Appendix A

Data Validation Reports – Mercury

Project Name: Tronox Shallow Soil Supplemental Sampling for Areas I and II.

Laboratory: Columbia Analytical Services (CASK) -Kelso

Collection Dates: 12/16-17/2009

Matrix: soil

Reporting Units: ug/kg, dry weight basis.

Parameters: mercury

Validation Level: Stage 2B

Sample Delivery Group(s): R0907146, R0907171

Samples:

Laboratory Sample Identification	Field Identification	Matrix
R0907146-003	SA129-1BR	Soil
R0907146-004	SA129-1BR_FD	Soil
R0907146-005	SA129-1.5BR	Soil
R0907146-008	SA128-1BR	Soil
R0907146-009	SA128-1.5BR	Soil
R0907146-014	SA187-1BR	Soil
R0907146-016	SA187-1.5BR	Soil
R0907146-019	SA114-1BR	Soil
R0907146-020	SA114-1.5BR	Soil
R0907146-021	SA114-1.5BR_FD	Soil
R0907146-022	SA102-1BR	Soil
R0907146-023	SA102-1.5BR	Soil
R0907171-001	SA106-1.5BR	Soil
R0907171-002	SA106-1BR	Soil
R0907171-003	SA172-1.5BR	Soil
R0907171-004	SA172-1BR	Soil

Introduction

13 soil samples were analyzed for mercury using EPA method 7471A by CAS-Kelso. The samples were reported under two different SDGs.

The data were validated using applicable EPA guidelines (EPA 1999, 2004, 2008, 2009) and the BMI Plant Site-Specific Supplemental Guidance on Data Validation from NDEP (NDEP 2009b, 2009c, 2009d, 2009e) and the Basic Remediation Company (BRC) SOP 40, Data Review/Validation (BRC 2009).

Data Qualifiers and Reason Codes

Qualifier	Definition
J	Data are estimated; the direction of potential bias is uncertain.
J+	Data are estimated, with a potential for being biased high.
J-	Data are estimated, with a potential for being biased low.
U	Indicates the analyte was analyzed for but not detected at or above the stated censoring limit.
UJ	Indicates the analyte was analyzed for but not detected. The censoring limit is an estimated value due to uncertainty in the analysis.
JK	The analytical results is an estimated maximum possible concentration (EMPC)
X	The result is not used for reporting. This is generally applied where a more accurate and/or precise result is reported in place of this datum.
R	The result is rejected due to serious deficiencies in meeting the quality control criteria.

1. Technical Holding Times

All technical holding time requirements were met. The chain-of-custody forms were reviewed; all samples were received within the cooler temperature requirements.

2. Calibration

An initial calibration was performed and it met the method criteria. The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.
No data were qualified based on calibration.

3. Blanks

The method blanks were reviewed, no contamination was found in the initial, continuing, and preparation blanks.

No data were qualified based on blanks.

4. Laboratory Control Samples

A Laboratory Control Sample was analyzed with every batch; the recovery was within the criteria required.

No data were qualified based on LCS results.

5. Matrix Spike Analysis

A Matrix Spike Sample was analyzed with every batch; the recovery was within the criteria required.

No data were qualified based on MS results.

6. Duplicate Sample Analysis

A Duplicate Sample was analyzed with every batch; the recovery was within the criteria required.

No data were qualified based on Duplicate results.

7. Sensitivity Reporting Information

8. All results were reported with a PQL (identified as an MRL in the reports) and an MDL. The required reporting limits were met.

9. Field Duplicates

Samples SA129-1BR, and SA114-1.5BR both were collected and analyzed in duplicate. Results and qualifiers are provided below:

Field Sample ID	Result Reported	Units	RPD %	Validation Qualifier
SA129-1BR	0.016	mg/kg	158%	J
SA129-1BR - FD	0.136	mg/kg		J
SA114-1.5BR	0.012	mg/kg	158%	J
SA114-1.5BR -FD	0.101	mg/kg		J

10. Overall Assessment of the Data

All data are considered acceptable; only the field duplicate results were qualified or rejected.

Appendix B

Data Validation Reports – Metals/Elements

Project Name: Tronox Shallow Soil Supplemental Sampling for Areas I and II.

Laboratory: Columbia Analytical Services (CASK) -Kelso

Collection Dates: 12/16-17/2009

Matrix: Soil

Reporting Units: mg/kg, dry weight basis.

Parameters: metals via EPA Methods 6010B and 6020

Validation Level: Stage 2B

Sample Delivery Group(s): R0907046*, R0907146, R0907171

Samples:

Laboratory Sample Identification	Field Identification	Matrix
R0907046-001	RSAK7-0.5BR	Soil
R0907046-004	RSAJ2-0.5BR	Soil
R0907046-006	EB121109-SO1-A1	Water, equipment blank
R0907046-007	SA207-0.5BR	Soil
R0907146-003	SA129-1BR	Soil
R0907146-004	SA129-1BR_FD	Soil
R0907146-005	SA129-1.5BR	Soil
R0907146-008	SA128-1BR	Soil
R0907146-009	SA128-1.5BR	Soil
R0907146-014	SA187-1BR	Soil
R0907146-016	SA187-1.5BR	Soil
R0907146-019	SA114-1BR	Soil
R0907146-020	SA114-1.5BR	Soil
R0907146-021	SA114-1.5BR_FD	Soil
R0907146-022	SA102-1BR	Soil
R0907146-023	SA102-1.5BR	Soil
R0907171-001	SA106-1.5BR	Soil
R0907171-002	SA106-1BR	Soil
R0907171-003	SA172-1.5BR	Soil

R0907171-004	SA172-1BR	Soil

***** for this SDG only barium, chromium, lead, silver, and thallium were reported.

Introduction

Nineteen soil samples were analyzed for metals and other elements using EPA Methods 6010B and 6020.

The data were validated using applicable EPA guidelines (EPA 1999, 2004, 2008, 2009) and the BMI Plant Site-Specific Supplemental Guidance on Data Validation from NDEP (NDEP 2009b, 2009c, 2009d, 2009e) and the Basic Remediation Company (BRC) SOP 40, Data Review/Validation (BRC 2009).

Data Qualifiers and Reason Codes

Qualifier	Definition
J	Data are estimated; the direction of potential bias is uncertain.
J+	Data are estimated, with a potential for being biased high.
J-	Data are estimated, with a potential for being biased low.
U	Indicates the analyte was analyzed for but not detected at or above the stated censoring limit.
UJ	Indicates the analyte was analyzed for but not detected. The censoring limit is an estimated value due to uncertainty in the analysis.
JK	The analytical result is an estimated maximum possible concentration (EMPC)
X	The result is not used for reporting. This is generally applied where a more accurate and/or precise result is reported in place of this datum.
R	The result is rejected due to serious deficiencies in meeting the quality control criteria.

1. Technical Holding Times

All technical holding time requirements were met. The chain-of-custody forms were reviewed; all samples were received within the cooler temperature requirements.

2. Calibration

An initial calibration was performed for all SDGs and it met the method criteria. The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

No data were qualified based on calibration.

3. Blanks

3.1. SDG R0907046

Method Blank R0907046-MB was found with no contaminants above the MDL for either matrix

Equipment blank (sample 006) contained the following analytes:

Analyte	MRL	MDL	Result
Thallium	0.020	0.002	0.006

The aqueous Initial and Continuing Calibration Blanks contained the following analytes:

Analyte	ICB	CCB	Qualifier Result (based on all blanks)
Thallium (6020)	0.010	0.006, 0.011	Sample 006 qualified UJ.
Barium (6010B)	0.40	0.7, 1.1, 1.7, 0.4, 0.9	Sample 006 qualified UJ.
Silver (6010B)	ND	1.6, 1.0	None, All samples ND

The soil initial and Continuing Calibration Blanks contained analytes above the SQL but less than the PQL. The concentration of these sample analytes in the associated samples was above the PQL . No data was qualified.

The reason code “bl” has been added to the EDD for the above samples that were qualified.

3.2. SDG R0907146

Method Blank R0907146-MB: The following analytes were detected in this MB:

Analyte	MRL	MDL	Result
Aluminum	10.0	0.4	0.6
Calcium	10.0	2.0	4.0
Chromium	0.20	0.03	0.05
Magnesium	4.0	0.3	3.0
Manganese	2.00	0.02	0.12
Tin	10.0	0.7	3.5
Tungsten	0.10	0.008	0.009

All associated samples were qualified based on the Tin (UJ, J). No samples were qualified based upon the calcium and chromium in the method blank since all associated samples had analytes greater than the PQL. See below for additional qualifications.

Initial and Continuing Calibration Blanks contained the following analytes:

Analyte	ICB	CCB	Result (based on all blanks)
Aluminum	NA	2.0, 2.0	None, samples > PQL
Antimony		3.0	Samples 005, 019 UJ at PQL, all other samples no action – results above PQL.
Barium	0.30	0.30	no action – results above PQL.
Boron		2.0	Samples 003, 004, 005, 016, 019, 020, 021 UJ at PQL, all other samples no action – results above PQL.
Manganese		0.20, 0.10	no action – results above PQL.
Nickel		0.60	no action – results above PQL.
Sodium	70.0	100, 90.0, 20.0	no action – results above PQL.
Tungsten	0.079	0.059, 0.10, 0.07, 0.72	no action – results above PQL.

The reason code “bl” has been added to the EDD for the above samples that were qualified

3.3. SDG R0907171

No analytes were detected in the blanks with the following exceptions found in the Initial and Continuing Calibration Blanks:

Analyte	ICB	CCB	Result
Aluminum	NA	2.0, 2.0	no action – results above PQL.
Antimony		4.0, 3.0	no action – results above PQL.
Magnesium		5.0	no action – results above PQL.
Molybdenum		0.50	Sample 002, UJ. All other samples no action – results above PQL.
Sodium	70.0	90.0	no action – results above PQL.
Tungsten	0.079	0.059, 0.101, 0.070, 0.72	no action – results above PQL.

The reason code “bl” has been added to the EDD for the above samples that were qualified.

4. Interference Check Sample Analysis

The Interference Check Sample met the % recovery for all analytes in the solutions in all SDGs.

5. Laboratory Control Samples

The Laboratory Control Samples met the % recovery in all SDGs.

6. Matrix Spike Analysis

6.1. SDG R0907046

Sample R0907o46-001 served as the matrix spike. The recoveries met the control limits.

6.2. SDG R0907146

Sample R0907146-014 served as the matrix spike. The recoveries met the control limits with the following exceptions

Analyte	Recovery	Qualification	Samples
Titanium	154%	J+ associated sample 014, if analyte is detected.	R0907146-014
Tungsten	70.8%	J- associated sample 014	R0907146-014

The Post Spike Sample Recoveries were all within the control limits.

6.3. SDG R0907171

Sample R0907171-004S served as the spike sample. The recoveries met the control limits with the following exceptions

Analyte	Recovery	Qualification	Samples
Beryllium	130.5%	J+ associated samples, if analyte is detected.	R0907171-004
Chromium (6020)	133.8	J+ associated samples, if analyte is detected.	R0907171-004
Chromium (6010)	178.9	J+ associated samples, if analyte is detected.	R0907171-004
Tungsten	73.3%	J- associated samples, if analyte is detected.	R0907171-004

7. Analytical Duplicate Analysis

7.1. SDG R0907046

Sample R0907046-001 served as the sample duplicate. All RPDs met the criteria with the exception of chromium and lead:

Analyte	RPD (duplicate values)	Qualification	Samples
Chromium	10.1, 16.9 (mg/kg) 50.4% RPD	J ; associated samples	All samples in SDG R0907046
Lead	13.7, 23.3 (mg/kg) 51.9% RPD	J ; associated samples	All samples in SDG R0907046

7.2. SDG R0907146

Sample R0907146-014 served as the sample duplicate. All RPDs met the criteria with the exception of Tungsten:

Analyte	RPD (duplicate values)	Qualification	Samples
Tungsten	101.2%, difference = .84 (1.25, 0.41)	J ; associated samples	All samples in SDG R0907146

7.3. SDG R0907171

Sample R0907171-004D served as the sample duplicate. All RPDs met the criteria with the exception of:

Analyte	RPD (duplicate values)	Qualification	Samples
Lead	51.3%	J ; associated samples	All samples in SDG R0907171
Thallium	50.1%	J ; associated samples	All samples in SDG R0907171

8. ICP Serial Dilution

8.1. SDG R0907046

Sample R0907046-001 served as the ICP serial dilution sample under this SDG. All recoveries met the NFG limits with the exception of chromium: %D was 12.5**%, J qualifier applied to all samples in SDG for this analyte.**

8.2. SDG R0907146

Sample R0907146-014 served as the ICP serial dilution sample under SDG 9097146. All recoveries met the NFG limits with the following exceptions:

Analyte	% Difference (>10%)	Qualification	Samples
Boron	33.4	J	All samples in SDG
Cobalt	16.2	J	
Copper	10.5	J	
Nickel	10.8	J	
Tin	13.8	J	

8.3. SDG R0907171

Sample R0907171-004 served as the ICP serial dilution sample. All recoveries met the NFG limits with the following exceptions:

Analyte	% Difference (>10%)	Qualification	Samples
Cobalt	11.0	J	All samples in SDG
Nickel	10.7	J	

The reason code "sd" was added to the EDD for these qualified samples.

9. Sensitivity Reporting Information

All results were reported with a MRL (equivalent to a PQL) and MDL. The required reporting limits were met.

10. Field Duplicates

The following field specific duplicates were included: SA129-1.5BR and SA114-1BR. Values greater than the PQL were evaluated for precision. All RPD values met the goal of 50% with the following exceptions.

Field Sample ID	Analyte	Result Reported	Units	RPD %	Validation Qualifier
SA129-1.5BR	Barium	98.9	mg/kg	89%	J
SA129-1.5BR - FD	Barium	257	mg/kg		J
SA129-1.5BR	Calcium	1370	mg/kg		J
SA129-1.5BR - FD	Calcium	13400	mg/kg		J
SA129-1.5BR	Cobalt	3.8	mg/kg	119%	J
SA129-1.5BR - FD	Cobalt	15	mg/kg		J
SA129-1.5BR	Copper	47.5	mg/kg	61%	J

SA129-1.5BR - FD	Copper	89	mg/kg		J
SA129-1.5BR	Magnesium	4430	mg/kg	68%	J
SA129-1.5BR - FD	Magnesium	9030	mg/kg		J
SA129-1.5BR	Nickel	8.76	mg/kg	55%	J
SA129-1.5BR - FD	Nickel	15.4	mg/kg		J
SA129-1.5BR	Sodium	772	mg/kg	157%	J
SA129-1.5BR - FD	Sodium	6420	mg/kg		J
SA129-1.5BR	Strontium	33.3	mg/kg	100%	J
SA129-1.5BR - FD	Strontium	99.7	mg/kg		J
SA129-1.5BR	Zinc	27.9	mg/kg	78%	J
SA129-1.5BR - FD	Zinc	64	mg/kg		J

11. **Internal Standards**

Not reviewed for 6020 under Stage 2B.

12. Overall Assessment of the Data

Field replicates that required qualification are shown in the table above and were given the reason code fd in the database. In addition, the follow data were qualified:

Field Sample ID	Lab Sample ID	Analyte	Final Qualifier	Reason Code
RSAK7-0.5BR	R0907046-001	Lead	J	ld
RSAJ2-0.5BR	R0907046-004	Chromium [Total]	J	ld, sd
SA207-0.5BR	R0907046-007	Lead	J	ld
SA207-0.5BR	R0907046-007	Chromium [Total]	J	ld, sd
SA129-1BR	R0907146-003	Tin	J	bl
SA129-1BR	R0907146-003	Boron	UJ	bl
SA129009-1.5BR	R0907146-004	Tin	J	bl
SA129009-1.5BR	R0907146-004	Boron	UJ	bl
SA129-1.5BR	R0907146-005	Tin	J	bl
SA129-1.5BR	R0907146-005	Antimony	UJ	bl
SA129-1.5BR	R0907146-005	Boron	UJ	bl
SA128-1BR	R0907146-008	Tin	J	bl
SA128-1.5BR	R0907146-009	Tin	J	bl
SA187-1BR	R0907146-014	Tin	J	bl, sd

SA187-1BR	R0907146-014	Titanium	J+	m
SA187-1BR	R0907146-014	Tungsten	J-	m, ld
SA187-1BR	R0907146-014	Boron	J	sd
SA187-1BR	R0907146-014	Nickel	J	sd
SA187-1BR	R0907146-014	Cobalt	J	sd
SA187-1BR	R0907146-014	Copper	J	sd
SA187-1.5BR	R0907146-016	Tin	J	bl
SA187-1.5BR	R0907146-016	Boron	UJ	bl
SA114-1BR	R0907146-019	Antimony	UJ	bl
SA114-1BR	R0907146-019	Boron	UJ	bl
SA114-1BR	R0907146-019	Tin	J	bl
SA114-1.5BR	R0907146-020	Tin	J	bl
SA114-1.5BR	R0907146-020	Boron	UJ	bl
SA114009-1BR	R0907146-021	Boron	UJ	bl
SA114009-1BR	R0907146-021	Tin	J	bl
SA102-1BR	R0907146-022	Tin	J	bl
SA102-1.5BR	R0907146-023	Tin	J	bl
SA106-1.5BR	R0907171-001	Lead	J	ld
SA106-1.5BR	R0907171-001	Thallium	J	ld
SA106-1.5BR	R0907171-001	Nickel	J	sd
SA106-1.5BR	R0907171-001	Cobalt	J	sd
SA106-1BR	R0907171-002	Molybdenum	UJ	bl
SA106-1BR	R0907171-002	Lead	J	ld
SA106-1BR	R0907171-002	Thallium	J	ld
SA106-1BR	R0907171-002	Nickel	J	sd
SA106-1BR	R0907171-002	Cobalt	J	sd
SA172-1.5BR	R0907171-003	Lead	J	ld
SA172-1.5BR	R0907171-003	Thallium	J	ld
SA172-1.5BR	R0907171-003	Cobalt	J	sd
SA172-1.5BR	R0907171-003	Nickel	J	sd
SA172-1BR	R0907171-004	Lead	J	ld
SA172-1BR	R0907171-004	Thallium	J	ld
SA172-1BR	R0907171-004	Chromium [Total]	J+	m
SA172-1BR	R0907171-004	Beryllium	J+	m
SA172-1BR	R0907171-004	Tungsten	J+	m
SA172-1BR	R0907171-004	Nickel	J	sd
SA172-1BR	R0907171-004	Cobalt	J	sd

Appendix C

Data Validation Report – Perchlorate

Project Name: Tronox Shallow Soil Supplemental Sampling for Areas I and II.

Laboratory: Columbia Analytical Services (CASK) -Kelso

Collection Dates : 12/15-17/2009

Matrix: Soil, one aqueous equipment blank.

Reporting Units: ug/kg, dry weight basis.

Parameters: Perchlorate

Validation Level: Stage 2B

Sample Delivery Group(s): R0907070, R0907146, R0907171

Samples:

Laboratory Sample Identification	Field Identification	Matrix
R0907070-006	SA86-1BR	Soil
R0907070-007	SA86-1.5BR	Soil
R0907070-010	SA49-1BR	Soil
R0907070-011	SA49-1.5BR	Soil
R0907070-012	SA49009-1.5BR	Soil
R0907070-017	EB121509-S01-A2	Water, Equipment Blank
R0907146-001	SA104-1BR	Soil
R0907146-002	SA104-1.5BR	Soil
R0907171-011	SA51-1.5BR	Soil
R0907171-012	SA51-1BR	Soil

Notes: All samples (and SDGs) were analyzed during a single period and batch.

Introduction

10 soil samples were analyzed for perchlorate using EPA method 314.0 modified for soils by CAS-Kelso. The samples were reported under three different SDGs, but all were run during a single 43 sample (including QC) 24 hour period.

The data were validated using applicable EPA guidelines (EPA 1999, 2004, 2008, 2009) and the BMI Plant Site-Specific Supplemental Guidance on Data Validation from NDEP (NDEP 2009b, 2009c, 2009d, 2009e) and the Basic Remediation Company (BRC) SOP 40, Data Review/Validation (BRC 2009).

Data Qualifiers and Reason Codes

Qualifier	Definition
J	Data are estimated; the direction of potential bias is uncertain.
J+	Data are estimated, with a potential for being biased high.
J-	Data are estimated, with a potential for being biased low.
U	Indicates the analyte was analyzed for but not detected at or above the stated censoring limit.
UJ	Indicates the analyte was analyzed for but not detected. The censoring limit is an estimated value due to uncertainty in the analysis.
JK	The analytical results is an estimated maximum possible concentration (EMPC)
X	The result is not used for reporting. This is generally applied where a more accurate and/or precise result is reported in place of this datum.
R	The result is rejected due to serious deficiencies in meeting the quality control criteria.

1. Technical Holding Times

All technical holding time requirements were met. The chain-of-custody forms were reviewed; all samples were received within the cooler temperature requirements. One soil sample (SA49009-1.5BR) was received broken but was recovered and analyzed.

2. Calibration

An initial calibration was performed and it met the method criteria. The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

No data were qualified based on calibration.

3. Blanks

Both laboratory method blanks, and one equipment blank (EB121509-S01-A2) were analyzed.

The method blanks were reviewed, no contamination was found in the initial, continuing, and preparation blanks.

