Appendix P

Data Usability Reports

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-180982

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Full

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 6/19/2019

The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for the referenced project, the quality control (QC) requirements outlined in Methods 8270D and 8082A were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The following information were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Data Package Completeness
- Case Narrative
- Samples Receipt, Condition, and Holding Time
- Mass Spectrometer Tuning
- Instrument Calibrations (Initial and Continuing Verification)
- Internal Standard Response (for analysis by mass spectrometer only)
- Analytical System Performance Check
- Blank Contamination
- Surrogate Spike Recovery
- Laboratory Control Sample (LCS) Recovery
- Matrix Spike and Matrix Spike Duplicate Recovery
- Analyte Identification and Quantitation
- Reporting Limits
- Field Duplicate (where applicable)

Data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on May 2, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-PB-BB40-K-L-0-050219	460-180982-1	Sediment	PCBs, BEHP*
WP-PBC-BB40-C-D-0-050219	460-180982-2	Sediment	PCBs, BEHP*
WP-PB-BB37-I-J-0-050219	460-180982-3	Sediment	PCBs, BEHP*
WP-SB-AY38-I-J-0-050219	460-180982-4	Sediment	PCBs, BEHP*
WP-PB-AY37-I-J-0-050219	460-180982-5	Sediment	PCBs, BEHP*
WP-PBC-AY37-C-D-0-050219	460-180982-6	Sediment	PCBs, BEHP*
WP-FB-050219	460-180982-7	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable for the requested analyses. The data package contains required elements. The analyses of samples WP-PBC-BB40-C-D-0-050219 and WP-PBC-AY37-C-D-0-050219 were placed on hold upon lab receipt but were later canceled on May 6, 2019.

The solid contents were greater than 30% for sediment samples WP-PB-BB40-K-L-0-050219, WP-PB-BB37-I-J-0-050219, WP-SB-AY38-I-J-0-050219, and WP-PB-AY37-I-J-0-050219. All sample results were reported on a dry-weight basis.

BIS(2-ETHYLHEXYL)PHTHALATE

Initial Calibration

The initial calibration associated with the field blank analysis yielded an acceptable average relative response factor (RRF) for BEHP but a relative percent difference (RSD) of 15.4%, slightly greater than the method requirement of 15%. Since BEHP was not detected in the field blank, data qualification was not required.

Surrogate Spike Recovery

The recoveries of two surrogate compounds exceeded the control limits for field blank and the associated LCS duplicate (LCSD) analyses. Since BEHP was not detected in the field blank, data qualification was not required. Since the BEHP recovery in the LCSD analysis within the lab-established control limits, no action was required.

Matrix Spike and Matrix Spike Duplicate Recovery

The matrix spike (MS) and matrix spike duplicate (MSD) analyses were performed on a sample unrelated to the site; their results were not used to assess matrix effects on analytical accuracy and precision.

PCBs

None required qualification.

The lab case narrative documented non-compliant MS/MSD recoveries for Arochor-1260 on both columns. Since the source sample of the MS/MSD analyses was unrelated to this site, their results were not used to assess matrix effects on analytical accuracy and precision.

Data Validation Summary

Data qualification was not required for any samples submitted under this report. All results can be used as reported.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-180982-1

Client Sample ID: WP-PB-BB40-K-L-0-050219

Lab Sample ID: 460-180982-1

Date Collected: 05/02/19 12:21
Date Received: 05/02/19 18:05

Matrix: Solid
Percent Solids: 82.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.15	J	0.40	0.021	mg/Kg	☼	05/03/19 06:06	05/03/19 10:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*55*		*25 - 113*	*05/03/19 06:06*	*05/03/19 10:04*	*1*
2-Fluorobiphenyl	*57*		*29 - 107*	*05/03/19 06:06*	*05/03/19 10:04*	*1*
Terphenyl-d14 (Surr)	*59*		*27 - 123*	*05/03/19 06:06*	*05/03/19 10:04*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.081	0.011	mg/Kg	☼	05/03/19 01:11	05/03/19 11:35	1
Aroclor 1221	0.011	U	0.081	0.011	mg/Kg	☼	05/03/19 01:11	05/03/19 11:35	1
Aroclor 1232	0.011	U	0.081	0.011	mg/Kg	☼	05/03/19 01:11	05/03/19 11:35	1
Aroclor 1242	0.011	U	0.081	0.011	mg/Kg	☼	05/03/19 01:11	05/03/19 11:35	1
Aroclor 1248	0.011	U	0.081	0.011	mg/Kg	☼	05/03/19 01:11	05/03/19 11:35	1
Aroclor 1254	0.011	U	0.081	0.011	mg/Kg	☼	05/03/19 01:11	05/03/19 11:35	1
Aroclor 1260	0.011	U	0.081	0.011	mg/Kg	☼	05/03/19 01:11	05/03/19 11:35	1
Aroclor-1262	0.011	U	0.081	0.011	mg/Kg	☼	05/03/19 01:11	05/03/19 11:35	1
Aroclor 1268	0.011	U	0.081	0.011	mg/Kg	☼	05/03/19 01:11	05/03/19 11:35	1
Polychlorinated biphenyls, Total	0.011	U	0.081	0.011	mg/Kg	☼	05/03/19 01:11	05/03/19 11:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*121*		*53 - 150*	*05/03/19 01:11*	*05/03/19 11:35*	*1*
DCB Decachlorobiphenyl	*117*		*53 - 150*	*05/03/19 01:11*	*05/03/19 11:35*	*1*

Client Sample ID: WP-PB-BB37-I-J-0-050219

Lab Sample ID: 460-180982-3

Date Collected: 05/02/19 13:14
Date Received: 05/02/19 18:05

Matrix: Solid
Percent Solids: 61.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	3.0		0.54	0.029	mg/Kg	☼	05/03/19 06:06	05/03/19 10:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*54*		*25 - 113*	*05/03/19 06:06*	*05/03/19 10:27*	*1*
2-Fluorobiphenyl	*59*		*29 - 107*	*05/03/19 06:06*	*05/03/19 10:27*	*1*
Terphenyl-d14 (Surr)	*64*		*27 - 123*	*05/03/19 06:06*	*05/03/19 10:27*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.015	U	0.11	0.015	mg/Kg	☼	05/03/19 01:11	05/03/19 11:52	1
Aroclor 1221	0.015	U	0.11	0.015	mg/Kg	☼	05/03/19 01:11	05/03/19 11:52	1
Aroclor 1232	0.015	U	0.11	0.015	mg/Kg	☼	05/03/19 01:11	05/03/19 11:52	1
Aroclor 1242	0.015	U	0.11	0.015	mg/Kg	☼	05/03/19 01:11	05/03/19 11:52	1
Aroclor 1248	0.015	U	0.11	0.015	mg/Kg	☼	05/03/19 01:11	05/03/19 11:52	1
Aroclor 1254	0.015	U	0.11	0.015	mg/Kg	☼	05/03/19 01:11	05/03/19 11:52	1
Aroclor 1260	0.015	U	0.11	0.015	mg/Kg	☼	05/03/19 01:11	05/03/19 11:52	1
Aroclor-1262	0.015	U	0.11	0.015	mg/Kg	☼	05/03/19 01:11	05/03/19 11:52	1
Aroclor 1268	0.015	U	0.11	0.015	mg/Kg	☼	05/03/19 01:11	05/03/19 11:52	1
Polychlorinated biphenyls, Total	0.015	U	0.11	0.015	mg/Kg	☼	05/03/19 01:11	05/03/19 11:52	1

Client Sample ID: WP-PB-BB37-I-J-0-050219

Lab Sample ID: 460-180982-3
Date Collected: 05/02/19 13:14
Matrix: Solid
Date Received: 05/02/19 18:05
Percent Solids: 61.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	124		53 - 150	05/03/19 01:11	05/03/19 11:52	1
DCB Decachlorobiphenyl	113		53 - 150	05/03/19 01:11	05/03/19 11:52	1

Client Sample ID: WP-SB-AY38-I-J-0-050219

Lab Sample ID: 460-180982-4
Date Collected: 05/02/19 15:35
Matrix: Solid
Date Received: 05/02/19 18:05
Percent Solids: 52.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.43	J	0.62	0.033	mg/Kg	☼	05/03/19 06:06	05/03/19 10:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	48		25 - 113	05/03/19 06:06	05/03/19 10:51	1
2-Fluorobiphenyl	56		29 - 107	05/03/19 06:06	05/03/19 10:51	1
Terphenyl-d14 (Surr)	62		27 - 123	05/03/19 06:06	05/03/19 10:51	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.017	U	0.13	0.017	mg/Kg	☼	05/03/19 01:11	05/03/19 12:09	1
Aroclor 1221	0.017	U	0.13	0.017	mg/Kg	☼	05/03/19 01:11	05/03/19 12:09	1
Aroclor 1232	0.017	U	0.13	0.017	mg/Kg	☼	05/03/19 01:11	05/03/19 12:09	1
Aroclor 1242	0.017	U	0.13	0.017	mg/Kg	☼	05/03/19 01:11	05/03/19 12:09	1
Aroclor 1248	0.017	U	0.13	0.017	mg/Kg	☼	05/03/19 01:11	05/03/19 12:09	1
Aroclor 1254	0.017	U	0.13	0.017	mg/Kg	☼	05/03/19 01:11	05/03/19 12:09	1
Aroclor 1260	0.017	U	0.13	0.017	mg/Kg	☼	05/03/19 01:11	05/03/19 12:09	1
Aroclor-1262	0.017	U	0.13	0.017	mg/Kg	☼	05/03/19 01:11	05/03/19 12:09	1
Aroclor 1268	0.017	U	0.13	0.017	mg/Kg	☼	05/03/19 01:11	05/03/19 12:09	1
Polychlorinated biphenyls, Total	0.017	U	0.13	0.017	mg/Kg	☼	05/03/19 01:11	05/03/19 12:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	123		53 - 150	05/03/19 01:11	05/03/19 12:09	1
DCB Decachlorobiphenyl	112		53 - 150	05/03/19 01:11	05/03/19 12:09	1

Client Sample ID: WP-PB-AY37-I-J-0-050219

Lab Sample ID: 460-180982-5
Date Collected: 05/02/19 16:07
Matrix: Solid
Date Received: 05/02/19 18:05
Percent Solids: 55.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.46	J	0.60	0.032	mg/Kg	☼	05/03/19 06:06	05/03/19 11:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	46		25 - 113	05/03/19 06:06	05/03/19 11:14	1
2-Fluorobiphenyl	50		29 - 107	05/03/19 06:06	05/03/19 11:14	1
Terphenyl-d14 (Surr)	47		27 - 123	05/03/19 06:06	05/03/19 11:14	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.016	U	0.12	0.016	mg/Kg	☼	05/03/19 01:11	05/03/19 12:26	1
Aroclor 1221	0.016	U	0.12	0.016	mg/Kg	☼	05/03/19 01:11	05/03/19 12:26	1
Aroclor 1232	0.016	U	0.12	0.016	mg/Kg	☼	05/03/19 01:11	05/03/19 12:26	1
Aroclor 1242	0.016	U	0.12	0.016	mg/Kg	☼	05/03/19 01:11	05/03/19 12:26	1

Client Sample ID: WP-PB-AY37-I-J-0-050219

Lab Sample ID: 460-180982-5

Date Collected: 05/02/19 16:07
Date Received: 05/02/19 18:05

Matrix: Solid
Percent Solids: 55.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.016	U	0.12	0.016	mg/Kg	☼	05/03/19 01:11	05/03/19 12:26	1
Aroclor 1254	0.017	U	0.12	0.017	mg/Kg	☼	05/03/19 01:11	05/03/19 12:26	1
Aroclor 1260	0.017	U	0.12	0.017	mg/Kg	☼	05/03/19 01:11	05/03/19 12:26	1
Aroclor-1262	0.017	U	0.12	0.017	mg/Kg	☼	05/03/19 01:11	05/03/19 12:26	1
Aroclor 1268	0.017	U	0.12	0.017	mg/Kg	☼	05/03/19 01:11	05/03/19 12:26	1
Polychlorinated biphenyls, Total	0.017	U	0.12	0.017	mg/Kg	☼	05/03/19 01:11	05/03/19 12:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*107*		*53 - 150*	*05/03/19 01:11*	*05/03/19 12:26*	*1*
DCB Decachlorobiphenyl	*103*		*53 - 150*	*05/03/19 01:11*	*05/03/19 12:26*	*1*

Client Sample ID: WP-FB-050219

Lab Sample ID: 460-180982-7

Date Collected: 05/02/19 16:35
Date Received: 05/02/19 18:05

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		05/02/19 21:00	05/03/19 06:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*113*	*X*	*51 - 108*	*05/02/19 21:00*	*05/03/19 06:56*	*1*
2-Fluorobiphenyl	*112*	*X*	*45 - 107*	*05/02/19 21:00*	*05/03/19 06:56*	*1*
Terphenyl-d14 (Surr)	*126*		*40 - 148*	*05/02/19 21:00*	*05/03/19 06:56*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		05/03/19 00:50	05/03/19 10:23	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		05/03/19 00:50	05/03/19 10:23	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		05/03/19 00:50	05/03/19 10:23	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		05/03/19 00:50	05/03/19 10:23	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		05/03/19 00:50	05/03/19 10:23	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		05/03/19 00:50	05/03/19 10:23	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		05/03/19 00:50	05/03/19 10:23	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		05/03/19 00:50	05/03/19 10:23	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		05/03/19 00:50	05/03/19 10:23	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		05/03/19 00:50	05/03/19 10:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*81*		*10 - 150*	*05/03/19 00:50*	*05/03/19 10:23*	*1*
DCB Decachlorobiphenyl	*76*		*10 - 150*	*05/03/19 00:50*	*05/03/19 10:23*	*1*

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-181345

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 6/19/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on May 7, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-SB-AY40-I-J-0-050719	460-181345-1	Sediment	PCBs, BEHP*
WP-PB-AV34-A-B-0-050719	460-181345-2	Sediment	PCBs, BEHP*
WP-PB-AV34-A-B-1-050719	460-181345-3	Sediment	PCBs, BEHP*
WP-PBC-AV34-C-D-0-050719	460-181345-4	Sediment	PCBs, BEHP*
WP-PBC-AV34-C-D-1-050719	460-181345-5	Sediment	PCBs, BEHP*
WP-PB-AY34-A-B-0-050719	460-181345-6	Sediment	PCBs, BEHP*
WP-PBC-AY34-C-D-0-050719	460-181345-7	Sediment	PCBs, BEHP*
WP-ST-AY32-D-E-0-050719	460-181345-8	Sediment	PCBs, BEHP*
WP-SB-AY32-I-J-0-050719	460-181345-9	Sediment	PCBs, BEHP*
WP-SB-AV32-I-J-0-050719	460-181345-10	Sediment	PCBs, BEHP*
WP-ST-AV32-D-E-0-050719	460-181345-11	Sediment	PCBs, BEHP*
WP-SB-AT34-I-J-0-050719	460-181345-12	Sediment	PCBs, BEHP*
WP-ST-AT34-D-E-0-050719	460-181345-13	Sediment	PCBs, BEHP*
WP-SB-AT36-I-J-0-050719	460-181345-14	Sediment	PCBs, BEHP*
WP-ST-AT36-D-E-0-050719	460-181345-15	Sediment	PCBs, BEHP*
WP-SB-AV37-I-J-0-050719	460-181345-16	Sediment	PCBs, BEHP*
WP-ST-AV37-F-G-0-050719	460-181345-17	Sediment	PCBs, BEHP*
WP-PB-BB31-I-J-0-050719	460-181345-18	Sediment	PCBs, BEHP*

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-PBC-BB31-H-I-0-050719	460-181345-19	Sediment	PCBs, BEHP*
WP-FB-050719	460-181345-20	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable for the requested analyses. The data package contains required elements. The analyses of samples WP-PBC-AV34-C-D-0-050719, WP-PBC-AV34-C-D-1-050719, WP-PBC-AY34-C-D-0-050719, and WP-PBC-BB31-H-I-0-050719 were placed on hold upon lab receipt but were later canceled on May 9, 2019.

The laboratory incorrectly logged in field sample WP-SB-AT34-I-J-0-050719 as WP-SB-A*V*34-I-J-0-050719. The laboratory was contacted to submit a revised data package. The correct field sample was referenced in this data validation report.

With the exception of sample WP-ST-AT34-D-E-0-050719, the solid contents were greater than 30% for sediment samples. Since the solid content of sample WP-ST-AT34-D-E-0-050719 was >10% but <30%, the positive results and the non-detects were estimated, J and UJ, respectively.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration or the reporting limit) were not verified.

<u>BIS(2-ETHYLHEXYL)PHTHALATE</u>

Laboratory Control Sample (LCS) Recovery

The recoveries of aqueous LCS and LCS duplicate (LCSD) analyses exceeded the laboratory-established control limit for BEHP. Since BEHP was not detected in the field blank, data qualification was not required.

Surrogate Spike Recovery

The recovery of one surrogate compound exceeded the laboratory-established control limit for the field blank analysis. Since BEHP was not detected in the field blank, data qualification was not required.

Matrix Spike and Matrix Spike Duplicate Recovery

The matrix spike (MS) and matrix spike duplicate (MSD) analyses were performed on sample WP-PB-AY34-A-B-0-050719. Since the recoveries of BEHP from both MS and MSD analyses exceeded the laboratory-established control limit; the positive BEHP result reported for sample WP-PB-AY34-A-B-0-050719 was estimated (J) for high bias. The precision result was within the laboratory-established control limit.

Field Duplicate

The analyses of WP-PB-AV34-A-B-0-050719 and its field duplicate WP-PB-AV34-A-B-1-050719 yielded comparable BEHP results.

PCBs

None required qualification other than estimation of all Aroclor results for sample WP-ST-AT34-D-E-0-050719 due to low solid content.

None of the PCBs as Aroclors was detected in the analyses of WP-PB-AV34-A-B-0-050719 and its field duplicate WP-PB-AV34-A-B-1-050719 yielded comparable BEHP results.

Note that for positive Aroclor results, the higher concentration between the two analytical columns was used for reporting purpose as prescribed by Method 8022A.

Data Validation Summary

The non-compliant QC results did not warrant data rejections. All results can be used as reported.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Spring 2019 Rush PCBs & BEHP

Job ID: 460-181345-1

Client Sample ID: WP-SB-AY40-I-J-0-050719

Lab Sample ID: 460-181345-1

Date Collected: 05/07/19 10:10
Date Received: 05/07/19 18:00

Matrix: Solid
Percent Solids: 57.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	4.9		0.57	0.030	mg/Kg	☼	05/07/19 23:19	05/08/19 08:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*35*		*25 - 113*	*05/07/19 23:19*	*05/08/19 08:16*	*1*
Terphenyl-d14 (Surr)	*37*		*27 - 123*	*05/07/19 23:19*	*05/08/19 08:16*	*1*
2-Fluorobiphenyl	*38*		*29 - 107*	*05/07/19 23:19*	*05/08/19 08:16*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.015	U	0.12	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 12:10	1
Aroclor 1221	0.015	U	0.12	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 12:10	1
Aroclor 1232	0.015	U	0.12	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 12:10	1
Aroclor 1242	0.015	U	0.12	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 12:10	1
Aroclor 1248	0.015	U	0.12	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 12:10	1
Aroclor 1254	0.016	U	0.12	0.016	mg/Kg	☼	05/07/19 23:21	05/08/19 12:10	1
Aroclor 1260	0.016	U	0.12	0.016	mg/Kg	☼	05/07/19 23:21	05/08/19 12:10	1
Aroclor-1262	0.016	U	0.12	0.016	mg/Kg	☼	05/07/19 23:21	05/08/19 12:10	1
Aroclor 1268	0.016	U	0.12	0.016	mg/Kg	☼	05/07/19 23:21	05/08/19 12:10	1
Polychlorinated biphenyls, Total	0.016	U	0.12	0.016	mg/Kg	☼	05/07/19 23:21	05/08/19 12:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*111*		*53 - 150*	*05/07/19 23:21*	*05/08/19 12:10*	*1*
DCB Decachlorobiphenyl	*109*		*53 - 150*	*05/07/19 23:21*	*05/08/19 12:10*	*1*

Client Sample ID: WP-PB-AV34-A-B-0-050719

Lab Sample ID: 460-181345-2

Date Collected: 05/07/19 10:50
Date Received: 05/07/19 18:00

Matrix: Solid
Percent Solids: 75.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.0		0.43	0.023	mg/Kg	☼	05/07/19 23:19	05/08/19 08:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*43*		*25 - 113*	*05/07/19 23:19*	*05/08/19 08:40*	*1*
Terphenyl-d14 (Surr)	*45*		*27 - 123*	*05/07/19 23:19*	*05/08/19 08:40*	*1*
2-Fluorobiphenyl	*49*		*29 - 107*	*05/07/19 23:19*	*05/08/19 08:40*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.088	0.012	mg/Kg	☼	05/07/19 23:21	05/08/19 13:00	1
Aroclor 1221	0.012	U	0.088	0.012	mg/Kg	☼	05/07/19 23:21	05/08/19 13:00	1
Aroclor 1232	0.012	U	0.088	0.012	mg/Kg	☼	05/07/19 23:21	05/08/19 13:00	1
Aroclor 1242	0.012	U	0.088	0.012	mg/Kg	☼	05/07/19 23:21	05/08/19 13:00	1
Aroclor 1248	0.012	U	0.088	0.012	mg/Kg	☼	05/07/19 23:21	05/08/19 13:00	1
Aroclor 1254	0.012	U	0.088	0.012	mg/Kg	☼	05/07/19 23:21	05/08/19 13:00	1
Aroclor 1260	0.012	U	0.088	0.012	mg/Kg	☼	05/07/19 23:21	05/08/19 13:00	1
Aroclor-1262	0.012	U	0.088	0.012	mg/Kg	☼	05/07/19 23:21	05/08/19 13:00	1
Aroclor 1268	0.012	U	0.088	0.012	mg/Kg	☼	05/07/19 23:21	05/08/19 13:00	1
Polychlorinated biphenyls, Total	0.012	U	0.088	0.012	mg/Kg	☼	05/07/19 23:21	05/08/19 13:00	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Spring 2019 Rush PCBs & BEHP

Job ID: 460-181345-1

Client Sample ID: WP-PB-AV34-A-B-0-050719

Lab Sample ID: 460-181345-2

Date Collected: 05/07/19 10:50
Date Received: 05/07/19 18:00

Matrix: Solid
Percent Solids: 75.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	112		53 - 150	05/07/19 23:21	05/08/19 13:00	1
DCB Decachlorobiphenyl	106		53 - 150	05/07/19 23:21	05/08/19 13:00	1

Client Sample ID: WP-PB-AV34-A-B-1-050719

Lab Sample ID: 460-181345-3

Date Collected: 05/07/19 10:55
Date Received: 05/07/19 18:00

Matrix: Solid
Percent Solids: 72.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.1		0.46	0.024	mg/Kg	☼	05/07/19 23:19	05/08/19 09:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	37		25 - 113	05/07/19 23:19	05/08/19 09:03	1
Terphenyl-d14 (Surr)	38		27 - 123	05/07/19 23:19	05/08/19 09:03	1
2-Fluorobiphenyl	39		29 - 107	05/07/19 23:19	05/08/19 09:03	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.093	0.012	mg/Kg	☼	05/07/19 23:21	05/08/19 13:17	1
Aroclor 1221	0.012	U	0.093	0.012	mg/Kg	☼	05/07/19 23:21	05/08/19 13:17	1
Aroclor 1232	0.012	U	0.093	0.012	mg/Kg	☼	05/07/19 23:21	05/08/19 13:17	1
Aroclor 1242	0.012	U	0.093	0.012	mg/Kg	☼	05/07/19 23:21	05/08/19 13:17	1
Aroclor 1248	0.012	U	0.093	0.012	mg/Kg	☼	05/07/19 23:21	05/08/19 13:17	1
Aroclor 1254	0.013	U	0.093	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:17	1
Aroclor 1260	0.013	U	0.093	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:17	1
Aroclor-1262	0.013	U	0.093	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:17	1
Aroclor 1268	0.013	U	0.093	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:17	1
Polychlorinated biphenyls, Total	0.013	U	0.093	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	117		53 - 150	05/07/19 23:21	05/08/19 13:17	1
DCB Decachlorobiphenyl	111		53 - 150	05/07/19 23:21	05/08/19 13:17	1

Client Sample ID: WP-PB-AY34-A-B-0-050719

Lab Sample ID: 460-181345-6

Date Collected: 05/07/19 12:10
Date Received: 05/07/19 18:00

Matrix: Solid
Percent Solids: 68.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	4.7	~~F1~~ J	0.48	0.026	mg/Kg	☼	05/07/19 23:19	05/08/19 07:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	51		25 - 113	05/07/19 23:19	05/08/19 07:53	1
Terphenyl-d14 (Surr)	55		27 - 123	05/07/19 23:19	05/08/19 07:53	1
2-Fluorobiphenyl	57		29 - 107	05/07/19 23:19	05/08/19 07:53	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.098	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:34	1
Aroclor 1221	0.013	U	0.098	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:34	1
Aroclor 1232	0.013	U	0.098	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:34	1
Aroclor 1242	0.013	U	0.098	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:34	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Spring 2019 Rush PCBs & BEHP

Job ID: 460-181345-1

Client Sample ID: WP-PB-AY34-A-B-0-050719

Lab Sample ID: 460-181345-6

Date Collected: 05/07/19 12:10
Date Received: 05/07/19 18:00

Matrix: Solid
Percent Solids: 68.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.013	U	0.098	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:34	1
Aroclor 1254	0.013	U	0.098	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:34	1
Aroclor 1260	0.013	U	0.098	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:34	1
Aroclor-1262	0.013	U	0.098	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:34	1
Aroclor 1268	0.013	U	0.098	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:34	1
Polychlorinated biphenyls, Total	0.013	U	0.098	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*118*		*53 - 150*	*05/07/19 23:21*	*05/08/19 13:34*	*1*
DCB Decachlorobiphenyl	*110*		*53 - 150*	*05/07/19 23:21*	*05/08/19 13:34*	*1*

Client Sample ID: WP-ST-AY32-D-E-0-050719

Lab Sample ID: 460-181345-8

Date Collected: 05/07/19 12:44
Date Received: 05/07/19 18:00

Matrix: Solid
Percent Solids: 67.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.8		0.49	0.026	mg/Kg	☼	05/07/19 23:19	05/08/19 09:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*36*		*25 - 113*	*05/07/19 23:19*	*05/08/19 09:27*	*1*
Terphenyl-d14 (Surr)	*35*		*27 - 123*	*05/07/19 23:19*	*05/08/19 09:27*	*1*
2-Fluorobiphenyl	*36*		*29 - 107*	*05/07/19 23:19*	*05/08/19 09:27*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.099	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:51	1
Aroclor 1221	0.013	U	0.099	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:51	1
Aroclor 1232	0.013	U	0.099	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:51	1
Aroclor 1242	0.013	U	0.099	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:51	1
Aroclor 1248	0.013	U	0.099	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:51	1
Aroclor 1254	0.014	U	0.099	0.014	mg/Kg	☼	05/07/19 23:21	05/08/19 13:51	1
Aroclor 1260	0.014	U	0.099	0.014	mg/Kg	☼	05/07/19 23:21	05/08/19 13:51	1
Aroclor-1262	0.014	U	0.099	0.014	mg/Kg	☼	05/07/19 23:21	05/08/19 13:51	1
Aroclor 1268	0.014	U	0.099	0.014	mg/Kg	☼	05/07/19 23:21	05/08/19 13:51	1
Polychlorinated biphenyls, Total	0.014	U	0.099	0.014	mg/Kg	☼	05/07/19 23:21	05/08/19 13:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*107*		*53 - 150*	*05/07/19 23:21*	*05/08/19 13:51*	*1*
DCB Decachlorobiphenyl	*102*		*53 - 150*	*05/07/19 23:21*	*05/08/19 13:51*	*1*

Client Sample ID: WP-SB-AY32-I-J-0-050719

Lab Sample ID: 460-181345-9

Date Collected: 05/07/19 13:02
Date Received: 05/07/19 18:00

Matrix: Solid
Percent Solids: 63.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.76		0.52	0.027	mg/Kg	☼	05/07/19 23:19	05/08/19 09:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*49*		*25 - 113*	*05/07/19 23:19*	*05/08/19 09:51*	*1*
Terphenyl-d14 (Surr)	*48*		*27 - 123*	*05/07/19 23:19*	*05/08/19 09:51*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Spring 2019 Rush PCBs & BEHP

Job ID: 460-181345-1

Client Sample ID: WP-SB-AY32-I-J-0-050719

Date Collected: 05/07/19 13:02
Date Received: 05/07/19 18:00

Lab Sample ID: 460-181345-9

Matrix: Solid
Percent Solids: 63.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	50		29 - 107	05/07/19 23:19	05/08/19 09:51	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.014	U	0.10	0.014	mg/Kg	☼	05/07/19 23:21	05/08/19 14:08	1
Aroclor 1221	0.014	U	0.10	0.014	mg/Kg	☼	05/07/19 23:21	05/08/19 14:08	1
Aroclor 1232	0.014	U	0.10	0.014	mg/Kg	☼	05/07/19 23:21	05/08/19 14:08	1
Aroclor 1242	0.014	U	0.10	0.014	mg/Kg	☼	05/07/19 23:21	05/08/19 14:08	1
Aroclor 1248	0.014	U	0.10	0.014	mg/Kg	☼	05/07/19 23:21	05/08/19 14:08	1
Aroclor 1254	0.014	U	0.10	0.014	mg/Kg	☼	05/07/19 23:21	05/08/19 14:08	1
Aroclor 1260	0.014	U	0.10	0.014	mg/Kg	☼	05/07/19 23:21	05/08/19 14:08	1
Aroclor-1262	0.014	U	0.10	0.014	mg/Kg	☼	05/07/19 23:21	05/08/19 14:08	1
Aroclor 1268	0.014	U	0.10	0.014	mg/Kg	☼	05/07/19 23:21	05/08/19 14:08	1
Polychlorinated biphenyls, Total	0.014	U	0.10	0.014	mg/Kg	☼	05/07/19 23:21	05/08/19 14:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	105		53 - 150	05/07/19 23:21	05/08/19 14:08	1
DCB Decachlorobiphenyl	95		53 - 150	05/07/19 23:21	05/08/19 14:08	1

Client Sample ID: WP-SB-AV32-I-J-0-050719

Date Collected: 05/07/19 13:25
Date Received: 05/07/19 18:00

Lab Sample ID: 460-181345-10

Matrix: Solid
Percent Solids: 80.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.94		0.41	0.022	mg/Kg	☼	05/07/19 23:19	05/08/19 10:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	44		25 - 113	05/07/19 23:19	05/08/19 10:14	1
Terphenyl-d14 (Surr)	49		27 - 123	05/07/19 23:19	05/08/19 10:14	1
2-Fluorobiphenyl	47		29 - 107	05/07/19 23:19	05/08/19 10:14	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.084	0.011	mg/Kg	☼	05/07/19 23:21	05/08/19 14:25	1
Aroclor 1221	0.011	U	0.084	0.011	mg/Kg	☼	05/07/19 23:21	05/08/19 14:25	1
Aroclor 1232	0.011	U	0.084	0.011	mg/Kg	☼	05/07/19 23:21	05/08/19 14:25	1
Aroclor 1242	0.011	U	0.084	0.011	mg/Kg	☼	05/07/19 23:21	05/08/19 14:25	1
Aroclor 1248	0.011	U	0.084	0.011	mg/Kg	☼	05/07/19 23:21	05/08/19 14:25	1
Aroclor 1254	0.011	U	0.084	0.011	mg/Kg	☼	05/07/19 23:21	05/08/19 14:25	1
Aroclor 1260	0.011	U	0.084	0.011	mg/Kg	☼	05/07/19 23:21	05/08/19 14:25	1
Aroclor-1262	0.011	U	0.084	0.011	mg/Kg	☼	05/07/19 23:21	05/08/19 14:25	1
Aroclor 1268	0.011	U	0.084	0.011	mg/Kg	☼	05/07/19 23:21	05/08/19 14:25	1
Polychlorinated biphenyls, Total	0.011	U	0.084	0.011	mg/Kg	☼	05/07/19 23:21	05/08/19 14:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	112		53 - 150	05/07/19 23:21	05/08/19 14:25	1
DCB Decachlorobiphenyl	107		53 - 150	05/07/19 23:21	05/08/19 14:25	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Spring 2019 Rush PCBs & BEHP

Job ID: 460-181345-1

Client Sample ID: WP-ST-AV32-D-E-0-050719

Lab Sample ID: 460-181345-11

Date Collected: 05/07/19 13:40
Date Received: 05/07/19 18:00

Matrix: Solid
Percent Solids: 60.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.0		0.54	0.029	mg/Kg	☼	05/07/19 23:19	05/08/19 10:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*38*		*25 - 113*	*05/07/19 23:19*	*05/08/19 10:38*	*1*
Terphenyl-d14 (Surr)	*37*		*27 - 123*	*05/07/19 23:19*	*05/08/19 10:38*	*1*
2-Fluorobiphenyl	*40*		*29 - 107*	*05/07/19 23:19*	*05/08/19 10:38*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 14:00	1
Aroclor 1221	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 14:00	1
Aroclor 1232	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 14:00	1
Aroclor 1242	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 14:00	1
Aroclor 1248	0.13		0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 14:00	1
Aroclor 1254	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 14:00	1
Aroclor 1260	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 14:00	1
Aroclor-1262	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 14:00	1
Aroclor 1268	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 14:00	1
Polychlorinated biphenyls, Total	0.13		0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 14:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*121*		*53 - 150*	*05/07/19 23:21*	*05/08/19 14:00*	*1*
DCB Decachlorobiphenyl	*108*		*53 - 150*	*05/07/19 23:21*	*05/08/19 14:00*	*1*

Client Sample ID: WP-SB-AT34-I-J-0-050719

Lab Sample ID: 460-181345-12

Date Collected: 05/07/19 13:50
Date Received: 05/07/19 18:00

Matrix: Solid
Percent Solids: 68.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.4		0.48	0.026	mg/Kg	☼	05/07/19 23:19	05/08/19 11:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*41*		*25 - 113*	*05/07/19 23:19*	*05/08/19 11:02*	*1*
Terphenyl-d14 (Surr)	*45*		*27 - 123*	*05/07/19 23:19*	*05/08/19 11:02*	*1*
2-Fluorobiphenyl	*48*		*29 - 107*	*05/07/19 23:19*	*05/08/19 11:02*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.098	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:43	1
Aroclor 1221	0.013	U	0.098	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:43	1
Aroclor 1232	0.013	U	0.098	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:43	1
Aroclor 1242	0.013	U	0.098	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:43	1
Aroclor 1248	0.013	U	0.098	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:43	1
Aroclor 1254	0.013	U	0.098	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:43	1
Aroclor 1260	0.013	U	0.098	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:43	1
Aroclor-1262	0.013	U	0.098	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:43	1
Aroclor 1268	0.013	U	0.098	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:43	1
Polychlorinated biphenyls, Total	0.013	U	0.098	0.013	mg/Kg	☼	05/07/19 23:21	05/08/19 13:43	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Spring 2019 Rush PCBs & BEHP

Job ID: 460-181345-1

Client Sample ID: WP-SB-AT34-I-J-0-050719

Lab Sample ID: 460-181345-12
Date Collected: 05/07/19 13:50
Matrix: Solid
Date Received: 05/07/19 18:00
Percent Solids: 68.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	118		53 - 150	05/07/19 23:21	05/08/19 13:43	1
DCB Decachlorobiphenyl	113		53 - 150	05/07/19 23:21	05/08/19 13:43	1

Client Sample ID: WP-ST-AT34-D-E-0-050719

Lab Sample ID: 460-181345-13
Date Collected: 05/07/19 14:17
Matrix: Solid
Date Received: 05/07/19 18:00
Percent Solids: 12.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	8.6	J	2.6	0.14	mg/Kg	☼	05/07/19 23:19	05/08/19 11:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	34		25 - 113	05/07/19 23:19	05/08/19 11:25	1
Terphenyl-d14 (Surr)	34		27 - 123	05/07/19 23:19	05/08/19 11:25	1
2-Fluorobiphenyl	34		29 - 107	05/07/19 23:19	05/08/19 11:25	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.069	U J	0.52	0.069	mg/Kg	☼	05/07/19 23:21	05/08/19 13:26	1
Aroclor 1221	0.069	U	0.52	0.069	mg/Kg	☼	05/07/19 23:21	05/08/19 13:26	1
Aroclor 1232	0.069	U	0.52	0.069	mg/Kg	☼	05/07/19 23:21	05/08/19 13:26	1
Aroclor 1242	0.069	U	0.52	0.069	mg/Kg	☼	05/07/19 23:21	05/08/19 13:26	1
Aroclor 1248	0.76	J	0.52	0.069	mg/Kg	☼	05/07/19 23:21	05/08/19 13:26	1
Aroclor 1254	0.071	U J	0.52	0.071	mg/Kg	☼	05/07/19 23:21	05/08/19 13:26	1
Aroclor 1260	0.071	U	0.52	0.071	mg/Kg	☼	05/07/19 23:21	05/08/19 13:26	1
Aroclor-1262	0.071	U	0.52	0.071	mg/Kg	☼	05/07/19 23:21	05/08/19 13:26	1
Aroclor 1268	0.071	U	0.52	0.071	mg/Kg	☼	05/07/19 23:21	05/08/19 13:26	1
Polychlorinated biphenyls, Total	0.76	J	0.52	0.071	mg/Kg	☼	05/07/19 23:21	05/08/19 13:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	100		53 - 150	05/07/19 23:21	05/08/19 13:26	1
DCB Decachlorobiphenyl	110		53 - 150	05/07/19 23:21	05/08/19 13:26	1

Client Sample ID: WP-SB-AT36-I-J-0-050719

Lab Sample ID: 460-181345-14
Date Collected: 05/07/19 14:33
Matrix: Solid
Date Received: 05/07/19 18:00
Percent Solids: 62.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.57		0.53	0.028	mg/Kg	☼	05/07/19 23:19	05/08/19 11:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	43		25 - 113	05/07/19 23:19	05/08/19 11:48	1
Terphenyl-d14 (Surr)	40		27 - 123	05/07/19 23:19	05/08/19 11:48	1
2-Fluorobiphenyl	43		29 - 107	05/07/19 23:19	05/08/19 11:48	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.014	U	0.11	0.014	mg/Kg	☼	05/07/19 23:21	05/08/19 13:09	1
Aroclor 1221	0.014	U	0.11	0.014	mg/Kg	☼	05/07/19 23:21	05/08/19 13:09	1
Aroclor 1232	0.014	U	0.11	0.014	mg/Kg	☼	05/07/19 23:21	05/08/19 13:09	1
Aroclor 1242	0.014	U	0.11	0.014	mg/Kg	☼	05/07/19 23:21	05/08/19 13:09	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Spring 2019 Rush PCBs & BEHP

Job ID: 460-181345-1

Client Sample ID: WP-SB-AT36-I-J-0-050719

Lab Sample ID: 460-181345-14

Date Collected: 05/07/19 14:33
Date Received: 05/07/19 18:00

Matrix: Solid
Percent Solids: 62.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.014	U	0.11	0.014	mg/Kg	☼	05/07/19 23:21	05/08/19 13:09	1
Aroclor 1254	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 13:09	1
Aroclor 1260	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 13:09	1
Aroclor-1262	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 13:09	1
Aroclor 1268	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 13:09	1
Polychlorinated biphenyls, Total	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 13:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*127*		*53 - 150*	*05/07/19 23:21*	*05/08/19 13:09*	*1*
DCB Decachlorobiphenyl	*115*		*53 - 150*	*05/07/19 23:21*	*05/08/19 13:09*	*1*

Client Sample ID: WP-ST-AT36-D-E-0-050719

Lab Sample ID: 460-181345-15

Date Collected: 05/07/19 14:52
Date Received: 05/07/19 18:00

Matrix: Solid
Percent Solids: 58.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.21	J	0.57	0.030	mg/Kg	☼	05/08/19 21:35	05/09/19 05:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*37*		*25 - 113*	*05/08/19 21:35*	*05/09/19 05:58*	*1*
Terphenyl-d14 (Surr)	*35*		*27 - 123*	*05/08/19 21:35*	*05/09/19 05:58*	*1*
2-Fluorobiphenyl	*37*		*29 - 107*	*05/08/19 21:35*	*05/09/19 05:58*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 12:52	1
Aroclor 1221	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 12:52	1
Aroclor 1232	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 12:52	1
Aroclor 1242	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 12:52	1
Aroclor 1248	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 12:52	1
Aroclor 1254	0.016	U	0.11	0.016	mg/Kg	☼	05/07/19 23:21	05/08/19 12:52	1
Aroclor 1260	0.016	U	0.11	0.016	mg/Kg	☼	05/07/19 23:21	05/08/19 12:52	1
Aroclor-1262	0.016	U	0.11	0.016	mg/Kg	☼	05/07/19 23:21	05/08/19 12:52	1
Aroclor 1268	0.016	U	0.11	0.016	mg/Kg	☼	05/07/19 23:21	05/08/19 12:52	1
Polychlorinated biphenyls, Total	0.016	U	0.11	0.016	mg/Kg	☼	05/07/19 23:21	05/08/19 12:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*100*		*53 - 150*	*05/07/19 23:21*	*05/08/19 12:52*	*1*
DCB Decachlorobiphenyl	*104*		*53 - 150*	*05/07/19 23:21*	*05/08/19 12:52*	*1*

Client Sample ID: WP-SB-AV37-I-J-0-050719

Lab Sample ID: 460-181345-16

Date Collected: 05/07/19 15:20
Date Received: 05/07/19 18:00

Matrix: Solid
Percent Solids: 60.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.40	J	0.54	0.029	mg/Kg	☼	05/07/19 23:19	05/08/19 12:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*33*		*25 - 113*	*05/07/19 23:19*	*05/08/19 12:35*	*1*
Terphenyl-d14 (Surr)	*30*		*27 - 123*	*05/07/19 23:19*	*05/08/19 12:35*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Spring 2019 Rush PCBs & BEHP

Job ID: 460-181345-1

Client Sample ID: WP-SB-AV37-I-J-0-050719

Lab Sample ID: 460-181345-16

Date Collected: 05/07/19 15:20
Date Received: 05/07/19 18:00

Matrix: Solid
Percent Solids: 60.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	33		29 - 107	05/07/19 23:19	05/08/19 12:35	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 12:35	1
Aroclor 1221	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 12:35	1
Aroclor 1232	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 12:35	1
Aroclor 1242	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 12:35	1
Aroclor 1248	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 12:35	1
Aroclor 1254	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 12:35	1
Aroclor 1260	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 12:35	1
Aroclor-1262	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 12:35	1
Aroclor 1268	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 12:35	1
Polychlorinated biphenyls, Total	0.015	U	0.11	0.015	mg/Kg	☼	05/07/19 23:21	05/08/19 12:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	95		53 - 150	05/07/19 23:21	05/08/19 12:35	1
DCB Decachlorobiphenyl	107		53 - 150	05/07/19 23:21	05/08/19 12:35	1

Client Sample ID: WP-ST-AV37-F-G-0-050719

Lab Sample ID: 460-181345-17

Date Collected: 05/07/19 15:45
Date Received: 05/07/19 18:00

Matrix: Solid
Percent Solids: 53.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.23	J	0.62	0.033	mg/Kg	☼	05/07/19 23:19	05/08/19 12:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	34		25 - 113	05/07/19 23:19	05/08/19 12:59	1
Terphenyl-d14 (Surr)	29		27 - 123	05/07/19 23:19	05/08/19 12:59	1
2-Fluorobiphenyl	34		29 - 107	05/07/19 23:19	05/08/19 12:59	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.017	U	0.13	0.017	mg/Kg	☼	05/08/19 00:02	05/08/19 12:17	1
Aroclor 1221	0.017	U	0.13	0.017	mg/Kg	☼	05/08/19 00:02	05/08/19 12:17	1
Aroclor 1232	0.017	U	0.13	0.017	mg/Kg	☼	05/08/19 00:02	05/08/19 12:17	1
Aroclor 1242	0.017	U	0.13	0.017	mg/Kg	☼	05/08/19 00:02	05/08/19 12:17	1
Aroclor 1248	0.017	U	0.13	0.017	mg/Kg	☼	05/08/19 00:02	05/08/19 12:17	1
Aroclor 1254	0.017	U	0.13	0.017	mg/Kg	☼	05/08/19 00:02	05/08/19 12:17	1
Aroclor 1260	0.017	U	0.13	0.017	mg/Kg	☼	05/08/19 00:02	05/08/19 12:17	1
Aroclor-1262	0.017	U	0.13	0.017	mg/Kg	☼	05/08/19 00:02	05/08/19 12:17	1
Aroclor 1268	0.017	U	0.13	0.017	mg/Kg	☼	05/08/19 00:02	05/08/19 12:17	1
Polychlorinated biphenyls, Total	0.017	U	0.13	0.017	mg/Kg	☼	05/08/19 00:02	05/08/19 12:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	115		53 - 150	05/08/19 00:02	05/08/19 12:17	1
DCB Decachlorobiphenyl	116		53 - 150	05/08/19 00:02	05/08/19 12:17	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Spring 2019 Rush PCBs & BEHP

Job ID: 460-181345-1

Client Sample ID: WP-PB-BB31-I-J-0-050719

Lab Sample ID: 460-181345-18

Date Collected: 05/07/19 16:14
Date Received: 05/07/19 18:00

Matrix: Solid
Percent Solids: 66.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.59		0.49	0.026	mg/Kg	☼	05/07/19 23:19	05/08/19 13:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*48*		*25 - 113*	*05/07/19 23:19*	*05/08/19 13:23*	*1*
Terphenyl-d14 (Surr)	*43*		*27 - 123*	*05/07/19 23:19*	*05/08/19 13:23*	*1*
2-Fluorobiphenyl	*51*		*29 - 107*	*05/07/19 23:19*	*05/08/19 13:23*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.10	0.013	mg/Kg	☼	05/08/19 00:02	05/08/19 12:00	1
Aroclor 1221	0.013	U	0.10	0.013	mg/Kg	☼	05/08/19 00:02	05/08/19 12:00	1
Aroclor 1232	0.013	U	0.10	0.013	mg/Kg	☼	05/08/19 00:02	05/08/19 12:00	1
Aroclor 1242	0.013	U	0.10	0.013	mg/Kg	☼	05/08/19 00:02	05/08/19 12:00	1
Aroclor 1248	0.013	U	0.10	0.013	mg/Kg	☼	05/08/19 00:02	05/08/19 12:00	1
Aroclor 1254	0.014	U	0.10	0.014	mg/Kg	☼	05/08/19 00:02	05/08/19 12:00	1
Aroclor 1260	0.014	U	0.10	0.014	mg/Kg	☼	05/08/19 00:02	05/08/19 12:00	1
Aroclor-1262	0.014	U	0.10	0.014	mg/Kg	☼	05/08/19 00:02	05/08/19 12:00	1
Aroclor 1268	0.014	U	0.10	0.014	mg/Kg	☼	05/08/19 00:02	05/08/19 12:00	1
Polychlorinated biphenyls, Total	0.014	U	0.10	0.014	mg/Kg	☼	05/08/19 00:02	05/08/19 12:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*117*		*53 - 150*	*05/08/19 00:02*	*05/08/19 12:00*	*1*
DCB Decachlorobiphenyl	*122*		*53 - 150*	*05/08/19 00:02*	*05/08/19 12:00*	*1*

Client Sample ID: WP-FB-050719

Lab Sample ID: 460-181345-20

Date Collected: 05/07/19 16:27
Date Received: 05/07/19 18:00

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U/J	2.0	1.7	ug/L		05/07/19 22:28	05/08/19 03:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*109*	*X*	*51 - 108*	*05/07/19 22:28*	*05/08/19 03:23*	*1*
Terphenyl-d14 (Surr)	*115*		*40 - 148*	*05/07/19 22:28*	*05/08/19 03:23*	*1*
2-Fluorobiphenyl	*98*		*45 - 107*	*05/07/19 22:28*	*05/08/19 03:23*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		05/07/19 21:40	05/08/19 09:56	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		05/07/19 21:40	05/08/19 09:56	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		05/07/19 21:40	05/08/19 09:56	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		05/07/19 21:40	05/08/19 09:56	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		05/07/19 21:40	05/08/19 09:56	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		05/07/19 21:40	05/08/19 09:56	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		05/07/19 21:40	05/08/19 09:56	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		05/07/19 21:40	05/08/19 09:56	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		05/07/19 21:40	05/08/19 09:56	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		05/07/19 21:40	05/08/19 09:56	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Spring 2019 Rush PCBs & BEHP

Job ID: 460-181345-1

Client Sample ID: WP-FB-050719

Date Collected: 05/07/19 16:27
Date Received: 05/07/19 18:00

Lab Sample ID: 460-181345-20

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	107		10 - 150	05/07/19 21:40	05/08/19 09:56	1
DCB Decachlorobiphenyl	97		10 - 150	05/07/19 21:40	05/08/19 09:56	1

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-181672

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 6/20/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on May 10, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-PB-BB28-A-B-0-051019	460-181672-1	Sediment	PCBs, BEHP*
WP-PBC-BB28-C-D-0-051019	460-181672-2	Sediment	PCBs, BEHP*
WP-PB-BE37-K-L-0-051019	460-181672-3	Sediment	PCBs, BEHP*
WP-PBC-BE37-C-D-0-051019	460-181672-4	Sediment	PCBs, BEHP*
WP-PB-BE28-A-B-0-051019	460-181672-5	Sediment	PCBs, BEHP*
WP-ST-BA28-D-E-0-051019	460-181672-6	Sediment	PCBs, BEHP*
WP-ST-AY-32-D-E-0-051019	460-181672-7	Sediment	PCBs, BEHP*
WP-ST-AV32-D-E-0-051019	460-181672-8	Sediment	PCBs, BEHP*
WP-ST-AT36-D-E-0-051019	460-181672-9	Sediment	PCBs, BEHP*
WP-ST-AT36-D-E-1-051019	460-181672-10	Sediment	PCBs, BEHP*
WP-ST-AT34-D-E-0-051019	460-181672-11	Sediment	PCBs, BEHP*
WP-SB-BA28-I-J-0-051019	460-181672-12	Sediment	PCBs, BEHP*
WP-ST-AV37-F-G-0-051019	460-181672-13	Sediment	PCBs, BEHP*
WP-FB-051019	460-181672-14	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable for the requested analyses. The data package contains required elements. The analyses of samples WP-PBC-BB28-C-D-0-051019, and WP-PBC-BE37-C-D-0-051019 were placed on hold upon lab receipt but were later canceled on May 14, 2019.

The laboratory incorrectly logged in field sample WP-ST-AV37-F-G-0-051019 as WP-ST-A*Y*37-F-G-0-051019 for lab sample 460-181672-13. The laboratory issued a revised data package to reference the correct field sample identification; however, incorrect field sample identification can still be found in the case narrative and raw data such as chromatograms. The correct field sample was referenced in this data validation report.

With the exception of samples WP-ST-AV32-D-E-0-051019, WP-ST-AT36-D-E-0-051019, WP-ST-AT36-D-E-1-051019, WP-ST-AT34-D-E-0-051019, and WP-ST-AV37-F-G-0-051019, the solid contents were greater than 30% for sediment samples. Since the solid contents of sample exceptions were >10% but <30%, the positive results and the non-detects were estimated, J and UJ, respectively.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

Matrix Spike and Matrix Spike Duplicate Recovery

Since none of the site sample in this sample delivery group was used for matrix spike (MS) and matrix spike duplicate (MSD) analyses, the matrix effect on analytical accuracy and precision could not be assessed. Since the recoveries of BEHP from the LCS and LCSD analyses were within laboratory-established control limits, laboratory accuracy and precision were deemed in control.

Field Duplicate

The analyses of WP-PB-AV34-A-B-0-050719 and its field duplicate WP-PB-AV34-A-B-1-050719 yielded comparable BEHP results.

PCBs

A sample unrelated to the site was used for the MS/MSD analyses. Their results were not used to qualify Aroclor data submitted for this report.

The percent difference (%D) of positive Aroclor-1248 results between the two analytical columns was >25 in the analyses of samples WP-ST-AT36-D-E-0-051019, WP-ST-AT34-D-E-0-051019, and WP-ST-AV37-F-G-0-051019. These Aroclor-1248 results should be estimated (J). However, since they had been estimated for low solid contents, further action was not required. Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

The analyses of WP-PB-AV34-A-B-0-050719 and its field duplicate WP-PB-AV34-A-B-1-050719 yielded comparable Aroclor results.

Data Validation Summary

Although target analyte results were estimated (J/UJ) due to low solid contents, the non-compliant QC results did not warrant data rejections. All results can be used as reported.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-181672-1

Client Sample ID: WP-PB-BB28-A-B-0-051019

Date Collected: 05/10/19 10:25
Date Received: 05/10/19 17:30

Lab Sample ID: 460-181672-1

Matrix: Solid
Percent Solids: 73.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.6		0.45	0.024	mg/Kg	☼	05/12/19 22:55	05/13/19 04:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*48*		*25 - 113*	*05/12/19 22:55*	*05/13/19 04:37*	*1*
Terphenyl-d14 (Surr)	*53*		*27 - 123*	*05/12/19 22:55*	*05/13/19 04:37*	*1*
2-Fluorobiphenyl	*51*		*29 - 107*	*05/12/19 22:55*	*05/13/19 04:37*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.091	0.012	mg/Kg	☼	05/11/19 17:17	05/12/19 12:31	1
Aroclor 1221	0.012	U	0.091	0.012	mg/Kg	☼	05/11/19 17:17	05/12/19 12:31	1
Aroclor 1232	0.012	U	0.091	0.012	mg/Kg	☼	05/11/19 17:17	05/12/19 12:31	1
Aroclor 1242	0.012	U	0.091	0.012	mg/Kg	☼	05/11/19 17:17	05/12/19 12:31	1
Aroclor 1248	0.012	U	0.091	0.012	mg/Kg	☼	05/11/19 17:17	05/12/19 12:31	1
Aroclor 1254	0.012	U	0.091	0.012	mg/Kg	☼	05/11/19 17:17	05/12/19 12:31	1
Aroclor 1260	0.012	U	0.091	0.012	mg/Kg	☼	05/11/19 17:17	05/12/19 12:31	1
Aroclor-1262	0.012	U	0.091	0.012	mg/Kg	☼	05/11/19 17:17	05/12/19 12:31	1
Aroclor 1268	0.012	U	0.091	0.012	mg/Kg	☼	05/11/19 17:17	05/12/19 12:31	1
Polychlorinated biphenyls, Total	0.012	U	0.091	0.012	mg/Kg	☼	05/11/19 17:17	05/12/19 12:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*121*		*53 - 150*	*05/11/19 17:17*	*05/12/19 12:31*	*1*
DCB Decachlorobiphenyl	*116*		*53 - 150*	*05/11/19 17:17*	*05/12/19 12:31*	*1*

Client Sample ID: WP-PB-BE37-K-L-0-051019

Date Collected: 05/10/19 10:49
Date Received: 05/10/19 17:30

Lab Sample ID: 460-181672-3

Matrix: Solid
Percent Solids: 68.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	7.1		0.48	0.025	mg/Kg	☼	05/12/19 22:55	05/13/19 04:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*57*		*25 - 113*	*05/12/19 22:55*	*05/13/19 04:54*	*1*
Terphenyl-d14 (Surr)	*66*		*27 - 123*	*05/12/19 22:55*	*05/13/19 04:54*	*1*
2-Fluorobiphenyl	*60*		*29 - 107*	*05/12/19 22:55*	*05/13/19 04:54*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.097	0.013	mg/Kg	☼	05/11/19 17:17	05/12/19 12:48	1
Aroclor 1221	0.013	U	0.097	0.013	mg/Kg	☼	05/11/19 17:17	05/12/19 12:48	1
Aroclor 1232	0.013	U	0.097	0.013	mg/Kg	☼	05/11/19 17:17	05/12/19 12:48	1
Aroclor 1242	0.013	U	0.097	0.013	mg/Kg	☼	05/11/19 17:17	05/12/19 12:48	1
Aroclor 1248	0.013	U	0.097	0.013	mg/Kg	☼	05/11/19 17:17	05/12/19 12:48	1
Aroclor 1254	0.013	U	0.097	0.013	mg/Kg	☼	05/11/19 17:17	05/12/19 12:48	1
Aroclor 1260	0.013	U	0.097	0.013	mg/Kg	☼	05/11/19 17:17	05/12/19 12:48	1
Aroclor-1262	0.013	U	0.097	0.013	mg/Kg	☼	05/11/19 17:17	05/12/19 12:48	1
Aroclor 1268	0.013	U	0.097	0.013	mg/Kg	☼	05/11/19 17:17	05/12/19 12:48	1
Polychlorinated biphenyls, Total	0.013	U	0.097	0.013	mg/Kg	☼	05/11/19 17:17	05/12/19 12:48	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-181672-1

Client Sample ID: WP-PB-BE37-K-L-0-051019

Date Collected: 05/10/19 10:49
Date Received: 05/10/19 17:30

Lab Sample ID: 460-181672-3
Matrix: Solid
Percent Solids: 68.7

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	92		53 - 150	05/11/19 17:17	05/12/19 12:48	1
DCB Decachlorobiphenyl	82		53 - 150	05/11/19 17:17	05/12/19 12:48	1

Client Sample ID: WP-PB-BE28-A-B-0-051019

Date Collected: 05/10/19 11:12
Date Received: 05/10/19 17:30

Lab Sample ID: 460-181672-5
Matrix: Solid
Percent Solids: 70.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.2		0.47	0.025	mg/Kg	☼	05/12/19 22:55	05/13/19 05:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	53		25 - 113	05/12/19 22:55	05/13/19 05:11	1
Terphenyl-d14 (Surr)	59		27 - 123	05/12/19 22:55	05/13/19 05:11	1
2-Fluorobiphenyl	56		29 - 107	05/12/19 22:55	05/13/19 05:11	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.095	0.013	mg/Kg	☼	05/11/19 17:17	05/12/19 13:05	1
Aroclor 1221	0.013	U	0.095	0.013	mg/Kg	☼	05/11/19 17:17	05/12/19 13:05	1
Aroclor 1232	0.013	U	0.095	0.013	mg/Kg	☼	05/11/19 17:17	05/12/19 13:05	1
Aroclor 1242	0.013	U	0.095	0.013	mg/Kg	☼	05/11/19 17:17	05/12/19 13:05	1
Aroclor 1248	0.013	U	0.095	0.013	mg/Kg	☼	05/11/19 17:17	05/12/19 13:05	1
Aroclor 1254	0.013	U	0.095	0.013	mg/Kg	☼	05/11/19 17:17	05/12/19 13:05	1
Aroclor 1260	0.013	U	0.095	0.013	mg/Kg	☼	05/11/19 17:17	05/12/19 13:05	1
Aroclor-1262	0.013	U	0.095	0.013	mg/Kg	☼	05/11/19 17:17	05/12/19 13:05	1
Aroclor 1268	0.013	U	0.095	0.013	mg/Kg	☼	05/11/19 17:17	05/12/19 13:05	1
Polychlorinated biphenyls, Total	0.013	U	0.095	0.013	mg/Kg	☼	05/11/19 17:17	05/12/19 13:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	125		53 - 150	05/11/19 17:17	05/12/19 13:05	1
DCB Decachlorobiphenyl	114		53 - 150	05/11/19 17:17	05/12/19 13:05	1

Client Sample ID: WP-ST-BA28-D-E-0-051019

Date Collected: 05/10/19 12:15
Date Received: 05/10/19 17:30

Lab Sample ID: 460-181672-6
Matrix: Solid
Percent Solids: 47.6 72

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	3.9		0.69	0.037	mg/Kg	☼	05/12/19 22:55	05/13/19 05:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	53		25 - 113	05/12/19 22:55	05/13/19 05:28	1
Terphenyl-d14 (Surr)	61		27 - 123	05/12/19 22:55	05/13/19 05:28	1
2-Fluorobiphenyl	59		29 - 107	05/12/19 22:55	05/13/19 05:28	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.019	U	0.14	0.019	mg/Kg	☼	05/11/19 17:17	05/12/19 13:22	1
Aroclor 1221	0.019	U	0.14	0.019	mg/Kg	☼	05/11/19 17:17	05/12/19 13:22	1
Aroclor 1232	0.019	U	0.14	0.019	mg/Kg	☼	05/11/19 17:17	05/12/19 13:22	1
Aroclor 1242	0.019	U	0.14	0.019	mg/Kg	☼	05/11/19 17:17	05/12/19 13:22	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-181672-1

Client Sample ID: WP-ST-BA28-D-E-0-051019

Lab Sample ID: 460-181672-6
Date Collected: 05/10/19 12:15
Matrix: Solid
Date Received: 05/10/19 17:30
Percent Solids: 47.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.019	U	0.14	0.019	mg/Kg	☼	05/11/19 17:17	05/12/19 13:22	1
Aroclor 1254	0.019	U	0.14	0.019	mg/Kg	☼	05/11/19 17:17	05/12/19 13:22	1
Aroclor 1260	0.019	U	0.14	0.019	mg/Kg	☼	05/11/19 17:17	05/12/19 13:22	1
Aroclor-1262	0.019	U	0.14	0.019	mg/Kg	☼	05/11/19 17:17	05/12/19 13:22	1
Aroclor 1268	0.019	U	0.14	0.019	mg/Kg	☼	05/11/19 17:17	05/12/19 13:22	1
Polychlorinated biphenyls, Total	0.019	U	0.14	0.019	mg/Kg	☼	05/11/19 17:17	05/12/19 13:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*66*		*53 - 150*	*05/11/19 17:17*	*05/12/19 13:22*	*1*
DCB Decachlorobiphenyl	*62*		*53 - 150*	*05/11/19 17:17*	*05/12/19 13:22*	*1*

Client Sample ID: WP-ST-AY-32-D-E-0-051019

Lab Sample ID: 460-181672-7
Date Collected: 05/10/19 14:12
Matrix: Solid
Date Received: 05/10/19 17:30
Percent Solids: 38.4 23i

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	5.0		0.86	0.046	mg/Kg	☼	05/12/19 22:55	05/13/19 05:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*50*		*25 - 113*	*05/12/19 22:55*	*05/13/19 05:44*	*1*
Terphenyl-d14 (Surr)	*65*		*27 - 123*	*05/12/19 22:55*	*05/13/19 05:44*	*1*
2-Fluorobiphenyl	*61*		*29 - 107*	*05/12/19 22:55*	*05/13/19 05:44*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.023	U	0.17	0.023	mg/Kg	☼	05/11/19 17:17	05/12/19 13:40	1
Aroclor 1221	0.023	U	0.17	0.023	mg/Kg	☼	05/11/19 17:17	05/12/19 13:40	1
Aroclor 1232	0.023	U	0.17	0.023	mg/Kg	☼	05/11/19 17:17	05/12/19 13:40	1
Aroclor 1242	0.023	U	0.17	0.023	mg/Kg	☼	05/11/19 17:17	05/12/19 13:40	1
Aroclor 1248	0.023	U	0.17	0.023	mg/Kg	☼	05/11/19 17:17	05/12/19 13:40	1
Aroclor 1254	0.024	U	0.17	0.024	mg/Kg	☼	05/11/19 17:17	05/12/19 13:40	1
Aroclor 1260	0.024	U	0.17	0.024	mg/Kg	☼	05/11/19 17:17	05/12/19 13:40	1
Aroclor-1262	0.024	U	0.17	0.024	mg/Kg	☼	05/11/19 17:17	05/12/19 13:40	1
Aroclor 1268	0.024	U	0.17	0.024	mg/Kg	☼	05/11/19 17:17	05/12/19 13:40	1
Polychlorinated biphenyls, Total	0.024	U	0.17	0.024	mg/Kg	☼	05/11/19 17:17	05/12/19 13:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*94*		*53 - 150*	*05/11/19 17:17*	*05/12/19 13:40*	*1*
DCB Decachlorobiphenyl	*93*		*53 - 150*	*05/11/19 17:17*	*05/12/19 13:40*	*1*

Client Sample ID: WP-ST-AV32-D-E-0-051019

Lab Sample ID: 460-181672-8
Date Collected: 05/10/19 14:27
Matrix: Solid
Date Received: 05/10/19 17:30
Percent Solids: 29.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	3.7	J	1.1	0.059	mg/Kg	☼	05/12/19 22:55	05/13/19 06:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*45*		*25 - 113*	*05/12/19 22:55*	*05/13/19 06:01*	*1*
Terphenyl-d14 (Surr)	*47*		*27 - 123*	*05/12/19 22:55*	*05/13/19 06:01*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-181672-1

