45%-97%)
2-Fluorophenol	2160	3400	ug/kg	63	(35%-98%)
Phenol-d5	2040	3400	ug/kg	60	(45%-95%)
the second contract of			Acres Address Services		

Level I

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

SDG Number: 186235S

Lab Sample ID: 186235002

Report Date: May 23, 2007

Page 1

of 2

Semi-Volatile Tentatively Identified Compound

Sample Summary

Date Collected:

05/16/2007 09:45 05/17/2007 09:30 Matrix:

%Moisture: 2.1

SOIL

Client:

Date Received:

SSFL001

Project:

SSFL00507

Client ID:

BLBS0058S01

Method:

SW846 8270C

SOP Ref:

GL-OA-E-009

Batch ID:

636303

Inst: Analyst:

MSD2.I JMB3

Dilution: Inj. Vol:

.5 vL

Run Date: Prep Date: 05/22/2007 13:32 05/21/2007 15:00

Aliquot:

30 g

Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
15076-93-4	5.alphaCholest-22-enc, (Z)-	10.02	496	ug/kg	86	NJ
1000144-54-1	Methyl 5-methyl-2-ethenyl-cyclohexane-1-	10.05	457	ug/kg	83	NJ
	Unknown	10.11	825	ug/kg		3
	Unknown	10.14	711	ug/kg		J
	Unknown	10.2	589	ug/kg		1
	Unknown	10.27	571	ug/kg		36
34315-85-0	Naphthalene, decahydro-1,6-dimethyl-4-(1	10.35	836	ug/kg	91	NJ
86917-79-5	6-Isopropenyl-4,8a-dimethyl-4a,5,6,7,8,8	10.53	508	ug/kg	93	NJ
	Unknown	10,56	424	ug/kg		1
	Unknown	10.62	478	ug/kg		1
	Unknown	10.66	553	ug/kg		J
	Unknown	10.73	684	ug/kg		ı
112-95-8	Eicosane	10.79	801	ug/kg	93	NJ
	Unknown	10.92	858	ug/kg		J
	Unknown Aldol Condensate R	II 2,99	406	ug/kg		J
1000190-22-7	7-(1,3-Dimethylbuta-1,3-dienyl)-1,6,6-tr 📢 💍	9.18	503	ug/kg	91	NJ
	Unknown	9.3	378	ug/kg		1
593-49-7	Heptacosane	9.37	742	ug/kg	97	NJ
55044-33-2	1H-Indene, 2-butyl-5-hexyloctahydro-	9.4	386	ug/kg	70	NJ
	Unknown	9.46	749	ug/kg		1
	Unknown	9.5	405	ug/kg		10



Report Date: May 23, 2007

Page 2 of 2

Semi-Volatile Tentatively Identified Compound

Sample Summary

Date Collected:

05/16/2007 09:45

Matrix:

SOIL

SDG Number: 186235S Lab Sample ID: 186235002

Date Received:

05/17/2007 09:30

SSFL001

%Moisture: Project:

SSFL00507

Client ID:

BLBS0058S01

Method:

Client:

SW846 8270C

SOP Ref:

GL-OA-E-009

Batch ID:

636303

Inst:

MSD2.I

Dilution:

Run Date: Prep Date: 05/22/2007 13:32 05/21/2007 15:00

Analyst: Aliquot:

JMB3 30 g

Inj. Vol:

5 uL Final Volume: 1 mL

CAS No.	CAS No. Tentatively Identified Compound (TIC)		Estimated Concentration	Units	Fit	Qual
1000303-05-9	Pyridine, 4–[5–(2–methoxyphenyl)–[1,3,4]	9.54	958	ug/kg	91	NJ
	Unknown	9.6	716	ug/kg		1
54482-31-4	D-Homoandrostane, (5.alpha.,13.alpha.)-	9.65	810	ug/kg	95	NJ
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	9.73	1040	ug/kg	91	NJ
55044-36-5	1H-Indene, 5-butyl-6-hexyloctahydro-	9.77	638	ug/kg	91	NJ
1000195-85-4	1-Isopropenyl-4,5-dimethylbicyclo[4,3,0]	9.84	834	ug/kg	87	NJ
54	Unknown	9.88	395	ug/kg		J
	Unknown	9.89	657	ug/kg		J
112-04-9	Silane, trichlorooctadecyl- R / # HT	9.98	1730	ug/kg	97	NI

Report Date: May 24, 2007

Semi-Volatile Certificate of Analysis Sample Summary

Page 1 of 3

SDG Number:	186235S	Client:	SSFL001	Project:	SSFL00507
Lab Sample ID:	186235003	Date Collected:	05/16/2007 10:05	Matrix:	SOIL
		Date Received:	05/17/2007 09:30	%Moisture:	2
Client ID:	BLBS0052S01			Prep Basis:	Dry Weight
Batch ID:	636303	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Run Date:	05/23/2007 00:18	Analyst:	JMB3	Instrument:	MSD2.I

 Data File:
 s2e2242.d
 Inj. Vol:
 .5 uL
 Dilution:
 4

 Prep Batch:
 636302
 Prep Method:
 SW846 3550B
 Prep SOP Ref:
 GL-OA-E-010

Prep Date: 05/21/2007 15:00 Aliquot: 30 g Final Volume: 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	
52-75-9	N-Nitrosodimethylamine N-Methyl-N-nitrosomethylamin	U	1360	ug/kg	272	1360	330	
108-95-2	Phenol	U	1360	ug/kg	272	1360	330	
95-57-8	2-Chlorophenol	U	1360	ug/kg	272	1360	330	
106-46-7	I,4-Dichlorobenzene	U	1360	ug/kg	272	1360	330	
621-64-7	N-Nitrosodi-n-propylamine N-Nitrosodipropylamine	U	1360	ug/kg	272	1360	250	
59-50-7	4-Chloro-3-methylphenol	U	1360	ug/kg	136	1360	330	
83-32-9	Acenaphthene	U	136	ug/kg	45.4	136	330	
121-14-2	2,4-Dinitrotoluene	U	1360	ug/kg	136	1360	330	
100-02-7	4-Nitrophenol	U	1360	ug/kg	272	1360	830	
87-86-5	Pentachlorophenol	U	1360	ug/kg	272	1360	830	
129-00-0	Pyrene	U	136	ug/kg	42.7	136	330	
62-53-3	Aniline	U	1360	ug/kg	476	1360	420	
111-44-4	Bis(2-chloroethyl)ether bis(2-Chloroethyl) ether	U	1360	ug/kg	272	1360	330	
541-73-1	1,3-Dichlorobenzene	U	1360	ug/kg	272	1360	330	
100-51-6	Benzyl alcohol	U	1360	ug/kg	408	1360	330	
95-50-1	1,2-Dichlorobenzene	U	1360	ug/kg	272	1360	330	
108-60-1	Bis(2-chloroisopropyl)ether bis(2-Chloroisopropyl)ether	U	1360	ug/kg	272	1360	330	
95-48-7	2-Methylphenol o-Cresol	U	1360	ug/kg	272	1360	330	
65794-96-9	4-Methylphenol m,p-Cresols	u	1360	ug/kg	544	1360	330	
67-72-1	Hexachloroethane	U	1360	ug/kg	272	1360	330	
98-95-3	Nitrobenzene	U	1360	ug/kg	272	1360	330	8 4
78-59-1	Isophorone	U	1360	ug/kg	272	1360	330	8
88-75-5	2-Nitrophenol	U	1360	ug/kg	136	1360	330	2.,
105-67-9	2,4-Dimethylphenol	U	1360	ug/kg	272	1360	330	9
111-91-1	Bis(2-chloroethoxy)methane bis(2-Chloroethoxy)methane	U	1360	ug/kg	272	1360	330	
65-85-0	Benzoic acid	U	2720	ug/kg	680	2720	830	à
91-20-3	Naphthalene	U	136	ug/kg	40.8	136	330	8
106-47-8	4-Chloroaniline	U	1360	ug/kg	272	1360	330	8 1
87-68-3	Hexachlorobutadiene	U	1360	ug/kg	272	1360	330	6
91-57-6	2-Methylnaphthalene	U	136	ug/kg	27.2	136	330	
77-47-4	Hexachlorocyclopentadiene	U	1360	ug/kg	272	1360	830	6
88-06-2	2,4,6-Trichlorophenol	U	1360	ug/kg		1360	330)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Report Date: May 24, 2007

Semi-Volatile Certificate of Analysis Sample Summary

Page 2 of 3

SDG Number: Lab Sample ID:

186235S 186235003 Client: Date Collected: Date Received:

SSFL001 05/16/2007 10:05 05/17/2007 09:30

Project: Matrix: %Moisture: SSFL00507 SOIL 2

Client ID: Batch ID:

BLBS0052S01 636303

05/23/2007 00:18

Method: Analyst: SW846 8270C JMB3

Prep Basis: SOP Ref: Instrument: Dry Weight GL-OA-E-009 MSD2.I

Run Date: Data File: Prep Batch:

s2e2242.d

Inj. Vol:

.5 uL SW846 3550B Dilution:

Prep SOP Ref: GL-OA-E-010

Prep Date:

636302 05/21/2007 15:00 Prep Method: Aliquot:

30 g

Final Volume: 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
95-95-4	2,4,5-Trichlorophenol	U	1360	ug/kg	272	1360	330
91-58-7	2-Chloronaphthalene	U	136	ug/kg	47.6	136	330
88-74-4	2-Nitroaniline o-Nitroaniline	U	1360	ug/kg	272	1360	330
99-09-2	3-Nitroaniline	11	1360	maffee	272	1260	220

05-95-4	2,4,5-Trichlorophenol	U	1260		222	1260	000
01-58-7	V		1360	ug/kg	272	1360	330
	2-Chloronaphthalene	U	136	ug/kg	47.6	136	330
8-74-4	2-Nitroaniline	U	1360	ug/kg	272	1360	330
9-09-2	3-Nitroaniline m-Nitroaniline	U	1360	ug/kg	272	1360	330
31-11-3	Dimethyl phthalate Dimethylphthalate	U	1360	ug/kg	272	1360	330
506-20-2	2,6-Dinitrotoluene	U	1360	ug/kg	136	1360	330
208-96-8	Acenaphthylene	U	136	ug/kg	40.8	136	330
51-28-5	2,4-Dinitrophenol	U	2720	ug/kg	517	2720	660
132-64-9	Dibenzofuran	U	1360	ug/kg	272	1360	330
34-66-2	Diethyl phthalate Diethylphthalate	U	1360	ug/kg	272	1360	330
36-73-7	Fluorene	U	136	ug/kg	40.8	136	330
7005-72-3	4-Chlorophenyl phenyl ether 4-Chlorophenylphenylether	U	1360	ug/kg	136	1360	330
534-52-1	4,6-Dinitro-2-methylphenol 2-Methyl-4,6-dinitrophenol	U	1360	ug/kg	272	1360	420
100-01-6	4-Nitroaniline p-Nitroaniline	U	1360	ug/kg	272	1360	830
122-39-4	Diphenylamine	U	1360	ug/kg	272	1360	330
122-66-7	1,2-Diphenylhydrazine/Azobenz 1,2-Diphenylhydrazine	en U	1360	ug/kg	272	1360	330
101-55-3	4-Bromophenyl phenyl ether 4-Bromophenylphenylether	U	1360	ug/kg	136	1360	330
118-74-1	Hexachlorobenzene	U	1360	ug/kg	272	1360	330
85-01-8	Phenanthrene	U	136	ug/kg	40.8	136	330
120-12-7	Anthracene	U	136	ug/kg	27.2	136	330
84-74-2	Di-n-butyl phthalate Di-n-butylphthalate	U	1360	ug/kg	136	1360	330
206-44-0	Fluoranthene	U	136	ug/kg	40.8	136	330
92-87-5	Benzidine	U	1360	ug/kg	1360	1360	660
85-68-7	Butyl benzyl phthalate Butylbenzylphthalate	U	1360	ug/kg	272	1360	330
56-55-3	Benzo(a)anthracene	U	136	ug/kg	40.8	136	330
91-94-1	3,3'-Dichlorobenzidine	U	1360	ug/kg	408	1360	830
218-01-9	Chrysene	U	136	ug/kg	40.8	136	330
117-81-7	Bis(2-ethylhexyl)phthalate bis(2-Ethylhexyl)phthalate	U	680	ug/kg	272	680	330
117-84-0	Di-n-octyl phthalate Di-n-octylphthalate	υ	1360	ug/kg	272	1360	330
205-99-2	Benzo(b)fluoranthene	U	136	ug/kg	40.8	136	330
207-08-9	Benzo(k)fluoranthene	U	136	ug/kg	40.8	136	330
50-32-8	Benzo(a)pyrene	/ U	136	ug/kg	40.8	136	330
No.							