Samples EB121509-S01-A2 was identified as a field (equipment) blank, the analyte was not detected in any of the blank samples.

No data were qualified based on blanks.

4. Laboratory Control Samples

A Laboratory Control Sample was analyzed, the recovery of perchlorate was just above the limits (116%) versus the criteria of 85-115%.

No data were qualified based on the LCS recovery.

5. Matrix Spike Analysis

Sample R0907070-010 was used for a matrix spike and MS duplicate. The samplers were spike at a concentration of 1050 and 1040 ug/kg respectively. The recovery was less than 1%. However, the low recovery is due to the very large concentration of perchlorate in the native samples (dilution factor of 5000).

No data were qualified based on the matrix spike recovery.

6. Duplicate Sample Analysis

Sample R0907070-010 was used for a duplicate analysis. The Relative Percent Difference between samples met (5%) the criteria.

No data were qualified based on the duplicate Relative Percent Difference.

7. Sensitivity Reporting Information

All results were reported with a PQL (identified as an MRL in the reports) and an MDL. The required reporting limits were met.

8. Field Duplicates

The field specific duplicates SA49-1.5BR and SA49009-1.5BR were analyzed for perchlorate. The RPD was within the criteria of 50%, no data were qualified.

9. Overall Assessment of the Data

All data are considered acceptable; no data were qualified or rejected.

Appendix D

Data Validation Report – Hexavalent Chromium

Project Name Tronox Shallow Soil Supplemental Sampling for Areas I and II.

Laboratory: Columbia Analytical Services (CAS) -Rochester

Collection Dates: 12/16-17/2009

Matrix: 10 Soils.

Reporting Units: ug/kg, dry weight basis.

Parameters: Hexavalent Chromium

Validation Level: Stage 2B

Sample Delivery Group(s): R0907146, R0907171

Samples:

Laboratory Sample Identification	Field Identification	Matrix
R0907146-003	SA129-1BR	Soil
R0907146-004	SA129-1BR_FD	Soil
R0907146-005	SA129-1.5BR	Soil
R0907146-019	SA114-1BR	Soil
R0907146-020	SA114-1.5BR	Soil
R0907146-021	SA114-1BR_FD	Soil
R0907146-022	SA102-1BR	Soil
R0907146-023	SA102-1.5BR	Soil
R0907171-01	SA106-1.5BR	Soil
R0907171-02	SA106-1BR	Soil

Introduction

Ten soil samples were analyzed for hexavalent chromium using EPA Method 7199. All samples, both SDGs, were analyzed within the same batch, therefore all QC applies to both SDGs.

The data were validated using applicable EPA guidelines (EPA 1999, 2004, 2008, 2009) and the BMI Plant Site-Specific Supplemental Guidance on Data Validation from NDEP (NDEP 2009b, 2009c, 2009d, 2009e) and the Basic Remediation Company (BRC) SOP 40, Data Review/Validation (BRC 2009).

Data Qualifiers and Reason Codes

Qualifier	Definition
J	Data are estimated; the direction of potential bias is uncertain.
J+	Data are estimated, with a potential for being biased high.
J-	Data are estimated, with a potential for being biased low.
U	Indicates the analyte was analyzed for but not detected at or above the stated censoring limit.
UJ	Indicates the analyte was analyzed for but not detected. The censoring limit is an estimated value due to uncertainty in the analysis.
JK	The analytical results is an estimated maximum possible concentration (EMPC)
X	The result is not used for reporting. This is generally applied where a more accurate and/or precise result is reported in place of this datum.
R	The result is rejected due to serious deficiencies in meeting the quality control criteria.

1. Technical Holding Times

All technical holding time requirements were met. The chain-of-custody forms were reviewed; all samples were received within the cooler temperature requirements.

2. Calibration

An initial calibration was performed and it met the method criteria. The frequency and analysis criteria of the initial calibration and continuing calibration verification (CCV) were met.

No data were qualified based on calibration.

3. Blanks

Laboratory method blanks were analyzed before each set of samples and at a frequency of every 10 samples. All blanks were free of contamination

No data were qualified based on blanks.

4. Laboratory Control Samples

A Laboratory Control Sample was analyzed with both batches, the recovery was within the limits.

No data were qualified based on the LCS recovery.

5. Matrix Spike Analysis

Sample R0907146-005 was used for a matrix spike and MS duplicate. The percent recovery and RPD met the required limits.

No data were qualified based on the matrix spike recovery.

6. Duplicate Sample Analysis

Sample R0907146-005 was used for a duplicate analysis. The Relative Percent Difference between samples met the criteria.

No data were qualified based on the duplicate Relative Percent Difference.

7. Sensitivity Reporting Information

All results were reported with a PQL (identified as a MRL in the reports) and an MDL. The required reporting limits were met.

8. Field Duplicates

Two field specific duplicates were analyzed; sample R0907146-004 and R0907146-021. Results for the four samples are provided below.

Laboratory Sample Identification	Field Identification	Result (mg/kg, dry weight basis)	%D
R0907146-003	SA129-1BR	5.23, 5.09	1.36%
R0907146-004	SA129-1BR_FD	4.95, 4.99	0.40%
R0907146-019	SA114-1BR	4.37, 4.11	3.07%
R0907146-021	SA114-1BR_FD	4.42, 4.12	3.51%

No data were qualified.

9. Overall Assessment of the Data

All data are considered acceptable; no data were qualified or rejected.

Appendix E

Data Validation Reports – Total Petroleum Hydrocarbons

Project Name: Tronox Shallow Soil Supplemental Sampling for Areas I and II.

Laboratory: Columbia Analytical Services (CASR) -Rochester

Collection Dates: R0907070: 12/14-15/2009; R0907146: 12/16/2009; R0907171: 12/17/2009

Matrix: Soil, Equipment Blank

Reporting Units: ug/kg, dry weight basis.

Parameters: TPH

Validation Level: Stage 2B

Sample Delivery Group(s): R0907070, R0907146, R0907171

Samples:

Laboratory Sample Identification	Field Identification	Matrix
R0907070-006	SA86-1BR	Soil
R0907070-007	SA86-1.5BR	Soil
R0907070-0013	SA154-1BR	Soil
R0907070-0014	SA154-1.5BR	Soil
R0907070-0017	EB121509-SO2A	Water, Equipment Blank
R0907146-003	SA129-1BR	Soil
R0907146-004	SA129-1.5BR_FD	Soil
R0907146-005	SA129-1.5BR	Soil
R0907146-006	SA165-1BR	Soil
R0907146-007	SA165-1.5BR	Soil
R0907146-010	SA166-1BR	Soil
R0907146-011	SA166-1.5BR	Soil
R0907146-017	SA45-1BR	Soil
R0907146-018	SA45-1.5BR	Soil
R0907146-019	SA114-1BR	Soil
R0907146-020	SA114-1.5BR	Soil
R0907146-021	SA114-1BR_FD	Soil
R0907171-01	SA106-1.5BR	Soil
R0907171-02	SA106-1BR	Soil
R0907171-013	SA44-1BR	Soil
R0907171-014	SA44-1.5BR	Soil
R0907171-015	EB121709-SO1-A2	Water, Equipment Blank

Introduction

Twenty soil sample and two equipment blanks were analyzed for TPH (DRO, ORO) using EPA Method 8015B. Soil samples were prepared using EPA Method 3550B, aqueous samples were extracted using EPA Method 3510C.

The data were validated using applicable EPA guidelines (EPA 1999, 2004, 2008, 2009) and the BMI Plant Site-Specific Supplemental Guidance on Data Validation from NDEP (NDEP 2009b, 2009c, 2009d, 2009e) and the Basic Remediation Company (BRC) SOP 40, Data Review/Validation (BRC 2009).

Data Qualifiers and Reason Codes

Qualifier	Definition
J	Data are estimated; the direction of potential bias is uncertain.
J+	Data are estimated, with a potential for being biased high.
J-	Data are estimated, with a potential for being biased low.
U	Indicates the analyte was analyzed for but not detected at or above the stated censoring limit.
UJ	Indicates the analyte was analyzed for but not detected. The censoring limit is an estimated value due to uncertainty in the analysis.
JK	The analytical results is an estimated maximum possible concentration (EMPC)
X	The result is not used for reporting. This is generally applied where a more accurate and/or precise result is reported in place of this datum.
R	The result is rejected due to serious deficiencies in meeting the quality control criteria.

1. Technical Holding Times

All technical holding time requirements were met. The chain-of-custody forms were reviewed; all samples were received within the cooler temperature requirements.

2. Calibration

2.1. R0907070

An initial calibration was performed and it met the method criteria. The frequency and analysis criteria of the initial calibration and continuing calibration verification (CCV) were met.

2.2. R0907146

An initial calibration was performed and it met the method criteria. The frequency and analysis criteria of the initial calibration and continuing calibration verification (CCV) were met.

2.3. R0907171

An initial calibration was performed and it met the method criteria. The frequency and analysis criteria of the initial calibration and continuing calibration verification (CCV) were met for the four soil samples. The closing CCV was above the upper limit for the aqueous Equipment Blank. However this sample had no detected DRO/ORO therefore there was no affect on data quality.

No data were qualified based on calibration.

3. Blanks

3.1. R0907070

The Method Blanks were reviewed; no analytes were detected in either sample.

3.2. R0907146

The Method Blank was reviewed, no analytes were detected.

3.3. R0907171

The Method Blanks were reviewed; no analytes were detected in either sample.

No data were qualified based on blank results.

4. Surrogates

4.1. R0907070

The surrogate recovery in all samples met the required limits.

4.2. R0907146

The surrogate recovery in all samples met the required limits.

4.3. R0907171

The surrogate recovery in all samples met the required limits.

5. Laboratory Control Samples

5.1. R0907070

The Laboratory Control Sample recovery was within the required limits.

5.2. R0907146

The Laboratory Control Sample recovery was within the required limits.

5.3. R0907171

The Laboratory Control Sample recovery was within the required limits.

No data were qualified based on the LCS recovery.

6. Matrix Spike Analysis

6.1. R0907070

Sample R0907070-0014 was chosen for the matrix spike (MS) and matrix spike duplicate (MSD). All recoveries and RPDs met the laboratory criteria.

6.2. R0907146

Sample R0907146-005 was chosen for the matrix spike (MS) and matrix spike duplicate (MSD). All recoveries and RPDs met the laboratory criteria.

6.3. R0907171

No matrix spike specific to the Tronox samples above was analyzed with this batch

No data were qualified based on the matrix spike recovery.

7. Duplicate Sample Analysis

The following field duplicate analyses were included: SA129-1.5BR and SA114-1BR. All results were within the precision criteria of 50% RPD. No data were qualified.

8. Surrogate Compound

8.1. R0907070

The surrogate recoveries met the criteria in all samples.

8.2. R0907146

The surrogate recoveries met the criteria in all samples.

8.3. R0907171

The surrogate recoveries met the criteria in all samples with the exception of the LCS. However, the analyte spike recoveries in the LCS met the criteria. No data were qualified.

9. Sensitivity Reporting Information

All results were reported with a PQL (identified as a MRL in the reports) and an MDL. The required reporting limits were met.

10. Field Duplicates

No duplicate samples, specific to this project, were analyzed.

11. Overall Assessment of the Data

All data are considered acceptable; no data were qualified or rejected.

Appendix F

Data Validation Reports – VOCs

Project Name: Tronox Shallow Soil Supplemental Sampling for Areas I and II.

Laboratory: Columbia Analytical Services (CASR) -Rochester

Collection Date(s): 12/11/2009 and 12/14/2009.

Matrix: Soil plus aqueous blanks.

Reporting Units: ug/kg, dry weight basis.

Parameters: Only chlorobenzene and chloroform

Validation Level: Stage 2b and Stage 4

Sample Delivery Group(s): R0907046

Samples:

Laboratory Sample Identification	Field Identification	Matrix
R0907046-004	RSAJ2-0.5BR	Soil
R0907046-005	TB121109-SO1-A1	Water, Trip Blank
R0907046-006	EB121109-SO1-A1	Water, Equipment Blank
R0907046-007	SA207-0.5BR	Soil
R0907046-008	TB121409-SO1-A1	Water, Trip Blank

Introduction

Two soil samples, one equipment blank, and two trip blanks were analyzed for VOCs using EPA method 8260B.

The data were validated using applicable EPA guidelines (EPA 1999, 2004, 2008, 2009) and the BMI Plant Site-Specific Supplemental Guidance on Data Validation from NDEP (NDEP 2009b, 2009c, 2009d, 2009e) and the Basic Remediation Company (BRC) SOP 40, Data Review/Validation (BRC 2009). Only chlorobenzene and chloroform were reported. Soil samples were collected using TerraCore sampler and DI water with methanol preservative.

Data Qualifiers and Reason Codes

Qualifier	Definition
J	Data are estimated; the direction of potential bias is uncertain.
J+	Data are estimated, with a potential for being biased high.
J-	Data are estimated, with a potential for being biased low.
U	Indicates the analyte was analyzed for but not detected at or above the stated censoring limit.
UJ	Indicates the analyte was analyzed for but not detected. The censoring limit is an estimated value due to uncertainty in the analysis.
JK	The analytical results is an estimated maximum possible concentration (EMPC)
X	The result is not used for reporting. This is generally applied where a more accurate and/or precise result is reported in place of this datum.
R	The result is rejected due to serious deficiencies in meeting the quality control criteria.

1. Technical Holding Times

All technical holding time requirements were met. The chain-of-custody forms were reviewed; all samples were received within the cooler temperature requirements. The soil samples were collected and preserved in the field using TerraCore samplers.

2. Calibration

An initial calibration was performed and it met the method criteria. The frequency and analysis criteria of the initial calibration and continuing calibration verification (CCV) were met.

No data were qualified based on calibration.

3. Blanks

Method Blanks were analyzed for both matrices with each analytical batch. The target analytes were not detected.

Trip Blanks and Equipment Blanks were found absent of any target compounds.

No data were qualified based on any Blank results.

4. Laboratory Control Samples

The laboratory control samples met the recovery and RPD criteria, no data were qualified based on LCS or LCSD results.

5. Matrix Spike Analysis

No matrix spike samples, specific to this project, were analyzed.

6. Field Duplicate Sample Analysis

No field duplicate samples, specific to this project, were analyzed.

7. Surrogates

All surrogates were within the control limits (70-130%) for the field samples and associated QC samples.

No data were qualified based on surrogates.

8. Internal Standards (Stage 4);

The internal standard areas and retention times were reviewed as part of the data validation. All internal standard areas and retention times met the laboratory limits.

No data were qualified based on the internal standard information.

9. Sensitivity Reporting Information

All results were reported with a PQL (identified as an MRL in the reports) and an MDL. The required reporting limits were met.

10. Other Criteria for Validation up to Stage 4

As part of the data validation up to Stage 4, instrument data including raw areas, were reviewed. The following was conducted to meet the Stage 4 requirements:

10.1. Target Compound Identification:

Relative retention times within ±0.06 RRT units of the standard.

Compound spectra meet the EPA guideline criteria.

Chromatogram peaks were verified and accounted.

All components were checked and meet the method criteria.

10.2. Compound quantification and sensitivity (detection and reporting limits)

Correct internal standard quantitation ion and relative response factor (RRF) used to quantify

Reported values and censor limits (MDL, PQL) adjusted to reflect sample specific parameters including dilutions.

All components checked and meet the criteria.

10.3. Tentatively Identified Compounds (not included in data packages)

TICs were not reported for the VOCs.

10.4. System Performance

The system performance was found to be acceptable.

11. Overall Assessment of the Data

No data were qualified, all results are considered usable.

Appendix G

Data Validation Reports – Semi-volatile Organic Compounds

Project Name: Tronox Shallow Soil Supplemental Sampling for Areas I and II.

Laboratory: Columbia Analytical Services (CASR) –Rochester

Collection Dates:

R0907007: 12/9/2009

R0907024: 12/10/2009

R0907046: 12/10/2009

R0907057: 12/11/2009 and 12/14/2009

R0907070: 12/14/2009 and 12/15/2009

R0907146: 12/16/2009

R0907171: 12/17/2009

R0907257: 12/22/2009

Matrix: Soil, aqueous equipment blanks.

Parameters: Semi-volatile Organic Compounds, list varied between SDGs.

Validation Level: Stage 2B and Stage 4 (SDGs R0907146 and R0907171)

Sample Delivery Group(s): R0907070, R0907024, R0907046, R0907146, R0907057, R0907070, R0907146, R0907171, R0907257

Samples:

Laboratory Sample Identification	Field Identification	Matrix
R0907007-001	RSAK4-1BR	Soil
R0907007-002	RSAK4-1.5BR	Soil
R0907007-003	SA134-1BR	Soil
R0907007-004	SA134-1.5BR	Soil
R0907007-005	RSAJ5-1BR	Soil
R0907007-006	RSAJ5-1.5BR	Soil
R0907007-007	RSAJ5009-1BR	Soil
R0907007-008QC	RSAL3-1BR	Soil

Laboratory Sample Identification	Field Identification	Matrix
R0907007-009	RSAL3-1.5BR	Soil
R0907007-010	SA189-1BR	Soil
R0907007-011	SA189-1.5BR	Soil
R0907007-012	SA88-1BR	Soil
R0907007-013	SA88-1BR	Soil
R0907007-014	SA88-1.5BR	Soil
R0907007-015	RSAK5009-1BR	Soil
R0907007-016QC	RSAK5-1.5BR	Soil
R0907007-017	EB120909-SO2A	Water, Equipment Blank
R0907024-001	RSAL2-1BR	Soil
R0907024-002	RSAL2-1.5BR	Soil
R0907024-003	RSAL2009-1.5BR	Soil
R0907024-004	RSAI3-1BR	Soil
R0907024-005	RSAI3-1.5BR	Soil
R0907024-006	SA201-1BR	Soil
R0907024-007	SA201-1.5BR	Soil
R0907024-008	RSA17-1BR	Soil
R0907024-009	RSA17-1.5BR	Soil
R0907024-010	RSA17009-1.5BR	Soil
R0907024-011QC	RSAJ8-1BR	Soil
R0907024-012	RSAJ8-1.5BR	Soil
R0907024-013	SA127-1BR	Soil
R0907024-014	SA127-1.5BR	Soil
R0907024-015	RSAJ6-1BR	Soil
R0907024-016	RSAJ6-1.5BR	Soil
R0907024-017	RSAJ7-1BR	Soil
R0907024-018	RSAJ7-1.5BR	Soil
R0907024-019	SA76-1BR	Soil
R0907024-020	SA76-1.5BR	Soil
R0907024-021	RSAK7-1BR	Soil
R0907024-022	RSAK7-1.5BR	Soil
R0907024-023	RSAK8-1BR	Soil
R0907024-024	RSAK8-1.5BR	Soil
R0907024-025	EB121009-SO1-A1	Water, Equipment Blank
R0907046-001	RSAK7-0.5BR	Soil
R0907046-002	RSAJ6-0.5BR	Soil
R0907057-001	RSAH3-1.5BR	Soil
R0907057-002	RSAH3-1BR	Soil
R0907057-003	RSAJ2-1.5BR	Soil

Laboratory Sample Identification	Field Identification	Matrix
R0907057-004	RSAJ2-1BR	Soil
R0907057-005	RSAK3-1.5BR	Soil
R0907057-006	RSAK3-1BR	Soil
R0907057-007	SA75-1.5BR	Soil
R0907057-008	SA75-1BR	Soil
R0907057-009	EB121109-SO-A1	Water, Equipment Blank
R0907057-010	RSAL8-1BR	Soil
R0907057-011	RSAL8-1.5BR	Soil
R0907057-012	SA182-1BR	Soil
R0907057-013	SA182-1.5BR	Soil
R0907057-014	SA182009-1.5BR	Soil
R0907057-015	SA207-1BR	Soil
R0907057-016	SA207-1.5BR	Soil
R0907070-001	SA155-1BR	Soil
R0907070-002	SA155-1.5BR	Soil
R0907070-003	SA175-1BR	Soil
R0907070-004	SA175-1.5BR	Soil
R0907070-006	SA86-1BR	Soil
R0907070-005	EB121409-SO1-A2	Water, Equipment Blank
R0907070-007	SA86-1.5BR	Soil
R0907070-008	SA107-1BR	Soil
R0907070-009	SA107-1.5BR	Soil
R0907070-010QC	SA49-1BR	Soil
R0907070-011	SA49-1.5BR	Soil
R0907070-012	SA49009-1.5BR	Soil
R0907070-015	SA60-1BR	Soil
R0907070-016	SA60-1.5BR	Soil
R0907070-017	EB121509-SO2A	Water, Equipment Blank
R0907070-018	SAI55009-1BR	Soil
R0907070-019	SA175009-1BR	Soil
R0907146-003	SA129-1BR	Soil
R0907146-004	SA129-1BR_FD	Soil
R0907146-005QC	SA129-1.5BR	Soil
R0907146-006	SA165-1BR	Soil
R0907146-007	SA165-1.5BR	Soil
R0907146-010	SA66-1BR	Soil
R0907146-011	SA166-1.5BR	Soil
R0907146-014	SA187-1BR	Soil
R0907146-016	SA187-1.5BR	Soil

Laboratory Sample Identification	Field Identification	Matrix
R0907146-019	SA114-1BR	Soil
R0907146-020	SA114-1.5BR	Soil
R0907146-021	SA114-1BR_FD	Soil
R0907146-024	EB121609-SO1-A2	Water, Equipment Blank
R0907171-001	SA106-1.5BR	Soil
R0907171-002	SA106-1BR	Soil
R0907171-005	SA32-1.5BR	Soil
R0907171-006	SA32-1BR	Soil
R0907171-007	SA40-1.5BR	Soil
R0907171-008	SA40-1BR	Soil
R0907171-009	SA41-1.5BR	Soil
R0907171-010	SA41-1BR	Soil
R0907171-015	EB121709-SO1-A2	Water, Equipment Blank
R0907257-001	SA196-1BR	Soil
R0907257-002	SA196-1.5BR	Soil

Introduction

Multiple soil samples, some with associated equipment blanks, were analyzed for SVOCs using EPA Method 8720C. Preparation was performed using EPA Method 3541 for soils and 3510C for aqueous samples. In some SDGs (R0907007, R0907024, R0907046, R0907057) only Hexachlorobenzene was reported, for others list of 40 SVOCs were reported (see EDD)

The data were validated using applicable EPA guidelines (EPA 1999, 2004, 2008, 2009) and the BMI Plant Site-Specific Supplemental Guidance on Data Validation from NDEP (NDEP 2009b, 2009c, 2009d, 2009e) and the Basic Remediation Company (BRC) SOP 40, Data Review/Validation (BRC 2009).