Client Sample ID: WP-ST-AV32-D-E-0-051019

Date Collected: 05/10/19 14:27
Date Received: 05/10/19 17:30

Lab Sample ID: 460-181672-8

Matrix: Solid
Percent Solids: 29.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	48		29 - 107	05/12/19 22:55	05/13/19 06:01	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.030	U	0.23	0.030	mg/Kg	☼	05/11/19 17:17	05/12/19 13:57	1
Aroclor 1221	0.030	U	0.23	0.030	mg/Kg	☼	05/11/19 17:17	05/12/19 13:57	1
Aroclor 1232	0.030	U	0.23	0.030	mg/Kg	☼	05/11/19 17:17	05/12/19 13:57	1
Aroclor 1242	0.030	U	0.23	0.030	mg/Kg	☼	05/11/19 17:17	05/12/19 13:57	1
Aroclor 1248	0.71		0.23	0.030	mg/Kg	☼	05/11/19 17:17	05/12/19 13:57	1
Aroclor 1254	0.031	U	0.23	0.031	mg/Kg	☼	05/11/19 17:17	05/12/19 13:57	1
Aroclor 1260	0.031	U	0.23	0.031	mg/Kg	☼	05/11/19 17:17	05/12/19 13:57	1
Aroclor-1262	0.031	U	0.23	0.031	mg/Kg	☼	05/11/19 17:17	05/12/19 13:57	1
Aroclor 1268	0.031	U	0.23	0.031	mg/Kg	☼	05/11/19 17:17	05/12/19 13:57	1
Polychlorinated biphenyls, Total	0.71		0.23	0.031	mg/Kg	☼	05/11/19 17:17	05/12/19 13:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	100		53 - 150	05/11/19 17:17	05/12/19 13:57	1
DCB Decachlorobiphenyl	105		53 - 150	05/11/19 17:17	05/12/19 13:57	1

Client Sample ID: WP-ST-AT36-D-E-0-051019

Date Collected: 05/10/19 14:47
Date Received: 05/10/19 17:30

Lab Sample ID: 460-181672-9

Matrix: Solid
Percent Solids: 12.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	16		2.6	0.14	mg/Kg	☼	05/12/19 22:55	05/13/19 06:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	50		25 - 113	05/12/19 22:55	05/13/19 06:18	1
Terphenyl-d14 (Surr)	56		27 - 123	05/12/19 22:55	05/13/19 06:18	1
2-Fluorobiphenyl	58		29 - 107	05/12/19 22:55	05/13/19 06:18	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.070	U	0.53	0.070	mg/Kg	☼	05/11/19 17:17	05/12/19 14:14	1
Aroclor 1221	0.070	U	0.53	0.070	mg/Kg	☼	05/11/19 17:17	05/12/19 14:14	1
Aroclor 1232	0.070	U	0.53	0.070	mg/Kg	☼	05/11/19 17:17	05/12/19 14:14	1
Aroclor 1242	0.070	U	0.53	0.070	mg/Kg	☼	05/11/19 17:17	05/12/19 14:14	1
Aroclor 1248	0.64		0.53	0.070	mg/Kg	☼	05/11/19 17:17	05/12/19 14:14	1
Aroclor 1254	0.072	U	0.53	0.072	mg/Kg	☼	05/11/19 17:17	05/12/19 14:14	1
Aroclor 1260	0.072	U	0.53	0.072	mg/Kg	☼	05/11/19 17:17	05/12/19 14:14	1
Aroclor-1262	0.072	U	0.53	0.072	mg/Kg	☼	05/11/19 17:17	05/12/19 14:14	1
Aroclor 1268	0.072	U	0.53	0.072	mg/Kg	☼	05/11/19 17:17	05/12/19 14:14	1
Polychlorinated biphenyls, Total	0.64		0.53	0.072	mg/Kg	☼	05/11/19 17:17	05/12/19 14:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	83		53 - 150	05/11/19 17:17	05/12/19 14:14	1
DCB Decachlorobiphenyl	86		53 - 150	05/11/19 17:17	05/12/19 14:14	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-181672-1

Client Sample ID: WP-ST-AT36-D-E-1-051019

Lab Sample ID: 460-181672-10

Date Collected: 05/10/19 14:52
Date Received: 05/10/19 17:30

Matrix: Solid
Percent Solids: 12.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	18	J	2.6	0.14	mg/Kg	☼	05/12/19 22:55	05/13/19 06:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*56*		*25 - 113*	*05/12/19 22:55*	*05/13/19 06:35*	*1*
Terphenyl-d14 (Surr)	*59*		*27 - 123*	*05/12/19 22:55*	*05/13/19 06:35*	*1*
2-Fluorobiphenyl	*61*		*29 - 107*	*05/12/19 22:55*	*05/13/19 06:35*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.071	U	0.53	0.071	mg/Kg	☼	05/11/19 17:17	05/12/19 14:31	1
Aroclor 1221	0.071	U	0.53	0.071	mg/Kg	☼	05/11/19 17:17	05/12/19 14:31	1
Aroclor 1232	0.071	U	0.53	0.071	mg/Kg	☼	05/11/19 17:17	05/12/19 14:31	1
Aroclor 1242	0.071	U	0.53	0.071	mg/Kg	☼	05/11/19 17:17	05/12/19 14:31	1
Aroclor 1248	0.46	J	0.53	0.071	mg/Kg	☼	05/11/19 17:17	05/12/19 14:31	1
Aroclor 1254	0.073	U	0.53	0.073	mg/Kg	☼	05/11/19 17:17	05/12/19 14:31	1
Aroclor 1260	0.073	U	0.53	0.073	mg/Kg	☼	05/11/19 17:17	05/12/19 14:31	1
Aroclor-1262	0.073	U	0.53	0.073	mg/Kg	☼	05/11/19 17:17	05/12/19 14:31	1
Aroclor 1268	0.073	U	0.53	0.073	mg/Kg	☼	05/11/19 17:17	05/12/19 14:31	1
Polychlorinated biphenyls, Total	0.46	J	0.53	0.073	mg/Kg	☼	05/11/19 17:17	05/12/19 14:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*78*		*53 - 150*	*05/11/19 17:17*	*05/12/19 14:31*	*1*
DCB Decachlorobiphenyl	*72*		*53 - 150*	*05/11/19 17:17*	*05/12/19 14:31*	*1*

Client Sample ID: WP-ST-AT34-D-E-0-051019

Lab Sample ID: 460-181672-11

Date Collected: 05/10/19 15:03
Date Received: 05/10/19 17:30

Matrix: Solid
Percent Solids: 13.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	10	J	2.4	0.13	mg/Kg	☼	05/12/19 22:55	05/13/19 06:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*55*		*25 - 113*	*05/12/19 22:55*	*05/13/19 06:52*	*1*
Terphenyl-d14 (Surr)	*51*		*27 - 123*	*05/12/19 22:55*	*05/13/19 06:52*	*1*
2-Fluorobiphenyl	*56*		*29 - 107*	*05/12/19 22:55*	*05/13/19 06:52*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.065	U	0.49	0.065	mg/Kg	☼	05/11/19 17:17	05/12/19 14:48	1
Aroclor 1221	0.065	U	0.49	0.065	mg/Kg	☼	05/11/19 17:17	05/12/19 14:48	1
Aroclor 1232	0.065	U	0.49	0.065	mg/Kg	☼	05/11/19 17:17	05/12/19 14:48	1
Aroclor 1242	0.065	U	0.49	0.065	mg/Kg	☼	05/11/19 17:17	05/12/19 14:48	1
Aroclor 1248	0.57		0.49	0.065	mg/Kg	☼	05/11/19 17:17	05/12/19 14:48	1
Aroclor 1254	0.067	U	0.49	0.067	mg/Kg	☼	05/11/19 17:17	05/12/19 14:48	1
Aroclor 1260	0.067	U	0.49	0.067	mg/Kg	☼	05/11/19 17:17	05/12/19 14:48	1
Aroclor-1262	0.067	U	0.49	0.067	mg/Kg	☼	05/11/19 17:17	05/12/19 14:48	1
Aroclor 1268	0.067	U	0.49	0.067	mg/Kg	☼	05/11/19 17:17	05/12/19 14:48	1
Polychlorinated biphenyls, Total	0.57		0.49	0.067	mg/Kg	☼	05/11/19 17:17	05/12/19 14:48	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-181672-1

Client Sample ID: WP-ST-AT34-D-E-0-051019

Lab Sample ID: 460-181672-11
Date Collected: 05/10/19 15:03
Date Received: 05/10/19 17:30
Matrix: Solid
Percent Solids: 13.7

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	82		53 - 150	05/11/19 17:17	05/12/19 14:48	1
DCB Decachlorobiphenyl	81		53 - 150	05/11/19 17:17	05/12/19 14:48	1

Client Sample ID: WP-SB-BA28-I-J-0-051019

Lab Sample ID: 460-181672-12
Date Collected: 05/10/19 15:50
Date Received: 05/10/19 17:30
Matrix: Solid
Percent Solids: 65.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	8.7		0.50	0.027	mg/Kg	☼	05/12/19 22:55	05/13/19 07:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	34		25 - 113	05/12/19 22:55	05/13/19 07:09	1
Terphenyl-d14 (Surr)	35		27 - 123	05/12/19 22:55	05/13/19 07:09	1
2-Fluorobiphenyl	36		29 - 107	05/12/19 22:55	05/13/19 07:09	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.014	U	0.10	0.014	mg/Kg	☼	05/11/19 17:17	05/12/19 15:05	1
Aroclor 1221	0.014	U	0.10	0.014	mg/Kg	☼	05/11/19 17:17	05/12/19 15:05	1
Aroclor 1232	0.014	U	0.10	0.014	mg/Kg	☼	05/11/19 17:17	05/12/19 15:05	1
Aroclor 1242	0.014	U	0.10	0.014	mg/Kg	☼	05/11/19 17:17	05/12/19 15:05	1
Aroclor 1248	0.47		0.10	0.014	mg/Kg	☼	05/11/19 17:17	05/12/19 15:05	1
Aroclor 1254	0.014	U	0.10	0.014	mg/Kg	☼	05/11/19 17:17	05/12/19 15:05	1
Aroclor 1260	0.014	U	0.10	0.014	mg/Kg	☼	05/11/19 17:17	05/12/19 15:05	1
Aroclor-1262	0.014	U	0.10	0.014	mg/Kg	☼	05/11/19 17:17	05/12/19 15:05	1
Aroclor 1268	0.014	U	0.10	0.014	mg/Kg	☼	05/11/19 17:17	05/12/19 15:05	1
Polychlorinated biphenyls, Total	0.47		0.10	0.014	mg/Kg	☼	05/11/19 17:17	05/12/19 15:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	85		53 - 150	05/11/19 17:17	05/12/19 15:05	1
DCB Decachlorobiphenyl	87		53 - 150	05/11/19 17:17	05/12/19 15:05	1

Client Sample ID: WP-ST-AV37-F-G-0-051019

Lab Sample ID: 460-181672-13
Date Collected: 05/10/19 16:15
Date Received: 05/10/19 17:30
Matrix: Solid
Percent Solids: 14.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	17	J	2.2	0.12	mg/Kg	☼	05/12/19 22:55	05/13/19 07:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	48		25 - 113	05/12/19 22:55	05/13/19 07:26	1
Terphenyl-d14 (Surr)	51		27 - 123	05/12/19 22:55	05/13/19 07:26	1
2-Fluorobiphenyl	52		29 - 107	05/12/19 22:55	05/13/19 07:26	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.060	U J	0.45	0.060	mg/Kg	☼	05/11/19 17:17	05/12/19 15:23	1
Aroclor 1221	0.060	U	0.45	0.060	mg/Kg	☼	05/11/19 17:17	05/12/19 15:23	1
Aroclor 1232	0.060	U	0.45	0.060	mg/Kg	☼	05/11/19 17:17	05/12/19 15:23	1
Aroclor 1242	0.060	U	0.45	0.060	mg/Kg	☼	05/11/19 17:17	05/12/19 15:23	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-181672-1

Client Sample ID: WP-ST-AV37-F-G-0-051019

Date Collected: 05/10/19 16:15
Date Received: 05/10/19 17:30

Lab Sample ID: 460-181672-13

Matrix: Solid
Percent Solids: 14.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.70	J	0.45	0.060	mg/Kg	☼	05/11/19 17:17	05/12/19 15:23	1
Aroclor 1254	0.062	U J	0.45	0.062	mg/Kg	☼	05/11/19 17:17	05/12/19 15:23	1
Aroclor 1260	0.062	U	0.45	0.062	mg/Kg	☼	05/11/19 17:17	05/12/19 15:23	1
Aroclor-1262	0.062	U	0.45	0.062	mg/Kg	☼	05/11/19 17:17	05/12/19 15:23	1
Aroclor 1268	0.062	U	0.45	0.062	mg/Kg	☼	05/11/19 17:17	05/12/19 15:23	1
Polychlorinated biphenyls, Total	0.70	J	0.45	0.062	mg/Kg	☼	05/11/19 17:17	05/12/19 15:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*95*		*53 - 150*	*05/11/19 17:17*	*05/12/19 15:23*	*1*
DCB Decachlorobiphenyl	*118*		*53 - 150*	*05/11/19 17:17*	*05/12/19 15:23*	*1*

Client Sample ID: WP-FB-051019

Date Collected: 05/10/19 16:18
Date Received: 05/10/19 17:30

Lab Sample ID: 460-181672-14

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		05/11/19 07:28	05/12/19 04:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*91*		*51 - 108*	*05/11/19 07:28*	*05/12/19 04:03*	*1*
Terphenyl-d14 (Surr)	*103*		*40 - 148*	*05/11/19 07:28*	*05/12/19 04:03*	*1*
2-Fluorobiphenyl	*97*		*45 - 107*	*05/11/19 07:28*	*05/12/19 04:03*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		05/11/19 17:31	05/12/19 13:23	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		05/11/19 17:31	05/12/19 13:23	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		05/11/19 17:31	05/12/19 13:23	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		05/11/19 17:31	05/12/19 13:23	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		05/11/19 17:31	05/12/19 13:23	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		05/11/19 17:31	05/12/19 13:23	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		05/11/19 17:31	05/12/19 13:23	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		05/11/19 17:31	05/12/19 13:23	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		05/11/19 17:31	05/12/19 13:23	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		05/11/19 17:31	05/12/19 13:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*38*		*10 - 150*	*05/11/19 17:31*	*05/12/19 13:23*	*1*
DCB Decachlorobiphenyl	*37*		*10 - 150*	*05/11/19 17:31*	*05/12/19 13:23*	*1*

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-181918

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 6/24/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on May 14, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-ST-BA22-C-D-0-051419	460-181918-1	Sediment	PCBs, BEHP*
WP-SB-BA22-G-H-0-051419	460-181918-2	Sediment	PCBs, BEHP*
WP-PB-BB22-A-B-0-051419	460-181918-3	Sediment	PCBs, BEHP*
WP-PBC-BB22-C-D-0-051419	460-181918-4	Sediment	PCBs, BEHP*
WP-PB-BB25-C-D-0-051419	460-181918-5	Sediment	PCBs, BEHP*
WP-SB-BB19-D-E-0-051419	460-181918-6	Sediment	PCBs, BEHP*
WP-ST-BB19-A-B-0-051419	460-181918-7	Sediment	PCBs, BEHP*
WP-FB-051419	460-181918-8	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable for the requested analyses. The data package contains required elements. The analyses of sample WP-PBC-BB22-C-D-0-051419 were placed on hold upon lab receipt but were later canceled on May 15, 2019.

The solid contents of samples WP-ST-BA22-C-D-0-051419, WP-SB-BB19-D-E-0-051419, and WP-ST-BB19-A-B-0-051419were >10% but <30%; the positive results and the non-detects were estimated, J and UJ, respectively.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The MS/MSD analyses were performed on sample WP-SB-BA22-G-H-0-051419 and yielded a low recovery of BEHP in the MS analysis. The positive BEHP result was estimated (J) for WP-SB-BA22-G-H-0-051419 for potential low bias.

PCBs

The MS/MSD analyses were performed on sample WP-SB-BA22-G-H-0-051419 and yielded a low MS recovery of Aroclor-1248 from column CLP-2. Data qualification was not applied based on professional judgement as the Aroclor-1248 recovery was acceptable from the Rtx-CLP column.

The percent difference (%D) of positive Aroclor-1248 results between the two analytical columns was >25 in the analyses of sample WP-ST-BB19-A-B-0-051419. The Aroclor-1248 result should be estimated (J). However, since all Aroclor results had been estimated for low solid contents, further action was not required. Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Although some target analyte results were estimated (J/UJ) due to low solid contents and other non-compliant QC results, these non-compliances did not warrant data rejections. All results can be used as reported.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-181918-1

Client Sample ID: WP-ST-BA22-C-D-0-051419

Lab Sample ID: 460-181918-1

Date Collected: 05/14/19 11:59
Date Received: 05/14/19 16:50

Matrix: Solid
Percent Solids: 17.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	3.2	J	1.9	0.10	mg/Kg	☼	05/14/19 22:09	05/15/19 07:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*56*		*25 - 113*	*05/14/19 22:09*	*05/15/19 07:02*	*1*
Terphenyl-d14 (Surr)	*50*		*27 - 123*	*05/14/19 22:09*	*05/15/19 07:02*	*1*
2-Fluorobiphenyl	*54*		*29 - 107*	*05/14/19 22:09*	*05/15/19 07:02*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.052	U J	0.39	0.052	mg/Kg	☼	05/15/19 00:00	05/15/19 12:15	1
Aroclor 1221	0.052	U	0.39	0.052	mg/Kg	☼	05/15/19 00:00	05/15/19 12:15	1
Aroclor 1232	0.052	U	0.39	0.052	mg/Kg	☼	05/15/19 00:00	05/15/19 12:15	1
Aroclor 1242	0.052	U	0.39	0.052	mg/Kg	☼	05/15/19 00:00	05/15/19 12:15	1
Aroclor 1248	0.052	U	0.39	0.052	mg/Kg	☼	05/15/19 00:00	05/15/19 12:15	1
Aroclor 1254	0.054	U	0.39	0.054	mg/Kg	☼	05/15/19 00:00	05/15/19 12:15	1
Aroclor 1260	0.054	U	0.39	0.054	mg/Kg	☼	05/15/19 00:00	05/15/19 12:15	1
Aroclor-1262	0.054	U	0.39	0.054	mg/Kg	☼	05/15/19 00:00	05/15/19 12:15	1
Aroclor 1268	0.054	U	0.39	0.054	mg/Kg	☼	05/15/19 00:00	05/15/19 12:15	1
Polychlorinated biphenyls, Total	0.054	U	0.39	0.054	mg/Kg	☼	05/15/19 00:00	05/15/19 12:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*90*		*53 - 150*	*05/15/19 00:00*	*05/15/19 12:15*	*1*
DCB Decachlorobiphenyl	*87*		*53 - 150*	*05/15/19 00:00*	*05/15/19 12:15*	*1*

Client Sample ID: WP-SB-BA22-G-H-0-051419

Lab Sample ID: 460-181918-2

Date Collected: 05/14/19 12:20
Date Received: 05/14/19 16:50

Matrix: Solid
Percent Solids: 75.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.10	J ~~F1 F2~~	0.44	0.023	mg/Kg	☼	05/14/19 22:09	05/15/19 07:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*52*		*25 - 113*	*05/14/19 22:09*	*05/15/19 07:19*	*1*
Terphenyl-d14 (Surr)	*47*		*27 - 123*	*05/14/19 22:09*	*05/15/19 07:19*	*1*
2-Fluorobiphenyl	*51*		*29 - 107*	*05/14/19 22:09*	*05/15/19 07:19*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.088	0.012	mg/Kg	☼	05/15/19 00:00	05/15/19 11:57	1
Aroclor 1221	0.012	U	0.088	0.012	mg/Kg	☼	05/15/19 00:00	05/15/19 11:57	1
Aroclor 1232	0.012	U	0.088	0.012	mg/Kg	☼	05/15/19 00:00	05/15/19 11:57	1
Aroclor 1242	0.012	U	0.088	0.012	mg/Kg	☼	05/15/19 00:00	05/15/19 11:57	1
Aroclor 1248	0.012	U	0.088	0.012	mg/Kg	☼	05/15/19 00:00	05/15/19 11:57	1
Aroclor 1254	0.012	U	0.088	0.012	mg/Kg	☼	05/15/19 00:00	05/15/19 11:57	1
Aroclor 1260	0.012	U	0.088	0.012	mg/Kg	☼	05/15/19 00:00	05/15/19 11:57	1
Aroclor-1262	0.012	U	0.088	0.012	mg/Kg	☼	05/15/19 00:00	05/15/19 11:57	1
Aroclor 1268	0.012	U	0.088	0.012	mg/Kg	☼	05/15/19 00:00	05/15/19 11:57	1
Polychlorinated biphenyls, Total	0.012	U	0.088	0.012	mg/Kg	☼	05/15/19 00:00	05/15/19 11:57	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-181918-1

Client Sample ID: WP-SB-BA22-G-H-0-051419

Lab Sample ID: 460-181918-2

Date Collected: 05/14/19 12:20
Date Received: 05/14/19 16:50

Matrix: Solid
Percent Solids: 75.7

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	103		53 - 150	05/15/19 00:00	05/15/19 11:57	1
DCB Decachlorobiphenyl	97		53 - 150	05/15/19 00:00	05/15/19 11:57	1

Client Sample ID: WP-PB-BB22-A-B-0-051419

Lab Sample ID: 460-181918-3

Date Collected: 05/14/19 12:37
Date Received: 05/14/19 16:50

Matrix: Solid
Percent Solids: 70.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.36	J	0.47	0.025	mg/Kg	☼	05/14/19 22:09	05/15/19 07:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	50		25 - 113	05/14/19 22:09	05/15/19 07:36	1
Terphenyl-d14 (Surr)	48		27 - 123	05/14/19 22:09	05/15/19 07:36	1
2-Fluorobiphenyl	52		29 - 107	05/14/19 22:09	05/15/19 07:36	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.095	0.013	mg/Kg	☼	05/15/19 00:00	05/15/19 12:32	1
Aroclor 1221	0.013	U	0.095	0.013	mg/Kg	☼	05/15/19 00:00	05/15/19 12:32	1
Aroclor 1232	0.013	U	0.095	0.013	mg/Kg	☼	05/15/19 00:00	05/15/19 12:32	1
Aroclor 1242	0.013	U	0.095	0.013	mg/Kg	☼	05/15/19 00:00	05/15/19 12:32	1
Aroclor 1248	0.013	U	0.095	0.013	mg/Kg	☼	05/15/19 00:00	05/15/19 12:32	1
Aroclor 1254	0.013	U	0.095	0.013	mg/Kg	☼	05/15/19 00:00	05/15/19 12:32	1
Aroclor 1260	0.013	U	0.095	0.013	mg/Kg	☼	05/15/19 00:00	05/15/19 12:32	1
Aroclor-1262	0.013	U	0.095	0.013	mg/Kg	☼	05/15/19 00:00	05/15/19 12:32	1
Aroclor 1268	0.013	U	0.095	0.013	mg/Kg	☼	05/15/19 00:00	05/15/19 12:32	1
Polychlorinated biphenyls, Total	0.013	U	0.095	0.013	mg/Kg	☼	05/15/19 00:00	05/15/19 12:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	94		53 - 150	05/15/19 00:00	05/15/19 12:32	1
DCB Decachlorobiphenyl	86		53 - 150	05/15/19 00:00	05/15/19 12:32	1

Client Sample ID: WP-PB-BB25-C-D-0-051419

Lab Sample ID: 460-181918-5

Date Collected: 05/14/19 13:05
Date Received: 05/14/19 16:50

Matrix: Solid
Percent Solids: 59.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.4		0.55	0.029	mg/Kg	☼	05/14/19 22:09	05/15/19 08:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	50		25 - 113	05/14/19 22:09	05/15/19 08:44	1
Terphenyl-d14 (Surr)	46		27 - 123	05/14/19 22:09	05/15/19 08:44	1
2-Fluorobiphenyl	50		29 - 107	05/14/19 22:09	05/15/19 08:44	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.015	U	0.11	0.015	mg/Kg	☼	05/15/19 00:00	05/15/19 12:49	1
Aroclor 1221	0.015	U	0.11	0.015	mg/Kg	☼	05/15/19 00:00	05/15/19 12:49	1
Aroclor 1232	0.015	U	0.11	0.015	mg/Kg	☼	05/15/19 00:00	05/15/19 12:49	1
Aroclor 1242	0.015	U	0.11	0.015	mg/Kg	☼	05/15/19 00:00	05/15/19 12:49	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-181918-1

Client Sample ID: WP-PB-BB25-C-D-0-051419

Lab Sample ID: 460-181918-5

Date Collected: 05/14/19 13:05
Date Received: 05/14/19 16:50

Matrix: Solid
Percent Solids: 59.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.015	U	0.11	0.015	mg/Kg	☼	05/15/19 00:00	05/15/19 12:49	1
Aroclor 1254	0.015	U	0.11	0.015	mg/Kg	☼	05/15/19 00:00	05/15/19 12:49	1
Aroclor 1260	0.015	U	0.11	0.015	mg/Kg	☼	05/15/19 00:00	05/15/19 12:49	1
Aroclor-1262	0.015	U	0.11	0.015	mg/Kg	☼	05/15/19 00:00	05/15/19 12:49	1
Aroclor 1268	0.015	U	0.11	0.015	mg/Kg	☼	05/15/19 00:00	05/15/19 12:49	1
Polychlorinated biphenyls, Total	0.015	U	0.11	0.015	mg/Kg	☼	05/15/19 00:00	05/15/19 12:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*111*		*53 - 150*	*05/15/19 00:00*	*05/15/19 12:49*	*1*
DCB Decachlorobiphenyl	*97*		*53 - 150*	*05/15/19 00:00*	*05/15/19 12:49*	*1*

Client Sample ID: WP-SB-BB19-D-E-0-051419

Lab Sample ID: 460-181918-6

Date Collected: 05/14/19 15:11
Date Received: 05/14/19 16:50

Matrix: Solid
Percent Solids: 28.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	J	1.1	0.061	mg/Kg	☼	05/14/19 22:09	05/15/19 08:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*41*		*25 - 113*	*05/14/19 22:09*	*05/15/19 08:10*	*1*
Terphenyl-d14 (Surr)	*37*		*27 - 123*	*05/14/19 22:09*	*05/15/19 08:10*	*1*
2-Fluorobiphenyl	*40*		*29 - 107*	*05/14/19 22:09*	*05/15/19 08:10*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.031	U J	0.23	0.031	mg/Kg	☼	05/15/19 00:00	05/15/19 13:06	1
Aroclor 1221	0.031	U	0.23	0.031	mg/Kg	☼	05/15/19 00:00	05/15/19 13:06	1
Aroclor 1232	0.031	U	0.23	0.031	mg/Kg	☼	05/15/19 00:00	05/15/19 13:06	1
Aroclor 1242	0.031	U	0.23	0.031	mg/Kg	☼	05/15/19 00:00	05/15/19 13:06	1
Aroclor 1248	0.28	J	0.23	0.031	mg/Kg	☼	05/15/19 00:00	05/15/19 13:06	1
Aroclor 1254	0.032	U J	0.23	0.032	mg/Kg	☼	05/15/19 00:00	05/15/19 13:06	1
Aroclor 1260	0.032	U	0.23	0.032	mg/Kg	☼	05/15/19 00:00	05/15/19 13:06	1
Aroclor-1262	0.032	U	0.23	0.032	mg/Kg	☼	05/15/19 00:00	05/15/19 13:06	1
Aroclor 1268	0.032	U	0.23	0.032	mg/Kg	☼	05/15/19 00:00	05/15/19 13:06	1
Polychlorinated biphenyls, Total	0.28	J	0.23	0.032	mg/Kg	☼	05/15/19 00:00	05/15/19 13:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*102*		*53 - 150*	*05/15/19 00:00*	*05/15/19 13:06*	*1*
DCB Decachlorobiphenyl	*96*		*53 - 150*	*05/15/19 00:00*	*05/15/19 13:06*	*1*

Client Sample ID: WP-ST-BB19-A-B-0-051419

Lab Sample ID: 460-181918-7

Date Collected: 05/14/19 15:29
Date Received: 05/14/19 16:50

Matrix: Solid
Percent Solids: 13.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	5.6	J	2.4	0.13	mg/Kg	☼	05/14/19 22:09	05/15/19 08:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*61*		*25 - 113*	*05/14/19 22:09*	*05/15/19 08:27*	*1*
Terphenyl-d14 (Surr)	*50*		*27 - 123*	*05/14/19 22:09*	*05/15/19 08:27*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-181918-1

Client Sample ID: WP-ST-BB19-A-B-0-051419

Date Collected: 05/14/19 15:29
Date Received: 05/14/19 16:50

Lab Sample ID: 460-181918-7
Matrix: Solid
Percent Solids: 13.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	57		29 - 107	05/14/19 22:09	05/15/19 08:27	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.065	U	0.49	0.065	mg/Kg	☼	05/15/19 00:00	05/15/19 13:23	1
Aroclor 1221	0.065	U	0.49	0.065	mg/Kg	☼	05/15/19 00:00	05/15/19 13:23	1
Aroclor 1232	0.065	U	0.49	0.065	mg/Kg	☼	05/15/19 00:00	05/15/19 13:23	1
Aroclor 1242	0.065	U	0.49	0.065	mg/Kg	☼	05/15/19 00:00	05/15/19 13:23	1
Aroclor 1248	0.53		0.49	0.065	mg/Kg	☼	05/15/19 00:00	05/15/19 13:23	1
Aroclor 1254	0.067	U	0.49	0.067	mg/Kg	☼	05/15/19 00:00	05/15/19 13:23	1
Aroclor 1260	0.067	U	0.49	0.067	mg/Kg	☼	05/15/19 00:00	05/15/19 13:23	1
Aroclor-1262	0.067	U	0.49	0.067	mg/Kg	☼	05/15/19 00:00	05/15/19 13:23	1
Aroclor 1268	0.067	U	0.49	0.067	mg/Kg	☼	05/15/19 00:00	05/15/19 13:23	1
Polychlorinated biphenyls, Total	0.53		0.49	0.067	mg/Kg	☼	05/15/19 00:00	05/15/19 13:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	111		53 - 150	05/15/19 00:00	05/15/19 13:23	1
DCB Decachlorobiphenyl	75		53 - 150	05/15/19 00:00	05/15/19 13:23	1

Client Sample ID: WP-FB-051419

Date Collected: 05/14/19 15:35
Date Received: 05/14/19 16:50

Lab Sample ID: 460-181918-8
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		05/14/19 23:30	05/15/19 08:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	97		51 - 108	05/14/19 23:30	05/15/19 08:43	1
Terphenyl-d14 (Surr)	93		40 - 148	05/14/19 23:30	05/15/19 08:43	1
2-Fluorobiphenyl	96		45 - 107	05/14/19 23:30	05/15/19 08:43	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		05/15/19 00:44	05/15/19 08:46	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		05/15/19 00:44	05/15/19 08:46	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		05/15/19 00:44	05/15/19 08:46	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		05/15/19 00:44	05/15/19 08:46	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		05/15/19 00:44	05/15/19 08:46	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		05/15/19 00:44	05/15/19 08:46	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		05/15/19 00:44	05/15/19 08:46	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		05/15/19 00:44	05/15/19 08:46	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		05/15/19 00:44	05/15/19 08:46	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		05/15/19 00:44	05/15/19 08:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	78		10 - 150	05/15/19 00:44	05/15/19 08:46	1
DCB Decachlorobiphenyl	79		10 - 150	05/15/19 00:44	05/15/19 08:46	1

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-182109

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 6/24/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on May 16, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-PB-BE19-A-B-0-051619	460-182109-1	Sediment	PCBs, BEHP*
WP-PB-BE22-A-B-0-051619	460-182109-2	Sediment	PCBs, BEHP*
WP-ST-BE18-C-D-0-051619	460-182109-3	Sediment	PCBs, BEHP*
WP-ST-BE18-C-D-1-051619[1]	460-182109-4	Sediment	PCBs, BEHP*
WP-SB-BE18-C-D-0-051619	460-182109-5	Sediment	PCBs, BEHP*
WP-PB-BH22-A-B-0-051619	460-182109-6	Sediment	PCBs, BEHP*
WP-PB-BH25-A-B-0-051619	460-182109-7	Sediment	PCBs, BEHP*
WP-ST-BH19-A-B-0-051619	460-182109-8	Sediment	PCBs, BEHP*
WP-SB-BH19-C-D-0-051619	460-182109-9	Sediment	PCBs, BEHP*
WP-FB-051619	460-182109-10	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

[1]Field duplicate of WP-ST-BE18-C-D-0-051619

General Comments

The laboratory submitted a NJDEP full data deliverable for the requested analyses. The data package contains required elements.

The chain-of-custody form designated sample WP-PB-BH22-A-B-0-051619 for lab QC analyses. However, only one sample jar was submitted for this sample. The lab received two sample jars for sample WP-PB-BH25-A-B-0-051619, thus used this sample for all QC analyses of requested parameters.

The solid contents were >10% but <30% for samples WP-SB-BE18-C-D-0-051619, WP-ST-BH19-A-B-0-051619, and WP-SB-BH19-C-D-0-051619. The positive results and non-detects were estimated, J and UJ, respectively, for these samples.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

A 10-fold dilution was performed for sample WP-SB-BH19-C-D-0-051619. The BEHP results were adjusted accordingly.

The MS/MSD analyses, performed on sample WP-PB-BH25-A-B-0-051619, yielded acceptable MSD recovery but low MS recovery. The positive BEHP result reported for sample WP-PB-BH25-A-B-0-051619 was estimated (J) for potential low bias.

The analyses of WP-ST-BE18-C-D-0-051619 and its field duplicate WP-ST-BE18-C-D-1-051619 yielded comparable BEHP results.

PCBs

As per case narrative, the percent difference (%D) of Aroclor-1248 in continuing calibration verification (CCV) standard CCVIS 460-610753/5, which was associated with all sediment sample analyses, exceeded the control limit of 20% on the CLP-2 column. Since the Aroclor-1248 %D on the Rtx-CLP column was within control and all the positive Aroclor-1248 results were reported from the Rtx-CLP column, professional judgment was exercised not to qualify any Aroclor-1248 results.

A sample unrelated to the site was used for the MS/MSD analyses. Their results were not used to qualify Aroclor data submitted for this report.

Aroclor-1248 was not detected in sample WP-ST-BE18-C-D-0-051619 and its field duplicate WP-ST-BE18-C-D-1-051619.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Although some target analyte results were estimated (J/UJ) due to low solid contents and/or non-compliant QC recovery, these non-compliances did not warrant data rejections. All results can be used as reported.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-182109-1

Client Sample ID: WP-PB-BE19-A-B-0-051619

Date Collected: 05/16/19 12:23
Date Received: 05/16/19 17:19

Lab Sample ID: 460-182109-1

Matrix: Solid
Percent Solids: 54.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.084	J	0.61	0.032	mg/Kg	☼	05/16/19 21:57	05/17/19 07:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*37*		*25 - 113*	*05/16/19 21:57*	*05/17/19 07:31*	*1*
Terphenyl-d14 (Surr)	*38*		*27 - 123*	*05/16/19 21:57*	*05/17/19 07:31*	*1*
2-Fluorobiphenyl	*39*		*29 - 107*	*05/16/19 21:57*	*05/17/19 07:31*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.016	U	0.12	0.016	mg/Kg	☼	05/17/19 00:31	05/17/19 13:12	1
Aroclor 1221	0.016	U	0.12	0.016	mg/Kg	☼	05/17/19 00:31	05/17/19 13:12	1
Aroclor 1232	0.016	U	0.12	0.016	mg/Kg	☼	05/17/19 00:31	05/17/19 13:12	1
Aroclor 1242	0.016	U	0.12	0.016	mg/Kg	☼	05/17/19 00:31	05/17/19 13:12	1
Aroclor 1248	0.016	U	0.12	0.016	mg/Kg	☼	05/17/19 00:31	05/17/19 13:12	1
Aroclor 1254	0.017	U	0.12	0.017	mg/Kg	☼	05/17/19 00:31	05/17/19 13:12	1
Aroclor 1260	0.017	U	0.12	0.017	mg/Kg	☼	05/17/19 00:31	05/17/19 13:12	1
Aroclor-1262	0.017	U	0.12	0.017	mg/Kg	☼	05/17/19 00:31	05/17/19 13:12	1
Aroclor 1268	0.017	U	0.12	0.017	mg/Kg	☼	05/17/19 00:31	05/17/19 13:12	1
Polychlorinated biphenyls, Total	0.017	U	0.12	0.017	mg/Kg	☼	05/17/19 00:31	05/17/19 13:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*86*		*53 - 150*	*05/17/19 00:31*	*05/17/19 13:12*	*1*
DCB Decachlorobiphenyl	*80*		*53 - 150*	*05/17/19 00:31*	*05/17/19 13:12*	*1*

Client Sample ID: WP-PB-BE22-A-B-0-051619

Date Collected: 05/16/19 13:08
Date Received: 05/16/19 17:19

Lab Sample ID: 460-182109-2

Matrix: Solid
Percent Solids: 71.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.70		0.46	0.025	mg/Kg	☼	05/16/19 21:57	05/17/19 07:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*45*		*25 - 113*	*05/16/19 21:57*	*05/17/19 07:48*	*1*
Terphenyl-d14 (Surr)	*49*		*27 - 123*	*05/16/19 21:57*	*05/17/19 07:48*	*1*
2-Fluorobiphenyl	*48*		*29 - 107*	*05/16/19 21:57*	*05/17/19 07:48*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.094	0.013	mg/Kg	☼	05/17/19 00:31	05/17/19 12:55	1
Aroclor 1221	0.013	U	0.094	0.013	mg/Kg	☼	05/17/19 00:31	05/17/19 12:55	1
Aroclor 1232	0.013	U	0.094	0.013	mg/Kg	☼	05/17/19 00:31	05/17/19 12:55	1
Aroclor 1242	0.013	U	0.094	0.013	mg/Kg	☼	05/17/19 00:31	05/17/19 12:55	1
Aroclor 1248	0.013	U	0.094	0.013	mg/Kg	☼	05/17/19 00:31	05/17/19 12:55	1
Aroclor 1254	0.013	U	0.094	0.013	mg/Kg	☼	05/17/19 00:31	05/17/19 12:55	1
Aroclor 1260	0.013	U	0.094	0.013	mg/Kg	☼	05/17/19 00:31	05/17/19 12:55	1
Aroclor-1262	0.013	U	0.094	0.013	mg/Kg	☼	05/17/19 00:31	05/17/19 12:55	1
Aroclor 1268	0.013	U	0.094	0.013	mg/Kg	☼	05/17/19 00:31	05/17/19 12:55	1
Polychlorinated biphenyls, Total	0.013	U	0.094	0.013	mg/Kg	☼	05/17/19 00:31	05/17/19 12:55	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-182109-1

Client Sample ID: WP-PB-BE22-A-B-0-051619

Lab Sample ID: 460-182109-2

Date Collected: 05/16/19 13:08
Date Received: 05/16/19 17:19

Matrix: Solid
Percent Solids: 71.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*90*		*53 - 150*	*05/17/19 00:31*	*05/17/19 12:55*	*1*
DCB Decachlorobiphenyl	*84*		*53 - 150*	*05/17/19 00:31*	*05/17/19 12:55*	*1*

Client Sample ID: WP-ST-BE18-C-D-0-051619

Lab Sample ID: 460-182109-3

Date Collected: 05/16/19 13:43
Date Received: 05/16/19 17:19

Matrix: Solid
Percent Solids: 47.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.28	J	0.70	0.037	mg/Kg	☼	05/16/19 21:57	05/17/19 08:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*43*		*25 - 113*	*05/16/19 21:57*	*05/17/19 08:05*	*1*
Terphenyl-d14 (Surr)	*41*		*27 - 123*	*05/16/19 21:57*	*05/17/19 08:05*	*1*
2-Fluorobiphenyl	*44*		*29 - 107*	*05/16/19 21:57*	*05/17/19 08:05*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.019	U	0.14	0.019	mg/Kg	☼	05/17/19 00:31	05/17/19 12:38	1
Aroclor 1221	0.019	U	0.14	0.019	mg/Kg	☼	05/17/19 00:31	05/17/19 12:38	1
Aroclor 1232	0.019	U	0.14	0.019	mg/Kg	☼	05/17/19 00:31	05/17/19 12:38	1
Aroclor 1242	0.019	U	0.14	0.019	mg/Kg	☼	05/17/19 00:31	05/17/19 12:38	1
Aroclor 1248	0.019	U	0.14	0.019	mg/Kg	☼	05/17/19 00:31	05/17/19 12:38	1
Aroclor 1254	0.019	U	0.14	0.019	mg/Kg	☼	05/17/19 00:31	05/17/19 12:38	1
Aroclor 1260	0.019	U	0.14	0.019	mg/Kg	☼	05/17/19 00:31	05/17/19 12:38	1
Aroclor-1262	0.019	U	0.14	0.019	mg/Kg	☼	05/17/19 00:31	05/17/19 12:38	1
Aroclor 1268	0.019	U	0.14	0.019	mg/Kg	☼	05/17/19 00:31	05/17/19 12:38	1
Polychlorinated biphenyls, Total	0.019	U	0.14	0.019	mg/Kg	☼	05/17/19 00:31	05/17/19 12:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*93*		*53 - 150*	*05/17/19 00:31*	*05/17/19 12:38*	*1*
DCB Decachlorobiphenyl	*94*		*53 - 150*	*05/17/19 00:31*	*05/17/19 12:38*	*1*

Client Sample ID: WP-ST-BE18-C-D-1-051619

Lab Sample ID: 460-182109-4

Date Collected: 05/16/19 13:48
Date Received: 05/16/19 17:19

Matrix: Solid
Percent Solids: 46.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.19	J	0.71	0.038	mg/Kg	☼	05/16/19 21:57	05/17/19 08:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*43*		*25 - 113*	*05/16/19 21:57*	*05/17/19 08:22*	*1*
Terphenyl-d14 (Surr)	*42*		*27 - 123*	*05/16/19 21:57*	*05/17/19 08:22*	*1*
2-Fluorobiphenyl	*43*		*29 - 107*	*05/16/19 21:57*	*05/17/19 08:22*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.019	U	0.14	0.019	mg/Kg	☼	05/17/19 00:31	05/17/19 12:21	1
Aroclor 1221	0.019	U	0.14	0.019	mg/Kg	☼	05/17/19 00:31	05/17/19 12:21	1
Aroclor 1232	0.019	U	0.14	0.019	mg/Kg	☼	05/17/19 00:31	05/17/19 12:21	1
Aroclor 1242	0.019	U	0.14	0.019	mg/Kg	☼	05/17/19 00:31	05/17/19 12:21	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-182109-1

Client Sample ID: WP-ST-BE18-C-D-1-051619

Lab Sample ID: 460-182109-4

Date Collected: 05/16/19 13:48
Date Received: 05/16/19 17:19

Matrix: Solid
Percent Solids: 46.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.019	U	0.14	0.019	mg/Kg	☼	05/17/19 00:31	05/17/19 12:21	1
Aroclor 1254	0.020	U	0.14	0.020	mg/Kg	☼	05/17/19 00:31	05/17/19 12:21	1
Aroclor 1260	0.020	U	0.14	0.020	mg/Kg	☼	05/17/19 00:31	05/17/19 12:21	1
Aroclor-1262	0.020	U	0.14	0.020	mg/Kg	☼	05/17/19 00:31	05/17/19 12:21	1
Aroclor 1268	0.020	U	0.14	0.020	mg/Kg	☼	05/17/19 00:31	05/17/19 12:21	1
Polychlorinated biphenyls, Total	0.020	U	0.14	0.020	mg/Kg	☼	05/17/19 00:31	05/17/19 12:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*89*		*53 - 150*	*05/17/19 00:31*	*05/17/19 12:21*	*1*
DCB Decachlorobiphenyl	*92*		*53 - 150*	*05/17/19 00:31*	*05/17/19 12:21*	*1*

Client Sample ID: WP-SB-BE18-C-D-0-051619

Lab Sample ID: 460-182109-5

Date Collected: 05/16/19 14:00
Date Received: 05/16/19 17:19

Matrix: Solid
Percent Solids: 21.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.59	J	1.5	0.081	mg/Kg	☼	05/16/19 21:57	05/17/19 08:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*46*		*25 - 113*	*05/16/19 21:57*	*05/17/19 08:38*	*1*
Terphenyl-d14 (Surr)	*43*		*27 - 123*	*05/16/19 21:57*	*05/17/19 08:38*	*1*
2-Fluorobiphenyl	*45*		*29 - 107*	*05/16/19 21:57*	*05/17/19 08:38*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.041	U	0.31	0.041	mg/Kg	☼	05/17/19 00:31	05/17/19 12:03	1
Aroclor 1221	0.041	U	0.31	0.041	mg/Kg	☼	05/17/19 00:31	05/17/19 12:03	1
Aroclor 1232	0.041	U	0.31	0.041	mg/Kg	☼	05/17/19 00:31	05/17/19 12:03	1
Aroclor 1242	0.041	U	0.31	0.041	mg/Kg	☼	05/17/19 00:31	05/17/19 12:03	1
Aroclor 1248	0.041	U	0.31	0.041	mg/Kg	☼	05/17/19 00:31	05/17/19 12:03	1
Aroclor 1254	0.042	U	0.31	0.042	mg/Kg	☼	05/17/19 00:31	05/17/19 12:03	1
Aroclor 1260	0.042	U	0.31	0.042	mg/Kg	☼	05/17/19 00:31	05/17/19 12:03	1
Aroclor-1262	0.042	U	0.31	0.042	mg/Kg	☼	05/17/19 00:31	05/17/19 12:03	1
Aroclor 1268	0.042	U	0.31	0.042	mg/Kg	☼	05/17/19 00:31	05/17/19 12:03	1
Polychlorinated biphenyls, Total	0.042	U	0.31	0.042	mg/Kg	☼	05/17/19 00:31	05/17/19 12:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*89*		*53 - 150*	*05/17/19 00:31*	*05/17/19 12:03*	*1*
DCB Decachlorobiphenyl	*89*		*53 - 150*	*05/17/19 00:31*	*05/17/19 12:03*	*1*

Client Sample ID: WP-PB-BH22-A-B-0-051619

Lab Sample ID: 460-182109-6

Date Collected: 05/16/19 15:07
Date Received: 05/16/19 17:19

Matrix: Solid
Percent Solids: 72.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.4		0.45	0.024	mg/Kg	☼	05/16/19 21:57	05/17/19 08:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*48*		*25 - 113*	*05/16/19 21:57*	*05/17/19 08:55*	*1*
Terphenyl-d14 (Surr)	*57*		*27 - 123*	*05/16/19 21:57*	*05/17/19 08:55*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-182109-1

Client Sample ID: WP-PB-BH22-A-B-0-051619

Date Collected: 05/16/19 15:07
Date Received: 05/16/19 17:19

Lab Sample ID: 460-182109-6
Matrix: Solid
Percent Solids: 72.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	57		29 - 107	05/16/19 21:57	05/17/19 08:55	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.092	0.012	mg/Kg	☼	05/17/19 00:31	05/17/19 11:46	1
Aroclor 1221	0.012	U	0.092	0.012	mg/Kg	☼	05/17/19 00:31	05/17/19 11:46	1
Aroclor 1232	0.012	U	0.092	0.012	mg/Kg	☼	05/17/19 00:31	05/17/19 11:46	1
Aroclor 1242	0.012	U	0.092	0.012	mg/Kg	☼	05/17/19 00:31	05/17/19 11:46	1
Aroclor 1248	0.012	U	0.092	0.012	mg/Kg	☼	05/17/19 00:31	05/17/19 11:46	1
Aroclor 1254	0.013	U	0.092	0.013	mg/Kg	☼	05/17/19 00:31	05/17/19 11:46	1
Aroclor 1260	0.013	U	0.092	0.013	mg/Kg	☼	05/17/19 00:31	05/17/19 11:46	1
Aroclor-1262	0.013	U	0.092	0.013	mg/Kg	☼	05/17/19 00:31	05/17/19 11:46	1
Aroclor 1268	0.013	U	0.092	0.013	mg/Kg	☼	05/17/19 00:31	05/17/19 11:46	1
Polychlorinated biphenyls, Total	0.013	U	0.092	0.013	mg/Kg	☼	05/17/19 00:31	05/17/19 11:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	103		53 - 150	05/17/19 00:31	05/17/19 11:46	1
DCB Decachlorobiphenyl	92		53 - 150	05/17/19 00:31	05/17/19 11:46	1

Client Sample ID: WP-PB-BH25-A-B-0-051619

Date Collected: 05/16/19 15:35
Date Received: 05/16/19 17:19

Lab Sample ID: 460-182109-7
Matrix: Solid
Percent Solids: 76.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.83	~~F1~~ J	0.43	0.023	mg/Kg	☼	05/16/19 21:57	05/17/19 07:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	56		25 - 113	05/16/19 21:57	05/17/19 07:14	1
Terphenyl-d14 (Surr)	65		27 - 123	05/16/19 21:57	05/17/19 07:14	1
2-Fluorobiphenyl	63		29 - 107	05/16/19 21:57	05/17/19 07:14	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.088	0.012	mg/Kg	☼	05/17/19 00:31	05/17/19 11:42	1
Aroclor 1221	0.012	U	0.088	0.012	mg/Kg	☼	05/17/19 00:31	05/17/19 11:42	1
Aroclor 1232	0.012	U	0.088	0.012	mg/Kg	☼	05/17/19 00:31	05/17/19 11:42	1
Aroclor 1242	0.012	U	0.088	0.012	mg/Kg	☼	05/17/19 00:31	05/17/19 11:42	1
Aroclor 1248	0.012	U	0.088	0.012	mg/Kg	☼	05/17/19 00:31	05/17/19 11:42	1
Aroclor 1254	0.012	U	0.088	0.012	mg/Kg	☼	05/17/19 00:31	05/17/19 11:42	1
Aroclor 1260	0.012	U	0.088	0.012	mg/Kg	☼	05/17/19 00:31	05/17/19 11:42	1
Aroclor-1262	0.012	U	0.088	0.012	mg/Kg	☼	05/17/19 00:31	05/17/19 11:42	1
Aroclor 1268	0.012	U	0.088	0.012	mg/Kg	☼	05/17/19 00:31	05/17/19 11:42	1
Polychlorinated biphenyls, Total	0.012	U	0.088	0.012	mg/Kg	☼	05/17/19 00:31	05/17/19 11:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	86		53 - 150	05/17/19 00:31	05/17/19 11:42	1
DCB Decachlorobiphenyl	90		53 - 150	05/17/19 00:31	05/17/19 11:42	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-182109-1

Client Sample ID: WP-ST-BH19-A-B-0-051619

Lab Sample ID: 460-182109-8

Date Collected: 05/16/19 15:49
Date Received: 05/16/19 17:19

Matrix: Solid
Percent Solids: 29.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.48	J	1.1	0.060	mg/Kg	☼	05/16/19 21:57	05/17/19 09:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*38*		*25 - 113*	*05/16/19 21:57*	*05/17/19 09:12*	*1*
Terphenyl-d14 (Surr)	*36*		*27 - 123*	*05/16/19 21:57*	*05/17/19 09:12*	*1*
2-Fluorobiphenyl	*39*		*29 - 107*	*05/16/19 21:57*	*05/17/19 09:12*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.030	U	0.23	0.030	mg/Kg	☼	05/17/19 00:31	05/17/19 11:29	1
Aroclor 1221	0.030	U	0.23	0.030	mg/Kg	☼	05/17/19 00:31	05/17/19 11:29	1
Aroclor 1232	0.030	U	0.23	0.030	mg/Kg	☼	05/17/19 00:31	05/17/19 11:29	1
Aroclor 1242	0.030	U	0.23	0.030	mg/Kg	☼	05/17/19 00:31	05/17/19 11:29	1
Aroclor 1248	1.4		0.23	0.030	mg/Kg	☼	05/17/19 00:31	05/17/19 11:29	1
Aroclor 1254	0.031	U	0.23	0.031	mg/Kg	☼	05/17/19 00:31	05/17/19 11:29	1
Aroclor 1260	0.031	U	0.23	0.031	mg/Kg	☼	05/17/19 00:31	05/17/19 11:29	1
Aroclor-1262	0.031	U	0.23	0.031	mg/Kg	☼	05/17/19 00:31	05/17/19 11:29	1
Aroclor 1268	0.031	U	0.23	0.031	mg/Kg	☼	05/17/19 00:31	05/17/19 11:29	1
Polychlorinated biphenyls, Total	1.4		0.23	0.031	mg/Kg	☼	05/17/19 00:31	05/17/19 11:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*103*		*53 - 150*	*05/17/19 00:31*	*05/17/19 11:29*	*1*
DCB Decachlorobiphenyl	*91*		*53 - 150*	*05/17/19 00:31*	*05/17/19 11:29*	*1*

Client Sample ID: WP-SB-BH19-C-D-0-051619

Lab Sample ID: 460-182109-9

Date Collected: 05/16/19 16:03
Date Received: 05/16/19 17:19

Matrix: Solid
Percent Solids: 27.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	130		12	0.64	mg/Kg	☼	05/16/19 21:57	05/17/19 10:20	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*43*		*25 - 113*	*05/16/19 21:57*	*05/17/19 10:20*	*10*
Terphenyl-d14 (Surr)	*41*		*27 - 123*	*05/16/19 21:57*	*05/17/19 10:20*	*10*
2-Fluorobiphenyl	*45*		*29 - 107*	*05/16/19 21:57*	*05/17/19 10:20*	*10*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.032	U	0.24	0.032	mg/Kg	☼	05/17/19 00:31	05/17/19 11:12	1
Aroclor 1221	0.032	U	0.24	0.032	mg/Kg	☼	05/17/19 00:31	05/17/19 11:12	1
Aroclor 1232	0.032	U	0.24	0.032	mg/Kg	☼	05/17/19 00:31	05/17/19 11:12	1
Aroclor 1242	0.032	U	0.24	0.032	mg/Kg	☼	05/17/19 00:31	05/17/19 11:12	1
Aroclor 1248	2.0		0.24	0.032	mg/Kg	☼	05/17/19 00:31	05/17/19 11:12	1
Aroclor 1254	0.033	U	0.24	0.033	mg/Kg	☼	05/17/19 00:31	05/17/19 11:12	1
Aroclor 1260	0.033	U	0.24	0.033	mg/Kg	☼	05/17/19 00:31	05/17/19 11:12	1
Aroclor-1262	0.033	U	0.24	0.033	mg/Kg	☼	05/17/19 00:31	05/17/19 11:12	1
Aroclor 1268	0.033	U	0.24	0.033	mg/Kg	☼	05/17/19 00:31	05/17/19 11:12	1
Polychlorinated biphenyls, Total	2.0		0.24	0.033	mg/Kg	☼	05/17/19 00:31	05/17/19 11:12	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-182109-1

Client Sample ID: WP-SB-BH19-C-D-0-051619

Date Collected: 05/16/19 16:03
Date Received: 05/16/19 17:19

Lab Sample ID: 460-182109-9
Matrix: Solid
Percent Solids: 27.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	88		53 - 150	05/17/19 00:31	05/17/19 11:12	1
DCB Decachlorobiphenyl	84		53 - 150	05/17/19 00:31	05/17/19 11:12	1

Client Sample ID: WP-FB-051619

Date Collected: 05/16/19 16:15
Date Received: 05/16/19 17:19

Lab Sample ID: 460-182109-10
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		05/16/19 23:58	05/17/19 01:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	83		51 - 108	05/16/19 23:58	05/17/19 01:52	1
Terphenyl-d14 (Surr)	95		40 - 148	05/16/19 23:58	05/17/19 01:52	1
2-Fluorobiphenyl	83		45 - 107	05/16/19 23:58	05/17/19 01:52	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		05/17/19 02:45	05/17/19 10:20	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		05/17/19 02:45	05/17/19 10:20	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		05/17/19 02:45	05/17/19 10:20	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		05/17/19 02:45	05/17/19 10:20	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		05/17/19 02:45	05/17/19 10:20	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		05/17/19 02:45	05/17/19 10:20	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		05/17/19 02:45	05/17/19 10:20	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		05/17/19 02:45	05/17/19 10:20	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		05/17/19 02:45	05/17/19 10:20	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		05/17/19 02:45	05/17/19 10:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	113		10 - 150	05/17/19 02:45	05/17/19 10:20	1
DCB Decachlorobiphenyl	111		10 - 150	05/17/19 02:45	05/17/19 10:20	1

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-182489

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 6/24/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on May 21, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-PB-BH34-K-L-0-052119	460-182489-1	Sediment	PCBs, BEHP*
WP-PBC-BH34-C-D-0-052119	460-182489-2	Sediment	PCBs, BEHP*
WP-PB-BH28-A-B-0-052119	460-182489-3	Sediment	PCBs, BEHP*
WP-PB-BH31-A-B-0-052119	460-182489-4	Sediment	PCBs, BEHP*
WP-STC10N-BH19-A-B-0-052119	460-182489-5	Sediment	PCBs, BEHP*
WP-FB-052119	460-182489-6	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable for the requested analyses. The data package contains required elements. The analyses of sample WP-PBC-BH34-C-D-0-052119 were placed on hold upon lab receipt but were later canceled on May 23, 2019.

The solid content of sample WP-STC10N-BH19-A-B-0-052119 was >10% but <30%; the positive results and the non-detects were estimated, J and UJ, respectively.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The MS/MSD analyses were performed on sample WP-PB-BH34-K-L-0-052119 and yielded a low recovery (<10%) of BEHP in the MSD analysis. The relative percent difference of BEHP between the MS and the MSD analyses exceeded the laboratory control limit, which might be due to heterogeneous nature of the sample matrix. Since the BEHP recovery was within the lab-established control limit, the positive BEHP result was estimated (J) for WP-PB-BH34-K-L-0-052119 for potential low bias.

Dilution analyses were performed for samples WP-PB-BH28-A-B-0-052119 (5-fold), WP-PB-BH31-A-B-0-052119 (2-fold), and WP-STC10N-BH19-A-B-0-052119 (2-fold). The quantification results were adjusted accordingly.

PCBs

The MS/MSD analyses were performed on sample WP-PB-BH34-K-L-0-052119 and yielded acceptable results.

The percent difference (%D) of positive Aroclor-1248 results between the two analytical columns was >25 in the analyses of samples WP-PB-BH34-K-L-0-052119, WP-PB-BH28-A-B-0-052119, WP-PB-BH31-A-B-0-052119, and WP-STC10N-BH19-A-B-0-052119. The positive Aroclor-1248 results were estimated (J).

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Although some target analyte results were estimated (J/UJ) due to low solid contents and other non-compliant QC results, these non-compliances did not warrant data rejections. All results can be used as reported.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-182489-1

Client Sample ID: WP-PB-BH34-K-L-0-052119

Lab Sample ID: 460-182489-1
Date Collected: 05/21/19 12:15
Matrix: Solid
Date Received: 05/21/19 16:22
Percent Solids: 73.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	3.4	~~F1 F2~~ J	0.45	0.024	mg/Kg	☼	05/21/19 21:35	05/22/19 09:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*47*		*25 - 113*	*05/21/19 21:35*	*05/22/19 09:42*	*1*
Terphenyl-d14 (Surr)	*51*		*27 - 123*	*05/21/19 21:35*	*05/22/19 09:42*	*1*
2-Fluorobiphenyl	*52*		*29 - 107*	*05/21/19 21:35*	*05/22/19 09:42*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.091	0.012	mg/Kg	☼	05/22/19 02:56	05/22/19 13:13	1
Aroclor 1221	0.012	U	0.091	0.012	mg/Kg	☼	05/22/19 02:56	05/22/19 13:13	1
Aroclor 1232	0.012	U	0.091	0.012	mg/Kg	☼	05/22/19 02:56	05/22/19 13:13	1
Aroclor 1242	0.012	U	0.091	0.012	mg/Kg	☼	05/22/19 02:56	05/22/19 13:13	1
Aroclor 1248	0.16	J	0.091	0.012	mg/Kg	☼	05/22/19 02:56	05/22/19 13:13	1
Aroclor 1254	0.012	U	0.091	0.012	mg/Kg	☼	05/22/19 02:56	05/22/19 13:13	1
Aroclor 1260	0.012	U	0.091	0.012	mg/Kg	☼	05/22/19 02:56	05/22/19 13:13	1
Aroclor-1262	0.012	U	0.091	0.012	mg/Kg	☼	05/22/19 02:56	05/22/19 13:13	1
Aroclor 1268	0.012	U	0.091	0.012	mg/Kg	☼	05/22/19 02:56	05/22/19 13:13	1
Polychlorinated biphenyls, Total	0.16	J	0.091	0.012	mg/Kg	☼	05/22/19 02:56	05/22/19 13:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*120*		*53 - 150*	*05/22/19 02:56*	*05/22/19 13:13*	*1*
DCB Decachlorobiphenyl	*101*		*53 - 150*	*05/22/19 02:56*	*05/22/19 13:13*	*1*

Client Sample ID: WP-PB-BH28-A-B-0-052119

Lab Sample ID: 460-182489-3
Date Collected: 05/21/19 14:15
Matrix: Solid
Date Received: 05/21/19 16:22
Percent Solids: 68.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	20		2.4	0.13	mg/Kg	☼	05/21/19 21:35	05/22/19 11:23	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*43*		*25 - 113*	*05/21/19 21:35*	*05/22/19 11:23*	*5*
Terphenyl-d14 (Surr)	*40*		*27 - 123*	*05/21/19 21:35*	*05/22/19 11:23*	*5*
2-Fluorobiphenyl	*41*		*29 - 107*	*05/21/19 21:35*	*05/22/19 11:23*	*5*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.097	0.013	mg/Kg	☼	05/22/19 02:56	05/22/19 13:30	1
Aroclor 1221	0.013	U	0.097	0.013	mg/Kg	☼	05/22/19 02:56	05/22/19 13:30	1
Aroclor 1232	0.013	U	0.097	0.013	mg/Kg	☼	05/22/19 02:56	05/22/19 13:30	1
Aroclor 1242	0.013	U	0.097	0.013	mg/Kg	☼	05/22/19 02:56	05/22/19 13:30	1
Aroclor 1248	0.29	J	0.097	0.013	mg/Kg	☼	05/22/19 02:56	05/22/19 13:30	1
Aroclor 1254	0.013	U	0.097	0.013	mg/Kg	☼	05/22/19 02:56	05/22/19 13:30	1
Aroclor 1260	0.013	U	0.097	0.013	mg/Kg	☼	05/22/19 02:56	05/22/19 13:30	1
Aroclor-1262	0.013	U	0.097	0.013	mg/Kg	☼	05/22/19 02:56	05/22/19 13:30	1
Aroclor 1268	0.013	U	0.097	0.013	mg/Kg	☼	05/22/19 02:56	05/22/19 13:30	1
Polychlorinated biphenyls, Total	0.29	J	0.097	0.013	mg/Kg	☼	05/22/19 02:56	05/22/19 13:30	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-182489-1

Client Sample ID: WP-PB-BH28-A-B-0-052119

Lab Sample ID: 460-182489-3
Date Collected: 05/21/19 14:15
Matrix: Solid
Date Received: 05/21/19 16:22
Percent Solids: 68.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	115		53 - 150	05/22/19 02:56	05/22/19 13:30	1
DCB Decachlorobiphenyl	98		53 - 150	05/22/19 02:56	05/22/19 13:30	1

Client Sample ID: WP-PB-BH31-A-B-0-052119

Lab Sample ID: 460-182489-4
Date Collected: 05/21/19 14:35
Matrix: Solid
Date Received: 05/21/19 16:22
Percent Solids: 40.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	24		1.6	0.086	mg/Kg	☼	05/21/19 21:35	05/22/19 11:40	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	43		25 - 113	05/21/19 21:35	05/22/19 11:40	2
Terphenyl-d14 (Surr)	43		27 - 123	05/21/19 21:35	05/22/19 11:40	2
2-Fluorobiphenyl	45		29 - 107	05/21/19 21:35	05/22/19 11:40	2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.022	U	0.16	0.022	mg/Kg	☼	05/22/19 02:56	05/22/19 13:47	1
Aroclor 1221	0.022	U	0.16	0.022	mg/Kg	☼	05/22/19 02:56	05/22/19 13:47	1
Aroclor 1232	0.022	U	0.16	0.022	mg/Kg	☼	05/22/19 02:56	05/22/19 13:47	1
Aroclor 1242	0.022	U	0.16	0.022	mg/Kg	☼	05/22/19 02:56	05/22/19 13:47	1
Aroclor 1248	0.84	J	0.16	0.022	mg/Kg	☼	05/22/19 02:56	05/22/19 13:47	1
Aroclor 1254	0.023	U	0.16	0.023	mg/Kg	☼	05/22/19 02:56	05/22/19 13:47	1
Aroclor 1260	0.023	U	0.16	0.023	mg/Kg	☼	05/22/19 02:56	05/22/19 13:47	1
Aroclor-1262	0.023	U	0.16	0.023	mg/Kg	☼	05/22/19 02:56	05/22/19 13:47	1
Aroclor 1268	0.023	U	0.16	0.023	mg/Kg	☼	05/22/19 02:56	05/22/19 13:47	1
Polychlorinated biphenyls, Total	0.84	J	0.16	0.023	mg/Kg	☼	05/22/19 02:56	05/22/19 13:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	120		53 - 150	05/22/19 02:56	05/22/19 13:47	1
DCB Decachlorobiphenyl	110		53 - 150	05/22/19 02:56	05/22/19 13:47	1

Client Sample ID: WP-STC10N-BH19-A-B-0-052119

Lab Sample ID: 460-182489-5
Date Collected: 05/21/19 14:46
Matrix: Solid
Date Received: 05/21/19 16:22
Percent Solids: 20.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	54	J	3.2	0.17	mg/Kg	☼	05/21/19 21:35	05/22/19 11:57	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	60		25 - 113	05/21/19 21:35	05/22/19 11:57	2
Terphenyl-d14 (Surr)	56		27 - 123	05/21/19 21:35	05/22/19 11:57	2
2-Fluorobiphenyl	61		29 - 107	05/21/19 21:35	05/22/19 11:57	2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.043	U J	0.32	0.043	mg/Kg	☼	05/22/19 02:56	05/22/19 16:05	1
Aroclor 1221	0.043	U	0.32	0.043	mg/Kg	☼	05/22/19 02:56	05/22/19 16:05	1
Aroclor 1232	0.043	U	0.32	0.043	mg/Kg	☼	05/22/19 02:56	05/22/19 16:05	1
Aroclor 1242	0.043	U	0.32	0.043	mg/Kg	☼	05/22/19 02:56	05/22/19 16:05	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-182489-1

Client Sample ID: WP-STC10N-BH19-A-B-0-052119

Lab Sample ID: 460-182489-5
Date Collected: 05/21/19 14:46
Matrix: Solid
Date Received: 05/21/19 16:22
Percent Solids: 20.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	2.8	J	0.32	0.043	mg/Kg	☼	05/22/19 02:56	05/22/19 16:05	1
Aroclor 1254	0.045	U	0.32	0.045	mg/Kg	☼	05/22/19 02:56	05/22/19 16:05	1
Aroclor 1260	0.045	U	0.32	0.045	mg/Kg	☼	05/22/19 02:56	05/22/19 16:05	1
Aroclor-1262	0.045	U	0.32	0.045	mg/Kg	☼	05/22/19 02:56	05/22/19 16:05	1
Aroclor 1268	0.045	U	0.32	0.045	mg/Kg	☼	05/22/19 02:56	05/22/19 16:05	1
Polychlorinated biphenyls, Total	2.8	J	0.32	0.045	mg/Kg	☼	05/22/19 02:56	05/22/19 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*121*		*53 - 150*	*05/22/19 02:56*	*05/22/19 16:05*	*1*
DCB Decachlorobiphenyl	*103*		*53 - 150*	*05/22/19 02:56*	*05/22/19 16:05*	*1*

Client Sample ID: WP-FB-052119

Lab Sample ID: 460-182489-6
Date Collected: 05/21/19 15:03
Matrix: Water
Date Received: 05/21/19 16:22

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		05/21/19 23:26	05/22/19 08:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*97*		*51 - 108*	*05/21/19 23:26*	*05/22/19 08:07*	*1*
Terphenyl-d14 (Surr)	*95*		*40 - 148*	*05/21/19 23:26*	*05/22/19 08:07*	*1*
2-Fluorobiphenyl	*96*		*45 - 107*	*05/21/19 23:26*	*05/22/19 08:07*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		05/22/19 00:42	05/22/19 11:00	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		05/22/19 00:42	05/22/19 11:00	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		05/22/19 00:42	05/22/19 11:00	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		05/22/19 00:42	05/22/19 11:00	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		05/22/19 00:42	05/22/19 11:00	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		05/22/19 00:42	05/22/19 11:00	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		05/22/19 00:42	05/22/19 11:00	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		05/22/19 00:42	05/22/19 11:00	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		05/22/19 00:42	05/22/19 11:00	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		05/22/19 00:42	05/22/19 11:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*100*		*10 - 150*	*05/22/19 00:42*	*05/22/19 11:00*	*1*
DCB Decachlorobiphenyl	*94*		*10 - 150*	*05/22/19 00:42*	*05/22/19 11:00*	*1*

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-182714

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 6/25/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on May 23, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-ST-BK20-A-B-0-052319	460-182714-1	Sediment	PCBs, BEHP*
WP-SB-BK20-C-D-0-0521319	460-182714-2	Sediment	PCBs, BEHP*
WP-STC15N-BH19-A-B-0-052319	460-182714-3	Sediment	PCBs, BEHP*
WP-ST-BN21-A-B-0-052319	460-182714-4	Sediment	PCBs, BEHP*
WP-SB-BN21-E-F-0-052319	460-182714-5	Sediment	PCBs, BEHP*
WP-PBC-BH31-C-D-0-052319	460-182714-6	Sediment	PCBs, BEHP*
WP-PB-BQ-22-D-E-0-052319	460-182714-7	Sediment	PCBs, BEHP*
WP-ST-BQ21-C-D-0-052319	460-182714-8	Sediment	PCBs, BEHP*
WP-SB-BQ21-F-G-0-052319	460-182714-9	Sediment	PCBs, BEHP*
WP-PB-BK28-A-B-0-052319	460-182714-10	Sediment	PCBs, BEHP*
WP-PBC-BK28-C-D-0-022319	460-182714-11	Sediment	PCBs, BEHP*
WP-PB-BK25-A-B-0-052319	460-182714-12	Sediment	PCBs, BEHP*
WP-FB-052319	460-182714-13	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable for the requested analyses. The data package contains required elements. The analyses of sample WP-PBC-BK28-C-D-0-022319 were placed on hold upon lab receipt. On May 23, 2019, the BEHP analysis was activated, but the PCB analysis was canceled.