Comments:

Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

186235S

SDG Number:

Report Date: May 24, 2007

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of 3

Semi-Volatile Certificate of Analysis Sample Summary

| Sample Summary | Client: | SSFL001 | Project: | SSFL00507 |
| Date Collected: | 05/16/2007 10:05 | Matrix: | SOIL

Lab Sample ID: 186235003 Date Collected: Date Received: 05/17/2007 09:30 %Moisture: Client ID: BLBS0052S01 Prep Basis: Dry Weight SOP Ref: Batch ID: 636303 Method: SW846 8270C GL-OA-E-009 Instrument: MSD2.I Run Date: 05/23/2007 00:18 Analyst: JMB3 Inj. Vol: 5 uL Dilution: Data File: s2e2242.d Prep Batch: SW846 3550B Prep SOP Ref: GL-OA-E-010 636302 Prep Method: Final Volume: 1 mL Prep Date: 05/21/2007 15:00 Aliquot: 30 g

CAS No.	Parmname		Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
193-39-5	Indeno(1,2,3-cd)pyrene	11	U	136	ug/kg	40.8	136	330
53-70-3	Dibenzo(a,h)anthracene		U	136	ug/kg	40.8	136	420
191-24-2	Benzo(ghi)perylene		U	136	ug/kg	40.8	136	330
87-65-0	2,6-Dichlorophenol		U	1360	ug/kg	272	1360	330
120-82-1	1,2,4-Trichlorobenzene	V	U	1360	ug/kg	272	1360	330

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	1050	1700	ug/kg	62	(45%-101%)
Nitrobenzene-d5	1050	1700	ug/kg	62	(45%-101%)
p-Terphenyl-d14	1090	1700	ug/kg	64	(41%-114%)
2,4,6-Tribromophenol	1690	3400	ug/kg	50	(45%-97%)
2-Fluorophenol	1890	3400	ug/kg	56	(35%-98%)
Phenol-d5	1770	3400	ug/kg	52	(45%-95%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Report Date: May 23, 2007

Semi-Volatile Tentatively Identified Compound Sample Summary

Page 1 of 2

SDG Number: 186235S Lab Sample ID: 186235003

Date Collected: Date Received:

05/16/2007 10:05 05/17/2007 09:30 Matrix: % Moisture:

SOIL 2

Client:

SSFL001

Project:

SSFL00507

Client ID:

BLBS0052S01

05/21/2007 15:00

Method: Inst:

Aliquot:

SW846 8270C MSD2.I

SOP Ref: Dilution:

GL-OA-E-009

Batch ID: Run Date: Prep Date:

636303 05/23/2007 00:18 Analyst:

JMB3 30 g

4 Inj. Vol: 5 uL Final Volume: 1 mL

Estimated RT Tentatively Identified Compound (TIC) CAS No. Concentration Units Fit Qual Unknown 10.01 1720 ug/kg 47 Unknown 10.1 2310 ug/kg J Unknown 10.14 1930 ug/kg J Unknown 10.18 2240 ug/kg J Unknown 10.32 1550 ug/kg 1 Unknown 10.35 1860 ug/kg Unknown 10.51 2660 ug/kg J Unknown 10.64 2050 ug/kg Unknown 10.89 2030 ug/kg -3 Unknown 8.61 1580 ug/kg 3 Unknown 8.64 1550 ug/kg 1 Cyclopropane carboxamide, 2-cyclopropyl-331416-19-4 8.71 1290 91 NJ ug/kg Unknown 8.8 1470 ug/kg 1 24887-75-0 Androstane 8.84 1520 ug/kg 90 NJ 438-23-3 Androstane, (5.beta.)-8.88 1580 91 ug/kg NJ Unknown 8.93 1600 J. ug/kg Unknown 8.98 1430 ug/kg 1 Unknown 9.13 1790 ug/kg Unknown 9.18 1850 ug/kg Unknown 9.23 1850 ug/kg Unknown 9.3 2060 ug/kg

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Report Date: May 23, 2007

Page 2

of 2

Semi-Volatile

Tentatively Identified Compound Sample Summary

SDG Number: 186235S

Lab Sample ID: 186235003

BLBS0052S01 636303

Run Date:

Prep Date:

Client ID:

Batch ID:

05/23/2007 00:18 05/21/2007 15:00 Date Collected: Date Received:

05/16/2007 10:05 05/17/2007 09:30

SSFL001

Matrix:

%Moisture: 2

Project:

SSFL00507

Method:

Aliquot:

Client:

Inst: Analyst: SW846 8270C MSD2.I

JMB3 30 g

SOP Ref: Dilution:

GL-OA-E-009

SOIL

4 .5 uL

Inj. Vol: Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown	9.45	3040	ug/kg		J
	Unknown	9,53	1420	ug/kg		1
	Unknown	9.59	1600	ug/kg		11
54482-31-4	D-Homoandrostane, (5.alpha.,13.alpha.)-	9.64	2290	ug/kg	94	NJ
	Unknown	9.72	2030	ug/kg		J
55044-36-5	1H-Indene, 5-butyl-6-hexyloctahydro-	9.75	1580	ug/kg	97	NJ
	Unknown	9.83	1850	ug/kg		J
	Unknown	9.88	1490	ug/kg		1
	Unknown	9.95	3260	ug/kg		1

Semi-Volatile Certificate of Analysis Sample Summary

Page 1 of 3

			13.50		
SDG Number: Lab Sample ID:	186235S 186235004	Client: Date Collected: Date Received:	SSFL001 05/16/2007 10:25 05/17/2007 09:30	Project: Matrix: %Moisture:	SSFL00507 SOIL 1.6
Client ID: Batch ID: Run Date: Data File:	BLBS0057S01 636303 05/23/2007 00:38 s2e2243.d	Method: Analyst: Inj. Vol:	SW846 8270C JMB3 .5 uL	Prep Basis: SOP Ref: Instrument: Dilution:	Dry Weight GL-OA-E-009 MSD2.I 1
Prep Batch: Prep Date:	636302 05/21/2007 15:00	Prep Method: Aliquot:	SW846 3550B 30 g	Prep SOP Ref: Final Volume:	GL-OA-E-010 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
2-75-9	N-Nitrosodimethylamine N-Methyl-N-nitrosomethylami	U	339	ug/kg	67.7	339	330
108-95-2	Phenol	U	339	ug/kg	67.7	339	330
95-57-8	2-Chlorophenol	U	339	ug/kg	67.7	339	330
106-46-7	1,4-Dichlorobenzene	U	339	ug/kg	67.7	339	330
621-64-7	N-Nitrosodi-n-propylamine N-Nitrosodipropylamine	U	339	ug/kg	67.7	339	250
59-50-7	4-Chloro-3-methylphenol	U	339	ug/kg	33.9	339	330
83-32-9	Acenaphthene	U	33.9	ug/kg	11.3	33.9	330
121-14-2	2,4-Dinitrotoluene	U	339	ug/kg	33.9	339	330
100-02-7	4-Nitrophenol	U	339	ug/kg	67.7	339	830
87-86-5	Pentachlorophenol	U	339	ug/kg	67.7	339	830
129000	Pyrene	U	33.9	ug/kg	10.6	33.9	330
62-53-3	Aniline	U	339	ug/kg	119	339	420
111-44-4	Bis(2-chloroethyl)ether bis(2-Chloroethyl) ether	U	339	ug/kg	67.7	339	330
541-73-1	1,3-Dichlorobenzene	U	339	ug/kg	67.7	339	330
100-51-6	Benzyl alcohol	U	339	ug/kg	102	339	330
95-50-1	1,2-Dichlorobenzene	U	339	ug/kg	67.7	339	330
108-60-1	Bis(2-chloroisopropyl)ether bis(2-Chloroisopropyl)ether	U	339	ug/kg	67.7	339	330
95-48-7	2-Methylphenol o-Cresol	U	339	ug/kg	67.7	339	330
65794-96-9	4-Methylphenol m.p-Cresols	U	339	ug/kg	135	339	330
67-72-1	Hexachloroethane	U	339	ug/kg	67.7	339	330
98-95-3	Nitrobenzene	U	339	ug/kg	67.7	339	330
78-59-1	Isophorone	U	339	ug/kg	67.7	339	330
88-75-5	2-Nitrophenol	U	339	ug/kg	33.9	339	330
105-67-9	2,4-Dimethylphenol	U	339	ug/kg	67.7	339	330
111-91-1	Bis(2-chloroethoxy)methane bis(2-Chloroethoxy)methane	u	339	ug/kg	67.7	339	330
65-85-0	Benzoic acid	U	677	ug/kg	169	677	830
91-20-3	Naphthalene	U	33.9	ug/kg	10.2	33.9	330
106-47-8	4-Chloroaniline	U	339	ug/kg	67.7	339	330
87-68-3	Hexachlorobutadiene	U	339	ug/kg	67.7	339	330
91-57-6	2-Methylnaphthalene	U	33.9	ug/kg	6.77	33.9	330
77-47-4	Hexachlorocyclopentadiene	U	339	ug/kg	67.7	339	830
88-06-2	2,4,6-Trichlorophenol	U	339	ug/kg	67.7	339	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Semi-Volatile Certificate of Analysis Sample Summary

Page 2 m 3

SDG Number: Lab Sample ID:	186235S : 186235004		Client: Date Collected: Date Received:	# # 1 # # B B B B B B B B B B B B B B B		Project: Matrix: %Moisture:		SSFL00507 SOIL 1.6
Client ID: Batch ID: Run Date: Data File: Prep Batch: Prep Date:	BLBS0057S01 636303 05/23/2007 00:38 s2e2243.d 636302 05/21/2007 15:00	Method: Analyst: Inj. Vol: Prep Method: Aliquot:	SW846 823 JMB3 .5 uL SW846 35 30 g		Prep Basis: SOP Ref: Instrument; Dilution: Prep SOP Ref: Final Volume:		Dry Weight GL-OA-E-009 MSD2.1 1 GL-OA-E-010 1 mL	
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	
95-95-4	2,4,5-Trichlorophenol	Ü	339	ug/kg	67.7	339	330	
91-58-7	2-Chloronaphthalene	U	33.9	ug/kg	11.9	33.9	330	
88-74-4	2-Nitroaniline	U	339	ug/kg	67.7	339	330	
	o=Nitroaniline	127			70 O	220	270	
99-09-2	3-Nitroaniline m-Nitroaniline	U	339	ug/kg	67.7	339	330	
131-11-3	Dimethyl phthalate	U	339	ug/kg	67.7	339	330	
	Dimethylphthalate		720		33.9	339	330	
606-20-2	2,6-Dinitrotoluene	U	339	ug/kg		33.9	330	
208-96-8	Acenaphthylene	U	33.9	ug/kg	10.2	1	1000	
51-28-5	2,4-Dinitrophenol	υ	677	ug/kg	129	677	660	1100-1
132-64-9	Dibenzofuran	U	339	ug/kg	67.7	339	330	
84-66-2	Diethyl phthalate Diethylphthalate	U	339	ug/kg	67.7	339	330	
86-73-7	Fluorene	U	33.9	ug/kg	10.2	33.9	330	
7005-72-3	4-Chlorophenyl phenyl ether 4-Chlorophenylphenylether	U	339	ug/kg	33.9	339	330	
534-52-1	4,6-Dinitro-2-methylphenol	U	339	ug/kg	67.7	339	420	i e
100-01-6	2-Methyl-4.6-dinitrophenol 4-Nitroaniline p-Nitroaniline	υ	339	ug/kg	67.7	339	830)
122=39=4	Diphenylamine	U	339	ug/kg	67,7	339	330)
122-66-7	1,2-Diphenylhydrazine/Azobenza	n U	339	ug/kg	67,7	339	330)
	1.2-Diphenylhydrazine						22	
101-55-3	4-Bromophenyl phenyl ether 4-Bromophenylphenylether	υ	339	ug/kg	33.9	339	330	,
118-74-1	Hexachlorobenzene	U	339	ug/kg	67.7	339	33	0
85-01-8	Phenanthrene	U	33.9	ug/kg	10.2	33.9	33	0
120-12-7	Anthracene	U	33.9	ug/kg	6.77	33.9	33	0
84-74-2	Di-n-butyl phthalate Di-n-butylphthalate	Ü	339	ug/kg		339	33	0
206-44-0	Fluoranthene	U	33.9	ug/kg	10.2	33.9	33	0
92-87-5	Benzidine	U	339	ug/kg	339	339	66	0
85-68-7	Butyl benzyl phthalase Butylbenzylphthalase	U	339	ug/kg	67.7	339	33	0
56-55-3	Benzo(a)anthracene	U	33.9	ug/kş	10.2	33.9	33	50
91-94-1	3,3*-Dichlorobenzidine	U	339	ug/kj	g 102	339	83	50
218-01-9	Chrysene	Ι, υ	33.9	ug/kį		33.9	33	30
117-81-7	Bis(2-ethylbexyl)phthalate	Y -	475	ug/k	The second secon	169	3.	30
117-84-0	bis(2-Ethylhexyl)phthalate Di-n-octyl phthalate	u	339	ug/k;	g 67.7	339	3.	30
205-99-2	Di=n=octylphthalate Benzo(b)fluoramhene	U	33.9	ug/k	g 10.2	33.9	3	30
			33.9	ug/k	•	33.9		30
207-08-9	Benzo(k)fluoranthene	U	and the same of th			33.9		30
50-32-8	Benzo(a)pyrene	√ u	33.9	ug/k	g 10.2	22.9		DM.