Data Qualifiers and Reason Codes

Qualifier	Definition
J	Data are estimated; the direction of potential bias is uncertain.
J+	Data are estimated, with a potential for being biased high.
J-	Data are estimated, with a potential for being biased low.
U	Indicates the analyte was analyzed for but not detected at or above the stated censoring limit.
UJ	Indicates the analyte was analyzed for but not detected. The censoring limit is an estimated value due to uncertainty in the analysis.
JK	The analytical result is an estimated maximum possible concentration (EMPC)
X	The result is not used for reporting. This is generally applied where a more

	accurate and/or precise result is reported in place of this datum.
R	The result is rejected due to serious deficiencies in meeting the quality control criteria.

1. Technical Holding Times

Technical holding times were met for all SDGs. All samples were received in good condition within the temperature limits required.

2. Calibration

For SDGs R0907007, R0907024, R0907046, R0907057, all initial and continuing calibrations met the method requirements.

For SDG R0907146, the calibration check analyzed on 1/5/2010 was exceeded for Octachlorostyrene. Associated samples were qualified:

SDG and Calibration Batch	Violation	Result	Qualifiers applied	Associated Samples
R0907146, analyzed on 1/5/2010 (batch 185387)	%D in the calibration check relative to the average Response Factor (AW826)	Octachlorostyrene -28.6%	J all detects, UJ all non detects	R0907146-003, 004, 010, 011, 006, 014

For SDG R0907171, the calibration check analyzed 12/29/2009 was exceeded for Octachlorostyrene. Associated samples were qualified:

SDG and Calibration Batch	Violation	Result	Qualifiers applied	Associated Samples
R0907171, analyzed on 12/29 (batch 184720)	%D in the calibration check relative to the average Response Factor (AW738)	Octachlorostyrene -30.6%	J all detects, UJ all non detects	005, 007

For SDG R0907257, the calibration check analyzed 12/31/2009 was exceeded for Octachlorostyrene. Associated samples were qualified:

SDG and Calibration Batch	Violation	Result	Qualifiers applied	Associated Samples

R0907171, analyzed on 12/31/2009 (batch 185106)	%D in the calibration check relative to the average Response Factor (AW778)	Octachlorostyrene -26.5%	J all detects, UJ all non detects	001, 002

The qualifiers were added to the EDD along with a "c" reason code.

3. Blanks

For SDG R0907007, the Method and Equipment Blanks all were all non-detects for the associated analyte. No data qualified based on any Blank results.

For SDGs R0907024, R0907046, and R0907057 the Method Blank extracted on 12/15/2009 contained hexachlorobenzene at 9.7 ug/kg. The associated Equipment Blank did not contain detectable concentrations of the associated analyte. Associated samples were qualified:

SDG	**Violation**	**Blank Value**	**Qualifiers applied**	**Associated Samples (sample values)**
R0907024	Hexachlorobenzene in Method Blank	9.7 ug/kg	UJ at 15 ug/kg	023 UJ (15 ug/kg) 024, not qualified, samples well above blank level
R0907046	Hexachlorobenzene in Method Blank	9.7 ug/kg	None, values in samples well above blank level	None
R0907057	Hexachlorobenzene in Method Blank	9.7 ug/kg	UJ at 5.7 ug/kg	008 (5.7 ug/kg),
R0907057 102717	Hexachlorobenzene in Method Blank	3.3 ug/kg	UJ at 3.1 ug/kg	010 (3.1 ug/kg)

For SDG R0907070 the Method Blank extracted on 12/15-124/2009 contained analytes. The associated Equipment Blank also contained Hexachlorobenzene; however this was at a level less than the MRL. Associated samples were qualified were applicable:

SDG and Extraction Batch	**Violation**	**Associated Samples**	**Sample Values**	**Qualifiers applied**
R0907070 12/16 (batch 102717)	Butyl benzyl phthalate (2.7J), Hexachlorobenzene	001 (1X, 5X), 002 (2X), 003 (10X,	001: Butyl benzyl phthalate 5.6BJ,	001: Butyl benzyl phthalate UJ at MDL (24),

	(2.7J), naphthalene (2.0J) in Method Blank	200X), 004 (20X, 200X)	Hexachlorobenzene 940. 002: Butyl benzyl phthalate 7.8BJ, Hexachlorobenzene 330. 003: Butyl benzyl phthalate 24U, Hexachlorobenzene 32000 004: Butyl benzyl phthalate 48U, Hexachlorobenzene 22000	None for Hexachlorobenzene 002: Butyl benzyl phthalate UJ at MDL (48), None for Hexachlorobenzene 003: Butyl benzyl phthalate no change -U at MDL, None for Hexachlorobenzene 004: Butyl benzyl phthalate no change -U at MDL, None for Hexachlorobenzene
R0907070 12/17 (batch 102838)	Di-n-butyl phthalate (34J) in Method Blank	006 (1X) 007 (1x) 008 (3X) 009 (1X) 010 (10X) 011 (6X) 012 (3X, 10X) 015 (10X) 016 (5X)	006: Di-n-butyl phthalate (34BJ) 007: Di-n-butyl phthalate (39BJ)	006: Di-n-butyl phthalate UJ at PQL (170) 007: Di-n-butyl phthalate UJ at PQL (170) For sample 008, 009, 010, 011, 012, 015, 016: No change, associated samples not detected
R0907070 12/24 (batch 102984)	Butyl benzyl phthalate (2.3J) and di-n-butyl phthalate (38J)	018 (5X) 019 (10X, 200X)	Associated analytes not detected	No change

For SDG R0907146 the Method Blank extracted on 12/18/2009 contained analytes. The associated Equipment Blank also contained low levels of Bis(2-ethylhexl) Phthalate (0.38 ug/L), Butyl benzyl

Phthalate (0.19 ug/L), Di-n-butyl Phthalate (0.82 ug/L), and Diethyl Phthalate (0.22 ug/L). Associated samples were qualified where applicable:

SDG and Extraction Batch	Violation	Associated Samples	Sample Values (if detected)	Qualifiers applied
12/18 (batch 102902)	Butyl benzyl phthalate at 4.0J and Di-n-butyl phthalate at 55J	003 (15X) 004 (15X) 005 (10X) 006 (3X) 007 (1X) 010 (10X) 011 (50X) 014 (10X) 016 (1X)	003: Di-n-butyl phthalate 710J 006: Di-n-butyl phthalate 190BJ 016: Di-n-butyl phthalate 60J	003: Di-n-butyl phthalate – UJ at MRL 2800 006: Di-n-butyl phthalate – UJ at MRL 720 016: Di-n-butyl phthalate – UJ at MRL 180

For SDG R0907171 the Method Blank extracted on 12/18/2009 contained analytes. The associated Equipment Blank contained no detectable analytes. Associated samples were qualified where applicable:

SDG and Extraction Batch	Violation	Associated Samples	Sample Values (if detected)	Qualifiers applied
12/24 (batch 102984)	Butyl benzyl phthalate (2.3J) and di-n-butyl phthalate (38J)	001 (10X, 50X 002 (10X, 50X) 005 (1X) 006 (8X) 007 (1X) 008 (3X) 009 (20X) 010 (20X)	005 Di-n-butyl phthalate (40 BJ) 007 Di-n-butyl phthalate (43 BJ)	005: Di-n-butyl phthalate – UJ at MRL 190 007: Di-n-butyl phthalate – UJ at MRL 180

For SDG R0907257 the Method Blank extracted on 12/28/2009 contained Di-n-butyl phthalate. Associated samples were qualified where applicable:

SDG and Extraction Batch	Violation	Associated Samples	Sample Values (if detected)	Qualifiers applied
12/28 (batch 103302)	Di-n-butyl phthalate (40J)	001 (10X) 002 (1X)	002: Di-n-butyl phthalate (41 BJ)	002: Di-n-butyl phthalate – UJ at MRL 180

The “bl” reason code was added to the EDD where the above samples were qualified.

4. Laboratory Control Samples

All analytes recoveries were within the laboratory limits with the following exceptions.

SDG, Analysis Date (Extraction Batch)	Violation (limits 50-120%)	Associated Samples	Sample Values (if detected)	Qualifiers applied
R0907070 12/22/2009 (102717)	Bis (2-ethylhexyl) phthalate out high (123%)	All associated sample ND for analyte	ND	None
R0907070 12/24/2009 (102651)	Pyridine (41, 28%) and 1,4-dioxane (42%)out low	005 (EB)	ND	Associated sample UJ
R0907070 12/24/2009 (102896)	Pyridine out low (31, 44%)	017 (EB)	ND	Associated sample UJ
R0907070, 12/29/2009 (102984)	Di-n-butyl Phthalate (137%) and Octachlorostyrene (121%) out high	018 019	019: Octachlorostyrene (12000)	019: Octachlorostyrene qualified J+
R0907146 12/24/2009 (102896)	Pyridine out low (31, 44%)	024 (EB)	ND	Associated samples UJ
R0907171 12/24/2009 (102896)	Pyridine out low (31, 44%)	015	ND	Associated samples UJ
R0907171, 12/29/2009 (102984)	Di-n-butyl Phthalate (137%) and Octachlorostyrene (121%) out high	001, 002, 005, 006, 007, 008, 009, 010,	001: Octachlorostyrene 950 002: Octachlorostyrene 1100 005: Octachlorostyrene 29 006: Octachlorostyrene 300 008: Octachlorostyrene 25 010: Octachlorostyrene	Associated samples qualified J+ for Octachlorostyrene

SDG, Analysis Date (Extraction Batch)	Violation (limits 50-120%)	Associated Samples	Sample Values (if detected)	Qualifiers applied
			680	

The "l" reason code was added to the EDD where the above samples were qualified.

5. Matrix Spike Analysis

Many of the samples required high levels of dilution due to native concentrations of the spike compounds and other target analytes. In some cases the ratio of the native to spiked levels were such that recoveries were outside of the control limits. Data were not qualified if recoveries were outside the limits due to the ratio of native to spiked concentrations. Cases where this issue did not affect recoveries, yet the spike value did not met the method limits, are discussed below.

For SDG R0907007, the recovery of hexachlorobenzene in sample 008 was below the method limits of 50-150%. The Laboratory Control Samples for this SDG did meet the recovery limits. Therefore, the value of hexachlorobenzene is qualified for sample 008 only. Sample 011 in this same SDG also had low recovery; however this was due to the large native concentration of hexachlorobenzene.

For SDG R07070, the recoveries of five spike compounds were outside of the limits in sample 010. Likewise, for sample 011 the recovery of one analyte was outside the limits. One analyte, pyridine, that was low in the matrix spike samples was also low in the Laboratory Control Samples and qualified above. The associated samples are qualified as shown in the table below.

For SDG R07146, the recoveries of two spike compounds were outside of the limits in sample 005. Recovery for these same analytes were within the limits for the Laboratory Control Samples in this SDG. The associated samples are qualified as shown in the table below.

For SDG R07257, the recoveries of two spike compounds were outside of the limits in sample 002. Recoveries for these same analytes were within the limits for the Laboratory Control Samples in this SDG. The associated samples are qualified as shown in the table below.

Qualified Samples:

SDG	MS/MSD recovery (limits 50-150%)	Associated Samples	Qualifiers applied
R0907007	Hexachlorobenzene 45%, 28%	008	J-
R0907070	Benzo(b)fluoranthene	010	J- for

SDG	MS/MSD recovery (limits 50-150%)	Associated Samples	Qualifiers applied
	-22%, -25% Benzo(g,hi,i)perylene 15%, 15% Chrysene -2%, 0% Indeno (1,2,3-cd) pyrene 20%, 18% Pyridine 50%, 48% Hexachlorobenzene out due to ratio of native to spike concentrations		Benzo(b)fluoranthene Benzo(g,hi,i)perylene Chrysene Indeno (1,2,3-cd) pyrene UJ for Pyridine
R0907070	Pyridine 47%,	011	UJ
R0907146	Di-n-butyl Phthalate 145%, 155% Octachlorostyrene 377%, 335%	005	J+ for Octachlorostyrene only; Di-n-butyl Phthalate was ND

The "m" reason code was added to the EDD where the above samples were qualified.

6. Duplicate Sample Analysis

The following duplicate field samples were analyzed: RSAJ5-1BR, RSAK5009-1BR, RSAL2009-1.5BR, RSA17009-1.5BR, SA182009-1.5BR, SA49009-1.5BR, SAI55009-1BR, SA175009-1BR. All results met the criteria of 50% RPD with the following exceptions:

Sample ID	Analyte	Units	Result	% RPD	Validation Qualifier
SA175-1BR	Benz[a]anthracene	ug/kg	11	62%	J
SA175009-1BR	Benz[a]anthracene	ug/kg	21		J
SA175-1BR	Benzo[b]fluoranthene		28	54%	J
SA175009-1BR	Benzo[b]fluoranthene		49		J
SA49-1BR	Benzo[b]fluoranthene		180	171%	J
SA49009-1BR	Benzo[b]fluoranthene		14		J
SA49-1BR	Benzo[g,h,i]perylene		120	171%	J
SA49009-1BR	Benzo[g,h,i]perylene		9.4		J
SA175-1BR	Chrysene		56	56%	J
SA175009-1BR	Chrysene		100		J
SA49-1BR	Chrysene		150	151%	J
SA49009-1BR	Chrysene		21		J

SA175-1BR	Fluoranthene		78	57%	J
SA175009-1BR	Fluoranthene		140		J
SA49-1BR	Fluoranthene		77	128%	J
SA49009-1BR	Fluoranthene		17		J
RSAJ5-1BR	Hexachlorobenzene		5500	172%	J
RSAJ5009-1BR	Hexachlorobenzene		74000		J
RSAK5-1BR	Hexachlorobenzene		5500	89%	J
RSAK5009-1BR	Hexachlorobenzene		2100		J
SA155-1BR	Hexachlorobenzene		940	63%	J
SA155009-1BR	Hexachlorobenzene		490		J
SA49-1BR	Indeno[1,2,3-cd]pyrene		110	175%	J
SA49009-1BR	Indeno[1,2,3-cd]pyrene		7.3		J
SA129-1.5BR	Octachlorostyrene		200	63%	J
SA129009-1.5BR	Octachlorostyrene		430		J
SA175-1BR	Octachlorostyrene		6900	54%	J
SA175009-1BR	Octachlorostyrene		12000		J
SA175-1BR	Pyrene		21	67%	J
SA175009-1BR	Pyrene		42		J
SA49-1BR	Pyrene		70	150%	J
SA49009-1BR	Pyrene		10		J

The reason code “fd” was added to the database for these qualified results.

7. Surrogates

Many samples required dilutions of 15X or greater. This level of dilution also affected the quantification of surrogate standards that were also diluted and is an expected observance. Since the Internal Standards were all within limits, no results were qualified based on diluted surrogate standard recoveries.

No data were qualified based on surrogates.

8. Internal Standards

For SDG R0907024, the internal standard areas were all within limits. However, the retention times for the last two eluting Internal Standards (d12-Chrysene, d12-Perylene) were outside the limits for the following samples: 011, 012, 022, 023, 024. The GC/MS chromatograms were reviewed for these

samples. This shift in retention time is not believed to have impacted the quality of these results. No data were qualified.

The internal standard areas and retention times for all other samples and SDGs were within the method limits.

No data were qualified based on Internal Standard results.

9. Sensitivity Reporting Information

All results were reported with a PQL (identified as a MRL in the reports) and an MDL. The required reporting limits were met.

10. Stage 4 Data Validation (SDGs R0907146 and R0907171)

10.1. Target Compound Identification

All target compound identifications were within validation criteria.

10.2. Compound Quantification

All target compound quantifications were within validation criteria.

10.3. Tentatively Identified Compounds

Tentatively identified compounds were not reported by the laboratory.

10.4. System Performance

The system performance was acceptable.

11. Overall Assessment of the Data

No data were rejected, so all results are considered usable.

In addition to the duplicate field samples qualified in Section 6 above, the following table summarizes all additional qualified data:

Field ID	Sample ID	Analyte	Final Qualifier	Reason Code
RSAL3-1BR	R0907007-008	Hexachlorobenzene	J-	m
RSAK8-1BR	R0907024-023	Hexachlorobenzene	UJ	b
SA75-1BR	R0907057-008	Hexachlorobenzene	UJ	bl
RSAL8-1BR	R0907057-010	Hexachlorobenzene	UJ	bl

SA155-1BR	R0907070-001	Butyl benzyl phthalate	UJ	bl
SA155-1BR	R0907070-001	Hexachlorobenzene	X	e
SA155-1BR	R0907070-001	Octachlorostyrene	X	o
SA155-1.5BR	R0907070-002	Butyl benzyl phthalate	UJ	bl
SA175-1BR	R0907070-003	Hexachlorobenzene	X	e
SA175-1BR	R0907070-003	Octachlorostyrene	X	e
SA-175-1.5BR	R0907070-004	Hexachlorobenzene	X	e
SA-175-1.5BR	R0907070-004	Octachlorostyrene	X	o
SA86-1BR	R0907070-006	Di-N-Butyl phthalate	UJ	bl
SA86-1.5BR	R0907070-007	Di-N-Butyl phthalate	UJ	bl
SA49-1BR	R0907070-010	Pyridine	UJ	m
SA49-1BR	R0907070-010	Indeno[1,2,3-cd]pyrene	J-	m
SA49-1BR	R0907070-010	Chrysene	J-	m
SA49-1BR	R0907070-010	Benzo[g,h,i]perylene	J-	m
SA49-1BR	R0907070-010	Benzo[b]fluoranthene	J-	m
SA49-1.5BR	R0907070-011	Pyridine	UJ	m
SA49009-1BR	R0907070-012	Hexachlorobenzene	X	e
SA49009-1BR	R0907070-012	Fluoranthene	X	o
SA49009-1BR	R0907070-012	Octachlorostyrene	X	o
SA49009-1BR	R0907070-012	Chrysene	X	o
SA49009-1BR	R0907070-012	Pyrene	X	o
SA155009-1BR	R0907070-018	Octachlorostyrene	J+	l
SA175009-1BR	R0907070-019	Octachlorostyrene	X	e
SA175009-1BR	R0907070-019	Hexachlorobenzene	X	e
SA129-1BR	R0907146-003	Di-N-Butyl phthalate	UJ	bl
SA129-1BR	R0907146-003	Octachlorostyrene	J	c
SA129009-1.5BR	R0907146-004	Octachlorostyrene	J	c
SA129-1.5BR	R0907146-005	Octachlorostyrene	J+	m
SA165-1BR	R0907146-006	Di-N-Butyl phthalate	UJ	bl
SA165-1BR	R0907146-006	Octachlorostyrene	J	c
SA66-1BR	R0907146-010	Octachlorostyrene	UJ	c
SA66-1.5BR	R0907146-011	Octachlorostyrene	UJ	c
SA187-1BR	R0907146-014	Octachlorostyrene	UJ	c
SA187-1.5BR	R0907146-016	Di-N-Butyl phthalate	UJ	bl
SA106-1.5BR	R0907171-001	Hexachlorobenzene	X	e
SA106-1.5BR	R0907171-001	Octachlorostyrene	J+	l

SA106-1.5BR	R0907171-001	Octachlorostyrene	X	l, o
SA106-1.5BR	R0907171-001	Fluoranthene	X	o
SA106-1.5BR	R0907171-001	Pyrene	X	o
SA106-1.5BR	R0907171-001	2-Methylnaphthalene	X	o
SA106-1BR	R0907171-002	Hexachlorobenzene	X	e
SA106-1BR	R0907171-002	Octachlorostyrene	J+	l
SA106-1BR	R0907171-002	Octachlorostyrene	X	l, o
SA106-1BR	R0907171-002	Phenanthrene	X	o
SA106-1BR	R0907171-002	Pyrene	X	o
SA106-1BR	R0907171-002	2-Methylnaphthalene	X	o
SA32-1.5BR	R0907171-005	Di-N-Butyl phthalate	UJ	bl
SA32-1.5BR	R0907171-005	Octachlorostyrene	J	c, l
SA32-1BR	R0907171-006	Octachlorostyrene	J+	l
SA40-1.5BR	R0907171-007	Di-N-Butyl phthalate	UJ	bl
SA40-1.5BR	R0907171-007	Octachlorostyrene	UJ	c, l
SA40-1BR	R0907171-008	Octachlorostyrene	J+	l
SA41-1BR	R0907171-010	Octachlorostyrene	J+	l
SA196-1BR	R0907257-001	Octachlorostyrene	J	c
SA196-1.5BR	R0907257-002	Di-N-Butyl phthalate	UJ	bl
SA196-1.5BR	R0907257-002	Octachlorostyrene	J	c

Appendix H

Data Validation Reports – Organochlorine Pesticides

Project Name: Tronox Shallow Soil Supplemental Sampling for Areas I and II.