The solid contents of samples WP-STC15N-BH19-A-B-0-052319 and WP-SB-BQ21-F-G-0-052319 were >10% but <30%; the positive results and the non-detects were estimated, J and UJ, respectively.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The MS/MSD analyses were performed on samples unrelated to the site. Their results were not used to assess matrix effects on analytical accuracy and precision. The analytical accuracy and precision were assessed via the LCS and LCSD results which were within laboratory established control limits and deemed acceptable.

Dilution analyses were performed for the following samples: WP-SB-BN21-E-F-0-052319 (2-fold), WP-ST-BQ21-C-D-0-052319 (5-fold), WP-SB-BQ21-F-G-0-052319 (10-fold), and WP-PB-BK28-A-B-0-052319 (2-fold). The quantification results were adjusted accordingly.

PCBs

As per case narrative, the percent difference (%D) of surrogate compound decachlorobiphenyl (DCB) in continuing calibration verification (CCV) standard CCVIS 460-612509/36, which was associated with all sediment sample analyses, exceeded the control limit of 20% on the CLP-2 column. Since the DCB %D on the Rtx-CLP column was within control and the recoveries of DCB were within control limits for all samples on both columns, professional judgment was exercised not to qualify any PCB results. The case narrative also mentioned failed recoveries of DCB recoveries in the MS/MSD analyses. However, since the MS/MSD analyses were performed on a sample unrelated to the site, data qualification was not required.

Since the MS/MSD analyses were performed on a sample unrelated to the site, their results were not used to assess matrix effects on analytical accuracy and precision. The analytical accuracy and precision were assessed via the LCS and LCSD results which were within laboratory established control limits and deemed acceptable.

The percent difference (%D) of positive Aroclor-1248 results between the two analytical columns was >25 in the analyses of sample WP-SB-BK20-C-D-0-0521319. The positive Aroclor-1248 result were estimated (J) for sample WP-SB-BK20-C-D-0-0521319.

The laboratory reported the presence of multiple Aroclors in sample WP-STC15N-BH19-A-B-0-052319. The following table summarizes the concentrations of each Aroclor from each analytical column, their %Ds between two columns, and the concentrations used for reporting purposes, along with data qualification applied as per EPA SOP HW-37A. All concentrations are in milligram per kilogram (mg/kg).

Aroclor	Column 1 (Rtx-CLP)	Column 2 (CLP-2)	% D	Reported Concentration	Data Qualification
1016	0.53	1.0	61.3	0.53	JN
1221	0.99	1.4	33.0	1.4	J
1232	0.94	0.37	87.5	0.37	JN
1242	0.85	1.1	27.6	1.1	J
1248	0.91	1.3	38.0	1.3	J
1254	0.87	0.83	4.6	0.87	none

It should be noted that the patterns of Aroclors in this table share many peaks that are eluted at the same retention times. It's highly likely that some of these Aroclors were false positive based on patterns compared to the reference standards. These results represent the worst case scenario for sample WP-STC15N-BH19-A-B-0-052319.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A, with two exceptions found in the table above.

Two-fold dilution analyses were performed for the following samples: WP-SB-BK20-C-D-0-0521319, WP-ST-BQ21-C-D-0-052319, and WP-SB-BQ21-F-G-0-052319. The quantification results were adjusted accordingly.

Data Validation Summary

Although some target analyte results were estimated (J/UJ) due to low solid contents and other non-compliant QC results, these non-compliances did not warrant data rejections. All results can be used as reported.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-182714-1

Client Sample ID: WP-ST-BK20-A-B-0-052319

Lab Sample ID: 460-182714-1
Matrix: Solid
Percent Solids: 32.3

Date Collected: 05/23/19 10:44
Date Received: 05/23/19 20:39

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	6.9		1.0	0.054	mg/Kg	☼	05/24/19 06:07	05/24/19 11:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*66*		*25 - 113*	*05/24/19 06:07*	*05/24/19 11:02*	*1*
Terphenyl-d14 (Surr)	*70*		*27 - 123*	*05/24/19 06:07*	*05/24/19 11:02*	*1*
2-Fluorobiphenyl	*63*		*29 - 107*	*05/24/19 06:07*	*05/24/19 11:02*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.028	U	0.21	0.028	mg/Kg	☼	05/24/19 06:35	05/24/19 18:07	1
Aroclor 1221	0.028	U	0.21	0.028	mg/Kg	☼	05/24/19 06:35	05/24/19 18:07	1
Aroclor 1232	0.028	U	0.21	0.028	mg/Kg	☼	05/24/19 06:35	05/24/19 18:07	1
Aroclor 1242	0.028	U	0.21	0.028	mg/Kg	☼	05/24/19 06:35	05/24/19 18:07	1
Aroclor 1248	2.1		0.21	0.028	mg/Kg	☼	05/24/19 06:35	05/24/19 18:07	1
Aroclor 1254	0.028	U	0.21	0.028	mg/Kg	☼	05/24/19 06:35	05/24/19 18:07	1
Aroclor 1260	0.028	U	0.21	0.028	mg/Kg	☼	05/24/19 06:35	05/24/19 18:07	1
Aroclor-1262	0.028	U	0.21	0.028	mg/Kg	☼	05/24/19 06:35	05/24/19 18:07	1
Aroclor 1268	0.028	U	0.21	0.028	mg/Kg	☼	05/24/19 06:35	05/24/19 18:07	1
Polychlorinated biphenyls, Total	2.1		0.21	0.028	mg/Kg	☼	05/24/19 06:35	05/24/19 18:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*136*		*53 - 150*	*05/24/19 06:35*	*05/24/19 18:07*	*1*
DCB Decachlorobiphenyl	*112*		*53 - 150*	*05/24/19 06:35*	*05/24/19 18:07*	*1*

Client Sample ID: WP-SB-BK20-C-D-0-0521319

Lab Sample ID: 460-182714-2
Matrix: Solid
Percent Solids: 31.9

Date Collected: 05/23/19 11:00
Date Received: 05/23/19 20:39

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	17		1.0	0.055	mg/Kg	☼	05/24/19 06:07	05/24/19 11:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*69*		*25 - 113*	*05/24/19 06:07*	*05/24/19 11:25*	*1*
Terphenyl-d14 (Surr)	*77*		*27 - 123*	*05/24/19 06:07*	*05/24/19 11:25*	*1*
2-Fluorobiphenyl	*67*		*29 - 107*	*05/24/19 06:07*	*05/24/19 11:25*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.056	U	0.42	0.056	mg/Kg	☼	05/24/19 06:35	05/24/19 19:31	2
Aroclor 1221	0.056	U	0.42	0.056	mg/Kg	☼	05/24/19 06:35	05/24/19 19:31	2
Aroclor 1232	0.056	U	0.42	0.056	mg/Kg	☼	05/24/19 06:35	05/24/19 19:31	2
Aroclor 1242	0.056	U	0.42	0.056	mg/Kg	☼	05/24/19 06:35	05/24/19 19:31	2
Aroclor 1248	4.4	J	0.42	0.056	mg/Kg	☼	05/24/19 06:35	05/24/19 19:31	2
Aroclor 1254	0.058	U	0.42	0.058	mg/Kg	☼	05/24/19 06:35	05/24/19 19:31	2
Aroclor 1260	0.058	U	0.42	0.058	mg/Kg	☼	05/24/19 06:35	05/24/19 19:31	2
Aroclor-1262	0.058	U	0.42	0.058	mg/Kg	☼	05/24/19 06:35	05/24/19 19:31	2
Aroclor 1268	0.058	U	0.42	0.058	mg/Kg	☼	05/24/19 06:35	05/24/19 19:31	2
Polychlorinated biphenyls, Total	4.4	J	0.42	0.058	mg/Kg	☼	05/24/19 06:35	05/24/19 19:31	2

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-182714-1

Client Sample ID: WP-SB-BK20-C-D-0-0521319

Lab Sample ID: 460-182714-2

Date Collected: 05/23/19 11:00
Date Received: 05/23/19 20:39

Matrix: Solid
Percent Solids: 31.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	126		53 - 150	05/24/19 06:35	05/24/19 19:31	2
DCB Decachlorobiphenyl	120		53 - 150	05/24/19 06:35	05/24/19 19:31	2

Client Sample ID: WP-STC15N-BH19-A-B-0-052319

Lab Sample ID: 460-182714-3

Date Collected: 05/23/19 11:15
Date Received: 05/23/19 20:39

Matrix: Solid
Percent Solids: 18.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.5	J	1.8	0.095	mg/Kg	☼	05/24/19 06:07	05/24/19 11:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	68		25 - 113	05/24/19 06:07	05/24/19 11:48	1
Terphenyl-d14 (Surr)	77		27 - 123	05/24/19 06:07	05/24/19 11:48	1
2-Fluorobiphenyl	67		29 - 107	05/24/19 06:07	05/24/19 11:48	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.53	~~P~~ JN	0.36	0.048	mg/Kg	☼	05/24/19 06:35	05/24/19 18:41	1
Aroclor 1221	1.4	J	0.36	0.048	mg/Kg	☼	05/24/19 06:35	05/24/19 18:41	1
Aroclor 1232	0.37	~~P~~ JN	0.36	0.048	mg/Kg	☼	05/24/19 06:35	05/24/19 18:41	1
Aroclor 1242	1.1	J	0.36	0.048	mg/Kg	☼	05/24/19 06:35	05/24/19 18:41	1
Aroclor 1248	1.3		0.36	0.048	mg/Kg	☼	05/24/19 06:35	05/24/19 18:41	1
Aroclor 1254	0.87		0.36	0.050	mg/Kg	☼	05/24/19 06:35	05/24/19 18:41	1
Aroclor 1260	0.050	U J	0.36	0.050	mg/Kg	☼	05/24/19 06:35	05/24/19 18:41	1
Aroclor-1262	0.050	U	0.36	0.050	mg/Kg	☼	05/24/19 06:35	05/24/19 18:41	1
Aroclor 1268	0.050	U	0.36	0.050	mg/Kg	☼	05/24/19 06:35	05/24/19 18:41	1
Polychlorinated biphenyls, Total	6.0	J	0.36	0.050	mg/Kg	☼	05/24/19 06:35	05/24/19 18:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	125		53 - 150	05/24/19 06:35	05/24/19 18:41	1
DCB Decachlorobiphenyl	109		53 - 150	05/24/19 06:35	05/24/19 18:41	1

Client Sample ID: WP-ST-BN21-A-B-0-052319

Lab Sample ID: 460-182714-4

Date Collected: 05/23/19 11:46
Date Received: 05/23/19 20:39

Matrix: Solid
Percent Solids: 41.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	10		0.80	0.043	mg/Kg	☼	05/24/19 06:07	05/24/19 12:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	69		25 - 113	05/24/19 06:07	05/24/19 12:11	1
Terphenyl-d14 (Surr)	80		27 - 123	05/24/19 06:07	05/24/19 12:11	1
2-Fluorobiphenyl	68		29 - 107	05/24/19 06:07	05/24/19 12:11	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.022	U	0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 19:48	1
Aroclor 1221	0.022	U	0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 19:48	1
Aroclor 1232	0.022	U	0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 19:48	1
Aroclor 1242	0.022	U	0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 19:48	1

Client Sample ID: WP-ST-BN21-A-B-0-052319

Lab Sample ID: 460-182714-4
Date Collected: 05/23/19 11:46
Matrix: Solid
Date Received: 05/23/19 20:39
Percent Solids: 41.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	1.1		0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 19:48	1
Aroclor 1254	0.022	U	0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 19:48	1
Aroclor 1260	0.022	U	0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 19:48	1
Aroclor-1262	0.022	U	0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 19:48	1
Aroclor 1268	0.022	U	0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 19:48	1
Polychlorinated biphenyls, Total	1.1		0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 19:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*124*		*53 - 150*	*05/24/19 06:35*	*05/24/19 19:48*	*1*
DCB Decachlorobiphenyl	*102*		*53 - 150*	*05/24/19 06:35*	*05/24/19 19:48*	*1*

Client Sample ID: WP-SB-BN21-E-F-0-052319

Lab Sample ID: 460-182714-5
Date Collected: 05/23/19 14:45
Matrix: Solid
Date Received: 05/23/19 20:39
Percent Solids: 44.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	21		1.5	0.078	mg/Kg	☼	05/24/19 06:07	05/24/19 15:16	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*79*		*25 - 113*	*05/24/19 06:07*	*05/24/19 15:16*	*2*
Terphenyl-d14 (Surr)	*84*		*27 - 123*	*05/24/19 06:07*	*05/24/19 15:16*	*2*
2-Fluorobiphenyl	*77*		*29 - 107*	*05/24/19 06:07*	*05/24/19 15:16*	*2*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.020	U	0.15	0.020	mg/Kg	☼	05/24/19 06:35	05/24/19 20:05	1
Aroclor 1221	0.020	U	0.15	0.020	mg/Kg	☼	05/24/19 06:35	05/24/19 20:05	1
Aroclor 1232	0.020	U	0.15	0.020	mg/Kg	☼	05/24/19 06:35	05/24/19 20:05	1
Aroclor 1242	0.020	U	0.15	0.020	mg/Kg	☼	05/24/19 06:35	05/24/19 20:05	1
Aroclor 1248	1.3		0.15	0.020	mg/Kg	☼	05/24/19 06:35	05/24/19 20:05	1
Aroclor 1254	0.021	U	0.15	0.021	mg/Kg	☼	05/24/19 06:35	05/24/19 20:05	1
Aroclor 1260	0.021	U	0.15	0.021	mg/Kg	☼	05/24/19 06:35	05/24/19 20:05	1
Aroclor-1262	0.021	U	0.15	0.021	mg/Kg	☼	05/24/19 06:35	05/24/19 20:05	1
Aroclor 1268	0.021	U	0.15	0.021	mg/Kg	☼	05/24/19 06:35	05/24/19 20:05	1
Polychlorinated biphenyls, Total	1.3		0.15	0.021	mg/Kg	☼	05/24/19 06:35	05/24/19 20:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*129*		*53 - 150*	*05/24/19 06:35*	*05/24/19 20:05*	*1*
DCB Decachlorobiphenyl	*107*		*53 - 150*	*05/24/19 06:35*	*05/24/19 20:05*	*1*

Client Sample ID: WP-PBC-BH31-C-D-0-052319

Lab Sample ID: 460-182714-6
Date Collected: 05/23/19 15:00
Matrix: Solid
Date Received: 05/23/19 20:39
Percent Solids: 81.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.14	J	0.41	0.022	mg/Kg	☼	05/24/19 06:07	05/24/19 12:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*69*		*25 - 113*	*05/24/19 06:07*	*05/24/19 12:57*	*1*
Terphenyl-d14 (Surr)	*83*		*27 - 123*	*05/24/19 06:07*	*05/24/19 12:57*	*1*

Client Sample ID: WP-PBC-BH31-C-D-0-052319

Lab Sample ID: 460-182714-6

Date Collected: 05/23/19 15:00
Date Received: 05/23/19 20:39

Matrix: Solid
Percent Solids: 81.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	65		29 - 107	05/24/19 06:07	05/24/19 12:57	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.082	0.011	mg/Kg	☼	05/24/19 06:35	05/24/19 20:22	1
Aroclor 1221	0.011	U	0.082	0.011	mg/Kg	☼	05/24/19 06:35	05/24/19 20:22	1
Aroclor 1232	0.011	U	0.082	0.011	mg/Kg	☼	05/24/19 06:35	05/24/19 20:22	1
Aroclor 1242	0.011	U	0.082	0.011	mg/Kg	☼	05/24/19 06:35	05/24/19 20:22	1
Aroclor 1248	0.011	U	0.082	0.011	mg/Kg	☼	05/24/19 06:35	05/24/19 20:22	1
Aroclor 1254	0.011	U	0.082	0.011	mg/Kg	☼	05/24/19 06:35	05/24/19 20:22	1
Aroclor 1260	0.011	U	0.082	0.011	mg/Kg	☼	05/24/19 06:35	05/24/19 20:22	1
Aroclor-1262	0.011	U	0.082	0.011	mg/Kg	☼	05/24/19 06:35	05/24/19 20:22	1
Aroclor 1268	0.011	U	0.082	0.011	mg/Kg	☼	05/24/19 06:35	05/24/19 20:22	1
Polychlorinated biphenyls, Total	0.011	U	0.082	0.011	mg/Kg	☼	05/24/19 06:35	05/24/19 20:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	142		53 - 150	05/24/19 06:35	05/24/19 20:22	1
DCB Decachlorobiphenyl	127		53 - 150	05/24/19 06:35	05/24/19 20:22	1

Client Sample ID: WP-PB-BQ-22-D-E-0-052319

Lab Sample ID: 460-182714-7

Date Collected: 05/23/19 15:16
Date Received: 05/23/19 20:39

Matrix: Solid
Percent Solids: 60.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	9.8		0.55	0.029	mg/Kg	☼	05/24/19 06:07	05/24/19 13:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	71		25 - 113	05/24/19 06:07	05/24/19 13:20	1
Terphenyl-d14 (Surr)	79		27 - 123	05/24/19 06:07	05/24/19 13:20	1
2-Fluorobiphenyl	67		29 - 107	05/24/19 06:07	05/24/19 13:20	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.015	U	0.11	0.015	mg/Kg	☼	05/24/19 06:35	05/24/19 20:39	1
Aroclor 1221	0.015	U	0.11	0.015	mg/Kg	☼	05/24/19 06:35	05/24/19 20:39	1
Aroclor 1232	0.015	U	0.11	0.015	mg/Kg	☼	05/24/19 06:35	05/24/19 20:39	1
Aroclor 1242	0.015	U	0.11	0.015	mg/Kg	☼	05/24/19 06:35	05/24/19 20:39	1
Aroclor 1248	0.31		0.11	0.015	mg/Kg	☼	05/24/19 06:35	05/24/19 20:39	1
Aroclor 1254	0.015	U	0.11	0.015	mg/Kg	☼	05/24/19 06:35	05/24/19 20:39	1
Aroclor 1260	0.015	U	0.11	0.015	mg/Kg	☼	05/24/19 06:35	05/24/19 20:39	1
Aroclor-1262	0.015	U	0.11	0.015	mg/Kg	☼	05/24/19 06:35	05/24/19 20:39	1
Aroclor 1268	0.015	U	0.11	0.015	mg/Kg	☼	05/24/19 06:35	05/24/19 20:39	1
Polychlorinated biphenyls, Total	0.31		0.11	0.015	mg/Kg	☼	05/24/19 06:35	05/24/19 20:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	148		53 - 150	05/24/19 06:35	05/24/19 20:39	1
DCB Decachlorobiphenyl	127		53 - 150	05/24/19 06:35	05/24/19 20:39	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-182714-1

Client Sample ID: WP-ST-BQ21-C-D-0-052319

Lab Sample ID: 460-182714-8

Date Collected: 05/23/19 15:41
Date Received: 05/23/19 20:39

Matrix: Solid
Percent Solids: 36.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	69		4.5	0.24	mg/Kg	☼	05/24/19 06:07	05/24/19 15:39	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*74*		*25 - 113*	*05/24/19 06:07*	*05/24/19 15:39*	*5*
Nitrobenzene-d5 (Surr)	*72*		*25 - 113*	*05/24/19 06:07*	*05/24/19 17:57*	*5*
Terphenyl-d14 (Surr)	*81*		*27 - 123*	*05/24/19 06:07*	*05/24/19 15:39*	*5*
Terphenyl-d14 (Surr)	*73*		*27 - 123*	*05/24/19 06:07*	*05/24/19 17:57*	*5*
2-Fluorobiphenyl	*70*		*29 - 107*	*05/24/19 06:07*	*05/24/19 15:39*	*5*
2-Fluorobiphenyl	*68*		*29 - 107*	*05/24/19 06:07*	*05/24/19 17:57*	*5*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.048	U	0.36	0.048	mg/Kg	☼	05/24/19 06:35	05/25/19 11:31	2
Aroclor 1221	0.048	U	0.36	0.048	mg/Kg	☼	05/24/19 06:35	05/25/19 11:31	2
Aroclor 1232	0.048	U	0.36	0.048	mg/Kg	☼	05/24/19 06:35	05/25/19 11:31	2
Aroclor 1242	0.048	U	0.36	0.048	mg/Kg	☼	05/24/19 06:35	05/25/19 11:31	2
Aroclor 1248	3.0		0.36	0.048	mg/Kg	☼	05/24/19 06:35	05/25/19 11:31	2
Aroclor 1254	0.050	U	0.36	0.050	mg/Kg	☼	05/24/19 06:35	05/25/19 11:31	2
Aroclor 1260	0.050	U	0.36	0.050	mg/Kg	☼	05/24/19 06:35	05/25/19 11:31	2
Aroclor-1262	0.050	U	0.36	0.050	mg/Kg	☼	05/24/19 06:35	05/25/19 11:31	2
Aroclor 1268	0.050	U	0.36	0.050	mg/Kg	☼	05/24/19 06:35	05/25/19 11:31	2
Polychlorinated biphenyls, Total	3.0		0.36	0.050	mg/Kg	☼	05/24/19 06:35	05/25/19 11:31	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*136*		*53 - 150*	*05/24/19 06:35*	*05/25/19 11:31*	*2*
DCB Decachlorobiphenyl	*120*		*53 - 150*	*05/24/19 06:35*	*05/25/19 11:31*	*2*

Client Sample ID: WP-SB-BQ21-F-G-0-052319

Lab Sample ID: 460-182714-9

Date Collected: 05/23/19 17:15
Date Received: 05/23/19 20:39

Matrix: Solid
Percent Solids: 22.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	140	J	14	0.77	mg/Kg	☼	05/24/19 06:07	05/24/19 18:21	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*63*		*25 - 113*	*05/24/19 06:07*	*05/24/19 18:21*	*10*
Terphenyl-d14 (Surr)	*69*		*27 - 123*	*05/24/19 06:07*	*05/24/19 18:21*	*10*
2-Fluorobiphenyl	*62*		*29 - 107*	*05/24/19 06:07*	*05/24/19 18:21*	*10*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.078	U J	0.59	0.078	mg/Kg	☼	05/24/19 06:35	05/25/19 11:48	2
Aroclor 1221	0.078	U	0.59	0.078	mg/Kg	☼	05/24/19 06:35	05/25/19 11:48	2
Aroclor 1232	0.078	U	0.59	0.078	mg/Kg	☼	05/24/19 06:35	05/25/19 11:48	2
Aroclor 1242	0.078	U	0.59	0.078	mg/Kg	☼	05/24/19 06:35	05/25/19 11:48	2
Aroclor 1248	4.7	J	0.59	0.078	mg/Kg	☼	05/24/19 06:35	05/25/19 11:48	2
Aroclor 1254	0.081	U J	0.59	0.081	mg/Kg	☼	05/24/19 06:35	05/25/19 11:48	2
Aroclor 1260	0.081	U	0.59	0.081	mg/Kg	☼	05/24/19 06:35	05/25/19 11:48	2
Aroclor-1262	0.081	U	0.59	0.081	mg/Kg	☼	05/24/19 06:35	05/25/19 11:48	2
Aroclor 1268	0.081	U	0.59	0.081	mg/Kg	☼	05/24/19 06:35	05/25/19 11:48	2

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-182714-1

Client Sample ID: WP-SB-BQ21-F-G-0-052319

Lab Sample ID: 460-182714-9

Date Collected: 05/23/19 17:15
Date Received: 05/23/19 20:39

Matrix: Solid
Percent Solids: 22.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	4.7	J	0.59	0.081	mg/Kg	☼	05/24/19 06:35	05/25/19 11:48	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*132*		*53 - 150*	*05/24/19 06:35*	*05/25/19 11:48*	*2*
DCB Decachlorobiphenyl	*117*		*53 - 150*	*05/24/19 06:35*	*05/25/19 11:48*	*2*

Client Sample ID: WP-PB-BK28-A-B-0-052319

Lab Sample ID: 460-182714-10

Date Collected: 05/23/19 17:30
Date Received: 05/23/19 20:39

Matrix: Solid
Percent Solids: 41.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	25		1.6	0.085	mg/Kg	☼	05/24/19 06:07	05/24/19 18:44	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*68*		*25 - 113*	*05/24/19 06:07*	*05/24/19 18:44*	*2*
Terphenyl-d14 (Surr)	*74*		*27 - 123*	*05/24/19 06:07*	*05/24/19 18:44*	*2*
2-Fluorobiphenyl	*68*		*29 - 107*	*05/24/19 06:07*	*05/24/19 18:44*	*2*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.022	U	0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 21:30	1
Aroclor 1221	0.022	U	0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 21:30	1
Aroclor 1232	0.022	U	0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 21:30	1
Aroclor 1242	0.022	U	0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 21:30	1
Aroclor 1248	1.0		0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 21:30	1
Aroclor 1254	0.022	U	0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 21:30	1
Aroclor 1260	0.022	U	0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 21:30	1
Aroclor-1262	0.022	U	0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 21:30	1
Aroclor 1268	0.022	U	0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 21:30	1
Polychlorinated biphenyls, Total	1.0		0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 21:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*126*		*53 - 150*	*05/24/19 06:35*	*05/24/19 21:30*	*1*
DCB Decachlorobiphenyl	*111*		*53 - 150*	*05/24/19 06:35*	*05/24/19 21:30*	*1*

Client Sample ID: WP-PBC-BK28-C-D-0-022319

Lab Sample ID: 460-182714-11

Date Collected: 05/23/19 17:37
Date Received: 05/23/19 20:39

Matrix: Solid
Percent Solids: 80.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.57		0.41	0.022	mg/Kg	☼	05/24/19 06:07	05/24/19 14:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*70*		*25 - 113*	*05/24/19 06:07*	*05/24/19 14:53*	*1*
Terphenyl-d14 (Surr)	*86*		*27 - 123*	*05/24/19 06:07*	*05/24/19 14:53*	*1*
2-Fluorobiphenyl	*70*		*29 - 107*	*05/24/19 06:07*	*05/24/19 14:53*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-182714-1

Client Sample ID: WP-PB-BK25-A-B-0-052319

Lab Sample ID: 460-182714-12

Date Collected: 05/23/19 17:50
Date Received: 05/23/19 20:39

Matrix: Solid
Percent Solids: 40.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	10		0.81	0.043	mg/Kg	☼	05/24/19 06:15	05/24/19 13:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*47*		*25 - 113*	*05/24/19 06:15*	*05/24/19 13:43*	*1*
Terphenyl-d14 (Surr)	*59*		*27 - 123*	*05/24/19 06:15*	*05/24/19 13:43*	*1*
2-Fluorobiphenyl	*53*		*29 - 107*	*05/24/19 06:15*	*05/24/19 13:43*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.022	U	0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 22:03	1
Aroclor 1221	0.022	U	0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 22:03	1
Aroclor 1232	0.022	U	0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 22:03	1
Aroclor 1242	0.022	U	0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 22:03	1
Aroclor 1248	0.40		0.16	0.022	mg/Kg	☼	05/24/19 06:35	05/24/19 22:03	1
Aroclor 1254	0.023	U	0.16	0.023	mg/Kg	☼	05/24/19 06:35	05/24/19 22:03	1
Aroclor 1260	0.023	U	0.16	0.023	mg/Kg	☼	05/24/19 06:35	05/24/19 22:03	1
Aroclor-1262	0.023	U	0.16	0.023	mg/Kg	☼	05/24/19 06:35	05/24/19 22:03	1
Aroclor 1268	0.023	U	0.16	0.023	mg/Kg	☼	05/24/19 06:35	05/24/19 22:03	1
Polychlorinated biphenyls, Total	0.40		0.16	0.023	mg/Kg	☼	05/24/19 06:35	05/24/19 22:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*132*		*53 - 150*	*05/24/19 06:35*	*05/24/19 22:03*	*1*
DCB Decachlorobiphenyl	*120*		*53 - 150*	*05/24/19 06:35*	*05/24/19 22:03*	*1*

Client Sample ID: WP-FB-052319

Lab Sample ID: 460-182714-13

Date Collected: 05/23/19 18:10
Date Received: 05/23/19 20:39

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		05/24/19 04:16	05/24/19 06:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*83*		*51 - 108*	*05/24/19 04:16*	*05/24/19 06:15*	*1*
Terphenyl-d14 (Surr)	*98*		*40 - 148*	*05/24/19 04:16*	*05/24/19 06:15*	*1*
2-Fluorobiphenyl	*85*		*45 - 107*	*05/24/19 04:16*	*05/24/19 06:15*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		05/24/19 06:14	05/24/19 12:53	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		05/24/19 06:14	05/24/19 12:53	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		05/24/19 06:14	05/24/19 12:53	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		05/24/19 06:14	05/24/19 12:53	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		05/24/19 06:14	05/24/19 12:53	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		05/24/19 06:14	05/24/19 12:53	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		05/24/19 06:14	05/24/19 12:53	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		05/24/19 06:14	05/24/19 12:53	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		05/24/19 06:14	05/24/19 12:53	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		05/24/19 06:14	05/24/19 12:53	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-182714-1

Client Sample ID: WP-FB-052319

Date Collected: 05/23/19 18:10
Date Received: 05/23/19 20:39

Lab Sample ID: 460-182714-13

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	96		10 - 150	05/24/19 06:14	05/24/19 12:53	1
DCB Decachlorobiphenyl	98		10 - 150	05/24/19 06:14	05/24/19 12:53	1

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-182769

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 6/25/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on May 24, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-PB-BQ25-A-B-0-052419	460-182769-1	Sediment	PCBs, BEHP*
WP-PB-BQ28-A-B-0-052419	460-182769-2	Sediment	PCBs, BEHP*
WP-PB-BE34-A-B-0-052419	460-182769-3	Sediment	PCBs, BEHP*
WP-PB-BN22-A-B-0-052419	460-182769-4	Sediment	PCBs, BEHP*
WP-PB-BN25-A-B-0-052419	460-182769-5	Sediment	PCBs, BEHP*
WP-PBC-BN25-C-D-0-052419	460-182769-6	Sediment	PCBs, BEHP*
WP-PB-BK22-A-B-0-052419	460-182769-7	Sediment	PCBs, BEHP*
WP-PBC-BK22-C-D-0-052419	460-182769-8	Sediment	PCBs, BEHP*
WP-FB-052419	460-182769-9	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable for the requested analyses. The data package contains required elements. The analyses of samples WP-PBC-BN25-C-D-0-052419

and WP-PBC-BK22-C-D-0-052419 were placed on hold upon lab receipt but were canceled on May 28, 2019.

The solid contents of all sediment samples were >30%; data qualification was not required for this element of QC.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The case narrative documented the failed surrogate compound recoveries in the analyses of LCS/LCSD associated with the field blank. Since the recoveries of surrogate compounds in the field blank analysis were within laboratory established control limits, the non-compliances of surrogate recoveries in LCS and LCSD required no action.

The MS/MSD analyses were performed on sample WP-PB-BQ28-A-B-0-052419 and yielded high recoveries (>200%). The precision of MS/MSD result was within control limit. The positive BEHP result was estimated (J) for sample WP-PB-BQ28-A-B-0-052419 for potential high bias.

Two-fold dilution analyses were performed for WP-PB-BQ28-A-B-0-052419 and its MS/MSD. The quantification results were adjusted accordingly.

PCBs

Since the MS and MSD were not evident on the sample extraction worksheet, the matrix effects on analytical accuracy and precision could not be assessed. The analytical accuracy and precision were assessed via the LCS and LCSD results which were within laboratory established control limits and deemed acceptable.

The percent difference (%D) of positive Aroclor-1248 results between the two analytical columns was >25 in the analyses of samples WP-PB-BN22-A-B-0-052419 and WP-PB-BK22-A-B-0-052419. The positive Aroclor-1248 results were estimated (J) for both samples.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Although some target analyte results were estimated (J) due to non-compliant QC results, these non-compliances did not warrant data rejections. All results can be used as reported.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-182769-1

Client Sample ID: WP-PB-BQ25-A-B-0-052419

Lab Sample ID: 460-182769-1

Date Collected: 05/24/19 09:25
Date Received: 05/24/19 12:20

Matrix: Solid
Percent Solids: 46.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.5		0.71	0.038	mg/Kg	☼	05/25/19 01:50	05/26/19 05:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*77*		*25 - 113*	*05/25/19 01:50*	*05/26/19 05:37*	*1*
Terphenyl-d14 (Surr)	*91*		*27 - 123*	*05/25/19 01:50*	*05/26/19 05:37*	*1*
2-Fluorobiphenyl	*72*		*29 - 107*	*05/25/19 01:50*	*05/26/19 05:37*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.019	U	0.14	0.019	mg/Kg	☼	05/25/19 00:03	05/26/19 12:17	1
Aroclor 1221	0.019	U	0.14	0.019	mg/Kg	☼	05/25/19 00:03	05/26/19 12:17	1
Aroclor 1232	0.019	U	0.14	0.019	mg/Kg	☼	05/25/19 00:03	05/26/19 12:17	1
Aroclor 1242	0.019	U	0.14	0.019	mg/Kg	☼	05/25/19 00:03	05/26/19 12:17	1
Aroclor 1248	0.19		0.14	0.019	mg/Kg	☼	05/25/19 00:03	05/26/19 12:17	1
Aroclor 1254	0.020	U	0.14	0.020	mg/Kg	☼	05/25/19 00:03	05/26/19 12:17	1
Aroclor 1260	0.020	U	0.14	0.020	mg/Kg	☼	05/25/19 00:03	05/26/19 12:17	1
Aroclor-1262	0.020	U	0.14	0.020	mg/Kg	☼	05/25/19 00:03	05/26/19 12:17	1
Aroclor 1268	0.020	U	0.14	0.020	mg/Kg	☼	05/25/19 00:03	05/26/19 12:17	1
Polychlorinated biphenyls, Total	0.19		0.14	0.020	mg/Kg	☼	05/25/19 00:03	05/26/19 12:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*119*		*53 - 150*	*05/25/19 00:03*	*05/26/19 12:17*	*1*
DCB Decachlorobiphenyl	*113*		*53 - 150*	*05/25/19 00:03*	*05/26/19 12:17*	*1*

Client Sample ID: WP-PB-BQ28-A-B-0-052419

Lab Sample ID: 460-182769-2

Date Collected: 05/24/19 09:48
Date Received: 05/24/19 12:20

Matrix: Solid
Percent Solids: 66.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	13	~~F1~~ J	0.99	0.053	mg/Kg	☼	05/25/19 01:50	05/27/19 02:22	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*66*		*25 - 113*	*05/25/19 01:50*	*05/27/19 02:22*	*2*
Terphenyl-d14 (Surr)	*87*		*27 - 123*	*05/25/19 01:50*	*05/27/19 02:22*	*2*
2-Fluorobiphenyl	*65*		*29 - 107*	*05/25/19 01:50*	*05/27/19 02:22*	*2*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.10	0.013	mg/Kg	☼	05/25/19 00:03	05/26/19 12:38	1
Aroclor 1221	0.013	U	0.10	0.013	mg/Kg	☼	05/25/19 00:03	05/26/19 12:38	1
Aroclor 1232	0.013	U	0.10	0.013	mg/Kg	☼	05/25/19 00:03	05/26/19 12:38	1
Aroclor 1242	0.013	U	0.10	0.013	mg/Kg	☼	05/25/19 00:03	05/26/19 12:38	1
Aroclor 1248	0.68		0.10	0.013	mg/Kg	☼	05/25/19 00:03	05/26/19 12:38	1
Aroclor 1254	0.014	U	0.10	0.014	mg/Kg	☼	05/25/19 00:03	05/26/19 12:38	1
Aroclor 1260	0.014	U	0.10	0.014	mg/Kg	☼	05/25/19 00:03	05/26/19 12:38	1
Aroclor-1262	0.014	U	0.10	0.014	mg/Kg	☼	05/25/19 00:03	05/26/19 12:38	1
Aroclor 1268	0.014	U	0.10	0.014	mg/Kg	☼	05/25/19 00:03	05/26/19 12:38	1
Polychlorinated biphenyls, Total	0.68		0.10	0.014	mg/Kg	☼	05/25/19 00:03	05/26/19 12:38	1

Client Sample ID: WP-PB-BQ28-A-B-0-052419

Lab Sample ID: 460-182769-2

Date Collected: 05/24/19 09:48
Date Received: 05/24/19 12:20

Matrix: Solid
Percent Solids: 66.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	113		53 - 150	05/25/19 00:03	05/26/19 12:38	1
DCB Decachlorobiphenyl	114		53 - 150	05/25/19 00:03	05/26/19 12:38	1

Client Sample ID: WP-PB-BE34-A-B-0-052419

Lab Sample ID: 460-182769-3

Date Collected: 05/24/19 10:03
Date Received: 05/24/19 12:20

Matrix: Solid
Percent Solids: 68.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.5		0.48	0.026	mg/Kg	☼	05/25/19 01:50	05/26/19 06:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	73		25 - 113	05/25/19 01:50	05/26/19 06:01	1
Terphenyl-d14 (Surr)	97		27 - 123	05/25/19 01:50	05/26/19 06:01	1
2-Fluorobiphenyl	71		29 - 107	05/25/19 01:50	05/26/19 06:01	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.098	0.013	mg/Kg	☼	05/25/19 00:03	05/26/19 12:57	1
Aroclor 1221	0.013	U	0.098	0.013	mg/Kg	☼	05/25/19 00:03	05/26/19 12:57	1
Aroclor 1232	0.013	U	0.098	0.013	mg/Kg	☼	05/25/19 00:03	05/26/19 12:57	1
Aroclor 1242	0.013	U	0.098	0.013	mg/Kg	☼	05/25/19 00:03	05/26/19 12:57	1
Aroclor 1248	0.013	U	0.098	0.013	mg/Kg	☼	05/25/19 00:03	05/26/19 12:57	1
Aroclor 1254	0.013	U	0.098	0.013	mg/Kg	☼	05/25/19 00:03	05/26/19 12:57	1
Aroclor 1260	0.013	U	0.098	0.013	mg/Kg	☼	05/25/19 00:03	05/26/19 12:57	1
Aroclor-1262	0.013	U	0.098	0.013	mg/Kg	☼	05/25/19 00:03	05/26/19 12:57	1
Aroclor 1268	0.013	U	0.098	0.013	mg/Kg	☼	05/25/19 00:03	05/26/19 12:57	1
Polychlorinated biphenyls, Total	0.013	U	0.098	0.013	mg/Kg	☼	05/25/19 00:03	05/26/19 12:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	120		53 - 150	05/25/19 00:03	05/26/19 12:57	1
DCB Decachlorobiphenyl	118		53 - 150	05/25/19 00:03	05/26/19 12:57	1

Client Sample ID: WP-PB-BN22-A-B-0-052419

Lab Sample ID: 460-182769-4

Date Collected: 05/24/19 10:24
Date Received: 05/24/19 12:20

Matrix: Solid
Percent Solids: 34.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	23		0.97	0.051	mg/Kg	☼	05/25/19 01:50	05/26/19 06:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	77		25 - 113	05/25/19 01:50	05/26/19 06:24	1
Terphenyl-d14 (Surr)	94		27 - 123	05/25/19 01:50	05/26/19 06:24	1
2-Fluorobiphenyl	73		29 - 107	05/25/19 01:50	05/26/19 06:24	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.026	U	0.20	0.026	mg/Kg	☼	05/25/19 00:03	05/26/19 13:16	1
Aroclor 1221	0.026	U	0.20	0.026	mg/Kg	☼	05/25/19 00:03	05/26/19 13:16	1
Aroclor 1232	0.026	U	0.20	0.026	mg/Kg	☼	05/25/19 00:03	05/26/19 13:16	1
Aroclor 1242	0.026	U	0.20	0.026	mg/Kg	☼	05/25/19 00:03	05/26/19 13:16	1

Client Sample ID: WP-PB-BN22-A-B-0-052419

Lab Sample ID: 460-182769-4

Date Collected: 05/24/19 10:24
Date Received: 05/24/19 12:20

Matrix: Solid
Percent Solids: 34.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	1.7	J	0.20	0.026	mg/Kg	☼	05/25/19 00:03	05/26/19 13:16	1
Aroclor 1254	0.027	U	0.20	0.027	mg/Kg	☼	05/25/19 00:03	05/26/19 13:16	1
Aroclor 1260	0.027	U	0.20	0.027	mg/Kg	☼	05/25/19 00:03	05/26/19 13:16	1
Aroclor-1262	0.027	U	0.20	0.027	mg/Kg	☼	05/25/19 00:03	05/26/19 13:16	1
Aroclor 1268	0.027	U	0.20	0.027	mg/Kg	☼	05/25/19 00:03	05/26/19 13:16	1
Polychlorinated biphenyls, Total	1.7	J	0.20	0.027	mg/Kg	☼	05/25/19 00:03	05/26/19 13:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*128*		*53 - 150*	*05/25/19 00:03*	*05/26/19 13:16*	*1*
DCB Decachlorobiphenyl	*125*		*53 - 150*	*05/25/19 00:03*	*05/26/19 13:16*	*1*

Client Sample ID: WP-PB-BN25-A-B-0-052419

Lab Sample ID: 460-182769-5

Date Collected: 05/24/19 10:40
Date Received: 05/24/19 12:20

Matrix: Solid
Percent Solids: 39.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.56	J	0.84	0.045	mg/Kg	☼	05/25/19 01:50	05/26/19 06:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*75*		*25 - 113*	*05/25/19 01:50*	*05/26/19 06:47*	*1*
Terphenyl-d14 (Surr)	*94*		*27 - 123*	*05/25/19 01:50*	*05/26/19 06:47*	*1*
2-Fluorobiphenyl	*73*		*29 - 107*	*05/25/19 01:50*	*05/26/19 06:47*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.023	U	0.17	0.023	mg/Kg	☼	05/25/19 00:03	05/26/19 13:37	1
Aroclor 1221	0.023	U	0.17	0.023	mg/Kg	☼	05/25/19 00:03	05/26/19 13:37	1
Aroclor 1232	0.023	U	0.17	0.023	mg/Kg	☼	05/25/19 00:03	05/26/19 13:37	1
Aroclor 1242	0.023	U	0.17	0.023	mg/Kg	☼	05/25/19 00:03	05/26/19 13:37	1
Aroclor 1248	0.023	U	0.17	0.023	mg/Kg	☼	05/25/19 00:03	05/26/19 13:37	1
Aroclor 1254	0.023	U	0.17	0.023	mg/Kg	☼	05/25/19 00:03	05/26/19 13:37	1
Aroclor 1260	0.023	U	0.17	0.023	mg/Kg	☼	05/25/19 00:03	05/26/19 13:37	1
Aroclor-1262	0.023	U	0.17	0.023	mg/Kg	☼	05/25/19 00:03	05/26/19 13:37	1
Aroclor 1268	0.023	U	0.17	0.023	mg/Kg	☼	05/25/19 00:03	05/26/19 13:37	1
Polychlorinated biphenyls, Total	0.023	U	0.17	0.023	mg/Kg	☼	05/25/19 00:03	05/26/19 13:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*127*		*53 - 150*	*05/25/19 00:03*	*05/26/19 13:37*	*1*
DCB Decachlorobiphenyl	*110*		*53 - 150*	*05/25/19 00:03*	*05/26/19 13:37*	*1*

Client Sample ID: WP-PB-BK22-A-B-0-052419

Lab Sample ID: 460-182769-7

Date Collected: 05/24/19 11:05
Date Received: 05/24/19 12:20

Matrix: Solid
Percent Solids: 40.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	4.7		0.82	0.043	mg/Kg	☼	05/25/19 01:50	05/26/19 07:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*79*		*25 - 113*	*05/25/19 01:50*	*05/26/19 07:10*	*1*
Terphenyl-d14 (Surr)	*96*		*27 - 123*	*05/25/19 01:50*	*05/26/19 07:10*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-182769-1

Client Sample ID: WP-PB-BK22-A-B-0-052419

Lab Sample ID: 460-182769-7

Date Collected: 05/24/19 11:05
Date Received: 05/24/19 12:20

Matrix: Solid
Percent Solids: 40.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	76		29 - 107	05/25/19 01:50	05/26/19 07:10	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.022	U	0.17	0.022	mg/Kg	☼	05/25/19 00:03	05/26/19 13:58	1
Aroclor 1221	0.022	U	0.17	0.022	mg/Kg	☼	05/25/19 00:03	05/26/19 13:58	1
Aroclor 1232	0.022	U	0.17	0.022	mg/Kg	☼	05/25/19 00:03	05/26/19 13:58	1
Aroclor 1242	0.022	U	0.17	0.022	mg/Kg	☼	05/25/19 00:03	05/26/19 13:58	1
Aroclor 1248	0.35	J	0.17	0.022	mg/Kg	☼	05/25/19 00:03	05/26/19 13:58	1
Aroclor 1254	0.023	U	0.17	0.023	mg/Kg	☼	05/25/19 00:03	05/26/19 13:58	1
Aroclor 1260	0.023	U	0.17	0.023	mg/Kg	☼	05/25/19 00:03	05/26/19 13:58	1
Aroclor-1262	0.023	U	0.17	0.023	mg/Kg	☼	05/25/19 00:03	05/26/19 13:58	1
Aroclor 1268	0.023	U	0.17	0.023	mg/Kg	☼	05/25/19 00:03	05/26/19 13:58	1
Polychlorinated biphenyls, Total	0.35	J	0.17	0.023	mg/Kg	☼	05/25/19 00:03	05/26/19 13:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	144		53 - 150	05/25/19 00:03	05/26/19 13:58	1
DCB Decachlorobiphenyl	126		53 - 150	05/25/19 00:03	05/26/19 13:58	1

Client Sample ID: WP-FB-052419

Lab Sample ID: 460-182769-9

Date Collected: 05/24/19 11:15
Date Received: 05/24/19 12:20

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		05/25/19 01:27	05/25/19 03:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	94		51 - 108	05/25/19 01:27	05/25/19 03:10	1
Terphenyl-d14 (Surr)	116		40 - 148	05/25/19 01:27	05/25/19 03:10	1
2-Fluorobiphenyl	95		45 - 107	05/25/19 01:27	05/25/19 03:10	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		05/25/19 14:38	05/26/19 10:25	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		05/25/19 14:38	05/26/19 10:25	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		05/25/19 14:38	05/26/19 10:25	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		05/25/19 14:38	05/26/19 10:25	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		05/25/19 14:38	05/26/19 10:25	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		05/25/19 14:38	05/26/19 10:25	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		05/25/19 14:38	05/26/19 10:25	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		05/25/19 14:38	05/26/19 10:25	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		05/25/19 14:38	05/26/19 10:25	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		05/25/19 14:38	05/26/19 10:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	93		10 - 150	05/25/19 14:38	05/26/19 10:25	1
DCB Decachlorobiphenyl	94		10 - 150	05/25/19 14:38	05/26/19 10:25	1

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-183032

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 6/27/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on May 29, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-SB-BS25-G-H-0-052919	460-183032-1	Sediment	PCBs, BEHP*
WP-SB-BS25-G-H-1-052919[1]	460-183032-2	Sediment	PCBs, BEHP*
WP-SB-BS28-I-J-0-052919	460-183032-3	Sediment	PCBs, BEHP*
WP-ST-BS28-D-E-0-052919	460-183032-4	Sediment	PCBs, BEHP*
WP-SB-BR22-C-D-0-052919	460-183032-5	Sediment	PCBs, BEHP*
WP-ST-BR22-A-B-0-052919	460-183032-6	Sediment	PCBs, BEHP*
WP-SB-AW43-I-J-0-052919	460-183032-7	Sediment	PCBs, BEHP*
WP-ST-AW43-H-I-0-052919	460-183032-8	Sediment	PCBs, BEHP*
WP-ST-BS25-A-B-0-052919	460-183032-9	Sediment	PCBs, BEHP*
WP-SB-AW46-I-J-0-052919	460-183032-10	Sediment	PCBs, BEHP*
WP-FB-052919	460-183032-11	Field Blank	PCBs, BEHP*
WP-ST-AW46-D-E-0-052919	460-183032-12	Sediment	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

[1]Field duplicate of WP-SB-BS25-G-H-0-052919

General Comments

The laboratory submitted a NJDEP full data deliverable for the requested analyses. The data package contains required elements.

The solid contents were greater than 30% for all sediment samples.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The initial lab report did not provide information pertinent to LCS/LCSD analyses associated with the field blank. After being contracted on June 21, 2019, the lab provided a revised report on June 27, 2019 to include all relevant information.

Samples WP-SB-BS28-I-J-0-052919 and WP-SB-BR22-C-D-0-052919 were performed with 10-fold and 25-fold dilutions, respectively. The BEHP results were adjusted accordingly.

Matrix Spike and Matrix Spike Duplicate Recovery

The MS/MSD analyses, performed on sample WP-SB-BS25-G-H-0-052919, yielded acceptable MS recovery but high MSD recovery. The positive BEHP result reported for sample WP-SB-BS25-G-H-0-052919 was estimated (J) for potential high bias.

Field Duplicate

The analyses of WP-SB-BS25-G-H-0-052919 and its field duplicate WP-SB-BS25-G-H-1-052919 yielded incomparable BEHP results; their relative percent difference (RPD) was >50%. Professional judgment was exercised to estimate (J) BEHP results for both samples.

PCBs

The initial lab report did not provide information pertinent to method blank and LCS/LCSD analyses associated with the sediment samples. On June 21, 2019, a request was sent to the lab to explain why these QC samples were not extracted or, if indeed prepared, to provide the omitted information. The requested information was provided on June 25, 2019 by the lab in a revised report.

As per case narrative, the percent difference (%D) of surrogate compound decachlorobiphenyl (DCB) in continuing calibration verification (CCV) standard CCVIS 460-613807/2, which was associated with all sediment sample analyses, exceeded the control limit of 20% on the CLP-2 column. Since the DCB %D on the Rtx-CLP column was within control and the recoveries of DCB were within control limits for all samples on both columns, professional judgment was exercised not to qualify any PCB results.

A sample unrelated to the site was used for the MS/MSD analyses. Their results were not used to qualify Aroclor data submitted for this report.

Aroclor-1248 was not detected in sample WP-SB-BS25-G-H-0-052919 but was detected at a concentration >RL in its field duplicate WP-SB-BS25-G-H-1-052919. Both Aroclor-1248 results were estimated for WP-SB-BS25-G-H-0-052919 (UJ) and WP-SB-BS25-G-H-1-052919 (J).