pm blston

Level I

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Benzo(ghi)perylene

2,6-Dichlorophenol

1,2,4-Trichlorobenzene

Report Date: May 24, 2007

Semi-Volatile Certificate of Analysis Sample Summary

10.2

67.7

67.7

33.9

339

339

330

330

330

ug/kg

ug/kg

ug/kg

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SDG Number: Lab Sample ID:	186235S : 186235004		Client: Date Collected: Date Received:	SSFL001 05/16/200 05/17/200	Project: Matrix: %Moisture:		SSFL00507 SOIL 1.6		
Client ID: Batch ID: Run Date: Data File: Prep Batch: Prep Date:	BLBS0057S01 636303 05/23/2007 00:38 s2e2243.d 636302 05/21/2007 15:00			Method: Analyst: Inj. Vol: Prep Method: Aliquot:	SW846 82 JMB3 .5 uL SW846 33 30 g	570	120000000000000000000000000000000000000	ef: ment:	Dry Weight GL-OA-E-009 MSD2.I 1 GL-OA-E-010 1 mL
CAS No.	Parmname		Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	
193-39-5	Indeno(1,2,3-cd)pyrene	u	U	33.9	ug/kg	10.2	33.9	330	7
53-70-3	Dibenzo(a,h)anthracene	1	U	33.9	ug/kg	10.2	33.9	420	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits		
2-Fluorobiphenyl	885	1690	ug/kg	52	(45%-101%)		
Nitrobenzene-d5	860	1690	ug/kg	51	(45%-101%)		
p-Terphenyl-d14	947	1690	ug/kg	56	(41%-114%)		
2,4,6-Tribromophenol	1590	3390	ug/kg	47	(45%-97%)		
2-Fluorophenol	1550	3390	ug/kg	46	(35%-98%)		
Phenol-d5	1480	3390	ug/kg	44 +	(45%-95%)		

33.9

339

339

U

U

U

Comments:

191-24-2

87-65-0

120-82-1

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

SDG Number: 186235S

Lab Sample ID: 186235004

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of 2

Semi-Volatile Tentatively Identified Compound Sample Summary

Sample Summary

Date Collected: 05/16/2007 10:25 Matrix: SOIL
Date Received: 05/17/2007 09:30 %Moisture: 1.6

Client: SSFL001 Project: SSFL00507

 Client ID:
 BLBS0057S01
 Method:
 SW846 8270C
 SOP Ref:
 GL-OA-E-009

 Batch ID:
 636303
 Inst:
 MSD2.I
 Dilution:
 1

Run Date: 05/23/2007 00:38 Analyst: JMB3 Inj. Vol: .5 uL
Prep Date: 05/21/2007 15:00 Aliquot: 30 g Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown	10.05	467	ug/kg		J
	Unknown	10.08	505	ug/kg		J
	Unknown	10.12	352	ug/kg		1
	Unknown	10.16	317	ug/kg		1
	Unknown	10.33	464	ug/kg		1
	Unknown	10.59	317	ug/kg		1
	Unknown	10.76	503	ug/kg		1
	Unknown	10.89	431	ug/kg		J
	Unknown	8.45	301	ug/kg		1
	Unknown	8.58	308	ug/kg		18
	Unknown	8.62	313	ug/kg		3
	Unknown	8.64	276	ug/kg		1
55044-33-2	1H-Indene, 2-butyl-5-hexyloctahydro-	8.71	425	ug/kg	91	NJ
19780-11-1	2-Dodecen-1-yl(-)succinic anhydride	8.79	284	ug/kg	91	NJ
3386-33-2	Octadecane, 1-chloro-	8.86	428	ug/kg	83	NJ
19780-11-1	2-Dodecen-1-yl(-)succinic anhydride	9.01	415	ug/kg	91	NJ
	Unknown	9.09	303	ug/kg		1
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	9.18	693	ug/kg	91	NJ
54482-31-4	D-Homoandrostane, (5.alpha.,13.alpha.)-	9.22	442	ug/kg	92	NJ
	Unknown	9.28	358	ug/kg		1
112-95-8	Eicosane	9.34	536	ug/kg	95	NJ

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Semi-Volatile

Tentatively Identified Compound Sample Summary

SDG Number: 186235S Lab Sample ID: 186235004 Date Collected: Date Received:

05/16/2007 10:25 05/17/2007 09:30

Matrix:

SOIL

SSFL001

%Moisture: Project:

1.6 SSFL00507

Client ID:

BLBS0057S01

Method: Inst:

Client:

SW846 8270C

SOP Ref:

GL-OA-E-009

Batch ID: Run Date: 636303 05/23/2007 00:38 Analyst:

MSD2.I JMB3

Dilution: Inj. Vol:

1 .5 uL

Prep Date:

05/21/2007 15:00

Aliquot: 30 g Final Volume: 1 mL

CAS No.	Tentatively Identified	Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown	ND	9.4	343	ug/kg		1
	Unknown		9.49	345	ug/kg		1
	Unknown		9.51	441	ug/kg		1
	Unknown		9.62	448	ug/kg		1
	Unknown	1	9.71	530	ug/kg		1
	Unknown	1	9.76	311	ug/kg		1
	Unknown	1	9.81	589	ug/kg		1
	Unknown		9.87	359	ug/kg		J
629-93-6	Octadecane, 1-iodo-	1	9.95	1090	ug/kg	98	NJ

186235S

186235005

SDG Number:

Lab Sample ID:

Report Date: May 24, 2007

3.4

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of 3

Semi-Volatile Certificate of Analysis Sample Summary

05/17/2007 09:30

Client: SSFL001 Project: SSFL00507 05/16/2007 11:00 Matrix: SOIL Date Collected:

%Moisture:

Date Received: BLBS0060S01 Prep Basis: Dry Weight Client ID: Batch ID: 636303 Method: SW846 8270C SOP Ref: GL-OA-E-009 Run Date: 05/22/2007 14:32 Analyst: JMB3 Instrument: MSD2.1

Data File: Inj. Vol: .5 uL Dilution: s2e2215.d

SW846 3550B Prep SOP Ref: GL-OA-E-010 Prep Method: Prep Batch: 636302

Prep Date:	05/21/2007 15:00		Aliquot:	30 g		Final V	olume:	1 ml
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	
52-75-9	N-Nitrosodimethylamine N-Methyl-N-nitrosomethylamin	U	345	ug/kg	69.0	345	330	
108-95-2	Phenol	U	345	ug/kg	69.0	345	330	
95-57-8	2-Chlorophenol	U	345	ug/kg	69.0	345	330	
106-46-7	1,4-Dichlorobenzene	U	345	ug/kg	69.0	345	330	
521-64-7	N-Nitrosodi-n-propylamine N-Nitrosodipropylamine	U	345	ug/kg	69.0	345	250	
59-50-7	4-Chloro-3-methylphenol	U	345	ug/kg	34.5	345	330	
83-32-9	Acenaphthene	U	34.5	ug/kg	11.5	34.5	330	
121-14-2	2,4-Dinitrotoluene	U	345	ug/kg	34.5	345	330	-117
100-02-7	4-Nitrophenol	U	345	ug/kg	69.0	345	830	1
87-86-5	Pentachlorophenol	U	345	ug/kg	69.0	345	830	200
129-00-0	Pyrene	U	34.5	ug/kg	10.8	34.5	330	
62-53-3	Aniline	U	345	ug/kg	121	345	420	7.54
111-44-4	Bis(2-chloroethyl)ether bis(2-Chloroethyl) ether	Ü	345	ug/kg	69.0	345	330	
541-73-1	1,3-Dichlorobenzene	U	345	ug/kg	69.0	345	330	
100-51-6	Benzyl alcohol	U	345	ug/kg	104	345	330	
95-50-1	1,2-Dichlorobenzene	U	345	ug/kg	69.0	345	330	N.
108-60-1	Bis(2-chloroisopropyl)ether bis(2-Chloroisopropyl)ether	υ	345	ug/kg	69.0	345	330	
95-48-7	2-Methylphenol o-Cresol	U	345	ug/kg	69.0	345	330	
65794-96-9	4-Methylphenol m,p-Cresols	U	345	ug/kg	138	345	330	
67-72-1	Hexachloroethane	U	345	ug/kg	69.0	345	330	
98-95-3	Nitrobenzene	U	345	ug/kg	69.0	345	330	2
78-59-1	Isophorone	U	345	ug/kg	69.0	345	330	
88-75-5	2-Nitrophenol	U	345	ug/kg	34.5	345	330	
105-67-9	2,4-Dimethylphenol	U	345	ug/kg	69.0	345	330	
111-91-1	Bis(2-chloroethoxy)methane bis(2-Chloroethoxy)methane	U	345	ug/kg	69.0	345	330	
65-85-0	Benzoic acid	U	690	ug/kg	173	690	830	
91-20-3	Naphthalene	U	34.5	ug/kg	10.4	34.5	330)
106-47-8	4-Chloroaniline	U	345	ug/kg	69.0	345	330)
87-68-3	Hexachlorobutadiene	U	345	ug/kg	69.0	345	330)
91-57-6	2-Methylnaphthalene	U	34.5	ug/kg	6.90	34.5	330)
77-47-4	Hexachlorocyclopentadiene	U	345	ug/kg	69.0	345	830)
88-06-2	2,4,6-Trichlorophenol	U	345	ug/kg	69.0	345	330)

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

SDG Number: 186235S

Lab Sample ID: 186235005

Report Date: May 24, 2007

SSFL00507

SOIL

Project:

Matrix:

Semi-Volatile Certificate of Analysis Sample Summary

Client:

Date Collected:

SSFL001 05/16/2007 11:00

Page 2

			Date Received:	05/17/2007	09:30	%Moi	sture:	3.4
Client ID:	BLBS0060S01					Prep F	Basis:	Dry Weight
Batch ID:	636303		Method:	SW846 82	70C	SOP R	tef:	GL-OA-E-009
Run Date:	05/22/2007 14:32		Analyst:	JMB3		Instru	ment:	MSD2.I
Data File:	s2e2215.d		Inj. Vol:	.5 uL		Dilutio	on:	1
Prep Batch:	636302		Prep Method:	SW846 35	550B		SOP Ref:	GL-OA-E-01
Prep Date:	05/21/2007 15:00		Aliquot:	30 g		Final '	Volume:	1 mL
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	
95-95-4	2.4,5-Trichlorophenol	U	345	ug/kg	69.0	345	330	
1-58-7	2-Chloronaphthalene	U	34.5	ug/kg	12.1	34.5	330	
88-74-4	2-Nitroaniline o-Nitroaniline	U	345	ug/kg	69.0	345	330	
99-09-2	3-Nitroaniline m-Nitroaniline	U	345	ug/kg	69.0	345	330	
131-11-3	Dimethyl phthalate Dimethylphthalate	U	345	ug/kg	69.0	345	330	
606-20-2	2,6-Dinitrotoluene	U	345	ug/kg	34.5	345	330	
208-96-8	Acenaphthylene	U	34.5	ug/kg	10.4	34.5	330	
51-28-5	2,4-Dinitrophenol	U	690	ug/kg	131	690	660	
132-64-9	Dibenzofuran	U	345	ug/kg	69.0	345	330	
84-66-2	Diethyl phthalate Diethylphthalate	U	345	ug/kg	69.0	345	330	
86-73-7	Fluorene	U	34.5	ug/kg	10.4	34.5	330	
7005-72-3	4-Chlorophenyl phenyl ether 4-Chlorophenylphenylether	U	345	ug/kg	34.5	345	330	
534-52-1	4,6-Dinitro-2-methylphenol 2-Methyl-4,6-dinitrophenol	U	345	ug/kg	69.0	345	420	
100-01-6	4-Nitroaniline p-Nitroaniline	U	345	ug/kg	69.0	345	830	
122-39-4	Diphenylamine	U	345	ug/kg	69.0	345	330	
122-66-7	1,2-Diphenylhydrazine/Azob 1,2-Diphenylhydrazine	mzen U	345	ug/kg	69.0	345	330	
101-55-3	4-Bromophenyl phenyl ether 4-Bromophenylphenylether	υ	345	ug/kg	34.5	345 .	330	
118-74-1	Hexachlorobenzene	U	345	ug/kg	69.0	345	330	
85-01-8	Phenanthrene	U	34.5	ug/kg	10.4	34.5	330)
120-12-7	Anthracene	U	34.5	ug/kg	6.90	34.5	330)
84-74-2	Di-n-butyl phthalate Di-n-butylphthalate	U	345	ug/kg	34.5	345	330)
206-44-0	Fluoranthene	U	34.5	ug/kg	10.4	34.5	330)
92-87-5	Benzidine	U	345	ug/kg	345	345	660)
85-68-7	Butyl benzyl phthalate Butylbenzylphthalate	U	345	ug/kg	69.0	345	330)
56-55-3	Benzo(a)anthracene	U	34.5	ug/kg	10.4	34.5	330	0
91-94-1	3,3*-Dichlorobenzidine	υ	345	ug/kg	104	345	830	0
218-01-9	Chrysene	U	34.5	ug/kg	10.4	34.5	33	D
117-81-7	Bis(2-ethylhexyl)phthalate bis(2-Ethylhexyl)phthalate	U	173	ug/kg	69.0	173	33	0
117-84-0	Di-n-octyl phthalate Di-n-octylphthalate	U	345	ug/kg	69.0	345	33	0
205-99-2	Benzo(b)fluoranthene	U	34.5	ug/kg	10.4	34.5	33	0
207-08-9	Benzo(k)fluoranthene	U	34.5	ug/kg	10.4	34.5	33	0
50-32-8	Benzo(a)pyrene	/ U	34.5	ug/kj		34.5	33	0

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

186235S

SDG Number:

Report Date: May 24, 2007

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Semi-Volatile Certificate of Analysis Sample Summary

| Sample Summary | Client: | SSFL001 | Project: | SSFL00507 | Date Collected: | 05/16/2007 | 11:00 | Matrix: | SOIL |

Lab Sample ID: 186235005 Date Collected: Date Received: 05/17/2007 09:30 %Moisture: BLBS0060S01 Prep Basis: Client ID: Dry Weight Batch ID: 636303 SW846 8270C SOP Ref: GL-OA-E-009 Method: MSD2.1 Run Date: 05/22/2007 14:32 Analyst: JMB3 Instrument: Inj. Vol: 5 uL Dilution: Data File: s2e2215.d Prep SOP Ref: GL-OA-E-010 Prep Batch: 636302 Prep Method: SW846 3550B Final Volume: 1 mL Aliquot: 30 g Prep Date: 05/21/2007 15:00

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
193-39-5	Indeno(1,2,3-cd)pyrene (A U	34.5	ug/kg	10.4	34.5	330
53-70-3	Dibenzo(a,h)anthracene	U	34.5	ug/kg	10.4	34.5	420
191-24-2	Benzo(ghi)perylene	U	34.5	ug/kg	10.4	34.5	330
87-65-0	2,6-Dichlorophenol	U	345	ug/kg	69.0	345	330
120-82-1	1,2,4-Trichlorobenzene	U	345	ug/kg	69.0	345	330

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	1200	1730	ug/kg	70	(45%-101%)
Nitrobenzene-d5	1130	1730	ug/kg	66	(45%-101%)
p-Terphenyl-d14	1320	1730	ug/kg	76	(41%-114%)
2,4,6-Tribromophenol	1780	3450	ug/kg	52	(45%-97%)
2-Fluorophenol	1990	3450	ug/kg	58	(35%-98%)
Phenol-d5	1910	3450	ug/kg	55	(45%95%)
			the state of the s		

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

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Semi-Volatile

Tentatively Identified Compound Sample Summary

SDG Number: 186235S

Date Collected:

05/16/2007 11:00

Matrix:

SOIL 3.4

Lab Sample ID: 186235005

Date Received:

05/17/2007 09:30

%Moisture: Project:

SSFL00507

Client ID:

BLBS0060S01

Method:

Client:

SW846 8270C

SOP Ref:

GL-OA-E-009

Batch ID:

636303

Inst:

MSD2.I

SSFL001

Dilution:

Run Date:

05/22/2007 14:32

Analyst:

JMB3

Inj. Vol:

5 uL

Prep Date:

05/21/2007 15:00

Aliquot: 30 g

Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown MA	10.03	612	ug/kg		J
	Unknown	10.12	486	ug/kg		J
000190-22-7	7-(1,3-Dimethylbuta-1,3-dienyl)-1,6,6-tr	10.16	531	ug/kg	90	NJ
	Unknown	10.21	566	ug/kg		3
	Unknown	10.29	778	ug/kg		1
	Unknown	10.36	1040	ug/kg		1
	Unknown	10.57	754	ug/kg		3
106932-90-5	Oct-5-en-2-ol, 8-(1,4,4a,5,6,7,8,8a-octa	10.63	436	ug/kg	81	NJ
	Unknown	10.66	529	ug/kg		1
1000298-98-5	(1R,1S,8R,8Ar)-8-hydroxy-1-(2-acetoxyeth	10.8	610	ug/kg	80	NJ
1000190-21-8	2-(4a,8-Dimethyl-6-oxo-1,2,3,4,4a,5,6,8a	10.93	734	ug/kg	81	NJ
	Unknown	11.06	533	ug/kg		- 3
53584-60-4	28-Nor-17,alpha.(H)-hopane	/ 11.13	456	ug/kg	91	N.
	Unknown Aldol Condensate	2.99	541	ug/kg		1
309735-29-3	1,2-Benzisothiazole, 3-(hexahydro-1H-aze	5 8.74	366	ug/kg	92	N
59426-46-9	2,5-Furandione, 3-dodecyl-	8.94	448	ug/kg	92	N
	Unknown	9.2	433	ug/kg		- :9
	Unknown	9.25	378	ug/kg		9
	Unknown	9.31	631	ug/kg		į
112-95-8	Eicosane	9.37	813	ug/kg	96	N
	Unknown	9.44	640	ug/kg		

SDG Number: 186235S

Lab Sample ID: 186235005

Report Date: May 23, 2007

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of 2

Semi-Volatile Tentatively Identified Compound

Sample Summary

05/16/2007 11:00

Matrix:

SOIL

Date Received: Client:

Date Collected:

05/17/2007 09:30

% Moisture: Project:

3.4 SSFL00507

Client ID:

BLBS0060S01

05/21/2007 15:00

Method:

SW846 8270C

SOP Ref:

GL-OA-E-009

Batch ID:

636303

Inst:

MSD2.I

SSFL001

Dilution:

1

Run Date: Prep Date: 05/22/2007 14:32

Analyst: Aliquot:

JMB3 30 g

Inj. Vol: Final Volume: 1 mL

.5 uL

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown	9.47	764	ug/kg		1
54482-31-4	D-Homoandrostane, (5.alpha.,13.alpha.)-	9.54	864	ug/kg	94	NJ
	Unknown	9.62	496	ug/kg		j
	Unknown	9.66	519	ug/kg		J
1000303-05-9	Pyridine, 4-[5-(2-methoxyphenyl)-[1,3,4]	9.74	1150	ug/kg	90	NJ
	Unknown	9.8	540	ug/kg		1
	Unknown	9.85	646	ug/kg		1
55044-36-5	1H-Indene, 5-butyl-6-hexyloctahydro-	9.91	956	ug/kg	93	Ŋ
1560-84-5	Eicosane, 2-methyl-	9.99	1510	ug/kg	97	NJ

s2e2216.d

Data File:

Report Date: May 24, 2007

Dilution:

Semi-Volatile Certificate of Analysis Sample Summary

.5 uL

Page 1 of 3

SDG Number:	186235S	Client:	SSFL001	Project:	SSFL00507
Lab Sample ID:	186235006	Date Collected:	05/16/2007 11:45	Matrix:	SOIL
		Date Received:	05/17/2007 09:30	%Moisture:	3.3
Client ID:	BLBS0053S01			Prep Basis:	Dry Weight
Batch ID:	636303	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Run Date:	05/22/2007 14:53	Analyst:	JMB3	Instrument:	MSD2.I

Inj. Vol:

Prep Date:	05/21/2007 15:00		Aliquot:	30 g		Final Volume:		1 mL
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	
52-75-9	N-Nitrosodimethylamine N-Methyl-N-nitrosomethylamin	U	345	ug/kg	68.9	345	330	
108-95-2	Phenol	U	345	ug/kg	68.9	345	330	
95-57-8	2-Chlorophenol	U	345	ug/kg	68.9	345	330	-
106-46-7	1,4-Dichlorobenzene	U	345	ug/kg	68.9	345	330	To the state
621-64-7	N-Nitrosodi-n-propylamine N-Nitrosodipropylamine	U	345	ug/kg	68.9	345	250	-
59-50-7	4-Chloro-3-methylphenol	U	345	ug/kg	34.5	345	330	
83-32-9	Acenaphthene	U	34.5	ug/kg	11.5	34.5	330	
121-14-2	2,4-Dinitrotoluene	U	345	ug/kg	34.5	345	330	-
100-02-7	4-Nitrophenol	U	345	ug/kg	68.9	345	830	
87-86-5	Pentachlorophenol	U	345	ug/kg	68.9	345	830	
129-00-0	Pyrene	U	34.5	ug/kg	10.8	34.5	330	
62-53-3	Aniline	U	345	ug/kg	121	345	420	
111-44-4	Bis(2-chloroethyl)ether bis(2-Chloroethyl) ether	U	345	ug/kg	68.9	345	330	
541-73-1	1,3-Dichlorobenzene	U	345	ug/kg	68.9	345	330	
100-51-6	Benzyl alcohol	U	345	ug/kg	103	345	330	
95-50-1	1,2-Dichlorobenzene	U	345	ug/kg	68.9	345	330	-
108-60-1	Bis(2-chloroisopropyl)ether bis(2-Chloroisopropyl)ether	U	345	ug/kg	68.9	345	330	
95-48-7	2-Methylphenol o-Cresol	U	345	ug/kg	68.9	345	330	
65794-96-9	4-Methylphenol	U	345	ug/kg	138	345	330	
67-72-1	m,p-Cresols Hexachloroethane	U	345	ug/kg	68.9	345	330	
98-95-3	Nitrobenzene	U	345	ug/kg	68.9	345	330	_
78-59-1	Isophorone	U	345	ug/kg	68.9	345	330	
88-75-5	2-Nitrophenol	U	345	ug/kg	34.5	345	330	
105-67-9	2,4-Dimethylphenol	U	345	ug/kg	68.9	345	330	
111-91-1	Bis(2-chloroethoxy)methane bis(2-Chloroethoxy)methane	U	345	ug/kg	68.9	345	330	
65-85-0	Benzoic acid	U	689	ug/kg	172	689	830	-
91-20-3	Naphthalene	Ü	34.5	ug/kg	10.3	34.5	330	
106-47-8	4-Chloroaniline	U	345	ug/kg	68.9	345	330	
87-68-3	Hexachlorobutadiene	U	345	ug/kg	68.9	345	330	
91-57-6	2-Methylnaphthalene	U	34.5	ug/kg	6.89	34.5	330	
77-47-4	Hexachlorocyclopentadiene	U	345	ug/kg		345	830	
88-06-2	2,4,6-Trichlorophenol	U	345	ug/kg		345	330)