Laboratory: Columbia Analytical Services (CASR) -Rochester

Collection Date: R0907046: 12/11/2009; R0907070: 12/15/2009; R0907146: 12/16/2009

Matrix: Soil, aqueous equipment blanks.

Parameters: OC Pesticides.

Validation Level: Stage 2B and 4 (SDG R0907046)

Sample Delivery Group(s): R0907046, R0907070, R0907146

Laboratory Sample Identification	Field Identification	Matrix
R0907046-002	RSAJ6-0.5BR	Soil
R0907046-003	RSAK3-0.5BR	Soil
R0907046-004	RSAJ2-0.5BR	Soil
R0907070-006	SA86-1BR	Soil
R0907070-007	SA86-1.5BR	Soil
R0907070-017	EB121509-SO2A	Water, Equipment Blank
R0907146-003	SA129-1BR	Soil
R0907146-004	SA129009-1.5BR	Soil
R0907146-005	SA129-1.5BR	Soil
R0907146-008	SA128-1BR	Soil
R0907146-009	SA128-1.5BR	Soil
R0907146-010	SA66-1BR	Soil
R0907146-011	SA66-1.5BR	Soil

Introduction

Twelve soils samples, in three SDGs, and one equipment blank were analyzed for Organochlorine pesticides using EPA Method 8081. The soil samples were prepared using EPA Method 3541.

The data were validated using applicable EPA guidelines (EPA 1999, 2004, 2008, 2009) and the BMI Plant Site-Specific Supplemental Guidance on Data Validation from NDEP (NDEP 2009b, 2009c, 2009d, 2009e) and the Basic Remediation Company (BRC) SOP 40, Data Review/Validation (BRC 2009).

Samples SA129-1BR, SA129009-1BR, SA129-1.5BR, SA165-1BR all required dilution. They also had problems with surrogates. All samples ND. EB was clean

Data Qualifiers and Reason Codes

Qualifier	Definition
J	Data are estimated; the direction of potential bias is uncertain.
J+	Data are estimated, with a potential for being biased high.
J-	Data are estimated, with a potential for being biased low.
U	Indicates the analyte was analyzed for but not detected at or above the stated censoring limit.
UJ	Indicates the analyte was analyzed for but not detected. The censoring limit is an estimated value due to uncertainty in the analysis.
JK	The analytical results is an estimated maximum possible concentration (EMPC)
X	The result is not used for reporting. This is generally applied where a more accurate and/or precise result is reported in place of this datum.
R	The result is rejected due to serious deficiencies in meeting the quality control criteria.

1. Technical Holding Times

Technical holding times were met for all SDGs. All samples were received in good condition within the temperature limits required.

2. Calibration

For all SDGs all initial and continuing calibrations met the method requirements. All analyses for breakdown and 4,4'DDT and Endrin were within the method limits.

No data were qualified based on calibration.

3. Blanks

All method blanks were free from contamination with the following exceptions

SDG	Violation	Blank Value	Qualifiers applied	Associated Samples (sample values)
R0907070	Hexachlorobenzene in Method Blank	2.3 ug/kg	J	006 (5X) 57 007 (5X) 43
R0907146	Hexachlorobenzene in Method Blank	2.3 ug/kg	None, sample values well above blank values even with dilution factor	None

4. Laboratory Control Samples

All analytes recoveries were within the laboratory limits with the following exceptions.

SDG, Analysis Date (Extraction Batch)	Violation (limits 50-130%)	Associated Samples	Sample Values (if detected)	Qualifiers applied
R0907070 12/28/2009 (103345)	Aldrin 46%, 33% Heptaclor 67%, 49% Hexachlorobenzene 59%, 34& Alpha-BHC 65%, 45% Gamma-BHC (lindane) 67%, 49%	006 and 007	006 hexachlorobenzene 57 ug/kg 007 hexachlorobenzene 43 ug/kg	J- all samples for hexachlorobenzene; UJ all samples for Aldrin, Heptachlor, alpha-BHC, and Lindane
R0907146 12/28/2009 (103345)	Aldrin 46%, 33% Heptaclor 67%, 49% Hexachlorobenzene 59%, 34& Alpha-BHC 65%, 45% Gamma-BHC (lindane) 67%, 49%	All: 003, 004, 005, 008, 009, 010, 011	All samples had hexachlorobenzene	J- for hexachlorobenzene in all samples; UJ all samples for Aldrin, Heptachlor, alpha-BHC, and Lindane

5. Matrix Spike Analysis

Many of the samples required high levels of dilution due to native concentrations of the spike compounds and other target analytes. In some cases the ratio of the native to spiked levels were such that recoveries were outside of the control limits. Data were not qualified if recoveries were outside the limits due to the ratio of native to spiked concentrations.

No data were qualified based on Matrix Spike results.

6. Duplicate Sample Analysis

No duplicate samples, specific to this project, were analyzed other than the matrix spike and matrix spike duplicate pairs.

7. Surrogates

For SDG R0907046 both surrogates were at levels above the limits. This was due to interference, potentially from native decachlorobiphenyl and tetrachloro-m-xylene. Based on professional judgment of the validator, no data were qualified.

For SDG R0907070 all surrogates were within the limits of 40-140% recovery. No data were qualified based on surrogates

For SDG R0907146, the surrogates in all samples were below the recovery limits. However, this was due to dilution of samples.

No data were qualified based on surrogates.

8. Internal Standards

Internal standards were not utilized for this analytical method.

9. Sensitivity Reporting Information

All results were reported with a PQL (identified as a MRL in the reports) and an MDL. The required reporting limits were met.

10. Field Duplicates Sample Analysis

Samples SA129-1.5BR and SA129009-1.5BR were duplicate field samples. All results were within the goal of 50% RPD with the following exceptions:

Sample ID	Analyte	Result	Units	%RPD	Validation Qualifier
SA129-1.5BR	4,4'-DDT	4300	ug/kg	87%	J
SA129009-1.5BR	4,4'-DDT	1700	ug/kg		J
SA129-1.5BR	Hexachlorobenzene	330	ug/kg	181%	J
SA129009-1.5BR	Hexachlorobenzene	6800	ug/kg		J

The reason code "fd" was added to the database for the qualified results.

11. Validation up to Stage 4 (SDG R0907046)

Stage 4 validation included the following additional assessment:

- Recalculation of the % difference (%D, within 10%) of the initial calibration average response Calibration Factors (CF) and the continuing calibration.
- Recalculation of the percent recoveries (%R) of the surrogates.
- Recalculation of calibration analyte and sample analyte values.

No additional data was qualified based on these Stage 4 validation criteria.

12. Overall Assessment of the Data

No data were rejected.

The following samples were qualified based on the discussions above:

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAJ6-0.5BR	R0907046-002	Beta-BHC	X	e
RSAK3-0.5BR	R0907046-003	Beta-BHC	X	e
SA86-1BR	R0907070-006	Hexachlorobenzene	J	bl, l
SA86-1BR	R0907070-006	Aldrin	UJ	l
SA86-1BR	R0907070-006	Alpha-BHC	UJ	l
SA86-1BR	R0907070-006	Gamma-BHC [Lindane]	UJ	l
SA86-1BR	R0907070-006	Heptachlor	UJ	l
SA86-1.5BR	R0907070-007	Hexachlorobenzene	J	bl, l
SA86-1.5BR	R0907070-007	Aldrin	UJ	l
SA86-1.5BR	R0907070-007	Heptachlor	UJ	l
SA86-1.5BR	R0907070-007	Alpha-BHC	UJ	l
SA86-1.5BR	R0907070-007	Gamma-BHC [Lindane]	UJ	l
SA129-1BR	R0907146-003	Hexachlorobenzene	J-	l
SA129-1BR	R0907146-003	Heptachlor	UJ	l
SA129-1BR	R0907146-003	Gamma-BHC [Lindane]	UJ	l
SA129-1BR	R0907146-003	Alpha-BHC	UJ	l
SA129-1BR	R0907146-003	Aldrin	UJ	l
SA129009-1.5BR	R0907146-004	Hexachlorobenzene	X	e
SA129009-1.5BR	R0907146-004	Gamma-BHC [Lindane]	UJ	l
SA129009-1.5BR	R0907146-004	Aldrin	UJ	l
SA129009-1.5BR	R0907146-004	Aldrin	UJ	l
SA129009-1.5BR	R0907146-004	Alpha-BHC	UJ	l
SA129009-1.5BR	R0907146-004	Gamma-BHC [Lindane]	UJ	l
SA129009-1.5BR	R0907146-004	Heptachlor	UJ	l
SA129009-1.5BR	R0907146-004	Heptachlor	UJ	l
SA129009-1.5BR	R0907146-004	Alpha-BHC	UJ	l
SA129009-1.5BR	R0907146-004	Hexachlorobenzene	J-, J =J	l, fd
SA129009-1.5BR	R0907146-004	4,4'-DDE	X	o
SA129009-1.5BR	R0907146-004	4,4’-DDT	J	fd
SA129-1.5BR	R0907146-005	Hexachlorobenzene	J-, J = J	l, fd
SA129-1.5BR	R0907146-005	Aldrin	UJ	l
SA129-1.5BR	R0907146-005	Alpha-BHC	UJ	l

SA129-1.5BR	R0907146-005	Heptachlor	UJ	l
SA129-1.5BR	R0907146-005	Gamma-BHC [Lindane]	UJ	l
SA129-1.5BR	R0907146-005	4,4’-DDT	J	fd
SA128-1BR	R0907146-008	Gamma-BHC [Lindane]	UJ	l
SA128-1BR	R0907146-008	Heptachlor	UJ	l
SA128-1BR	R0907146-008	Alpha-BHC	UJ	l
SA128-1BR	R0907146-008	Aldrin	UJ	l
SA128-1BR	R0907146-008	Hexachlorobenzene	J-	l
SA128-1.5BR	R0907146-009	Aldrin	UJ	l
SA128-1.5BR	R0907146-009	Alpha-BHC	UJ	l
SA128-1.5BR	R0907146-009	Gamma-BHC [Lindane]	UJ	l
SA128-1.5BR	R0907146-009	Heptachlor	UJ	l
SA128-1.5BR	R0907146-009	Hexachlorobenzene	J-	l
SA66-1BR	R0907146-010	Aldrin	UJ	l
SA66-1BR	R0907146-010	Alpha-BHC	UJ	l
SA66-1BR	R0907146-010	Heptachlor	UJ	l
SA66-1BR	R0907146-010	Hexachlorobenzene	J-	l
SA66-1BR	R0907146-010	Gamma-BHC [Lindane]	UJ	l
SA66-1.5BR	R0907146-011	Alpha-BHC	UJ	l
SA66-1.5BR	R0907146-011	Aldrin	UJ	l
SA66-1.5BR	R0907146-011	Gamma-BHC [Lindane]	UJ	l
SA66-1.5BR	R0907146-011	Hexachlorobenzene	J-	l
SA66-1.5BR	R0907146-011	Heptachlor	UJ	l

Appendix I

Data Validation Reports – PCB (aroclors)

Project Name: Tronox Shallow Soil Supplemental Sampling for Areas I and II.

Laboratory: Columbia Analytical Services (CASR) -Rochester

Collection Date: 12/16/2009

Matrix: soil, equipment blank

Parameters: Aroclors - Polychlorinated Biphenyl Compounds

Validation Level: Stage 4

Sample Delivery Group(s): R0907146

Samples:

Laboratory Sample Identification	Field Identification	Matrix
R0907146-003	SA129-1BR	Soil
R0907146-004	SA129009-1BR	Soil
R0907146-005	SA129-1.5BR	Soil
R0907146-006	SA165-1BR	Soil
R0907146-007	SA165-1.5BR	Soil
R0907146-024	EB121609-SO1-A2	Equipment Blank

Introduction

Five soil samples and one equipment blank were analyzed for PCBs using EPA method 8082. The soils samples were prepared using EPA Method 3541. All samples within this SDG, had no detected aroclors and all but soil sample 007 and equipment blank 024 required dilution resulting in elevated reporting limits (10-50X). The matrix spike also failed the method recovery limits with no recovery. The two surrogates, Tetrachloro-m-xylene and decachlorobiphenyl had recoveries above the upper recovery limit in all soil samples where the dilution was at 10%. All soil sample show peaks on the chromatogram, though none match an aroclor pattern.

Due to the consistent surrogate recovery pattern and peaks in the chromatogram that is observed with samples 003-006 and the poor spike recovery, samples 003-006 are all qualified. This review was conducted as part of Stage 4 validation of the raw sample data. It is possible these samples contain weathered PCBs that do not fit an Aroclor pattern or other matrix interference. The SVOCs analysis

of these samples also show non-target peaks. No TICs were reported for these analysis, however that GC/MS data may provide an indication of the components eluting in the PCB analysis.

The data were validated using applicable EPA guidelines (EPA 1999, 2004, 2008, 2009) and the BMI Plant Site-Specific Supplemental Guidance on Data Validation from NDEP (NDEP 2009b, 2009c, 2009d, 2009e) and the Basic Remediation Company (BRC) SOP 40, Data Review/Validation (BRC 2009). Only chlorobenzene and chloroform were reported.

Data Qualifiers

Qualifier	Definition
J	Data are estimated; the direction of potential bias is uncertain.
J+	Data are estimated, with a potential for being biased high.
J-	Data are estimated, with a potential for being biased low.
U	Indicates the analyte was analyzed for but not detected at or above the stated censoring limit.
UJ	Indicates the analyte was analyzed for but not detected. The censoring limit is an estimated value due to uncertainty in the analysis.
JK	The analytical results is an estimated maximum possible concentration (EMPC)
X	The result is not used for reporting. This is generally applied where a more accurate and/or precise result is reported in place of this datum.
R	The result is rejected due to serious deficiencies in meeting the quality control criteria.

1. Technical Holding Times

All technical holding time requirements were met. The chain-of-custody forms were reviewed; all samples were received within the cooler temperature requirements.

2. Calibration

An initial calibration was performed and it met the method criteria. The frequency and analysis criteria of the initial calibration and continuing calibration verification (CCV) were met.

No data were qualified based on calibration.

3. Blanks

Method Blanks were analyzed for both matrices with each analytical batch. The target analytes were not detected.

The Equipment Blanks was found absent of any target compounds.

No data were qualified based on any Blank results.

4. Laboratory Control Samples

The laboratory control samples met analyzed for both matrices and they were found with the recovery and RPD within the method limits.

No data were qualified based on LCS or LCSD results.

5. Matrix Spike Analysis

Sample 05 served as the MS/MSD sample pair. The sample was analyzed at a dilution of 10X with no recovery of spike compounds (aroclor 1260 spiked at 186 ug/kg). The Laboratory Control Sample was within limits indicating the analytical system was under control. The poor recovery is associated with the sample matrix not the analytical system.

6. Field Duplicate Sample Analysis

Samples SA129-1.5BR and SA129009-1.5BR were duplicate field samples. All results were non-detects for PCB aroclors, therefore RPD values were not calculated.

7. Surrogates

The surrogate recoveries in samples 004, 005, and 006 were outside the limits (above the range). This is believed to be due to chlorinated compounds in the matrix and potential native concentrations o f the two surrogates (decachlorobiphenyl and tetrachloro-m-xylene). All samples were non-detects for the analytes. These samples were qualified with a UJ.

The surrogates in sample 003 showed no recovery due to high dilution of the sample. No data was qualified.

The surrogates in samples 007 and 024 were within limits.

8. Internal Standards

Internal standards were not utilized for this analytical method.

9. Sensitivity Reporting Information

All results were reported with a PQL (identified as an MRL in the reports) and an MDL. The required reporting limits were met.

10. Stage 4 Data Validation

The chromatograms were inspected due to the dilutions required and problems with surrogate recoveries. Based on this validation it is possible these samples contain weathered PCBs that do not fit an Aroclor pattern or other matrix interference.

11. Overall Assessment of the Data

The following samples were qualified for all analytes:

SDG	Sample(s)	Analyte(s)	Results	Flag all Analytes
R0907146	R0907146-003	All Aroclors	U	UJ
R0907146	R0907146-004	All Aroclors	U	UJ
R0907146	R0907146-005	All Aroclors	U	UJ
R0907146	R0907146-006	All Aroclors	U	UJ

Appendix J

Data Validation Reports – Dioxin Furans by EPA Method 8290

Project Name: Tronox Shallow Soil Supplemental Sampling for Areas I and II.

Laboratory: Test America- Sacramento (TAS)

Sample Delivery Group(s) and Collection Dates:

G9L 100559: 12/9/2009

G9L 110588: 12/10/2009

G9L 120491: 12/11/2009

G9L 160493: 12/14/2009

G9L 170524: 12/16/2009

G9L 170538: 12/15/2009

G9L 180646: 12/17/2009

G9L 240493: 12/22/2009

Matrix: Soil, aqueous equipment blanks.

Reporting Units: ug/kg, dry weight basis.

Parameters: Dioxins and Furans.

Validation Level: Stage 2B

Samples:

Laboratory Sample Identification	Field Identification	Matrix
G9L 100559-1	RSAK4-1BR	Soil
G9L 100559-2	RSAK4-1.5BR	Soil
G9L 100559-3	SA134-1BR	Soil
G9L 100559-4	SA134-1.5BR	Soil
G9L 100559-5	RSAJ5-1BR	Soil
G9L 100559-6	RSAJ5-1.5BR	Soil
G9L 100559-7	RSAL3-1BR	Soil
G9L 100559-8	RSAL3-1.5BR	Soil
G9L 100559-9	SA189-1BR	Soil
G9L 100559-10	SA189-1.5BR	Soil
G9L 100559-11	SA88-1BR	Soil
G9L 100559-12	SA88-1.5BR	Soil
G9L 100559-13	RSAK5-1BR	Soil
G9L 100559-14	RSAK5009-1BR	Soil
G9L 100559-15	RSAK5-1.5BR	Soil
G9L 100559-16	EB120909-SO1-A1	Water, Equipment Blank
G9L 100559-17	RSAJ5009-1.5BR	Soil
G9L 110588-1	RSAL1-1BR	Soil
G9L 110588-2	RSAL2-1.5BR	Soil
G9L 110588-3	RSAL2009-1.5BR	Soil
G9L 110588-4	RSAI3-1BR	Soil
G9L 110588-5	RSAI3-1.5BR	Soil
G9L 110588-6	SA201-1BR	Soil
G9L 110588-7	SA201-1.5BR	Soil
G9L 110588-8	RSAI7-1BR	Soil
G9L 110588-9	RSAI7009-1.5BR	Soil
G9L 110588-10	RSAK8-1BR	Soil
G9L 110588-11	RSAJ8-1.5BR	Soil
G9L 110588-12	SA127-1BR	Soil
G9L 110588-13	SA127-1.5BR	Soil
G9L 110588-14	RSAJ6-1BR	Soil
G9L 110588-15	RSAJ6-1.5BR	Soil
G9L 110588-16	RSAJ7-1BR	Soil
G9L 110588-17	RSAJ7-1.5BR	Soil
G9L 110588-18	SA76-1BR	Soil
G9L 110588-19	SA76-1.5BR	Soil
G9L 110588-20	RSAK7-1BR	Soil
G9L 110588-21	RSAK7-1.5BR	Soil
G9L 110588-22	RSAK8-1BR	Soil
G9L 110588-23	RSAK8-1.5BR	Soil

Laboratory Sample Identification	Field Identification	Matrix
G9L 110588-24	EB121009-SO1-A1	Water, Equipment Blank
G9L 110588-25	RSAI7-1.5BR	Soil
G9L 120491-01	RSAH3-1.5BR	Soil
G9L 120491-02	RSAH3-1BR	Soil
G9L 120491-03	RSAJ2-1.5BR	
G9L 120491-04	RSAJ2-1BR	Soil
G9L 120491-05	RSAK3-1.5BR	Soil
G9L 120491-06	RSAK3-1BR	Soil
G9L 120491-07	SA75-1.5BR	Soil
G9L 120491-08	SA75-1BR	Soil
G9L 120491-09	EB121109-SO-A1	Water, Equipment Blank
G9L160493-001	RSAL8-1BR	Soil
G9L160493-002	RSAL8-1.5BR	Soil
G9L160493-003	SA182-1BR	Soil
G9L160493-004	SA182-1.5BR	Soil
G9L160493-005	SA207-1BR	Soil
G9L160493-006	SA207-1.5BR	Soil
G9L160493-007	SA155-1BR	Soil
G9L160493-008	SA155-1.5BR	Soil
G9L160493-009	SA175-1BR	Soil
G9L160493-010	SA175-1.5BR	Soil
G9L160493-011	SA182009-1BR	Soil
G9L160493-012	SA155009-1BR	Soil
G9L160493-013	SA175009-1BR	Soil
G9L170524-01	SA104-1BR	Soil
G9L170524-02	SA104-1.5BR	Soil
G9L170524-03	SA129-1BR	Soil
G9L170524-04	SA129-1.5BR	Soil
G9L170524-05	SA165-1BR	Soil
G9L170524-06	SA165-1.5BR	Soil
G9L170524-07	SA58-1BR	Soil
G9L170524-08	SA58-1.5BR	Soil
G9L170524-09	SA187-1BR	Soil
G9L170524-10	SA187-1.5BR	Soil
G9L170524-11	SA114-1BR	Soil
G9L170524-12	SA114-1.5BR	Soil
G9L170524-13	SA129009-1.5BR	Soil
G9L170538-001	SA63-1BR	Soil

Laboratory Sample Identification	Field Identification	Matrix
G9L170538-002	SA63-1.5BR	Soil
G9L170538-003	SA92-1BR	Soil
G9L170538-004	SA92-1.5BR	Soil
G9L170538-005	SA105-1BR	Soil
G9L170538-006	SA105-1.5BR	Soil
G9L170538-007	SA150-1BR	Soil
G9L170538-008	SA150-1.5BR	Soil
G9L170538-009	SA107-1.5BR	Soil
G9L170538-010	SA107-1BR	Soil
G9L170538-012	SA86-1BR	Soil
G9L170538-013	SA60-1.5BR	Soil
G9L170538-014	SA60-1BR	Soil
G9L170538-015	SA49-1.5BR	Soil
G9L170538-016	SA49-1BR	Soil
G9L170538-017	EB121509-SO1-A1	Water, Equipment Blank
G9L170538-018	EB121609-SO1-A2	Water, Equipment Blank
G9L170538-019	SA49009-1BR	Soil
G9L180646-01	SA106-1.5BR	Soil
G9L180646-02	SA106-1BR	Soil
G9L180646-03	SA167-1.5BR	Soil
G9L180646-04	SA167-1BR	Soil
G9L180646-05	SA200-1.5BR	Soil
G9L180646-06	SA200-1BR	Soil
G9L180646-07	SA41-1.5BR	Soil
G9L180646-08	SA41-1BR	Soil
G9L180646-09	SA51-1.5BR	Soil
G9L180646-10	SA51-1BR	Soil
G9L180646-11	EB121709-SO1-A1	Water, Equipment Blank
G9L240493-01	SA196-1BR	Soil
G9L240493-02	SA196-1.5BR	Soil
G9L240493-03	EB122209-SO1-A1	Water, Equipment Blank

Introduction

Multiple soil samples and equipment blanks were analyzed for Dioxins and Furans using EPA method 8290. Second column confirmation was utilized where 2,3,7,8-TCDF was reported above the MRL.