Data Validation Summary

Although some target analyte results were estimated (J/UJ) due to non-compliant QC recovery and/or incomparable field duplicate results, these non-compliances did not warrant data rejections. All results can be used as reported.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-183032-1

Client Sample ID: WP-SB-BS25-G-H-0-052919

Date Collected: 05/29/19 10:47
Date Received: 05/29/19 17:08

Lab Sample ID: 460-183032-1

Matrix: Solid
Percent Solids: 73.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	3.6	~~F1~~ J	0.45	0.024	mg/Kg	☼	05/29/19 20:59	05/30/19 07:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*77*		*25 - 113*	*05/29/19 20:59*	*05/30/19 07:09*	*1*
Terphenyl-d14 (Surr)	*90*		*27 - 123*	*05/29/19 20:59*	*05/30/19 07:09*	*1*
2-Fluorobiphenyl	*83*		*29 - 107*	*05/29/19 20:59*	*05/30/19 07:09*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.091	0.012	mg/Kg	☼	05/30/19 02:45	05/30/19 14:39	1
Aroclor 1221	0.012	U	0.091	0.012	mg/Kg	☼	05/30/19 02:45	05/30/19 14:39	1
Aroclor 1232	0.012	U J	0.091	0.012	mg/Kg	☼	05/30/19 02:45	05/30/19 14:39	1
Aroclor 1242	0.012	U	0.091	0.012	mg/Kg	☼	05/30/19 02:45	05/30/19 14:39	1
Aroclor 1248	0.012	U	0.091	0.012	mg/Kg	☼	05/30/19 02:45	05/30/19 14:39	1
Aroclor 1254	0.013	U	0.091	0.013	mg/Kg	☼	05/30/19 02:45	05/30/19 14:39	1
Aroclor 1260	0.013	U	0.091	0.013	mg/Kg	☼	05/30/19 02:45	05/30/19 14:39	1
Aroclor-1262	0.013	U	0.091	0.013	mg/Kg	☼	05/30/19 02:45	05/30/19 14:39	1
Aroclor 1268	0.013	U	0.091	0.013	mg/Kg	☼	05/30/19 02:45	05/30/19 14:39	1
Polychlorinated biphenyls, Total	0.013	U	0.091	0.013	mg/Kg	☼	05/30/19 02:45	05/30/19 14:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*112*		*53 - 150*	*05/30/19 02:45*	*05/30/19 14:39*	*1*
DCB Decachlorobiphenyl	*97*		*53 - 150*	*05/30/19 02:45*	*05/30/19 14:39*	*1*

Client Sample ID: WP-SB-BS25-G-H-1-052919

FD of -1

Date Collected: 05/29/19 10:47
Date Received: 05/29/19 17:08

Lab Sample ID: 460-183032-2

Matrix: Solid
Percent Solids: 82.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	6.8	J	0.40	0.021	mg/Kg	☼	05/29/19 20:59	05/30/19 07:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*58*		*25 - 113*	*05/29/19 20:59*	*05/30/19 07:26*	*1*
Terphenyl-d14 (Surr)	*80*		*27 - 123*	*05/29/19 20:59*	*05/30/19 07:26*	*1*
2-Fluorobiphenyl	*71*		*29 - 107*	*05/29/19 20:59*	*05/30/19 07:26*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.081	0.011	mg/Kg	☼	05/30/19 02:45	05/30/19 14:23	1
Aroclor 1221	0.011	U	0.081	0.011	mg/Kg	☼	05/30/19 02:45	05/30/19 14:23	1
Aroclor 1232	0.011	U	0.081	0.011	mg/Kg	☼	05/30/19 02:45	05/30/19 14:23	1
Aroclor 1242	0.011	U	0.081	0.011	mg/Kg	☼	05/30/19 02:45	05/30/19 14:23	1
Aroclor 1248	0.097	J	0.081	0.011	mg/Kg	☼	05/30/19 02:45	05/30/19 14:23	1
Aroclor 1254	0.011	U	0.081	0.011	mg/Kg	☼	05/30/19 02:45	05/30/19 14:23	1
Aroclor 1260	0.011	U	0.081	0.011	mg/Kg	☼	05/30/19 02:45	05/30/19 14:23	1
Aroclor-1262	0.011	U	0.081	0.011	mg/Kg	☼	05/30/19 02:45	05/30/19 14:23	1
Aroclor 1268	0.011	U	0.081	0.011	mg/Kg	☼	05/30/19 02:45	05/30/19 14:23	1
Polychlorinated biphenyls, Total	0.097		0.081	0.011	mg/Kg	☼	05/30/19 02:45	05/30/19 14:23	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-183032-1

Client Sample ID: WP-SB-BS25-G-H-1-052919

Lab Sample ID: 460-183032-2

Date Collected: 05/29/19 10:47
Date Received: 05/29/19 17:08

Matrix: Solid
Percent Solids: 82.6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	139		53 - 150	05/30/19 02:45	05/30/19 14:23	1
DCB Decachlorobiphenyl	123		53 - 150	05/30/19 02:45	05/30/19 14:23	1

Client Sample ID: WP-SB-BS28-I-J-0-052919

Lab Sample ID: 460-183032-3

Date Collected: 05/29/19 11:10
Date Received: 05/29/19 17:08

Matrix: Solid
Percent Solids: 64.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	48		5.1	0.27	mg/Kg	☼	05/29/19 20:59	05/30/19 10:31	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	49		25 - 113	05/29/19 20:59	05/30/19 10:31	10
Terphenyl-d14 (Surr)	49		27 - 123	05/29/19 20:59	05/30/19 10:31	10
2-Fluorobiphenyl	50		29 - 107	05/29/19 20:59	05/30/19 10:31	10

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.014	U	0.10	0.014	mg/Kg	☼	05/30/19 02:45	05/30/19 14:06	1
Aroclor 1221	0.014	U	0.10	0.014	mg/Kg	☼	05/30/19 02:45	05/30/19 14:06	1
Aroclor 1232	0.014	U	0.10	0.014	mg/Kg	☼	05/30/19 02:45	05/30/19 14:06	1
Aroclor 1242	0.014	U	0.10	0.014	mg/Kg	☼	05/30/19 02:45	05/30/19 14:06	1
Aroclor 1248	0.46		0.10	0.014	mg/Kg	☼	05/30/19 02:45	05/30/19 14:06	1
Aroclor 1254	0.014	U	0.10	0.014	mg/Kg	☼	05/30/19 02:45	05/30/19 14:06	1
Aroclor 1260	0.014	U	0.10	0.014	mg/Kg	☼	05/30/19 02:45	05/30/19 14:06	1
Aroclor-1262	0.014	U	0.10	0.014	mg/Kg	☼	05/30/19 02:45	05/30/19 14:06	1
Aroclor 1268	0.014	U	0.10	0.014	mg/Kg	☼	05/30/19 02:45	05/30/19 14:06	1
Polychlorinated biphenyls, Total	0.46		0.10	0.014	mg/Kg	☼	05/30/19 02:45	05/30/19 14:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	120		53 - 150	05/30/19 02:45	05/30/19 14:06	1
DCB Decachlorobiphenyl	108		53 - 150	05/30/19 02:45	05/30/19 14:06	1

Client Sample ID: WP-ST-BS28-D-E-0-052919

Lab Sample ID: 460-183032-4

Date Collected: 05/29/19 11:25
Date Received: 05/29/19 17:08

Matrix: Solid
Percent Solids: 54.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	3.6		0.61	0.032	mg/Kg	☼	05/29/19 20:59	05/30/19 07:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	56		25 - 113	05/29/19 20:59	05/30/19 07:59	1
Terphenyl-d14 (Surr)	66		27 - 123	05/29/19 20:59	05/30/19 07:59	1
2-Fluorobiphenyl	61		29 - 107	05/29/19 20:59	05/30/19 07:59	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.016	U	0.12	0.016	mg/Kg	☼	05/30/19 02:45	05/30/19 13:49	1
Aroclor 1221	0.016	U	0.12	0.016	mg/Kg	☼	05/30/19 02:45	05/30/19 13:49	1
Aroclor 1232	0.016	U	0.12	0.016	mg/Kg	☼	05/30/19 02:45	05/30/19 13:49	1
Aroclor 1242	0.016	U	0.12	0.016	mg/Kg	☼	05/30/19 02:45	05/30/19 13:49	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-183032-1

Client Sample ID: WP-ST-BS28-D-E-0-052919

Lab Sample ID: 460-183032-4

Date Collected: 05/29/19 11:25
Date Received: 05/29/19 17:08

Matrix: Solid
Percent Solids: 54.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.13		0.12	0.016	mg/Kg	☼	05/30/19 02:45	05/30/19 13:49	1
Aroclor 1254	0.017	U	0.12	0.017	mg/Kg	☼	05/30/19 02:45	05/30/19 13:49	1
Aroclor 1260	0.017	U	0.12	0.017	mg/Kg	☼	05/30/19 02:45	05/30/19 13:49	1
Aroclor-1262	0.017	U	0.12	0.017	mg/Kg	☼	05/30/19 02:45	05/30/19 13:49	1
Aroclor 1268	0.017	U	0.12	0.017	mg/Kg	☼	05/30/19 02:45	05/30/19 13:49	1
Polychlorinated biphenyls, Total	0.13		0.12	0.017	mg/Kg	☼	05/30/19 02:45	05/30/19 13:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*120*		*53 - 150*	*05/30/19 02:45*	*05/30/19 13:49*	*1*
DCB Decachlorobiphenyl	*107*		*53 - 150*	*05/30/19 02:45*	*05/30/19 13:49*	*1*

Client Sample ID: WP-SB-BR22-C-D-0-052919

Lab Sample ID: 460-183032-5

Date Collected: 05/29/19 11:55
Date Received: 05/29/19 17:08

Matrix: Solid
Percent Solids: 63.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	120		13	0.69	mg/Kg	☼	05/29/19 20:59	05/30/19 10:47	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*53*		*25 - 113*	*05/29/19 20:59*	*05/30/19 10:47*	*25*
Terphenyl-d14 (Surr)	*46*		*27 - 123*	*05/29/19 20:59*	*05/30/19 10:47*	*25*
2-Fluorobiphenyl	*54*		*29 - 107*	*05/29/19 20:59*	*05/30/19 10:47*	*25*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.070	U	0.53	0.070	mg/Kg	☼	05/30/19 02:45	05/30/19 15:13	5
Aroclor 1221	0.070	U	0.53	0.070	mg/Kg	☼	05/30/19 02:45	05/30/19 15:13	5
Aroclor 1232	0.070	U	0.53	0.070	mg/Kg	☼	05/30/19 02:45	05/30/19 15:13	5
Aroclor 1242	0.070	U	0.53	0.070	mg/Kg	☼	05/30/19 02:45	05/30/19 15:13	5
Aroclor 1248	4.7		0.53	0.070	mg/Kg	☼	05/30/19 02:45	05/30/19 15:13	5
Aroclor 1254	0.073	U	0.53	0.073	mg/Kg	☼	05/30/19 02:45	05/30/19 15:13	5
Aroclor 1260	0.073	U	0.53	0.073	mg/Kg	☼	05/30/19 02:45	05/30/19 15:13	5
Aroclor-1262	0.073	U	0.53	0.073	mg/Kg	☼	05/30/19 02:45	05/30/19 15:13	5
Aroclor 1268	0.073	U	0.53	0.073	mg/Kg	☼	05/30/19 02:45	05/30/19 15:13	5
Polychlorinated biphenyls, Total	4.7		0.53	0.073	mg/Kg	☼	05/30/19 02:45	05/30/19 15:13	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*129*		*53 - 150*	*05/30/19 02:45*	*05/30/19 15:13*	*5*
DCB Decachlorobiphenyl	*127*		*53 - 150*	*05/30/19 02:45*	*05/30/19 15:13*	*5*

Client Sample ID: WP-ST-BR22-A-B-0-052919

Lab Sample ID: 460-183032-6

Date Collected: 05/29/19 12:07
Date Received: 05/29/19 17:08

Matrix: Solid
Percent Solids: 58.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.075	J	0.56	0.030	mg/Kg	☼	05/29/19 20:59	05/30/19 08:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*53*		*25 - 113*	*05/29/19 20:59*	*05/30/19 08:33*	*1*
Terphenyl-d14 (Surr)	*58*		*27 - 123*	*05/29/19 20:59*	*05/30/19 08:33*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-183032-1

Client Sample ID: WP-ST-BR22-A-B-0-052919

Date Collected: 05/29/19 12:07
Date Received: 05/29/19 17:08

Lab Sample ID: 460-183032-6

Matrix: Solid
Percent Solids: 58.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	56		29 - 107	05/29/19 20:59	05/30/19 08:33	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.015	U	0.11	0.015	mg/Kg	☼	05/30/19 02:45	05/30/19 13:15	1
Aroclor 1221	0.015	U	0.11	0.015	mg/Kg	☼	05/30/19 02:45	05/30/19 13:15	1
Aroclor 1232	0.015	U	0.11	0.015	mg/Kg	☼	05/30/19 02:45	05/30/19 13:15	1
Aroclor 1242	0.015	U	0.11	0.015	mg/Kg	☼	05/30/19 02:45	05/30/19 13:15	1
Aroclor 1248	0.015	U	0.11	0.015	mg/Kg	☼	05/30/19 02:45	05/30/19 13:15	1
Aroclor 1254	0.016	U	0.11	0.016	mg/Kg	☼	05/30/19 02:45	05/30/19 13:15	1
Aroclor 1260	0.016	U	0.11	0.016	mg/Kg	☼	05/30/19 02:45	05/30/19 13:15	1
Aroclor-1262	0.016	U	0.11	0.016	mg/Kg	☼	05/30/19 02:45	05/30/19 13:15	1
Aroclor 1268	0.016	U	0.11	0.016	mg/Kg	☼	05/30/19 02:45	05/30/19 13:15	1
Polychlorinated biphenyls, Total	0.016	U	0.11	0.016	mg/Kg	☼	05/30/19 02:45	05/30/19 13:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	132		53 - 150	05/30/19 02:45	05/30/19 13:15	1
DCB Decachlorobiphenyl	107		53 - 150	05/30/19 02:45	05/30/19 13:15	1

Client Sample ID: WP-SB-AW43-I-J-0-052919

Date Collected: 05/29/19 14:25
Date Received: 05/29/19 17:08

Lab Sample ID: 460-183032-7

Matrix: Solid
Percent Solids: 55.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.42	J	0.60	0.032	mg/Kg	☼	05/29/19 20:59	05/30/19 08:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	51		25 - 113	05/29/19 20:59	05/30/19 08:50	1
Terphenyl-d14 (Surr)	59		27 - 123	05/29/19 20:59	05/30/19 08:50	1
2-Fluorobiphenyl	55		29 - 107	05/29/19 20:59	05/30/19 08:50	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.016	U	0.12	0.016	mg/Kg	☼	05/30/19 02:45	05/30/19 12:58	1
Aroclor 1221	0.016	U	0.12	0.016	mg/Kg	☼	05/30/19 02:45	05/30/19 12:58	1
Aroclor 1232	0.016	U	0.12	0.016	mg/Kg	☼	05/30/19 02:45	05/30/19 12:58	1
Aroclor 1242	0.016	U	0.12	0.016	mg/Kg	☼	05/30/19 02:45	05/30/19 12:58	1
Aroclor 1248	0.016	U	0.12	0.016	mg/Kg	☼	05/30/19 02:45	05/30/19 12:58	1
Aroclor 1254	0.017	U	0.12	0.017	mg/Kg	☼	05/30/19 02:45	05/30/19 12:58	1
Aroclor 1260	0.017	U	0.12	0.017	mg/Kg	☼	05/30/19 02:45	05/30/19 12:58	1
Aroclor-1262	0.017	U	0.12	0.017	mg/Kg	☼	05/30/19 02:45	05/30/19 12:58	1
Aroclor 1268	0.017	U	0.12	0.017	mg/Kg	☼	05/30/19 02:45	05/30/19 12:58	1
Polychlorinated biphenyls, Total	0.017	U	0.12	0.017	mg/Kg	☼	05/30/19 02:45	05/30/19 12:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	128		53 - 150	05/30/19 02:45	05/30/19 12:58	1
DCB Decachlorobiphenyl	113		53 - 150	05/30/19 02:45	05/30/19 12:58	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-183032-1

Client Sample ID: WP-ST-AW43-H-I-0-052919

Lab Sample ID: 460-183032-8

Date Collected: 05/29/19 14:39
Date Received: 05/29/19 17:08

Matrix: Solid
Percent Solids: 43.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.6		0.76	0.040	mg/Kg	☼	05/29/19 20:59	05/30/19 09:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*49*		*25 - 113*	*05/29/19 20:59*	*05/30/19 09:07*	*1*
Terphenyl-d14 (Surr)	*49*		*27 - 123*	*05/29/19 20:59*	*05/30/19 09:07*	*1*
2-Fluorobiphenyl	*48*		*29 - 107*	*05/29/19 20:59*	*05/30/19 09:07*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.020	U	0.15	0.020	mg/Kg	☼	05/30/19 02:45	05/30/19 12:41	1
Aroclor 1221	0.020	U	0.15	0.020	mg/Kg	☼	05/30/19 02:45	05/30/19 12:41	1
Aroclor 1232	0.020	U	0.15	0.020	mg/Kg	☼	05/30/19 02:45	05/30/19 12:41	1
Aroclor 1242	0.020	U	0.15	0.020	mg/Kg	☼	05/30/19 02:45	05/30/19 12:41	1
Aroclor 1248	0.020	U	0.15	0.020	mg/Kg	☼	05/30/19 02:45	05/30/19 12:41	1
Aroclor 1254	0.021	U	0.15	0.021	mg/Kg	☼	05/30/19 02:45	05/30/19 12:41	1
Aroclor 1260	0.12	J	0.15	0.021	mg/Kg	☼	05/30/19 02:45	05/30/19 12:41	1
Aroclor-1262	0.021	U	0.15	0.021	mg/Kg	☼	05/30/19 02:45	05/30/19 12:41	1
Aroclor 1268	0.021	U	0.15	0.021	mg/Kg	☼	05/30/19 02:45	05/30/19 12:41	1
Polychlorinated biphenyls, Total	0.12	J	0.15	0.021	mg/Kg	☼	05/30/19 02:45	05/30/19 12:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*117*		*53 - 150*	*05/30/19 02:45*	*05/30/19 12:41*	*1*
DCB Decachlorobiphenyl	*117*		*53 - 150*	*05/30/19 02:45*	*05/30/19 12:41*	*1*

Client Sample ID: WP-ST-BS25-A-B-0-052919

Lab Sample ID: 460-183032-9

Date Collected: 05/29/19 14:52
Date Received: 05/29/19 17:08

Matrix: Solid
Percent Solids: 61.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.20	J	0.54	0.028	mg/Kg	☼	05/29/19 20:59	05/30/19 09:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*68*		*25 - 113*	*05/29/19 20:59*	*05/30/19 09:23*	*1*
Terphenyl-d14 (Surr)	*80*		*27 - 123*	*05/29/19 20:59*	*05/30/19 09:23*	*1*
2-Fluorobiphenyl	*77*		*29 - 107*	*05/29/19 20:59*	*05/30/19 09:23*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.014	U	0.11	0.014	mg/Kg	☼	05/30/19 02:45	05/30/19 16:05	1
Aroclor 1221	0.014	U	0.11	0.014	mg/Kg	☼	05/30/19 02:45	05/30/19 16:05	1
Aroclor 1232	0.014	U	0.11	0.014	mg/Kg	☼	05/30/19 02:45	05/30/19 16:05	1
Aroclor 1242	0.014	U	0.11	0.014	mg/Kg	☼	05/30/19 02:45	05/30/19 16:05	1
Aroclor 1248	0.014	U	0.11	0.014	mg/Kg	☼	05/30/19 02:45	05/30/19 16:05	1
Aroclor 1254	0.015	U	0.11	0.015	mg/Kg	☼	05/30/19 02:45	05/30/19 16:05	1
Aroclor 1260	0.11		0.11	0.015	mg/Kg	☼	05/30/19 02:45	05/30/19 16:05	1
Aroclor-1262	0.015	U	0.11	0.015	mg/Kg	☼	05/30/19 02:45	05/30/19 16:05	1
Aroclor 1268	0.015	U	0.11	0.015	mg/Kg	☼	05/30/19 02:45	05/30/19 16:05	1
Polychlorinated biphenyls, Total	0.11		0.11	0.015	mg/Kg	☼	05/30/19 02:45	05/30/19 16:05	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-183032-1

Client Sample ID: WP-ST-BS25-A-B-0-052919

Lab Sample ID: 460-183032-9

Date Collected: 05/29/19 14:52
Date Received: 05/29/19 17:08

Matrix: Solid
Percent Solids: 61.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	141		53 - 150	05/30/19 02:45	05/30/19 16:05	1
DCB Decachlorobiphenyl	132		53 - 150	05/30/19 02:45	05/30/19 16:05	1

Client Sample ID: WP-SB-AW46-I-J-0-052919

Lab Sample ID: 460-183032-10

Date Collected: 05/29/19 15:25
Date Received: 05/29/19 17:08

Matrix: Solid
Percent Solids: 79.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.16	J	0.41	0.022	mg/Kg	☼	05/29/19 20:59	05/30/19 09:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	58		25 - 113	05/29/19 20:59	05/30/19 09:40	1
Terphenyl-d14 (Surr)	67		27 - 123	05/29/19 20:59	05/30/19 09:40	1
2-Fluorobiphenyl	63		29 - 107	05/29/19 20:59	05/30/19 09:40	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.084	0.011	mg/Kg	☼	05/30/19 02:48	05/30/19 12:08	1
Aroclor 1221	0.011	U	0.084	0.011	mg/Kg	☼	05/30/19 02:48	05/30/19 12:08	1
Aroclor 1232	0.011	U	0.084	0.011	mg/Kg	☼	05/30/19 02:48	05/30/19 12:08	1
Aroclor 1242	0.011	U	0.084	0.011	mg/Kg	☼	05/30/19 02:48	05/30/19 12:08	1
Aroclor 1248	0.011	U	0.084	0.011	mg/Kg	☼	05/30/19 02:48	05/30/19 12:08	1
Aroclor 1254	0.012	U	0.084	0.012	mg/Kg	☼	05/30/19 02:48	05/30/19 12:08	1
Aroclor 1260	0.012	U	0.084	0.012	mg/Kg	☼	05/30/19 02:48	05/30/19 12:08	1
Aroclor-1262	0.012	U	0.084	0.012	mg/Kg	☼	05/30/19 02:48	05/30/19 12:08	1
Aroclor 1268	0.012	U	0.084	0.012	mg/Kg	☼	05/30/19 02:48	05/30/19 12:08	1
Polychlorinated biphenyls, Total	0.012	U	0.084	0.012	mg/Kg	☼	05/30/19 02:48	05/30/19 12:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	150		53 - 150	05/30/19 02:48	05/30/19 12:08	1
DCB Decachlorobiphenyl	130		53 - 150	05/30/19 02:48	05/30/19 12:08	1

Client Sample ID: WP-FB-052919

Lab Sample ID: 460-183032-11

Date Collected: 05/29/19 16:20
Date Received: 05/29/19 17:08

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		05/29/19 10:07	05/30/19 05:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	91		51 - 108	05/29/19 10:07	05/30/19 05:39	1
Terphenyl-d14 (Surr)	92		40 - 148	05/29/19 10:07	05/30/19 05:39	1
2-Fluorobiphenyl	92		45 - 107	05/29/19 10:07	05/30/19 05:39	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		05/30/19 00:08	05/30/19 11:15	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		05/30/19 00:08	05/30/19 11:15	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		05/30/19 00:08	05/30/19 11:15	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		05/30/19 00:08	05/30/19 11:15	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-183032-1

Client Sample ID: WP-FB-052919

Lab Sample ID: 460-183032-11

Date Collected: 05/29/19 16:20
Date Received: 05/29/19 17:08

Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.12	U	0.40	0.12	ug/L		05/30/19 00:08	05/30/19 11:15	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		05/30/19 00:08	05/30/19 11:15	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		05/30/19 00:08	05/30/19 11:15	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		05/30/19 00:08	05/30/19 11:15	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		05/30/19 00:08	05/30/19 11:15	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		05/30/19 00:08	05/30/19 11:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*71*		*10 - 150*	*05/30/19 00:08*	*05/30/19 11:15*	*1*
DCB Decachlorobiphenyl	*65*		*10 - 150*	*05/30/19 00:08*	*05/30/19 11:15*	*1*

Client Sample ID: WP-ST-AW46-D-E-0-052919

Lab Sample ID: 460-183032-12

Date Collected: 05/29/19 15:36
Date Received: 05/29/19 17:08

Matrix: Solid
Percent Solids: 60.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.6		0.54	0.029	mg/Kg	☼	05/29/19 20:59	05/30/19 09:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*57*		*25 - 113*	*05/29/19 20:59*	*05/30/19 09:57*	*1*
Terphenyl-d14 (Surr)	*60*		*27 - 123*	*05/29/19 20:59*	*05/30/19 09:57*	*1*
2-Fluorobiphenyl	*58*		*29 - 107*	*05/29/19 20:59*	*05/30/19 09:57*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.015	U	0.11	0.015	mg/Kg	☼	05/30/19 02:48	05/30/19 15:48	1
Aroclor 1221	0.015	U	0.11	0.015	mg/Kg	☼	05/30/19 02:48	05/30/19 15:48	1
Aroclor 1232	0.015	U	0.11	0.015	mg/Kg	☼	05/30/19 02:48	05/30/19 15:48	1
Aroclor 1242	0.015	U	0.11	0.015	mg/Kg	☼	05/30/19 02:48	05/30/19 15:48	1
Aroclor 1248	0.32		0.11	0.015	mg/Kg	☼	05/30/19 02:48	05/30/19 15:48	1
Aroclor 1254	0.015	U	0.11	0.015	mg/Kg	☼	05/30/19 02:48	05/30/19 15:48	1
Aroclor 1260	0.015	U	0.11	0.015	mg/Kg	☼	05/30/19 02:48	05/30/19 15:48	1
Aroclor-1262	0.015	U	0.11	0.015	mg/Kg	☼	05/30/19 02:48	05/30/19 15:48	1
Aroclor 1268	0.015	U	0.11	0.015	mg/Kg	☼	05/30/19 02:48	05/30/19 15:48	1
Polychlorinated biphenyls, Total	0.32		0.11	0.015	mg/Kg	☼	05/30/19 02:48	05/30/19 15:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*141*		*53 - 150*	*05/30/19 02:48*	*05/30/19 15:48*	*1*
DCB Decachlorobiphenyl	*123*		*53 - 150*	*05/30/19 02:48*	*05/30/19 15:48*	*1*

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-183103

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 7/31/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on May 30, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-STC-BN15-A-B-0-053019	460-183103-1	Sediment	PCBs, BEHP*
WP-STC-BQ16-A-B-0-053019	460-183103-2	Sediment	PCBs, BEHP*
WP-STC-BK15-A-B-0-053019	460-183103-3	Sediment	PCBs, BEHP*
WP-STC-BH14-A-B-0-053019	460-183103-4	Sediment	PCBs, BEHP*
WP-FB-053019	460-183103-5	Field Blank	PCBs, BEHP*
WP-STC-BH14-C-D-0-053019	460-183103-6	Sediment	PCBs, BEHP*
WP-STC-BQ16-C-D-0-053019	460-183103-7	Sediment	PCBs, BEHP*
WP-STC-BN15-C-D-0-053019	460-183103-8	Sediment	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable for the requested analyses. The data package contains required elements. The analyses of samples WP-STC-BH14-C-D-0-053019, WP-STC-BQ16-C-D-0-053019, and WP-STC-BN15-C-D-0-053019 were placed on hold upon lab receipt. On June 3, 2019, the requested analyses for samples WP-STC-BH14-C-D-0-053019

and WP-STC-BN15-C-D-0-053019 activated but were canceled for sample WP-STC-BQ16-C-D-0-053019.

The solid contents of all sediment samples were >30%; data qualification was not required for this element of QC.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The information related to aqueous sample prep batch #613800 was not provided in the lab report. On June 26, 2019, the lab was contacted to provide information related to the method blank, LCS, and LCSD. All requested information was included in a revised lab report received on June 27, 2019.

The MS/MSD analyses were performed on sample WP-STC-BH14-C-D-0-053019 and yielded recoveries exceeding the laboratory control limit. The precision of MS/MSD result was within control limit. The positive BEHP result was estimated (J) for sample WP-STC-BH14-C-D-0-053019 for potential high bias.

Ten-fold dilution analyses were performed for WP-STC-BK15-A-B-0-053019 and WP-STC-BN15-C-D-0-053019. The quantification results were adjusted accordingly.

PCBs

The recoveries of surrogate compound decachlorobiphenyl from the CLP-2 column exceeded the laboratory-established control limit in samples WP-STC-BQ16-A-B-0-053019 and WP-STC-BH14-A-B-0-053019. Since the concentrations of Aroclor-1248 from the same column were reported for these two samples, their results were estimated (J) for potential high bias.

The MS and MSD analyses were performed on a sample unrelated to the site, their results were not used to assess the matrix effects on analytical accuracy and precision. The analytical accuracy and precision were assessed via the LCS and LCSD results which were within laboratory established control limits and deemed acceptable.

The percent difference (%D) of positive Aroclor-1248 results between the two analytical columns was >25 in the analyses of sample WP-STC-BN15-A-B-0-053019. The positive Aroclor-1248 result was estimated (J) for sample WP-STC-BN15-A-B-0-053019.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Five-fold dilution analyses were performed for WP-STC-BK15-A-B-0-053019 and WP-STC-BH14-C-D-0-053019. The quantification results were adjusted accordingly.

Data Validation Summary

Although some target analyte results were estimated (J) due to non-compliant QC results, these non-compliances did not warrant data rejections. All results can be used as reported.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183103-1

Client Sample ID: WP-STC-BN15-A-B-0-053019

Lab Sample ID: 460-183103-1
Date Collected: 05/30/19 11:15
Matrix: Solid
Date Received: 05/30/19 16:30
Percent Solids: 36.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	15		0.91	0.048	mg/Kg	☼	05/30/19 23:45	05/31/19 09:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*59*		*25 - 113*	*05/30/19 23:45*	*05/31/19 09:10*	*1*
Terphenyl-d14 (Surr)	*84*		*27 - 123*	*05/30/19 23:45*	*05/31/19 09:10*	*1*
2-Fluorobiphenyl	*70*		*29 - 107*	*05/30/19 23:45*	*05/31/19 09:10*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.025	U	0.19	0.025	mg/Kg	☼	05/31/19 05:04	05/31/19 15:58	1
Aroclor 1221	0.025	U	0.19	0.025	mg/Kg	☼	05/31/19 05:04	05/31/19 15:58	1
Aroclor 1232	0.025	U	0.19	0.025	mg/Kg	☼	05/31/19 05:04	05/31/19 15:58	1
Aroclor 1242	0.025	U	0.19	0.025	mg/Kg	☼	05/31/19 05:04	05/31/19 15:58	1
Aroclor 1248	2.0	J	0.19	0.025	mg/Kg	☼	05/31/19 05:04	05/31/19 15:58	1
Aroclor 1254	0.025	U	0.19	0.025	mg/Kg	☼	05/31/19 05:04	05/31/19 15:58	1
Aroclor 1260	0.025	U	0.19	0.025	mg/Kg	☼	05/31/19 05:04	05/31/19 15:58	1
Aroclor-1262	0.025	U	0.19	0.025	mg/Kg	☼	05/31/19 05:04	05/31/19 15:58	1
Aroclor 1268	0.025	U	0.19	0.025	mg/Kg	☼	05/31/19 05:04	05/31/19 15:58	1
Polychlorinated biphenyls, Total	2.0	J	0.19	0.025	mg/Kg	☼	05/31/19 05:04	05/31/19 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*141*		*53 - 150*	*05/31/19 05:04*	*05/31/19 15:58*	*1*
DCB Decachlorobiphenyl	*115*		*53 - 150*	*05/31/19 05:04*	*05/31/19 15:58*	*1*

Client Sample ID: WP-STC-BQ16-A-B-0-053019

Lab Sample ID: 460-183103-2
Date Collected: 05/30/19 11:28
Matrix: Solid
Date Received: 05/30/19 16:30
Percent Solids: 52.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.19	J	0.63	0.034	mg/Kg	☼	05/30/19 23:45	05/31/19 09:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*70*		*25 - 113*	*05/30/19 23:45*	*05/31/19 09:27*	*1*
Terphenyl-d14 (Surr)	*89*		*27 - 123*	*05/30/19 23:45*	*05/31/19 09:27*	*1*
2-Fluorobiphenyl	*77*		*29 - 107*	*05/30/19 23:45*	*05/31/19 09:27*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.017	U	0.13	0.017	mg/Kg	☼	05/31/19 05:04	05/31/19 12:28	1
Aroclor 1221	0.017	U	0.13	0.017	mg/Kg	☼	05/31/19 05:04	05/31/19 12:28	1
Aroclor 1232	0.017	U	0.13	0.017	mg/Kg	☼	05/31/19 05:04	05/31/19 12:28	1
Aroclor 1242	0.017	U	0.13	0.017	mg/Kg	☼	05/31/19 05:04	05/31/19 12:28	1
Aroclor 1248	0.78	J	0.13	0.017	mg/Kg	☼	05/31/19 05:04	05/31/19 12:28	1
Aroclor 1254	0.018	U	0.13	0.018	mg/Kg	☼	05/31/19 05:04	05/31/19 12:28	1
Aroclor 1260	0.018	U	0.13	0.018	mg/Kg	☼	05/31/19 05:04	05/31/19 12:28	1
Aroclor-1262	0.018	U	0.13	0.018	mg/Kg	☼	05/31/19 05:04	05/31/19 12:28	1
Aroclor 1268	0.018	U	0.13	0.018	mg/Kg	☼	05/31/19 05:04	05/31/19 12:28	1
Polychlorinated biphenyls, Total	0.78	J	0.13	0.018	mg/Kg	☼	05/31/19 05:04	05/31/19 12:28	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183103-1

Client Sample ID: WP-STC-BQ16-A-B-0-053019

Lab Sample ID: 460-183103-2
Date Collected: 05/30/19 11:28
Matrix: Solid
Date Received: 05/30/19 16:30
Percent Solids: 52.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	156	X	53 - 150	05/31/19 05:04	05/31/19 12:28	1
DCB Decachlorobiphenyl	147		53 - 150	05/31/19 05:04	05/31/19 12:28	1

Client Sample ID: WP-STC-BK15-A-B-0-053019

Lab Sample ID: 460-183103-3
Date Collected: 05/30/19 11:43
Matrix: Solid
Date Received: 05/30/19 16:30
Percent Solids: 56.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	90		5.9	0.31	mg/Kg	☼	05/30/19 23:45	05/31/19 10:34	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	58		25 - 113	05/30/19 23:45	05/31/19 10:34	10
Terphenyl-d14 (Surr)	79		27 - 123	05/30/19 23:45	05/31/19 10:34	10
2-Fluorobiphenyl	70		29 - 107	05/30/19 23:45	05/31/19 10:34	10

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.079	U	0.60	0.079	mg/Kg	☼	05/31/19 05:04	05/31/19 14:26	5
Aroclor 1221	0.079	U	0.60	0.079	mg/Kg	☼	05/31/19 05:04	05/31/19 14:26	5
Aroclor 1232	0.079	U	0.60	0.079	mg/Kg	☼	05/31/19 05:04	05/31/19 14:26	5
Aroclor 1242	0.079	U	0.60	0.079	mg/Kg	☼	05/31/19 05:04	05/31/19 14:26	5
Aroclor 1248	5.6		0.60	0.079	mg/Kg	☼	05/31/19 05:04	05/31/19 14:26	5
Aroclor 1254	0.082	U	0.60	0.082	mg/Kg	☼	05/31/19 05:04	05/31/19 14:26	5
Aroclor 1260	0.082	U	0.60	0.082	mg/Kg	☼	05/31/19 05:04	05/31/19 14:26	5
Aroclor-1262	0.082	U	0.60	0.082	mg/Kg	☼	05/31/19 05:04	05/31/19 14:26	5
Aroclor 1268	0.082	U	0.60	0.082	mg/Kg	☼	05/31/19 05:04	05/31/19 14:26	5
Polychlorinated biphenyls, Total	5.6		0.60	0.082	mg/Kg	☼	05/31/19 05:04	05/31/19 14:26	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	133		53 - 150	05/31/19 05:04	05/31/19 14:26	5
DCB Decachlorobiphenyl	143		53 - 150	05/31/19 05:04	05/31/19 14:26	5

Client Sample ID: WP-STC-BH14-A-B-0-053019

Lab Sample ID: 460-183103-4
Date Collected: 05/30/19 11:55
Matrix: Solid
Date Received: 05/30/19 16:30
Percent Solids: 33.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.5		1.0	0.053	mg/Kg	☼	05/30/19 23:45	05/31/19 10:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	61		25 - 113	05/30/19 23:45	05/31/19 10:00	1
Terphenyl-d14 (Surr)	89		27 - 123	05/30/19 23:45	05/31/19 10:00	1
2-Fluorobiphenyl	70		29 - 107	05/30/19 23:45	05/31/19 10:00	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.027	U	0.20	0.027	mg/Kg	☼	05/31/19 05:04	05/31/19 13:02	1
Aroclor 1221	0.027	U	0.20	0.027	mg/Kg	☼	05/31/19 05:04	05/31/19 13:02	1
Aroclor 1232	0.027	U	0.20	0.027	mg/Kg	☼	05/31/19 05:04	05/31/19 13:02	1
Aroclor 1242	0.027	U	0.20	0.027	mg/Kg	☼	05/31/19 05:04	05/31/19 13:02	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183103-1

Client Sample ID: WP-STC-BH14-A-B-0-053019

Lab Sample ID: 460-183103-4
Matrix: Solid
Percent Solids: 33.0

Date Collected: 05/30/19 11:55
Date Received: 05/30/19 16:30

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	1.7	J	0.20	0.027	mg/Kg	☼	05/31/19 05:04	05/31/19 13:02	1
Aroclor 1254	0.028	U	0.20	0.028	mg/Kg	☼	05/31/19 05:04	05/31/19 13:02	1
Aroclor 1260	0.028	U	0.20	0.028	mg/Kg	☼	05/31/19 05:04	05/31/19 13:02	1
Aroclor-1262	0.028	U	0.20	0.028	mg/Kg	☼	05/31/19 05:04	05/31/19 13:02	1
Aroclor 1268	0.028	U	0.20	0.028	mg/Kg	☼	05/31/19 05:04	05/31/19 13:02	1
Polychlorinated biphenyls, Total	1.7	J	0.20	0.028	mg/Kg	☼	05/31/19 05:04	05/31/19 13:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*156*	*X*	*53 - 150*	*05/31/19 05:04*	*05/31/19 13:02*	*1*
DCB Decachlorobiphenyl	*135*		*53 - 150*	*05/31/19 05:04*	*05/31/19 13:02*	*1*

Client Sample ID: WP-FB-053019

Lab Sample ID: 460-183103-5
Matrix: Water

Date Collected: 05/30/19 13:15
Date Received: 05/30/19 16:30

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		05/30/19 23:02	05/31/19 09:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*82*		*51 - 108*	*05/30/19 23:02*	*05/31/19 09:17*	*1*
Terphenyl-d14 (Surr)	*99*		*40 - 148*	*05/30/19 23:02*	*05/31/19 09:17*	*1*
2-Fluorobiphenyl	*91*		*45 - 107*	*05/30/19 23:02*	*05/31/19 09:17*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		05/31/19 03:37	05/31/19 12:16	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		05/31/19 03:37	05/31/19 12:16	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		05/31/19 03:37	05/31/19 12:16	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		05/31/19 03:37	05/31/19 12:16	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		05/31/19 03:37	05/31/19 12:16	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		05/31/19 03:37	05/31/19 12:16	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		05/31/19 03:37	05/31/19 12:16	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		05/31/19 03:37	05/31/19 12:16	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		05/31/19 03:37	05/31/19 12:16	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		05/31/19 03:37	05/31/19 12:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*64*		*10 - 150*	*05/31/19 03:37*	*05/31/19 12:16*	*1*
DCB Decachlorobiphenyl	*64*		*10 - 150*	*05/31/19 03:37*	*05/31/19 12:16*	*1*

Client Sample ID: WP-STC-BH14-C-D-0-053019

Lab Sample ID: 460-183103-6
Matrix: Solid
Percent Solids: 38.1

Date Collected: 05/30/19 13:49
Date Received: 05/30/19 16:30

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	16	F1 J	0.87	0.046	mg/Kg	☼	06/03/19 21:20	06/04/19 07:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*52*		*25 - 113*	*06/03/19 21:20*	*06/04/19 07:19*	*1*
Terphenyl-d14 (Surr)	*54*		*27 - 123*	*06/03/19 21:20*	*06/04/19 07:19*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183103-1

Client Sample ID: WP-STC-BH14-C-D-0-053019

Lab Sample ID: 460-183103-6

Date Collected: 05/30/19 13:49
Date Received: 05/30/19 16:30

Matrix: Solid
Percent Solids: 38.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	45		29 - 107	06/03/19 21:20	06/04/19 07:19	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.88	0.12	mg/Kg	☼	06/03/19 19:08	06/04/19 12:10	5
Aroclor 1221	0.12	U	0.88	0.12	mg/Kg	☼	06/03/19 19:08	06/04/19 12:10	5
Aroclor 1232	0.12	U	0.88	0.12	mg/Kg	☼	06/03/19 19:08	06/04/19 12:10	5
Aroclor 1242	0.12	U	0.88	0.12	mg/Kg	☼	06/03/19 19:08	06/04/19 12:10	5
Aroclor 1248	5.2		0.88	0.12	mg/Kg	☼	06/03/19 19:08	06/04/19 12:10	5
Aroclor 1254	0.12	U	0.88	0.12	mg/Kg	☼	06/03/19 19:08	06/04/19 12:10	5
Aroclor 1260	0.12	U	0.88	0.12	mg/Kg	☼	06/03/19 19:08	06/04/19 12:10	5
Aroclor-1262	0.12	U	0.88	0.12	mg/Kg	☼	06/03/19 19:08	06/04/19 12:10	5
Aroclor 1268	0.12	U	0.88	0.12	mg/Kg	☼	06/03/19 19:08	06/04/19 12:10	5
Polychlorinated biphenyls, Total	5.2		0.88	0.12	mg/Kg	☼	06/03/19 19:08	06/04/19 12:10	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	113		53 - 150	06/03/19 19:08	06/04/19 12:10	5
DCB Decachlorobiphenyl	116		53 - 150	06/03/19 19:08	06/04/19 12:10	5

Client Sample ID: WP-STC-BN15-C-D-0-053019

Lab Sample ID: 460-183103-8

Date Collected: 05/30/19 14:17
Date Received: 05/30/19 16:30

Matrix: Solid
Percent Solids: 55.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	77		5.9	0.31	mg/Kg	☼	06/03/19 21:20	06/04/19 08:52	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	47		25 - 113	06/03/19 21:20	06/04/19 08:52	10
Terphenyl-d14 (Surr)	52		27 - 123	06/03/19 21:20	06/04/19 08:52	10
2-Fluorobiphenyl	44		29 - 107	06/03/19 21:20	06/04/19 08:52	10

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.016	U	0.12	0.016	mg/Kg	☼	06/03/19 19:08	06/04/19 09:21	1
Aroclor 1221	0.016	U	0.12	0.016	mg/Kg	☼	06/03/19 19:08	06/04/19 09:21	1
Aroclor 1232	0.016	U	0.12	0.016	mg/Kg	☼	06/03/19 19:08	06/04/19 09:21	1
Aroclor 1242	0.016	U	0.12	0.016	mg/Kg	☼	06/03/19 19:08	06/04/19 09:21	1
Aroclor 1248	1.4		0.12	0.016	mg/Kg	☼	06/03/19 19:08	06/04/19 09:21	1
Aroclor 1254	0.017	U	0.12	0.017	mg/Kg	☼	06/03/19 19:08	06/04/19 09:21	1
Aroclor 1260	0.017	U	0.12	0.017	mg/Kg	☼	06/03/19 19:08	06/04/19 09:21	1
Aroclor-1262	0.017	U	0.12	0.017	mg/Kg	☼	06/03/19 19:08	06/04/19 09:21	1
Aroclor 1268	0.017	U	0.12	0.017	mg/Kg	☼	06/03/19 19:08	06/04/19 09:21	1
Polychlorinated biphenyls, Total	1.4		0.12	0.017	mg/Kg	☼	06/03/19 19:08	06/04/19 09:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	145		53 - 150	06/03/19 19:08	06/04/19 09:21	1
DCB Decachlorobiphenyl	129		53 - 150	06/03/19 19:08	06/04/19 09:21	1

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-183224

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 6/26/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on May 31, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-PB-BN28-A-B-0-053119	460-183224-1	Sediment	PCBs, BEHP*
WP-PB-BK31-A-B-0-053119	460-183224-2	Sediment	PCBs, BEHP*
WP-STC-BE14-A-B-0-053119	460-183224-3	Sediment	PCBs, BEHP*
WP-STC-BE14-C-D-0-053119	460-183224-4	Sediment	PCBs, BEHP*
WP-STC-BB14-A-B-0-053119	460-183224-5	Sediment	PCBs, BEHP*
WP-STC-BB14-A-B-1-053119[1]	460-183224-6	Sediment	PCBs, BEHP*
WP-PBC-AY46-C-D-0-053119	460-183224-7	Sediment	PCBs, BEHP*
WP-ST-AW48-D-E-0-053119	460-183224-8	Sediment	PCBs, BEHP*
WP-SB-AW48-I-J-0-053119	460-183224-9	Sediment	PCBs, BEHP*
WP-SB-AY48-K-L-0-053119	460-183224-10	Sediment	PCBs, BEHP*
WP-ST-AY48-D-E-0-053119	460-183224-11	Sediment	PCBs, BEHP*
WP-PB-BH37-K-L-0-053119	460-183224-12	Sediment	PCBs, BEHP*
WP-PBC-BH37-C-D-0-053119	460-183224-13	Sediment	PCBs, BEHP*
WP-SB-AY42-I-J-0-053119	460-183224-14	Sediment	PCBs, BEHP*
WP-ST-AY42-H-I-0-053119	460-183224-15	Sediment	PCBs, BEHP*
WP-PB-AY43-I-J-0-053119	460-183224-16	Sediment	PCBs, BEHP*
WP-PBC-AY43-C-D-0-053119	460-183224-17	Sediment	PCBs, BEHP*

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-FB-053119	460-183224-18	Field Blank	PCBs, BEHP*
WP-PB-AY46-I-J-0-053119	460-183224-19	Sediment	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

[1]Field duplicate of WP-STC-BB14-A-B-0-053119

General Comments

The laboratory submitted a NJDEP full data deliverable for the requested analyses. The data package contains required elements. The analyses of samples WP-STC-BE14-C-D-0-053119, WP-PBC-AY46-C-D-0-053119, WP-PBC-BH37-C-D-0-053119, and WP-PBC-AY43-C-D-0-053119 were placed on hold upon lab receipt but were later canceled on June 4, 2019.

The solid contents of sediment samples WP-STC-BB14-A-B-0-053119, WP-STC-BB14-A-B-1-053119, and WP-ST-AY42-H-I-0-053119 were >10% but <30%; all positive and non-detect results were estimated, J and UJ, respectively. Please note that the solid contents of WP-STC-BB14-A-B-0-053119 (15.7%) and WP-STC-BB14-A-B-1-053119 (23.8%) varied greatly. Since both were <30%, no further action was required for results reported for these two samples.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The recoveries of surrogate compound terphenyl-d14 exceeded the laboratory-established control limit for samples WP-ST-AW48-D-E-0-053119, WP-SB-AW48-I-J-0-053119, and WP-ST-AY48-D-E-0-053119. Since the recoveries of the other two surrogate compounds were within control limits, data qualification was not required for these samples.

The MS/MSD analyses were performed on sample WP-SB-AY48-K-L-0-053119 and yielded acceptable accuracy and precision results.

The BEHP result in sample WP-STC-BB14-A-B-0-053119 was about twice that of its field duplicate WP-STC-BB14-A-B-1-053119. Since both BEHP results had been estimated (J) for low solid contents, further action was not required.

Dilution analyses were performed for WP-PB-BN28-A-B-0-053119 (5-fold), WP-PB-BK31-A-B-0-053119 (2-fold), WP-PB-BH37-K-L-0-053119 (2-fold), and WP-ST-AY42-H-I-0-053119 (5-fold). The quantification results were adjusted accordingly.

PCBs

The MS/MSD analyses were performed on sample WP-SB-AY48-K-L-0-053119 and yielded acceptable accuracy and precision results.

The percent difference (%D) of positive Aroclor-1248 results between the two analytical columns was >25 in the analyses of samples WP-PB-BN28-A-B-0-053119, WP-ST-AW48-D-E-0-053119, WP-ST-AY48-D-E-0-053119, and WP-PB-BH37-K-L-0-053119. The positive Aroclor-1248 results were estimated (J) for these samples. The %D of positive Aroclor-1248 results between the two analytical columns was >25 in the analyses of sample WP-ST-AY42-

H-I-0-053119. However, since all Aroclor results in this sample had been estimated due to low solid content, further action was not required.

Aroclors were not detected in sample WP-STC-BB14-A-B-0-053119 and its field duplicate WP-STC-BB14-A-B-1-053119.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Although some target analyte results were estimated (J) due to low solid contents and/or non-compliant QC results, these non-compliances did not warrant data rejections. All results can be used as reported.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183224-1

Client Sample ID: WP-PB-BN28-A-B-0-053119

Lab Sample ID: 460-183224-1

Date Collected: 05/31/19 10:00
Date Received: 05/31/19 16:35

Matrix: Solid
Percent Solids: 63.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	28		2.6	0.14	mg/Kg	☼	06/01/19 05:57	06/03/19 00:48	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*63*		*25 - 113*	*06/01/19 05:57*	*06/03/19 00:48*	*5*
Terphenyl-d14 (Surr)	*90*		*27 - 123*	*06/01/19 05:57*	*06/03/19 00:48*	*5*
2-Fluorobiphenyl	*77*		*29 - 107*	*06/01/19 05:57*	*06/03/19 00:48*	*5*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.014	U	0.11	0.014	mg/Kg	☼	06/01/19 11:45	06/02/19 14:39	1
Aroclor 1221	0.014	U	0.11	0.014	mg/Kg	☼	06/01/19 11:45	06/02/19 14:39	1
Aroclor 1232	0.014	U	0.11	0.014	mg/Kg	☼	06/01/19 11:45	06/02/19 14:39	1
Aroclor 1242	0.014	U	0.11	0.014	mg/Kg	☼	06/01/19 11:45	06/02/19 14:39	1
Aroclor 1248	1.4	J	0.11	0.014	mg/Kg	☼	06/01/19 11:45	06/02/19 14:39	1
Aroclor 1254	0.014	U	0.11	0.014	mg/Kg	☼	06/01/19 11:45	06/02/19 14:39	1
Aroclor 1260	0.014	U	0.11	0.014	mg/Kg	☼	06/01/19 11:45	06/02/19 14:39	1
Aroclor-1262	0.014	U	0.11	0.014	mg/Kg	☼	06/01/19 11:45	06/02/19 14:39	1
Aroclor 1268	0.014	U	0.11	0.014	mg/Kg	☼	06/01/19 11:45	06/02/19 14:39	1
Polychlorinated biphenyls, Total	1.4	J	0.11	0.014	mg/Kg	☼	06/01/19 11:45	06/02/19 14:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*87*		*53 - 150*	*06/01/19 11:45*	*06/02/19 14:39*	*1*
DCB Decachlorobiphenyl	*75*		*53 - 150*	*06/01/19 11:45*	*06/02/19 14:39*	*1*

Client Sample ID: WP-PB-BK31-A-B-0-053119

Lab Sample ID: 460-183224-2

Date Collected: 05/31/19 10:19
Date Received: 05/31/19 16:35

Matrix: Solid
Percent Solids: 68.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	11		0.96	0.051	mg/Kg	☼	06/01/19 05:57	06/03/19 01:05	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*74*		*25 - 113*	*06/01/19 05:57*	*06/03/19 01:05*	*2*
Terphenyl-d14 (Surr)	*93*		*27 - 123*	*06/01/19 05:57*	*06/03/19 01:05*	*2*
2-Fluorobiphenyl	*80*		*29 - 107*	*06/01/19 05:57*	*06/03/19 01:05*	*2*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.097	0.013	mg/Kg	☼	06/01/19 11:45	06/02/19 14:56	1
Aroclor 1221	0.013	U	0.097	0.013	mg/Kg	☼	06/01/19 11:45	06/02/19 14:56	1
Aroclor 1232	0.013	U	0.097	0.013	mg/Kg	☼	06/01/19 11:45	06/02/19 14:56	1
Aroclor 1242	0.013	U	0.097	0.013	mg/Kg	☼	06/01/19 11:45	06/02/19 14:56	1
Aroclor 1248	0.43		0.097	0.013	mg/Kg	☼	06/01/19 11:45	06/02/19 14:56	1
Aroclor 1254	0.013	U	0.097	0.013	mg/Kg	☼	06/01/19 11:45	06/02/19 14:56	1
Aroclor 1260	0.013	U	0.097	0.013	mg/Kg	☼	06/01/19 11:45	06/02/19 14:56	1
Aroclor-1262	0.013	U	0.097	0.013	mg/Kg	☼	06/01/19 11:45	06/02/19 14:56	1
Aroclor 1268	0.013	U	0.097	0.013	mg/Kg	☼	06/01/19 11:45	06/02/19 14:56	1
Polychlorinated biphenyls, Total	0.43		0.097	0.013	mg/Kg	☼	06/01/19 11:45	06/02/19 14:56	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183224-1

Client Sample ID: WP-PB-BK31-A-B-0-053119

Lab Sample ID: 460-183224-2
Date Collected: 05/31/19 10:19
Matrix: Solid
Date Received: 05/31/19 16:35
Percent Solids: 68.8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*106*		*53 - 150*	*06/01/19 11:45*	*06/02/19 14:56*	*1*
DCB Decachlorobiphenyl	*97*		*53 - 150*	*06/01/19 11:45*	*06/02/19 14:56*	*1*

Client Sample ID: WP-STC-BE14-A-B-0-053119

Lab Sample ID: 460-183224-3
Date Collected: 05/31/19 10:40
Matrix: Solid
Date Received: 05/31/19 16:35
Percent Solids: 39.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.0		0.84	0.044	mg/Kg	☼	06/01/19 05:57	06/02/19 03:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*80*		*25 - 113*	*06/01/19 05:57*	*06/02/19 03:25*	*1*
Terphenyl-d14 (Surr)	*106*		*27 - 123*	*06/01/19 05:57*	*06/02/19 03:25*	*1*
2-Fluorobiphenyl	*82*		*29 - 107*	*06/01/19 05:57*	*06/02/19 03:25*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.023	U	0.17	0.023	mg/Kg	☼	06/01/19 11:45	06/02/19 15:13	1
Aroclor 1221	0.023	U	0.17	0.023	mg/Kg	☼	06/01/19 11:45	06/02/19 15:13	1
Aroclor 1232	0.023	U	0.17	0.023	mg/Kg	☼	06/01/19 11:45	06/02/19 15:13	1
Aroclor 1242	0.023	U	0.17	0.023	mg/Kg	☼	06/01/19 11:45	06/02/19 15:13	1
Aroclor 1248	0.023	U	0.17	0.023	mg/Kg	☼	06/01/19 11:45	06/02/19 15:13	1
Aroclor 1254	0.023	U	0.17	0.023	mg/Kg	☼	06/01/19 11:45	06/02/19 15:13	1
Aroclor 1260	0.023	U	0.17	0.023	mg/Kg	☼	06/01/19 11:45	06/02/19 15:13	1
Aroclor-1262	0.023	U	0.17	0.023	mg/Kg	☼	06/01/19 11:45	06/02/19 15:13	1
Aroclor 1268	0.023	U	0.17	0.023	mg/Kg	☼	06/01/19 11:45	06/02/19 15:13	1
Polychlorinated biphenyls, Total	0.023	U	0.17	0.023	mg/Kg	☼	06/01/19 11:45	06/02/19 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*97*		*53 - 150*	*06/01/19 11:45*	*06/02/19 15:13*	*1*
DCB Decachlorobiphenyl	*85*		*53 - 150*	*06/01/19 11:45*	*06/02/19 15:13*	*1*

Client Sample ID: WP-STC-BB14-A-B-0-053119

Lab Sample ID: 460-183224-5
Date Collected: 05/31/19 11:20
Matrix: Solid
Date Received: 05/31/19 16:35
Percent Solids: 15.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	5.4	J	2.1	0.11	mg/Kg	☼	06/01/19 05:57	06/02/19 03:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*91*		*25 - 113*	*06/01/19 05:57*	*06/02/19 03:49*	*1*
Terphenyl-d14 (Surr)	*117*		*27 - 123*	*06/01/19 05:57*	*06/02/19 03:49*	*1*
2-Fluorobiphenyl	*92*		*29 - 107*	*06/01/19 05:57*	*06/02/19 03:49*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.057	U J	0.43	0.057	mg/Kg	☼	06/01/19 11:45	06/02/19 15:30	1
Aroclor 1221	0.057	U	0.43	0.057	mg/Kg	☼	06/01/19 11:45	06/02/19 15:30	1
Aroclor 1232	0.057	U	0.43	0.057	mg/Kg	☼	06/01/19 11:45	06/02/19 15:30	1
Aroclor 1242	0.057	U	0.43	0.057	mg/Kg	☼	06/01/19 11:45	06/02/19 15:30	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183224-1

Client Sample ID: WP-STC-BB14-A-B-0-053119

Lab Sample ID: 460-183224-5

Date Collected: 05/31/19 11:20
Date Received: 05/31/19 16:35

Matrix: Solid
Percent Solids: 15.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.057	U	0.43	0.057	mg/Kg	☼	06/01/19 11:45	06/02/19 15:30	1
Aroclor 1254	0.058	U	0.43	0.058	mg/Kg	☼	06/01/19 11:45	06/02/19 15:30	1
Aroclor 1260	0.058	U	0.43	0.058	mg/Kg	☼	06/01/19 11:45	06/02/19 15:30	1
Aroclor-1262	0.058	U	0.43	0.058	mg/Kg	☼	06/01/19 11:45	06/02/19 15:30	1
Aroclor 1268	0.058	U	0.43	0.058	mg/Kg	☼	06/01/19 11:45	06/02/19 15:30	1
Polychlorinated biphenyls, Total	0.058	U	0.43	0.058	mg/Kg	☼	06/01/19 11:45	06/02/19 15:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*125*		*53 - 150*	*06/01/19 11:45*	*06/02/19 15:30*	*1*
DCB Decachlorobiphenyl	*111*		*53 - 150*	*06/01/19 11:45*	*06/02/19 15:30*	*1*

Client Sample ID: WP-STC-BB14-A-B-1-053119

Lab Sample ID: 460-183224-6

Date Collected: 05/31/19 11:20
Date Received: 05/31/19 16:35

FD

Matrix: Solid
Percent Solids: 23.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.9		1.4	0.073	mg/Kg	☼	06/01/19 05:57	06/02/19 04:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*92*		*25 - 113*	*06/01/19 05:57*	*06/02/19 04:12*	*1*
Terphenyl-d14 (Surr)	*117*		*27 - 123*	*06/01/19 05:57*	*06/02/19 04:12*	*1*
2-Fluorobiphenyl	*90*		*29 - 107*	*06/01/19 05:57*	*06/02/19 04:12*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.037	U	0.28	0.037	mg/Kg	☼	06/01/19 11:45	06/02/19 15:47	1
Aroclor 1221	0.037	U	0.28	0.037	mg/Kg	☼	06/01/19 11:45	06/02/19 15:47	1
Aroclor 1232	0.037	U	0.28	0.037	mg/Kg	☼	06/01/19 11:45	06/02/19 15:47	1
Aroclor 1242	0.037	U	0.28	0.037	mg/Kg	☼	06/01/19 11:45	06/02/19 15:47	1
Aroclor 1248	0.037	U	0.28	0.037	mg/Kg	☼	06/01/19 11:45	06/02/19 15:47	1
Aroclor 1254	0.039	U	0.28	0.039	mg/Kg	☼	06/01/19 11:45	06/02/19 15:47	1
Aroclor 1260	0.039	U	0.28	0.039	mg/Kg	☼	06/01/19 11:45	06/02/19 15:47	1
Aroclor-1262	0.039	U	0.28	0.039	mg/Kg	☼	06/01/19 11:45	06/02/19 15:47	1
Aroclor 1268	0.039	U	0.28	0.039	mg/Kg	☼	06/01/19 11:45	06/02/19 15:47	1
Polychlorinated biphenyls, Total	0.039	U	0.28	0.039	mg/Kg	☼	06/01/19 11:45	06/02/19 15:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*101*		*53 - 150*	*06/01/19 11:45*	*06/02/19 15:47*	*1*
DCB Decachlorobiphenyl	*96*		*53 - 150*	*06/01/19 11:45*	*06/02/19 15:47*	*1*

Client Sample ID: WP-ST-AW48-D-E-0-053119

Lab Sample ID: 460-183224-8

Date Collected: 05/31/19 12:05
Date Received: 05/31/19 16:35

Matrix: Solid
Percent Solids: 38.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	6.1		0.86	0.045	mg/Kg	☼	06/01/19 05:57	06/02/19 04:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*91*		*25 - 113*	*06/01/19 05:57*	*06/02/19 04:35*	*1*
Terphenyl-d14 (Surr)	*125*	*X*	*27 - 123*	*06/01/19 05:57*	*06/02/19 04:35*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183224-1

Client Sample ID: WP-ST-AW48-D-E-0-053119

Lab Sample ID: 460-183224-8

Date Collected: 05/31/19 12:05
Date Received: 05/31/19 16:35

Matrix: Solid
Percent Solids: 38.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	92		29 - 107	06/01/19 05:57	06/02/19 04:35	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.023	U	0.17	0.023	mg/Kg	☼	06/01/19 11:45	06/02/19 16:04	1
Aroclor 1221	0.023	U	0.17	0.023	mg/Kg	☼	06/01/19 11:45	06/02/19 16:04	1
Aroclor 1232	0.023	U	0.17	0.023	mg/Kg	☼	06/01/19 11:45	06/02/19 16:04	1
Aroclor 1242	0.023	U	0.17	0.023	mg/Kg	☼	06/01/19 11:45	06/02/19 16:04	1
Aroclor 1248	0.56	J	0.17	0.023	mg/Kg	☼	06/01/19 11:45	06/02/19 16:04	1
Aroclor 1254	0.024	U	0.17	0.024	mg/Kg	☼	06/01/19 11:45	06/02/19 16:04	1
Aroclor 1260	0.024	U	0.17	0.024	mg/Kg	☼	06/01/19 11:45	06/02/19 16:04	1
Aroclor-1262	0.024	U	0.17	0.024	mg/Kg	☼	06/01/19 11:45	06/02/19 16:04	1
Aroclor 1268	0.024	U	0.17	0.024	mg/Kg	☼	06/01/19 11:45	06/02/19 16:04	1
Polychlorinated biphenyls, Total	0.56	J	0.17	0.024	mg/Kg	☼	06/01/19 11:45	06/02/19 16:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		53 - 150	06/01/19 11:45	06/02/19 16:04	1
DCB Decachlorobiphenyl	77		53 - 150	06/01/19 11:45	06/02/19 16:04	1

Client Sample ID: WP-SB-AW48-I-J-0-053119

Lab Sample ID: 460-183224-9

Date Collected: 05/31/19 12:20
Date Received: 05/31/19 16:35

Matrix: Solid
Percent Solids: 79.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.022	U	0.42	0.022	mg/Kg	☼	06/01/19 05:57	06/02/19 04:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	79		25 - 113	06/01/19 05:57	06/02/19 04:58	1
Terphenyl-d14 (Surr)	125	X	27 - 123	06/01/19 05:57	06/02/19 04:58	1
2-Fluorobiphenyl	78		29 - 107	06/01/19 05:57	06/02/19 04:58	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.084	0.011	mg/Kg	☼	06/01/19 11:45	06/02/19 16:21	1
Aroclor 1221	0.011	U	0.084	0.011	mg/Kg	☼	06/01/19 11:45	06/02/19 16:21	1
Aroclor 1232	0.011	U	0.084	0.011	mg/Kg	☼	06/01/19 11:45	06/02/19 16:21	1
Aroclor 1242	0.011	U	0.084	0.011	mg/Kg	☼	06/01/19 11:45	06/02/19 16:21	1
Aroclor 1248	0.011	U	0.084	0.011	mg/Kg	☼	06/01/19 11:45	06/02/19 16:21	1
Aroclor 1254	0.012	U	0.084	0.012	mg/Kg	☼	06/01/19 11:45	06/02/19 16:21	1
Aroclor 1260	0.012	U	0.084	0.012	mg/Kg	☼	06/01/19 11:45	06/02/19 16:21	1
Aroclor-1262	0.012	U	0.084	0.012	mg/Kg	☼	06/01/19 11:45	06/02/19 16:21	1
Aroclor 1268	0.012	U	0.084	0.012	mg/Kg	☼	06/01/19 11:45	06/02/19 16:21	1
Polychlorinated biphenyls, Total	0.012	U	0.084	0.012	mg/Kg	☼	06/01/19 11:45	06/02/19 16:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	123		53 - 150	06/01/19 11:45	06/02/19 16:21	1
DCB Decachlorobiphenyl	109		53 - 150	06/01/19 11:45	06/02/19 16:21	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183224-1

Client Sample ID: WP-SB-AY48-K-L-0-053119

Lab Sample ID: 460-183224-10

Date Collected: 05/31/19 13:50
Date Received: 05/31/19 16:35

Matrix: Solid
Percent Solids: 86.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.86		0.38	0.020	mg/Kg	☼	06/01/19 05:57	06/02/19 01:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*89*		*25 - 113*	*06/01/19 05:57*	*06/02/19 01:07*	*1*
Terphenyl-d14 (Surr)	*100*		*27 - 123*	*06/01/19 05:57*	*06/02/19 01:07*	*1*
2-Fluorobiphenyl	*85*		*29 - 107*	*06/01/19 05:57*	*06/02/19 01:07*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.010	U	0.077	0.010	mg/Kg	☼	06/01/19 11:45	06/02/19 13:15	1
Aroclor 1221	0.010	U	0.077	0.010	mg/Kg	☼	06/01/19 11:45	06/02/19 13:15	1
Aroclor 1232	0.010	U	0.077	0.010	mg/Kg	☼	06/01/19 11:45	06/02/19 13:15	1
Aroclor 1242	0.010	U	0.077	0.010	mg/Kg	☼	06/01/19 11:45	06/02/19 13:15	1
Aroclor 1248	0.010	U	0.077	0.010	mg/Kg	☼	06/01/19 11:45	06/02/19 13:15	1
Aroclor 1254	0.011	U	0.077	0.011	mg/Kg	☼	06/01/19 11:45	06/02/19 13:15	1
Aroclor 1260	0.011	U	0.077	0.011	mg/Kg	☼	06/01/19 11:45	06/02/19 13:15	1
Aroclor-1262	0.011	U	0.077	0.011	mg/Kg	☼	06/01/19 11:45	06/02/19 13:15	1
Aroclor 1268	0.011	U	0.077	0.011	mg/Kg	☼	06/01/19 11:45	06/02/19 13:15	1
Polychlorinated biphenyls, Total	0.011	U	0.077	0.011	mg/Kg	☼	06/01/19 11:45	06/02/19 13:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*125*		*53 - 150*	*06/01/19 11:45*	*06/02/19 13:15*	*1*
DCB Decachlorobiphenyl	*107*		*53 - 150*	*06/01/19 11:45*	*06/02/19 13:15*	*1*

Client Sample ID: WP-ST-AY48-D-E-0-053119

Lab Sample ID: 460-183224-11

Date Collected: 05/31/19 14:01
Date Received: 05/31/19 16:35

Matrix: Solid
Percent Solids: 60.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.73		0.55	0.029	mg/Kg	☼	06/01/19 05:57	06/02/19 05:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*96*		*25 - 113*	*06/01/19 05:57*	*06/02/19 05:21*	*1*
Terphenyl-d14 (Surr)	*124*	*X*	*27 - 123*	*06/01/19 05:57*	*06/02/19 05:21*	*1*
2-Fluorobiphenyl	*94*		*29 - 107*	*06/01/19 05:57*	*06/02/19 05:21*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.015	U	0.11	0.015	mg/Kg	☼	06/01/19 11:45	06/02/19 17:11	1
Aroclor 1221	0.015	U	0.11	0.015	mg/Kg	☼	06/01/19 11:45	06/02/19 17:11	1
Aroclor 1232	0.015	U	0.11	0.015	mg/Kg	☼	06/01/19 11:45	06/02/19 17:11	1
Aroclor 1242	0.015	U	0.11	0.015	mg/Kg	☼	06/01/19 11:45	06/02/19 17:11	1
Aroclor 1248	0.14	J	0.11	0.015	mg/Kg	☼	06/01/19 11:45	06/02/19 17:11	1
Aroclor 1254	0.015	U	0.11	0.015	mg/Kg	☼	06/01/19 11:45	06/02/19 17:11	1
Aroclor 1260	0.015	U	0.11	0.015	mg/Kg	☼	06/01/19 11:45	06/02/19 17:11	1
Aroclor-1262	0.015	U	0.11	0.015	mg/Kg	☼	06/01/19 11:45	06/02/19 17:11	1
Aroclor 1268	0.015	U	0.11	0.015	mg/Kg	☼	06/01/19 11:45	06/02/19 17:11	1
Polychlorinated biphenyls, Total	0.14	J	0.11	0.015	mg/Kg	☼	06/01/19 11:45	06/02/19 17:11	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183224-1

Client Sample ID: WP-ST-AY48-D-E-0-053119

Lab Sample ID: 460-183224-11
Date Collected: 05/31/19 14:01
Matrix: Solid
Date Received: 05/31/19 16:35
Percent Solids: 60.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	107		53 - 150	06/01/19 11:45	06/02/19 17:11	1
DCB Decachlorobiphenyl	87		53 - 150	06/01/19 11:45	06/02/19 17:11	1

Client Sample ID: WP-PB-BH37-K-L-0-053119

Lab Sample ID: 460-183224-12
Date Collected: 05/31/19 14:12
Matrix: Solid
Date Received: 05/31/19 16:35
Percent Solids: 59.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	11		1.1	0.059	mg/Kg	☼	06/01/19 05:57	06/03/19 01:21	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	79		25 - 113	06/01/19 05:57	06/03/19 01:21	2
Terphenyl-d14 (Surr)	94		27 - 123	06/01/19 05:57	06/03/19 01:21	2
2-Fluorobiphenyl	83		29 - 107	06/01/19 05:57	06/03/19 01:21	2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.015	U	0.11	0.015	mg/Kg	☼	06/01/19 11:45	06/02/19 17:28	1
Aroclor 1221	0.015	U	0.11	0.015	mg/Kg	☼	06/01/19 11:45	06/02/19 17:28	1
Aroclor 1232	0.015	U	0.11	0.015	mg/Kg	☼	06/01/19 11:45	06/02/19 17:28	1
Aroclor 1242	0.015	U	0.11	0.015	mg/Kg	☼	06/01/19 11:45	06/02/19 17:28	1
Aroclor 1248	0.60	J	0.11	0.015	mg/Kg	☼	06/01/19 11:45	06/02/19 17:28	1
Aroclor 1254	0.015	U	0.11	0.015	mg/Kg	☼	06/01/19 11:45	06/02/19 17:28	1
Aroclor 1260	0.015	U	0.11	0.015	mg/Kg	☼	06/01/19 11:45	06/02/19 17:28	1
Aroclor-1262	0.015	U	0.11	0.015	mg/Kg	☼	06/01/19 11:45	06/02/19 17:28	1
Aroclor 1268	0.015	U	0.11	0.015	mg/Kg	☼	06/01/19 11:45	06/02/19 17:28	1
Polychlorinated biphenyls, Total	0.60	J	0.11	0.015	mg/Kg	☼	06/01/19 11:45	06/02/19 17:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	110		53 - 150	06/01/19 11:45	06/02/19 17:28	1
DCB Decachlorobiphenyl	96		53 - 150	06/01/19 11:45	06/02/19 17:28	1

Client Sample ID: WP-SB-AY42-I-J-0-053119

Lab Sample ID: 460-183224-14
Date Collected: 05/31/19 14:29
Matrix: Solid
Date Received: 05/31/19 16:35
Percent Solids: 42.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	5.2		0.77	0.041	mg/Kg	☼	06/01/19 05:57	06/02/19 06:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	84		25 - 113	06/01/19 05:57	06/02/19 06:08	1
Terphenyl-d14 (Surr)	122		27 - 123	06/01/19 05:57	06/02/19 06:08	1
2-Fluorobiphenyl	91		29 - 107	06/01/19 05:57	06/02/19 06:08	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.021	U	0.16	0.021	mg/Kg	☼	06/01/19 11:45	06/02/19 17:45	1
Aroclor 1221	0.021	U	0.16	0.021	mg/Kg	☼	06/01/19 11:45	06/02/19 17:45	1
Aroclor 1232	0.021	U	0.16	0.021	mg/Kg	☼	06/01/19 11:45	06/02/19 17:45	1
Aroclor 1242	0.021	U	0.16	0.021	mg/Kg	☼	06/01/19 11:45	06/02/19 17:45	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183224-1

Client Sample ID: WP-SB-AY42-I-J-0-053119

Lab Sample ID: 460-183224-14
Date Collected: 05/31/19 14:29
Matrix: Solid
Date Received: 05/31/19 16:35
Percent Solids: 42.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.021	U	0.16	0.021	mg/Kg	☼	06/01/19 11:45	06/02/19 17:45	1
Aroclor 1254	0.021	U	0.16	0.021	mg/Kg	☼	06/01/19 11:45	06/02/19 17:45	1
Aroclor 1260	0.021	U	0.16	0.021	mg/Kg	☼	06/01/19 11:45	06/02/19 17:45	1
Aroclor-1262	0.021	U	0.16	0.021	mg/Kg	☼	06/01/19 11:45	06/02/19 17:45	1
Aroclor 1268	0.021	U	0.16	0.021	mg/Kg	☼	06/01/19 11:45	06/02/19 17:45	1
Polychlorinated biphenyls, Total	0.021	U	0.16	0.021	mg/Kg	☼	06/01/19 11:45	06/02/19 17:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*106*		*53 - 150*	*06/01/19 11:45*	*06/02/19 17:45*	*1*
DCB Decachlorobiphenyl	*106*		*53 - 150*	*06/01/19 11:45*	*06/02/19 17:45*	*1*