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Semi-Volatile Certificate of Analysis Sample Summary

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			And the second of the second o		
SDG Number: Lab Sample ID:	186235S 186235006	Client: Date Collected: Date Received:	SSFL001 05/16/2007 11:45 05/17/2007 09:30	Project: Matrix: %Moisture:	SSFL00507 SOIL 3.3
Client ID:	BLBS0053S01			Prep Basis:	Dry Weight
Batch ID:	636303	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Run Date:	05/22/2007 14:53	Analyst:	JMB3	Instrument:	MSD2.I
Data File:	s2e2216.d	Inj. Vol:	.5 uL	Dilution:	1
Prep Batch:	636302	Prep Method:	SW846 3550B	Prep SOP Ref:	GL-OA-E-010
Prep Date:	05/21/2007 15:00	Aliquot:	30 g	Final Volume:	1 mL

Prep Date:	05/21/2007 15:00		Aliquot:	30 g	50B	U.C	Volume:	1 mL
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	
95-95-4	2,4,5-Trichlorophenol	U	345	ug/kg	68.9	345	330	
91-58-7	2-Chloronaphthalene	U	34.5	ug/kg	12.1	34.5	330	
88-74-4	2-Nitroaniline o-Nitroaniline	U	345	ug/kg	68.9	345	330	
99-09-2	3-Nitroaniline m-Nitroaniline	U	345	ug/kg	68.9	345	330	
131-11-3	Dimethyl phthalate Dimethylphthalate	U	345	ug/kg	68.9	345	330	
606-20-2	2,6-Dinitrotoluene	U	345	ug/kg	34.5	345	330	
208-96-8	Acenaphthylene	U	34.5	ug/kg	10.3	34.5	330	
51-28-5	2,4-Dinitrophenol	U	689	ug/kg	131	689	660	
132-64-9	Dibenzofuran	U	345	ug/kg	68.9	345	330	-
84-66-2	Diethyl phthalate Diethylphthalate	U	345	ug/kg	68.9	345	330	
86-73-7	Fluorene	U	34.5	ug/kg	10.3	34.5	330	
7005-72-3	4-Chlorophenyl phenyl ether 4-Chlorophenylphenylether	U	345	ug/kg	34.5	345	330	
534-52-1	4,6-Dinitro-2-methylphenol 2-Methyl-4,6-dinitrophenol	U	345	ug/kg	68.9	345	420	
100-01-6	4-Nitroaniline p-Nitroaniline	U	345	ug/kg	68.9	345	830	
122-39-4	Diphenylamine	U	345	ug/kg	68.9	345	330	
122-66-7	1,2-Diphenylhydrazine/Azobenzi I,2-Diphenylhydrazine		345	ug/kg	68.9	345	330	
101-55-3	4-Bromophenyl phenyl ether 4-Bromophenylphenylether	U	345	ug/kg	34.5	345	330	
118-74-1	Hexachlorobenzene	U	345	ug/kg	68.9	345	330	
85-01-8	Phenanthrene	U	34.5	ug/kg	10.3	34.5	330	
120-12-7	Anthracene	U	34.5	ug/kg	6.89	34.5	330	
84-74-2	Di-n-butyl phthalatc Di-n-butylphthalate	Ü	345	ug/kg	34.5	345	330	
206-44-0	Fluoranthene	U	34.5	ug/kg	10.3	34.5	330	
92-87-5	Benzidine	U	345	ug/kg	345	345	660	
85-68-7	Butyl benzyl phthalate Butylbenzylphthalate	U	345	ug/kg	68.9	345	330	
56-55-3	Benzo(a)anthracene	U	34.5	ug/kg	10.3	34.5	330	
91-94-1	3,3*-Dichlorobenzidine	U	345	ug/kg	103	345	830	
218-01-9	Chrysene	U	34.5	ug/kg	10.3	34.5	330	76 F
117-81-7	Bis(2-ethylhexyl)phthalate bis(2-Ethylhexyl)phthalate	U	172	ug/kg	68.9	172	330	
117-84-0	Di-n-octyl phthalate Di-n-octylphthalate	U	345	ug/kg		345	330	
205-99-2	Benzo(b)fluoranthene	U	34.5	ug/kg		34.5	330	
207-08-9	Benzo(k)fluoranthene	U	34,5	ug/kg		34.5	330	
50-32-8	Benzo(a)pyrene	4 U	34.5	ug/kg	10.3	34.5	330)

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

186235S

186235006

SDG Number:

Lab Sample ID:

Report Date: May 24, 2007

Page 3

Semi-Volatile Certificate of Analysis

 Sample Summary

 Client:
 SSFL001
 Project:
 SSFL00507

 Date Collected:
 05/16/2007 11:45
 Matrix:
 SOIL

 Date Received:
 05/17/2007 09:30
 %Moisture:
 3.3

Date Received: Client ID: BLBS0053S01 Prep Basis: Dry Weight Batch ID: 636303 Method: SW846 8270C SOP Ref: GL-OA-E-009 Run Date: 05/22/2007 14:53 Instrument: MSD2.I Analyst: JMB3 Data File: Inj. Vol: Dilution: s2e2216.d .5 uL

 Prep Batch:
 636302
 Prep Method:
 SW846 3550B
 Prep SOP Ref:
 GL-OA-E-010

 Prep Date:
 05/21/2007 15:00
 Aliquot:
 30 g
 Final Volume:
 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.5	ug/kg	10.3	34.5	330
53-70-3	Dibenzo(a,h)anthracene	U	34.5	ug/kg	10.3	34.5	420
191-24-2	Benzo(ghi)perylene	U	34.5	ug/kg	10.3	34.5	330
8765-0	2,6-Dichlorophenol	U	345	ug/kg	68.9	345	330
120-82-1	1,2,4-Trichlorobenzene	U	345	ug/kg	68.9	345	330

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	1460	1720	ug/kg	85	(45%-101%)
Nitrobenzene-d5	1390	1720	ug/kg	81	(45%-101%)
p-Terphenyl-d14	1640	1720	ug/kg	95	(41%-114%)
2,4,6-Tribromophenol	2230	3450	ug/kg	65	(45%-97%)
2-Fluorophenol	2360	3450	ug/kg	68	(35%-98%)
Phenol-d5	2290	3450	ug/kg	66	(45%-95%)

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

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Semi-Volatile

Tentatively Identified Compound Sample Summary

SDG Number: 186235S Lab Sample ID: 186235006 Date Collected: Date Received:

05/16/2007 11:45 05/17/2007 09:30 Matrix:

SOIL

%Moisture:

3.3 SSFL00507

Client ID:

BLBS0053S01

Method:

Client:

SW846 8270C

SOP Ref:

Project:

GL-OA-E-009

Batch ID:

636303

Inst: Analyst:

Aliquot:

MSD2.I JMB3

SSFL001

Dilution: Inj. Vol:

1

Run Date: Prep Date: 05/22/2007 14:53 05/21/2007 15:00

30 g

.5 uL Final Volume: 1 mL

CAS No.	Tentatively Ide	entified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown	K7	10.06	262	ug/kg		1
	Unknown	1	10.08	273	ug/kg		J
	Unknown		10.25	254	ug/kg		J
	Unknown		10.35	282	ug/kg		J
	Unknown	1	10.5	230	ug/kg		J
	Unknown		10.74	231	ug/kg		.1
112-95-8	Eicosane		10.79	457	ug/kg	98	NJ
	Unknown	7	10.92	256	ug/kg		1
	Unknown Aldol Conc	densate R/LI	2.99	488	ug/kg		j.
	Unknown	MY	8.29	151	ug/kg		1
	Unknown		8.74	218	ug/kg		1
	Unknown		8.88	192	ug/kg		1
	Unknown	1	8.92	291	ug/kg		J
	Unknown	1	8.95	207	ug/kg		1
	Unknown	4	9.04	183	ug/kg		1
593-45-3	Octadecane	1	9.11	255	ug/kg	95	NJ
	Unknown	1	9.16	146	ug/kg		J
	Unknown	1	9.27	155	ug/kg		3
593-49-7	Heptacosane		9.36	593	ug/kg	99	NJ
	Unknown		9.42	296	ug/kg		j
	Unknown	1	9.5	199	ug/kg		J

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of 2

Semi-Volatile

Tentatively Identified Compound Sample Summary

SDG Number: 186235S Lab Sample ID: 186235006

Date Collected: Date Received:

05/16/2007 11:45 05/17/2007 09:30 Matrix:

SOIL

%Moisture:

3.3 SSFL00507

Client ID:

BLBS0053S01

Method:

Client:

SW846 8270C

SOP Ref:

Project:

GL-OA-E-009

Batch ID: Run Date: 636303 05/22/2007 14:53 Inst: Analyst:

MSD2.I JMB3

SSFL001

Dilution: Inj. Vol:

1

.5 uL

Prep Date:

05/21/2007 15:00

Aliquot: 30 g Final Volume: 1 mL

CAS No.	Tentatively Identified	Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown	MJ	9.53	319	ug/kg		j
	Unknown	1	9.55	428	ug/kg		J
	Unknown		9.65	352	ug/kg		J
	Unknown	1	9.73	178	ug/kg		3
	Unknown		9.89	228	ug/kg		ä
7225-64-1	Heptadecane, 9-octyl-	1	9.98	2090	ug/kg	95	NJ

Semi-Volatile Certificate of Analysis Sample Summary

Page 1 of 3

Lab Sample ID:	186237001	

Client: Date Collected: Date Received: SSFL001 05/16/2007 13:45 05/17/2007 09:30 Project: Matrix: SSFL00507 WATER

Client ID: Batch ID:

SDG Number:

BLQW0019F01 635623

186235W

Method: Analyst: SW846 8270C CAK Prep Basis: SOP Ref: Instrument: As Received GL-OA-E-009 MSD1.I

Run Date: Data File: Prep Batch: 05/21/2007 00:34 sle2127.d 635621

Analyst: Inj. Vol: Prep Method:

.5 uL SW846 3510C 1070 mL Dilution: 1 Prep SOP Ref: GL-OA-E-013

Final Volume: 1 mL

rep Date:	05/18/2007 17:37		Aliquot:	1070 mL		Final Volume:		ImI
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	
2-75-9	N-Nitrosodimethylamine N-Methyl-N-nitrosomethylamin	U	9.35	ug/L	1.87	9,35	20,0	
08-95-2	Phenol	U	9.35	ug/L	0.935	9.35	10.0	
5-57-8	2-Chlorophenol	U	9.35	ng/L	1.87	9.35	10.0	
106-46-7	1,4-Dichlorobenzene	U	9.35	ug/L	1,87	9.35	10.0	
521-64-7	N-Nitrosodi-n-propylamine N-Nitrosodipropylamine	U	9.35	ug/L	1.87	9.35	10.0	
59-50-7	4-Chloro-3-methylphonol	U	9.35	ug/L	1.87	9.35	20.0	
13-32-9	Acenaphthene	υ	0.935	ug/L	0.290	0.935	10.0	
121-14-2	2,4-Dinitrotoluene	υ	9.35	ug/L	1.87	9.35	10.0	
100-02-7	4-Nitrophonol	U	9.35	ug/L	1.87	9.35	20.0	
17-86-5 . ·	Pentachlorophenol	U	9.35	ug/L	1.87	9.35	20.0	
129-00-0	Pyrene	U	0.935	ug/L	0.280	0.935	10.0	
62-53-3	Aniline	U	9.35	ug/L	2.34	9.35	10.0	\neg
111-44-4	Bis(2-chloroethyl)ether bls(2-Chloroethyl) ether	Ü	9.35	ug/L	1.87	9.35	10.0	
541-73-1	1,3-Dichlorobenzene	υ	9.35	ug/L	1.87	9.35	10.0	
100-51-6	Benzyl alcohol	U	9.35	ug/L	1.87	9.35	20.0	
95-50-1	1,2-Dichlorobenzene	U	9.35	ug/L	1,87	9.35	10.0	
108-60-1	Bis(2-chloroisopropyl)ether bis(2-Chloroisopropyl)ether	U	9.35	ug/L	1.87	9.35	10.0	
95-48-7	2-Methylphenol o-Cresol	U	9.35	ug/L	1,87	9.35	10.0	
65794-96-9	4-Methylphenol m,p-Cresols Hexachloroethano	υ	9,35	ug/L	2.80	9.35	10.0	
67721		U	9.35	ug/L	1.87	9.35	10.0	
98-95-3	Nitrobenzene	U	9.35	ug/L	2.80	9.35	20.0	
78-59-1	Isophorone	U	9.35	ug/L	1.87	9.35	10.0	-
88-75-5	2-Nitrophenol	U	9.35	ug/L	1.87	9.35	10.0	
105-67-9	2,4-Dimethylphenol	U	9,35	ug/L	1.87	9.35	20,0	
111-91-1	Bis(2-chloroethoxy)methane bis(2-Chloroethoxy)methane	υ	9.35	ug/L	2.80	9.35	10.0	
120-83-2	2,4-Dichlorophenol	U	9,35	ug/L	1.87	9.35	10.0	F.
65-85-0	Benzole seid	U	18.7	ug/L	5.61	18.7	20.0	
91-20-3	Naphthalene	U	0,935	ug/L	0.280	0.935	10.0	
106-47-8	4-Chioroeniline	U	9.35	ug/L	1.87	9.35	10.0	
87-68-3	Hexachlorobutadieno	U	9.35	ug/L	1.87	9.35	10.0	
91-57-6	2-Methylnaphthalene	υ	0.935	ug/L	0.280	0,935	10.0	
77-47-4	Hexachlorocyclopentadions	U	9.35	ug/L	1.87	9.35	20.0	