The data were validated using applicable EPA guidelines (EPA 1999, 2004, 2005, 2008, 2009) and the BMI Plant Site-Specific Supplemental Guidance on Data Validation from NDEP (NDEP 2009b, 2009c, 2009d, 2009e) and the Basic Remediation Company (BRC) SOP 40, Data Review/Validation (BRC 2009).

The following validation qualifiers and were used.

Data Qualifiers

Qualifier	Definition
J	Data are estimated; the direction of potential bias is uncertain.
J+	Data are estimated, with a potential for being biased high.
J-	Data are estimated, with a potential for being biased low.
U	Indicates the analyte was analyzed for but not detected at or above the stated censoring limit.
UJ	Indicates the analyte was analyzed for but not detected. The censoring limit is an estimated value due to uncertainty in the analysis.
JK	The analytical result is an estimated maximum possible concentration (EMPC)
X	The result is not used for reporting. This is generally applied where a more accurate and/or precise result is reported in place of this datum.
R	The result is rejected due to serious deficiencies in meeting the quality control criteria.

1. Technical Holding Times

Technical holding times were met for all SDGs. All samples were received in good condition within the temperature limit validation criteria.

2. GC/MS Instrument Performance Check

Instrument performance was check daily as required. The exact mass of 380.9760 of PKF was verified.

Retention time windows were established for all homologues. The chromatographic resolution between 2,3,7,8-TCDD and peaks representing any other unlabeled TCDD isomer was verified to have a valley of less than or equal to 25%.

Individual sample raw data was not evaluated under Stage 2B validation.

3. Calibration

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

3.1. Initial Calibration: All SDGs

The following was reviewed for all SDGs. An initial 5-point calibration was performed as required. The %RSDs were less than or equal to 20.0% for unlabeled compounds and less than or equal to

30.0% for labeled compounds in the initial calibration. The ion abundance ratios for all PCDDs and PCDFs were within the validation criteria.

3.2. Continuing Calibration

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

The following samples were qualified due to calibration issues identified during the data validation within individual SDGs:

SDG	Calibration Violation (20% or 30% limit)	Associated Samples	Analytes	Qualifiers applied
G9L120491	RRF greater than criteria	6, 7, 8	1,2,3,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD	J for detects only
G9L160493	RRF greater than criteria	3, 4, 13	13C-1,2,3,4,6,7,8-HpCDD 13C-OCDD	J for detects only
G9L160493	RRF greater than criteria	4, 5, 6, 13	1,2,3,4,7,8-HxCDD	J for detects only
G9L180646	RRF greater than criteria	4, 5, 6, 7, 9, 10	1,2,3,4,7,8,9-HpCDF 13C-1,2,3,6,7,8-HxCDD	J for detects only

4. Blanks

Method and Equipment Blanks were reviewed for concentrations of analytes. Most contained low levels of some analytes. The table below provides details and the level of contamination and qualifiers applied to the data.

In the case of Equipment Blanks (EB), these samples were compared to their associated aqueous method blank and qualified appropriately. Analytes in the EB that were not qualified (censored) are shown in **bold**, and the associated field samples were qualified based on both the resulting EB concentrations and the associated solid matrix method blank concentrations.

SDG, Analysis Date (Extraction Batch)	Compounds (concentrations) Method Blanks are in units of pg/g for solid matrices, EB units are pg/L. J indicates the value is below the MRL	Associated Samples	Qualifiers applied
G9L100559, 9345314, solid matrix	1,2,3,4,6,7,8-HpCDD (0.32 J) OCDD (0.81 J) 2,3,7,8-TCDF (0.35 J)	1 through 12, 14	All sample levels > 5X blank levels are not qualified.

SDG, Analysis Date (Extraction Batch)	Compounds (concentrations) Method Blanks are in units of pg/g for solid matrices, EB units are pg/L. J indicates the value is below the MRL	Associated Samples	Qualifiers applied
	1,2,3,7,8-PeCDF (0.38 J) 2,3,4,7,8-PeCDF (0.22 J) 2,3,4,6,7,8-HxCDF (0.20 J) 1,2,3,7,8,9-HxCDF (0.43 J) 1,2,3,4,6,7,8-HpCDF (0.31 J) 1,2,3,4,7,8,9-HpCDF (0.32 J) OCDF (0.58 J) all below the reporting limit		Samples 008 and 010 are qualified UJ as shown below 008: 1,2,3,4,6,7,8-HpCDD UJ at MRL (2.5) 2,3,4,6,7,8-HxCDF UJ at MRL (2.5) 1,2,3,4,6,7,8-HpCDF UJ at MRL (2.5) 010: 1,2,3,4,6,7,8-HpCDD UJ at MRL (2.6) OCDD UJ at MRL (5.3) 1,2,3,7,8,9-HxCDF UJ at MRL (2.6)
G9L100559, 9355255, solid matrix	1,2,3,6,7,8-HxCDD (0.31 J) 1,2,3,7,8,9-HxCDD (0.29 J) 1,2,3,4,6,7,8-HpCDD (1.3 J) OCDD (5.6 J) 1,2,3,7,8-PeCDF (1.9 J) 1,2,3,4,7,8-HxCDF (4.1 J) 1,2,3,6,7,8-HxCDF (2.0 J) 2,3,4,6,7,8-HxCDF (1.0 J) 1,2,3,4,6,7,8-HpCDF (3.9 J) 1,2,3,4,7,8,9-HpCDF (1.8 J) OCDF (8.3 J)	Re-extraction for samples 13, 15, 17	All sample levels > 5X blank levels are not qualified. No contaminants below the 5X level in associated samples.
G9L100559 016 Equipment Blank	Concentrations in EB followed by qualifier based on method blank associated with EB: **1,2,3,4,6,7,8-HpCDD (0.94 J)- none (no qualification)** OCDD (2.4 J) – UJ at 100. 2,3,7,8-TCDF (2.0 J) –UJ at 10 1,2,3,7,8-PeCDF (2.7 J) – UJ at 50 **2,3,4,7,8-PeCDF (1.2 J)- none** 1,2,3,4,7,8-HxCDF (3.5 J)- UJ at 50 **1,2,3,6,7,8-HxCDF (0.77 J) - none** **1,2,3,4,6,7,8-HpCDF (3.0 J)- none**	016 (EB)	**Bold analytes**: J all associated detects in all samples.

SDG, Analysis Date (Extraction Batch)	Compounds (concentrations) Method Blanks are in units of pg/g for solid matrices, EB units are pg/L. J indicates the value is below the MRL	Associated Samples	Qualifiers applied
	1,2,3,4,7,8,9-HpCDF (2.6 J) - none OCDF (4.2 J) – UJ at 100		
G9L110588, 9348363 solid matrix	1,2,3,4,6,7,8-HpCDD (0.30) OCDD (0.46) 2,3,7,8-TCDF (0.86) 1,2,3,7,8-PeCDF (1.2) 2,3,4,7,8-PeCDF (0.45) 1,2,3,4,7,8-HxCDF (1.9) 1,2,3,6,7,8-HxCDF (0.77) 1,2,3,4,6,7,8-HpCDF (3.4) 1,2,3,4,7,8,9-HpCDF (1.4) OCDF (6.7)	Samples 1, 2, 3, 6, 7, 8, 9, 13, 18, 19	UJ all detects < 5X blank level Applicable samples: All sample levels > 5X blank levels are not qualified.
G9L110588, 9355411 solid matrix	2,3,7,8-TCDF (2.1) 1,2,3,7,8-PeCDF (1.0) 2,3,4,7,8-PeCDF (0.45) 1,2,3,4,7,8-HxCDF (2.4) 1,2,3,6,7,8-HxCDF (1.7) 1,2,3,4,6,7,8-HpCDF (3.3) 1,2,3,4,7,8,9-HpCDF (1.4) OCDF (5.47)	4,5, 10, 11, 12, 14, 15, 16, 17, 20, 21,	UJ all detects < 5X blank level Applicable samples: All sample levels > 5X blank levels are not qualified.
G9L110588, 9355435 solid matrix	2,3,7,8-TCDD (0.10) 1,2,3,4,7,8-HxCDD (0.24) 1,2,3,6,7,8-HxCDD (0.36) 1,2,3,7,8,9-HxCDD (0.47) 1,2,3,4,6,7,8-HpCDD (1.6) OCDD (2.3) 2,3,7,8-TCDF (2.0) 1,2,3,7,8-PeCDF (4.1) 2,3,4,7,8-PeCDF (2.0) 1,2,3,4,7,8-HxCDF (5.5) 1,2,3,6,7,8-HxCDF (5.8) 2,3,4,6,7,8-HxCDF (1.1) 1,2,3,7,8,9-HxCDF (0.81) 1,2,3,4,6,7,8-HpCDF (14) 1,2,3,4,7,8,9-HpCDF (5.7) OCDF (32)	23, 22, 25,	UJ all detects < 5X blank level Applicable samples: All sample levels > 5X blank levels are not qualified.

SDG, Analysis Date (Extraction Batch)	Compounds (concentrations) Method Blanks are in units of pg/g for solid matrices, EB units are pg/L. J indicates the value is below the MRL	Associated Samples	Qualifiers applied
G9L110588, 9363242 solid matrix	OCDD (0.55) 1,2,3,4,6,7,8-HpCDF (0.17) 1,2,3,4,7,8,9-HpCDF (0.16) OCDF (0.40)	22, 25,	UJ all detects < 5X blank level Applicable samples: All sample levels > 5X blank levels are not qualified.
G9L110588 Equipment Blank (024)	Concentrations in EB followed by qualifier based on method blank associated with EB: **1,2,3,7,8,9-PeCDD (0.70 J) - none** **1,2,3,7,8,9-HxCDD (1.2) J - none** **1,2,3,4,6,7,8-HpCDD (1.6 J) - none** OCDD (3.5 J) – UJ at 100 1,2,3,7,8-PeCDF (4.1 J) – UJ at 10 **2,3,4,7,8-PeCDF (2.5 J) - none** 1,2,3,4,7,8-HxCDF (5.5 J) – UJ at 50 **1,2,3,6,7,8-HxCDF (2.2 J) -none** **2,3,4,6,7,8-HxCDF (1.3 J) - none** 1,2,3,7,8,9-HxCDF (1.6 J1) – UJ at 50 **1,2,3,4,6,7,8-HpCDF (5.7 J) - none** **1,2,3,4,7,8,9-HpCDF (4.5 J) - none** OCDF (12 J) – UJ at 100	All in SDG	**Bold analytes**: J all associated detects in all samples.
G9L 120491-09 Equipment Blank 9348326	Concentrations in EB followed by qualifier based on method blank associated with EB: **1,2,3,4,6,7,8-HpCDD (2.36 J) - none** OCDD (3.0 J) – UJ at 100 2,3,7,8-TCDF (7.2) – UJ at 10 1,2,3,7,8-PeCDF (5.5 J)- UJ at 50 **2,3,4,7,8-PeCDF (2.7 J) - none** 1,2,3,4,7,8-HxCDF (8.9 J)- UJ at 50	All in SDG	**Bold analytes**: J all associated detects in all samples.

SDG, Analysis Date (Extraction Batch)	Compounds (concentrations) Method Blanks are in units of pg/g for solid matrices, EB units are pg/L. J indicates the value is below the MRL	Associated Samples	Qualifiers applied
	1,2,3,6,7,8-HxCDF (5.1 J) - none **1,2,3,4,6,7,8-HpCDF (16 J) - none** **1,2,3,4,7,8,9-HpCDF (6.7 J) - none** OCDF (35 J) – UJ at 100		
G9L 120491, 9355435 solid matrix	2,3,7,8-TCDD (0.10) 1,2,3,4,7,8-HxCDD (0.24) 1,2,3,6,7,8-HxCDD (0.36) 1,2,3,7,8,9-HxCDD (0.47) 1,2,3,4,6,7,8-HpCDD (1.6) OCDD (2.3) 2,3,7,8-TCDF (2.0) 1,2,3,7,8-PeCDF (4.1) 2,3,4,7,8-PeCDF (2.0) 1,2,3,4,7,8-HxCDF (5.5) 1,2,3,6,7,8-HxCDF (5.8) 2,3,4,6,7,8-HxCDF (1.1) 1,2,3,7,8,9-HxCDF (0.81) 1,2,3,4,6,7,8-HpCDF (14) 1,2,3,4,7,8,9-HpCDF (5.7) OCDF (32)	01, 02, 04, 05, 06,	None, all sample levels are > 5X blank.
G9L 120491, 9362386 solid matrix	1,2,3,4,6,7,8-HpCDD (0.66) OCDD (0.86) 1,2,3,4,7,8-HxCDF (0.96) 1,2,3,6,7,8-HxCDF (0.49) 1,2,3,4,6,7,8-HpCDF (1.8) 1,2,3,4,7,8,9-HpCDF (0.67) OCDF (4.3)	03, 07, 08	UJ all detects < 5X blank level Applicable samples: 007: 1,2,3,4,6,7,8-HpCDD UJ at MRL 008: 1,2,3,4,6,7,8-HpCDD, OCDD, 1,2,3,4,7,8-HxCDF , UJ at MRL All sample levels > 5X blank levels are not qualified.
G9L170524, 9357203 solid matrix	1,2,3,4,7,8-HxCDF (0.80) 1,2,3,6,7,8-HxCDF (0.85) 1,2,3,4,6,7,8-HpCDF (0.94) OCDF (3.2)	01 through 13	UJ all detects < 5X blank level Applicable samples: 006: OCDF UJ at MRL. All sample levels > 5X blank levels are not qualified.

SDG, Analysis Date (Extraction Batch)	Compounds (concentrations) Method Blanks are in units of pg/g for solid matrices, EB units are pg/L. J indicates the value is below the MRL	Associated Samples	Qualifiers applied
G9L170538, 9356450 solid matrix	1,2,3,6,7,8-HxCDD (0.098) 1,2,3,7,8,9-HxCDD (0.1) 1,2,3,4,6,7,8-HpCDD (0.35) OCDD (0.44) 2,3,7,8-TCDF (0.95) 1,2,3,7,8-PeCDF (0.68) 2,3,4,7,8-PeCDF (0.56) 1,2,3,4,7,8-HxCDF (1.3) 1,2,3,6,7,8-HxCDF (0.86) 2,3,4,6,7,8-HxCDF (0.27) 1,2,3,4,6,7,8-HpCDF (3.1) 1,2,3,4,7,8,9-HpCDF (1.5) OCDF (7.0)	All soil samples (1-16 and 19)	UJ all detects < 5X blank level Applicable samples: 004: 1,2,3,4,6,7,8-HpCDD, OCDD, 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8,9-HpCDF, OCDF all UJ at MRL 007, 008: 1,2,3,4,6,7,8-HpCDD, OCDD, 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8,9-HpCDF, all UF at MRL All sample levels > 5X blank levels are not qualified.
G9L170538, 9365111 Equipment Blanks	Concentrations (highest from both EBs)followed by qualifier based on method blank associated with EB: OCDD (3.5 J) – UJ at 100 1,2,3,4,6,7,8-HpCDF (2.1 J) – UJ at 50 **OCDF (3.6 J) - none**	17, 18 (EBs)	**Bold analytes**: J all associated detects in all samples.
G9L160493, 0008220 solid matrix	OCDD (0.17)	001, 008, 009, 010	UJ all detects < 5X blank level Applicable samples: None. All sample levels > 5X blank levels are not qualified.
G9L160493,	2,3,7,8-TCDD (0.10 J)	002, 003,	UJ all detects < 5X blank level

SDG, Analysis Date (Extraction Batch)	Compounds (concentrations) Method Blanks are in units of pg/g for solid matrices, EB units are pg/L. J indicates the value is below the MRL	Associated Samples	Qualifiers applied
9352435 solid matrix	1,2,3,7,8- PeCDD (0.19 J) 1,2,3,4,7,8-HxCDD (0.19 J) 1,2,3,6,7,8-HxCDD (0.65 J) 1,2,3,7,8,9-HxCDD (0.56 J) 1,2,3,4,6,7,8-HpCDD (1.3 J) OCDD (2.1) 2,3,7,8-TCDF (2.4) 1,2,3,7,8-PeCDF (5.5) 2,3,4,7,8-PeCDF (2.5 J) 1,2,3,4,7,8-HxCDF (8.5) 1,2,3,6,7,8-HxCDF (5.6) 2,3,4,6,7,8-HxCDF (1.2 J) 1,2,3,4,6,7,8-HpCDF (14) 1,2,3,4,7,8,9-HpCDF (6.3) OCDF (28)	004, 005, 006, 007, 011, 012, 013	Applicable samples: 002: all detects, All sample levels > 5X blank levels are not qualified.
G9L180646, 0008221 solid matrix	OCDD (0.17)	001-010	UJ all detects < 5X blank level Applicable samples: None. All sample levels > 5X blank levels are not qualified.
G9L180646, 9364154, Equipment blank	Concentrations in EB followed by qualifier based on method blank associated with EB: **1,2,3,7,8,9-HxCDD (2.6 J) - none** OCDD (7.4 J) – UJ at 100 **1,2,3,7,8-PeCDF (3.9 J) - none** **1,2,3,4,7,8-HxCDF (3.4 J) - none** **1,2,3,6,7,8-HxCDF (3.1 J) - none** **2,3,4,6,7,8-HxCDF (2.5 J) - none** **1,2,3,7,8,9-HxCDF (3.6 J) - none** **1,2,3,4,6,7,8-HpCDF (4.0 J) - none** **1,2,3,4,7,8,9-HpCDF (2.7 J) - none** **OCDF (7.6 J) - none**	11 (EB)	**Bold analytes**: J all associated detects in all samples.

SDG, Analysis Date (Extraction Batch)	Compounds (concentrations) Method Blanks are in units of pg/g for solid matrices, EB units are pg/L. J indicates the value is below the MRL	Associated Samples	Qualifiers applied
G9L240493, 9362386 solid matrix	1,2,3,4,6,7,8-HpCDD (0.66 J) OCDD (0.86 J) 1,2,3,4,7,8-HxCDF (0.96 J) 1,2,3,6,7,8-HxCDF (0.49 J) 1,2,3,4,6,7,8-HpCDF (1.8) 1,2,3,4,7,8,9-HpCDF (0.67 J) OCDF (4.3 J)	001, 002	UJ all detects < 5X blank level Applicable samples: None. All sample levels > 5X blank levels are not qualified.
G9L240493, Equipment blank	Concentrations in EB followed by qualifier based on method blank associated with EB: **OCDD (3.5 J) - none**	003 (EB)	**Bold analytes**: J all associated detects in all samples.