Client Sample ID: WP-ST-AY42-H-I-0-053119

Lab Sample ID: 460-183224-15
Date Collected: 05/31/19 14:44
Matrix: Solid
Date Received: 05/31/19 16:35
Percent Solids: 27.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	97	J	5.9	0.31	mg/Kg	☼	06/01/19 05:57	06/03/19 01:38	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*76*		*25 - 113*	*06/01/19 05:57*	*06/03/19 01:38*	*5*
Terphenyl-d14 (Surr)	*90*		*27 - 123*	*06/01/19 05:57*	*06/03/19 01:38*	*5*
2-Fluorobiphenyl	*82*		*29 - 107*	*06/01/19 05:57*	*06/03/19 01:38*	*5*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.032	U J	0.24	0.032	mg/Kg	☼	06/01/19 11:45	06/02/19 18:02	1
Aroclor 1221	0.032	U	0.24	0.032	mg/Kg	☼	06/01/19 11:45	06/02/19 18:02	1
Aroclor 1232	0.032	U	0.24	0.032	mg/Kg	☼	06/01/19 11:45	06/02/19 18:02	1
Aroclor 1242	0.032	U	0.24	0.032	mg/Kg	☼	06/01/19 11:45	06/02/19 18:02	1
Aroclor 1248	1.4	J	0.24	0.032	mg/Kg	☼	06/01/19 11:45	06/02/19 18:02	1
Aroclor 1254	0.033	U J	0.24	0.033	mg/Kg	☼	06/01/19 11:45	06/02/19 18:02	1
Aroclor 1260	0.033	U	0.24	0.033	mg/Kg	☼	06/01/19 11:45	06/02/19 18:02	1
Aroclor-1262	0.033	U	0.24	0.033	mg/Kg	☼	06/01/19 11:45	06/02/19 18:02	1
Aroclor 1268	0.033	U	0.24	0.033	mg/Kg	☼	06/01/19 11:45	06/02/19 18:02	1
Polychlorinated biphenyls, Total	1.4	J	0.24	0.033	mg/Kg	☼	06/01/19 11:45	06/02/19 18:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*132*		*53 - 150*	*06/01/19 11:45*	*06/02/19 18:02*	*1*
DCB Decachlorobiphenyl	*118*		*53 - 150*	*06/01/19 11:45*	*06/02/19 18:02*	*1*

Client Sample ID: WP-PB-AY43-I-J-0-053119

Lab Sample ID: 460-183224-16
Date Collected: 05/31/19 15:00
Matrix: Solid
Date Received: 05/31/19 16:35
Percent Solids: 57.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.91		0.58	0.031	mg/Kg	☼	06/01/19 05:57	06/02/19 06:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*91*		*25 - 113*	*06/01/19 05:57*	*06/02/19 06:54*	*1*
Terphenyl-d14 (Surr)	*118*		*27 - 123*	*06/01/19 05:57*	*06/02/19 06:54*	*1*

Client Sample ID: WP-PB-AY43-I-J-0-053119

Lab Sample ID: 460-183224-16

Date Collected: 05/31/19 15:00
Date Received: 05/31/19 16:35

Matrix: Solid
Percent Solids: 57.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	94		29 - 107	06/01/19 05:57	06/02/19 06:54	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.016	U	0.12	0.016	mg/Kg	☼	06/01/19 11:45	06/02/19 18:19	1
Aroclor 1221	0.016	U	0.12	0.016	mg/Kg	☼	06/01/19 11:45	06/02/19 18:19	1
Aroclor 1232	0.016	U	0.12	0.016	mg/Kg	☼	06/01/19 11:45	06/02/19 18:19	1
Aroclor 1242	0.016	U	0.12	0.016	mg/Kg	☼	06/01/19 11:45	06/02/19 18:19	1
Aroclor 1248	0.016	U	0.12	0.016	mg/Kg	☼	06/01/19 11:45	06/02/19 18:19	1
Aroclor 1254	0.016	U	0.12	0.016	mg/Kg	☼	06/01/19 11:45	06/02/19 18:19	1
Aroclor 1260	0.016	U	0.12	0.016	mg/Kg	☼	06/01/19 11:45	06/02/19 18:19	1
Aroclor-1262	0.016	U	0.12	0.016	mg/Kg	☼	06/01/19 11:45	06/02/19 18:19	1
Aroclor 1268	0.016	U	0.12	0.016	mg/Kg	☼	06/01/19 11:45	06/02/19 18:19	1
Polychlorinated biphenyls, Total	0.016	U	0.12	0.016	mg/Kg	☼	06/01/19 11:45	06/02/19 18:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	75		53 - 150	06/01/19 11:45	06/02/19 18:19	1
DCB Decachlorobiphenyl	90		53 - 150	06/01/19 11:45	06/02/19 18:19	1

Client Sample ID: WP-FB-053119

Lab Sample ID: 460-183224-18

Date Collected: 05/31/19 15:25
Date Received: 05/31/19 16:35

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		06/01/19 16:26	06/02/19 02:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	79		51 - 108	06/01/19 16:26	06/02/19 02:19	1
Terphenyl-d14 (Surr)	101		40 - 148	06/01/19 16:26	06/02/19 02:19	1
2-Fluorobiphenyl	56		45 - 107	06/01/19 16:26	06/02/19 02:19	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		06/01/19 16:21	06/02/19 14:55	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		06/01/19 16:21	06/02/19 14:55	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		06/01/19 16:21	06/02/19 14:55	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		06/01/19 16:21	06/02/19 14:55	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		06/01/19 16:21	06/02/19 14:55	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		06/01/19 16:21	06/02/19 14:55	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		06/01/19 16:21	06/02/19 14:55	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		06/01/19 16:21	06/02/19 14:55	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		06/01/19 16:21	06/02/19 14:55	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		06/01/19 16:21	06/02/19 14:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	59		10 - 150	06/01/19 16:21	06/02/19 14:55	1
DCB Decachlorobiphenyl	51		10 - 150	06/01/19 16:21	06/02/19 14:55	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183224-1

Client Sample ID: WP-PB-AY46-I-J-0-053119

Lab Sample ID: 460-183224-19

Date Collected: 05/31/19 11:42
Date Received: 05/31/19 16:35

Matrix: Solid
Percent Solids: 80.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.022	U	0.41	0.022	mg/Kg	☼	06/01/19 05:57	06/02/19 07:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*76*		*25 - 113*	*06/01/19 05:57*	*06/02/19 07:17*	*1*
Terphenyl-d14 (Surr)	*117*		*27 - 123*	*06/01/19 05:57*	*06/02/19 07:17*	*1*
2-Fluorobiphenyl	*75*		*29 - 107*	*06/01/19 05:57*	*06/02/19 07:17*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.083	0.011	mg/Kg	☼	06/01/19 11:45	06/02/19 18:36	1
Aroclor 1221	0.011	U	0.083	0.011	mg/Kg	☼	06/01/19 11:45	06/02/19 18:36	1
Aroclor 1232	0.011	U	0.083	0.011	mg/Kg	☼	06/01/19 11:45	06/02/19 18:36	1
Aroclor 1242	0.011	U	0.083	0.011	mg/Kg	☼	06/01/19 11:45	06/02/19 18:36	1
Aroclor 1248	0.011	U	0.083	0.011	mg/Kg	☼	06/01/19 11:45	06/02/19 18:36	1
Aroclor 1254	0.011	U	0.083	0.011	mg/Kg	☼	06/01/19 11:45	06/02/19 18:36	1
Aroclor 1260	0.011	U	0.083	0.011	mg/Kg	☼	06/01/19 11:45	06/02/19 18:36	1
Aroclor-1262	0.011	U	0.083	0.011	mg/Kg	☼	06/01/19 11:45	06/02/19 18:36	1
Aroclor 1268	0.011	U	0.083	0.011	mg/Kg	☼	06/01/19 11:45	06/02/19 18:36	1
Polychlorinated biphenyls, Total	0.011	U	0.083	0.011	mg/Kg	☼	06/01/19 11:45	06/02/19 18:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*112*		*53 - 150*	*06/01/19 11:45*	*06/02/19 18:36*	*1*
DCB Decachlorobiphenyl	*98*		*53 - 150*	*06/01/19 11:45*	*06/02/19 18:36*	*1*

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-183436

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/1/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on June 4, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-SB-BE48-K-L-0-060419	460-183436-1	Sediment	PCBs, BEHP*
WP-ST-BE48-F-G-0-060419	460-183436-2	Sediment	PCBs, BEHP*
WP-SB-BB48-K-L-0-060419	460-183436-3	Sediment	PCBs, BEHP*
WP-ST-BB48-E-F-0-060419	460-183436-4	Sediment	PCBs, BEHP*
WP-PB-BB43-M-N-0-060419	460-183436-5	Sediment	PCBs, BEHP*
WP-PBC-BB43-C-D-0-060419	460-183436-6	Sediment	PCBs, BEHP*
WP-PB-BE40-K-L-0-060419	460-183436-7	Sediment	PCBs, BEHP*
WP-PBC-BE40-C-D-0-060419	460-183436-8	Sediment	PCBs, BEHP*
WP-PB-BE40-K-L-1-060419[1]	460-183436-9	Sediment	PCBs, BEHP*
WP-PB-BE43-A-B-0-060419	460-183436-10	Sediment	PCBs, BEHP*
WP-PB-BE46-K-L-0-060419	460-183436-11	Sediment	PCBs, BEHP*
WP-PBC-BE46-C-D-0-060419	460-183436-12	Sediment	PCBs, BEHP*
WP-SB-BH48-K-L-0-060419	460-183436-13	Sediment	PCBs, BEHP*
WP-ST-BH48-H-I-0-060419	460-183436-14	Sediment	PCBs, BEHP*
WP-PB-BH40-K-L-0-060419	460-183436-15	Sediment	PCBs, BEHP*
WP-PB-BH43-K-L-0-060419	460-183436-16	Sediment	PCBs, BEHP*
WP-PBC-BH43-C-D-0-060419	460-183436-17	Sediment	PCBs, BEHP*

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-PB-BH46-K-L-0-060419	460-183436-18	Sediment	PCBs, BEHP*
WP-FB-060419	460-183436-19	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

[1]Field duplicate of WP-PB-BE40-K-L-0-060419

General Comments

The laboratory submitted a NJDEP full data deliverable for the requested analyses. The data package contains required elements. The analyses of samples WP-PBC-BB43-C-D-0-060419, WP-PBC-BE40-C-D-0-060419, WP-PBC-BE46-C-D-0-060419, and WP-PBC-BH43-C-D-0-060419 were placed on hold upon lab receipt but were later canceled on June 7, 2019.

An incorrect field sample identification (WP-PB-BE40-K-L-060419) was logged in by the lab for sample 460-183436-9. The correct field identification should have been WP-PB-BE40-K-L-1-060419, which was referenced in the revised lab report and was used for discussion in this document where applicable.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The MS/MSD analyses were performed on sample WP-ST-BH48-H-I-0-060419 and yielded acceptable accuracy and precision results.

The analyses of WP-PB-BE40-K-L-1-060419 and its field duplicate WP-PB-BE40-K-L-1-060419 yielded acceptable results.

Data qualification was not required for any bis(2-ethylhexyl)phthalate results.

PCBs

The MS/MSD analyses were performed on sample WP-ST-BH48-H-I-0-060419 and yielded acceptable accuracy and precision results. All other batch QC results were within lab-established control limits. Data qualification was not required for any Aroclor results.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Data qualification was not required for any sample results. All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183436-1

Client Sample ID: WP-SB-BE48-K-L-0-060419

Lab Sample ID: 460-183436-1

Date Collected: 06/04/19 10:20
Date Received: 06/04/19 17:00

Matrix: Solid
Percent Solids: 57.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.2		0.57	0.030	mg/Kg	☼	06/04/19 22:30	06/05/19 08:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*47*		*25 - 113*	*06/04/19 22:30*	*06/05/19 08:59*	*1*
Terphenyl-d14 (Surr)	*50*		*27 - 123*	*06/04/19 22:30*	*06/05/19 08:59*	*1*
2-Fluorobiphenyl	*49*		*29 - 107*	*06/04/19 22:30*	*06/05/19 08:59*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.015	U	0.12	0.015	mg/Kg	☼	06/05/19 00:58	06/05/19 13:53	1
Aroclor 1221	0.015	U	0.12	0.015	mg/Kg	☼	06/05/19 00:58	06/05/19 13:53	1
Aroclor 1232	0.015	U	0.12	0.015	mg/Kg	☼	06/05/19 00:58	06/05/19 13:53	1
Aroclor 1242	0.015	U	0.12	0.015	mg/Kg	☼	06/05/19 00:58	06/05/19 13:53	1
Aroclor 1248	0.015	U	0.12	0.015	mg/Kg	☼	06/05/19 00:58	06/05/19 13:53	1
Aroclor 1254	0.016	U	0.12	0.016	mg/Kg	☼	06/05/19 00:58	06/05/19 13:53	1
Aroclor 1260	0.016	U	0.12	0.016	mg/Kg	☼	06/05/19 00:58	06/05/19 13:53	1
Aroclor-1262	0.016	U	0.12	0.016	mg/Kg	☼	06/05/19 00:58	06/05/19 13:53	1
Aroclor 1268	0.016	U	0.12	0.016	mg/Kg	☼	06/05/19 00:58	06/05/19 13:53	1
Polychlorinated biphenyls, Total	0.016	U	0.12	0.016	mg/Kg	☼	06/05/19 00:58	06/05/19 13:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*101*		*53 - 150*	*06/05/19 00:58*	*06/05/19 13:53*	*1*
DCB Decachlorobiphenyl	*99*		*53 - 150*	*06/05/19 00:58*	*06/05/19 13:53*	*1*

Client Sample ID: WP-ST-BE48-F-G-0-060419

Lab Sample ID: 460-183436-2

Date Collected: 06/04/19 10:35
Date Received: 06/04/19 17:00

Matrix: Solid
Percent Solids: 51.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.2		0.64	0.034	mg/Kg	☼	06/04/19 22:30	06/05/19 09:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*52*		*25 - 113*	*06/04/19 22:30*	*06/05/19 09:16*	*1*
Terphenyl-d14 (Surr)	*54*		*27 - 123*	*06/04/19 22:30*	*06/05/19 09:16*	*1*
2-Fluorobiphenyl	*54*		*29 - 107*	*06/04/19 22:30*	*06/05/19 09:16*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.017	U	0.13	0.017	mg/Kg	☼	06/05/19 00:58	06/05/19 14:14	1
Aroclor 1221	0.017	U	0.13	0.017	mg/Kg	☼	06/05/19 00:58	06/05/19 14:14	1
Aroclor 1232	0.017	U	0.13	0.017	mg/Kg	☼	06/05/19 00:58	06/05/19 14:14	1
Aroclor 1242	0.017	U	0.13	0.017	mg/Kg	☼	06/05/19 00:58	06/05/19 14:14	1
Aroclor 1248	0.017	U	0.13	0.017	mg/Kg	☼	06/05/19 00:58	06/05/19 14:14	1
Aroclor 1254	0.018	U	0.13	0.018	mg/Kg	☼	06/05/19 00:58	06/05/19 14:14	1
Aroclor 1260	0.018	U	0.13	0.018	mg/Kg	☼	06/05/19 00:58	06/05/19 14:14	1
Aroclor-1262	0.018	U	0.13	0.018	mg/Kg	☼	06/05/19 00:58	06/05/19 14:14	1
Aroclor 1268	0.018	U	0.13	0.018	mg/Kg	☼	06/05/19 00:58	06/05/19 14:14	1
Polychlorinated biphenyls, Total	0.018	U	0.13	0.018	mg/Kg	☼	06/05/19 00:58	06/05/19 14:14	1

YY 8/1/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183436-1

Client Sample ID: WP-ST-BE48-F-G-0-060419

Lab Sample ID: 460-183436-2
Matrix: Solid
Percent Solids: 51.9

Date Collected: 06/04/19 10:35
Date Received: 06/04/19 17:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	104		53 - 150	06/05/19 00:58	06/05/19 14:14	1
DCB Decachlorobiphenyl	103		53 - 150	06/05/19 00:58	06/05/19 14:14	1

Client Sample ID: WP-SB-BB48-K-L-0-060419

Lab Sample ID: 460-183436-3
Matrix: Solid
Percent Solids: 85.9

Date Collected: 06/04/19 10:50
Date Received: 06/04/19 17:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.3		0.38	0.020	mg/Kg	☼	06/04/19 22:30	06/05/19 09:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	78		25 - 113	06/04/19 22:30	06/05/19 09:32	1
Terphenyl-d14 (Surr)	91		27 - 123	06/04/19 22:30	06/05/19 09:32	1
2-Fluorobiphenyl	86		29 - 107	06/04/19 22:30	06/05/19 09:32	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.010	U	0.078	0.010	mg/Kg	☼	06/05/19 00:58	06/05/19 14:35	1
Aroclor 1221	0.010	U	0.078	0.010	mg/Kg	☼	06/05/19 00:58	06/05/19 14:35	1
Aroclor 1232	0.010	U	0.078	0.010	mg/Kg	☼	06/05/19 00:58	06/05/19 14:35	1
Aroclor 1242	0.010	U	0.078	0.010	mg/Kg	☼	06/05/19 00:58	06/05/19 14:35	1
Aroclor 1248	0.010	U	0.078	0.010	mg/Kg	☼	06/05/19 00:58	06/05/19 14:35	1
Aroclor 1254	0.011	U	0.078	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 14:35	1
Aroclor 1260	0.011	U	0.078	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 14:35	1
Aroclor-1262	0.011	U	0.078	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 14:35	1
Aroclor 1268	0.011	U	0.078	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 14:35	1
Polychlorinated biphenyls, Total	0.011	U	0.078	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 14:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	93		53 - 150	06/05/19 00:58	06/05/19 14:35	1
DCB Decachlorobiphenyl	93		53 - 150	06/05/19 00:58	06/05/19 14:35	1

Client Sample ID: WP-ST-BB48-E-F-0-060419

Lab Sample ID: 460-183436-4
Matrix: Solid
Percent Solids: 40.0

-30

Date Collected: 06/04/19 11:04
Date Received: 06/04/19 17:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	3.4		0.82	0.044	mg/Kg	☼	06/04/19 22:30	06/05/19 09:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	56		25 - 113	06/04/19 22:30	06/05/19 09:49	1
Terphenyl-d14 (Surr)	63		27 - 123	06/04/19 22:30	06/05/19 09:49	1
2-Fluorobiphenyl	60		29 - 107	06/04/19 22:30	06/05/19 09:49	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.022	U	0.17	0.022	mg/Kg	☼	06/05/19 00:58	06/05/19 14:55	1
Aroclor 1221	0.022	U	0.17	0.022	mg/Kg	☼	06/05/19 00:58	06/05/19 14:55	1
Aroclor 1232	0.022	U	0.17	0.022	mg/Kg	☼	06/05/19 00:58	06/05/19 14:55	1
Aroclor 1242	0.022	U	0.17	0.022	mg/Kg	☼	06/05/19 00:58	06/05/19 14:55	1

YY 8/1/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183436-1

Client Sample ID: WP-ST-BB48-E-F-0-060419

Lab Sample ID: 460-183436-4

Date Collected: 06/04/19 11:04
Date Received: 06/04/19 17:00

Matrix: Solid
Percent Solids: 40.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.17		0.17	0.022	mg/Kg	☼	06/05/19 00:58	06/05/19 14:55	1
Aroclor 1254	0.023	U	0.17	0.023	mg/Kg	☼	06/05/19 00:58	06/05/19 14:55	1
Aroclor 1260	0.023	U	0.17	0.023	mg/Kg	☼	06/05/19 00:58	06/05/19 14:55	1
Aroclor-1262	0.023	U	0.17	0.023	mg/Kg	☼	06/05/19 00:58	06/05/19 14:55	1
Aroclor 1268	0.023	U	0.17	0.023	mg/Kg	☼	06/05/19 00:58	06/05/19 14:55	1
Polychlorinated biphenyls, Total	0.17		0.17	0.023	mg/Kg	☼	06/05/19 00:58	06/05/19 14:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*101*		*53 - 150*	*06/05/19 00:58*	*06/05/19 14:55*	*1*
DCB Decachlorobiphenyl	*94*		*53 - 150*	*06/05/19 00:58*	*06/05/19 14:55*	*1*

Client Sample ID: WP-PB-BB43-M-N-0-060419

Lab Sample ID: 460-183436-5

Date Collected: 06/04/19 11:24
Date Received: 06/04/19 17:00

Matrix: Solid
Percent Solids: 83.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.18	J	0.39	0.021	mg/Kg	☼	06/04/19 22:30	06/05/19 10:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*71*		*25 - 113*	*06/04/19 22:30*	*06/05/19 10:06*	*1*
Terphenyl-d14 (Surr)	*87*		*27 - 123*	*06/04/19 22:30*	*06/05/19 10:06*	*1*
2-Fluorobiphenyl	*80*		*29 - 107*	*06/04/19 22:30*	*06/05/19 10:06*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.080	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 15:16	1
Aroclor 1221	0.011	U	0.080	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 15:16	1
Aroclor 1232	0.011	U	0.080	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 15:16	1
Aroclor 1242	0.011	U	0.080	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 15:16	1
Aroclor 1248	0.011	U	0.080	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 15:16	1
Aroclor 1254	0.011	U	0.080	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 15:16	1
Aroclor 1260	0.011	U	0.080	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 15:16	1
Aroclor-1262	0.011	U	0.080	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 15:16	1
Aroclor 1268	0.011	U	0.080	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 15:16	1
Polychlorinated biphenyls, Total	0.011	U	0.080	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*101*		*53 - 150*	*06/05/19 00:58*	*06/05/19 15:16*	*1*
DCB Decachlorobiphenyl	*97*		*53 - 150*	*06/05/19 00:58*	*06/05/19 15:16*	*1*

Client Sample ID: WP-PB-BE40-K-L-0-060419

Lab Sample ID: 460-183436-7

Date Collected: 06/04/19 12:10
Date Received: 06/04/19 17:00

Matrix: Solid
Percent Solids: 71.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.3		0.46	0.024	mg/Kg	☼	06/04/19 22:30	06/05/19 10:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*58*		*25 - 113*	*06/04/19 22:30*	*06/05/19 10:23*	*1*
Terphenyl-d14 (Surr)	*59*		*27 - 123*	*06/04/19 22:30*	*06/05/19 10:23*	*1*

YY 8/5/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183436-1

Client Sample ID: WP-PB-BE40-K-L-0-060419

Date Collected: 06/04/19 12:10
Date Received: 06/04/19 17:00

Lab Sample ID: 460-183436-7

Matrix: Solid
Percent Solids: 71.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	59		29 - 107	06/04/19 22:30	06/05/19 10:23	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.093	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 15:58	1
Aroclor 1221	0.012	U	0.093	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 15:58	1
Aroclor 1232	0.012	U	0.093	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 15:58	1
Aroclor 1242	0.012	U	0.093	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 15:58	1
Aroclor 1248	0.012	U	0.093	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 15:58	1
Aroclor 1254	0.013	U	0.093	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 15:58	1
Aroclor 1260	0.013	U	0.093	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 15:58	1
Aroclor-1262	0.013	U	0.093	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 15:58	1
Aroclor 1268	0.013	U	0.093	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 15:58	1
Polychlorinated biphenyls, Total	0.013	U	0.093	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 15:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	102		53 - 150	06/05/19 00:58	06/05/19 15:58	1
DCB Decachlorobiphenyl	103		53 - 150	06/05/19 00:58	06/05/19 15:58	1

Client Sample ID: WP-PB-BE40-K-L-1-060419

Date Collected: 06/04/19 12:10
Date Received: 06/04/19 17:00

FD

Lab Sample ID: 460-183436-9

Matrix: Solid
Percent Solids: 70.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7		0.47	0.025	mg/Kg	☼	06/04/19 22:30	06/05/19 10:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	53		25 - 113	06/04/19 22:30	06/05/19 10:40	1
Terphenyl-d14 (Surr)	54		27 - 123	06/04/19 22:30	06/05/19 10:40	1
2-Fluorobiphenyl	54		29 - 107	06/04/19 22:30	06/05/19 10:40	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.095	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 16:19	1
Aroclor 1221	0.013	U	0.095	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 16:19	1
Aroclor 1232	0.013	U	0.095	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 16:19	1
Aroclor 1242	0.013	U	0.095	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 16:19	1
Aroclor 1248	0.013	U	0.095	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 16:19	1
Aroclor 1254	0.013	U	0.095	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 16:19	1
Aroclor 1260	0.013	U	0.095	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 16:19	1
Aroclor-1262	0.013	U	0.095	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 16:19	1
Aroclor 1268	0.013	U	0.095	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 16:19	1
Polychlorinated biphenyls, Total	0.013	U	0.095	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 16:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	95		53 - 150	06/05/19 00:58	06/05/19 16:19	1
DCB Decachlorobiphenyl	94		53 - 150	06/05/19 00:58	06/05/19 16:19	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183436-1

Client Sample ID: WP-PB-BE43-A-B-0-060419

Lab Sample ID: 460-183436-10

Date Collected: 06/04/19 12:35
Date Received: 06/04/19 17:00

Matrix: Solid
Percent Solids: 81.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.42		0.41	0.022	mg/Kg	☼	06/04/19 22:30	06/05/19 10:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*42*		*25 - 113*	*06/04/19 22:30*	*06/05/19 10:57*	*1*
Terphenyl-d14 (Surr)	*42*		*27 - 123*	*06/04/19 22:30*	*06/05/19 10:57*	*1*
2-Fluorobiphenyl	*43*		*29 - 107*	*06/04/19 22:30*	*06/05/19 10:57*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.083	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 15:23	1
Aroclor 1221	0.011	U	0.083	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 15:23	1
Aroclor 1232	0.011	U	0.083	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 15:23	1
Aroclor 1242	0.011	U	0.083	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 15:23	1
Aroclor 1248	0.011	U	0.083	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 15:23	1
Aroclor 1254	0.011	U	0.083	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 15:23	1
Aroclor 1260	0.011	U	0.083	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 15:23	1
Aroclor-1262	0.011	U	0.083	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 15:23	1
Aroclor 1268	0.011	U	0.083	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 15:23	1
Polychlorinated biphenyls, Total	0.011	U	0.083	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 15:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*106*		*53 - 150*	*06/05/19 00:58*	*06/05/19 15:23*	*1*
DCB Decachlorobiphenyl	*97*		*53 - 150*	*06/05/19 00:58*	*06/05/19 15:23*	*1*

Client Sample ID: WP-PB-BE46-K-L-0-060419

Lab Sample ID: 460-183436-11

Date Collected: 06/04/19 13:10
Date Received: 06/04/19 17:00

Matrix: Solid
Percent Solids: 80.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	3.5		0.41	0.022	mg/Kg	☼	06/04/19 22:30	06/05/19 11:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*60*		*25 - 113*	*06/04/19 22:30*	*06/05/19 11:13*	*1*
Terphenyl-d14 (Surr)	*67*		*27 - 123*	*06/04/19 22:30*	*06/05/19 11:13*	*1*
2-Fluorobiphenyl	*65*		*29 - 107*	*06/04/19 22:30*	*06/05/19 11:13*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.083	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 14:13	1
Aroclor 1221	0.011	U	0.083	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 14:13	1
Aroclor 1232	0.011	U	0.083	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 14:13	1
Aroclor 1242	0.011	U	0.083	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 14:13	1
Aroclor 1248	0.011	U	0.083	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 14:13	1
Aroclor 1254	0.011	U	0.083	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 14:13	1
Aroclor 1260	0.011	U	0.083	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 14:13	1
Aroclor-1262	0.011	U	0.083	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 14:13	1
Aroclor 1268	0.011	U	0.083	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 14:13	1
Polychlorinated biphenyls, Total	0.011	U	0.083	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 14:13	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183436-1

Client Sample ID: WP-PB-BE46-K-L-0-060419

Lab Sample ID: 460-183436-11
Date Collected: 06/04/19 13:10
Matrix: Solid
Date Received: 06/04/19 17:00
Percent Solids: 80.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	102		53 - 150	06/05/19 00:58	06/05/19 14:13	1
DCB Decachlorobiphenyl	92		53 - 150	06/05/19 00:58	06/05/19 14:13	1

Client Sample ID: WP-SB-BH48-K-L-0-060419

Lab Sample ID: 460-183436-13
Date Collected: 06/04/19 13:34
Matrix: Solid
Date Received: 06/04/19 17:00
Percent Solids: 83.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.090	J	0.40	0.021	mg/Kg	☼	06/04/19 22:30	06/05/19 11:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	59		25 - 113	06/04/19 22:30	06/05/19 11:30	1
Terphenyl-d14 (Surr)	64		27 - 123	06/04/19 22:30	06/05/19 11:30	1
2-Fluorobiphenyl	64		29 - 107	06/04/19 22:30	06/05/19 11:30	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.081	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 13:56	1
Aroclor 1221	0.011	U	0.081	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 13:56	1
Aroclor 1232	0.011	U	0.081	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 13:56	1
Aroclor 1242	0.011	U	0.081	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 13:56	1
Aroclor 1248	0.011	U	0.081	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 13:56	1
Aroclor 1254	0.011	U	0.081	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 13:56	1
Aroclor 1260	0.011	U	0.081	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 13:56	1
Aroclor-1262	0.011	U	0.081	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 13:56	1
Aroclor 1268	0.011	U	0.081	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 13:56	1
Polychlorinated biphenyls, Total	0.011	U	0.081	0.011	mg/Kg	☼	06/05/19 00:58	06/05/19 13:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	89		53 - 150	06/05/19 00:58	06/05/19 13:56	1
DCB Decachlorobiphenyl	95		53 - 150	06/05/19 00:58	06/05/19 13:56	1

Client Sample ID: WP-ST-BH48-H-I-0-060419

Lab Sample ID: 460-183436-14
Date Collected: 06/04/19 13:50
Matrix: Solid
Date Received: 06/04/19 17:00
Percent Solids: 71.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.1		0.46	0.024	mg/Kg	☼	06/04/19 22:30	06/05/19 11:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	65		25 - 113	06/04/19 22:30	06/05/19 11:47	1
Terphenyl-d14 (Surr)	74		27 - 123	06/04/19 22:30	06/05/19 11:47	1
2-Fluorobiphenyl	72		29 - 107	06/04/19 22:30	06/05/19 11:47	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.094	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 12:51	1
Aroclor 1221	0.012	U	0.094	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 12:51	1
Aroclor 1232	0.012	U	0.094	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 12:51	1
Aroclor 1242	0.012	U	0.094	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 12:51	1

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Client Sample ID: WP-ST-BH48-H-I-0-060419

Lab Sample ID: 460-183436-14

Date Collected: 06/04/19 13:50
Date Received: 06/04/19 17:00

Matrix: Solid
Percent Solids: 71.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.012	U	0.094	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 12:51	1
Aroclor 1254	0.013	U	0.094	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 12:51	1
Aroclor 1260	0.013	U	0.094	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 12:51	1
Aroclor-1262	0.013	U	0.094	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 12:51	1
Aroclor 1268	0.013	U	0.094	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 12:51	1
Polychlorinated biphenyls, Total	0.013	U	0.094	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 12:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*95*		*53 - 150*	*06/05/19 00:58*	*06/05/19 12:51*	*1*
DCB Decachlorobiphenyl	*95*		*53 - 150*	*06/05/19 00:58*	*06/05/19 12:51*	*1*

Client Sample ID: WP-PB-BH40-K-L-0-060419

Lab Sample ID: 460-183436-15

Date Collected: 06/04/19 14:10
Date Received: 06/04/19 17:00

Matrix: Solid
Percent Solids: 75.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.3		0.44	0.023	mg/Kg	☼	06/04/19 22:30	06/05/19 12:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*53*		*25 - 113*	*06/04/19 22:30*	*06/05/19 12:04*	*1*
Terphenyl-d14 (Surr)	*55*		*27 - 123*	*06/04/19 22:30*	*06/05/19 12:04*	*1*
2-Fluorobiphenyl	*56*		*29 - 107*	*06/04/19 22:30*	*06/05/19 12:04*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.089	0.012	mg/Kg	☼	06/05/19 01:58	06/05/19 13:38	1
Aroclor 1221	0.012	U	0.089	0.012	mg/Kg	☼	06/05/19 01:58	06/05/19 13:38	1
Aroclor 1232	0.012	U	0.089	0.012	mg/Kg	☼	06/05/19 01:58	06/05/19 13:38	1
Aroclor 1242	0.012	U	0.089	0.012	mg/Kg	☼	06/05/19 01:58	06/05/19 13:38	1
Aroclor 1248	0.012	U	0.089	0.012	mg/Kg	☼	06/05/19 01:58	06/05/19 13:38	1
Aroclor 1254	0.012	U	0.089	0.012	mg/Kg	☼	06/05/19 01:58	06/05/19 13:38	1
Aroclor 1260	0.012	U	0.089	0.012	mg/Kg	☼	06/05/19 01:58	06/05/19 13:38	1
Aroclor-1262	0.012	U	0.089	0.012	mg/Kg	☼	06/05/19 01:58	06/05/19 13:38	1
Aroclor 1268	0.012	U	0.089	0.012	mg/Kg	☼	06/05/19 01:58	06/05/19 13:38	1
Polychlorinated biphenyls, Total	0.012	U	0.089	0.012	mg/Kg	☼	06/05/19 01:58	06/05/19 13:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*93*		*53 - 150*	*06/05/19 01:58*	*06/05/19 13:38*	*1*
DCB Decachlorobiphenyl	*96*		*53 - 150*	*06/05/19 01:58*	*06/05/19 13:38*	*1*

Client Sample ID: WP-PB-BH43-K-L-0-060419

Lab Sample ID: 460-183436-16

Date Collected: 06/04/19 14:25
Date Received: 06/04/19 17:00

Matrix: Solid
Percent Solids: 72.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7		0.46	0.024	mg/Kg	☼	06/04/19 22:30	06/05/19 12:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*53*		*25 - 113*	*06/04/19 22:30*	*06/05/19 12:21*	*1*
Terphenyl-d14 (Surr)	*55*		*27 - 123*	*06/04/19 22:30*	*06/05/19 12:21*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183436-1

Client Sample ID: WP-PB-BH43-K-L-0-060419

Lab Sample ID: 460-183436-16

Date Collected: 06/04/19 14:25
Date Received: 06/04/19 17:00

Matrix: Solid
Percent Solids: 72.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	55		29 - 107	06/04/19 22:30	06/05/19 12:21	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.092	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 13:21	1
Aroclor 1221	0.012	U	0.092	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 13:21	1
Aroclor 1232	0.012	U	0.092	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 13:21	1
Aroclor 1242	0.012	U	0.092	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 13:21	1
Aroclor 1248	0.012	U	0.092	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 13:21	1
Aroclor 1254	0.013	U	0.092	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 13:21	1
Aroclor 1260	0.013	U	0.092	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 13:21	1
Aroclor-1262	0.013	U	0.092	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 13:21	1
Aroclor 1268	0.013	U	0.092	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 13:21	1
Polychlorinated biphenyls, Total	0.013	U	0.092	0.013	mg/Kg	☼	06/05/19 00:58	06/05/19 13:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	92		53 - 150	06/05/19 00:58	06/05/19 13:21	1
DCB Decachlorobiphenyl	90		53 - 150	06/05/19 00:58	06/05/19 13:21	1

Client Sample ID: WP-PB-BH46-K-L-0-060419

Lab Sample ID: 460-183436-18

Date Collected: 06/04/19 14:39
Date Received: 06/04/19 17:00

Matrix: Solid
Percent Solids: 76.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.9		0.43	0.023	mg/Kg	☼	06/04/19 22:30	06/05/19 12:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	62		25 - 113	06/04/19 22:30	06/05/19 12:38	1
Terphenyl-d14 (Surr)	66		27 - 123	06/04/19 22:30	06/05/19 12:38	1
2-Fluorobiphenyl	65		29 - 107	06/04/19 22:30	06/05/19 12:38	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.087	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 13:04	1
Aroclor 1221	0.012	U	0.087	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 13:04	1
Aroclor 1232	0.012	U	0.087	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 13:04	1
Aroclor 1242	0.012	U	0.087	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 13:04	1
Aroclor 1248	0.012	U	0.087	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 13:04	1
Aroclor 1254	0.012	U	0.087	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 13:04	1
Aroclor 1260	0.012	U	0.087	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 13:04	1
Aroclor-1262	0.012	U	0.087	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 13:04	1
Aroclor 1268	0.012	U	0.087	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 13:04	1
Polychlorinated biphenyls, Total	0.012	U	0.087	0.012	mg/Kg	☼	06/05/19 00:58	06/05/19 13:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	90		53 - 150	06/05/19 00:58	06/05/19 13:04	1
DCB Decachlorobiphenyl	96		53 - 150	06/05/19 00:58	06/05/19 13:04	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183436-1

Client Sample ID: WP-FB-060419

Date Collected: 06/04/19 14:50
Date Received: 06/04/19 17:00

Lab Sample ID: 460-183436-19

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		06/05/19 00:00	06/05/19 05:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*85*		*51 - 108*	*06/05/19 00:00*	*06/05/19 05:06*	*1*
Terphenyl-d14 (Surr)	*56*		*40 - 148*	*06/05/19 00:00*	*06/05/19 05:06*	*1*
2-Fluorobiphenyl	*72*		*45 - 107*	*06/05/19 00:00*	*06/05/19 05:06*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		06/05/19 01:15	06/05/19 08:58	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		06/05/19 01:15	06/05/19 08:58	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		06/05/19 01:15	06/05/19 08:58	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		06/05/19 01:15	06/05/19 08:58	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		06/05/19 01:15	06/05/19 08:58	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		06/05/19 01:15	06/05/19 08:58	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		06/05/19 01:15	06/05/19 08:58	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		06/05/19 01:15	06/05/19 08:58	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		06/05/19 01:15	06/05/19 08:58	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		06/05/19 01:15	06/05/19 08:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*93*		*10 - 150*	*06/05/19 01:15*	*06/05/19 08:58*	*1*
DCB Decachlorobiphenyl	*83*		*10 - 150*	*06/05/19 01:15*	*06/05/19 08:58*	*1*

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DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-183685

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/1/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on June 6, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-PB-BK40-K-L-0-060619	460-183685-1	Sediment	PCBs, BEHP*
WP-PB-BK43-K-L-0-060619	460-183685-2	Sediment	PCBs, BEHP*
WP-PBC-BK43-C-D-0-060619	460-183685-3	Sediment	PCBs, BEHP*
WP-PB-BL46-M-N-0-060619	460-183685-4	Sediment	PCBs, BEHP*
WP-SB-BK48-K-L-0-060619	460-183685-5	Sediment	PCBs, BEHP*
WP-ST-BK48-J-K-0-060619	460-183685-6	Sediment	PCBs, BEHP*
WP-PBC-BN28-C-D-0-060619	460-183685-7	Sediment	PCBs, BEHP*
WP-STC-AY42-H-I-0-060619	460-183685-8	Sediment	PCBs, BEHP*
WP-PBC-BN22-C-D-0-060619	460-183685-9	Sediment	PCBs, BEHP*
WP-STC-BH14-G-H-0-060619	460-183685-10	Sediment	PCBs, BEHP*
WP-STC-BH13-A-B-0-060619	460-183685-11	Sediment	PCBs, BEHP*
WP-STC-BN14-A-B-0-060619	460-183685-12	Sediment	PCBs, BEHP*
WP-STC-BN14-C-D-0-060619	460-183685-13	Sediment	PCBs, BEHP*
WP-STC-BK14-A-B-0-060619	460-183685-14	Sediment	PCBs, BEHP*
WP-FB-060619	460-183685-15	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable for the requested analyses. The data package contains required elements. The analyses of samples WP-PBC-BK43-C-D-0-060619 and WP-STC-BN14-C-D-0-060619 were placed on hold upon lab receipt. On June 8, 2019, the analyses of sample WP-PBC-BK43-C-D-0-060619 and the analysis of BEHP WP-STC-BN14-C-D-0-060619 were canceled. On the same date, the PCB analysis was activated for sample WP-STC-BN14-C-D-0-060619.

The solid contents of sediment samples WP-ST-BK48-J-K-0-060619, WP-STC-AY42-H-I-0-060619, and WP-STC-BH14-G-H-0-060619 were >10% but <30%; all positive and non-detect results were estimated (J/UJ).

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The MS/MSD analyses were performed on sample WP-PB-BL46-M-N-0-060619 and yielded acceptable accuracy and precision results.

A five-fold dilution was performed for sample WP-ST-BK48-J-K-0-060619. The quantification results and reporting limit were adjusted accordingly.

PCBs

The surrogate compound recoveries were within control limits on the Rtx-CLP column but failed high on the CLP-2 column in the analyses of samples WP-PBC-BN28-C-D-0-060619, WP-STC-BH13-A-B-0-060619, and WP-STC-BK14-A-B-0-060619. Since Aroclors were not detected in sample WP-PBC-BN28-C-D-0-060619, data qualification was not required. Since the positive Aroclor-1248 results for samples WP-STC-BH13-A-B-0-060619 and WP-STC-BK14-A-B-0-060619 were reported from the Rtx-CLP column, which produced acceptable surrogate recoveries, data qualification was not applied based on professional judgment.

The MS/MSD analyses were performed on sample WP-PB-BL46-M-N-0-060619 and yielded acceptable accuracy and precision results.

A five-fold dilution was performed for sample WP-ST-BK48-J-K-0-060619. The quantification results and reporting limits were adjusted accordingly.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Although some target analyte results were estimated (J) due to low solid contents and/or non-compliant QC results, these non-compliances did not warrant data rejections. All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183685-1

Client Sample ID: WP-PB-BK40-K-L-0-060619

Date Collected: 06/06/19 12:25
Date Received: 06/06/19 19:00

Lab Sample ID: 460-183685-1
Matrix: Solid
Percent Solids: 73.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.93		0.45	0.024	mg/Kg	☼	06/06/19 23:33	06/07/19 08:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*59*		*25 - 113*	*06/06/19 23:33*	*06/07/19 08:09*	*1*
Terphenyl-d14 (Surr)	*91*		*27 - 123*	*06/06/19 23:33*	*06/07/19 08:09*	*1*
2-Fluorobiphenyl	*64*		*29 - 107*	*06/06/19 23:33*	*06/07/19 08:09*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.091	0.012	mg/Kg	☼	06/06/19 23:58	06/07/19 13:23	1
Aroclor 1221	0.012	U	0.091	0.012	mg/Kg	☼	06/06/19 23:58	06/07/19 13:23	1
Aroclor 1232	0.012	U	0.091	0.012	mg/Kg	☼	06/06/19 23:58	06/07/19 13:23	1
Aroclor 1242	0.012	U	0.091	0.012	mg/Kg	☼	06/06/19 23:58	06/07/19 13:23	1
Aroclor 1248	0.012	U	0.091	0.012	mg/Kg	☼	06/06/19 23:58	06/07/19 13:23	1
Aroclor 1254	0.012	U	0.091	0.012	mg/Kg	☼	06/06/19 23:58	06/07/19 13:23	1
Aroclor 1260	0.012	U	0.091	0.012	mg/Kg	☼	06/06/19 23:58	06/07/19 13:23	1
Aroclor-1262	0.012	U	0.091	0.012	mg/Kg	☼	06/06/19 23:58	06/07/19 13:23	1
Aroclor 1268	0.012	U	0.091	0.012	mg/Kg	☼	06/06/19 23:58	06/07/19 13:23	1
Polychlorinated biphenyls, Total	0.012	U	0.091	0.012	mg/Kg	☼	06/06/19 23:58	06/07/19 13:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*107*		*53 - 150*	*06/06/19 23:58*	*06/07/19 13:23*	*1*
DCB Decachlorobiphenyl	*100*		*53 - 150*	*06/06/19 23:58*	*06/07/19 13:23*	*1*

Client Sample ID: WP-PB-BK43-K-L-0-060619

Date Collected: 06/06/19 12:40
Date Received: 06/06/19 19:00

Lab Sample ID: 460-183685-2
Matrix: Solid
Percent Solids: 60.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.0		0.54	0.029	mg/Kg	☼	06/06/19 23:33	06/07/19 08:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*74*		*25 - 113*	*06/06/19 23:33*	*06/07/19 08:26*	*1*
Terphenyl-d14 (Surr)	*94*		*27 - 123*	*06/06/19 23:33*	*06/07/19 08:26*	*1*
2-Fluorobiphenyl	*81*		*29 - 107*	*06/06/19 23:33*	*06/07/19 08:26*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.015	U	0.11	0.015	mg/Kg	☼	06/06/19 23:58	06/07/19 13:43	1
Aroclor 1221	0.015	U	0.11	0.015	mg/Kg	☼	06/06/19 23:58	06/07/19 13:43	1
Aroclor 1232	0.015	U	0.11	0.015	mg/Kg	☼	06/06/19 23:58	06/07/19 13:43	1
Aroclor 1242	0.015	U	0.11	0.015	mg/Kg	☼	06/06/19 23:58	06/07/19 13:43	1
Aroclor 1248	0.18		0.11	0.015	mg/Kg	☼	06/06/19 23:58	06/07/19 13:43	1
Aroclor 1254	0.015	U	0.11	0.015	mg/Kg	☼	06/06/19 23:58	06/07/19 13:43	1
Aroclor 1260	0.015	U	0.11	0.015	mg/Kg	☼	06/06/19 23:58	06/07/19 13:43	1
Aroclor-1262	0.015	U	0.11	0.015	mg/Kg	☼	06/06/19 23:58	06/07/19 13:43	1
Aroclor 1268	0.015	U	0.11	0.015	mg/Kg	☼	06/06/19 23:58	06/07/19 13:43	1
Polychlorinated biphenyls, Total	0.18		0.11	0.015	mg/Kg	☼	06/06/19 23:58	06/07/19 13:43	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183685-1

Client Sample ID: WP-PB-BK43-K-L-0-060619

Lab Sample ID: 460-183685-2
Date Collected: 06/06/19 12:40
Matrix: Solid
Date Received: 06/06/19 19:00
Percent Solids: 60.7

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	114		53 - 150	06/06/19 23:58	06/07/19 13:43	1
DCB Decachlorobiphenyl	105		53 - 150	06/06/19 23:58	06/07/19 13:43	1

Client Sample ID: WP-PB-BL46-M-N-0-060619

Lab Sample ID: 460-183685-4
Date Collected: 06/06/19 13:05
Matrix: Solid
Date Received: 06/06/19 19:00
Percent Solids: 82.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.021	U	0.40	0.021	mg/Kg	☼	06/06/19 23:33	06/07/19 10:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	65		25 - 113	06/06/19 23:33	06/07/19 10:22	1
Terphenyl-d14 (Surr)	89		27 - 123	06/06/19 23:33	06/07/19 10:22	1
2-Fluorobiphenyl	70		29 - 107	06/06/19 23:33	06/07/19 10:22	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.081	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:20	1
Aroclor 1221	0.011	U	0.081	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:20	1
Aroclor 1232	0.011	U	0.081	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:20	1
Aroclor 1242	0.011	U	0.081	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:20	1
Aroclor 1248	0.011	U	0.081	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:20	1
Aroclor 1254	0.011	U	0.081	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:20	1
Aroclor 1260	0.011	U	0.081	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:20	1
Aroclor-1262	0.011	U	0.081	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:20	1
Aroclor 1268	0.011	U	0.081	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:20	1
Polychlorinated biphenyls, Total	0.011	U	0.081	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	106		53 - 150	06/06/19 23:58	06/07/19 12:20	1
DCB Decachlorobiphenyl	105		53 - 150	06/06/19 23:58	06/07/19 12:20	1

Client Sample ID: WP-SB-BK48-K-L-0-060619

Lab Sample ID: 460-183685-5
Date Collected: 06/06/19 13:45
Matrix: Solid
Date Received: 06/06/19 19:00
Percent Solids: 72.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.25	J	0.45	0.024	mg/Kg	☼	06/06/19 23:33	06/07/19 08:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	66		25 - 113	06/06/19 23:33	06/07/19 08:43	1
Terphenyl-d14 (Surr)	89		27 - 123	06/06/19 23:33	06/07/19 08:43	1
2-Fluorobiphenyl	75		29 - 107	06/06/19 23:33	06/07/19 08:43	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.092	0.012	mg/Kg	☼	06/06/19 23:58	06/07/19 14:04	1
Aroclor 1221	0.012	U	0.092	0.012	mg/Kg	☼	06/06/19 23:58	06/07/19 14:04	1
Aroclor 1232	0.012	U	0.092	0.012	mg/Kg	☼	06/06/19 23:58	06/07/19 14:04	1
Aroclor 1242	0.012	U	0.092	0.012	mg/Kg	☼	06/06/19 23:58	06/07/19 14:04	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183685-1

Client Sample ID: WP-SB-BK48-K-L-0-060619

Lab Sample ID: 460-183685-5

Date Collected: 06/06/19 13:45
Date Received: 06/06/19 19:00

Matrix: Solid
Percent Solids: 72.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.012	U	0.092	0.012	mg/Kg	☼	06/06/19 23:58	06/07/19 14:04	1
Aroclor 1254	0.013	U	0.092	0.013	mg/Kg	☼	06/06/19 23:58	06/07/19 14:04	1
Aroclor 1260	0.013	U	0.092	0.013	mg/Kg	☼	06/06/19 23:58	06/07/19 14:04	1
Aroclor-1262	0.013	U	0.092	0.013	mg/Kg	☼	06/06/19 23:58	06/07/19 14:04	1
Aroclor 1268	0.013	U	0.092	0.013	mg/Kg	☼	06/06/19 23:58	06/07/19 14:04	1
Polychlorinated biphenyls, Total	0.013	U	0.092	0.013	mg/Kg	☼	06/06/19 23:58	06/07/19 14:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*114*		*53 - 150*	*06/06/19 23:58*	*06/07/19 14:04*	*1*
DCB Decachlorobiphenyl	*106*		*53 - 150*	*06/06/19 23:58*	*06/07/19 14:04*	*1*

Client Sample ID: WP-ST-BK48-J-K-0-060619

Lab Sample ID: 460-183685-6

Date Collected: 06/06/19 14:10
Date Received: 06/06/19 19:00

Matrix: Solid
Percent Solids: 21.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	110	J	7.6	0.40	mg/Kg	☼	06/06/19 23:33	06/07/19 10:46	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*64*		*25 - 113*	*06/06/19 23:33*	*06/07/19 10:46*	*5*
Terphenyl-d14 (Surr)	*82*		*27 - 123*	*06/06/19 23:33*	*06/07/19 10:46*	*5*
2-Fluorobiphenyl	*65*		*29 - 107*	*06/06/19 23:33*	*06/07/19 10:46*	*5*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.20	U J	1.5	0.20	mg/Kg	☼	06/06/19 23:58	06/07/19 14:30	5
Aroclor 1221	0.20	U	1.5	0.20	mg/Kg	☼	06/06/19 23:58	06/07/19 14:30	5
Aroclor 1232	0.20	U	1.5	0.20	mg/Kg	☼	06/06/19 23:58	06/07/19 14:30	5
Aroclor 1242	0.20	U	1.5	0.20	mg/Kg	☼	06/06/19 23:58	06/07/19 14:30	5
Aroclor 1248	12	J	1.5	0.20	mg/Kg	☼	06/06/19 23:58	06/07/19 14:30	5
Aroclor 1254	0.21	U J	1.5	0.21	mg/Kg	☼	06/06/19 23:58	06/07/19 14:30	5
Aroclor 1260	0.21	U	1.5	0.21	mg/Kg	☼	06/06/19 23:58	06/07/19 14:30	5
Aroclor-1262	0.21	U	1.5	0.21	mg/Kg	☼	06/06/19 23:58	06/07/19 14:30	5
Aroclor 1268	0.21	U	1.5	0.21	mg/Kg	☼	06/06/19 23:58	06/07/19 14:30	5
Polychlorinated biphenyls, Total	12	J	1.5	0.21	mg/Kg	☼	06/06/19 23:58	06/07/19 14:30	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*138*		*53 - 150*	*06/06/19 23:58*	*06/07/19 14:30*	*5*
DCB Decachlorobiphenyl	*131*		*53 - 150*	*06/06/19 23:58*	*06/07/19 14:30*	*5*

Client Sample ID: WP-PBC-BN28-C-D-0-060619

Lab Sample ID: 460-183685-7

Date Collected: 06/06/19 14:45
Date Received: 06/06/19 19:00

Matrix: Solid
Percent Solids: 84.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.72		0.39	0.021	mg/Kg	☼	06/06/19 23:33	06/07/19 09:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*63*		*25 - 113*	*06/06/19 23:33*	*06/07/19 09:17*	*1*
Terphenyl-d14 (Surr)	*90*		*27 - 123*	*06/06/19 23:33*	*06/07/19 09:17*	*1*

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183685-1

Client Sample ID: WP-PBC-BN28-C-D-0-060619

Date Collected: 06/06/19 14:45
Date Received: 06/06/19 19:00

Lab Sample ID: 460-183685-7
Matrix: Solid
Percent Solids: 84.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	70		29 - 107	06/06/19 23:33	06/07/19 09:17	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.079	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 13:40	1
Aroclor 1221	0.011	U	0.079	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 13:40	1
Aroclor 1232	0.011	U	0.079	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 13:40	1
Aroclor 1242	0.011	U	0.079	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 13:40	1
Aroclor 1248	0.011	U	0.079	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 13:40	1
Aroclor 1254	0.011	U	0.079	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 13:40	1
Aroclor 1260	0.011	U	0.079	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 13:40	1
Aroclor-1262	0.011	U	0.079	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 13:40	1
Aroclor 1268	0.011	U	0.079	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 13:40	1
Polychlorinated biphenyls, Total	0.011	U	0.079	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 13:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	152	X	53 - 150	06/06/19 23:58	06/07/19 13:40	1
DCB Decachlorobiphenyl	131		53 - 150	06/06/19 23:58	06/07/19 13:40	1

Client Sample ID: WP-STC-AY42-H-I-0-060619

Date Collected: 06/06/19 15:10
Date Received: 06/06/19 19:00

Lab Sample ID: 460-183685-8
Matrix: Solid
Percent Solids: 19.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	9.1	J	1.7	0.090	mg/Kg	☼	06/06/19 23:33	06/07/19 09:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	68		25 - 113	06/06/19 23:33	06/07/19 09:34	1
Terphenyl-d14 (Surr)	90		27 - 123	06/06/19 23:33	06/07/19 09:34	1
2-Fluorobiphenyl	79		29 - 107	06/06/19 23:33	06/07/19 09:34	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.046	U J	0.34	0.046	mg/Kg	☼	06/06/19 23:58	06/07/19 13:23	1
Aroclor 1221	0.046	U	0.34	0.046	mg/Kg	☼	06/06/19 23:58	06/07/19 13:23	1
Aroclor 1232	0.046	U	0.34	0.046	mg/Kg	☼	06/06/19 23:58	06/07/19 13:23	1
Aroclor 1242	0.046	U	0.34	0.046	mg/Kg	☼	06/06/19 23:58	06/07/19 13:23	1
Aroclor 1248	0.93	J	0.34	0.046	mg/Kg	☼	06/06/19 23:58	06/07/19 13:23	1
Aroclor 1254	0.047	U J	0.34	0.047	mg/Kg	☼	06/06/19 23:58	06/07/19 13:23	1
Aroclor 1260	0.047	U	0.34	0.047	mg/Kg	☼	06/06/19 23:58	06/07/19 13:23	1
Aroclor-1262	0.047	U	0.34	0.047	mg/Kg	☼	06/06/19 23:58	06/07/19 13:23	1
Aroclor 1268	0.047	U	0.34	0.047	mg/Kg	☼	06/06/19 23:58	06/07/19 13:23	1
Polychlorinated biphenyls, Total	0.93	J	0.34	0.047	mg/Kg	☼	06/06/19 23:58	06/07/19 13:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	150		53 - 150	06/06/19 23:58	06/07/19 13:23	1
DCB Decachlorobiphenyl	120		53 - 150	06/06/19 23:58	06/07/19 13:23	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183685-1

Client Sample ID: WP-PBC-BN22-C-D-0-060619

Date Collected: 06/06/19 16:25
Date Received: 06/06/19 19:00

Lab Sample ID: 460-183685-9
Matrix: Solid
Percent Solids: 81.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.022	U	0.41	0.022	mg/Kg	☼	06/06/19 23:33	06/07/19 09:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*69*		*25 - 113*	*06/06/19 23:33*	*06/07/19 09:50*	*1*
Terphenyl-d14 (Surr)	*95*		*27 - 123*	*06/06/19 23:33*	*06/07/19 09:50*	*1*
2-Fluorobiphenyl	*75*		*29 - 107*	*06/06/19 23:33*	*06/07/19 09:50*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.082	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:49	1
Aroclor 1221	0.011	U	0.082	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:49	1
Aroclor 1232	0.011	U	0.082	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:49	1
Aroclor 1242	0.011	U	0.082	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:49	1
Aroclor 1248	0.011	U	0.082	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:49	1
Aroclor 1254	0.011	U	0.082	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:49	1
Aroclor 1260	0.011	U	0.082	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:49	1
Aroclor-1262	0.011	U	0.082	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:49	1
Aroclor 1268	0.011	U	0.082	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:49	1
Polychlorinated biphenyls, Total	0.011	U	0.082	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*144*		*53 - 150*	*06/06/19 23:58*	*06/07/19 12:49*	*1*
DCB Decachlorobiphenyl	*117*		*53 - 150*	*06/06/19 23:58*	*06/07/19 12:49*	*1*

Client Sample ID: WP-STC-BH14-G-H-0-060619

Date Collected: 06/06/19 16:40
Date Received: 06/06/19 19:00

Lab Sample ID: 460-183685-10
Matrix: Solid
Percent Solids: 82.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.11	J	0.40	0.021	mg/Kg	☼	06/06/19 23:33	06/07/19 10:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*71*		*25 - 113*	*06/06/19 23:33*	*06/07/19 10:07*	*1*
Terphenyl-d14 (Surr)	*90*		*27 - 123*	*06/06/19 23:33*	*06/07/19 10:07*	*1*
2-Fluorobiphenyl	*77*		*29 - 107*	*06/06/19 23:33*	*06/07/19 10:07*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.082	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:32	1
Aroclor 1221	0.011	U	0.082	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:32	1
Aroclor 1232	0.011	U	0.082	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:32	1
Aroclor 1242	0.011	U	0.082	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:32	1
Aroclor 1248	0.011	U	0.082	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:32	1
Aroclor 1254	0.011	U	0.082	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:32	1
Aroclor 1260	0.011	U	0.082	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:32	1
Aroclor-1262	0.011	U	0.082	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:32	1
Aroclor 1268	0.011	U	0.082	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:32	1
Polychlorinated biphenyls, Total	0.011	U	0.082	0.011	mg/Kg	☼	06/06/19 23:58	06/07/19 12:32	1

YY 8/1/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183685-1

Client Sample ID: WP-STC-BH14-G-H-0-060619

Lab Sample ID: 460-183685-10
Date Collected: 06/06/19 16:40
Matrix: Solid
Date Received: 06/06/19 19:00
Percent Solids: 82.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	150		53 - 150	06/06/19 23:58	06/07/19 12:32	1
DCB Decachlorobiphenyl	131		53 - 150	06/06/19 23:58	06/07/19 12:32	1

Client Sample ID: WP-STC-BH13-A-B-0-060619

Lab Sample ID: 460-183685-11
Date Collected: 06/06/19 17:15
Matrix: Solid
Date Received: 06/06/19 19:00
Percent Solids: 28.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.42	J	1.2	0.062	mg/Kg	☼	06/06/19 23:33	06/07/19 10:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	72		25 - 113	06/06/19 23:33	06/07/19 10:24	1
Terphenyl-d14 (Surr)	91		27 - 123	06/06/19 23:33	06/07/19 10:24	1
2-Fluorobiphenyl	80		29 - 107	06/06/19 23:33	06/07/19 10:24	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.032	U J	0.24	0.032	mg/Kg	☼	06/06/19 23:58	06/07/19 12:15	1
Aroclor 1221	0.032	U	0.24	0.032	mg/Kg	☼	06/06/19 23:58	06/07/19 12:15	1
Aroclor 1232	0.032	U	0.24	0.032	mg/Kg	☼	06/06/19 23:58	06/07/19 12:15	1
Aroclor 1242	0.032	U	0.24	0.032	mg/Kg	☼	06/06/19 23:58	06/07/19 12:15	1
Aroclor 1248	1.1	J	0.24	0.032	mg/Kg	☼	06/06/19 23:58	06/07/19 12:15	1
Aroclor 1254	0.033	U J	0.24	0.033	mg/Kg	☼	06/06/19 23:58	06/07/19 12:15	1
Aroclor 1260	0.033	U	0.24	0.033	mg/Kg	☼	06/06/19 23:58	06/07/19 12:15	1
Aroclor-1262	0.033	U	0.24	0.033	mg/Kg	☼	06/06/19 23:58	06/07/19 12:15	1
Aroclor 1268	0.033	U	0.24	0.033	mg/Kg	☼	06/06/19 23:58	06/07/19 12:15	1
Polychlorinated biphenyls, Total	1.1	J	0.24	0.033	mg/Kg	☼	06/06/19 23:58	06/07/19 12:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	161	X	53 - 150	06/06/19 23:58	06/07/19 12:15	1
DCB Decachlorobiphenyl	134		53 - 150	06/06/19 23:58	06/07/19 12:15	1

Client Sample ID: WP-STC-BN14-A-B-0-060619

Lab Sample ID: 460-183685-12
Date Collected: 06/06/19 17:35
Matrix: Solid
Date Received: 06/06/19 19:00
Percent Solids: 32.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	4.9		1.0	0.055	mg/Kg	☼	06/06/19 23:33	06/07/19 10:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	74		25 - 113	06/06/19 23:33	06/07/19 10:41	1
Terphenyl-d14 (Surr)	90		27 - 123	06/06/19 23:33	06/07/19 10:41	1
2-Fluorobiphenyl	81		29 - 107	06/06/19 23:33	06/07/19 10:41	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.028	U	0.21	0.028	mg/Kg	☼	06/06/19 23:58	06/07/19 14:26	1
Aroclor 1221	0.028	U	0.21	0.028	mg/Kg	☼	06/06/19 23:58	06/07/19 14:26	1
Aroclor 1232	0.028	U	0.21	0.028	mg/Kg	☼	06/06/19 23:58	06/07/19 14:26	1
Aroclor 1242	0.028	U	0.21	0.028	mg/Kg	☼	06/06/19 23:58	06/07/19 14:26	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183685-1

Client Sample ID: WP-STC-BN14-A-B-0-060619

Lab Sample ID: 460-183685-12

Date Collected: 06/06/19 17:35
Date Received: 06/06/19 19:00

Matrix: Solid
Percent Solids: 32.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	2.5		0.21	0.028	mg/Kg	☼	06/06/19 23:58	06/07/19 14:26	1
Aroclor 1254	0.029	U	0.21	0.029	mg/Kg	☼	06/06/19 23:58	06/07/19 14:26	1
Aroclor 1260	0.029	U	0.21	0.029	mg/Kg	☼	06/06/19 23:58	06/07/19 14:26	1
Aroclor-1262	0.029	U	0.21	0.029	mg/Kg	☼	06/06/19 23:58	06/07/19 14:26	1
Aroclor 1268	0.029	U	0.21	0.029	mg/Kg	☼	06/06/19 23:58	06/07/19 14:26	1
Polychlorinated biphenyls, Total	2.5		0.21	0.029	mg/Kg	☼	06/06/19 23:58	06/07/19 14:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*129*		*53 - 150*	*06/06/19 23:58*	*06/07/19 14:26*	*1*
DCB Decachlorobiphenyl	*116*		*53 - 150*	*06/06/19 23:58*	*06/07/19 14:26*	*1*

Client Sample ID: WP-STC-BN14-C-D-0-060619

Lab Sample ID: 460-183685-13

Date Collected: 06/06/19 17:40
Date Received: 06/06/19 19:00

Matrix: Solid
Percent Solids: 79.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.084	0.011	mg/Kg	☼	06/10/19 20:21	06/11/19 08:32	1
Aroclor 1221	0.011	U	0.084	0.011	mg/Kg	☼	06/10/19 20:21	06/11/19 08:32	1
Aroclor 1232	0.011	U	0.084	0.011	mg/Kg	☼	06/10/19 20:21	06/11/19 08:32	1
Aroclor 1242	0.011	U	0.084	0.011	mg/Kg	☼	06/10/19 20:21	06/11/19 08:32	1
Aroclor 1248	1.1		0.084	0.011	mg/Kg	☼	06/10/19 20:21	06/11/19 08:32	1
Aroclor 1254	0.012	U	0.084	0.012	mg/Kg	☼	06/10/19 20:21	06/11/19 08:32	1
Aroclor 1260	0.012	U	0.084	0.012	mg/Kg	☼	06/10/19 20:21	06/11/19 08:32	1
Aroclor-1262	0.012	U	0.084	0.012	mg/Kg	☼	06/10/19 20:21	06/11/19 08:32	1
Aroclor 1268	0.012	U	0.084	0.012	mg/Kg	☼	06/10/19 20:21	06/11/19 08:32	1
Polychlorinated biphenyls, Total	1.1		0.084	0.012	mg/Kg	☼	06/10/19 20:21	06/11/19 08:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*128*		*53 - 150*	*06/10/19 20:21*	*06/11/19 08:32*	*1*
DCB Decachlorobiphenyl	*129*		*53 - 150*	*06/10/19 20:21*	*06/11/19 08:32*	*1*

Client Sample ID: WP-STC-BK14-A-B-0-060619

Lab Sample ID: 460-183685-14

Date Collected: 06/06/19 17:55
Date Received: 06/06/19 19:00

Matrix: Solid
Percent Solids: 35.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.40	J	0.93	0.049	mg/Kg	☼	06/06/19 23:33	06/07/19 11:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*68*		*25 - 113*	*06/06/19 23:33*	*06/07/19 11:10*	*1*
Terphenyl-d14 (Surr)	*84*		*27 - 123*	*06/06/19 23:33*	*06/07/19 11:10*	*1*
2-Fluorobiphenyl	*76*		*29 - 107*	*06/06/19 23:33*	*06/07/19 11:10*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.025	U	0.19	0.025	mg/Kg	☼	06/06/19 23:58	06/07/19 11:41	1
Aroclor 1221	0.025	U	0.19	0.025	mg/Kg	☼	06/06/19 23:58	06/07/19 11:41	1
Aroclor 1232	0.025	U	0.19	0.025	mg/Kg	☼	06/06/19 23:58	06/07/19 11:41	1
Aroclor 1242	0.025	U	0.19	0.025	mg/Kg	☼	06/06/19 23:58	06/07/19 11:41	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-183685-1

Client Sample ID: WP-STC-BK14-A-B-0-060619

Date Collected: 06/06/19 17:55
Date Received: 06/06/19 19:00

Lab Sample ID: 460-183685-14
Matrix: Solid
Percent Solids: 35.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.63		0.19	0.025	mg/Kg	☼	06/06/19 23:58	06/07/19 11:41	1
Aroclor 1254	0.026	U	0.19	0.026	mg/Kg	☼	06/06/19 23:58	06/07/19 11:41	1
Aroclor 1260	0.026	U	0.19	0.026	mg/Kg	☼	06/06/19 23:58	06/07/19 11:41	1
Aroclor-1262	0.026	U	0.19	0.026	mg/Kg	☼	06/06/19 23:58	06/07/19 11:41	1
Aroclor 1268	0.026	U	0.19	0.026	mg/Kg	☼	06/06/19 23:58	06/07/19 11:41	1
Polychlorinated biphenyls, Total	0.63		0.19	0.026	mg/Kg	☼	06/06/19 23:58	06/07/19 11:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*162*	*X*	*53 - 150*	*06/06/19 23:58*	*06/07/19 11:41*	*1*
DCB Decachlorobiphenyl	*132*		*53 - 150*	*06/06/19 23:58*	*06/07/19 11:41*	*1*

Client Sample ID: WP-FB-060619

Date Collected: 06/06/19 18:10
Date Received: 06/06/19 19:00

Lab Sample ID: 460-183685-15
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		06/07/19 04:18	06/07/19 05:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*89*		*51 - 108*	*06/07/19 04:18*	*06/07/19 05:07*	*1*
Terphenyl-d14 (Surr)	*103*		*40 - 148*	*06/07/19 04:18*	*06/07/19 05:07*	*1*
2-Fluorobiphenyl	*89*		*45 - 107*	*06/07/19 04:18*	*06/07/19 05:07*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		06/06/19 21:26	06/07/19 13:06	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		06/06/19 21:26	06/07/19 13:06	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		06/06/19 21:26	06/07/19 13:06	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		06/06/19 21:26	06/07/19 13:06	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		06/06/19 21:26	06/07/19 13:06	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		06/06/19 21:26	06/07/19 13:06	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		06/06/19 21:26	06/07/19 13:06	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		06/06/19 21:26	06/07/19 13:06	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		06/06/19 21:26	06/07/19 13:06	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		06/06/19 21:26	06/07/19 13:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*95*		*10 - 150*	*06/06/19 21:26*	*06/07/19 13:06*	*1*
DCB Decachlorobiphenyl	*87*		*10 - 150*	*06/06/19 21:26*	*06/07/19 13:06*	*1*

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DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-183752

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/5/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on June 7, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-STC-BN18-F-G-0-060719	460-183752-1	Sediment	PCBs, BEHP*
WP-STC-BN18-H-I-0-060719	460-183752-2	Sediment	PCBs, BEHP*
WP-STC-BK18-F-G-0-060719	460-183752-3	Sediment	PCBs, BEHP*
WP-STC-BK18-F-G-1-060719[1]	460-183752-4	Sediment	PCBs, BEHP*
WP-STC-BH17-H-I-0-060719	460-183752-5	Sediment	PCBs, BEHP*
WP-STC-BH17-F-G-0-060719	460-183752-6	Sediment	PCBs, BEHP*
WP-STC-BK15-F-G-0-060719	460-183752-7	Sediment	PCBs, BEHP*
WP-STC-BN15-F-G-0-060719	460-183752-8	Sediment	PCBs, BEHP*
WP-FB-060719	460-183752-9	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

[1]Field duplicate of WP-STC-BK18-F-G-0-060719

General Comments

The laboratory submitted a NJDEP full data deliverable for the requested analyses. The data package contains required elements. The analyses of samples WP-STC-BN18-H-I-0-060719 and

WP-STC-BH17-H-I-0-060719 were placed on hold upon lab receipt but were later canceled on June 11, 2019.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The recovery of surrogate compound nitrobenzene-d5 exceeded the laboratory-established control limit for field blank WP-FB-060719. Since the recoveries of the other two surrogate compounds were within control limits and BEHP was not detected in the field blank, data qualification was not required.