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Semi-Volatile Certificate of Analysis Sample Summary

Page 2 of 3

G Number: b Sample ID:			Client: Date Collected: Date Received:	SSFL001 05/16/2007 05/17/2007		Projec Matrix		SSFL00507 WATER	
ent ID: BLQW0019F01 tch ID: 635623 en Date: 05/21/2007 00:34 eta File: s1c2127.d ep Batch: 635621 ep Date: 05/18/2007 17:37 CAS No. Parmname		635623 05/21/2007 00;34 #1e2127.d 635621 05/18/2007 17:37		Method: SW846 8270C Analyst: CAK Inj. Vol: .5 uL Prep Method: SW846 3510C Allquot: 1070 mL Result Units MDL/LOD		Prep Basis: SOP Ref: Instrument: Dilution: Prep SOP Ref: Final Volume: PQL/LOQ RDL		1 mL	
		Qual	9.35	Units					
5-95-4	2,4,6-Trichlorophenol	U	9.35	ug/L	0,935	9.35	20.0		
I-58-7	2-Chloronaphthalene	U		ug/L	250000		20.0	-4	
3-74-4	2-Nitroanlline		0.935	ug/L	0.327	0.935	10.0		
5-/4-4	o-Nitroaniline	U	9.35	ug/L	1.87	9.35	20.0		
9-09-2	3-Nitroeniline m-Nitroaniline	U	9.35	ug/L	1.87	9.35	20.0		
31-11-3	Dimethyl phthalate Dimethylphthalate	U	9.35	ug/L	1.87	9,35	10.0		
06-20-2	2,6-Dinitrotoluene	U	9.35	ug/L	1.87	9.35	10.0	250	
08-96-8	Acenaphthylene	U	0.935	ug/L	0.187	0.935	10.0		
1-28-5	2,4 Dinitrophenol	U	18.7	ug/L	9.35	18.7	20.0		
32-64-9	Dibenzofutan	U	9.35	ug/L	1.87	9.35	10.0		
4-66-2	Diethyl phthslate Diethylphthalate	U	9.35	ug/L	1.87	9.35	10.0		
36-73-7	Fluorene	U	0.935	ug/L	0.187	0.935	10.0		
7005-72-3	4-Chlorophenyl phenyl other 4-Chlorophenylphenylether	U	9.35	ug/L	1.87	9.35	10.0		
534-52-1	4,6-Dinitro-2-methylphenol 2-Methyl-4,6-dinitrophenol	U	9.35	ug/L	2.80	9.35	20.0		
100-01-6	4-Nitroaniline p-Nitroaniline	U	9.35	ug/L	2.80	9.35	20.0		
122-39-4	Diphenylamine	U	9.35	ug/L	2.80	9.35	10,0		
122-66-7	1,2-Diphenylhydrazine/Azobeaze 1,2-Diphenylhydrazine	U	9,35	ug/L	1.87	9.35	20.0		
101-55-3	4-Bromophenyl phenyl ether 4-Bromophenylohenylether	U	9.35	ug/L	1.87	9.35	10.0		
118-74-1	Hexachlorobenzene	U	9,35	ug/L	1.87	9.35	10.0	0.0	
85-01-8	Phenanthrone	U	0.935	ug/L	0.187	0.935	10.0		
120-12-7	Anthracens	U	0.935	ug/L	0.187	0.935	10.0		
84-74-2	Di-n-butyl phthalate Di-n-butylphthalate	U	9.35	ug/L	1.87	9.35	20.0	1	
206-44-0	Pluoranthene	U	0.935	ug/L	0.187	0.935	10.0		
92-87-5	Benzidine	U	9.35	ug/L	1.87	9.35	20.0		
85-68-7	Butyl benzyl phthalato Butylbenzylphthalate	U	9.35	ug/L	1.87	9.35	20.0		
56-55-3	Benzo(a)anthracene	U	0,935	ug/L	0.187	0.935	10,0		
91-94-1	3,3°-Dichlorobenzidine	υ	9.35	ug/L		9.35	20.0	2	
218-01-9	Chrysene	υ	0.935	ug/L	1.7 LOVE-COSC 1.7 L	0.935	10.0		
117-81-7	Bis(2-ethylhexyl)phthalate bis(2-Ethylhexyl)phthalate	U	9.35	ug/L	2	9,35	50,0		
117-84-0	Di-n-octyl phthalate Di-n-octyl phthalate	U	-9.35	ug/L		9.35	20.0		
205-99-2	Benzo(b)fluoranthene	U	0.935	ug/L	_	0.935	10.0		
207-08-9	Benzo(k)fluoranthene	U	0.935	ug/L	0.187	0.935	10.0)	

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Semi-Volatile

Certificate of Analysis

Page 3 of 3

Sample Summary

SDG Number: Lab Sample ID:	186235W 186237001		Client: Date Collected: Date Received:	SSFL001 05/16/2007 05/17/2007	S. 7 5 (3) (1)	Projec Matrix		SSFL00507 WATER
Client ID: Batch ID: Run Date: Data File: Prep Batch: Prep Date:	BLQW0019F01 635623 05/21/2007 00:34 s1e2127.d 635621 05/18/2007 17:37		Method: Analyst: Inj. Val: Prep Method: Aliquot:	SW846 82 CAK .5 uL SW846 35 1070 mL		50000 PM	ef: ment;	As Received GL-OA-E-009 MSDLI 1 GL-OA-E-013 1 mL
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	
50-32-8	Benzo(a)pyrene	U	0.935	ug/L	0.187	0.935	10.0	
193-39-5	Indono(1,2,3-ed)pyrene	U	0.935	ug/L	0.187	0.935	20.0	
53-70-3	Dibenzo(a,h)anthracene	υ	0.935	ug/L	0.187	0,935	20.0	
191-24-2	Benzo(ghi)perylene	U	0.935	ug/L	0.187	0.935	10.0	
120-82-1	1,2,4-Trichlorobenzene	U	9.35	ug/L	1.87	9.35	10.0	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	32,0	46.7	ug/L	69	(41%-99%)
Nitrobenzene-d5	33.2	46.7	ug/L	71	(39%-99%)
p-Terphenyl-d14	36.4	46.7	ug/L	78	(41%-115%)
2,4,6-Tribromophenol	75.4	93.5	ug/L	81	(35%-107%)
2-Fluorophenol	34.6	93.5	ug/L	37	(15%-67%)
Phenol-d5	21.0	93.5	ug/L	23	(10%-53%)

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

SDG Number: 186235W

Lab Sample ID: 186237001

WATER

1

5 uL

GL-OA-E-009

Page 1

of I

Semi-Volatile
Tentatively Identified Compound
Sample Summary

Date Collected: 05/16/2007 13:45

Matrix:

05/17/2007 09:30 Date Received:

SSFL00507 Client: SSFL001 Project:

Client ID: BLQW0019F01 635623 Batch ID: 05/21/2007 00:34 Run Date: Prep Date: 05/18/2007 17:37

Method: SW846 8270C SOP Ref: MSD1.I Dilution: Inst: CAK Analyst: Inj. Vol: 1070 mL Final Volume: 1 mL Aliquot:

CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated Concentration	Units	Fit	Qual
	Unknown	N	1.82	5.47	ug/L		1
	Unknown	1	1.85	9.18	ug/L		1
	Unknown		3.19	6.72	ug/L		ī
291-79-6	Cyclohexane, 1-methyl-2-propyl-	1	3.36	4.98	ug/L	87	NJ

Report Date: May 23, 2007 Page 1

Flame Ionization Detector Certificate of Analysis Sample Summary

SSFL001

Project: Matrix: SSFL00507

%Moisture:

SOIL

Client ID:

SDG Number:

186235S Lab Sample ID: 186235002 Client: Date Collected: Date Received:

05/16/2007 09:45 05/17/2007 09:30

Prep Basis:

Dry Weight

Batch ID:

BLBS0058S01

635433 05/19/2007 09:05 Method: Analyst: SW846 8015A/B SVOC JAOC

SOP Ref: Instrument: GL-OA-E-003

Run Date: Data File:

029b2901.d

Dilution:

FID4A.I

Prep Batch:

635432

Prep Method:

SW846 3550B

Prep SOP Ref:

GL-OA-E-010

Prep Date:

05/18/2007 10:30

Aliquot:

30 g

Final Volume:

1 mL

CAS No.		Parmname Qual Result		Units	MDL/LOD	PQL/LOQ
92-06-8	m-Terphenyl	u U	1.70	mg/kg	1.70	1.70
84-15-1	o-Terphenyl	U	1.70	mg/kg	1.70	1.70
92-94-4	p-Terphenyl	U	1.70	mg/kg	1.70	1.70

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
5-alpha-Androstane	1.17	1.70	mg/kg	69	(50%–150%)

Comments:

LevelI

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Lab Sample ID: 186235003

Report Date: May 23, 2007

Page 1

of 1

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SSFL001 Project: 05/16/2007 10:05

Matrix:

SSFL00507 SOIL

%Moisture:

Client ID: Batch ID: Run Date:

Data File:

Prep Batch:

Prep Date:

SDG Number:

BLBS0052S01

030b3001.d

05/19/2007 09:42

05/18/2007 10:30

635433

635432

186235S

Method: Analyst:

Aliquot:

Client:

Date Collected:

Date Received:

Prep Method:

SW846 8015A/B SVOC JAOC

05/17/2007 09:30

SW846 3550B

30 g

Prep Basis: SOP Ref: Instrument: Dry Weight GL-OA-E-003

Dilution:

FID4A.I

10

Prep SOP Ref: GL-OA-E-010 Final Volume: 1 mL

CAS No.	Parmn	ame	Qual	Result	Units	MDL/LOD	PQL/LOQ
92-06-8	m-Terphenyl	u	U	1.70	mg/kg	1.70	1.70
84-15-I	o-Terphenyl		U	1.70	mg/kg	1.70	1.70
92-94-4	p-Terphenyl	V	U	1.70	mg/kg	1.70	1.70

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
5-alpha-Androstane	2.36	1.70	mg/kg	139	(50%-150%)

Comments:

level I

Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Page 1

of 1

Flame Ionization Detector
Certificate of Analysis
Sample Summary

Client: SSFL001 SDG Number: 186235S Lab Sample ID: 186235004

05/16/2007 10:25 Date Collected: 05/17/2007 09:30 Date Received:

Project: Matrix: %Moisture: 1.6

SSFL00507 SOIL

Client ID:

Data File:

BLBS0057S01

Batch ID: Run Date: 635433 05/19/2007 10:20

Method: Analyst:

SW846 8015A/B SVOC JAOC

Prep Basis: SOP Ref: Instrument: Dry Weight GL-OA-E-003 FID4A.I

Dilution:

10

GL-OA-E-010

Prep Batch:

031b3101.d 635432

Prep Method:

SW846 3550B

Prep SOP Ref: Final Volume: 1 mL

Prep Date:

05/18/2007 10:30

Aliquot:

30 g

CAS No.	Parmn	ame	Qual	Result	Units	MDL/LOD	PQL/LOQ
92-06-8	m-Terphenyl	K	U	1.69	mg/kg	1.69	1.69
84-15-1	o-Terphenyl	1	U	1.69	mg/kg	1.69	1.69
92-94-4	p-Terphenyl	1	Ŭ	1.69	mg/kg	1.69	1.69

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
5-alpha-Androstane	1.26	1.69	mg/kg	75	(50%-150%)

Comments:

Level I

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Page 1

of 1

Flame Ionization Detector Certificate of Analysis

Sample Summary

SDG Number: 186235S 186235005 Lab Sample ID:

Client: Date Collected: Date Received:

SSFL001 05/16/2007 11:00 05/17/2007 09:30 Project: Matrix: %Moisture: SSFL00507 SOIL 3.4

Client ID: Batch ID: BLBS0060S01

635433

Method:

SW846 8015A/B SVOC

Prep Basis: SOP Ref:

Dry Weight GL-OA-E-003

Run Date:

05/19/2007 15:37

Analyst:

JAOC

Instrument:

FID4A.I

Data File: Prep Batch: 040b4001.d

Prep Method: Aliquot:

SW846 3550B

Dilution: Prep SOP Ref:

GL-OA-E-010

Prep Date:

635432 05/18/2007 10:30

30 g

Final Volume:

1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ
92-06-8	m-Terphenyl U	U	0.173	mg/kg	0.173	0.173
84151	o-Terphenyl	U	0.173	mg/kg	0.173	0.173
92-94-4	p-Terphenyl	U	0.173	mg/kg	0.173	0.173

Surrogate/Tracer recovery	Result	Result Nominal Units Recover		Recovery%	Acceptable Limits
5-alpha-Androstane	1.35	1.73	mg/kg	78	(50%-150%)

Comments:

Level I

Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Page 1

of l

Flame	Ioniza	tion	Detecto	1
Cert	ificate	of A	nalysis	

Sample Summary

SDG Number: 186235S Lab Sample ID: 186235006 Client: Date Collected: Date Received:

SSFL001 05/16/2007 11:45 05/17/2007 09:30

SW846 8015A/B SVOC

Project: Matrix: SSFL00507 SOIL

%Moisture:

Prep Basis: SOP Ref:

Dry Weight GL-OA-E-003

Instrument: FID4A.I

Dilution:

Prep SOP Ref: GL-OA-E-010

Data File: Prep Batch: 05/19/2007 13:06 036b3601.d 635432

635433

Prep Method:

Method:

Analyst:

SW846 3550B

Final Volume: 1 mL

Prep Date:

Client ID:

Batch ID:

Run Date:

05/18/2007 10:30

BLBS0053S01

Aliquot:

30 g

JAOC

MDL/LOD POL/LOO

CAS No.	Parm	name	Qual	Result	Units	MDL/LOD	-
92-06-8	m-Terphenyl	u	U	0.172	mg/kg	0.172	0.172
84-15-1	o-Terphenyl	1	U	0.172	mg/kg	0.172	0.172
92-94-4	p-Terphenyl	V	U	0.172	mg/kg	0.172	0.172

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
5-alpha-Androstane	1.33	1.72	mg/kg	77	(50%-150%)

Comments:

Level T

Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Page 1

Flame Ionization Detector
Certificate of Analysis
Canada Constant contr

Sample Summary

Client ID: BLQW0019F01

186235W

186237001

635555

05/18/2007 15:33

SDG Number:

Batch ID:

Prep Date:

Lab Sample ID:

Client: Date Collected: Date Received:

SSFL001 05/16/2007 13:45 Project: Matrix: SSFL00507 WATER

SW846 8015A/B SVOC

05/17/2007 09:30

Prep Basis:

As Received GL-OA-E-003

SOP Ref: Instrument:

FID4A.I

05/19/2007 19:24 Analyst: JAOC Run Date: 1050 mL Dilution: 047b4701.d Data File: Aliquot: 635554 Prep Batch:

Prep Method: Aliquot:

Method:

SW846 3510C 1050 mL

Prep SOP Ref: GL-OA-E-013

Final Volume: $1 \,\mathrm{mL}$

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
EFHD (C12-C14)	EFH C12-C14 EFH (>C11 - C14)	U	0.0952	mg/L	0.0314	0.0952	0.500
BFHD (C15-C20)		U	0.0952	mg/L	0.0314	0.0952	0.500
EFHD (C21-C30)		U	0.0952	mg/L	0.0314	0.0952	0.500
EFHD (C8-C11)	EFH C8-C11 EFH (C8 - C11)	U	0.0952	mg/L	0.0314	0.0952	0.500
92-06-8	m-Terphenyl	U	0.00476	mg/L	0.00476	0.00476	
84-15-1	o-Terphenyl	U	0.00476	mg/L	0.00476	0.00476	
92-94-4	p-Terphenyl	U	0.00476	mg/L	0.00476	0.00476	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits	
5-alpha-Androstane	0.0343	0.0476	mg/L	72	(50%–150%)	

Comments:

Level I

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Page 1

Volatile

Certificate of Analysis Sample Summary

SDG Number: 186235W Lab Sample ID: 186237001 Client: Date Collected: Date Received: SSFL001 05/16/2007 13:45 05/17/2007 09:30

Project: Matrix: SSFL00507 WATER

Client ID: Batch ID: Run Date: BLQW0019F01

635983 05/21/2007 09:48

Method: Analyst: Purge Vol:

Prep Method:

SW846 8260B CDS1 5 mL

SW846 8260B

Prep Basis: SOP Ref: Instrument: As Received GL-OA-E-038 VOA5.I

Dilution:

Data File: Prep Batch: 51107.d 635983

erep Date:	05/21/2007 09:48
	72 4 0 000000000

rep Date: CAS No.	05/21/2007 09:48 Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
5-71-8	Dichlorodifluoromethane i i	U	1.00	ug/L	0.500	1.00	5.00
4-87-3	Chloromethane	U	1.00	ug/L	0.500	1.00	5.00
5-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	5.00
4-83-9	Bromomethane	U	1.00	ug/L	0.500	1.00	5.00
5-00-3	Chloroethane	U	1.00	ug/L	0.500	1.00	5.00
5-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.310	1.00	5.00
7-64-1	Acetone	U	5.00	ug/L	1.25	5.00	10.0
5-35-4	1,1-Dichloroethene 1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	5.00
5-09-2	Methylene chloride	Ü	5.00	ug/L	2.00	5.00	5.00
634-04-4	Methyl-tert-butyl Ether (MTBH) tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	5.00
156-60-5	trans-1,2-Dichloroethene trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	2.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	2.00
78933	2-Butanone (MEK) 2-Butanone	1	3.09	ug/L	1.25	5.00	10.0
156-59-2	cis-1,2-Dichloroethene cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	2.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	2.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	2.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	5.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.300	1.00	2.00
563-58-6	1,1-Dichloropropene	U	1,00	ug/L	0.250	1.00	2.00
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.250	1.00	5.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	2.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	2.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	2.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	2.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	5.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	2.00
110-75-8	2-Chloroethyl vinyl ether 2-Chloroethylvinyl ether	U	5.00	ug/L	1.50	5.00	5.00
108-10-1	4-Methyl-2-pentanone (MIBK) 4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	10.0
10061-01-5	cis-1,3-Dichloropropene cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	2.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	2.00
10061-02-6	trans=1,3-Dichloropropene trans=1,3-Dichloropropylene	υ	1.00	ug/L	0.250	1.00	2.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	2.00

Comments:

Value is estimated

Level I

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

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of 3

Volatile

Certificate of Analysis

Sample Summary Client: SSFL001

Date Collected: Date Received:

05/16/2007 13:45 05/17/2007 09:30 Project: Matrix:

SSFL00507 WATER

Client ID: Batch ID:

SDG Number:

Lab Sample ID:

BLQW0019F01 635983

186235W

186237001

Run Date: 05/21/2007 09:48 Data File:

51107.d 635983 Method: Analyst: Purge Vol:

Prep Method:

SW846 8260B CDS1 5 mL SW846 8260B Prep Basis: SOP Ref: Instrument: Dilution:

As Received GL-OA-E-038 VOA5.I

Prep Batch: Prep Date:

05/21/2007 09:48

Prep Date:	05/21/2007 09:48						
CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
591-78-6	2-Hexanone U	U	5.00	ug/L	1.25	5.00	10.0
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.250	1.00	2.00
127184	Tetrachloroethene Tetrachloroethylene	U	1.00	ug/L	0.250	1.00	2.00
124-48-1	Dibromochloromethane	U	1,00	ug/L	0.250	1.00	2.00
106-93-4	1,2-Dibromoethane (EDB) 1,2-Dibromoethane	υ	1.00	ug/L	0.250	1.00	2.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	2.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	2.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.250	2,00	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.250	1.00	2.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	2.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	5.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	2.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	10.0
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	5.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	2.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	5.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	2.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	2.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	5.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	5.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	2.00
135-98-8	sec-Butylbenzene	u	1.00	ug/L	0.250	1.00	5.00
99-87-6	p-Isopropyltoluene 4-Isopropyltoluene	u	1.00	ug/L	0.250	1.00	2.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	2.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	2.00
104-51-8	n-Butylbenzene	υ	1.00	ug/L	0.250	1.00	5.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0,500	1.00	5.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.250	1.00	5.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	5.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.300	1.00	5.00
76-13-1	Trichlorotrifluoroethane (Freon 1	iā U	5.00	ug/L	1.00	5.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	5.00

Comments:

Level X

Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

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Volatile

Certificate of Analysis

Sample Summary

SDG Number: 186235W Lab Sample ID: 186237001 Client: Date Collected: Date Received:

SSFL001 05/16/2007 13:45 05/17/2007 09:30

Project: Matrix: SSFL00507 WATER

BLQW0019F01

Client ID: Batch ID: 635983 Run Date: 05/21/2007 09:48 Data File:

51107.d 635983 Method: Analyst: SW846 8260B CDS1 5 mL

Prep Basis: SOP Ref: Instrument: As Received GL-OA-E-038

Prep Batch:

Purge Vol: Prep Method:

SW846 8260B

Dilution:

VOA5.1

Prep Date:

05/21/2007 09:48

CAS No.	Parmname		Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	
120-82-1	1,2,4-Trichlorobenzene	U	Ú	1.00	ug/L	0.300	1.00	5.00	
95-50-1	1,2-Dichlorobenzene	1 1	U	1.00	ug/L	0.250	1.00	2.00	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	44.3	50.0	ug/L	89	(68%-121%)
Bromofluorobenzene	48.7	50.0	ug/L	97	(80%-120%)
Dibromofluoromethane	48.0	50.0	ug/L	96	(78%-124%)
Toluene-d8	54.3	50.0	ug/L	109	(77%-122%)

Comments:

Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level I

GEL Laboratories LLC

Report Date: May 23, 2007 Page 1

Volatile Tentatively Identified Compound

Sample Summary

SDG Number: 186235W

Lab Sample ID: 186237001

Date Collected:

Date Received: Client:

05/16/2007 13:45

05/17/2007 09:30 SSFL001

Matrix:

WATER

Project: SSFL00507

Number of TICs Found: 0

herel V

Page 1

of 3

Volatile

Certificate of Analysis Sample Summary

SDG Number: 186235W Lab Sample ID: 186237002 Client: Date Collected: Date Received: SSFL001 05/16/2007 14:00 05/17/2007 09:30

Project: Matrix: SSFL00507 WATER

Client ID: Batch ID: Run Date: BLQW0019T01

635983 05/21/2007 10:13

Method: Analyst: Purge Vol: SW846 8260B CDS1 5 mL Prep Basis: SOP Ref: Instrument: As Received GL-OA-E-038

Data File: Prep Batch: 51108.d 635983

Prep Method: SW846 8260B

Dilution: 1

VOA5.I

Prep Date:

05/21/2007 10:13

CAS No.	05/21/2007 10:13 Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
75-71-8	Dichlorodifluoromethane []	U	1.00	ug/L	0.500	1.00	5.00
74-87-3	Chloromethane	U	1.00	ug/L	0.500	1.00	5.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	5.00
74-83-9	Bromomethane	U	1.00	ug/L	0.500	1.00	5.00
75-00-3	Chloroethane	U	1.00	ug/L	0.500	1.00	5.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.310	1.00	5.00
57-64-1	Acetone	U	5.00	ug/L	1.25	5.00	10.0
75-35-4	1,1-Dichloroethene 1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	5.00
75-09-2	Methylene chloride	U	5.00	ug/L	2.00	5.00	5.00
1634-04-4	Methyl-tert-butyl Ether (MTBE) tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	5.00
156-60-5 75-34-3	trans-1,2-Dichloroethene trans-1,2-Dichloroethylene 1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	2.00
78-93-3		U	1.00	ug/L	0.300	1.00	2.00
	2-Butanone (MEK) 2-Butanone	U	5.00	ug/L	1.25	5.00	10.0
156-59-2	cis-1,2-Dichloroethene cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	2.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	2.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	2.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	5.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.300	1.00	2.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	2.00
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.250	1.00	5.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	2.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	2.00
79-01-6	Trichloroethene Trichloroethylene	U	1.00	ug/L	0,250	1.00	2.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	2.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	5.00
74953	Dibromomethane	U	1.00	ug/L	0.300	1.00	2,00
110-75-8	2-Chloroethyl vinyl ether 2-Chloroethylvinyl ether	U	5.00	ug/L	1.50	5.00	5.00
108-10-1	4-Methyl-2-pentanone (MIBK) 4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	10.0
10061-01-5	cis-1,3-Dichloropropene cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	2.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	2.00
10061-02-6	trans-1,3-Dichloropropene trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	2.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	2.00

Comments

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level 7

Page 2 of 3

Volatile

Certificate of Analysis

SSFL001

Sample Summary

05/16/2007 14:00 Date Collected: 05/17/2007 09:30 Date Received:

Project: Matrix:

SSFL00507 WATER

Client ID: Batch ID:

SDG Number:

Lab Sample ID:

BLQW0019T01

186235W

186237002

635983 Run Date: 05/21/2007 10:13 Data File:

51108.d 635983 Method: Analyst:

Prep Method:

Purge Vol:

Client:

SW846 8260B CDS1 5 mL

SW846 8260B

Prep Basis: SOP Ref: Instrument: Dilution:

As Received GL-OA-E-038 VOA5.I

Prep Batch: Prep Date:

05/21/2007 10:13

CAS No.	05/21/2007 10:13 Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	10.0
42-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.250	1.00	2.00
127-18-4	Tetrachloroethene Tetrachloroethylene	U	1.00	ug/L	0.250	1.00	2.00
124-48-1	Dibromochloromethane	U.	1.00	ug/L	0.250	1.00	2.00
106-93-4	1,2-Dibromoethane (EDB) 1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	2.00
08-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	2.00
100414	Ethylbenzene	U	1.00	ug/L	0.250	1.00	2.00
79601-23-1	m,p-Xylenes	U	2.00	ug/L	0.250	2.00	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.250	1.00	2.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	2.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	5.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1,00	ug/L	0.250	1.00	2.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	10.0
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	5.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	2.00
95-49-8	2Chlorotoluene	U	1.00	ug/L	0.250	1.00	5.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	2.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	2.00
106-43-4	4-Chlorotoluene	u	1.00	ug/L	0.250	1.00	5.00
98-06-6	tert-Butylbenzene	Ü	1.00	ug/L	0.250	1.00	5.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	2.00
135-98-8	sec-Butylbenzene	U	1.00	úg/L	0.250	1.00	5.00
99-87-6	p-Isopropyltoluene 4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	2.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	2.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	2.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	5.00
96-12-8	1,2-Dibromo-3-chloropropane	Ü	1.00	ug/L	0,500	1.00	5.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.250	1.00	5.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	5.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.300	1.00	5.00
76-13-1	Trichlorotrifluoroethane (Freon 1 Trichlorotrifluoroethane	iš U	5.00	ug/L	1.00	5.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	5.00

Comments:

Lexel V

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Page 3

of 3

Volatile

Certificate of Analysis Sample Summary

 SDG Number:
 186235W
 Client:
 SSFL001
 Project:
 SSFL00507

 Lab Sample ID:
 186237002
 Date Collected:
 05/16/2007 14:00
 Matrix:
 WATER

 Date Received:
 05/17/2007 09:30
 05/17/2007 09:30
 05/17/2007 09:30
 05/17/2007 09:30

 Client ID:
 BLQW0019T01
 Prep Basis:
 As Received

 Batch ID:
 635983
 Method:
 SW846 8260B
 SOP Ref:
 GL-OA-E-038

 Run Date:
 05/21/2007 10:13
 Analyst:
 CDS1
 Instrument:
 VOA5.I

 Data File:
 51108.d
 Purge Vol:
 5 mL
 Dilution:
 1

Prep Batch: 635983 Prep Method: SW846 8260B Prep Date: 05/21/2007 10:13

CAS No.	Parmname	Qual		Result	Units	MDL/LOD	PQL/LOQ	RDL
120-82-1	1,2,4-Trichlorobenzene	u	U	1.00	ug/L	0.300	1.00	5.00
95-50-1	1,2-Dichlorobenzene	IA	U	1.00	ug/L	0.250	1.00	2.00

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	43.9	50.0	ug/L	88	(68%-121%)
Bromofluorobenzene	48.1	50.0	ug/L	96	(80%-120%)
Dibromofluoromethane	48.1	50.0	ug/L	96	(78%-124%)
Toluene-d8	54.8	50.0	ug/L	110	(77%-122%)

Comments:

Lercel -Y

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

GEL Laboratories LLC

Report Date: May 23, 2007

Volatile

Page 1 of 1

Tentatively Identified Compound Sample Summary

SDG Number: 186235W

Date Collected:

05/16/2007 14:00

WATER

Lab Sample ID: 186237002

Date Received:

05/17/2007 09:30

Matrix:

Number of TICs Found: 0

Client:

SSFL001

Project:

SSFL00507

Lexel I

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: MECx, LLC

Address:

12269 East Vassar Drive

Aurora, Colorado 80014

Contact:

Ms. Elizabeth Wessling, MECx

Project:

SSFL Group 8 Hastings Data Gap Sampling

Client Sample ID: Sample ID:

BLBS0058S01

186235002

Matrix: Collect Date: SOIL 16-MAY-07 09:45

Receive Date:

17-MAY-07

Collector:

Client

	Moisture:	2.1%								
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography										
EPA300.0 Fluoride i	n Soil									
Fluoride	J	1.04	0.296	5.00	mg/kg	1	RXM105/19/0	07 0305	635549	1
The following Prep M	Methods were perfor	med								
Method	Description		Aı	alyst	Date	Time	Prep Batch			
EPA 300.0 PREP	EPA 300.0 Tot	al Anions in Soil	I	RXM1	05/18/07	1000	635546			
The following Analys	tical Methods were p	performed								
Method	Description	-	Analyst Comments							Name and Address of the Owner, where the Owner, which is the Owner, where the Owner, which is the Owner, where the Owner, which is t

EPA 300.0

LEVEL V

Report Date: May 22, 2007

SSFL00507 SSFL001

Project: Client ID:

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company:

MECx, LLC

Address:

12269 East Vassar Drive

Aurora, Colorado 80014

Contact:

Ms. Elizabeth Wessling, MECx

Project:

SSFL Group 8 Hastings Data Gap Sampling

Client Sample ID: Sample ID:

BLBS0052S01 186235003

SOIL

Matrix: Collect Date:

16-MAY-07 10:05

Receive Date:

17-MAY-07

Collector: Moisture:

Client 1.98%

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography			The state of the s							
EPA300.0 Fluoride in Soil										
Fluoride	J	0.977	0.302	5.00	mg/kg	:	1 RXM105/19/0	07 0326	63554	9 1
771 . C.11										

The following Prep Methods were performed

Method Description Analyst Date Time **Prep Batch** EPA 300.0 PREP EPA 300.0 Total Anions in Soil RXM1 05/18/07 1000 635546

The following Analytical Methods were performed

Method Description **Analyst Comments** 1 EPA 300.0

LEVEL V

Report Date: May 22, 2007

SSFL00507

SSFL001

Project:

Client ID:

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: MECx, LLC

Address:

12269 East Vassar Drive

Aurora, Colorado 80014

Contact:

Ms. Elizabeth Wessling, MECx

Project:

SSFL Group 8 Hastings Data Gap Sampling

Client Sample ID:

J

Sample ID:

BLBS0057S01 186235004

Matrix:

SOIL

Collect Date: Receive Date:

16-MAY-07 10:25 17-MAY-07

Collector:

Client

Moisture:

1.56%

Parameter Qualifier Result RL DL Units DF AnalystDate Time Batch Method

Ion Chromatography

EPA300.0 Fluoride in Soil

Fluoride

2.00

0.287

5.00

mg/kg

Project:

Client ID:

1 RXM105/19/07 0427 635549

Report Date: May 22, 2007

SSFL00507

SSFL001

The following Prep Methods were performed

Method Description Analyst Date Time Prep Batch EPA 300.0 Total Anions in Soil **EPA 300.0 PREP** RXM1 05/18/07 1000 635546

The following Analytical Methods were performed

Method Description **Analyst Comments** 1 EPA 300.0

LEVEL V

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: MECx, LLC

Address:

12269 East Vassar Drive

Aurora, Colorado 80014

Contact:

Ms. Elizabeth Wessling, MECx

Project:

SSFL Group 8 Hastings Data Gap Sampling

BLBS0060S01

16-MAY-07 11:00

Client Sample ID:

Sample ID:

186235005 SOIL

17-MAY-07

Matrix:

Result

Collect Date: Receive Date:

J

Client

Collector: Moisture: Qualifier

3.45% RL DLUnits DF

Ion Chromatography

EPA300.0 Fluoride in Soil

Fluoride

Parameter

1.18

0.297

5.00

mg/kg

Project:

Client ID:

1 RXM105/19/07 0447 635549

Time Batch Method

Report Date: May 22, 2007

SSFL00507

AnalystDate

SSFL001

The following Prep Methods were performed

Method Description Analyst Date Time **Prep Batch** EPA 300.0 PREP EPA 300.0 Total Anions in Soil RXM1 05/18/07 1000 635546

The following Analytical Methods were performed

Method Description **Analyst Comments** 1 EPA 300.0



2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: MECx, LLC

Address:

12269 East Vassar Drive

Aurora, Colorado 80014

Contact:

Ms. Elizabeth Wessling, MECx

Project:

SSFL Group 8 Hastings Data Gap Sampling

Client Sample ID:

Sample ID:

186235006

BLBS0053S01

Matrix:

Collect Date:

SOIL

Receive Date:

16-MAY-07 11:45 17-MAY-07

Collector:

Client

Moisture:

3.3%

		0.0.0								
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography										
EPA300.0 Fluoride in Soil										
Fluoride	J	1.05	0.301	5.00	mg/kg		I RXM105/19/	07 0507	635549	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RXM1	05/18/07	1000	635546

The following Analytical Methods were performed

Method Description **Analyst Comments** 1 EPA 300.0

LEVEL V

Report Date: May 22, 2007

SSFL00507

SSFL001

Project:

Client ID:

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: MECx, LLC

Address:

12269 East Vassar Drive

Aurora, Colorado 80014

Contact:

Ms. Elizabeth Wessling, MECx

Project:

SSFL Group 8 Hastings Data Gap Sampling

Client Sample ID:

U

BLOW0019F01

Sample ID:

186237001 WATER

Matrix:

16-MAY-07 13:45

Collect Date: Receive Date:

17-MAY-07

Collector:

Client

DF AnalystDate Time Batch Method RLUnits **Oualifier** Result DL

Ion Chromatography Federal

EPA300.0 Fluoride in Liquid

Fluoride

Parameter

0.00

0.033

0.500

mg/L

Project:

Client ID:

1 RXM105/19/07 1012 635705 1

Report Date: May 21, 2007

SSFL00507

SSFL001

The following Analytical Methods were performed

Analyst Comments Description Method

EPA 300.0

LEVEL V