5. Laboratory Control Samples

Laboratory Control Samples (LCSs) were run for both soil and aqueous matrices. The recovery of the spike compounds met the method criteria for all SDGs.

No data were qualified based on LCS results.

6. Matrix Spike Analysis

Matrix spike and matrix spike duplicates were analyzed with all SDGs. All analytes recoveries were within the laboratory limits with the following exceptions.

SDG	Associated Samples	Analytes	Qualifiers applied
G9L100559	015	All target compounds exceeded the limits. This is a matrix effect, the LCS is within limits	J , UJ
G9L110588	025	OCDF (154, 129%) limits 75-141	J+
G9L160493	09	Recoveries outside limits due to native concentrations greater than 4 times spike. Associated LCS within	None

SDG	Associated Samples	Analytes	Qualifiers applied
		limits.	
G9L170524	04	1,2,3,7,8,9-HxCDD (41, 62%) limits 80-143% 1,2,3,4,6,7,8-HpCDD (79, 248%) limits 86-134% OCDD (77, 190%) limits 80-137% 2,3,7,8-TCDF (0.0, 76%) limits 79-137% 1,2,3,7,8-PeCDF (0.0, 185% E) limits 81-134% 2,3,4,7,8-PeCDF (0.0, 111% E) limits 76-132% 1,2,3,4,7,8-HxCDF (827, 1840% E) limits 72-140% 1,2,3,6,7,8-HxCDF (49, 524% E) limits 63-152% 2,3,4,6,7,8-HxCDF (114, 192%) limits 72-151% 1,2,3,4,6,7,8-HpCDF (0.0, 1290% E) limits 81-137% 1,2,3,4,7,8,9-HpCDF (111, 1330% E) limits 79-139 OCDF (260, 3760% E) limits 75-141% E indicates the result exceeded the calibration range and also indicates the spike:native ratio likely contributed to the uncertainty.	The analytes with a lab qualifier of E are not qualified, the ratio of native to spike amount impacted poor recovery. Analytes that are qualified: J- : 1,2,3,7,8,9-HxCDD J: 1,2,3,4,6,7,8-HpCDD, OCDD, 2,3,4,6,7,8-HxCDF
G9L170538	016	Recoveries outside limits due to native concentrations greater than 4 times spike. Associated LCS within limits.	None
G9L180646	010	2,3,7,8-TCDF (11, 19%) limits 79-137% 1,2,3,7,8-PeCDF (130, 169%) limits 81-134% 2,3,4,7,8-PeCDF (121, 150%) limits 76-132% 1,2,3,4,7,8-HxCDF (130, 194%) limits 72-140% 1,2,3,4,6,7,8-HpCDF (119,	J+: 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, OCDF, 1,2,3,6,7,8-HxCDF, 1,2,3,4,7,8,9-HpCDF

SDG	Associated Samples	Analytes	Qualifiers applied
		182%) limits 81-137% OCDF (139, 242%) limits 75-141% 1,2,3,6,7,8-HxCDF (113, 153%) limits 63-152% 1,2,3,4,7,8,9-HpCDF (138, 160%) limits 79-139	J- : 2,3,7,8-TCDF,

7. Duplicate Sample Analysis

The following field duplicate samples were analyzed: RSA17-1.5BR, RSA17009-1.5BR, RSAK5-1BR, RSAK5009-1BR, RSAL2-1.5BR, RSAL2009-1.5BR, SA129-1.5BR, SA129009-1.5BR, SA155-1BR, SA155009-1BR, SA175-1BR, SA175009-1BR, SA49-1BR, SA49009-1BR. Due to the large number of individual dioxin and furan analytes and use of the TEQ in risk assessment, only the Total TEQ values were compared. All values met the RPD criteria of 50% with the following exceptions.

Sample ID	Analyte	Result	Units	% RPD	Validation Qualifier
RSAI7009-1.5BR	Total TEQ Calculated	23	pg/g	58%	J
RSAI7-1.5BR	Total TEQ Calculated	12.6	pg/g		J
RSAK5009-1BR	Total TEQ Calculated	2200	pg/g	78%	J
RSAK5-1BR	Total TEQ Calculated	5000	pg/g		J
SA175009-1BR	Total TEQ Calculated	46000	pg/g	111%	J
SA175-1BR	Total TEQ Calculated	13000	pg/g		J

The reason code “fd” was added to the database for the qualified results.

8. Internal Standards

The following samples were qualified due to issues associated with internal standard recoveries identified during data validation.

SDG	Samples (recovery) limits are 40-135%	IS that exceeded limits	Associated Compounds	Qualifiers applied
G9L100559	001 (39%) 008 (37%)	13C-OCDD	OCDD OCDF	J all associated detects UJ all non-detects only those compounds associated with this IS
G9L110588	025 MS/MSD (15-51%)	All	All	Analyte recoveries all within limits except for OCDF in MS, LCS recoveries good, no data qualified.
G9L120491	01 (25%)	13C-OCDD (25%)	OCDD OCDF	J all associated detects UJ all non-detects only those compounds associated with this IS
G9L120491	03	13C-1,2,3,4,6,7,8-HpCDD (30%) 13C-OCDD (18%) 13C-1,2,3,4,6,7,8-HpCDF (28%)	1,2,3,4,6,7,8-HpCDD OCDD OCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF	J all associated detects UJ all non-detects only those compounds associated with this IS
G9L120491	04	13C-1,2,3,4,6,7,8-HpCDD (32%) 13C-OCDD (19%) 13C-1,2,3,4,6,7,8-HpCDF (33%)	1,2,3,4,6,7,8-HpCDD OCDD OCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF	J all associated detects UJ all non-detects only those compounds associated with this IS
G9L120491	06	13C-OCDD (27%)	OCDD OCDF	J all associated detects UJ all non-detects only those compounds associated with this IS
G9L120491	07	13C-1,2,3,4,6,7,8-HpCDD (28%) 13C-OCDD	1,2,3,4,6,7,8-HpCDD OCDD OCDF 1,2,3,4,6,7,8-HpCDF	J all associated detects UJ all non-detects only those compounds associated with this IS

SDG	Samples (recovery) limits are 40-135%	IS that exceeded limits	Associated Compounds	Qualifiers applied
		(17%) 13C-1,2,3,4,6,7,8-HpCDF (28%)	1,2,3,4,7,8,9-HpCDF	
G9L120491	08- matrix spike	13C-1,2,3,4,6,7,8-HpCDD (39%) 13C-OCDD (25%) 13C-1,2,3,4,6,7,8-HpCDF (36%)	1,2,3,4,6,7,8-HpCDD OCDD OCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF	None, all target compounds within limits for Matrix Spike.
G9L170524	02	13C-1,2,3,4,6,7,8-HpCDD (36%) 13C-OCDD (21%) 13C-1,2,3,4,6,7,8-HpCDF (33%)	1,2,3,4,6,7,8-HpCDD OCDD OCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF	J all associated detects UJ all non-detects only those compounds associated with this IS
	10	13C-1,2,3,4,6,7,8-HpCDD (35%) 13C-OCDD (20%) 13C-1,2,3,4,6,7,8-HpCDF (29%)	1,2,3,4,6,7,8-HpCDD OCDD OCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF	J all associated detects UJ all non-detects only those compounds associated with this IS
	12	13C-OCDD (32%)	OCDD OCDF	
G9L170538	01, 06, 011	All Internal standards 17-29% recovery, below limits	All	J all detects UJ all non-detects
	02	13C-1,2,3,4,6,7,8-HpCDD (34%)	1,2,3,4,6,7,8-HpCDD OCDD OCDF	J all associated detects UJ all non-detects only those compounds

SDG	Samples (recovery) limits are 40-135%	IS that exceeded limits	Associated Compounds	Qualifiers applied
		13C-OCDD (26%) 13C-1,2,3,4,6,7,8-HpCDF (32%)	1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF	associated with this IS
	03	13C-1,2,3,4,6,7,8-HpCDD (36%) 13C-OCDD (26%) 13C-1,2,3,4,6,7,8-HpCDF (37%)	1,2,3,4,6,7,8-HpCDD OCDD OCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF	J all associated detects UJ all non-detects only those compounds associated with this IS
G9L160493	002	13C-OCDD (31%)	OCDD OCDF	J all associated detects UJ all non-detects only those compounds associated with this IS
	007	13C-OCDD (26%) 1,2,3,4,6,7,8-HpCDF (37%)	OCDD OCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF	J all associated detects UJ all non-detects only those compounds associated with this IS
	009	1,2,3,4,6,7,8-HpCDF (151%)	1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF	J all associated detects UJ all non-detects only those compounds associated with this IS
	010	1,2,3,4,6,7,8-HpCDF (152%)	1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF	J all associated detects UJ all non-detects only those compounds associated with this IS
G9L180646	009	13C-OCDD (30%)	OCDD OCDF	J all associated detects UJ all non-detects only those compounds associated with this IS
G9L240493	002	13C-OCDD (26%) 1,2,3,4,6,7,8-HpCDF (37%)	OCDD OCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF	J all associated detects UJ all non-detects only those compounds associated with this IS

9. Analyte Above Calibration Range

The results for 249 individual dioxin/furans were above the calibration range. The laboratory indicated the instrument was not saturated. According to the laboratory, historical data indicates the re-analyses after dilution does not produce significantly different results. All results have been qualified with a J. These results are provided in the database with reason code "e."

10. Sensitivity Reporting Information

All results were reported with a PQL (identified as a MRL in the reports) and an MDL. The required reporting limits were met.

11. Other Qualifications: Ion Abundance Ratios

The ion abundance ratio of analytes was within method criteria with the following exceptions associated with 2, 3 ,7, 8-substituted isomers. In these cases, the S/N ratio was at least 2.5:1, therefore the results have been designated as Estimated Maximum Possible Concentration (EMPC):

SDG	Violation	Associated Samples	Analytes	Qualifiers applied
G9L110588	Ion abundance ratio outside method requirements	4, 5, 8, 10, 11, 12, 14, 15, 16, 17, 19, 20, 21, 22, 25	2,3,7,8-substituted isomers	J due to EMPC
G9L120491	Ion abundance ratio outside method requirements	003, 007, 008, 009	2,3,7,8-substituted isomers	J due to EMPC
G9L160493	Ion abundance ratio outside method requirements	1,8,9,10,13	2,3,7,8-substituted isomers	J due to EMPC
G9L170524	Ion abundance ratio outside method requirements	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13	2,3,7,8-substituted isomers	J due to EMPC
G9L170538	Ion abundance ratio outside method requirements	All samples	2,3,7,8-substituted isomers	J due to EMPC
G9L180646	Ion abundance ratio outside method requirements	3, 11	2,3,7,8-substituted isomers	J due to EMPC
G9L240493	Ion abundance	1,2	2,3,7,8-substituted	J due to EMPC

	ratio outside method requirements		isomers	

The “k” validation reason code was added to the above samples in the EDD.

12. Overall Assessment of the Data

No data were rejected, all results are considered usable.

In addition to the duplicate field samples that were qualified as describe in Section 7 above, the following table summarizes all other qualified data:

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAK4-1BR	G9L100559001	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAK4-1BR	G9L100559001	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
RSAK4-1BR	G9L100559001	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAK4-1BR	G9L100559001	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAK4-1BR	G9L100559001	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAK4-1BR	G9L100559001	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	i
RSAK4-1BR	G9L100559001	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	i, e
RSAK4-1.5BR	G9L100559002	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAK4-1.5BR	G9L100559002	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAK4-1.5BR	G9L100559002	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAK4-1.5BR	G9L100559002	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
RSAK4-1.5BR	G9L100559002	2,3,4,7,8-Pentachlorodibenzofuran	J	be
SA134-1BR	G9L100559003	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
SA134-1BR	G9L100559003	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
SA134-1BR	G9L100559003	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
SA134-1BR	G9L100559003	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
SA134-1BR	G9L100559003	2,3,4,7,8-Pentachlorodibenzofuran	J	be
SA134-1BR	G9L100559003	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
SA134-1BR	G9L100559003	2,3,7,8-Tetrachlorodibenzofuran	J	e
SA134-1.5BR	G9L100559004	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
SA134-1.5BR	G9L100559004	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
SA134-1.5BR	G9L100559004	2,3,4,7,8-Pentachlorodibenzofuran	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA134-1.5BR	G9L100559004	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e
SA134-1.5BR	G9L100559004	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be, e
SA134-1.5BR	G9L100559004	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA134-1.5BR	G9L100559004	2,3,7,8-Tetrachlorodibenzofuran	J	e
SA134-1.5BR	G9L100559004	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
RSAJ5-1BR	G9L100559005	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAJ5-1BR	G9L100559005	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAJ5-1BR	G9L100559005	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAJ5-1BR	G9L100559005	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAJ5-1BR	G9L100559005	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e
RSAJ5-1BR	G9L100559005	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
RSAJ5-1.5BR	G9L100559006	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAJ5-1.5BR	G9L100559006	2,3,4,7,8-Pentachlorodibenzofuran	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAJ5-1.5BR	G9L100559006	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAJ5-1.5BR	G9L100559006	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
RSAJ5-1.5BR	G9L100559006	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAL3-1BR	G9L100559007	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
RSAL3-1BR	G9L100559007	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAL3-1BR	G9L100559007	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAL3-1BR	G9L100559007	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAL3-1BR	G9L100559007	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAL3-1.5BR	G9L100559008	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAL3-1.5BR	G9L100559008	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAL3-1.5BR	G9L100559008	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAL3-1.5BR	G9L100559008	1,2,3,4,6,7,8-Heptachlorodibenzofuran	UJ	bl
RSAL3-1.5BR	G9L100559008	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	UJ	bl

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAL3-1.5BR	G9L100559008	2,3,4,6,7,8-Hexachlorodibenzofuran	UJ	bl
RSAL3-1.5BR	G9L100559008	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	i
RSAL3-1.5BR	G9L100559008	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	i
SA189-1BR	G9L100559009	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
SA189-1BR	G9L100559009	2,3,4,7,8-Pentachlorodibenzofuran	J	be
SA189-1BR	G9L100559009	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e
SA189-1BR	G9L100559009	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be, e
SA189-1BR	G9L100559009	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be, e
SA189-1BR	G9L100559009	1,2,3,7,8-Pentachlorodibenzofuran	J	e
SA189-1BR	G9L100559009	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA189-1BR	G9L100559009	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
SA189-1.5BR	G9L100559010	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
SA189-1.5BR	G9L100559010	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA189-1.5BR	G9L100559010	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
SA189-1.5BR	G9L100559010	2,3,4,7,8-Pentachlorodibenzofuran	J	be
SA189-1.5BR	G9L100559010	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
SA88-1BR	G9L100559011	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
SA88-1BR	G9L100559011	2,3,4,7,8-Pentachlorodibenzofuran	J	be
SA88-1BR	G9L100559011	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be, e
SA88-1BR	G9L100559011	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be, e
SA88-1BR	G9L100559011	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e
SA88-1BR	G9L100559011	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA88-1BR	G9L100559011	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
SA88-1.5BR	G9L100559012	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
SA88-1.5BR	G9L100559012	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
SA88-1.5BR	G9L100559012	2,3,4,7,8-Pentachlorodibenzofuran	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA88-1.5BR	G9L100559012	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be, e
SA88-1.5BR	G9L100559012	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e
SA88-1.5BR	G9L100559012	2,3,7,8-Tetrachlorodibenzofuran	J	e
SA88-1.5BR	G9L100559012	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA88-1.5BR	G9L100559012	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
RSAK5-1BR	G9L100559013	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAK5-1BR	G9L100559013	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAK5-1BR	G9L100559013	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
RSAK5-1BR	G9L100559013	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAK5-1BR	G9L100559013	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAK5009-1BR	G9L100559014	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAK5009-1BR	G9L100559014	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAK5009-1BR	G9L100559014	2,3,4,7,8-Pentachlorodibenzofuran	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAK5009-1BR	G9L100559014	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAK5009-1BR	G9L100559014	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
RSAK5-1.5BR	G9L100559015	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be, m
RSAK5-1.5BR	G9L100559015	2,3,4,7,8-Pentachlorodibenzofuran	J	be, m
RSAK5-1.5BR	G9L100559015	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be, m
RSAK5-1.5BR	G9L100559015	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, m, e
RSAK5-1.5BR	G9L100559015	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be, m, e
RSAK5-1.5BR	G9L100559015	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	m
RSAK5-1.5BR	G9L100559015	Total TEQ [Calculated]	J	m
RSAK5-1.5BR	G9L100559015	2,3,7,8-Tetrachlorodibenzofuran	J	m
RSAK5-1.5BR	G9L100559015	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	m
RSAK5-1.5BR	G9L100559015	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	m
RSAK5-1.5BR	G9L100559015	1,2,3,7,8-Pentachlorodibenzofuran	J	m