The MS/MSD analyses were performed on samples WP-STC-BN18-F-G-0-060719 and WP-STC-BH17-F-G-0-060719, and yielded low recoveries of BEHP. However, the precision results were within the laboratory-established control limit. The positive BEHP results were estimated (J) for potential low bias for samples WP-STC-BN18-F-G-0-060719 and WP-STC-BH17-F-G-0-060719.

The analyses of sample WP-STC-BK18-F-G-0-060719 and its field duplicate WP-STC-BK18-F-G-1-060719 yielded incomparable BEHP results (RPD=92.7%). Both BEHP results were estimated (J).

PCBs

None required data qualifications.

The MS/MSD analyses were performed on samples WP-STC-BN18-F-G-0-060719 and WP-STC-BH17-F-G-0-060719 and yielded acceptable accuracy and precision results.

The analyses of sample WP-STC-BK18-F-G-0-060719 and its field duplicate WP-STC-BK18-F-G-1-060719 yielded comparable Aroclor results.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Although some target analyte results were estimated (J) due to non-compliant QC results, these non-compliances did not warrant data rejections. All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Ford

Job ID: 460-183752-1

Client Sample ID: WP-STC-BN18-F-G-0-060719

Date Collected: 06/07/19 10:05
Date Received: 06/07/19 13:57

Lab Sample ID: 460-183752-1

Matrix: Solid
Percent Solids: 61.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.1	~~F1~~ J	0.54	0.029	mg/Kg	☼	06/07/19 20:33	06/08/19 03:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*51*		*25 - 113*	*06/07/19 20:33*	*06/08/19 03:06*	*1*
Terphenyl-d14 (Surr)	*72*		*27 - 123*	*06/07/19 20:33*	*06/08/19 03:06*	*1*
2-Fluorobiphenyl	*56*		*29 - 107*	*06/07/19 20:33*	*06/08/19 03:06*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/10/19 07:14	1
Aroclor 1221	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/10/19 07:14	1
Aroclor 1232	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/10/19 07:14	1
Aroclor 1242	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/10/19 07:14	1
Aroclor 1248	0.21		0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/10/19 07:14	1
Aroclor 1254	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/10/19 07:14	1
Aroclor 1260	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/10/19 07:14	1
Aroclor-1262	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/10/19 07:14	1
Aroclor 1268	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/10/19 07:14	1
Polychlorinated biphenyls, Total	0.21		0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/10/19 07:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*124*		*53 - 150*	*06/07/19 22:14*	*06/10/19 07:14*	*1*
DCB Decachlorobiphenyl	*120*		*53 - 150*	*06/07/19 22:14*	*06/10/19 07:14*	*1*

Client Sample ID: WP-STC-BK18-F-G-0-060719

Date Collected: 06/07/19 10:45
Date Received: 06/07/19 13:57

Lab Sample ID: 460-183752-3

Matrix: Solid
Percent Solids: 77.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.44	J	0.43	0.023	mg/Kg	☼	06/07/19 20:33	06/08/19 05:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*52*		*25 - 113*	*06/07/19 20:33*	*06/08/19 05:25*	*1*
Terphenyl-d14 (Surr)	*62*		*27 - 123*	*06/07/19 20:33*	*06/08/19 05:25*	*1*
2-Fluorobiphenyl	*47*		*29 - 107*	*06/07/19 20:33*	*06/08/19 05:25*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.087	0.012	mg/Kg	☼	06/07/19 22:14	06/08/19 13:31	1
Aroclor 1221	0.012	U	0.087	0.012	mg/Kg	☼	06/07/19 22:14	06/08/19 13:31	1
Aroclor 1232	0.012	U	0.087	0.012	mg/Kg	☼	06/07/19 22:14	06/08/19 13:31	1
Aroclor 1242	0.012	U	0.087	0.012	mg/Kg	☼	06/07/19 22:14	06/08/19 13:31	1
Aroclor 1248	0.11		0.087	0.012	mg/Kg	☼	06/07/19 22:14	06/08/19 13:31	1
Aroclor 1254	0.012	U	0.087	0.012	mg/Kg	☼	06/07/19 22:14	06/08/19 13:31	1
Aroclor 1260	0.012	U	0.087	0.012	mg/Kg	☼	06/07/19 22:14	06/08/19 13:31	1
Aroclor-1262	0.012	U	0.087	0.012	mg/Kg	☼	06/07/19 22:14	06/08/19 13:31	1
Aroclor 1268	0.012	U	0.087	0.012	mg/Kg	☼	06/07/19 22:14	06/08/19 13:31	1
Polychlorinated biphenyls, Total	0.11		0.087	0.012	mg/Kg	☼	06/07/19 22:14	06/08/19 13:31	1

YY 8/5/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Ford

Job ID: 460-183752-1

Client Sample ID: WP-STC-BK18-F-G-0-060719

Lab Sample ID: 460-183752-3
Date Collected: 06/07/19 10:45
Matrix: Solid
Date Received: 06/07/19 13:57
Percent Solids: 77.2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	103		53 - 150	06/07/19 22:14	06/08/19 13:31	1
DCB Decachlorobiphenyl	110		53 - 150	06/07/19 22:14	06/08/19 13:31	1

Client Sample ID: WP-STC-BK18-F-G-1-060719

FD

Lab Sample ID: 460-183752-4
Date Collected: 06/07/19 10:45
Matrix: Solid
Date Received: 06/07/19 13:57
Percent Solids: 82.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.2	J	0.40	0.021	mg/Kg	☼	06/07/19 20:33	06/08/19 05:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	79		25 - 113	06/07/19 20:33	06/08/19 05:48	1
Terphenyl-d14 (Surr)	90		27 - 123	06/07/19 20:33	06/08/19 05:48	1
2-Fluorobiphenyl	71		29 - 107	06/07/19 20:33	06/08/19 05:48	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.081	0.011	mg/Kg	☼	06/07/19 22:14	06/08/19 13:55	1
Aroclor 1221	0.011	U	0.081	0.011	mg/Kg	☼	06/07/19 22:14	06/08/19 13:55	1
Aroclor 1232	0.011	U	0.081	0.011	mg/Kg	☼	06/07/19 22:14	06/08/19 13:55	1
Aroclor 1242	0.011	U	0.081	0.011	mg/Kg	☼	06/07/19 22:14	06/08/19 13:55	1
Aroclor 1248	0.11		0.081	0.011	mg/Kg	☼	06/07/19 22:14	06/08/19 13:55	1
Aroclor 1254	0.011	U	0.081	0.011	mg/Kg	☼	06/07/19 22:14	06/08/19 13:55	1
Aroclor 1260	0.011	U	0.081	0.011	mg/Kg	☼	06/07/19 22:14	06/08/19 13:55	1
Aroclor-1262	0.011	U	0.081	0.011	mg/Kg	☼	06/07/19 22:14	06/08/19 13:55	1
Aroclor 1268	0.011	U	0.081	0.011	mg/Kg	☼	06/07/19 22:14	06/08/19 13:55	1
Polychlorinated biphenyls, Total	0.11		0.081	0.011	mg/Kg	☼	06/07/19 22:14	06/08/19 13:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	104		53 - 150	06/07/19 22:14	06/08/19 13:55	1
DCB Decachlorobiphenyl	112		53 - 150	06/07/19 22:14	06/08/19 13:55	1

Client Sample ID: WP-STC-BH17-F-G-0-060719

Lab Sample ID: 460-183752-6
Date Collected: 06/07/19 11:10
Matrix: Solid
Date Received: 06/07/19 13:57
Percent Solids: 61.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.68	~~F1~~ J	0.54	0.029	mg/Kg	☼	06/07/19 20:33	06/08/19 04:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	79		25 - 113	06/07/19 20:33	06/08/19 04:16	1
Terphenyl-d14 (Surr)	79		27 - 123	06/07/19 20:33	06/08/19 04:16	1
2-Fluorobiphenyl	71		29 - 107	06/07/19 20:33	06/08/19 04:16	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/08/19 12:21	1
Aroclor 1221	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/08/19 12:21	1
Aroclor 1232	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/08/19 12:21	1
Aroclor 1242	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/08/19 12:21	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Ford

Job ID: 460-183752-1

Client Sample ID: WP-STC-BH17-F-G-0-060719

Lab Sample ID: 460-183752-6
Date Collected: 06/07/19 11:10
Matrix: Solid
Date Received: 06/07/19 13:57
Percent Solids: 61.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/08/19 12:21	1
Aroclor 1254	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/08/19 12:21	1
Aroclor 1260	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/08/19 12:21	1
Aroclor-1262	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/08/19 12:21	1
Aroclor 1268	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/08/19 12:21	1
Polychlorinated biphenyls, Total	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/08/19 12:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*107*		*53 - 150*	*06/07/19 22:14*	*06/08/19 12:21*	*1*
DCB Decachlorobiphenyl	*115*		*53 - 150*	*06/07/19 22:14*	*06/08/19 12:21*	*1*

Client Sample ID: WP-STC-BK15-F-G-0-060719

Lab Sample ID: 460-183752-7
Date Collected: 06/07/19 12:10
Matrix: Solid
Date Received: 06/07/19 13:57
Percent Solids: 67.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.49		0.49	0.026	mg/Kg	☼	06/07/19 20:33	06/08/19 06:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*59*		*25 - 113*	*06/07/19 20:33*	*06/08/19 06:11*	*1*
Terphenyl-d14 (Surr)	*67*		*27 - 123*	*06/07/19 20:33*	*06/08/19 06:11*	*1*
2-Fluorobiphenyl	*57*		*29 - 107*	*06/07/19 20:33*	*06/08/19 06:11*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.099	0.013	mg/Kg	☼	06/07/19 22:14	06/08/19 14:19	1
Aroclor 1221	0.013	U	0.099	0.013	mg/Kg	☼	06/07/19 22:14	06/08/19 14:19	1
Aroclor 1232	0.013	U	0.099	0.013	mg/Kg	☼	06/07/19 22:14	06/08/19 14:19	1
Aroclor 1242	0.013	U	0.099	0.013	mg/Kg	☼	06/07/19 22:14	06/08/19 14:19	1
Aroclor 1248	0.013	U	0.099	0.013	mg/Kg	☼	06/07/19 22:14	06/08/19 14:19	1
Aroclor 1254	0.014	U	0.099	0.014	mg/Kg	☼	06/07/19 22:14	06/08/19 14:19	1
Aroclor 1260	0.014	U	0.099	0.014	mg/Kg	☼	06/07/19 22:14	06/08/19 14:19	1
Aroclor-1262	0.014	U	0.099	0.014	mg/Kg	☼	06/07/19 22:14	06/08/19 14:19	1
Aroclor 1268	0.014	U	0.099	0.014	mg/Kg	☼	06/07/19 22:14	06/08/19 14:19	1
Polychlorinated biphenyls, Total	0.014	U	0.099	0.014	mg/Kg	☼	06/07/19 22:14	06/08/19 14:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*109*		*53 - 150*	*06/07/19 22:14*	*06/08/19 14:19*	*1*
DCB Decachlorobiphenyl	*115*		*53 - 150*	*06/07/19 22:14*	*06/08/19 14:19*	*1*

Client Sample ID: WP-STC-BN15-F-G-0-060719

Lab Sample ID: 460-183752-8
Date Collected: 06/07/19 12:35
Matrix: Solid
Date Received: 06/07/19 13:57
Percent Solids: 61.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.16	J	0.53	0.028	mg/Kg	☼	06/07/19 20:33	06/08/19 06:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*61*		*25 - 113*	*06/07/19 20:33*	*06/08/19 06:34*	*1*
Terphenyl-d14 (Surr)	*73*		*27 - 123*	*06/07/19 20:33*	*06/08/19 06:34*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Ford

Job ID: 460-183752-1

Client Sample ID: WP-STC-BN15-F-G-0-060719

Lab Sample ID: 460-183752-8

Date Collected: 06/07/19 12:35
Date Received: 06/07/19 13:57

Matrix: Solid
Percent Solids: 61.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	61		29 - 107	06/07/19 20:33	06/08/19 06:34	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.014	U	0.11	0.014	mg/Kg	☼	06/07/19 22:14	06/08/19 14:42	1
Aroclor 1221	0.014	U	0.11	0.014	mg/Kg	☼	06/07/19 22:14	06/08/19 14:42	1
Aroclor 1232	0.014	U	0.11	0.014	mg/Kg	☼	06/07/19 22:14	06/08/19 14:42	1
Aroclor 1242	0.014	U	0.11	0.014	mg/Kg	☼	06/07/19 22:14	06/08/19 14:42	1
Aroclor 1248	0.014	U	0.11	0.014	mg/Kg	☼	06/07/19 22:14	06/08/19 14:42	1
Aroclor 1254	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/08/19 14:42	1
Aroclor 1260	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/08/19 14:42	1
Aroclor-1262	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/08/19 14:42	1
Aroclor 1268	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/08/19 14:42	1
Polychlorinated biphenyls, Total	0.015	U	0.11	0.015	mg/Kg	☼	06/07/19 22:14	06/08/19 14:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	125		53 - 150	06/07/19 22:14	06/08/19 14:42	1
DCB Decachlorobiphenyl	130		53 - 150	06/07/19 22:14	06/08/19 14:42	1

Client Sample ID: WP-FB-060719

Lab Sample ID: 460-183752-9

Date Collected: 06/07/19 12:45
Date Received: 06/07/19 13:57

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		06/08/19 07:38	06/09/19 06:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	110	X	51 - 108	06/08/19 07:38	06/09/19 06:54	1
Terphenyl-d14 (Surr)	118		40 - 148	06/08/19 07:38	06/09/19 06:54	1
2-Fluorobiphenyl	107		45 - 107	06/08/19 07:38	06/09/19 06:54	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		06/08/19 15:59	06/09/19 10:00	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		06/08/19 15:59	06/09/19 10:00	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		06/08/19 15:59	06/09/19 10:00	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		06/08/19 15:59	06/09/19 10:00	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		06/08/19 15:59	06/09/19 10:00	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		06/08/19 15:59	06/09/19 10:00	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		06/08/19 15:59	06/09/19 10:00	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		06/08/19 15:59	06/09/19 10:00	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		06/08/19 15:59	06/09/19 10:00	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		06/08/19 15:59	06/09/19 10:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	55		10 - 150	06/08/19 15:59	06/09/19 10:00	1
DCB Decachlorobiphenyl	61		10 - 150	06/08/19 15:59	06/09/19 10:00	1

YY 8/5/19

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-184053

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/19/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on June 11, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-PB-BN46-K-L-0-061119	460-184053-1	Sediment	PCBs, BEHP*
WP-PBC-BN46-C-D-0-061119	460-184053-2	Sediment	PCBs, BEHP*
WP-SB-BN48-K-L-0-061119	460-184053-3	Sediment	PCBs, BEHP*
WP-ST-BN48-E-F-0-061119	460-184053-4	Sediment	PCBs, BEHP*
WP-SB-BP48-K-L-0-061119	460-184053-5	Sediment	PCBs, BEHP*
WP-ST-BP48-F-G-0-061119	460-184053-6	Sediment	PCBs, BEHP*
WP-PB-BN43-K-L-0-061119	460-184053-7	Sediment	PCBs, BEHP*
WP-PBC-BN43-C-D-0-061119	460-184053-8	Sediment	PCBs, BEHP*
WP-SB-BP43-K-L-0-061119	460-184053-9	Sediment	PCBs, BEHP*
WP-ST-BP43-J-K-0-061119	460-184053-10	Sediment	PCBs, BEHP*
WP-SB-BP46-K-L-0-061119	460-184053-11	Sediment	PCBs, BEHP*
WP-SB-BP46-K-L-1-061119[1]	460-184053-12	Sediment	PCBs, BEHP*
WP-ST-BP46-H-I-0-061119	460-184053-13	Sediment	PCBs, BEHP*
WP-FB-061119	460-184053-14	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

[1]Field duplicate of WP-SB-BP46-K-L-0-061119

General Comments

The laboratory submitted a NJDEP full data deliverable for the requested analyses. The data package contains required elements. The analyses of samples WP-PBC-BN46-C-D-0-061119 and WP-PBC-BN43-C-D-0-061119 were placed on hold upon lab receipt. On June 13, 2019, the BEHP analysis of sample WP-PBC-BN46-C-D-0-061119 and the PCB analysis of WP-PBC-BN43-C-D-0-061119 were activated.

The solid content of sediment sample WP-PB-BN43-K-L-0-061119 was >10% but <30%; all positive and non-detect results were estimated (J/UJ). It should be noted that the solid contents of WP-SB-BP46-K-L-0-061119 (64.2%) and its field duplicate WP-SB-BP46-K-L-1-061119 (39.4%) were incomparable. The sampling team confirmed that WP-SB-BP46-K-L-1-061119 was indeed a duplicate of WP-SB-BP46-K-L-0-061119.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The MS/MSD analyses were performed on sample WP-PB-BN43-K-L-0-061119 and yielded acceptable accuracy and precision results.

The analyses of WP-SB-BP46-K-L-0-061119 and its field duplicate WP-SB-BP46-K-L-1-061119 yielded incomparable BEHP results (RPD=101%). Both results were estimated (J) for unknown bias.

Dilution analyses were performed for samples WP-SB-BP48-K-L-0-061119 (25-fold), WP-SB-BP46-K-L-0-061119 (2-fold), and WP-SB-BP46-K-L-1-061119 (5-fold). The quantification results and reporting limit were adjusted accordingly.

PCBs

The extraction date of batch 616752 (612/2019) on the worksheet did not match that (6/11/2019) on the Form 4 and statement found in the case narrative. After being contacted, the lab stated that the start date on the worksheet should have been the end date. A revision to the worksheet was made and included in the revised lab report.

The MS/MSD analyses were performed on sample WP-PB-BN43-K-L-0-061119 and yielded acceptable precision results. The recovery of Aroclor-1016 from theCLP-2 column exceeded the control limit in the MS analysis. Since all Aroclor results had been estimated (J/UJ) for sample WP-PB-BN43-K-L-0-061119 due to low solid content, further action was not required.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Although some target analyte results were estimated (J) due to low solid contents and/or non-compliant QC results, these non-compliances did not warrant data rejections. All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184053-1

Client Sample ID: WP-PB-BN46-K-L-0-061119

Lab Sample ID: 460-184053-1
Date Collected: 06/11/19 09:40
Matrix: Solid
Date Received: 06/11/19 14:45
Percent Solids: 46.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	25		1.4	0.075	mg/Kg	☼	06/11/19 23:06	06/12/19 11:46	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*45*		*25 - 113*	*06/11/19 23:06*	*06/12/19 11:46*	*2*
Terphenyl-d14 (Surr)	*56*		*27 - 123*	*06/11/19 23:06*	*06/12/19 11:46*	*2*
2-Fluorobiphenyl	*50*		*29 - 107*	*06/11/19 23:06*	*06/12/19 11:46*	*2*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.019	U	0.14	0.019	mg/Kg	☼	06/11/19 23:21	06/12/19 15:09	1
Aroclor 1221	0.019	U	0.14	0.019	mg/Kg	☼	06/11/19 23:21	06/12/19 15:09	1
Aroclor 1232	0.019	U	0.14	0.019	mg/Kg	☼	06/11/19 23:21	06/12/19 15:09	1
Aroclor 1242	0.019	U	0.14	0.019	mg/Kg	☼	06/11/19 23:21	06/12/19 15:09	1
Aroclor 1248	0.69		0.14	0.019	mg/Kg	☼	06/11/19 23:21	06/12/19 15:09	1
Aroclor 1254	0.020	U	0.14	0.020	mg/Kg	☼	06/11/19 23:21	06/12/19 15:09	1
Aroclor 1260	0.020	U	0.14	0.020	mg/Kg	☼	06/11/19 23:21	06/12/19 15:09	1
Aroclor-1262	0.020	U	0.14	0.020	mg/Kg	☼	06/11/19 23:21	06/12/19 15:09	1
Aroclor 1268	0.020	U	0.14	0.020	mg/Kg	☼	06/11/19 23:21	06/12/19 15:09	1
Polychlorinated biphenyls, Total	0.69		0.14	0.020	mg/Kg	☼	06/11/19 23:21	06/12/19 15:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*101*		*53 - 150*	*06/11/19 23:21*	*06/12/19 15:09*	*1*
DCB Decachlorobiphenyl	*108*		*53 - 150*	*06/11/19 23:21*	*06/12/19 15:09*	*1*

Client Sample ID: WP-PBC-BN46-C-D-0-061119

Lab Sample ID: 460-184053-2
Date Collected: 06/11/19 09:45
Matrix: Solid
Date Received: 06/11/19 14:45
Percent Solids: 85.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.3		0.38	0.020	mg/Kg	☼	06/13/19 21:03	06/14/19 08:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*86*		*25 - 113*	*06/13/19 21:03*	*06/14/19 08:41*	*1*
Terphenyl-d14 (Surr)	*99*		*27 - 123*	*06/13/19 21:03*	*06/14/19 08:41*	*1*
2-Fluorobiphenyl	*82*		*29 - 107*	*06/13/19 21:03*	*06/14/19 08:41*	*1*

Client Sample ID: WP-SB-BN48-K-L-0-061119

Lab Sample ID: 460-184053-3
Date Collected: 06/11/19 10:10
Matrix: Solid
Date Received: 06/11/19 14:45
Percent Solids: 55.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.25	J	0.60	0.032	mg/Kg	☼	06/11/19 23:06	06/12/19 09:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*39*		*25 - 113*	*06/11/19 23:06*	*06/12/19 09:13*	*1*
Terphenyl-d14 (Surr)	*39*		*27 - 123*	*06/11/19 23:06*	*06/12/19 09:13*	*1*
2-Fluorobiphenyl	*40*		*29 - 107*	*06/11/19 23:06*	*06/12/19 09:13*	*1*

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184053-1

Client Sample ID: WP-SB-BN48-K-L-0-061119

Lab Sample ID: 460-184053-3

Date Collected: 06/11/19 10:10
Date Received: 06/11/19 14:45

Matrix: Solid
Percent Solids: 55.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.016	U	0.12	0.016	mg/Kg	☼	06/11/19 23:21	06/12/19 15:43	1
Aroclor 1221	0.016	U	0.12	0.016	mg/Kg	☼	06/11/19 23:21	06/12/19 15:43	1
Aroclor 1232	0.016	U	0.12	0.016	mg/Kg	☼	06/11/19 23:21	06/12/19 15:43	1
Aroclor 1242	0.016	U	0.12	0.016	mg/Kg	☼	06/11/19 23:21	06/12/19 15:43	1
Aroclor 1248	0.016	U	0.12	0.016	mg/Kg	☼	06/11/19 23:21	06/12/19 15:43	1
Aroclor 1254	0.017	U	0.12	0.017	mg/Kg	☼	06/11/19 23:21	06/12/19 15:43	1
Aroclor 1260	0.017	U	0.12	0.017	mg/Kg	☼	06/11/19 23:21	06/12/19 15:43	1
Aroclor-1262	0.017	U	0.12	0.017	mg/Kg	☼	06/11/19 23:21	06/12/19 15:43	1
Aroclor 1268	0.017	U	0.12	0.017	mg/Kg	☼	06/11/19 23:21	06/12/19 15:43	1
Polychlorinated biphenyls, Total	0.017	U	0.12	0.017	mg/Kg	☼	06/11/19 23:21	06/12/19 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*104*		*53 - 150*	*06/11/19 23:21*	*06/12/19 15:43*	*1*
DCB Decachlorobiphenyl	*117*		*53 - 150*	*06/11/19 23:21*	*06/12/19 15:43*	*1*

Client Sample ID: WP-ST-BN48-E-F-0-061119

Lab Sample ID: 460-184053-4

Date Collected: 06/11/19 10:30
Date Received: 06/11/19 14:45

Matrix: Solid
Percent Solids: 48.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	45		3.4	0.18	mg/Kg	☼	06/11/19 23:06	06/12/19 12:03	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*38*		*25 - 113*	*06/11/19 23:06*	*06/12/19 12:03*	*5*
Terphenyl-d14 (Surr)	*41*		*27 - 123*	*06/11/19 23:06*	*06/12/19 12:03*	*5*
2-Fluorobiphenyl	*43*		*29 - 107*	*06/11/19 23:06*	*06/12/19 12:03*	*5*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.018	U	0.14	0.018	mg/Kg	☼	06/11/19 23:21	06/12/19 14:33	1
Aroclor 1221	0.018	U	0.14	0.018	mg/Kg	☼	06/11/19 23:21	06/12/19 14:33	1
Aroclor 1232	0.018	U	0.14	0.018	mg/Kg	☼	06/11/19 23:21	06/12/19 14:33	1
Aroclor 1242	0.018	U	0.14	0.018	mg/Kg	☼	06/11/19 23:21	06/12/19 14:33	1
Aroclor 1248	1.1		0.14	0.018	mg/Kg	☼	06/11/19 23:21	06/12/19 14:33	1
Aroclor 1254	0.019	U	0.14	0.019	mg/Kg	☼	06/11/19 23:21	06/12/19 14:33	1
Aroclor 1260	0.019	U	0.14	0.019	mg/Kg	☼	06/11/19 23:21	06/12/19 14:33	1
Aroclor-1262	0.019	U	0.14	0.019	mg/Kg	☼	06/11/19 23:21	06/12/19 14:33	1
Aroclor 1268	0.019	U	0.14	0.019	mg/Kg	☼	06/11/19 23:21	06/12/19 14:33	1
Polychlorinated biphenyls, Total	1.1		0.14	0.019	mg/Kg	☼	06/11/19 23:21	06/12/19 14:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*112*		*53 - 150*	*06/11/19 23:21*	*06/12/19 14:33*	*1*
DCB Decachlorobiphenyl	*116*		*53 - 150*	*06/11/19 23:21*	*06/12/19 14:33*	*1*

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184053-1

Client Sample ID: WP-SB-BP48-K-L-0-061119

Lab Sample ID: 460-184053-5

Date Collected: 06/11/19 10:50
Date Received: 06/11/19 14:45

Matrix: Solid
Percent Solids: 62.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	190		13	0.70	mg/Kg	☼	06/11/19 23:06	06/12/19 12:20	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*45*		*25 - 113*	*06/11/19 23:06*	*06/12/19 12:20*	*25*
Terphenyl-d14 (Surr)	*61*		*27 - 123*	*06/11/19 23:06*	*06/12/19 12:20*	*25*
2-Fluorobiphenyl	*60*		*29 - 107*	*06/11/19 23:06*	*06/12/19 12:20*	*25*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.014	U	0.11	0.014	mg/Kg	☼	06/11/19 23:21	06/12/19 14:16	1
Aroclor 1221	0.014	U	0.11	0.014	mg/Kg	☼	06/11/19 23:21	06/12/19 14:16	1
Aroclor 1232	0.014	U	0.11	0.014	mg/Kg	☼	06/11/19 23:21	06/12/19 14:16	1
Aroclor 1242	0.014	U	0.11	0.014	mg/Kg	☼	06/11/19 23:21	06/12/19 14:16	1
Aroclor 1248	1.8		0.11	0.014	mg/Kg	☼	06/11/19 23:21	06/12/19 14:16	1
Aroclor 1254	0.015	U	0.11	0.015	mg/Kg	☼	06/11/19 23:21	06/12/19 14:16	1
Aroclor 1260	0.015	U	0.11	0.015	mg/Kg	☼	06/11/19 23:21	06/12/19 14:16	1
Aroclor-1262	0.015	U	0.11	0.015	mg/Kg	☼	06/11/19 23:21	06/12/19 14:16	1
Aroclor 1268	0.015	U	0.11	0.015	mg/Kg	☼	06/11/19 23:21	06/12/19 14:16	1
Polychlorinated biphenyls, Total	1.8		0.11	0.015	mg/Kg	☼	06/11/19 23:21	06/12/19 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*116*		*53 - 150*	*06/11/19 23:21*	*06/12/19 14:16*	*1*
DCB Decachlorobiphenyl	*107*		*53 - 150*	*06/11/19 23:21*	*06/12/19 14:16*	*1*

Client Sample ID: WP-ST-BP48-F-G-0-061119

Lab Sample ID: 460-184053-6

Date Collected: 06/11/19 11:00
Date Received: 06/11/19 14:45

Matrix: Solid
Percent Solids: 55.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	6.1		0.59	0.031	mg/Kg	☼	06/11/19 23:06	06/12/19 10:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*53*		*25 - 113*	*06/11/19 23:06*	*06/12/19 10:04*	*1*
Terphenyl-d14 (Surr)	*59*		*27 - 123*	*06/11/19 23:06*	*06/12/19 10:04*	*1*
2-Fluorobiphenyl	*58*		*29 - 107*	*06/11/19 23:06*	*06/12/19 10:04*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.016	U	0.12	0.016	mg/Kg	☼	06/11/19 23:21	06/12/19 13:59	1
Aroclor 1221	0.016	U	0.12	0.016	mg/Kg	☼	06/11/19 23:21	06/12/19 13:59	1
Aroclor 1232	0.016	U	0.12	0.016	mg/Kg	☼	06/11/19 23:21	06/12/19 13:59	1
Aroclor 1242	0.016	U	0.12	0.016	mg/Kg	☼	06/11/19 23:21	06/12/19 13:59	1
Aroclor 1248	0.15		0.12	0.016	mg/Kg	☼	06/11/19 23:21	06/12/19 13:59	1
Aroclor 1254	0.016	U	0.12	0.016	mg/Kg	☼	06/11/19 23:21	06/12/19 13:59	1
Aroclor 1260	0.016	U	0.12	0.016	mg/Kg	☼	06/11/19 23:21	06/12/19 13:59	1
Aroclor-1262	0.016	U	0.12	0.016	mg/Kg	☼	06/11/19 23:21	06/12/19 13:59	1
Aroclor 1268	0.016	U	0.12	0.016	mg/Kg	☼	06/11/19 23:21	06/12/19 13:59	1
Polychlorinated biphenyls, Total	0.15		0.12	0.016	mg/Kg	☼	06/11/19 23:21	06/12/19 13:59	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184053-1

Client Sample ID: WP-ST-BP48-F-G-0-061119

Lab Sample ID: 460-184053-6
Date Collected: 06/11/19 11:00
Matrix: Solid
Date Received: 06/11/19 14:45
Percent Solids: 55.7

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	101		53 - 150	06/11/19 23:21	06/12/19 13:59	1
DCB Decachlorobiphenyl	103		53 - 150	06/11/19 23:21	06/12/19 13:59	1

Client Sample ID: WP-PB-BN43-K-L-0-061119

Lab Sample ID: 460-184053-7
Date Collected: 06/11/19 12:10
Matrix: Solid
Date Received: 06/11/19 14:45
Percent Solids: 28.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	8.9	J	1.1	0.061	mg/Kg	☼	06/11/19 23:06	06/12/19 08:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	33		25 - 113	06/11/19 23:06	06/12/19 08:39	1
Terphenyl-d14 (Surr)	34		27 - 123	06/11/19 23:06	06/12/19 08:39	1
2-Fluorobiphenyl	34		29 - 107	06/11/19 23:06	06/12/19 08:39	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.031	U	0.23	0.031	mg/Kg	☼	06/11/19 23:21	06/12/19 14:22	1
Aroclor 1221	0.031	U	0.23	0.031	mg/Kg	☼	06/11/19 23:21	06/12/19 14:22	1
Aroclor 1232	0.031	U	0.23	0.031	mg/Kg	☼	06/11/19 23:21	06/12/19 14:22	1
Aroclor 1242	0.031	U	0.23	0.031	mg/Kg	☼	06/11/19 23:21	06/12/19 14:22	1
Aroclor 1248	1.2		0.23	0.031	mg/Kg	☼	06/11/19 23:21	06/12/19 14:22	1
Aroclor 1254	0.032	U	0.23	0.032	mg/Kg	☼	06/11/19 23:21	06/12/19 14:22	1
Aroclor 1260	0.032	U	0.23	0.032	mg/Kg	☼	06/11/19 23:21	06/12/19 14:22	1
Aroclor-1262	0.032	U	0.23	0.032	mg/Kg	☼	06/11/19 23:21	06/12/19 14:22	1
Aroclor 1268	0.032	U	0.23	0.032	mg/Kg	☼	06/11/19 23:21	06/12/19 14:22	1
Polychlorinated biphenyls, Total	1.2		0.23	0.032	mg/Kg	☼	06/11/19 23:21	06/12/19 14:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	121		53 - 150	06/11/19 23:21	06/12/19 14:22	1
DCB Decachlorobiphenyl	112		53 - 150	06/11/19 23:21	06/12/19 14:22	1

Client Sample ID: WP-PBC-BN43-C-D-0-061119

Lab Sample ID: 460-184053-8
Date Collected: 06/11/19 12:20
Matrix: Solid
Date Received: 06/11/19 14:45
Percent Solids: 78.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.085	0.011	mg/Kg	☼	06/13/19 18:50	06/14/19 17:32	1
Aroclor 1221	0.011	U	0.085	0.011	mg/Kg	☼	06/13/19 18:50	06/14/19 17:32	1
Aroclor 1232	0.011	U	0.085	0.011	mg/Kg	☼	06/13/19 18:50	06/14/19 17:32	1
Aroclor 1242	0.011	U	0.085	0.011	mg/Kg	☼	06/13/19 18:50	06/14/19 17:32	1
Aroclor 1248	0.011	U	0.085	0.011	mg/Kg	☼	06/13/19 18:50	06/14/19 17:32	1
Aroclor 1254	0.012	U	0.085	0.012	mg/Kg	☼	06/13/19 18:50	06/14/19 17:32	1
Aroclor 1260	0.012	U	0.085	0.012	mg/Kg	☼	06/13/19 18:50	06/14/19 17:32	1
Aroclor-1262	0.012	U	0.085	0.012	mg/Kg	☼	06/13/19 18:50	06/14/19 17:32	1
Aroclor 1268	0.012	U	0.085	0.012	mg/Kg	☼	06/13/19 18:50	06/14/19 17:32	1
Polychlorinated biphenyls, Total	0.012	U	0.085	0.012	mg/Kg	☼	06/13/19 18:50	06/14/19 17:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	91		53 - 150	06/13/19 18:50	06/14/19 17:32	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184053-1

Client Sample ID: WP-PBC-BN43-C-D-0-061119

Lab Sample ID: 460-184053-8

Date Collected: 06/11/19 12:20
Date Received: 06/11/19 14:45

Matrix: Solid
Percent Solids: 78.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	89		53 - 150	06/13/19 18:50	06/14/19 17:32	1

Client Sample ID: WP-SB-BP43-K-L-0-061119

Lab Sample ID: 460-184053-9

Date Collected: 06/11/19 12:35
Date Received: 06/11/19 14:45

Matrix: Solid
Percent Solids: 42.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	5.4		0.78	0.041	mg/Kg	☼	06/11/19 23:06	06/12/19 10:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	38		25 - 113	06/11/19 23:06	06/12/19 10:21	1
Terphenyl-d14 (Surr)	38		27 - 123	06/11/19 23:06	06/12/19 10:21	1
2-Fluorobiphenyl	40		29 - 107	06/11/19 23:06	06/12/19 10:21	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.021	U	0.16	0.021	mg/Kg	☼	06/11/19 23:21	06/12/19 13:42	1
Aroclor 1221	0.021	U	0.16	0.021	mg/Kg	☼	06/11/19 23:21	06/12/19 13:42	1
Aroclor 1232	0.021	U	0.16	0.021	mg/Kg	☼	06/11/19 23:21	06/12/19 13:42	1
Aroclor 1242	0.021	U	0.16	0.021	mg/Kg	☼	06/11/19 23:21	06/12/19 13:42	1
Aroclor 1248	0.36		0.16	0.021	mg/Kg	☼	06/11/19 23:21	06/12/19 13:42	1
Aroclor 1254	0.022	U	0.16	0.022	mg/Kg	☼	06/11/19 23:21	06/12/19 13:42	1
Aroclor 1260	0.022	U	0.16	0.022	mg/Kg	☼	06/11/19 23:21	06/12/19 13:42	1
Aroclor-1262	0.022	U	0.16	0.022	mg/Kg	☼	06/11/19 23:21	06/12/19 13:42	1
Aroclor 1268	0.022	U	0.16	0.022	mg/Kg	☼	06/11/19 23:21	06/12/19 13:42	1
Polychlorinated biphenyls, Total	0.36		0.16	0.022	mg/Kg	☼	06/11/19 23:21	06/12/19 13:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	98		53 - 150	06/11/19 23:21	06/12/19 13:42	1
DCB Decachlorobiphenyl	102		53 - 150	06/11/19 23:21	06/12/19 13:42	1

Client Sample ID: WP-ST-BP43-J-K-0-061119

Lab Sample ID: 460-184053-10

Date Collected: 06/11/19 12:55
Date Received: 06/11/19 14:45

Matrix: Solid
Percent Solids: 52.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.5		0.63	0.034	mg/Kg	☼	06/11/19 23:06	06/12/19 10:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	44		25 - 113	06/11/19 23:06	06/12/19 10:38	1
Terphenyl-d14 (Surr)	48		27 - 123	06/11/19 23:06	06/12/19 10:38	1
2-Fluorobiphenyl	47		29 - 107	06/11/19 23:06	06/12/19 10:38	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.017	U	0.13	0.017	mg/Kg	☼	06/11/19 23:21	06/12/19 13:25	1
Aroclor 1221	0.017	U	0.13	0.017	mg/Kg	☼	06/11/19 23:21	06/12/19 13:25	1
Aroclor 1232	0.017	U	0.13	0.017	mg/Kg	☼	06/11/19 23:21	06/12/19 13:25	1
Aroclor 1242	0.017	U	0.13	0.017	mg/Kg	☼	06/11/19 23:21	06/12/19 13:25	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184053-1

Client Sample ID: WP-ST-BP43-J-K-0-061119

Lab Sample ID: 460-184053-10
Date Collected: 06/11/19 12:55
Matrix: Solid
Date Received: 06/11/19 14:45
Percent Solids: 52.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.017	U	0.13	0.017	mg/Kg	☼	06/11/19 23:21	06/12/19 13:25	1
Aroclor 1254	0.018	U	0.13	0.018	mg/Kg	☼	06/11/19 23:21	06/12/19 13:25	1
Aroclor 1260	0.018	U	0.13	0.018	mg/Kg	☼	06/11/19 23:21	06/12/19 13:25	1
Aroclor-1262	0.018	U	0.13	0.018	mg/Kg	☼	06/11/19 23:21	06/12/19 13:25	1
Aroclor 1268	0.018	U	0.13	0.018	mg/Kg	☼	06/11/19 23:21	06/12/19 13:25	1
Polychlorinated biphenyls, Total	0.018	U	0.13	0.018	mg/Kg	☼	06/11/19 23:21	06/12/19 13:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*102*		*53 - 150*	*06/11/19 23:21*	*06/12/19 13:25*	*1*
DCB Decachlorobiphenyl	*102*		*53 - 150*	*06/11/19 23:21*	*06/12/19 13:25*	*1*

Client Sample ID: WP-SB-BP46-K-L-0-061119

Lab Sample ID: 460-184053-11
Date Collected: 06/11/19 13:10
Matrix: Solid
Date Received: 06/11/19 14:45
Percent Solids: 64.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	19	J	1.0	0.054	mg/Kg	☼	06/11/19 23:06	06/12/19 12:37	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*36*		*25 - 113*	*06/11/19 23:06*	*06/12/19 12:37*	*2*
Terphenyl-d14 (Surr)	*47*		*27 - 123*	*06/11/19 23:06*	*06/12/19 12:37*	*2*
2-Fluorobiphenyl	*47*		*29 - 107*	*06/11/19 23:06*	*06/12/19 12:37*	*2*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.014	U	0.10	0.014	mg/Kg	☼	06/11/19 23:21	06/12/19 15:26	1
Aroclor 1221	0.014	U	0.10	0.014	mg/Kg	☼	06/11/19 23:21	06/12/19 15:26	1
Aroclor 1232	0.014	U	0.10	0.014	mg/Kg	☼	06/11/19 23:21	06/12/19 15:26	1
Aroclor 1242	0.014	U	0.10	0.014	mg/Kg	☼	06/11/19 23:21	06/12/19 15:26	1
Aroclor 1248	0.56		0.10	0.014	mg/Kg	☼	06/11/19 23:21	06/12/19 15:26	1
Aroclor 1254	0.014	U	0.10	0.014	mg/Kg	☼	06/11/19 23:21	06/12/19 15:26	1
Aroclor 1260	0.014	U	0.10	0.014	mg/Kg	☼	06/11/19 23:21	06/12/19 15:26	1
Aroclor-1262	0.014	U	0.10	0.014	mg/Kg	☼	06/11/19 23:21	06/12/19 15:26	1
Aroclor 1268	0.014	U	0.10	0.014	mg/Kg	☼	06/11/19 23:21	06/12/19 15:26	1
Polychlorinated biphenyls, Total	0.56		0.10	0.014	mg/Kg	☼	06/11/19 23:21	06/12/19 15:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*97*		*53 - 150*	*06/11/19 23:21*	*06/12/19 15:26*	*1*
DCB Decachlorobiphenyl	*91*		*53 - 150*	*06/11/19 23:21*	*06/12/19 15:26*	*1*

Client Sample ID: WP-SB-BP46-K-L-1-061119

Lab Sample ID: 460-184053-12
Date Collected: 06/11/19 13:10
Matrix: Solid
Date Received: 06/11/19 14:45
Percent Solids: 39.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	58	J	4.2	0.22	mg/Kg	☼	06/11/19 23:06	06/12/19 12:54	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*51*		*25 - 113*	*06/11/19 23:06*	*06/12/19 12:54*	*5*
Terphenyl-d14 (Surr)	*79*		*27 - 123*	*06/11/19 23:06*	*06/12/19 12:54*	*5*

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184053-1

Client Sample ID: WP-SB-BP46-K-L-1-061119

Date Collected: 06/11/19 13:10
Date Received: 06/11/19 14:45

Lab Sample ID: 460-184053-12
Matrix: Solid
Percent Solids: 39.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	69		29 - 107	06/11/19 23:06	06/12/19 12:54	5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.023	U	0.17	0.023	mg/Kg	☼	06/11/19 23:21	06/12/19 12:50	1
Aroclor 1221	0.023	U	0.17	0.023	mg/Kg	☼	06/11/19 23:21	06/12/19 12:50	1
Aroclor 1232	0.023	U	0.17	0.023	mg/Kg	☼	06/11/19 23:21	06/12/19 12:50	1
Aroclor 1242	0.023	U	0.17	0.023	mg/Kg	☼	06/11/19 23:21	06/12/19 12:50	1
Aroclor 1248	0.60		0.17	0.023	mg/Kg	☼	06/11/19 23:21	06/12/19 12:50	1
Aroclor 1254	0.023	U	0.17	0.023	mg/Kg	☼	06/11/19 23:21	06/12/19 12:50	1
Aroclor 1260	0.023	U	0.17	0.023	mg/Kg	☼	06/11/19 23:21	06/12/19 12:50	1
Aroclor-1262	0.023	U	0.17	0.023	mg/Kg	☼	06/11/19 23:21	06/12/19 12:50	1
Aroclor 1268	0.023	U	0.17	0.023	mg/Kg	☼	06/11/19 23:21	06/12/19 12:50	1
Polychlorinated biphenyls, Total	0.60		0.17	0.023	mg/Kg	☼	06/11/19 23:21	06/12/19 12:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	92		53 - 150	06/11/19 23:21	06/12/19 12:50	1
DCB Decachlorobiphenyl	95		53 - 150	06/11/19 23:21	06/12/19 12:50	1

Client Sample ID: WP-ST-BP46-H-I-0-061119

Date Collected: 06/11/19 13:20
Date Received: 06/11/19 14:45

Lab Sample ID: 460-184053-13
Matrix: Solid
Percent Solids: 35.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	3.4		0.93	0.049	mg/Kg	☼	06/11/19 23:06	06/12/19 11:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	38		25 - 113	06/11/19 23:06	06/12/19 11:29	1
Terphenyl-d14 (Surr)	39		27 - 123	06/11/19 23:06	06/12/19 11:29	1
2-Fluorobiphenyl	41		29 - 107	06/11/19 23:06	06/12/19 11:29	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.025	U	0.19	0.025	mg/Kg	☼	06/11/19 23:21	06/12/19 12:33	1
Aroclor 1221	0.025	U	0.19	0.025	mg/Kg	☼	06/11/19 23:21	06/12/19 12:33	1
Aroclor 1232	0.025	U	0.19	0.025	mg/Kg	☼	06/11/19 23:21	06/12/19 12:33	1
Aroclor 1242	0.025	U	0.19	0.025	mg/Kg	☼	06/11/19 23:21	06/12/19 12:33	1
Aroclor 1248	0.33		0.19	0.025	mg/Kg	☼	06/11/19 23:21	06/12/19 12:33	1
Aroclor 1254	0.026	U	0.19	0.026	mg/Kg	☼	06/11/19 23:21	06/12/19 12:33	1
Aroclor 1260	0.026	U	0.19	0.026	mg/Kg	☼	06/11/19 23:21	06/12/19 12:33	1
Aroclor-1262	0.026	U	0.19	0.026	mg/Kg	☼	06/11/19 23:21	06/12/19 12:33	1
Aroclor 1268	0.026	U	0.19	0.026	mg/Kg	☼	06/11/19 23:21	06/12/19 12:33	1
Polychlorinated biphenyls, Total	0.33		0.19	0.026	mg/Kg	☼	06/11/19 23:21	06/12/19 12:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	99		53 - 150	06/11/19 23:21	06/12/19 12:33	1
DCB Decachlorobiphenyl	100		53 - 150	06/11/19 23:21	06/12/19 12:33	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184053-1

Client Sample ID: WP-FB-061119

Date Collected: 06/11/19 13:30
Date Received: 06/11/19 14:45

Lab Sample ID: 460-184053-14

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		06/11/19 23:49	06/12/19 09:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*78*		*51 - 108*	*06/11/19 23:49*	*06/12/19 09:34*	*1*
Terphenyl-d14 (Surr)	*83*		*40 - 148*	*06/11/19 23:49*	*06/12/19 09:34*	*1*
2-Fluorobiphenyl	*80*		*45 - 107*	*06/11/19 23:49*	*06/12/19 09:34*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		06/12/19 00:11	06/12/19 09:48	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		06/12/19 00:11	06/12/19 09:48	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		06/12/19 00:11	06/12/19 09:48	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		06/12/19 00:11	06/12/19 09:48	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		06/12/19 00:11	06/12/19 09:48	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		06/12/19 00:11	06/12/19 09:48	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		06/12/19 00:11	06/12/19 09:48	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		06/12/19 00:11	06/12/19 09:48	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		06/12/19 00:11	06/12/19 09:48	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		06/12/19 00:11	06/12/19 09:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*81*		*10 - 150*	*06/12/19 00:11*	*06/12/19 09:48*	*1*
DCB Decachlorobiphenyl	*84*		*10 - 150*	*06/12/19 00:11*	*06/12/19 09:48*	*1*

YY 8/5/19

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-184282

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/19/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on June 13, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-PB-BN40-M-N-0-061319	460-184282-1	Sediment	PCBs, BEHP*
WP-PB-BK37-K-L-0-061319	460-184282-2	Sediment	PCBs, BEHP*
WP-PBC-BK37-C-D-0-061319	460-184282-3	Sediment	PCBs, BEHP*
WP-PB-BN37-M-N-0-061319	460-184282-4	Sediment	PCBs, BEHP*
WP-ST-BS37-H-I-0-061319	460-184282-5	Sediment	PCBs, BEHP*
WP-SB-BS37-K-L-0-061319	460-184282-6	Sediment	PCBs, BEHP*
WP-SB-BU31-I-J-0-061319	460-184282-7	Sediment	PCBs, BEHP*
WP-ST-BU31-E-F-0-061319	460-184282-8	Sediment	PCBs, BEHP*
WP-PB-BQ34-K-L-0-061319	460-184282-9	Sediment	PCBs, BEHP*
WP-PBC-BQ34-C-D-0-061319	460-184282-10	Sediment	PCBs, BEHP*
WP-PB-BQ37-M-N-0-061319	460-184282-11	Sediment	PCBs, BEHP*
WP-PB-BT31-A-B-0-061319	460-184282-12	Sediment	PCBs, BEHP*
WP-FB-061319	460-184282-13	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable for the requested analyses. The data package contains required elements. The analyses of samples WP-PBC-BK37-C-D-0-061319 and WP-PBC-BQ34-C-D-0-061319 were placed on hold upon lab receipt but were later canceled on June 17, 2019.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The case narrative stated that the relative response factor of BEHP in continuing calibration verification CCVIS 460-617363 varied more than the method-established control limit of 20% when compared to that of the associated initial calibration. The non-detect of BEHP reported for field blank, the only sample associated with the non-compliant continuing calibration verification analysis, was estimated (UJ).

The MS/MSD analyses were performed on a sample unrelated to the site. Their results were not used to qualify sample results in this report.

Dilution analyses were performed for samples WP-ST-BS37-H-I-0-061319 (2-fold), WP-SB-BU31-I-J-0-061319 (10-fold), and WP-PB-BT31-A-B-0-061319 (5-fold). Quantification results and reporting limits were adjusted accordingly.

PCBs

For extraction batch 617346, the time on the worksheet did not match that on the Form 4. The lab explained that the extraction time was 18:49 on June 13, 2019. The extraction time on the Form 5 (18:50) was the time when the method blank was scanned into the batch, thus the discrepancy.

As per case narrative, the continuing calibration verification for Aroclor-1248 (CCV 460-617452/10) failed the maximum 20% difference requirement on column CLP-2. However, the Rtx-CLP column yielded acceptable results. Since all Aroclor-1248 results were reported from the Rtx-CLP column, data qualification was not required.

There was no evidence that MS/MSD were prepared for samples associated with this report. Since the blank spike and blank spike duplicate results were within control limits, data qualification was applied.

For sample WP-SB-BS37-K-L-0-061319, none of the Aroclors was detected. However, the lab reported the presence of total PCBs at a concentration greater than the method detection limit (MDL) but less than the reporting limit (RL). Since the available raw data (chromatograms) did not provide visible Aroclor patterns for this sample, the total PCB result was qualified as presumptively present (N) based on professional judgment.