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAK5-1.5BR	G9L100559015	1,2,3,7,8,9-Hexachlorodibenzofuran	J	m
RSAK5-1.5BR	G9L100559015	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	J	m
RSAK5-1.5BR	G9L100559015	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	J	m
RSAK5-1.5BR	G9L100559015	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	m
RSAK5-1.5BR	G9L100559015	2,3,4,6,7,8-Hexachlorodibenzofuran	J	m
RSAK5-1.5BR	G9L100559015	1,2,3,4,7,8-Hexachlorodibenzofuran	J	m, e
RSAK5-1.5BR	G9L100559015	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	m, e
RSAL2-1BR	G9L110588001	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAL2-1BR	G9L110588001	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
RSAL2-1BR	G9L110588001	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
RSAL2-1BR	G9L110588001	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAL2-1BR	G9L110588001	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAL2-1BR	G9L110588001	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAL2-1BR	G9L110588001	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
RSAL2-1BR	G9L110588001	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAL2-1.5BR	G9L110588002	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAL2-1.5BR	G9L110588002	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAL2-1.5BR	G9L110588002	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
RSAL2-1.5BR	G9L110588002	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
RSAL2-1.5BR	G9L110588002	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
RSAL2-1.5BR	G9L110588002	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAL2-1.5BR	G9L110588002	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAL2-1.5BR	G9L110588002	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e
RSAL2-1.5BR	G9L110588002	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
RSAL2009-1.5BR	G9L110588003	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAL2009-1.5BR	G9L110588003	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAL2009-1.5BR	G9L110588003	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
RSAL2009-1.5BR	G9L110588003	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAL2009-1.5BR	G9L110588003	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAL2009-1.5BR	G9L110588003	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
RSAL2009-1.5BR	G9L110588003	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAL2009-1.5BR	G9L110588003	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e
RSAL2009-1.5BR	G9L110588003	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
RSAI3-1BR	G9L110588004	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAI3-1BR	G9L110588004	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAI3-1BR	G9L110588004	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
RSAI3-1BR	G9L110588004	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
RSAI3-1BR	G9L110588004	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
RSAI3-1BR	G9L110588004	2,3,4,7,8-Pentachlorodibenzofuran	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAI3-1BR	G9L110588004	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAI3-1BR	G9L110588004	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e
RSAI3-1BR	G9L110588004	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
RSAI3-1BR	G9L110588004	2,3,7,8-Tetrachlorodibenzofuran	J	k
RSAI3-1BR	G9L110588004	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
RSAI3-1.5BR	G9L110588005	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
RSAI3-1.5BR	G9L110588005	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAI3-1.5BR	G9L110588005	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAI3-1.5BR	G9L110588005	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
RSAI3-1.5BR	G9L110588005	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
RSAI3-1.5BR	G9L110588005	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
RSAI3-1.5BR	G9L110588005	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAI3-1.5BR	G9L110588005	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAI3-1.5BR	G9L110588005	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
RSAI3-1.5BR	G9L110588005	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA201-1BR	G9L110588006	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
SA201-1BR	G9L110588006	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
SA201-1BR	G9L110588006	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
SA201-1BR	G9L110588006	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
SA201-1BR	G9L110588006	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
SA201-1BR	G9L110588006	2,3,4,7,8-Pentachlorodibenzofuran	J	be
SA201-1BR	G9L110588006	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be, e
SA201-1BR	G9L110588006	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e
SA201-1BR	G9L110588006	1,2,3,7,8-Pentachlorodibenzofuran	J	e
SA201-1.5BR	G9L110588007	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
SA201-1.5BR	G9L110588007	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA201-1.5BR	G9L110588007	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
SA201-1.5BR	G9L110588007	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
SA201-1.5BR	G9L110588007	2,3,4,7,8-Pentachlorodibenzofuran	J	be
SA201-1.5BR	G9L110588007	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
SA201-1.5BR	G9L110588007	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e
SA201-1.5BR	G9L110588007	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be, e
SA201-1.5BR	G9L110588007	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
RSAI7-1BR	G9L110588008	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
RSAI7-1BR	G9L110588008	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAI7-1BR	G9L110588008	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
RSAI7-1BR	G9L110588008	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAI7-1BR	G9L110588008	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAI7-1BR	G9L110588008	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAI7-1BR	G9L110588008	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
RSAI7-1BR	G9L110588008	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAI7-1BR	G9L110588008	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
RSAI7-1BR	G9L110588008	2,3,7,8-Tetrachlorodibenzofuran	J	k
RSAI7009-1.5BR	G9L110588009	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAI7009-1.5BR	G9L110588009	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
RSAI7009-1.5BR	G9L110588009	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
RSAI7009-1.5BR	G9L110588009	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
RSAI7009-1.5BR	G9L110588009	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAI7009-1.5BR	G9L110588009	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
RSAI7009-1.5BR	G9L110588009	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAI7009-1.5BR	G9L110588009	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAJ8-1BR	G9L110588010	2,3,4,7,8-Pentachlorodibenzofuran	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAJ8-1BR	G9L110588010	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAJ8-1BR	G9L110588010	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
RSAJ8-1BR	G9L110588010	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAJ8-1BR	G9L110588010	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAJ8-1BR	G9L110588010	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
RSAJ8-1BR	G9L110588010	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
RSAJ8-1BR	G9L110588010	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
RSAJ8-1BR	G9L110588010	2,3,7,8-Tetrachlorodibenzofuran	J	k
RSAJ8-1BR	G9L110588010	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
RSAJ8-1.5BR	G9L110588011	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAJ8-1.5BR	G9L110588011	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
RSAJ8-1.5BR	G9L110588011	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAJ8-1.5BR	G9L110588011	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAJ8-1.5BR	G9L110588011	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
RSAJ8-1.5BR	G9L110588011	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAJ8-1.5BR	G9L110588011	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAJ8-1.5BR	G9L110588011	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
RSAJ8-1.5BR	G9L110588011	2,3,7,8-Tetrachlorodibenzofuran	J	k
RSAJ8-1.5BR	G9L110588011	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA127-1BR	G9L110588012	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
SA127-1BR	G9L110588012	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
SA127-1BR	G9L110588012	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
SA127-1BR	G9L110588012	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
SA127-1BR	G9L110588012	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
SA127-1BR	G9L110588012	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
SA127-1BR	G9L110588012	2,3,4,7,8-Pentachlorodibenzofuran	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA127-1BR	G9L110588012	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
SA127-1BR	G9L110588012	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA127-1BR	G9L110588012	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA127-1.5BR	G9L110588013	2,3,4,7,8-Pentachlorodibenzofuran	J	be
SA127-1.5BR	G9L110588013	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
SA127-1.5BR	G9L110588013	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
SA127-1.5BR	G9L110588013	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
SA127-1.5BR	G9L110588013	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
SA127-1.5BR	G9L110588013	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
SA127-1.5BR	G9L110588013	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
SA127-1.5BR	G9L110588013	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e
SA127-1.5BR	G9L110588013	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
RSAJ6-1BR	G9L110588014	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAJ6-1BR	G9L110588014	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAJ6-1BR	G9L110588014	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
RSAJ6-1BR	G9L110588014	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAJ6-1BR	G9L110588014	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
RSAJ6-1BR	G9L110588014	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAJ6-1BR	G9L110588014	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
RSAJ6-1BR	G9L110588014	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAJ6-1BR	G9L110588014	2,3,7,8-Tetrachlorodibenzofuran	J	k
RSAJ6-1BR	G9L110588014	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
RSAJ6-1.5BR	G9L110588015	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
RSAJ6-1.5BR	G9L110588015	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
RSAJ6-1.5BR	G9L110588015	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
RSAJ6-1.5BR	G9L110588015	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAJ6-1.5BR	G9L110588015	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAJ6-1.5BR	G9L110588015	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAJ6-1.5BR	G9L110588015	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAJ6-1.5BR	G9L110588015	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
RSAJ6-1.5BR	G9L110588015	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
RSAJ6-1.5BR	G9L110588015	2,3,7,8-Tetrachlorodibenzofuran	J	k
RSAJ7-1BR	G9L110588016	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAJ7-1BR	G9L110588016	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAJ7-1BR	G9L110588016	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAJ7-1BR	G9L110588016	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
RSAJ7-1BR	G9L110588016	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
RSAJ7-1BR	G9L110588016	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAJ7-1BR	G9L110588016	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAJ7-1BR	G9L110588016	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e
RSAJ7-1BR	G9L110588016	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
RSAJ7-1BR	G9L110588016	2,3,7,8-Tetrachlorodibenzofuran	J	k
RSAJ7-1BR	G9L110588016	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
RSAJ7-1.5BR	G9L110588017	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
RSAJ7-1.5BR	G9L110588017	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAJ7-1.5BR	G9L110588017	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
RSAJ7-1.5BR	G9L110588017	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAJ7-1.5BR	G9L110588017	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAJ7-1.5BR	G9L110588017	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
RSAJ7-1.5BR	G9L110588017	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
RSAJ7-1.5BR	G9L110588017	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAJ7-1.5BR	G9L110588017	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAJ7-1.5BR	G9L110588017	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA76-1BR	G9L110588018	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
SA76-1BR	G9L110588018	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
SA76-1BR	G9L110588018	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
SA76-1BR	G9L110588018	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
SA76-1BR	G9L110588018	2,3,4,7,8-Pentachlorodibenzofuran	J	be
SA76-1BR	G9L110588018	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
SA76-1BR	G9L110588018	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e
SA76-1BR	G9L110588018	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be, e
SA76-1BR	G9L110588018	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
SA76-1.5BR	G9L110588019	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
SA76-1.5BR	G9L110588019	2,3,4,7,8-Pentachlorodibenzofuran	J	be
SA76-1.5BR	G9L110588019	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA76-1.5BR	G9L110588019	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
SA76-1.5BR	G9L110588019	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
SA76-1.5BR	G9L110588019	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
SA76-1.5BR	G9L110588019	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
SA76-1.5BR	G9L110588019	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
SA76-1.5BR	G9L110588019	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
SA76-1.5BR	G9L110588019	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA76-1.5BR	G9L110588019	2,3,7,8-Tetrachlorodibenzofuran	J	k
RSAK7-1BR	G9L110588020	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAK7-1BR	G9L110588020	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAK7-1BR	G9L110588020	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAK7-1BR	G9L110588020	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
RSAK7-1BR	G9L110588020	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAK7-1BR	G9L110588020	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
RSAK7-1BR	G9L110588020	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAK7-1BR	G9L110588020	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
RSAK7-1BR	G9L110588020	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
RSAK7-1BR	G9L110588020	2,3,7,8-Tetrachlorodibenzofuran	J	k
RSAK7-1.5BR	G9L110588021	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
RSAK7-1.5BR	G9L110588021	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAK7-1.5BR	G9L110588021	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
RSAK7-1.5BR	G9L110588021	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAK7-1.5BR	G9L110588021	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
RSAK7-1.5BR	G9L110588021	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
RSAK7-1.5BR	G9L110588021	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAK7-1.5BR	G9L110588021	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAK7-1.5BR	G9L110588021	2,3,7,8-Tetrachlorodibenzofuran	J	k
RSAK7-1.5BR	G9L110588021	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
RSAK8-1BR	G9L110588022	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAK8-1BR	G9L110588022	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAK8-1BR	G9L110588022	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
RSAK8-1BR	G9L110588022	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAK8-1BR	G9L110588022	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAK8-1BR	G9L110588022	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
RSAK8-1BR	G9L110588022	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
RSAK8-1BR	G9L110588022	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
RSAK8-1BR	G9L110588022	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
RSAK8-1BR	G9L110588022	2,3,7,8-Tetrachlorodibenzofuran	J	k
RSAK8-1.5BR	G9L110588023	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAK8-1.5BR	G9L110588023	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAK8-1.5BR	G9L110588023	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAK8-1.5BR	G9L110588023	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
RSAK8-1.5BR	G9L110588023	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
RSAK8-1.5BR	G9L110588023	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
RSAK8-1.5BR	G9L110588023	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be, e
RSAK8-1.5BR	G9L110588023	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e
RSAK8-1.5BR	G9L110588023	2,3,7,8-Tetrachlorodibenzofuran	J	e
RSAK8-1.5BR	G9L110588023	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
RSAI7-1.5BR	G9L110588025	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	be
RSAI7-1.5BR	G9L110588025	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
RSAI7-1.5BR	G9L110588025	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
RSAI7-1.5BR	G9L110588025	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAI7-1.5BR	G9L110588025	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAI7-1.5BR	G9L110588025	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
RSAI7-1.5BR	G9L110588025	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAI7-1.5BR	G9L110588025	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAI7-1.5BR	G9L110588025	2,3,7,8-Tetrachlorodibenzofuran	J	k
RSAI7-1.5BR	G9L110588025	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
RSAI7-1.5BR	G9L110588025	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J+	m
RSAH3-1.5BR	G9L120491001	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAH3-1.5BR	G9L120491001	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
RSAH3-1.5BR	G9L120491001	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAH3-1.5BR	G9L120491001	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAH3-1.5BR	G9L120491001	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAH3-1.5BR	G9L120491001	2,3,7,8-Tetrachlorodibenzofuran	J	e

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAH3-1.5BR	G9L120491001	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	i
RSAH3-1.5BR	G9L120491001	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	i
RSAH3-1BR	G9L120491002	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAH3-1BR	G9L120491002	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAH3-1BR	G9L120491002	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
RSAH3-1BR	G9L120491002	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
RSAH3-1BR	G9L120491002	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAH3-1BR	G9L120491002	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
RSAJ2-1.5BR	G9L120491003	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAJ2-1.5BR	G9L120491003	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAJ2-1.5BR	G9L120491003	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be, i
RSAJ2-1.5BR	G9L120491003	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be, i
RSAJ2-1.5BR	G9L120491003	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, i

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAJ2-1.5BR	G9L120491003	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	i
RSAJ2-1.5BR	G9L120491003	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	i
RSAJ2-1.5BR	G9L120491003	2,3,7,8-Tetrachlorodibenzofuran	J	k
RSAJ2-1.5BR	G9L120491003	2,3,7,8-Tetrachlorodibenzo-p-dioxin	UJ	k
RSAJ2-1BR	G9L120491004	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAJ2-1BR	G9L120491004	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be, e
RSAJ2-1BR	G9L120491004	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be, i
RSAJ2-1BR	G9L120491004	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be, i, e
RSAJ2-1BR	G9L120491004	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, i, e
RSAJ2-1BR	G9L120491004	2,3,7,8-Tetrachlorodibenzofuran	J	e
RSAJ2-1BR	G9L120491004	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
RSAJ2-1BR	G9L120491004	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	i
RSAJ2-1BR	G9L120491004	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	i, e

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAK3-1.5BR	G9L120491005	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAK3-1.5BR	G9L120491005	2,3,4,7,8-Pentachlorodibenzofuran	J	be
RSAK3-1.5BR	G9L120491005	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
RSAK3-1.5BR	G9L120491005	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be, e
RSAK3-1.5BR	G9L120491005	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e
RSAK3-1.5BR	G9L120491005	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
RSAK3-1.5BR	G9L120491005	2,3,7,8-Tetrachlorodibenzofuran	J	e
RSAK3-1.5BR	G9L120491005	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
RSAK3-1BR	G9L120491006	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	be
RSAK3-1BR	G9L120491006	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be, e
RSAK3-1BR	G9L120491006	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be, e
RSAK3-1BR	G9L120491006	2,3,4,7,8-Pentachlorodibenzofuran	J	be, e
RSAK3-1BR	G9L120491006	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAK3-1BR	G9L120491006	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	J	c
RSAK3-1BR	G9L120491006	1,2,3,4,7,8-Hexachlorodibenzofuran	J	c, e
RSAK3-1BR	G9L120491006	1,2,3,7,8-Pentachlorodibenzofuran	J	e
RSAK3-1BR	G9L120491006	2,3,7,8-Tetrachlorodibenzofuran	J	e
RSAK3-1BR	G9L120491006	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	i
RSAK3-1BR	G9L120491006	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	i, e
SA75-1.5BR	G9L120491007	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
SA75-1.5BR	G9L120491007	2,3,4,7,8-Pentachlorodibenzofuran	J	be
SA75-1.5BR	G9L120491007	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	UJ	be, bl, i
SA75-1.5BR	G9L120491007	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, i
SA75-1.5BR	G9L120491007	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be, i
SA75-1.5BR	G9L120491007	1,2,3,4,7,8-Hexachlorodibenzofuran	J	c
SA75-1.5BR	G9L120491007	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	i

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA75-1.5BR	G9L120491007	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	i
SA75-1.5BR	G9L120491007	2,3,7,8-Tetrachlorodibenzo-p-dioxin	UJ	k
SA75-1.5BR	G9L120491007	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA75-1BR	G9L120491008	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
SA75-1BR	G9L120491008	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
SA75-1BR	G9L120491008	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
SA75-1BR	G9L120491008	2,3,4,7,8-Pentachlorodibenzofuran	J	be
SA75-1BR	G9L120491008	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	UJ	be, bl
SA75-1BR	G9L120491008	1,2,3,4,7,8-Hexachlorodibenzofuran	UJ	c, bl
SA75-1BR	G9L120491008	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA75-1BR	G9L120491008	2,3,7,8-Tetrachlorodibenzo-p-dioxin	UJ	k
RSAL8-1BR	G9L160493001	2,3,7,8-Tetrachlorodibenzo-p-dioxin	UJ	k
RSAL8-1BR	G9L160493001	2,3,7,8-Tetrachlorodibenzofuran	UJ	k

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
RSAL8-1.5BR	G9L160493002	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	i
RSAL8-1.5BR	G9L160493002	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	i
SA182-1BR	G9L160493003	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	c
SA182-1BR	G9L160493003	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	c
SA182-1BR	G9L160493003	2,3,7,8-Tetrachlorodibenzofuran	J	e
SA182-1.5BR	G9L160493004	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	c
SA182-1.5BR	G9L160493004	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	c
SA182-1.5BR	G9L160493004	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	J	c
SA182-1.5BR	G9L160493004	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	e
SA182-1.5BR	G9L160493004	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
SA182-1.5BR	G9L160493004	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	e
SA182-1.5BR	G9L160493004	2,3,7,8-Tetrachlorodibenzofuran	J	e
SA207-1BR	G9L160493005	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	J	c

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA207-1BR	G9L160493005	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
SA207-1BR	G9L160493005	2,3,7,8-Tetrachlorodibenzofuran	J	e
SA207-1BR	G9L160493005	2,3,4,7,8-Pentachlorodibenzofuran	J	e
SA207-1BR	G9L160493005	1,2,3,7,8-Pentachlorodibenzofuran	J	e
SA207-1BR	G9L160493005	1,2,3,6,7,8-Hexachlorodibenzofuran	J	e
SA207-1BR	G9L160493005	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	e
SA207-1BR	G9L160493005	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	e
SA207-1BR	G9L160493005	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA207-1.5BR	G9L160493006	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	J	c
SA207-1.5BR	G9L160493006	1,2,3,7,8-Pentachlorodibenzofuran	J	e
SA207-1.5BR	G9L160493006	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
SA207-1.5BR	G9L160493006	2,3,7,8-Tetrachlorodibenzofuran	J	e
SA207-1.5BR	G9L160493006	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	e

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA207-1.5BR	G9L160493006	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	e
SA207-1.5BR	G9L160493006	1,2,3,6,7,8-Hexachlorodibenzofuran	J	e
SA207-1.5BR	G9L160493006	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA155-1BR	G9L160493007	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA155-1BR	G9L160493007	1,2,3,6,7,8-Hexachlorodibenzofuran	J	e
SA155-1BR	G9L160493007	2,3,7,8-Tetrachlorodibenzofuran	J	e
SA155-1BR	G9L160493007	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	i
SA155-1BR	G9L160493007	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	i, e
SA155-1BR	G9L160493007	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	i, e
SA155-1BR	G9L160493007	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	i, e
SA155-1.5BR	G9L160493008	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA155-1.5BR	G9L160493008	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA175-1BR	G9L160493009	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA175-1BR	G9L160493009	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA175-1BR	G9L160493009	2,3,7,8-Tetrachlorodibenzofuran	J	e, k
SA175-1BR	G9L160493009	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	i, e
SA175-1BR	G9L160493009	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	i, e
SA175-1BR	G9L160493009	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA175-1.5BR	G9L160493010	1,2,3,6,7,8-Hexachlorodibenzofuran	J	e
SA175-1.5BR	G9L160493010	1,2,3,7,8-Pentachlorodibenzofuran	J	e
SA175-1.5BR	G9L160493010	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
SA175-1.5BR	G9L160493010	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA175-1.5BR	G9L160493010	2,3,7,8-Tetrachlorodibenzofuran	J	e, k
SA175-1.5BR	G9L160493010	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	i, e
SA175-1.5BR	G9L160493010	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	i, e
SA175-1.5BR	G9L160493010	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA182009-1BR	G9L160493011	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	e
SA182009-1BR	G9L160493011	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
SA155009-1BR	G9L160493012	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
SA155009-1BR	G9L160493012	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	e
SA155009-1BR	G9L160493012	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA155009-1BR	G9L160493012	1,2,3,6,7,8-Hexachlorodibenzofuran	J	e
SA155009-1BR	G9L160493012	2,3,7,8-Tetrachlorodibenzofuran	J	e
SA155009-1BR	G9L160493012	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	e
SA175009-1BR	G9L160493013	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	c
SA175009-1BR	G9L160493013	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	J	c
SA175009-1BR	G9L160493013	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	c
SA175009-1BR	G9L160493013	1,2,3,6,7,8-Hexachlorodibenzofuran	J	e
SA175009-1BR	G9L160493013	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	e

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA175009-1BR	G9L160493013	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
SA175009-1BR	G9L160493013	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	e
SA175009-1BR	G9L160493013	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA175009-1BR	G9L160493013	2,3,7,8-Tetrachlorodibenzofuran	J	e, k
SA175009-1BR	G9L160493013	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA104-1BR	G9L170524001	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA104-1BR	G9L170524001	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA104-1.5BR	G9L170524002	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	i
SA104-1.5BR	G9L170524002	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	i
SA104-1.5BR	G9L170524002	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	i
SA104-1.5BR	G9L170524002	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	i
SA104-1.5BR	G9L170524002	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	i
SA104-1.5BR	G9L170524002	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA104-1.5BR	G9L170524002	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA129-1BR	G9L170524003	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
SA129-1BR	G9L170524003	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	e
SA129-1BR	G9L170524003	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA129-1BR	G9L170524003	1,2,3,6,7,8-Hexachlorodibenzofuran	J	e
SA129-1BR	G9L170524003	1,2,3,7,8-Pentachlorodibenzofuran	J	e
SA129-1BR	G9L170524003	2,3,4,7,8-Pentachlorodibenzofuran	J	e
SA129-1BR	G9L170524003	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	e
SA129-1BR	G9L170524003	2,3,7,8-Tetrachlorodibenzofuran	J	e, k
SA129-1BR	G9L170524003	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA129-1.5BR	G9L170524004	1,2,3,6,7,8-Hexachlorodibenzofuran	J	e
SA129-1.5BR	G9L170524004	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	e
SA129-1.5BR	G9L170524004	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	e

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA129-1.5BR	G9L170524004	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA129-1.5BR	G9L170524004	1,2,3,7,8-Pentachlorodibenzofuran	J	e
SA129-1.5BR	G9L170524004	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
SA129-1.5BR	G9L170524004	2,3,4,7,8-Pentachlorodibenzofuran	J	e
SA129-1.5BR	G9L170524004	2,3,7,8-Tetrachlorodibenzofuran	J	e, k
SA129-1.5BR	G9L170524004	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA129-1.5BR	G9L170524004	2,3,4,6,7,8-Hexachlorodibenzofuran	J	m
SA129-1.5BR	G9L170524004	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J+	m
SA129-1.5BR	G9L170524004	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	m
SA129-1.5BR	G9L170524004	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	m
SA165-1BR	G9L170524005	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
SA165-1BR	G9L170524005	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	e
SA165-1BR	G9L170524005	2,3,7,8-Tetrachlorodibenzofuran	J	e, k

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA165-1BR	G9L170524005	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA165-1.5BR	G9L170524006	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	UJ	bl
SA165-1.5BR	G9L170524006	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA165-1.5BR	G9L170524006	2,3,7,8-Tetrachlorodibenzo-p-dioxin	UJ	k
SA58-1BR	G9L170524007	1,2,3,6,7,8-Hexachlorodibenzofuran	J	e
SA58-1BR	G9L170524007	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA58-1BR	G9L170524007	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	e
SA58-1BR	G9L170524007	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	e
SA58-1BR	G9L170524007	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
SA58-1BR	G9L170524007	1,2,3,7,8-Pentachlorodibenzofuran	J	e
SA58-1BR	G9L170524007	2,3,7,8-Tetrachlorodibenzofuran	J	e, k
SA58-1BR	G9L170524007	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA58-1.5BR	G9L170524008	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	e

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA58-1.5BR	G9L170524008	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
SA58-1.5BR	G9L170524008	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA58-1.5BR	G9L170524008	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	e
SA58-1.5BR	G9L170524008	2,3,7,8-Tetrachlorodibenzofuran	J	e, k
SA58-1.5BR	G9L170524008	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA187-1BR	G9L170524009	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	e
SA187-1BR	G9L170524009	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
SA187-1BR	G9L170524009	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA187-1BR	G9L170524009	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA187-1.5BR	G9L170524010	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	i
SA187-1.5BR	G9L170524010	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	i
SA187-1.5BR	G9L170524010	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	i
SA187-1.5BR	G9L170524010	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	i

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA187-1.5BR	G9L170524010	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	i
SA187-1.5BR	G9L170524010	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA187-1.5BR	G9L170524010	2,3,7,8-Tetrachlorodibenzo-p-dioxin	UJ	k
SA114-1BR	G9L170524011	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA114-1BR	G9L170524011	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA114-1.5BR	G9L170524012	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	i
SA114-1.5BR	G9L170524012	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	i
SA114-1.5BR	G9L170524012	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA114-1.5BR	G9L170524012	2,3,7,8-Tetrachlorodibenzo-p-dioxin	UJ	k
SA129009-1.5BR	G9L170524013	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA129009-1.5BR	G9L170524013	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	e
SA129009-1.5BR	G9L170524013	1,2,3,6,7,8-Hexachlorodibenzofuran	J	e
SA129009-1.5BR	G9L170524013	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	e

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA129009-1.5BR	G9L170524013	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
SA129009-1.5BR	G9L170524013	1,2,3,7,8-Pentachlorodibenzofuran	J	e
SA129009-1.5BR	G9L170524013	2,3,7,8-Tetrachlorodibenzofuran	J	e, k
SA129009-1.5BR	G9L170524013	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA63-1BR	G9L170538001	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be, i
SA63-1BR	G9L170538001	1,2,3,6,7,8-Hexachlorodibenzofuran	J	i
SA63-1BR	G9L170538001	1,2,3,7,8-Pentachlorodibenzofuran	J	i
SA63-1BR	G9L170538001	Total TEQ [Calculated]	J	i
SA63-1BR	G9L170538001	2,3,4,7,8-Pentachlorodibenzofuran	J	i
SA63-1BR	G9L170538001	2,3,4,6,7,8-Hexachlorodibenzofuran	J	i
SA63-1BR	G9L170538001	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	i
SA63-1BR	G9L170538001	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	i
SA63-1BR	G9L170538001	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	i

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA63-1BR	G9L170538001	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	J	i
SA63-1BR	G9L170538001	1,2,3,4,7,8-Hexachlorodibenzofuran	J	i
SA63-1BR	G9L170538001	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	J	i
SA63-1BR	G9L170538001	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	i
SA63-1BR	G9L170538001	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	i
SA63-1BR	G9L170538001	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	i
SA63-1BR	G9L170538001	1,2,3,7,8,9-Hexachlorodibenzofuran	J	i
SA63-1BR	G9L170538001	2,3,7,8-Tetrachlorodibenzofuran	J	i, k
SA63-1BR	G9L170538001	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	i, k
SA63-1.5BR	G9L170538002	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be, i
SA63-1.5BR	G9L170538002	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	i
SA63-1.5BR	G9L170538002	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	i
SA63-1.5BR	G9L170538002	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	i

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA63-1.5BR	G9L170538002	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	i
SA63-1.5BR	G9L170538002	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA63-1.5BR	G9L170538002	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA92-1BR	G9L170538003	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be, i
SA92-1BR	G9L170538003	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	i
SA92-1BR	G9L170538003	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	i
SA92-1BR	G9L170538003	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	i
SA92-1BR	G9L170538003	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	i
SA92-1BR	G9L170538003	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA92-1BR	G9L170538003	2,3,7,8-Tetrachlorodibenzo-p-dioxin	UJ	k
SA92-1.5BR	G9L170538004	2,3,4,6,7,8-Hexachlorodibenzofuran	UJ	bl
SA92-1.5BR	G9L170538004	1,2,3,7,8-Pentachlorodibenzofuran	UJ	bl
SA92-1.5BR	G9L170538004	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	UJ	bl

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA92-1.5BR	G9L170538004	1,2,3,4,7,8-Hexachlorodibenzofuran	UJ	bl
SA92-1.5BR	G9L170538004	1,2,3,4,6,7,8-Heptachlorodibenzofuran	UJ	bl
SA92-1.5BR	G9L170538004	2,3,4,7,8-Pentachlorodibenzofuran	UJ	bl
SA92-1.5BR	G9L170538004	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	UJ	bl
SA92-1.5BR	G9L170538004	1,2,3,6,7,8-Hexachlorodibenzofuran	UJ	bl
SA92-1.5BR	G9L170538004	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	UJ	bl
SA92-1.5BR	G9L170538004	2,3,7,8-Tetrachlorodibenzo-p-dioxin	UJ	k
SA92-1.5BR	G9L170538004	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA105-1BR	G9L170538005	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be, e
SA105-1BR	G9L170538005	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	e
SA105-1BR	G9L170538005	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA105-1BR	G9L170538005	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA105-1.5BR	G9L170538006	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be, i, e

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA105-1.5BR	G9L170538006	Total TEQ [Calculated]	J	i
SA105-1.5BR	G9L170538006	2,3,4,7,8-Pentachlorodibenzofuran	J	i
SA105-1.5BR	G9L170538006	2,3,4,6,7,8-Hexachlorodibenzofuran	J	i
SA105-1.5BR	G9L170538006	1,2,3,7,8-Pentachlorodibenzofuran	J	i
SA105-1.5BR	G9L170538006	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	i
SA105-1.5BR	G9L170538006	1,2,3,7,8,9-Hexachlorodibenzofuran	J	i
SA105-1.5BR	G9L170538006	1,2,3,6,7,8-Hexachlorodibenzofuran	J	i
SA105-1.5BR	G9L170538006	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	i
SA105-1.5BR	G9L170538006	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	i
SA105-1.5BR	G9L170538006	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	J	i
SA105-1.5BR	G9L170538006	1,2,3,4,7,8-Hexachlorodibenzofuran	J	i
SA105-1.5BR	G9L170538006	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	J	i
SA105-1.5BR	G9L170538006	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	i

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA105-1.5BR	G9L170538006	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	i, e
SA105-1.5BR	G9L170538006	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	i, e
SA105-1.5BR	G9L170538006	2,3,7,8-Tetrachlorodibenzofuran	J	i, e, k
SA105-1.5BR	G9L170538006	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	i, k
SA150-1BR	G9L170538007	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be
SA150-1BR	G9L170538007	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	UJ	bl
SA150-1BR	G9L170538007	1,2,3,4,7,8-Hexachlorodibenzofuran	UJ	bl
SA150-1BR	G9L170538007	2,3,4,7,8-Pentachlorodibenzofuran	UJ	bl
SA150-1BR	G9L170538007	1,2,3,4,6,7,8-Heptachlorodibenzofuran	UJ	bl
SA150-1BR	G9L170538007	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	UJ	bl
SA150-1BR	G9L170538007	1,2,3,6,7,8-Hexachlorodibenzofuran	UJ	bl
SA150-1BR	G9L170538007	1,2,3,7,8-Pentachlorodibenzofuran	UJ	bl
SA150-1BR	G9L170538007	2,3,4,6,7,8-Hexachlorodibenzofuran	UJ	bl

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA150-1BR	G9L170538007	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA150-1BR	G9L170538007	2,3,7,8-Tetrachlorodibenzo-p-dioxin	UJ	k
SA150-1.5BR	G9L170538008	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be
SA150-1.5BR	G9L170538008	1,2,3,4,7,8-Hexachlorodibenzofuran	UJ	bl
SA150-1.5BR	G9L170538008	1,2,3,4,6,7,8-Heptachlorodibenzofuran	UJ	bl
SA150-1.5BR	G9L170538008	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	UJ	bl
SA150-1.5BR	G9L170538008	1,2,3,6,7,8-Hexachlorodibenzofuran	UJ	bl
SA150-1.5BR	G9L170538008	1,2,3,7,8-Pentachlorodibenzofuran	UJ	bl
SA150-1.5BR	G9L170538008	2,3,4,6,7,8-Hexachlorodibenzofuran	UJ	bl
SA150-1.5BR	G9L170538008	2,3,4,7,8-Pentachlorodibenzofuran	UJ	bl
SA150-1.5BR	G9L170538008	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	UJ	bl
SA150-1.5BR	G9L170538008	2,3,7,8-Tetrachlorodibenzo-p-dioxin	UJ	k
SA150-1.5BR	G9L170538008	2,3,7,8-Tetrachlorodibenzofuran	J	k

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA107-1.5BR	G9L170538009	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be
SA107-1.5BR	G9L170538009	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA107-1.5BR	G9L170538009	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA107-1BR	G9L170538010	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be, e
SA107-1BR	G9L170538010	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA107-1BR	G9L170538010	1,2,3,7,8-Pentachlorodibenzofuran	J	e
SA107-1BR	G9L170538010	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	e
SA107-1BR	G9L170538010	1,2,3,6,7,8-Hexachlorodibenzofuran	J	e
SA107-1BR	G9L170538010	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	e
SA107-1BR	G9L170538010	2,3,4,6,7,8-Hexachlorodibenzofuran	J	e
SA107-1BR	G9L170538010	2,3,4,7,8-Pentachlorodibenzofuran	J	e
SA107-1BR	G9L170538010	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	e
SA107-1BR	G9L170538010	2,3,7,8-Tetrachlorodibenzofuran	J	e, k

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA107-1BR	G9L170538010	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA86-1.5BR	G9L170538011	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be, i
SA86-1.5BR	G9L170538011	1,2,3,6,7,8-Hexachlorodibenzofuran	J	i
SA86-1.5BR	G9L170538011	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	i
SA86-1.5BR	G9L170538011	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	i
SA86-1.5BR	G9L170538011	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	i
SA86-1.5BR	G9L170538011	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	i
SA86-1.5BR	G9L170538011	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	J	i
SA86-1.5BR	G9L170538011	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	J	i
SA86-1.5BR	G9L170538011	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	i
SA86-1.5BR	G9L170538011	1,2,3,7,8,9-Hexachlorodibenzofuran	J	i
SA86-1.5BR	G9L170538011	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	J	i
SA86-1.5BR	G9L170538011	1,2,3,7,8-Pentachlorodibenzofuran	J	i

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA86-1.5BR	G9L170538011	2,3,4,6,7,8-Hexachlorodibenzofuran	J	i
SA86-1.5BR	G9L170538011	2,3,4,7,8-Pentachlorodibenzofuran	J	i
SA86-1.5BR	G9L170538011	1,2,3,4,7,8-Hexachlorodibenzofuran	J	i
SA86-1.5BR	G9L170538011	Total TEQ [Calculated]	J	i
SA86-1.5BR	G9L170538011	2,3,7,8-Tetrachlorodibenzofuran	J	i, k
SA86-1.5BR	G9L170538011	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	i, k
SA86-1BR	G9L170538012	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be
SA86-1BR	G9L170538012	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA86-1BR	G9L170538012	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA60-1.5BR	G9L170538013	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be, e
SA60-1.5BR	G9L170538013	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	e
SA60-1.5BR	G9L170538013	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	e
SA60-1.5BR	G9L170538013	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	e

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA60-1.5BR	G9L170538013	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	e
SA60-1.5BR	G9L170538013	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA60-1.5BR	G9L170538013	1,2,3,6,7,8-Hexachlorodibenzofuran	J	e
SA60-1.5BR	G9L170538013	1,2,3,7,8,9-Hexachlorodibenzofuran	J	e
SA60-1.5BR	G9L170538013	1,2,3,7,8-Pentachlorodibenzofuran	J	e
SA60-1.5BR	G9L170538013	2,3,4,6,7,8-Hexachlorodibenzofuran	J	e
SA60-1.5BR	G9L170538013	2,3,4,7,8-Pentachlorodibenzofuran	J	e
SA60-1.5BR	G9L170538013	2,3,7,8-Tetrachlorodibenzofuran	J	e, k
SA60-1.5BR	G9L170538013	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA60-1BR	G9L170538014	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be, e
SA60-1BR	G9L170538014	1,2,3,7,8-Pentachlorodibenzofuran	J	e
SA60-1BR	G9L170538014	2,3,4,7,8-Pentachlorodibenzofuran	J	e
SA60-1BR	G9L170538014	1,2,3,6,7,8-Hexachlorodibenzofuran	J	e

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA60-1BR	G9L170538014	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA60-1BR	G9L170538014	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	e
SA60-1BR	G9L170538014	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	e
SA60-1BR	G9L170538014	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA60-1BR	G9L170538014	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA49-1.5BR	G9L170538015	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be
SA49-1.5BR	G9L170538015	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA49-1.5BR	G9L170538015	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA49-1BR	G9L170538016	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be, e
SA49-1BR	G9L170538016	1,2,3,7,8-Pentachlorodibenzofuran	J	e
SA49-1BR	G9L170538016	2,3,4,7,8-Pentachlorodibenzofuran	J	e
SA49-1BR	G9L170538016	2,3,4,6,7,8-Hexachlorodibenzofuran	J	e
SA49-1BR	G9L170538016	1,2,3,6,7,8-Hexachlorodibenzofuran	J	e

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA49-1BR	G9L170538016	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA49-1BR	G9L170538016	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	e
SA49-1BR	G9L170538016	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	e
SA49-1BR	G9L170538016	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	e
SA49-1BR	G9L170538016	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA49-1BR	G9L170538016	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA49009-1BR	G9L170538019	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be, e
SA49009-1BR	G9L170538019	1,2,3,6,7,8-Hexachlorodibenzofuran	J	e
SA49009-1BR	G9L170538019	2,3,4,6,7,8-Hexachlorodibenzofuran	J	e
SA49009-1BR	G9L170538019	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	J	e
SA49009-1BR	G9L170538019	2,3,4,7,8-Pentachlorodibenzofuran	J	e
SA49009-1BR	G9L170538019	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	e
SA49009-1BR	G9L170538019	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	e

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA49009-1BR	G9L170538019	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA49009-1BR	G9L170538019	1,2,3,7,8-Pentachlorodibenzofuran	J	e
SA49009-1BR	G9L170538019	2,3,7,8-Tetrachlorodibenzofuran	J	e, k
SA49009-1BR	G9L170538019	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA106-1.5BR	G9L180646001	1,2,3,7,8,9-Hexachlorodibenzofuran	J	be
SA106-1.5BR	G9L180646001	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
SA106-1.5BR	G9L180646001	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
SA106-1.5BR	G9L180646001	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
SA106-1.5BR	G9L180646001	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
SA106-1.5BR	G9L180646001	1,2,3,7,8-Pentachlorodibenzofuran	J	be
SA106-1.5BR	G9L180646001	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e
SA106-1.5BR	G9L180646001	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be, e
SA106-1.5BR	G9L180646001	1,2,3,4,7,8-Hexachlorodibenzofuran	J	be, e

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA106-1BR	G9L180646002	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
SA106-1BR	G9L180646002	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
SA106-1BR	G9L180646002	1,2,3,7,8-Pentachlorodibenzofuran	J	be
SA106-1BR	G9L180646002	1,2,3,7,8,9-Hexachlorodibenzofuran	J	be
SA106-1BR	G9L180646002	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
SA106-1BR	G9L180646002	1,2,3,4,7,8-Hexachlorodibenzofuran	J	be, e
SA106-1BR	G9L180646002	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be, i
SA106-1BR	G9L180646002	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be, i, e
SA106-1BR	G9L180646002	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, i, e
SA106-1BR	G9L180646002	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	i
SA167-1.5BR	G9L180646003	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
SA167-1.5BR	G9L180646003	1,2,3,7,8-Pentachlorodibenzofuran	J	be
SA167-1.5BR	G9L180646003	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA167-1.5BR	G9L180646003	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
SA167-1.5BR	G9L180646003	1,2,3,4,7,8-Hexachlorodibenzofuran	J	be
SA167-1.5BR	G9L180646003	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be
SA167-1.5BR	G9L180646003	1,2,3,7,8,9-Hexachlorodibenzofuran	J	be
SA167-1.5BR	G9L180646003	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be
SA167-1.5BR	G9L180646003	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
SA167-1.5BR	G9L180646003	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA167-1.5BR	G9L180646003	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA167-1BR	G9L180646004	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
SA167-1BR	G9L180646004	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
SA167-1BR	G9L180646004	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
SA167-1BR	G9L180646004	1,2,3,7,8-Pentachlorodibenzofuran	J	be
SA167-1BR	G9L180646004	1,2,3,7,8,9-Hexachlorodibenzofuran	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA167-1BR	G9L180646004	1,2,3,4,7,8-Hexachlorodibenzofuran	J	be
SA167-1BR	G9L180646004	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be, e
SA167-1BR	G9L180646004	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e
SA167-1BR	G9L180646004	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	J	c
SA167-1BR	G9L180646004	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	c, be
SA200-1.5BR	G9L180646005	1,2,3,7,8-Pentachlorodibenzofuran	J	be
SA200-1.5BR	G9L180646005	1,2,3,7,8,9-Hexachlorodibenzofuran	J	be
SA200-1.5BR	G9L180646005	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
SA200-1.5BR	G9L180646005	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
SA200-1.5BR	G9L180646005	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
SA200-1.5BR	G9L180646005	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be
SA200-1.5BR	G9L180646005	1,2,3,4,7,8-Hexachlorodibenzofuran	J	be
SA200-1.5BR	G9L180646005	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA200-1.5BR	G9L180646005	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	J	c
SA200-1.5BR	G9L180646005	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	c, be
SA200-1BR	G9L180646006	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
SA200-1BR	G9L180646006	1,2,3,7,8-Pentachlorodibenzofuran	J	be
SA200-1BR	G9L180646006	1,2,3,7,8,9-Hexachlorodibenzofuran	J	be
SA200-1BR	G9L180646006	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
SA200-1BR	G9L180646006	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
SA200-1BR	G9L180646006	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be, e
SA200-1BR	G9L180646006	1,2,3,4,7,8-Hexachlorodibenzofuran	J	be, e
SA200-1BR	G9L180646006	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e
SA200-1BR	G9L180646006	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	J	c
SA200-1BR	G9L180646006	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	c, be, e
SA200-1BR	G9L180646006	2,3,7,8-Tetrachlorodibenzofuran	J	e

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA41-1.5BR	G9L180646007	1,2,3,4,7,8-Hexachlorodibenzofuran	J	be
SA41-1.5BR	G9L180646007	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
SA41-1.5BR	G9L180646007	1,2,3,7,8-Pentachlorodibenzofuran	J	be
SA41-1.5BR	G9L180646007	1,2,3,7,8,9-Hexachlorodibenzofuran	J	be
SA41-1.5BR	G9L180646007	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
SA41-1.5BR	G9L180646007	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
SA41-1.5BR	G9L180646007	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e
SA41-1.5BR	G9L180646007	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be, e
SA41-1.5BR	G9L180646007	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	J	c
SA41-1.5BR	G9L180646007	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	c, be
SA41-1BR	G9L180646008	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
SA41-1BR	G9L180646008	1,2,3,7,8,9-Hexachlorodibenzofuran	J	be
SA41-1BR	G9L180646008	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA41-1BR	G9L180646008	1,2,3,7,8-Pentachlorodibenzofuran	J	be, e
SA41-1BR	G9L180646008	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be, e
SA41-1BR	G9L180646008	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, e
SA41-1BR	G9L180646008	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	be, e
SA41-1BR	G9L180646008	1,2,3,4,7,8-Hexachlorodibenzofuran	J	be, e
SA41-1BR	G9L180646008	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be, e
SA51-1.5BR	G9L180646009	1,2,3,7,8-Pentachlorodibenzofuran	J	be
SA51-1.5BR	G9L180646009	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be
SA51-1.5BR	G9L180646009	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be
SA51-1.5BR	G9L180646009	1,2,3,4,7,8-Hexachlorodibenzofuran	J	be
SA51-1.5BR	G9L180646009	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
SA51-1.5BR	G9L180646009	1,2,3,7,8,9-Hexachlorodibenzofuran	J	be
SA51-1.5BR	G9L180646009	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA51-1.5BR	G9L180646009	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be, i
SA51-1.5BR	G9L180646009	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	c, be
SA51-1.5BR	G9L180646009	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	i
SA51-1BR	G9L180646010	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	J	be
SA51-1BR	G9L180646010	1,2,3,7,8,9-Hexachlorodibenzofuran	J	be
SA51-1BR	G9L180646010	2,3,4,6,7,8-Hexachlorodibenzofuran	J	be
SA51-1BR	G9L180646010	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	be, m
SA51-1BR	G9L180646010	1,2,3,4,7,8-Hexachlorodibenzofuran	J	be, m
SA51-1BR	G9L180646010	1,2,3,6,7,8-Hexachlorodibenzofuran	J	be, m
SA51-1BR	G9L180646010	1,2,3,7,8-Pentachlorodibenzofuran	J	be, m
SA51-1BR	G9L180646010	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	be, m
SA51-1BR	G9L180646010	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	J	c
SA51-1BR	G9L180646010	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	c, be, m

Field ID	Lab ID	Analyte	Final Qualifier	Reason Code
SA51-1BR	G9L180646010	2,3,7,8-Tetrachlorodibenzofuran	J-	m
SA51-1BR	G9L180646010	2,3,4,7,8-Pentachlorodibenzofuran	J+	m
SA196-1BR	G9L240493001	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	be
SA196-1BR	G9L240493001	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	J	e
SA196-1BR	G9L240493001	1,2,3,4,6,7,8-Heptachlorodibenzofuran	J	e
SA196-1BR	G9L240493001	1,2,3,4,7,8,9-Heptachlorodibenzofuran	J	e
SA196-1BR	G9L240493001	1,2,3,4,7,8-Hexachlorodibenzofuran	J	e
SA196-1BR	G9L240493001	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k
SA196-1BR	G9L240493001	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA196-1.5BR	G9L240493002	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	J	be
SA196-1.5BR	G9L240493002	2,3,7,8-Tetrachlorodibenzofuran	J	k
SA196-1.5BR	G9L240493002	2,3,7,8-Tetrachlorodibenzo-p-dioxin	J	k