Sample WP-SB-BU31-I-J-0-061319 was analyzed with a two-fold dilution. The quantification result and reporting limits were adjusted accordingly.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Although some target analyte results were qualified due to non-compliant QC results, these non-compliances did not warrant data rejections. All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-184282-1

Client Sample ID: WP-PB-BN40-M-N-0-061319

Date Collected: 06/13/19 14:25
Date Received: 06/13/19 18:52

Lab Sample ID: 460-184282-1
Matrix: Solid
Percent Solids: 71.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.96		0.46	0.024	mg/Kg	☼	06/14/19 04:11	06/14/19 12:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*76*		*25 - 113*	*06/14/19 04:11*	*06/14/19 12:24*	*1*
Terphenyl-d14 (Surr)	*90*		*27 - 123*	*06/14/19 04:11*	*06/14/19 12:24*	*1*
2-Fluorobiphenyl	*75*		*29 - 107*	*06/14/19 04:11*	*06/14/19 12:24*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.093	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 11:40	1
Aroclor 1221	0.012	U	0.093	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 11:40	1
Aroclor 1232	0.012	U	0.093	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 11:40	1
Aroclor 1242	0.012	U	0.093	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 11:40	1
Aroclor 1248	0.11		0.093	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 11:40	1
Aroclor 1254	0.013	U	0.093	0.013	mg/Kg	☼	06/14/19 05:53	06/14/19 11:40	1
Aroclor 1260	0.013	U	0.093	0.013	mg/Kg	☼	06/14/19 05:53	06/14/19 11:40	1
Aroclor-1262	0.013	U	0.093	0.013	mg/Kg	☼	06/14/19 05:53	06/14/19 11:40	1
Aroclor 1268	0.013	U	0.093	0.013	mg/Kg	☼	06/14/19 05:53	06/14/19 11:40	1
Polychlorinated biphenyls, Total	0.11		0.093	0.013	mg/Kg	☼	06/14/19 05:53	06/14/19 11:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*96*		*53 - 150*	*06/14/19 05:53*	*06/14/19 11:40*	*1*
DCB Decachlorobiphenyl	*100*		*53 - 150*	*06/14/19 05:53*	*06/14/19 11:40*	*1*

Client Sample ID: WP-PB-BK37-K-L-0-061319

Date Collected: 06/13/19 14:50
Date Received: 06/13/19 18:52

Lab Sample ID: 460-184282-2
Matrix: Solid
Percent Solids: 64.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.6		0.51	0.027	mg/Kg	☼	06/14/19 04:11	06/14/19 12:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*79*		*25 - 113*	*06/14/19 04:11*	*06/14/19 12:46*	*1*
Terphenyl-d14 (Surr)	*92*		*27 - 123*	*06/14/19 04:11*	*06/14/19 12:46*	*1*
2-Fluorobiphenyl	*79*		*29 - 107*	*06/14/19 04:11*	*06/14/19 12:46*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.014	U	0.10	0.014	mg/Kg	☼	06/14/19 05:53	06/14/19 12:01	1
Aroclor 1221	0.014	U	0.10	0.014	mg/Kg	☼	06/14/19 05:53	06/14/19 12:01	1
Aroclor 1232	0.014	U	0.10	0.014	mg/Kg	☼	06/14/19 05:53	06/14/19 12:01	1
Aroclor 1242	0.014	U	0.10	0.014	mg/Kg	☼	06/14/19 05:53	06/14/19 12:01	1
Aroclor 1248	0.014	U	0.10	0.014	mg/Kg	☼	06/14/19 05:53	06/14/19 12:01	1
Aroclor 1254	0.014	U	0.10	0.014	mg/Kg	☼	06/14/19 05:53	06/14/19 12:01	1
Aroclor 1260	0.014	U	0.10	0.014	mg/Kg	☼	06/14/19 05:53	06/14/19 12:01	1
Aroclor-1262	0.014	U	0.10	0.014	mg/Kg	☼	06/14/19 05:53	06/14/19 12:01	1
Aroclor 1268	0.014	U	0.10	0.014	mg/Kg	☼	06/14/19 05:53	06/14/19 12:01	1
Polychlorinated biphenyls, Total	0.014	U	0.10	0.014	mg/Kg	☼	06/14/19 05:53	06/14/19 12:01	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-184282-1

Client Sample ID: WP-PB-BK37-K-L-0-061319

Date Collected: 06/13/19 14:50
Date Received: 06/13/19 18:52

Lab Sample ID: 460-184282-2
Matrix: Solid
Percent Solids: 64.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	96		53 - 150	06/14/19 05:53	06/14/19 12:01	1
DCB Decachlorobiphenyl	103		53 - 150	06/14/19 05:53	06/14/19 12:01	1

Client Sample ID: WP-PB-BN37-M-N-0-061319

Date Collected: 06/13/19 15:25
Date Received: 06/13/19 18:52

Lab Sample ID: 460-184282-4
Matrix: Solid
Percent Solids: 79.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	3.0		0.41	0.022	mg/Kg	☼	06/14/19 04:11	06/14/19 13:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	72		25 - 113	06/14/19 04:11	06/14/19 13:09	1
Terphenyl-d14 (Surr)	94		27 - 123	06/14/19 04:11	06/14/19 13:09	1
2-Fluorobiphenyl	75		29 - 107	06/14/19 04:11	06/14/19 13:09	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.084	0.011	mg/Kg	☼	06/14/19 05:53	06/14/19 12:21	1
Aroclor 1221	0.011	U	0.084	0.011	mg/Kg	☼	06/14/19 05:53	06/14/19 12:21	1
Aroclor 1232	0.011	U	0.084	0.011	mg/Kg	☼	06/14/19 05:53	06/14/19 12:21	1
Aroclor 1242	0.011	U	0.084	0.011	mg/Kg	☼	06/14/19 05:53	06/14/19 12:21	1
Aroclor 1248	0.57		0.084	0.011	mg/Kg	☼	06/14/19 05:53	06/14/19 12:21	1
Aroclor 1254	0.012	U	0.084	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 12:21	1
Aroclor 1260	0.012	U	0.084	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 12:21	1
Aroclor-1262	0.012	U	0.084	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 12:21	1
Aroclor 1268	0.012	U	0.084	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 12:21	1
Polychlorinated biphenyls, Total	0.57		0.084	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 12:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	108		53 - 150	06/14/19 05:53	06/14/19 12:21	1
DCB Decachlorobiphenyl	104		53 - 150	06/14/19 05:53	06/14/19 12:21	1

Client Sample ID: WP-ST-BS37-H-I-0-061319

Date Collected: 06/13/19 15:40
Date Received: 06/13/19 18:52

Lab Sample ID: 460-184282-5
Matrix: Solid
Percent Solids: 31.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	30		2.1	0.11	mg/Kg	☼	06/14/19 04:11	06/14/19 14:29	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	75		25 - 113	06/14/19 04:11	06/14/19 14:29	2
Terphenyl-d14 (Surr)	83		27 - 123	06/14/19 04:11	06/14/19 14:29	2
2-Fluorobiphenyl	70		29 - 107	06/14/19 04:11	06/14/19 14:29	2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.028	U	0.21	0.028	mg/Kg	☼	06/14/19 05:53	06/14/19 12:42	1
Aroclor 1221	0.028	U	0.21	0.028	mg/Kg	☼	06/14/19 05:53	06/14/19 12:42	1
Aroclor 1232	0.028	U	0.21	0.028	mg/Kg	☼	06/14/19 05:53	06/14/19 12:42	1
Aroclor 1242	0.028	U	0.21	0.028	mg/Kg	☼	06/14/19 05:53	06/14/19 12:42	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-184282-1

Client Sample ID: WP-ST-BS37-H-I-0-061319

Lab Sample ID: 460-184282-5
Date Collected: 06/13/19 15:40
Matrix: Solid
Date Received: 06/13/19 18:52
Percent Solids: 31.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.96		0.21	0.028	mg/Kg	☼	06/14/19 05:53	06/14/19 12:42	1
Aroclor 1254	0.029	U	0.21	0.029	mg/Kg	☼	06/14/19 05:53	06/14/19 12:42	1
Aroclor 1260	0.029	U	0.21	0.029	mg/Kg	☼	06/14/19 05:53	06/14/19 12:42	1
Aroclor-1262	0.029	U	0.21	0.029	mg/Kg	☼	06/14/19 05:53	06/14/19 12:42	1
Aroclor 1268	0.029	U	0.21	0.029	mg/Kg	☼	06/14/19 05:53	06/14/19 12:42	1
Polychlorinated biphenyls, Total	0.96		0.21	0.029	mg/Kg	☼	06/14/19 05:53	06/14/19 12:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*96*		*53 - 150*	*06/14/19 05:53*	*06/14/19 12:42*	*1*
DCB Decachlorobiphenyl	*101*		*53 - 150*	*06/14/19 05:53*	*06/14/19 12:42*	*1*

Client Sample ID: WP-SB-BS37-K-L-0-061319

Lab Sample ID: 460-184282-6
Date Collected: 06/13/19 16:00
Matrix: Solid
Date Received: 06/13/19 18:52
Percent Solids: 74.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.19	J	0.44	0.023	mg/Kg	☼	06/14/19 04:11	06/14/19 11:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*81*		*25 - 113*	*06/14/19 04:11*	*06/14/19 11:24*	*1*
Terphenyl-d14 (Surr)	*90*		*27 - 123*	*06/14/19 04:11*	*06/14/19 11:24*	*1*
2-Fluorobiphenyl	*76*		*29 - 107*	*06/14/19 04:11*	*06/14/19 11:24*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.090	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 15:08	1
Aroclor 1221	0.012	U	0.090	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 15:08	1
Aroclor 1232	0.012	U	0.090	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 15:08	1
Aroclor 1242	0.012	U	0.090	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 15:08	1
Aroclor 1248	0.012	U	0.090	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 15:08	1
Aroclor 1254	0.012	U	0.090	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 15:08	1
Aroclor 1260	0.012	U	0.090	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 15:08	1
Aroclor-1262	0.012	U	0.090	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 15:08	1
Aroclor 1268	0.012	U	0.090	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 15:08	1
Polychlorinated biphenyls, Total	0.041	J N	0.090	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 15:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*101*		*53 - 150*	*06/14/19 05:53*	*06/14/19 15:08*	*1*
DCB Decachlorobiphenyl	*106*		*53 - 150*	*06/14/19 05:53*	*06/14/19 15:08*	*1*

Client Sample ID: WP-SB-BU31-I-J-0-061319

Lab Sample ID: 460-184282-7
Date Collected: 06/13/19 16:30
Matrix: Solid
Date Received: 06/13/19 18:52
Percent Solids: 51.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	76		6.5	0.34	mg/Kg	☼	06/14/19 04:11	06/14/19 13:32	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*70*		*25 - 113*	*06/14/19 04:11*	*06/14/19 13:32*	*10*
Terphenyl-d14 (Surr)	*82*		*27 - 123*	*06/14/19 04:11*	*06/14/19 13:32*	*10*

YY 8/5/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-184282-1

Client Sample ID: WP-SB-BU31-I-J-0-061319

Date Collected: 06/13/19 16:30
Date Received: 06/13/19 18:52

Lab Sample ID: 460-184282-7
Matrix: Solid
Percent Solids: 51.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	71		29 - 107	06/14/19 04:11	06/14/19 13:32	10

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.035	U	0.26	0.035	mg/Kg	☼	06/14/19 05:53	06/14/19 15:28	2
Aroclor 1221	0.035	U	0.26	0.035	mg/Kg	☼	06/14/19 05:53	06/14/19 15:28	2
Aroclor 1232	0.035	U	0.26	0.035	mg/Kg	☼	06/14/19 05:53	06/14/19 15:28	2
Aroclor 1242	0.035	U	0.26	0.035	mg/Kg	☼	06/14/19 05:53	06/14/19 15:28	2
Aroclor 1248	2.4		0.26	0.035	mg/Kg	☼	06/14/19 05:53	06/14/19 15:28	2
Aroclor 1254	0.036	U	0.26	0.036	mg/Kg	☼	06/14/19 05:53	06/14/19 15:28	2
Aroclor 1260	0.036	U	0.26	0.036	mg/Kg	☼	06/14/19 05:53	06/14/19 15:28	2
Aroclor-1262	0.036	U	0.26	0.036	mg/Kg	☼	06/14/19 05:53	06/14/19 15:28	2
Aroclor 1268	0.036	U	0.26	0.036	mg/Kg	☼	06/14/19 05:53	06/14/19 15:28	2
Polychlorinated biphenyls, Total	2.4		0.26	0.036	mg/Kg	☼	06/14/19 05:53	06/14/19 15:28	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	99		53 - 150	06/14/19 05:53	06/14/19 15:28	2
DCB Decachlorobiphenyl	108		53 - 150	06/14/19 05:53	06/14/19 15:28	2

Client Sample ID: WP-ST-BU31-E-F-0-061319

Date Collected: 06/13/19 16:45
Date Received: 06/13/19 18:52

Lab Sample ID: 460-184282-8
Matrix: Solid
Percent Solids: 71.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.1		0.46	0.025	mg/Kg	☼	06/14/19 04:11	06/14/19 12:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	74		25 - 113	06/14/19 04:11	06/14/19 12:10	1
Terphenyl-d14 (Surr)	94		27 - 123	06/14/19 04:11	06/14/19 12:10	1
2-Fluorobiphenyl	74		29 - 107	06/14/19 04:11	06/14/19 12:10	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.094	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 13:44	1
Aroclor 1221	0.012	U	0.094	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 13:44	1
Aroclor 1232	0.012	U	0.094	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 13:44	1
Aroclor 1242	0.012	U	0.094	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 13:44	1
Aroclor 1248	0.10		0.094	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 13:44	1
Aroclor 1254	0.013	U	0.094	0.013	mg/Kg	☼	06/14/19 05:53	06/14/19 13:44	1
Aroclor 1260	0.013	U	0.094	0.013	mg/Kg	☼	06/14/19 05:53	06/14/19 13:44	1
Aroclor-1262	0.013	U	0.094	0.013	mg/Kg	☼	06/14/19 05:53	06/14/19 13:44	1
Aroclor 1268	0.013	U	0.094	0.013	mg/Kg	☼	06/14/19 05:53	06/14/19 13:44	1
Polychlorinated biphenyls, Total	0.10		0.094	0.013	mg/Kg	☼	06/14/19 05:53	06/14/19 13:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	90		53 - 150	06/14/19 05:53	06/14/19 13:44	1
DCB Decachlorobiphenyl	92		53 - 150	06/14/19 05:53	06/14/19 13:44	1

YY 8/5/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-184282-1

Client Sample ID: WP-PB-BQ34-K-L-0-061319

Lab Sample ID: 460-184282-9

Date Collected: 06/13/19 17:05
Date Received: 06/13/19 18:52

Matrix: Solid
Percent Solids: 82.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.79		0.40	0.021	mg/Kg	☼	06/14/19 04:11	06/14/19 12:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*75*		*25 - 113*	*06/14/19 04:11*	*06/14/19 12:33*	*1*
Terphenyl-d14 (Surr)	*92*		*27 - 123*	*06/14/19 04:11*	*06/14/19 12:33*	*1*
2-Fluorobiphenyl	*70*		*29 - 107*	*06/14/19 04:11*	*06/14/19 12:33*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.081	0.011	mg/Kg	☼	06/14/19 05:53	06/14/19 14:05	1
Aroclor 1221	0.011	U	0.081	0.011	mg/Kg	☼	06/14/19 05:53	06/14/19 14:05	1
Aroclor 1232	0.011	U	0.081	0.011	mg/Kg	☼	06/14/19 05:53	06/14/19 14:05	1
Aroclor 1242	0.011	U	0.081	0.011	mg/Kg	☼	06/14/19 05:53	06/14/19 14:05	1
Aroclor 1248	0.011	U	0.081	0.011	mg/Kg	☼	06/14/19 05:53	06/14/19 14:05	1
Aroclor 1254	0.011	U	0.081	0.011	mg/Kg	☼	06/14/19 05:53	06/14/19 14:05	1
Aroclor 1260	0.011	U	0.081	0.011	mg/Kg	☼	06/14/19 05:53	06/14/19 14:05	1
Aroclor-1262	0.011	U	0.081	0.011	mg/Kg	☼	06/14/19 05:53	06/14/19 14:05	1
Aroclor 1268	0.011	U	0.081	0.011	mg/Kg	☼	06/14/19 05:53	06/14/19 14:05	1
Polychlorinated biphenyls, Total	0.011	U	0.081	0.011	mg/Kg	☼	06/14/19 05:53	06/14/19 14:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*88*		*53 - 150*	*06/14/19 05:53*	*06/14/19 14:05*	*1*
DCB Decachlorobiphenyl	*93*		*53 - 150*	*06/14/19 05:53*	*06/14/19 14:05*	*1*

Client Sample ID: WP-PB-BQ37-M-N-0-061319

Lab Sample ID: 460-184282-11

Date Collected: 06/13/19 17:25
Date Received: 06/13/19 18:52

Matrix: Solid
Percent Solids: 78.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.19	J	0.42	0.022	mg/Kg	☼	06/14/19 04:11	06/14/19 12:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*79*		*25 - 113*	*06/14/19 04:11*	*06/14/19 12:56*	*1*
Terphenyl-d14 (Surr)	*97*		*27 - 123*	*06/14/19 04:11*	*06/14/19 12:56*	*1*
2-Fluorobiphenyl	*74*		*29 - 107*	*06/14/19 04:11*	*06/14/19 12:56*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.086	0.011	mg/Kg	☼	06/14/19 05:53	06/14/19 14:26	1
Aroclor 1221	0.011	U	0.086	0.011	mg/Kg	☼	06/14/19 05:53	06/14/19 14:26	1
Aroclor 1232	0.011	U	0.086	0.011	mg/Kg	☼	06/14/19 05:53	06/14/19 14:26	1
Aroclor 1242	0.011	U	0.086	0.011	mg/Kg	☼	06/14/19 05:53	06/14/19 14:26	1
Aroclor 1248	0.011	U	0.086	0.011	mg/Kg	☼	06/14/19 05:53	06/14/19 14:26	1
Aroclor 1254	0.012	U	0.086	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 14:26	1
Aroclor 1260	0.012	U	0.086	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 14:26	1
Aroclor-1262	0.012	U	0.086	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 14:26	1
Aroclor 1268	0.012	U	0.086	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 14:26	1
Polychlorinated biphenyls, Total	0.012	U	0.086	0.012	mg/Kg	☼	06/14/19 05:53	06/14/19 14:26	1

YY 8/5/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-184282-1

Client Sample ID: WP-PB-BQ37-M-N-0-061319

Lab Sample ID: 460-184282-11

Date Collected: 06/13/19 17:25
Date Received: 06/13/19 18:52

Matrix: Solid
Percent Solids: 78.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	85		53 - 150	06/14/19 05:53	06/14/19 14:26	1
DCB Decachlorobiphenyl	86		53 - 150	06/14/19 05:53	06/14/19 14:26	1

Client Sample ID: WP-PB-BT31-A-B-0-061319

Lab Sample ID: 460-184282-12

Date Collected: 06/13/19 17:40
Date Received: 06/13/19 18:52

Matrix: Solid
Percent Solids: 55.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	26		3.0	0.16	mg/Kg	☼	06/14/19 04:11	06/14/19 14:06	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	70		25 - 113	06/14/19 04:11	06/14/19 14:06	5
Terphenyl-d14 (Surr)	76		27 - 123	06/14/19 04:11	06/14/19 14:06	5
2-Fluorobiphenyl	67		29 - 107	06/14/19 04:11	06/14/19 14:06	5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.016	U	0.12	0.016	mg/Kg	☼	06/14/19 05:53	06/14/19 14:47	1
Aroclor 1221	0.016	U	0.12	0.016	mg/Kg	☼	06/14/19 05:53	06/14/19 14:47	1
Aroclor 1232	0.016	U	0.12	0.016	mg/Kg	☼	06/14/19 05:53	06/14/19 14:47	1
Aroclor 1242	0.016	U	0.12	0.016	mg/Kg	☼	06/14/19 05:53	06/14/19 14:47	1
Aroclor 1248	0.60		0.12	0.016	mg/Kg	☼	06/14/19 05:53	06/14/19 14:47	1
Aroclor 1254	0.017	U	0.12	0.017	mg/Kg	☼	06/14/19 05:53	06/14/19 14:47	1
Aroclor 1260	0.017	U	0.12	0.017	mg/Kg	☼	06/14/19 05:53	06/14/19 14:47	1
Aroclor-1262	0.017	U	0.12	0.017	mg/Kg	☼	06/14/19 05:53	06/14/19 14:47	1
Aroclor 1268	0.017	U	0.12	0.017	mg/Kg	☼	06/14/19 05:53	06/14/19 14:47	1
Polychlorinated biphenyls, Total	0.60		0.12	0.017	mg/Kg	☼	06/14/19 05:53	06/14/19 14:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	102		53 - 150	06/14/19 05:53	06/14/19 14:47	1
DCB Decachlorobiphenyl	104		53 - 150	06/14/19 05:53	06/14/19 14:47	1

Client Sample ID: WP-FB-061319

Lab Sample ID: 460-184282-13

Date Collected: 06/13/19 17:45
Date Received: 06/13/19 18:52

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U J	2.0	1.7	ug/L		06/13/19 09:12	06/14/19 06:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	76		51 - 108	06/13/19 09:12	06/14/19 06:48	1
Terphenyl-d14 (Surr)	90		40 - 148	06/13/19 09:12	06/14/19 06:48	1
2-Fluorobiphenyl	84		45 - 107	06/13/19 09:12	06/14/19 06:48	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		06/14/19 02:41	06/14/19 13:34	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		06/14/19 02:41	06/14/19 13:34	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		06/14/19 02:41	06/14/19 13:34	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		06/14/19 02:41	06/14/19 13:34	1

YY 8/5/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-184282-1

Client Sample ID: WP-FB-061319

Date Collected: 06/13/19 17:45
Date Received: 06/13/19 18:52

Lab Sample ID: 460-184282-13

Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.12	U	0.40	0.12	ug/L		06/14/19 02:41	06/14/19 13:34	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		06/14/19 02:41	06/14/19 13:34	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		06/14/19 02:41	06/14/19 13:34	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		06/14/19 02:41	06/14/19 13:34	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		06/14/19 02:41	06/14/19 13:34	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		06/14/19 02:41	06/14/19 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*113*		*10 - 150*	*06/14/19 02:41*	*06/14/19 13:34*	*1*
DCB Decachlorobiphenyl	*95*		*10 - 150*	*06/14/19 02:41*	*06/14/19 13:34*	*1*

YY 8/5/19

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-184621

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/19/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on June 18, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-STC-BN48-E-F-0-061819	460-184621-1	Sediment	PCBs, BEHP*
WP-STC-BK48-J-K-0-061819	460-184621-2	Sediment	PCBs, BEHP*
WP-ST-BQ40-I-J-0-061819	460-184621-3	Sediment	PCBs, BEHP*
WP-SB-BQ40-Q-R-0-061819	460-184621-4	Sediment	PCBs, BEHP*
WP-SB-BP39-Q-R-0-061819	460-184621-5	Sediment	PCBs, BEHP*
WP-SB-BP39-Q-R-1-061819[1]	460-184621-6	Sediment	PCBs, BEHP*
WP-STC-BS37-H-I-0-061819	460-184621-7	Sediment	PCBs, BEHP*
WP-PBC-BT31-C-D-0-061819	460-184621-8	Sediment	PCBs, BEHP*
WP-FB-061819	460-184621-9	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

[1]Field duplicate of WP-SB-BP39-Q-R-0-061819

General Comments

The laboratory submitted a NJDEP full data deliverable for the requested analyses. The initial lab report for PCB analysis did not include any information for method blank, LCS, and LCSD that

were related for the sediment samples. After a request for resubmittal, the lab provided a revised deliverable on August 19, 2019.

The solid content of sample WP-ST-BQ40-I-J-0-061819 was less than (<) 30%; the BEHP and all Aroclor results were estimated (J/UJ).

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The case narrative stated that non-compliant internal standard responses in the analysis of sample WP-ST-BQ40-I-J-0-061819 and its re-analysis. However, there was no evidence of the re-analysis due to non-compliant internal standards. After being contacted, the lab stated "the lab does not routinely provide re-extraction information on the data forms except as a case narrative." As a result of these higher-than-control-limit internal standard responses, the quantification of BEHP was considered biased low, thus estimated (J) for WP-ST-BQ40-I-J-0-061819. Since the BEHP result had already been estimated for low solid content, further data qualification was not required.

Two out of three surrogate recoveries exceeded the control limits in the analysis of field blank (WP-FB-061819). Since BEHP was not detected in the field blank, data qualification was not required.

The aqueous LCSD (460-618595/3-A) yielded a high recovery for BEHP. Since BEHP was not detected in the field blank, data qualification was not required.

The MS/MSD analyses were performed on sample WP-STC-BS37-H-I-0-061819 and yielded an acceptable precision result. The BEHP recovery in the MSD analysis exceeded the laboratory-established control limit, therefore the BEHP result was estimated (J) for potential high bias for sample WP-STC-BS37-H-I-0-061819.

The analyses of sample WP-SB-BP39-Q-R-0-061819 and its field duplicate WP-SB-BP39-Q-R-1-061819 yielded an incomparable BEHP (RPD greater than 50%). The BEHP results in both samples were estimated (J).

PCBs

The MS/MSD analyses were performed on sample WP-STC-BS37-H-I-0-061819 and yielded an acceptable accuracy and precision results.

The analyses of sample WP-SB-BP39-Q-R-0-061819 and its field duplicate WP-SB-BP39-Q-R-1-061819 yielded comparable Aroclor results.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Although some target analyte results were qualified due to low solid content of the sediment sample and/or non-compliant QC results, these non-compliances did not warrant data rejections. All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184621-1

Client Sample ID: WP-STC-BN48-E-F-0-061819

Lab Sample ID: 460-184621-1

Date Collected: 06/18/19 11:40
Date Received: 06/18/19 16:14

Matrix: Solid
Percent Solids: 55.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	4.3		0.60	0.032	mg/Kg	☼	06/18/19 23:46	06/19/19 08:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*54*		*25 - 113*	*06/18/19 23:46*	*06/19/19 08:15*	*1*
Terphenyl-d14 (Surr)	*67*		*27 - 123*	*06/18/19 23:46*	*06/19/19 08:15*	*1*
2-Fluorobiphenyl	*54*		*29 - 107*	*06/18/19 23:46*	*06/19/19 08:15*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.016	U	0.12	0.016	mg/Kg	☼	06/19/19 01:10	06/19/19 12:18	1
Aroclor 1221	0.016	U	0.12	0.016	mg/Kg	☼	06/19/19 01:10	06/19/19 12:18	1
Aroclor 1232	0.016	U	0.12	0.016	mg/Kg	☼	06/19/19 01:10	06/19/19 12:18	1
Aroclor 1242	0.016	U	0.12	0.016	mg/Kg	☼	06/19/19 01:10	06/19/19 12:18	1
Aroclor 1248	0.15		0.12	0.016	mg/Kg	☼	06/19/19 01:10	06/19/19 12:18	1
Aroclor 1254	0.017	U	0.12	0.017	mg/Kg	☼	06/19/19 01:10	06/19/19 12:18	1
Aroclor 1260	0.017	U	0.12	0.017	mg/Kg	☼	06/19/19 01:10	06/19/19 12:18	1
Aroclor-1262	0.017	U	0.12	0.017	mg/Kg	☼	06/19/19 01:10	06/19/19 12:18	1
Aroclor 1268	0.017	U	0.12	0.017	mg/Kg	☼	06/19/19 01:10	06/19/19 12:18	1
Polychlorinated biphenyls, Total	0.15		0.12	0.017	mg/Kg	☼	06/19/19 01:10	06/19/19 12:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*88*		*53 - 150*	*06/19/19 01:10*	*06/19/19 12:18*	*1*
DCB Decachlorobiphenyl	*96*		*53 - 150*	*06/19/19 01:10*	*06/19/19 12:18*	*1*

Client Sample ID: WP-STC-BK48-J-K-0-061819

Lab Sample ID: 460-184621-2

Date Collected: 06/18/19 12:00
Date Received: 06/18/19 16:14

Matrix: Solid
Percent Solids: 62.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.40	J	0.53	0.028	mg/Kg	☼	06/18/19 23:46	06/19/19 08:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*58*		*25 - 113*	*06/18/19 23:46*	*06/19/19 08:38*	*1*
Terphenyl-d14 (Surr)	*67*		*27 - 123*	*06/18/19 23:46*	*06/19/19 08:38*	*1*
2-Fluorobiphenyl	*56*		*29 - 107*	*06/18/19 23:46*	*06/19/19 08:38*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.014	U	0.11	0.014	mg/Kg	☼	06/19/19 01:10	06/19/19 12:35	1
Aroclor 1221	0.014	U	0.11	0.014	mg/Kg	☼	06/19/19 01:10	06/19/19 12:35	1
Aroclor 1232	0.014	U	0.11	0.014	mg/Kg	☼	06/19/19 01:10	06/19/19 12:35	1
Aroclor 1242	0.014	U	0.11	0.014	mg/Kg	☼	06/19/19 01:10	06/19/19 12:35	1
Aroclor 1248	0.014	U	0.11	0.014	mg/Kg	☼	06/19/19 01:10	06/19/19 12:35	1
Aroclor 1254	0.015	U	0.11	0.015	mg/Kg	☼	06/19/19 01:10	06/19/19 12:35	1
Aroclor 1260	0.015	U	0.11	0.015	mg/Kg	☼	06/19/19 01:10	06/19/19 12:35	1
Aroclor-1262	0.015	U	0.11	0.015	mg/Kg	☼	06/19/19 01:10	06/19/19 12:35	1
Aroclor 1268	0.015	U	0.11	0.015	mg/Kg	☼	06/19/19 01:10	06/19/19 12:35	1
Polychlorinated biphenyls, Total	0.015	U	0.11	0.015	mg/Kg	☼	06/19/19 01:10	06/19/19 12:35	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184621-1

Client Sample ID: WP-STC-BK48-J-K-0-061819

Lab Sample ID: 460-184621-2
Date Collected: 06/18/19 12:00
Matrix: Solid
Date Received: 06/18/19 16:14
Percent Solids: 62.2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	82		53 - 150	06/19/19 01:10	06/19/19 12:35	1
DCB Decachlorobiphenyl	98		53 - 150	06/19/19 01:10	06/19/19 12:35	1

Client Sample ID: WP-ST-BQ40-I-J-0-061819

Lab Sample ID: 460-184621-3
Date Collected: 06/18/19 12:15
Matrix: Solid
Date Received: 06/18/19 16:14
Percent Solids: 29.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	10	J	1.1	0.059	mg/Kg	☼	06/18/19 23:46	06/19/19 09:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	41	*	25 - 113	06/18/19 23:46	06/19/19 09:02	1
Terphenyl-d14 (Surr)	44	*	27 - 123	06/18/19 23:46	06/19/19 09:02	1
2-Fluorobiphenyl	43	*	29 - 107	06/18/19 23:46	06/19/19 09:02	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.030	U	0.23	0.030	mg/Kg	☼	06/19/19 01:10	06/19/19 12:52	1
Aroclor 1221	0.030	U	0.23	0.030	mg/Kg	☼	06/19/19 01:10	06/19/19 12:52	1
Aroclor 1232	0.030	U	0.23	0.030	mg/Kg	☼	06/19/19 01:10	06/19/19 12:52	1
Aroclor 1242	0.030	U	0.23	0.030	mg/Kg	☼	06/19/19 01:10	06/19/19 12:52	1
Aroclor 1248	0.61		0.23	0.030	mg/Kg	☼	06/19/19 01:10	06/19/19 12:52	1
Aroclor 1254	0.031	U	0.23	0.031	mg/Kg	☼	06/19/19 01:10	06/19/19 12:52	1
Aroclor 1260	0.031	U	0.23	0.031	mg/Kg	☼	06/19/19 01:10	06/19/19 12:52	1
Aroclor-1262	0.031	U	0.23	0.031	mg/Kg	☼	06/19/19 01:10	06/19/19 12:52	1
Aroclor 1268	0.031	U	0.23	0.031	mg/Kg	☼	06/19/19 01:10	06/19/19 12:52	1
Polychlorinated biphenyls, Total	0.61	J	0.23	0.031	mg/Kg	☼	06/19/19 01:10	06/19/19 12:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	99		53 - 150	06/19/19 01:10	06/19/19 12:52	1
DCB Decachlorobiphenyl	102		53 - 150	06/19/19 01:10	06/19/19 12:52	1

Client Sample ID: WP-SB-BQ40-Q-R-0-061819

Lab Sample ID: 460-184621-4
Date Collected: 06/18/19 12:35
Matrix: Solid
Date Received: 06/18/19 16:14
Percent Solids: 57.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.8		0.57	0.030	mg/Kg	☼	06/18/19 23:46	06/19/19 09:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	67		25 - 113	06/18/19 23:46	06/19/19 09:25	1
Terphenyl-d14 (Surr)	73		27 - 123	06/18/19 23:46	06/19/19 09:25	1
2-Fluorobiphenyl	62		29 - 107	06/18/19 23:46	06/19/19 09:25	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.015	U	0.12	0.015	mg/Kg	☼	06/19/19 01:10	06/19/19 13:09	1
Aroclor 1221	0.015	U	0.12	0.015	mg/Kg	☼	06/19/19 01:10	06/19/19 13:09	1
Aroclor 1232	0.015	U	0.12	0.015	mg/Kg	☼	06/19/19 01:10	06/19/19 13:09	1
Aroclor 1242	0.015	U	0.12	0.015	mg/Kg	☼	06/19/19 01:10	06/19/19 13:09	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184621-1

Client Sample ID: WP-SB-BQ40-Q-R-0-061819

Lab Sample ID: 460-184621-4
Date Collected: 06/18/19 12:35
Matrix: Solid
Date Received: 06/18/19 16:14
Percent Solids: 57.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.015	U	0.12	0.015	mg/Kg	☼	06/19/19 01:10	06/19/19 13:09	1
Aroclor 1254	0.016	U	0.12	0.016	mg/Kg	☼	06/19/19 01:10	06/19/19 13:09	1
Aroclor 1260	0.016	U	0.12	0.016	mg/Kg	☼	06/19/19 01:10	06/19/19 13:09	1
Aroclor-1262	0.016	U	0.12	0.016	mg/Kg	☼	06/19/19 01:10	06/19/19 13:09	1
Aroclor 1268	0.016	U	0.12	0.016	mg/Kg	☼	06/19/19 01:10	06/19/19 13:09	1
Polychlorinated biphenyls, Total	0.016	U	0.12	0.016	mg/Kg	☼	06/19/19 01:10	06/19/19 13:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*95*		*53 - 150*	*06/19/19 01:10*	*06/19/19 13:09*	*1*
DCB Decachlorobiphenyl	*105*		*53 - 150*	*06/19/19 01:10*	*06/19/19 13:09*	*1*

Client Sample ID: WP-SB-BP39-Q-R-0-061819

Lab Sample ID: 460-184621-5
Date Collected: 06/18/19 12:55
Matrix: Solid
Date Received: 06/18/19 16:14
Percent Solids: 85.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.68	J	0.39	0.021	mg/Kg	☼	06/18/19 23:46	06/19/19 09:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*78*		*25 - 113*	*06/18/19 23:46*	*06/19/19 09:49*	*1*
Terphenyl-d14 (Surr)	*98*		*27 - 123*	*06/18/19 23:46*	*06/19/19 09:49*	*1*
2-Fluorobiphenyl	*77*		*29 - 107*	*06/18/19 23:46*	*06/19/19 09:49*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.010	U	0.079	0.010	mg/Kg	☼	06/19/19 01:10	06/19/19 13:27	1
Aroclor 1221	0.010	U	0.079	0.010	mg/Kg	☼	06/19/19 01:10	06/19/19 13:27	1
Aroclor 1232	0.010	U	0.079	0.010	mg/Kg	☼	06/19/19 01:10	06/19/19 13:27	1
Aroclor 1242	0.010	U	0.079	0.010	mg/Kg	☼	06/19/19 01:10	06/19/19 13:27	1
Aroclor 1248	0.010	U	0.079	0.010	mg/Kg	☼	06/19/19 01:10	06/19/19 13:27	1
Aroclor 1254	0.011	U	0.079	0.011	mg/Kg	☼	06/19/19 01:10	06/19/19 13:27	1
Aroclor 1260	0.011	U	0.079	0.011	mg/Kg	☼	06/19/19 01:10	06/19/19 13:27	1
Aroclor-1262	0.011	U	0.079	0.011	mg/Kg	☼	06/19/19 01:10	06/19/19 13:27	1
Aroclor 1268	0.011	U	0.079	0.011	mg/Kg	☼	06/19/19 01:10	06/19/19 13:27	1
Polychlorinated biphenyls, Total	0.011	U	0.079	0.011	mg/Kg	☼	06/19/19 01:10	06/19/19 13:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*86*		*53 - 150*	*06/19/19 01:10*	*06/19/19 13:27*	*1*
DCB Decachlorobiphenyl	*101*		*53 - 150*	*06/19/19 01:10*	*06/19/19 13:27*	*1*

Client Sample ID: WP-SB-BP39-Q-R-1-061819

Lab Sample ID: 460-184621-6
Date Collected: 06/18/19 12:55
Matrix: Solid
Date Received: 06/18/19 16:14
Percent Solids: 82.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.3	J	0.40	0.021	mg/Kg	☼	06/18/19 23:48	06/19/19 10:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*77*		*25 - 113*	*06/18/19 23:48*	*06/19/19 10:12*	*1*
Terphenyl-d14 (Surr)	*103*		*27 - 123*	*06/18/19 23:48*	*06/19/19 10:12*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184621-1

Client Sample ID: WP-SB-BP39-Q-R-1-061819

Lab Sample ID: 460-184621-6

Date Collected: 06/18/19 12:55
Date Received: 06/18/19 16:14

Matrix: Solid
Percent Solids: 82.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	80		29 - 107	06/18/19 23:48	06/19/19 10:12	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.081	0.011	mg/Kg	☼	06/19/19 01:10	06/19/19 13:44	1
Aroclor 1221	0.011	U	0.081	0.011	mg/Kg	☼	06/19/19 01:10	06/19/19 13:44	1
Aroclor 1232	0.011	U	0.081	0.011	mg/Kg	☼	06/19/19 01:10	06/19/19 13:44	1
Aroclor 1242	0.011	U	0.081	0.011	mg/Kg	☼	06/19/19 01:10	06/19/19 13:44	1
Aroclor 1248	0.011	U	0.081	0.011	mg/Kg	☼	06/19/19 01:10	06/19/19 13:44	1
Aroclor 1254	0.011	U	0.081	0.011	mg/Kg	☼	06/19/19 01:10	06/19/19 13:44	1
Aroclor 1260	0.011	U	0.081	0.011	mg/Kg	☼	06/19/19 01:10	06/19/19 13:44	1
Aroclor-1262	0.011	U	0.081	0.011	mg/Kg	☼	06/19/19 01:10	06/19/19 13:44	1
Aroclor 1268	0.011	U	0.081	0.011	mg/Kg	☼	06/19/19 01:10	06/19/19 13:44	1
Polychlorinated biphenyls, Total	0.011	U	0.081	0.011	mg/Kg	☼	06/19/19 01:10	06/19/19 13:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	97		53 - 150	06/19/19 01:10	06/19/19 13:44	1
DCB Decachlorobiphenyl	104		53 - 150	06/19/19 01:10	06/19/19 13:44	1

Client Sample ID: WP-STC-BS37-H-I-0-061819

Lab Sample ID: 460-184621-7

Date Collected: 06/18/19 13:45
Date Received: 06/18/19 16:14

Matrix: Solid
Percent Solids: 34.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	20	~~F1~~ J	0.96	0.051	mg/Kg	☼	06/18/19 23:46	06/19/19 07:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	61		25 - 113	06/18/19 23:46	06/19/19 07:52	1
Terphenyl-d14 (Surr)	64		27 - 123	06/18/19 23:46	06/19/19 07:52	1
2-Fluorobiphenyl	51		29 - 107	06/18/19 23:46	06/19/19 07:52	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.026	U	0.19	0.026	mg/Kg	☼	06/19/19 01:10	06/19/19 12:01	1
Aroclor 1221	0.026	U	0.19	0.026	mg/Kg	☼	06/19/19 01:10	06/19/19 12:01	1
Aroclor 1232	0.026	U	0.19	0.026	mg/Kg	☼	06/19/19 01:10	06/19/19 12:01	1
Aroclor 1242	0.026	U	0.19	0.026	mg/Kg	☼	06/19/19 01:10	06/19/19 12:01	1
Aroclor 1248	0.87		0.19	0.026	mg/Kg	☼	06/19/19 01:10	06/19/19 12:01	1
Aroclor 1254	0.027	U	0.19	0.027	mg/Kg	☼	06/19/19 01:10	06/19/19 12:01	1
Aroclor 1260	0.027	U	0.19	0.027	mg/Kg	☼	06/19/19 01:10	06/19/19 12:01	1
Aroclor-1262	0.027	U	0.19	0.027	mg/Kg	☼	06/19/19 01:10	06/19/19 12:01	1
Aroclor 1268	0.027	U	0.19	0.027	mg/Kg	☼	06/19/19 01:10	06/19/19 12:01	1
Polychlorinated biphenyls, Total	0.87		0.19	0.027	mg/Kg	☼	06/19/19 01:10	06/19/19 12:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	94		53 - 150	06/19/19 01:10	06/19/19 12:01	1
DCB Decachlorobiphenyl	107		53 - 150	06/19/19 01:10	06/19/19 12:01	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184621-1

Client Sample ID: WP-PBC-BT31-C-D-0-061819

Date Collected: 06/18/19 15:20
Date Received: 06/18/19 16:14

Lab Sample ID: 460-184621-8

Matrix: Solid
Percent Solids: 86.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.87		0.38	0.020	mg/Kg	☼	06/19/19 00:02	06/19/19 10:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*77*		*25 - 113*	*06/19/19 00:02*	*06/19/19 10:35*	*1*
Terphenyl-d14 (Surr)	*103*		*27 - 123*	*06/19/19 00:02*	*06/19/19 10:35*	*1*
2-Fluorobiphenyl	*77*		*29 - 107*	*06/19/19 00:02*	*06/19/19 10:35*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.010	U	0.077	0.010	mg/Kg	☼	06/19/19 01:10	06/19/19 15:10	1
Aroclor 1221	0.010	U	0.077	0.010	mg/Kg	☼	06/19/19 01:10	06/19/19 15:10	1
Aroclor 1232	0.010	U	0.077	0.010	mg/Kg	☼	06/19/19 01:10	06/19/19 15:10	1
Aroclor 1242	0.010	U	0.077	0.010	mg/Kg	☼	06/19/19 01:10	06/19/19 15:10	1
Aroclor 1248	0.010	U	0.077	0.010	mg/Kg	☼	06/19/19 01:10	06/19/19 15:10	1
Aroclor 1254	0.011	U	0.077	0.011	mg/Kg	☼	06/19/19 01:10	06/19/19 15:10	1
Aroclor 1260	0.011	U	0.077	0.011	mg/Kg	☼	06/19/19 01:10	06/19/19 15:10	1
Aroclor-1262	0.011	U	0.077	0.011	mg/Kg	☼	06/19/19 01:10	06/19/19 15:10	1
Aroclor 1268	0.011	U	0.077	0.011	mg/Kg	☼	06/19/19 01:10	06/19/19 15:10	1
Polychlorinated biphenyls, Total	0.011	U	0.077	0.011	mg/Kg	☼	06/19/19 01:10	06/19/19 15:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*87*		*53 - 150*	*06/19/19 01:10*	*06/19/19 15:10*	*1*
DCB Decachlorobiphenyl	*99*		*53 - 150*	*06/19/19 01:10*	*06/19/19 15:10*	*1*

Client Sample ID: WP-FB-061819

Date Collected: 06/18/19 15:30
Date Received: 06/18/19 16:14

Lab Sample ID: 460-184621-9

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		06/19/19 07:25	06/19/19 14:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*123*	*X*	*51 - 108*	*06/19/19 07:25*	*06/19/19 14:07*	*1*
Terphenyl-d14 (Surr)	*122*		*40 - 148*	*06/19/19 07:25*	*06/19/19 14:07*	*1*
2-Fluorobiphenyl	*115*	*X*	*45 - 107*	*06/19/19 07:25*	*06/19/19 14:07*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		06/18/19 16:18	06/19/19 10:01	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		06/18/19 16:18	06/19/19 10:01	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		06/18/19 16:18	06/19/19 10:01	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		06/18/19 16:18	06/19/19 10:01	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		06/18/19 16:18	06/19/19 10:01	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		06/18/19 16:18	06/19/19 10:01	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		06/18/19 16:18	06/19/19 10:01	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		06/18/19 16:18	06/19/19 10:01	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		06/18/19 16:18	06/19/19 10:01	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		06/18/19 16:18	06/19/19 10:01	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184621-1

Client Sample ID: WP-FB-061819

Date Collected: 06/18/19 15:30
Date Received: 06/18/19 16:14

Lab Sample ID: 460-184621-9

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	38		10 - 150	06/18/19 16:18	06/19/19 10:01	1
DCB Decachlorobiphenyl	41		10 - 150	06/18/19 16:18	06/19/19 10:01	1

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DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-184793

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/19/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on June 20, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-STC-BN11-A-B-0-062019	460-184793-1	Sediment	PCBs, BEHP*
WP-STC-BN13-A-B-0-062019	460-184793-2	Sediment	PCBs, BEHP*
WP-STC-BN13-C-D-0-062019	460-184793-3	Sediment	PCBs, BEHP*
WP-STC-BH11-A-B-0-062019	460-184793-4	Sediment	PCBs, BEHP*
WP-STC-BH11-C-D-0-062019	460-184793-5	Sediment	PCBs, BEHP*
WP-STC-BH10-A-B-0-062019	460-184793-6	Sediment	PCBs, BEHP*
WP-STC-BH10-C-D-0-062019	460-184793-7	Sediment	PCBs, BEHP*
WP-STC-BK10-A-B-0-062019	460-184793-8	Sediment	PCBs, BEHP*
WP-STC-BK10-C-D-0-062019	460-184793-9	Sediment	PCBs, BEHP*
WP-SBC-BU31-K-L-0-062019	460-184793-10	Sediment	PCBs, BEHP*
WP-FB-062019	460-184793-11	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable which contains all required elements for the requested analyses. Please note that the identification of field samples on the chain-of-custody form corresponding to lab sample 460-184793-4 and 460-184793-5 were changed from WP-STC-BN11-A-B-0-062019 and WP-STC-BN11-C-D-0-062019 to WP-STC-BH11-A-B-0-062019 and WP-STC-BH11-C-D-0-062019, respectively, at the request of the sampling team. The revised field sample identifications are referenced in this report.

The analyses of samples WP-STC-BN13-C-D-0-062019, WP-STC-BH11-C-D-0-062019, WP-STC-BH10-C-D-0-062019, WP-STC-BK10-C-D-0-062019, and WP-SBC-BU31-K-L-0-062019 were placed on hold upon lab receipt. On June 25, 2019, the analyses were activated for WP-STC-BN13-C-D-0-062019, WP-STC-BH10-C-D-0-062019, and WP-STC-BK10-C-D-0-062019 but canceled for WP-SBC-BU31-K-L-0-062019. On June 26, 2019, the analyses for WP-STC-BH11-C-D-0-062019 were activated.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

None required data qualification.

The case narrative stated that the continuing calibration verification (CCV) analyzed in sequence 460-619745 failed the maximum percent difference requirement for surrogate compound nitrobenzene-d5. Since the nitrobenzene-d5 recoveries in the associated samples (WP-STC-BH10-A-B-0-062019 and WP-STC-BK10-A-B-0-062019) were within the laboratory-established control limits, data qualification was not required.

None of the surrogate compounds was recovered in the analysis of sample WP-STC-BH11-A-B-0-062019 due to dilution. Data qualification was not required.

The MS/MSD analyses were performed on sample WP-STC-BN11-A-B-0-062019 and yielded acceptable accuracy and precision results.

Dilution analyses were performed for samples WP-STC-BH11-A-B-0-062019 (200-fold), WP-STC-BH10-A-B-0-062019 (100-fold), and WP-STC-BK10-A-B-0-062019 (50-fold). The quantification results and reporting limits were adjusted accordingly.

PCBs

For PCB prep batch # 618974, the Batch Worksheet and Form 4 showed the extraction date to be June 20 2019 at 10:02. However, the case narrative stated the extraction was on June 21, 2019. The lab explained that this batch was kept open over these days and is correct as stated in the case narrative.

The MS/MSD analyses were performed on sample WP-STC-BN11-A-B-0-062019 and yielded acceptable accuracy and precision results.

Dilution analyses were performed for samples WP-STC-BN13-A-B-0-062019 (2-fold), WP-STC-BH11-A-B-0-062019 (5-fold), WP-STC-BH10-A-B-0-062019 (5-fold), and WP-STC-BK10-A-B-0-062019 (2-fold). The quantification results and reporting limits were adjusted accordingly.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184793-1

Client Sample ID: WP-STC-BN11-A-B-0-062019

Date Collected: 06/20/19 13:15
Date Received: 06/20/19 17:12

Lab Sample ID: 460-184793-1
Matrix: Solid
Percent Solids: 59.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.64		0.56	0.030	mg/Kg	☼	06/20/19 23:31	06/21/19 14:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*74*		*25 - 113*	*06/20/19 23:31*	*06/21/19 14:18*	*1*
Terphenyl-d14 (Surr)	*78*		*27 - 123*	*06/20/19 23:31*	*06/21/19 14:18*	*1*
2-Fluorobiphenyl	*69*		*29 - 107*	*06/20/19 23:31*	*06/21/19 14:18*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.015	U	0.11	0.015	mg/Kg	☼	06/21/19 02:11	06/21/19 12:50	1
Aroclor 1221	0.015	U	0.11	0.015	mg/Kg	☼	06/21/19 02:11	06/21/19 12:50	1
Aroclor 1232	0.015	U	0.11	0.015	mg/Kg	☼	06/21/19 02:11	06/21/19 12:50	1
Aroclor 1242	0.015	U	0.11	0.015	mg/Kg	☼	06/21/19 02:11	06/21/19 12:50	1
Aroclor 1248	0.015	U	0.11	0.015	mg/Kg	☼	06/21/19 02:11	06/21/19 12:50	1
Aroclor 1254	0.27		0.11	0.016	mg/Kg	☼	06/21/19 02:11	06/21/19 12:50	1
Aroclor 1260	0.016	U	0.11	0.016	mg/Kg	☼	06/21/19 02:11	06/21/19 12:50	1
Aroclor-1262	0.016	U	0.11	0.016	mg/Kg	☼	06/21/19 02:11	06/21/19 12:50	1
Aroclor 1268	0.016	U	0.11	0.016	mg/Kg	☼	06/21/19 02:11	06/21/19 12:50	1
Polychlorinated biphenyls, Total	0.27		0.11	0.016	mg/Kg	☼	06/21/19 02:11	06/21/19 12:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*100*		*53 - 150*	*06/21/19 02:11*	*06/21/19 12:50*	*1*
DCB Decachlorobiphenyl	*113*		*53 - 150*	*06/21/19 02:11*	*06/21/19 12:50*	*1*

Client Sample ID: WP-STC-BN13-A-B-0-062019

Date Collected: 06/20/19 13:30
Date Received: 06/20/19 17:12

Lab Sample ID: 460-184793-2
Matrix: Solid
Percent Solids: 54.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.84		0.61	0.032	mg/Kg	☼	06/20/19 23:31	06/21/19 15:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*71*		*25 - 113*	*06/20/19 23:31*	*06/21/19 15:28*	*1*
Terphenyl-d14 (Surr)	*97*		*27 - 123*	*06/20/19 23:31*	*06/21/19 15:28*	*1*
2-Fluorobiphenyl	*72*		*29 - 107*	*06/20/19 23:31*	*06/21/19 15:28*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.033	U	0.25	0.033	mg/Kg	☼	06/21/19 02:11	06/21/19 15:53	2
Aroclor 1221	0.033	U	0.25	0.033	mg/Kg	☼	06/21/19 02:11	06/21/19 15:53	2
Aroclor 1232	0.033	U	0.25	0.033	mg/Kg	☼	06/21/19 02:11	06/21/19 15:53	2
Aroclor 1242	0.033	U	0.25	0.033	mg/Kg	☼	06/21/19 02:11	06/21/19 15:53	2
Aroclor 1248	3.4		0.25	0.033	mg/Kg	☼	06/21/19 02:11	06/21/19 15:53	2
Aroclor 1254	0.034	U	0.25	0.034	mg/Kg	☼	06/21/19 02:11	06/21/19 15:53	2
Aroclor 1260	0.034	U	0.25	0.034	mg/Kg	☼	06/21/19 02:11	06/21/19 15:53	2
Aroclor-1262	0.034	U	0.25	0.034	mg/Kg	☼	06/21/19 02:11	06/21/19 15:53	2
Aroclor 1268	0.034	U	0.25	0.034	mg/Kg	☼	06/21/19 02:11	06/21/19 15:53	2
Polychlorinated biphenyls, Total	3.4		0.25	0.034	mg/Kg	☼	06/21/19 02:11	06/21/19 15:53	2

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184793-1

Client Sample ID: WP-STC-BN13-A-B-0-062019

Date Collected: 06/20/19 13:30
Date Received: 06/20/19 17:12

Lab Sample ID: 460-184793-2
Matrix: Solid
Percent Solids: 54.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	113		53 - 150	06/21/19 02:11	06/21/19 15:53	2
DCB Decachlorobiphenyl	115		53 - 150	06/21/19 02:11	06/21/19 15:53	2

Client Sample ID: WP-STC-BN13-C-D-0-062019

Date Collected: 06/20/19 13:45
Date Received: 06/20/19 17:12

Lab Sample ID: 460-184793-3
Matrix: Solid
Percent Solids: 76.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.023	U	0.43	0.023	mg/Kg	☼	06/25/19 17:49	06/26/19 05:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	48		25 - 113	06/25/19 17:49	06/26/19 05:15	1
Terphenyl-d14 (Surr)	57		27 - 123	06/25/19 17:49	06/26/19 05:15	1
2-Fluorobiphenyl	45		29 - 107	06/25/19 17:49	06/26/19 05:15	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.088	0.012	mg/Kg	☼	06/25/19 20:40	06/26/19 10:48	1
Aroclor 1221	0.012	U	0.088	0.012	mg/Kg	☼	06/25/19 20:40	06/26/19 10:48	1
Aroclor 1232	0.012	U	0.088	0.012	mg/Kg	☼	06/25/19 20:40	06/26/19 10:48	1
Aroclor 1242	0.012	U	0.088	0.012	mg/Kg	☼	06/25/19 20:40	06/26/19 10:48	1
Aroclor 1248	0.012	U	0.088	0.012	mg/Kg	☼	06/25/19 20:40	06/26/19 10:48	1
Aroclor 1254	0.012	U	0.088	0.012	mg/Kg	☼	06/25/19 20:40	06/26/19 10:48	1
Aroclor 1260	0.012	U	0.088	0.012	mg/Kg	☼	06/25/19 20:40	06/26/19 10:48	1
Aroclor-1262	0.012	U	0.088	0.012	mg/Kg	☼	06/25/19 20:40	06/26/19 10:48	1
Aroclor 1268	0.012	U	0.088	0.012	mg/Kg	☼	06/25/19 20:40	06/26/19 10:48	1
Polychlorinated biphenyls, Total	0.012	U	0.088	0.012	mg/Kg	☼	06/25/19 20:40	06/26/19 10:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	84		53 - 150	06/25/19 20:40	06/26/19 10:48	1
DCB Decachlorobiphenyl	100		53 - 150	06/25/19 20:40	06/26/19 10:48	1

Client Sample ID: WP-STC-BH11-A-B-0-062019

Date Collected: 06/20/19 13:55
Date Received: 06/20/19 17:12

Lab Sample ID: 460-184793-4
Matrix: Solid
Percent Solids: 58.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1400		110	6.0	mg/Kg	☼	06/20/19 23:31	06/24/19 07:32	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	0	X	25 - 113	06/20/19 23:31	06/24/19 07:32	200
Terphenyl-d14 (Surr)	0	X	27 - 123	06/20/19 23:31	06/24/19 07:32	200
2-Fluorobiphenyl	0	X	29 - 107	06/20/19 23:31	06/24/19 07:32	200

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.076	U	0.57	0.076	mg/Kg	☼	06/21/19 02:11	06/21/19 16:10	5
Aroclor 1221	0.076	U	0.57	0.076	mg/Kg	☼	06/21/19 02:11	06/21/19 16:10	5
Aroclor 1232	0.076	U	0.57	0.076	mg/Kg	☼	06/21/19 02:11	06/21/19 16:10	5
Aroclor 1242	0.076	U	0.57	0.076	mg/Kg	☼	06/21/19 02:11	06/21/19 16:10	5

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184793-1

Client Sample ID: WP-STC-BH11-A-B-0-062019

Lab Sample ID: 460-184793-4

Date Collected: 06/20/19 13:55
Date Received: 06/20/19 17:12

Matrix: Solid
Percent Solids: 58.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	3.6		0.57	0.076	mg/Kg	☼	06/21/19 02:11	06/21/19 16:10	5
Aroclor 1254	0.079	U	0.57	0.079	mg/Kg	☼	06/21/19 02:11	06/21/19 16:10	5
Aroclor 1260	0.079	U	0.57	0.079	mg/Kg	☼	06/21/19 02:11	06/21/19 16:10	5
Aroclor-1262	0.079	U	0.57	0.079	mg/Kg	☼	06/21/19 02:11	06/21/19 16:10	5
Aroclor 1268	0.079	U	0.57	0.079	mg/Kg	☼	06/21/19 02:11	06/21/19 16:10	5
Polychlorinated biphenyls, Total	3.6		0.57	0.079	mg/Kg	☼	06/21/19 02:11	06/21/19 16:10	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*122*		*53 - 150*	*06/21/19 02:11*	*06/21/19 16:10*	*5*
DCB Decachlorobiphenyl	*119*		*53 - 150*	*06/21/19 02:11*	*06/21/19 16:10*	*5*

Client Sample ID: WP-STC-BH11-C-D-0-062019

Lab Sample ID: 460-184793-5

Date Collected: 06/20/19 14:05
Date Received: 06/20/19 17:12

Matrix: Solid
Percent Solids: 67.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	7.3		0.49	0.026	mg/Kg	☼	06/26/19 20:26	06/27/19 11:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*80*		*25 - 113*	*06/26/19 20:26*	*06/27/19 11:46*	*1*
Terphenyl-d14 (Surr)	*89*		*27 - 123*	*06/26/19 20:26*	*06/27/19 11:46*	*1*
2-Fluorobiphenyl	*71*		*29 - 107*	*06/26/19 20:26*	*06/27/19 11:46*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.10	0.013	mg/Kg	☼	06/26/19 19:56	06/27/19 10:32	1
Aroclor 1221	0.013	U	0.10	0.013	mg/Kg	☼	06/26/19 19:56	06/27/19 10:32	1
Aroclor 1232	0.013	U	0.10	0.013	mg/Kg	☼	06/26/19 19:56	06/27/19 10:32	1
Aroclor 1242	0.013	U	0.10	0.013	mg/Kg	☼	06/26/19 19:56	06/27/19 10:32	1
Aroclor 1248	0.11		0.10	0.013	mg/Kg	☼	06/26/19 19:56	06/27/19 10:32	1
Aroclor 1254	0.014	U	0.10	0.014	mg/Kg	☼	06/26/19 19:56	06/27/19 10:32	1
Aroclor 1260	0.014	U	0.10	0.014	mg/Kg	☼	06/26/19 19:56	06/27/19 10:32	1
Aroclor-1262	0.014	U	0.10	0.014	mg/Kg	☼	06/26/19 19:56	06/27/19 10:32	1
Aroclor 1268	0.014	U	0.10	0.014	mg/Kg	☼	06/26/19 19:56	06/27/19 10:32	1
Polychlorinated biphenyls, Total	0.11		0.10	0.014	mg/Kg	☼	06/26/19 19:56	06/27/19 10:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*108*		*53 - 150*	*06/26/19 19:56*	*06/27/19 10:32*	*1*
DCB Decachlorobiphenyl	*100*		*53 - 150*	*06/26/19 19:56*	*06/27/19 10:32*	*1*

Client Sample ID: WP-STC-BH10-A-B-0-062019

Lab Sample ID: 460-184793-6

Date Collected: 06/20/19 14:20
Date Received: 06/20/19 17:12

Matrix: Solid
Percent Solids: 42.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1200		77	4.1	mg/Kg	☼	06/20/19 23:31	06/24/19 06:46	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*78*		*25 - 113*	*06/20/19 23:31*	*06/24/19 06:46*	*100*
Terphenyl-d14 (Surr)	*89*		*27 - 123*	*06/20/19 23:31*	*06/24/19 06:46*	*100*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184793-1

Client Sample ID: WP-STC-BH10-A-B-0-062019

Date Collected: 06/20/19 14:20
Date Received: 06/20/19 17:12

Lab Sample ID: 460-184793-6
Matrix: Solid
Percent Solids: 42.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	87		29 - 107	06/20/19 23:31	06/24/19 06:46	100

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.10	U	0.78	0.10	mg/Kg	☼	06/21/19 02:11	06/21/19 16:27	5
Aroclor 1221	0.10	U	0.78	0.10	mg/Kg	☼	06/21/19 02:11	06/21/19 16:27	5
Aroclor 1232	0.10	U	0.78	0.10	mg/Kg	☼	06/21/19 02:11	06/21/19 16:27	5
Aroclor 1242	0.10	U	0.78	0.10	mg/Kg	☼	06/21/19 02:11	06/21/19 16:27	5
Aroclor 1248	10		0.78	0.10	mg/Kg	☼	06/21/19 02:11	06/21/19 16:27	5
Aroclor 1254	0.11	U	0.78	0.11	mg/Kg	☼	06/21/19 02:11	06/21/19 16:27	5
Aroclor 1260	0.11	U	0.78	0.11	mg/Kg	☼	06/21/19 02:11	06/21/19 16:27	5
Aroclor-1262	0.11	U	0.78	0.11	mg/Kg	☼	06/21/19 02:11	06/21/19 16:27	5
Aroclor 1268	0.11	U	0.78	0.11	mg/Kg	☼	06/21/19 02:11	06/21/19 16:27	5
Polychlorinated biphenyls, Total	10		0.78	0.11	mg/Kg	☼	06/21/19 02:11	06/21/19 16:27	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	105		53 - 150	06/21/19 02:11	06/21/19 16:27	5
DCB Decachlorobiphenyl	120		53 - 150	06/21/19 02:11	06/21/19 16:27	5

Client Sample ID: WP-STC-BH10-C-D-0-062019

Date Collected: 06/20/19 14:30
Date Received: 06/20/19 17:12

Lab Sample ID: 460-184793-7
Matrix: Solid
Percent Solids: 70.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.9		0.47	0.025	mg/Kg	☼	06/25/19 17:49	06/26/19 05:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	46		25 - 113	06/25/19 17:49	06/26/19 05:39	1
Terphenyl-d14 (Surr)	67		27 - 123	06/25/19 17:49	06/26/19 05:39	1
2-Fluorobiphenyl	43		29 - 107	06/25/19 17:49	06/26/19 05:39	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.096	0.013	mg/Kg	☼	06/25/19 20:40	06/26/19 11:05	1
Aroclor 1221	0.013	U	0.096	0.013	mg/Kg	☼	06/25/19 20:40	06/26/19 11:05	1
Aroclor 1232	0.013	U	0.096	0.013	mg/Kg	☼	06/25/19 20:40	06/26/19 11:05	1
Aroclor 1242	0.013	U	0.096	0.013	mg/Kg	☼	06/25/19 20:40	06/26/19 11:05	1
Aroclor 1248	0.013	U	0.096	0.013	mg/Kg	☼	06/25/19 20:40	06/26/19 11:05	1
Aroclor 1254	0.013	U	0.096	0.013	mg/Kg	☼	06/25/19 20:40	06/26/19 11:05	1
Aroclor 1260	0.013	U	0.096	0.013	mg/Kg	☼	06/25/19 20:40	06/26/19 11:05	1
Aroclor-1262	0.013	U	0.096	0.013	mg/Kg	☼	06/25/19 20:40	06/26/19 11:05	1
Aroclor 1268	0.013	U	0.096	0.013	mg/Kg	☼	06/25/19 20:40	06/26/19 11:05	1
Polychlorinated biphenyls, Total	0.013	U	0.096	0.013	mg/Kg	☼	06/25/19 20:40	06/26/19 11:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	66		53 - 150	06/25/19 20:40	06/26/19 11:05	1
DCB Decachlorobiphenyl	81		53 - 150	06/25/19 20:40	06/26/19 11:05	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184793-1

Client Sample ID: WP-STC-BK10-A-B-0-062019

Date Collected: 06/20/19 14:45
Date Received: 06/20/19 17:12

Lab Sample ID: 460-184793-8
Matrix: Solid
Percent Solids: 58.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	210		28	1.5	mg/Kg	☼	06/20/19 23:31	06/24/19 07:09	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*81*		*25 - 113*	*06/20/19 23:31*	*06/24/19 07:09*	*50*
Terphenyl-d14 (Surr)	*76*		*27 - 123*	*06/20/19 23:31*	*06/24/19 07:09*	*50*
2-Fluorobiphenyl	*77*		*29 - 107*	*06/20/19 23:31*	*06/24/19 07:09*	*50*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.030	U	0.23	0.030	mg/Kg	☼	06/21/19 02:11	06/21/19 16:44	2
Aroclor 1221	0.030	U	0.23	0.030	mg/Kg	☼	06/21/19 02:11	06/21/19 16:44	2
Aroclor 1232	0.030	U	0.23	0.030	mg/Kg	☼	06/21/19 02:11	06/21/19 16:44	2
Aroclor 1242	0.030	U	0.23	0.030	mg/Kg	☼	06/21/19 02:11	06/21/19 16:44	2
Aroclor 1248	2.3		0.23	0.030	mg/Kg	☼	06/21/19 02:11	06/21/19 16:44	2
Aroclor 1254	0.031	U	0.23	0.031	mg/Kg	☼	06/21/19 02:11	06/21/19 16:44	2
Aroclor 1260	0.031	U	0.23	0.031	mg/Kg	☼	06/21/19 02:11	06/21/19 16:44	2
Aroclor-1262	0.031	U	0.23	0.031	mg/Kg	☼	06/21/19 02:11	06/21/19 16:44	2
Aroclor 1268	0.031	U	0.23	0.031	mg/Kg	☼	06/21/19 02:11	06/21/19 16:44	2
Polychlorinated biphenyls, Total	2.3		0.23	0.031	mg/Kg	☼	06/21/19 02:11	06/21/19 16:44	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*109*		*53 - 150*	*06/21/19 02:11*	*06/21/19 16:44*	*2*
DCB Decachlorobiphenyl	*102*		*53 - 150*	*06/21/19 02:11*	*06/21/19 16:44*	*2*

Client Sample ID: WP-STC-BK10-C-D-0-062019

Date Collected: 06/20/19 15:00
Date Received: 06/20/19 17:12

Lab Sample ID: 460-184793-9
Matrix: Solid
Percent Solids: 47.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	7.7		0.70	0.037	mg/Kg	☼	06/25/19 17:49	06/26/19 06:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*33*		*25 - 113*	*06/25/19 17:49*	*06/26/19 06:02*	*1*
Terphenyl-d14 (Surr)	*64*		*27 - 123*	*06/25/19 17:49*	*06/26/19 06:02*	*1*
2-Fluorobiphenyl	*40*		*29 - 107*	*06/25/19 17:49*	*06/26/19 06:02*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.019	U	0.14	0.019	mg/Kg	☼	06/25/19 20:40	06/26/19 11:22	1
Aroclor 1221	0.019	U	0.14	0.019	mg/Kg	☼	06/25/19 20:40	06/26/19 11:22	1
Aroclor 1232	0.019	U	0.14	0.019	mg/Kg	☼	06/25/19 20:40	06/26/19 11:22	1
Aroclor 1242	0.019	U	0.14	0.019	mg/Kg	☼	06/25/19 20:40	06/26/19 11:22	1
Aroclor 1248	0.42		0.14	0.019	mg/Kg	☼	06/25/19 20:40	06/26/19 11:22	1
Aroclor 1254	0.019	U	0.14	0.019	mg/Kg	☼	06/25/19 20:40	06/26/19 11:22	1
Aroclor 1260	0.019	U	0.14	0.019	mg/Kg	☼	06/25/19 20:40	06/26/19 11:22	1
Aroclor-1262	0.019	U	0.14	0.019	mg/Kg	☼	06/25/19 20:40	06/26/19 11:22	1
Aroclor 1268	0.019	U	0.14	0.019	mg/Kg	☼	06/25/19 20:40	06/26/19 11:22	1
Polychlorinated biphenyls, Total	0.42		0.14	0.019	mg/Kg	☼	06/25/19 20:40	06/26/19 11:22	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184793-1

Client Sample ID: WP-STC-BK10-C-D-0-062019

Date Collected: 06/20/19 15:00
Date Received: 06/20/19 17:12

Lab Sample ID: 460-184793-9
Matrix: Solid
Percent Solids: 47.3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	60		53 - 150	06/25/19 20:40	06/26/19 11:22	1
DCB Decachlorobiphenyl	69		53 - 150	06/25/19 20:40	06/26/19 11:22	1

Client Sample ID: WP-FB-062019

Date Collected: 06/20/19 16:10
Date Received: 06/20/19 17:12

Lab Sample ID: 460-184793-11
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		06/20/19 23:33	06/21/19 11:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	84		51 - 108	06/20/19 23:33	06/21/19 11:53	1
Terphenyl-d14 (Surr)	90		40 - 148	06/20/19 23:33	06/21/19 11:53	1
2-Fluorobiphenyl	83		45 - 107	06/20/19 23:33	06/21/19 11:53	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		06/21/19 22:50	06/24/19 11:29	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		06/21/19 22:50	06/24/19 11:29	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		06/21/19 22:50	06/24/19 11:29	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		06/21/19 22:50	06/24/19 11:29	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		06/21/19 22:50	06/24/19 11:29	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		06/21/19 22:50	06/24/19 11:29	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		06/21/19 22:50	06/24/19 11:29	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		06/21/19 22:50	06/24/19 11:29	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		06/21/19 22:50	06/24/19 11:29	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		06/21/19 22:50	06/24/19 11:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	61		10 - 150	06/21/19 22:50	06/24/19 11:29	1
DCB Decachlorobiphenyl	58		10 - 150	06/21/19 22:50	06/24/19 11:29	1

4487/19

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-184877

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/19/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on June 21, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-PB-BH19-G-H-0-062119	460-184877-1	Sediment	PCBs, BEHP*
WP-PBC-BH19-I-J-0-062119	460-184877-2	Sediment	PCBs, BEHP*
WP-PB-BN19-G-H-0-062119	460-184877-3	Sediment	PCBs, BEHP*
WP-PB-BK19-G-H-0-062119	460-184877-4	Sediment	PCBs, BEHP*
WP-STC-BH8-A-B-0-062119	460-184877-5	Sediment	PCBs, BEHP*
WP-STC-BH8-C-D-0-062119	460-184877-6	Sediment	PCBs, BEHP*
WP-STC-BH8-C-D-1-062119	460-184877-7	Sediment	PCBs, BEHP*
WP-STC-BH7-A-B-0-062119	460-184877-8	Sediment	PCBs, BEHP*
WP-STC-BE10-A-B-0-062119	460-184877-9	Sediment	PCBs, BEHP*
WP-STC-BE10-C-D-0-062119	460-184877-10	Sediment	PCBs, BEHP*
WP-FB-062119	460-184877-11	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable which contains all required elements for the requested analyses.

The analyses of samples WP-PBC-BH19-I-J-0-062119, WP-STC-BH8-C-D-0-062119, WP-STC-BH8-C-D-1-062119, and WP-STC-BE10-C-D-0-062119 were placed on hold upon lab receipt but were later canceled on June 25, 2019.

The solid content was less than 30% in samples WP-STC-BH8-A-B-0-062119 andWP-STC-BE10-A-B-0-062119. The BEHP and Aroclor results were estimated (J/UJ).

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

None required data qualification.

Two out of three surrogate compound recoveries exceeded the lab-established control limits in field blank WP-FB-062119. Since BEHP was not detected in the field blank, data qualification was not required.

The MS/MSD analyses were performed on sample WP-STC-BH8-A-B-0-062119 and yielded acceptable accuracy and precision results.

PCBs

The MS/MSD analyses were performed on sample WP-STC-BH8-A-B-0-062119 and yielded acceptable accuracy and precision results.

The laboratory was contacted regarding the lack of LCSD information related to solid samples extraction but responded that LCSD is not provided when MS/MSD is reported. If reported elsewhere it should be considered redundant. Since the MS/MSD results were acceptable as discussed above, the lack of LCSD result, though inconsistent with the practice of other lab reports submitted for this site, did not warrant further action.

The Aroclor-1248 result was estimated (J) for sample WP-PB-BH19-G-H-0-062119 as the difference of Aroclor-1248 concentrations from the two analytical columns was greater than 25%.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Although some sediment sample results were qualified due to low solid contents and/or other non-compliant QC results, none warranted data rejection. All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184877-1

Client Sample ID: WP-PB-BH19-G-H-0-062119

Date Collected: 06/21/19 08:55
Date Received: 06/21/19 12:30

Lab Sample ID: 460-184877-1
Matrix: Solid
Percent Solids: 70.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.6		0.47	0.025	mg/Kg	☼	06/22/19 02:25	06/24/19 08:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*60*		*25 - 113*	*06/22/19 02:25*	*06/24/19 08:02*	*1*
Terphenyl-d14 (Surr)	*83*		*27 - 123*	*06/22/19 02:25*	*06/24/19 08:02*	*1*
2-Fluorobiphenyl	*66*		*29 - 107*	*06/22/19 02:25*	*06/24/19 08:02*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.095	0.013	mg/Kg	☼	06/22/19 05:30	06/22/19 17:30	1
Aroclor 1221	0.013	U	0.095	0.013	mg/Kg	☼	06/22/19 05:30	06/22/19 17:30	1
Aroclor 1232	0.013	U	0.095	0.013	mg/Kg	☼	06/22/19 05:30	06/22/19 17:30	1
Aroclor 1242	0.013	U	0.095	0.013	mg/Kg	☼	06/22/19 05:30	06/22/19 17:30	1
Aroclor 1248	0.18	J	0.095	0.013	mg/Kg	☼	06/22/19 05:30	06/22/19 17:30	1
Aroclor 1254	0.013	U	0.095	0.013	mg/Kg	☼	06/22/19 05:30	06/22/19 17:30	1
Aroclor 1260	0.013	U	0.095	0.013	mg/Kg	☼	06/22/19 05:30	06/22/19 17:30	1
Aroclor-1262	0.013	U	0.095	0.013	mg/Kg	☼	06/22/19 05:30	06/22/19 17:30	1
Aroclor 1268	0.013	U	0.095	0.013	mg/Kg	☼	06/22/19 05:30	06/22/19 17:30	1
Polychlorinated biphenyls, Total	0.18	J	0.095	0.013	mg/Kg	☼	06/22/19 05:30	06/22/19 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*98*		*53 - 150*	*06/22/19 05:30*	*06/22/19 17:30*	*1*
DCB Decachlorobiphenyl	*110*		*53 - 150*	*06/22/19 05:30*	*06/22/19 17:30*	*1*

Client Sample ID: WP-PB-BN19-G-H-0-062119

Date Collected: 06/21/19 09:20
Date Received: 06/21/19 12:30

Lab Sample ID: 460-184877-3
Matrix: Solid
Percent Solids: 64.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.21	J	0.51	0.027	mg/Kg	☼	06/22/19 02:25	06/24/19 08:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*67*		*25 - 113*	*06/22/19 02:25*	*06/24/19 08:19*	*1*
Terphenyl-d14 (Surr)	*79*		*27 - 123*	*06/22/19 02:25*	*06/24/19 08:19*	*1*
2-Fluorobiphenyl	*71*		*29 - 107*	*06/22/19 02:25*	*06/24/19 08:19*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.014	U	0.10	0.014	mg/Kg	☼	06/22/19 05:30	06/22/19 17:47	1
Aroclor 1221	0.014	U	0.10	0.014	mg/Kg	☼	06/22/19 05:30	06/22/19 17:47	1
Aroclor 1232	0.014	U	0.10	0.014	mg/Kg	☼	06/22/19 05:30	06/22/19 17:47	1
Aroclor 1242	0.014	U	0.10	0.014	mg/Kg	☼	06/22/19 05:30	06/22/19 17:47	1
Aroclor 1248	0.014	U	0.10	0.014	mg/Kg	☼	06/22/19 05:30	06/22/19 17:47	1
Aroclor 1254	0.014	U	0.10	0.014	mg/Kg	☼	06/22/19 05:30	06/22/19 17:47	1
Aroclor 1260	0.014	U	0.10	0.014	mg/Kg	☼	06/22/19 05:30	06/22/19 17:47	1
Aroclor-1262	0.014	U	0.10	0.014	mg/Kg	☼	06/22/19 05:30	06/22/19 17:47	1
Aroclor 1268	0.014	U	0.10	0.014	mg/Kg	☼	06/22/19 05:30	06/22/19 17:47	1
Polychlorinated biphenyls, Total	0.014	U	0.10	0.014	mg/Kg	☼	06/22/19 05:30	06/22/19 17:47	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184877-1

Client Sample ID: WP-PB-BN19-G-H-0-062119

Lab Sample ID: 460-184877-3
Date Collected: 06/21/19 09:20
Matrix: Solid
Date Received: 06/21/19 12:30
Percent Solids: 64.6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	103		53 - 150	06/22/19 05:30	06/22/19 17:47	1
DCB Decachlorobiphenyl	111		53 - 150	06/22/19 05:30	06/22/19 17:47	1

Client Sample ID: WP-PB-BK19-G-H-0-062119

Lab Sample ID: 460-184877-4
Date Collected: 06/21/19 09:30
Matrix: Solid
Date Received: 06/21/19 12:30
Percent Solids: 77.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.70		0.43	0.023	mg/Kg	☼	06/22/19 02:25	06/24/19 08:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	53		25 - 113	06/22/19 02:25	06/24/19 08:36	1
Terphenyl-d14 (Surr)	92		27 - 123	06/22/19 02:25	06/24/19 08:36	1
2-Fluorobiphenyl	57		29 - 107	06/22/19 02:25	06/24/19 08:36	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.087	0.012	mg/Kg	☼	06/22/19 05:30	06/22/19 18:04	1
Aroclor 1221	0.012	U	0.087	0.012	mg/Kg	☼	06/22/19 05:30	06/22/19 18:04	1
Aroclor 1232	0.012	U	0.087	0.012	mg/Kg	☼	06/22/19 05:30	06/22/19 18:04	1
Aroclor 1242	0.012	U	0.087	0.012	mg/Kg	☼	06/22/19 05:30	06/22/19 18:04	1
Aroclor 1248	0.012	U	0.087	0.012	mg/Kg	☼	06/22/19 05:30	06/22/19 18:04	1
Aroclor 1254	0.012	U	0.087	0.012	mg/Kg	☼	06/22/19 05:30	06/22/19 18:04	1
Aroclor 1260	0.012	U	0.087	0.012	mg/Kg	☼	06/22/19 05:30	06/22/19 18:04	1
Aroclor-1262	0.012	U	0.087	0.012	mg/Kg	☼	06/22/19 05:30	06/22/19 18:04	1
Aroclor 1268	0.012	U	0.087	0.012	mg/Kg	☼	06/22/19 05:30	06/22/19 18:04	1
Polychlorinated biphenyls, Total	0.012	U	0.087	0.012	mg/Kg	☼	06/22/19 05:30	06/22/19 18:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	97		53 - 150	06/22/19 05:30	06/22/19 18:04	1
DCB Decachlorobiphenyl	106		53 - 150	06/22/19 05:30	06/22/19 18:04	1

Client Sample ID: WP-STC-BH8-A-B-0-062119

Lab Sample ID: 460-184877-5
Date Collected: 06/21/19 09:55
Matrix: Solid
Date Received: 06/21/19 12:30
Percent Solids: 29.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.96	J-	1.1	0.060	mg/Kg	☼	06/22/19 02:25	06/24/19 07:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	66		25 - 113	06/22/19 02:25	06/24/19 07:44	1
Terphenyl-d14 (Surr)	85		27 - 123	06/22/19 02:25	06/24/19 07:44	1
2-Fluorobiphenyl	73		29 - 107	06/22/19 02:25	06/24/19 07:44	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.030	U	0.23	0.030	mg/Kg	☼	06/22/19 05:30	06/22/19 17:12	1
Aroclor 1221	0.030	U	0.23	0.030	mg/Kg	☼	06/22/19 05:30	06/22/19 17:12	1
Aroclor 1232	0.030	U	0.23	0.030	mg/Kg	☼	06/22/19 05:30	06/22/19 17:12	1
Aroclor 1242	0.030	U	0.23	0.030	mg/Kg	☼	06/22/19 05:30	06/22/19 17:12	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184877-1

Client Sample ID: WP-STC-BH8-A-B-0-062119

Date Collected: 06/21/19 09:55
Date Received: 06/21/19 12:30

Lab Sample ID: 460-184877-5
Matrix: Solid
Percent Solids: 29.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.58	J	0.23	0.030	mg/Kg	☼	06/22/19 05:30	06/22/19 17:12	1
Aroclor 1254	0.031	U J	0.23	0.031	mg/Kg	☼	06/22/19 05:30	06/22/19 17:12	1
Aroclor 1260	0.031	U	0.23	0.031	mg/Kg	☼	06/22/19 05:30	06/22/19 17:12	1
Aroclor-1262	0.031	U	0.23	0.031	mg/Kg	☼	06/22/19 05:30	06/22/19 17:12	1
Aroclor 1268	0.031	U	0.23	0.031	mg/Kg	☼	06/22/19 05:30	06/22/19 17:12	1
Polychlorinated biphenyls, Total	0.58	J	0.23	0.031	mg/Kg	☼	06/22/19 05:30	06/22/19 17:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*102*		*53 - 150*	*06/22/19 05:30*	*06/22/19 17:12*	*1*
DCB Decachlorobiphenyl	*112*		*53 - 150*	*06/22/19 05:30*	*06/22/19 17:12*	*1*

Client Sample ID: WP-STC-BH7-A-B-0-062119

Date Collected: 06/21/19 10:25
Date Received: 06/21/19 12:30

Lab Sample ID: 460-184877-8
Matrix: Solid
Percent Solids: 31.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	4.2		1.1	0.056	mg/Kg	☼	06/22/19 02:25	06/24/19 08:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*61*		*25 - 113*	*06/22/19 02:25*	*06/24/19 08:53*	*1*
Terphenyl-d14 (Surr)	*73*		*27 - 123*	*06/22/19 02:25*	*06/24/19 08:53*	*1*
2-Fluorobiphenyl	*66*		*29 - 107*	*06/22/19 02:25*	*06/24/19 08:53*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.028	U	0.21	0.028	mg/Kg	☼	06/22/19 05:30	06/22/19 18:21	1
Aroclor 1221	0.028	U	0.21	0.028	mg/Kg	☼	06/22/19 05:30	06/22/19 18:21	1
Aroclor 1232	0.028	U	0.21	0.028	mg/Kg	☼	06/22/19 05:30	06/22/19 18:21	1
Aroclor 1242	0.028	U	0.21	0.028	mg/Kg	☼	06/22/19 05:30	06/22/19 18:21	1
Aroclor 1248	0.73		0.21	0.028	mg/Kg	☼	06/22/19 05:30	06/22/19 18:21	1
Aroclor 1254	0.029	U	0.21	0.029	mg/Kg	☼	06/22/19 05:30	06/22/19 18:21	1
Aroclor 1260	0.029	U	0.21	0.029	mg/Kg	☼	06/22/19 05:30	06/22/19 18:21	1
Aroclor-1262	0.029	U	0.21	0.029	mg/Kg	☼	06/22/19 05:30	06/22/19 18:21	1
Aroclor 1268	0.029	U	0.21	0.029	mg/Kg	☼	06/22/19 05:30	06/22/19 18:21	1
Polychlorinated biphenyls, Total	0.73		0.21	0.029	mg/Kg	☼	06/22/19 05:30	06/22/19 18:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*96*		*53 - 150*	*06/22/19 05:30*	*06/22/19 18:21*	*1*
DCB Decachlorobiphenyl	*106*		*53 - 150*	*06/22/19 05:30*	*06/22/19 18:21*	*1*

Client Sample ID: WP-STC-BE10-A-B-0-062119

Date Collected: 06/21/19 10:45
Date Received: 06/21/19 12:30

Lab Sample ID: 460-184877-9
Matrix: Solid
Percent Solids: 23.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	3.2	J	1.4	0.076	mg/Kg	☼	06/22/19 02:25	06/24/19 09:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*72*		*25 - 113*	*06/22/19 02:25*	*06/24/19 09:10*	*1*
Terphenyl-d14 (Surr)	*91*		*27 - 123*	*06/22/19 02:25*	*06/24/19 09:10*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-184877-1

Client Sample ID: WP-STC-BE10-A-B-0-062119

Date Collected: 06/21/19 10:45
Date Received: 06/21/19 12:30

Lab Sample ID: 460-184877-9
Matrix: Solid
Percent Solids: 23.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	78		29 - 107	06/22/19 02:25	06/24/19 09:10	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.039	U J	0.29	0.039	mg/Kg	☼	06/22/19 05:30	06/22/19 18:38	1
Aroclor 1221	0.039	U	0.29	0.039	mg/Kg	☼	06/22/19 05:30	06/22/19 18:38	1
Aroclor 1232	0.039	U	0.29	0.039	mg/Kg	☼	06/22/19 05:30	06/22/19 18:38	1
Aroclor 1242	0.039	U J	0.29	0.039	mg/Kg	☼	06/22/19 05:30	06/22/19 18:38	1
Aroclor 1248	0.71	J	0.29	0.039	mg/Kg	☼	06/22/19 05:30	06/22/19 18:38	1
Aroclor 1254	0.040	U J	0.29	0.040	mg/Kg	☼	06/22/19 05:30	06/22/19 18:38	1
Aroclor 1260	0.040	U	0.29	0.040	mg/Kg	☼	06/22/19 05:30	06/22/19 18:38	1
Aroclor-1262	0.040	U	0.29	0.040	mg/Kg	☼	06/22/19 05:30	06/22/19 18:38	1
Aroclor 1268	0.040	U J	0.29	0.040	mg/Kg	☼	06/22/19 05:30	06/22/19 18:38	1
Polychlorinated biphenyls, Total	0.71	J	0.29	0.040	mg/Kg	☼	06/22/19 05:30	06/22/19 18:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	90		53 - 150	06/22/19 05:30	06/22/19 18:38	1
DCB Decachlorobiphenyl	101		53 - 150	06/22/19 05:30	06/22/19 18:38	1

Client Sample ID: WP-FB-062119

Date Collected: 06/21/19 11:25
Date Received: 06/21/19 12:30

Lab Sample ID: 460-184877-11
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		06/22/19 07:23	06/23/19 02:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	118	X	51 - 108	06/22/19 07:23	06/23/19 02:52	1
Terphenyl-d14 (Surr)	148		40 - 148	06/22/19 07:23	06/23/19 02:52	1
2-Fluorobiphenyl	120	X	45 - 107	06/22/19 07:23	06/23/19 02:52	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		06/21/19 23:51	06/22/19 14:55	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		06/21/19 23:51	06/22/19 14:55	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		06/21/19 23:51	06/22/19 14:55	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		06/21/19 23:51	06/22/19 14:55	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		06/21/19 23:51	06/22/19 14:55	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		06/21/19 23:51	06/22/19 14:55	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		06/21/19 23:51	06/22/19 14:55	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		06/21/19 23:51	06/22/19 14:55	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		06/21/19 23:51	06/22/19 14:55	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		06/21/19 23:51	06/22/19 14:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	82		10 - 150	06/21/19 23:51	06/22/19 14:55	1
DCB Decachlorobiphenyl	83		10 - 150	06/21/19 23:51	06/22/19 14:55	1

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-185168

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/14/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on June 25, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-PB-BH16-G-H-0-062519	460-185168-1	Sediment	PCBs, BEHP*
WP-PB-BH16-I-J-0-062519	460-185168-2	Sediment	PCBs, BEHP*
WP-SB-BR22-C-D-0-062519	460-185168-3	Sediment	PCBs, BEHP*
WP-ST-BR22-A-B-0-062519	460-185168-4	Sediment	PCBs, BEHP*
WP-STC-BK8-A-B-0-062519	460-185168-5	Sediment	PCBs, BEHP*
WP-STC-BK8-C-D-0-062519	460-185168-6	Sediment	PCBs, BEHP*
WP-STC-BK7-A-B-0-062519	460-185168-7	Sediment	PCBs, BEHP*
WP-STC-BK7-C-D-0-062519	460-185168-8	Sediment	PCBs, BEHP*
WP-STC-BO13-A-B-0-062519	460-185168-9	Sediment	PCBs, BEHP*
WP-STC-BO13-C-D-0-062519	460-185168-10	Sediment	PCBs, BEHP*
WP-STC-BO13-C-D-1-062519[1]	460-185168-11	Sediment	PCBs, BEHP*
WP-STC-BG10-A-B-0-062519	460-185168-12	Sediment	PCBs, BEHP*
WP-STC-BG10-C-D-0-062519	460-185168-13	Sediment	PCBs, BEHP*
WP-STC-BM10-A-B-0-062519	460-185168-14	Sediment	PCBs, BEHP*
WP-STC-BM10-C-D-0-062519	460-185168-15	Sediment	PCBs, BEHP*
WP-ST-BE16-A-B-0-062519	460-185168-16	Sediment	PCBs, BEHP*
WP-SB-BE16-G-H-0-062519	460-185168-17	Sediment	PCBs, BEHP*

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-FB-062519	460-185168-18	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable for the requested analyses. The data package contains required elements.

The analyses of samples WP-PB-BH16-I-J-0-062519, WP-STC-BK8-C-D-0-062519, WP-STC-BK7-A-B-0-062519, WP-STC-BK7-C-D-0-062519, WP-STC-BO13-C-D-0-062519, WP-STC-BO13-C-D-1-062519, WP-STC-BG10-C-D-0-062519, and WP-STC-BM10-C-D-0-062519 were placed on hold upon lab receipt. On June 27, 2019, the analyses of samples WP-PB-BH16-I-J-0-062519, WP-STC-BG10-C-D-0-062519, and WP-STC-BM10-C-D-0-062519 were canceled, but samples WP-STC-BK8-C-D-0-062519, WP-STC-BK7-A-B-0-062519, WP-STC-BO13-C-D-0-062519, and WP-STC-BO13-C-D-1-062519 were released for the requested analyses. July 1, 2019, sample WP-STC-BK7-C-D-0-062519 was released for the requested analyses.

The solid content of sediment samples WP-ST-BE16-A-B-0-062519 and WP-ST-BR22-A-B-0-062519 were >10% but <30%; all positive and non-detect results were estimated (J/UJ).

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The MS/MSD analyses were performed on sample WP-PB-BH16-G-H-0-062519 and yielded acceptable accuracy and precision results. Two more sets of MS/MSD analyses were performed on site samples submitted in different lab reports, therefore their results were not used for data qualification.

Bis(2-ethylhexyl)phthalate was detected in sample WP-STC-BO13-C-D-0-062519 but not its field duplicate WP-STC-BO13-C-D-1-062519. Both results were estimated (J/UJ).

A five-fold dilution was performed for samples WP-STC-BK8-A-B-0-062519, WP-STC-BK7-A-B-0-062519, and WP-STC-BO13-A-B-0-062519. The quantification results and reporting limits were adjusted accordingly.

PCBs

For aqueous extraction batch 619940, the bench sheet showed the extraction date to be 6/24/2019. However, the case narrative stated 6/25/2019. The lab's explanation to this discrepancy was that the batch was opened from June 24, 2019 to June 25, 2019. The field blank was appended to this batch after it was received on June 25, 2019.

The MS/MSD analyses were performed on sample WP-PB-BH16-G-H-0-062519 and yielded acceptable accuracy and precision results. Two more sets of MS/MSD analyses were performed on site samples submitted in different lab reports, therefore their results were not used for data qualification.

Aroclors were not detected in sample WP-STC-BO13-C-D-0-062519 and its field duplicate WP-STC-BO13-C-D-1-062519.

Dilution analyses were performed for samples WP-STC-BK8-A-B-0-062519 (2-fold), WP-STC-BK7-A-B-0-062519 (2-fold), WP-STC-BO13-A-B-0-062519 (5-fold), and WP-ST-BE16-A-B-0-062519 (2-fold). The quantification results and reporting limits were adjusted accordingly.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Although some target analyte results were estimated (J) due to low solid contents and/or non-compliant QC results, these non-compliances did not warrant data rejections. All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-185168-1

Client Sample ID: WP-PB-BH16-G-H-0-062519

Date Collected: 06/25/19 10:05
Date Received: 06/25/19 17:53

Lab Sample ID: 460-185168-1
Matrix: Solid
Percent Solids: 78.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.4		0.42	0.022	mg/Kg	☼	06/26/19 03:19	06/26/19 09:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*66*		*25 - 113*	*06/26/19 03:19*	*06/26/19 09:12*	*1*
Terphenyl-d14 (Surr)	*85*		*27 - 123*	*06/26/19 03:19*	*06/26/19 09:12*	*1*
2-Fluorobiphenyl	*73*		*29 - 107*	*06/26/19 03:19*	*06/26/19 09:12*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.085	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 11:43	1
Aroclor 1221	0.011	U	0.085	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 11:43	1
Aroclor 1232	0.011	U	0.085	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 11:43	1
Aroclor 1242	0.011	U	0.085	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 11:43	1
Aroclor 1248	0.011	U	0.085	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 11:43	1
Aroclor 1254	0.012	U	0.085	0.012	mg/Kg	☼	06/26/19 01:55	06/26/19 11:43	1
Aroclor 1260	0.012	U	0.085	0.012	mg/Kg	☼	06/26/19 01:55	06/26/19 11:43	1
Aroclor-1262	0.012	U	0.085	0.012	mg/Kg	☼	06/26/19 01:55	06/26/19 11:43	1
Aroclor 1268	0.012	U	0.085	0.012	mg/Kg	☼	06/26/19 01:55	06/26/19 11:43	1
Polychlorinated biphenyls, Total	0.012	U	0.085	0.012	mg/Kg	☼	06/26/19 01:55	06/26/19 11:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*119*		*53 - 150*	*06/26/19 01:55*	*06/26/19 11:43*	*1*
DCB Decachlorobiphenyl	*109*		*53 - 150*	*06/26/19 01:55*	*06/26/19 11:43*	*1*

Client Sample ID: WP-SB-BR22-C-D-0-062519

Date Collected: 06/25/19 10:20
Date Received: 06/25/19 17:53

Lab Sample ID: 460-185168-3
Matrix: Solid
Percent Solids: 83.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.17	J	0.39	0.021	mg/Kg	☼	06/26/19 03:19	06/26/19 09:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*65*		*25 - 113*	*06/26/19 03:19*	*06/26/19 09:29*	*1*
Terphenyl-d14 (Surr)	*89*		*27 - 123*	*06/26/19 03:19*	*06/26/19 09:29*	*1*
2-Fluorobiphenyl	*70*		*29 - 107*	*06/26/19 03:19*	*06/26/19 09:29*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.080	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 12:00	1
Aroclor 1221	0.011	U	0.080	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 12:00	1
Aroclor 1232	0.011	U	0.080	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 12:00	1
Aroclor 1242	0.011	U	0.080	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 12:00	1
Aroclor 1248	0.011	U	0.080	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 12:00	1
Aroclor 1254	0.011	U	0.080	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 12:00	1
Aroclor 1260	0.011	U	0.080	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 12:00	1
Aroclor-1262	0.011	U	0.080	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 12:00	1
Aroclor 1268	0.011	U	0.080	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 12:00	1
Polychlorinated biphenyls, Total	0.011	U	0.080	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 12:00	1

YY 8/12/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-185168-1

Client Sample ID: WP-SB-BR22-C-D-0-062519

Date Collected: 06/25/19 10:20
Date Received: 06/25/19 17:53

Lab Sample ID: 460-185168-3
Matrix: Solid
Percent Solids: 83.7

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	111		53 - 150	06/26/19 01:55	06/26/19 12:00	1
DCB Decachlorobiphenyl	108		53 - 150	06/26/19 01:55	06/26/19 12:00	1

Client Sample ID: WP-ST-BR22-A-B-0-062519

Date Collected: 06/25/19 10:30
Date Received: 06/25/19 17:53

Lab Sample ID: 460-185168-4
Matrix: Solid
Percent Solids: 25.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	3.8	J	1.3	0.068	mg/Kg	☼	06/26/19 03:19	06/26/19 09:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	65		25 - 113	06/26/19 03:19	06/26/19 09:46	1
Terphenyl-d14 (Surr)	82		27 - 123	06/26/19 03:19	06/26/19 09:46	1
2-Fluorobiphenyl	69		29 - 107	06/26/19 03:19	06/26/19 09:46	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.034	U J	0.26	0.034	mg/Kg	☼	06/26/19 01:55	06/26/19 12:17	1
Aroclor 1221	0.034	U	0.26	0.034	mg/Kg	☼	06/26/19 01:55	06/26/19 12:17	1
Aroclor 1232	0.034	U	0.26	0.034	mg/Kg	☼	06/26/19 01:55	06/26/19 12:17	1
Aroclor 1242	0.034	U	0.26	0.034	mg/Kg	☼	06/26/19 01:55	06/26/19 12:17	1
Aroclor 1248	0.54	J	0.26	0.034	mg/Kg	☼	06/26/19 01:55	06/26/19 12:17	1
Aroclor 1254	0.036	U	0.26	0.036	mg/Kg	☼	06/26/19 01:55	06/26/19 12:17	1
Aroclor 1260	0.036	U	0.26	0.036	mg/Kg	☼	06/26/19 01:55	06/26/19 12:17	1
Aroclor-1262	0.036	U	0.26	0.036	mg/Kg	☼	06/26/19 01:55	06/26/19 12:17	1
Aroclor 1268	0.036	U	0.26	0.036	mg/Kg	☼	06/26/19 01:55	06/26/19 12:17	1
Polychlorinated biphenyls, Total	0.54	J	0.26	0.036	mg/Kg	☼	06/26/19 01:55	06/26/19 12:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	123		53 - 150	06/26/19 01:55	06/26/19 12:17	1
DCB Decachlorobiphenyl	113		53 - 150	06/26/19 01:55	06/26/19 12:17	1

Client Sample ID: WP-STC-BK8-A-B-0-062519

Date Collected: 06/25/19 12:10
Date Received: 06/25/19 17:53

Lab Sample ID: 460-185168-5
Matrix: Solid
Percent Solids: 61.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	35		2.7	0.14	mg/Kg	☼	06/26/19 03:19	06/26/19 12:19	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	65		25 - 113	06/26/19 03:19	06/26/19 12:19	5
Terphenyl-d14 (Surr)	87		27 - 123	06/26/19 03:19	06/26/19 12:19	5
2-Fluorobiphenyl	74		29 - 107	06/26/19 03:19	06/26/19 12:19	5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.029	U	0.22	0.029	mg/Kg	☼	06/26/19 01:55	06/26/19 15:05	2
Aroclor 1221	0.029	U	0.22	0.029	mg/Kg	☼	06/26/19 01:55	06/26/19 15:05	2
Aroclor 1232	0.029	U	0.22	0.029	mg/Kg	☼	06/26/19 01:55	06/26/19 15:05	2
Aroclor 1242	0.029	U	0.22	0.029	mg/Kg	☼	06/26/19 01:55	06/26/19 15:05	2

YY 8/12/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-185168-1

Client Sample ID: WP-STC-BK8-A-B-0-062519

Lab Sample ID: 460-185168-5
Date Collected: 06/25/19 12:10
Date Received: 06/25/19 17:53
Matrix: Solid
Percent Solids: 61.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	2.6		0.22	0.029	mg/Kg	☼	06/26/19 01:55	06/26/19 15:05	2
Aroclor 1254	0.030	U	0.22	0.030	mg/Kg	☼	06/26/19 01:55	06/26/19 15:05	2
Aroclor 1260	0.030	U	0.22	0.030	mg/Kg	☼	06/26/19 01:55	06/26/19 15:05	2
Aroclor-1262	0.030	U	0.22	0.030	mg/Kg	☼	06/26/19 01:55	06/26/19 15:05	2
Aroclor 1268	0.030	U	0.22	0.030	mg/Kg	☼	06/26/19 01:55	06/26/19 15:05	2
Polychlorinated biphenyls, Total	2.6		0.22	0.030	mg/Kg	☼	06/26/19 01:55	06/26/19 15:05	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*118*		*53 - 150*	*06/26/19 01:55*	*06/26/19 15:05*	*2*
DCB Decachlorobiphenyl	*118*		*53 - 150*	*06/26/19 01:55*	*06/26/19 15:05*	*2*

Client Sample ID: WP-STC-BK8-C-D-0-062519

Lab Sample ID: 460-185168-6
Date Collected: 06/25/19 12:35
Date Received: 06/25/19 17:53
Matrix: Solid
Percent Solids: 48.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.23	J	0.68	0.036	mg/Kg	☼	06/28/19 04:18	06/28/19 15:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*31*		*25 - 113*	*06/28/19 04:18*	*06/28/19 15:14*	*1*
Terphenyl-d14 (Surr)	*45*		*27 - 123*	*06/28/19 04:18*	*06/28/19 15:14*	*1*
2-Fluorobiphenyl	*42*		*29 - 107*	*06/28/19 04:18*	*06/28/19 15:14*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.018	U	0.14	0.018	mg/Kg	☼	06/27/19 20:50	06/28/19 10:33	1
Aroclor 1221	0.018	U	0.14	0.018	mg/Kg	☼	06/27/19 20:50	06/28/19 10:33	1
Aroclor 1232	0.018	U	0.14	0.018	mg/Kg	☼	06/27/19 20:50	06/28/19 10:33	1
Aroclor 1242	0.018	U	0.14	0.018	mg/Kg	☼	06/27/19 20:50	06/28/19 10:33	1
Aroclor 1248	0.018	U	0.14	0.018	mg/Kg	☼	06/27/19 20:50	06/28/19 10:33	1
Aroclor 1254	0.019	U	0.14	0.019	mg/Kg	☼	06/27/19 20:50	06/28/19 10:33	1
Aroclor 1260	0.019	U	0.14	0.019	mg/Kg	☼	06/27/19 20:50	06/28/19 10:33	1
Aroclor-1262	0.019	U	0.14	0.019	mg/Kg	☼	06/27/19 20:50	06/28/19 10:33	1
Aroclor 1268	0.019	U	0.14	0.019	mg/Kg	☼	06/27/19 20:50	06/28/19 10:33	1
Polychlorinated biphenyls, Total	0.019	U	0.14	0.019	mg/Kg	☼	06/27/19 20:50	06/28/19 10:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*102*		*53 - 150*	*06/27/19 20:50*	*06/28/19 10:33*	*1*
DCB Decachlorobiphenyl	*97*		*53 - 150*	*06/27/19 20:50*	*06/28/19 10:33*	*1*

Client Sample ID: WP-STC-BK7-A-B-0-062519

Lab Sample ID: 460-185168-7
Date Collected: 06/25/19 13:45
Date Received: 06/25/19 17:53
Matrix: Solid
Percent Solids: 45.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	41		3.6	0.19	mg/Kg	☼	06/28/19 04:18	06/28/19 16:49	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*26*		*25 - 113*	*06/28/19 04:18*	*06/28/19 16:49*	*5*
Terphenyl-d14 (Surr)	*28*		*27 - 123*	*06/28/19 04:18*	*06/28/19 16:49*	*5*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-185168-1

Client Sample ID: WP-STC-BK7-A-B-0-062519

Date Collected: 06/25/19 13:45
Date Received: 06/25/19 17:53

Lab Sample ID: 460-185168-7
Matrix: Solid
Percent Solids: 45.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	31		29 - 107	06/28/19 04:18	06/28/19 16:49	5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.039	U	0.29	0.039	mg/Kg	☼	06/27/19 20:50	06/28/19 12:32	2
Aroclor 1221	0.039	U	0.29	0.039	mg/Kg	☼	06/27/19 20:50	06/28/19 12:32	2
Aroclor 1232	0.039	U	0.29	0.039	mg/Kg	☼	06/27/19 20:50	06/28/19 12:32	2
Aroclor 1242	0.039	U	0.29	0.039	mg/Kg	☼	06/27/19 20:50	06/28/19 12:32	2
Aroclor 1248	3.4		0.29	0.039	mg/Kg	☼	06/27/19 20:50	06/28/19 12:32	2
Aroclor 1254	0.040	U	0.29	0.040	mg/Kg	☼	06/27/19 20:50	06/28/19 12:32	2
Aroclor 1260	0.040	U	0.29	0.040	mg/Kg	☼	06/27/19 20:50	06/28/19 12:32	2
Aroclor-1262	0.040	U	0.29	0.040	mg/Kg	☼	06/27/19 20:50	06/28/19 12:32	2
Aroclor 1268	0.040	U	0.29	0.040	mg/Kg	☼	06/27/19 20:50	06/28/19 12:32	2
Polychlorinated biphenyls, Total	3.4		0.29	0.040	mg/Kg	☼	06/27/19 20:50	06/28/19 12:32	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	83		53 - 150	06/27/19 20:50	06/28/19 12:32	2
DCB Decachlorobiphenyl	83		53 - 150	06/27/19 20:50	06/28/19 12:32	2

Client Sample ID: WP-STC-BK7-C-D-0-062519

Date Collected: 06/25/19 14:00
Date Received: 06/25/19 17:53

Lab Sample ID: 460-185168-8
Matrix: Solid
Percent Solids: 68.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.80		0.48	0.026	mg/Kg	☼	07/03/19 07:30	07/03/19 13:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	81		25 - 113	07/03/19 07:30	07/03/19 13:20	1
Terphenyl-d14 (Surr)	92		27 - 123	07/03/19 07:30	07/03/19 13:20	1
2-Fluorobiphenyl	85		29 - 107	07/03/19 07:30	07/03/19 13:20	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.098	0.013	mg/Kg	☼	07/02/19 19:13	07/03/19 11:51	1
Aroclor 1221	0.013	U	0.098	0.013	mg/Kg	☼	07/02/19 19:13	07/03/19 11:51	1
Aroclor 1232	0.013	U	0.098	0.013	mg/Kg	☼	07/02/19 19:13	07/03/19 11:51	1
Aroclor 1242	0.013	U	0.098	0.013	mg/Kg	☼	07/02/19 19:13	07/03/19 11:51	1
Aroclor 1248	0.013	U	0.098	0.013	mg/Kg	☼	07/02/19 19:13	07/03/19 11:51	1
Aroclor 1254	0.013	U	0.098	0.013	mg/Kg	☼	07/02/19 19:13	07/03/19 11:51	1
Aroclor 1260	0.013	U	0.098	0.013	mg/Kg	☼	07/02/19 19:13	07/03/19 11:51	1
Aroclor-1262	0.013	U	0.098	0.013	mg/Kg	☼	07/02/19 19:13	07/03/19 11:51	1
Aroclor 1268	0.013	U	0.098	0.013	mg/Kg	☼	07/02/19 19:13	07/03/19 11:51	1
Polychlorinated biphenyls, Total	0.013	U	0.098	0.013	mg/Kg	☼	07/02/19 19:13	07/03/19 11:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	94		53 - 150	07/02/19 19:13	07/03/19 11:51	1
DCB Decachlorobiphenyl	96		53 - 150	07/02/19 19:13	07/03/19 11:51	1

YY 8/12/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-185168-1

Client Sample ID: WP-STC-BO13-A-B-0-062519

Date Collected: 06/25/19 14:10
Date Received: 06/25/19 17:53

Lab Sample ID: 460-185168-9

Matrix: Solid
Percent Solids: 37.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	38		4.4	0.23	mg/Kg	☼	06/26/19 03:19	06/26/19 15:50	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*59*		*25 - 113*	*06/26/19 03:19*	*06/26/19 15:50*	*5*
Terphenyl-d14 (Surr)	*78*		*27 - 123*	*06/26/19 03:19*	*06/26/19 15:50*	*5*
2-Fluorobiphenyl	*66*		*29 - 107*	*06/26/19 03:19*	*06/26/19 15:50*	*5*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.90	0.12	mg/Kg	☼	06/26/19 01:55	06/26/19 16:31	5
Aroclor 1221	0.12	U	0.90	0.12	mg/Kg	☼	06/26/19 01:55	06/26/19 16:31	5
Aroclor 1232	0.12	U	0.90	0.12	mg/Kg	☼	06/26/19 01:55	06/26/19 16:31	5
Aroclor 1242	0.12	U	0.90	0.12	mg/Kg	☼	06/26/19 01:55	06/26/19 16:31	5
Aroclor 1248	7.3		0.90	0.12	mg/Kg	☼	06/26/19 01:55	06/26/19 16:31	5
Aroclor 1254	0.12	U	0.90	0.12	mg/Kg	☼	06/26/19 01:55	06/26/19 16:31	5
Aroclor 1260	0.12	U	0.90	0.12	mg/Kg	☼	06/26/19 01:55	06/26/19 16:31	5
Aroclor-1262	0.12	U	0.90	0.12	mg/Kg	☼	06/26/19 01:55	06/26/19 16:31	5
Aroclor 1268	0.12	U	0.90	0.12	mg/Kg	☼	06/26/19 01:55	06/26/19 16:31	5
Polychlorinated biphenyls, Total	7.3		0.90	0.12	mg/Kg	☼	06/26/19 01:55	06/26/19 16:31	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*114*		*53 - 150*	*06/26/19 01:55*	*06/26/19 16:31*	*5*
DCB Decachlorobiphenyl	*117*		*53 - 150*	*06/26/19 01:55*	*06/26/19 16:31*	*5*

Client Sample ID: WP-STC-BO13-C-D-0-062519

Date Collected: 06/25/19 14:25
Date Received: 06/25/19 17:53

Lab Sample ID: 460-185168-10

Matrix: Solid
Percent Solids: 78.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.10	J	0.42	0.022	mg/Kg	☼	06/28/19 04:18	06/28/19 16:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*28*		*25 - 113*	*06/28/19 04:18*	*06/28/19 16:02*	*1*
Terphenyl-d14 (Surr)	*51*		*27 - 123*	*06/28/19 04:18*	*06/28/19 16:02*	*1*
2-Fluorobiphenyl	*30*		*29 - 107*	*06/28/19 04:18*	*06/28/19 16:02*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.086	0.011	mg/Kg	☼	06/27/19 20:50	06/28/19 11:07	1
Aroclor 1221	0.011	U	0.086	0.011	mg/Kg	☼	06/27/19 20:50	06/28/19 11:07	1
Aroclor 1232	0.011	U	0.086	0.011	mg/Kg	☼	06/27/19 20:50	06/28/19 11:07	1
Aroclor 1242	0.011	U	0.086	0.011	mg/Kg	☼	06/27/19 20:50	06/28/19 11:07	1
Aroclor 1248	0.011	U	0.086	0.011	mg/Kg	☼	06/27/19 20:50	06/28/19 11:07	1
Aroclor 1254	0.012	U	0.086	0.012	mg/Kg	☼	06/27/19 20:50	06/28/19 11:07	1
Aroclor 1260	0.012	U	0.086	0.012	mg/Kg	☼	06/27/19 20:50	06/28/19 11:07	1
Aroclor-1262	0.012	U	0.086	0.012	mg/Kg	☼	06/27/19 20:50	06/28/19 11:07	1
Aroclor 1268	0.012	U	0.086	0.012	mg/Kg	☼	06/27/19 20:50	06/28/19 11:07	1
Polychlorinated biphenyls, Total	0.012	U	0.086	0.012	mg/Kg	☼	06/27/19 20:50	06/28/19 11:07	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-185168-1

Client Sample ID: WP-STC-BO13-C-D-0-062519

Lab Sample ID: 460-185168-10

Date Collected: 06/25/19 14:25
Date Received: 06/25/19 17:53

Matrix: Solid
Percent Solids: 78.6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	103		53 - 150	06/27/19 20:50	06/28/19 11:07	1
DCB Decachlorobiphenyl	106		53 - 150	06/27/19 20:50	06/28/19 11:07	1

Client Sample ID: WP-STC-BO13-C-D-1-062519

Lab Sample ID: 460-185168-11

Date Collected: 06/25/19 14:25
Date Received: 06/25/19 17:53

FD

Matrix: Solid
Percent Solids: 79.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.022	U J	0.41	0.022	mg/Kg	☼	06/28/19 04:18	06/28/19 16:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	50		25 - 113	06/28/19 04:18	06/28/19 16:25	1
Terphenyl-d14 (Surr)	53		27 - 123	06/28/19 04:18	06/28/19 16:25	1
2-Fluorobiphenyl	52		29 - 107	06/28/19 04:18	06/28/19 16:25	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.084	0.011	mg/Kg	☼	06/27/19 20:50	06/28/19 11:24	1
Aroclor 1221	0.011	U	0.084	0.011	mg/Kg	☼	06/27/19 20:50	06/28/19 11:24	1
Aroclor 1232	0.011	U	0.084	0.011	mg/Kg	☼	06/27/19 20:50	06/28/19 11:24	1
Aroclor 1242	0.011	U	0.084	0.011	mg/Kg	☼	06/27/19 20:50	06/28/19 11:24	1
Aroclor 1248	0.011	U	0.084	0.011	mg/Kg	☼	06/27/19 20:50	06/28/19 11:24	1
Aroclor 1254	0.012	U	0.084	0.012	mg/Kg	☼	06/27/19 20:50	06/28/19 11:24	1
Aroclor 1260	0.012	U	0.084	0.012	mg/Kg	☼	06/27/19 20:50	06/28/19 11:24	1
Aroclor-1262	0.012	U	0.084	0.012	mg/Kg	☼	06/27/19 20:50	06/28/19 11:24	1
Aroclor 1268	0.012	U	0.084	0.012	mg/Kg	☼	06/27/19 20:50	06/28/19 11:24	1
Polychlorinated biphenyls, Total	0.012	U	0.084	0.012	mg/Kg	☼	06/27/19 20:50	06/28/19 11:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	121		53 - 150	06/27/19 20:50	06/28/19 11:24	1
DCB Decachlorobiphenyl	112		53 - 150	06/27/19 20:50	06/28/19 11:24	1

Client Sample ID: WP-STC-BG10-A-B-0-062519

Lab Sample ID: 460-185168-12

Date Collected: 06/25/19 14:40
Date Received: 06/25/19 17:53

Matrix: Solid
Percent Solids: 45.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.2		0.73	0.039	mg/Kg	☼	06/26/19 03:19	06/26/19 10:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	58		25 - 113	06/26/19 03:19	06/26/19 10:37	1
Terphenyl-d14 (Surr)	75		27 - 123	06/26/19 03:19	06/26/19 10:37	1
2-Fluorobiphenyl	61		29 - 107	06/26/19 03:19	06/26/19 10:37	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.020	U	0.15	0.020	mg/Kg	☼	06/26/19 01:55	06/26/19 13:07	1
Aroclor 1221	0.020	U	0.15	0.020	mg/Kg	☼	06/26/19 01:55	06/26/19 13:07	1
Aroclor 1232	0.020	U	0.15	0.020	mg/Kg	☼	06/26/19 01:55	06/26/19 13:07	1
Aroclor 1242	0.020	U	0.15	0.020	mg/Kg	☼	06/26/19 01:55	06/26/19 13:07	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-185168-1

Client Sample ID: WP-STC-BG10-A-B-0-062519

Lab Sample ID: 460-185168-12
Date Collected: 06/25/19 14:40
Matrix: Solid
Date Received: 06/25/19 17:53
Percent Solids: 45.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.15		0.15	0.020	mg/Kg	☼	06/26/19 01:55	06/26/19 13:07	1
Aroclor 1254	0.020	U	0.15	0.020	mg/Kg	☼	06/26/19 01:55	06/26/19 13:07	1
Aroclor 1260	0.020	U	0.15	0.020	mg/Kg	☼	06/26/19 01:55	06/26/19 13:07	1
Aroclor-1262	0.020	U	0.15	0.020	mg/Kg	☼	06/26/19 01:55	06/26/19 13:07	1
Aroclor 1268	0.020	U	0.15	0.020	mg/Kg	☼	06/26/19 01:55	06/26/19 13:07	1
Polychlorinated biphenyls, Total	0.15		0.15	0.020	mg/Kg	☼	06/26/19 01:55	06/26/19 13:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*136*		*53 - 150*	*06/26/19 01:55*	*06/26/19 13:07*	*1*
DCB Decachlorobiphenyl	*122*		*53 - 150*	*06/26/19 01:55*	*06/26/19 13:07*	*1*

Client Sample ID: WP-STC-BM10-A-B-0-062519

Lab Sample ID: 460-185168-14
Date Collected: 06/25/19 15:17
Matrix: Solid
Date Received: 06/25/19 17:53
Percent Solids: 66.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.8		0.49	0.026	mg/Kg	☼	06/26/19 03:19	06/26/19 10:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*66*		*25 - 113*	*06/26/19 03:19*	*06/26/19 10:54*	*1*
Terphenyl-d14 (Surr)	*84*		*27 - 123*	*06/26/19 03:19*	*06/26/19 10:54*	*1*
2-Fluorobiphenyl	*71*		*29 - 107*	*06/26/19 03:19*	*06/26/19 10:54*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.10	0.013	mg/Kg	☼	06/26/19 01:55	06/26/19 13:24	1
Aroclor 1221	0.013	U	0.10	0.013	mg/Kg	☼	06/26/19 01:55	06/26/19 13:24	1
Aroclor 1232	0.013	U	0.10	0.013	mg/Kg	☼	06/26/19 01:55	06/26/19 13:24	1
Aroclor 1242	0.013	U	0.10	0.013	mg/Kg	☼	06/26/19 01:55	06/26/19 13:24	1
Aroclor 1248	0.91		0.10	0.013	mg/Kg	☼	06/26/19 01:55	06/26/19 13:24	1
Aroclor 1254	0.014	U	0.10	0.014	mg/Kg	☼	06/26/19 01:55	06/26/19 13:24	1
Aroclor 1260	0.014	U	0.10	0.014	mg/Kg	☼	06/26/19 01:55	06/26/19 13:24	1
Aroclor-1262	0.014	U	0.10	0.014	mg/Kg	☼	06/26/19 01:55	06/26/19 13:24	1
Aroclor 1268	0.014	U	0.10	0.014	mg/Kg	☼	06/26/19 01:55	06/26/19 13:24	1
Polychlorinated biphenyls, Total	0.91		0.10	0.014	mg/Kg	☼	06/26/19 01:55	06/26/19 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*121*		*53 - 150*	*06/26/19 01:55*	*06/26/19 13:24*	*1*
DCB Decachlorobiphenyl	*111*		*53 - 150*	*06/26/19 01:55*	*06/26/19 13:24*	*1*

Client Sample ID: WP-ST-BE16-A-B-0-062519

Lab Sample ID: 460-185168-16
Date Collected: 06/25/19 16:15
Matrix: Solid
Date Received: 06/25/19 17:53
Percent Solids: 22.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	17	J	1.4	0.076	mg/Kg	☼	06/26/19 03:19	06/26/19 11:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*61*		*25 - 113*	*06/26/19 03:19*	*06/26/19 11:11*	*1*
Terphenyl-d14 (Surr)	*75*		*27 - 123*	*06/26/19 03:19*	*06/26/19 11:11*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-185168-1

Client Sample ID: WP-ST-BE16-A-B-0-062519

Date Collected: 06/25/19 16:15
Date Received: 06/25/19 17:53

Lab Sample ID: 460-185168-16
Matrix: Solid
Percent Solids: 22.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	65		29 - 107	06/26/19 03:19	06/26/19 11:11	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.078	U	0.59	0.078	mg/Kg	☼	06/26/19 01:55	06/26/19 16:14	2
Aroclor 1221	0.078	U	0.59	0.078	mg/Kg	☼	06/26/19 01:55	06/26/19 16:14	2
Aroclor 1232	0.078	U	0.59	0.078	mg/Kg	☼	06/26/19 01:55	06/26/19 16:14	2
Aroclor 1242	0.078	U	0.59	0.078	mg/Kg	☼	06/26/19 01:55	06/26/19 16:14	2
Aroclor 1248	5.2		0.59	0.078	mg/Kg	☼	06/26/19 01:55	06/26/19 16:14	2
Aroclor 1254	0.080	U	0.59	0.080	mg/Kg	☼	06/26/19 01:55	06/26/19 16:14	2
Aroclor 1260	0.080	U	0.59	0.080	mg/Kg	☼	06/26/19 01:55	06/26/19 16:14	2
Aroclor-1262	0.080	U	0.59	0.080	mg/Kg	☼	06/26/19 01:55	06/26/19 16:14	2
Aroclor 1268	0.080	U	0.59	0.080	mg/Kg	☼	06/26/19 01:55	06/26/19 16:14	2
Polychlorinated biphenyls, Total	5.2		0.59	0.080	mg/Kg	☼	06/26/19 01:55	06/26/19 16:14	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	116		53 - 150	06/26/19 01:55	06/26/19 16:14	2
DCB Decachlorobiphenyl	120		53 - 150	06/26/19 01:55	06/26/19 16:14	2

Client Sample ID: WP-SB-BE16-G-H-0-062519

Date Collected: 06/25/19 16:28
Date Received: 06/25/19 17:53

Lab Sample ID: 460-185168-17
Matrix: Solid
Percent Solids: 83.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.10	J	0.39	0.021	mg/Kg	☼	06/26/19 03:19	06/26/19 11:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	63		25 - 113	06/26/19 03:19	06/26/19 11:28	1
Terphenyl-d14 (Surr)	82		27 - 123	06/26/19 03:19	06/26/19 11:28	1
2-Fluorobiphenyl	70		29 - 107	06/26/19 03:19	06/26/19 11:28	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.080	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 13:58	1
Aroclor 1221	0.011	U	0.080	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 13:58	1
Aroclor 1232	0.011	U	0.080	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 13:58	1
Aroclor 1242	0.011	U	0.080	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 13:58	1
Aroclor 1248	0.011	U	0.080	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 13:58	1
Aroclor 1254	0.011	U	0.080	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 13:58	1
Aroclor 1260	0.011	U	0.080	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 13:58	1
Aroclor-1262	0.011	U	0.080	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 13:58	1
Aroclor 1268	0.011	U	0.080	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 13:58	1
Polychlorinated biphenyls, Total	0.011	U	0.080	0.011	mg/Kg	☼	06/26/19 01:55	06/26/19 13:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	120		53 - 150	06/26/19 01:55	06/26/19 13:58	1
DCB Decachlorobiphenyl	114		53 - 150	06/26/19 01:55	06/26/19 13:58	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-185168-1

Client Sample ID: WP-FB-062519

Date Collected: 06/25/19 16:35
Date Received: 06/25/19 17:53

Lab Sample ID: 460-185168-18

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		06/26/19 03:46	06/26/19 14:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*81*		*51 - 108*	*06/26/19 03:46*	*06/26/19 14:28*	*1*
Terphenyl-d14 (Surr)	*89*		*40 - 148*	*06/26/19 03:46*	*06/26/19 14:28*	*1*
2-Fluorobiphenyl	*78*		*45 - 107*	*06/26/19 03:46*	*06/26/19 14:28*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		06/25/19 14:25	06/26/19 09:14	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		06/25/19 14:25	06/26/19 09:14	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		06/25/19 14:25	06/26/19 09:14	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		06/25/19 14:25	06/26/19 09:14	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		06/25/19 14:25	06/26/19 09:14	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		06/25/19 14:25	06/26/19 09:14	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		06/25/19 14:25	06/26/19 09:14	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		06/25/19 14:25	06/26/19 09:14	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		06/25/19 14:25	06/26/19 09:14	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		06/25/19 14:25	06/26/19 09:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*71*		*10 - 150*	*06/25/19 14:25*	*06/26/19 09:14*	*1*
DCB Decachlorobiphenyl	*73*		*10 - 150*	*06/25/19 14:25*	*06/26/19 09:14*	*1*

HY 8/12/19

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-185378

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/19/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on June 27, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-PB-BT34-I-J-0-062719	460-185378-1	Sediment	PCBs, BEHP*
WP-STC-BE16-A-B-0-062719	460-185378-2	Sediment	PCBs, BEHP*
WP-ST-BU34-E-F-0-062719	460-185378-3	Sediment	PCBs, BEHP*
WP-SB-BU34-I-J-0-062719	460-185378-4	Sediment	PCBs, BEHP*
WP-SB-BS25-C-D-0-062719	460-185378-5	Sediment	PCBs, BEHP*
WP-STC-BP13-A-B-0-062719	460-185378-6	Sediment	PCBs, BEHP*
WP-STC-BQ13-A-B-0-062719	460-185378-7	Sediment	PCBs, BEHP*
WP-STC-BQ13-C-D-0-062719	460-185378-8	Sediment	PCBs, BEHP*
WP-STC-BQ13-C-D-1-062719	460-185378-9	Sediment	PCBs, BEHP*
WP-FB-062719	460-185378-10	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable which contains all required elements for the requested analyses.

The analyses of samples WP-STC-BQ13-A-B-0-062719, WP-STC-BQ13-C-D-0-062719, and WP-STC-BQ13-C-D-1-062719 were placed on hold upon lab receipt but were later canceled on July 1, 2019.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The extraction batch #620703 worksheet and the Form 4 showed the prep date to be June 27, 2019. However, the case narrative stated June 28, 2019. The lab explained that the perceived discrepancy was due to that the extraction batch opened on June 27, 2019 and closed on June 28, 2019.

The MS/MSD analyses were performed on sample WP-PB-BT34-I-J-0-062719 and yielded recoveries of BEHP exceeding the laboratory-established control limits. The relative percent difference (RPD) of BEHP also exceeded the laboratory-established control limit. Since the MS/MSD analyses failed analytical accuracy and precision, the positive BEHP detected in sample WP-PB-BT34-I-J-0-062719 was estimated (J).

PCBs

Based on available information submitted in the lab report, there was no evidence that MS/MSD were performed. Since the recoveries and RPD of LCS and LCSD analyses were within laboratory-established control limits, the accuracy and precision of the analytical system were acceptable. However, the matrix effect on analytical accuracy and precision could not be assessed.

The Aroclor-1248 results were estimated (J) for samples WP-PB-BT34-I-J-0-062719 and WP-STC-BP13-A-B-0-062719 as the differences of Aroclor-1248 concentrations from the two analytical columns were greater than 25%.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Although some sediment sample results were qualified due to non-compliant QC results, none warranted data rejection. All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-185378-1

Client Sample ID: WP-PB-BT34-I-J-0-062719

Date Collected: 06/27/19 11:15
Date Received: 06/27/19 16:10

Lab Sample ID: 460-185378-1

Matrix: Solid
Percent Solids: 44.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	11	J	0.74	0.039	mg/Kg	☼	06/28/19 04:18	06/28/19 12:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*72*		*25 - 113*	*06/28/19 04:18*	*06/28/19 12:05*	*1*
Terphenyl-d14 (Surr)	*92*		*27 - 123*	*06/28/19 04:18*	*06/28/19 12:05*	*1*
2-Fluorobiphenyl	*78*		*29 - 107*	*06/28/19 04:18*	*06/28/19 12:05*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.020	U	0.15	0.020	mg/Kg	☼	06/28/19 05:04	06/28/19 14:13	1
Aroclor 1221	0.020	U	0.15	0.020	mg/Kg	☼	06/28/19 05:04	06/28/19 14:13	1
Aroclor 1232	0.020	U	0.15	0.020	mg/Kg	☼	06/28/19 05:04	06/28/19 14:13	1
Aroclor 1242	0.020	U	0.15	0.020	mg/Kg	☼	06/28/19 05:04	06/28/19 14:13	1
Aroclor 1248	0.92	J	0.15	0.020	mg/Kg	☼	06/28/19 05:04	06/28/19 14:13	1
Aroclor 1254	0.021	U	0.15	0.021	mg/Kg	☼	06/28/19 05:04	06/28/19 14:13	1
Aroclor 1260	0.021	U	0.15	0.021	mg/Kg	☼	06/28/19 05:04	06/28/19 14:13	1
Aroclor-1262	0.021	U	0.15	0.021	mg/Kg	☼	06/28/19 05:04	06/28/19 14:13	1
Aroclor 1268	0.021	U	0.15	0.021	mg/Kg	☼	06/28/19 05:04	06/28/19 14:13	1
Polychlorinated biphenyls, Total	0.92	J	0.15	0.021	mg/Kg	☼	06/28/19 05:04	06/28/19 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*128*		*53 - 150*	*06/28/19 05:04*	*06/28/19 14:13*	*1*
DCB Decachlorobiphenyl	*98*		*53 - 150*	*06/28/19 05:04*	*06/28/19 14:13*	*1*

Client Sample ID: WP-STC-BE16-A-B-0-062719

Date Collected: 06/27/19 11:30
Date Received: 06/27/19 16:10

Lab Sample ID: 460-185378-2

Matrix: Solid
Percent Solids: 50.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.3		0.66	0.035	mg/Kg	☼	06/28/19 04:18	06/28/19 12:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*62*		*25 - 113*	*06/28/19 04:18*	*06/28/19 12:29*	*1*
Terphenyl-d14 (Surr)	*86*		*27 - 123*	*06/28/19 04:18*	*06/28/19 12:29*	*1*
2-Fluorobiphenyl	*72*		*29 - 107*	*06/28/19 04:18*	*06/28/19 12:29*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.018	U	0.13	0.018	mg/Kg	☼	06/28/19 05:04	06/28/19 14:30	1
Aroclor 1221	0.018	U	0.13	0.018	mg/Kg	☼	06/28/19 05:04	06/28/19 14:30	1
Aroclor 1232	0.018	U	0.13	0.018	mg/Kg	☼	06/28/19 05:04	06/28/19 14:30	1
Aroclor 1242	0.018	U	0.13	0.018	mg/Kg	☼	06/28/19 05:04	06/28/19 14:30	1
Aroclor 1248	0.21		0.13	0.018	mg/Kg	☼	06/28/19 05:04	06/28/19 14:30	1
Aroclor 1254	0.018	U	0.13	0.018	mg/Kg	☼	06/28/19 05:04	06/28/19 14:30	1
Aroclor 1260	0.018	U	0.13	0.018	mg/Kg	☼	06/28/19 05:04	06/28/19 14:30	1
Aroclor-1262	0.018	U	0.13	0.018	mg/Kg	☼	06/28/19 05:04	06/28/19 14:30	1
Aroclor 1268	0.018	U	0.13	0.018	mg/Kg	☼	06/28/19 05:04	06/28/19 14:30	1
Polychlorinated biphenyls, Total	0.21		0.13	0.018	mg/Kg	☼	06/28/19 05:04	06/28/19 14:30	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-185378-1

Client Sample ID: WP-STC-BE16-A-B-0-062719

Lab Sample ID: 460-185378-2
Date Collected: 06/27/19 11:30
Matrix: Solid
Date Received: 06/27/19 16:10
Percent Solids: 50.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	121		53 - 150	06/28/19 05:04	06/28/19 14:30	1
DCB Decachlorobiphenyl	109		53 - 150	06/28/19 05:04	06/28/19 14:30	1

Client Sample ID: WP-ST-BU34-E-F-0-062719

Lab Sample ID: 460-185378-3
Date Collected: 06/27/19 11:45
Matrix: Solid
Date Received: 06/27/19 16:10
Percent Solids: 71.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.35	J	0.46	0.024	mg/Kg	☼	06/28/19 04:18	06/28/19 12:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	65		25 - 113	06/28/19 04:18	06/28/19 12:52	1
Terphenyl-d14 (Surr)	84		27 - 123	06/28/19 04:18	06/28/19 12:52	1
2-Fluorobiphenyl	68		29 - 107	06/28/19 04:18	06/28/19 12:52	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.093	0.012	mg/Kg	☼	06/28/19 05:04	06/28/19 14:47	1
Aroclor 1221	0.012	U	0.093	0.012	mg/Kg	☼	06/28/19 05:04	06/28/19 14:47	1
Aroclor 1232	0.012	U	0.093	0.012	mg/Kg	☼	06/28/19 05:04	06/28/19 14:47	1
Aroclor 1242	0.012	U	0.093	0.012	mg/Kg	☼	06/28/19 05:04	06/28/19 14:47	1
Aroclor 1248	0.077	J	0.093	0.012	mg/Kg	☼	06/28/19 05:04	06/28/19 14:47	1
Aroclor 1254	0.013	U	0.093	0.013	mg/Kg	☼	06/28/19 05:04	06/28/19 14:47	1
Aroclor 1260	0.013	U	0.093	0.013	mg/Kg	☼	06/28/19 05:04	06/28/19 14:47	1
Aroclor-1262	0.013	U	0.093	0.013	mg/Kg	☼	06/28/19 05:04	06/28/19 14:47	1
Aroclor 1268	0.013	U	0.093	0.013	mg/Kg	☼	06/28/19 05:04	06/28/19 14:47	1
Polychlorinated biphenyls, Total	0.077	J	0.093	0.013	mg/Kg	☼	06/28/19 05:04	06/28/19 14:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	117		53 - 150	06/28/19 05:04	06/28/19 14:47	1
DCB Decachlorobiphenyl	110		53 - 150	06/28/19 05:04	06/28/19 14:47	1

Client Sample ID: WP-SB-BU34-I-J-0-062719

Lab Sample ID: 460-185378-4
Date Collected: 06/27/19 12:15
Matrix: Solid
Date Received: 06/27/19 16:10
Percent Solids: 74.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.2		0.44	0.023	mg/Kg	☼	06/28/19 04:18	06/28/19 13:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	65		25 - 113	06/28/19 04:18	06/28/19 13:16	1
Terphenyl-d14 (Surr)	90		27 - 123	06/28/19 04:18	06/28/19 13:16	1
2-Fluorobiphenyl	70		29 - 107	06/28/19 04:18	06/28/19 13:16	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.090	0.012	mg/Kg	☼	06/28/19 05:04	06/28/19 15:03	1
Aroclor 1221	0.012	U	0.090	0.012	mg/Kg	☼	06/28/19 05:04	06/28/19 15:03	1
Aroclor 1232	0.012	U	0.090	0.012	mg/Kg	☼	06/28/19 05:04	06/28/19 15:03	1
Aroclor 1242	0.012	U	0.090	0.012	mg/Kg	☼	06/28/19 05:04	06/28/19 15:03	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-185378-1

Client Sample ID: WP-SB-BU34-I-J-0-062719

Lab Sample ID: 460-185378-4

Date Collected: 06/27/19 12:15
Date Received: 06/27/19 16:10

Matrix: Solid
Percent Solids: 74.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.012	U	0.090	0.012	mg/Kg	☼	06/28/19 05:04	06/28/19 15:03	1
Aroclor 1254	0.012	U	0.090	0.012	mg/Kg	☼	06/28/19 05:04	06/28/19 15:03	1
Aroclor 1260	0.012	U	0.090	0.012	mg/Kg	☼	06/28/19 05:04	06/28/19 15:03	1
Aroclor-1262	0.012	U	0.090	0.012	mg/Kg	☼	06/28/19 05:04	06/28/19 15:03	1
Aroclor 1268	0.012	U	0.090	0.012	mg/Kg	☼	06/28/19 05:04	06/28/19 15:03	1
Polychlorinated biphenyls, Total	0.012	U	0.090	0.012	mg/Kg	☼	06/28/19 05:04	06/28/19 15:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*105*		*53 - 150*	*06/28/19 05:04*	*06/28/19 15:03*	*1*
DCB Decachlorobiphenyl	*102*		*53 - 150*	*06/28/19 05:04*	*06/28/19 15:03*	*1*

Client Sample ID: WP-SB-BS25-C-D-0-062719

Lab Sample ID: 460-185378-5

Date Collected: 06/27/19 12:30
Date Received: 06/27/19 16:10

Matrix: Solid
Percent Solids: 67.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.43	J	0.49	0.026	mg/Kg	☼	06/28/19 04:18	06/28/19 13:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*63*		*25 - 113*	*06/28/19 04:18*	*06/28/19 13:39*	*1*
Terphenyl-d14 (Surr)	*90*		*27 - 123*	*06/28/19 04:18*	*06/28/19 13:39*	*1*
2-Fluorobiphenyl	*71*		*29 - 107*	*06/28/19 04:18*	*06/28/19 13:39*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.099	0.013	mg/Kg	☼	06/28/19 05:04	06/28/19 15:04	1
Aroclor 1221	0.013	U	0.099	0.013	mg/Kg	☼	06/28/19 05:04	06/28/19 15:04	1
Aroclor 1232	0.013	U	0.099	0.013	mg/Kg	☼	06/28/19 05:04	06/28/19 15:04	1
Aroclor 1242	0.013	U	0.099	0.013	mg/Kg	☼	06/28/19 05:04	06/28/19 15:04	1
Aroclor 1248	0.013	U	0.099	0.013	mg/Kg	☼	06/28/19 05:04	06/28/19 15:04	1
Aroclor 1254	0.014	U	0.099	0.014	mg/Kg	☼	06/28/19 05:04	06/28/19 15:04	1
Aroclor 1260	0.014	U	0.099	0.014	mg/Kg	☼	06/28/19 05:04	06/28/19 15:04	1
Aroclor-1262	0.014	U	0.099	0.014	mg/Kg	☼	06/28/19 05:04	06/28/19 15:04	1
Aroclor 1268	0.014	U	0.099	0.014	mg/Kg	☼	06/28/19 05:04	06/28/19 15:04	1
Polychlorinated biphenyls, Total	0.014	U	0.099	0.014	mg/Kg	☼	06/28/19 05:04	06/28/19 15:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*104*		*53 - 150*	*06/28/19 05:04*	*06/28/19 15:04*	*1*
DCB Decachlorobiphenyl	*106*		*53 - 150*	*06/28/19 05:04*	*06/28/19 15:04*	*1*

Client Sample ID: WP-STC-BP13-A-B-0-062719

Lab Sample ID: 460-185378-6

Date Collected: 06/27/19 13:40
Date Received: 06/27/19 16:10

Matrix: Solid
Percent Solids: 89.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.16	J	0.37	0.019	mg/Kg	☼	06/28/19 04:18	06/28/19 14:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*67*		*25 - 113*	*06/28/19 04:18*	*06/28/19 14:03*	*1*
Terphenyl-d14 (Surr)	*87*		*27 - 123*	*06/28/19 04:18*	*06/28/19 14:03*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-185378-1

Client Sample ID: WP-STC-BP13-A-B-0-062719

Date Collected: 06/27/19 13:40
Date Received: 06/27/19 16:10

Lab Sample ID: 460-185378-6

Matrix: Solid
Percent Solids: 89.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	74		29 - 107	06/28/19 04:18	06/28/19 14:03	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.0099	U	0.075	0.0099	mg/Kg	☼	06/28/19 05:04	06/28/19 15:24	1
Aroclor 1221	0.0099	U	0.075	0.0099	mg/Kg	☼	06/28/19 05:04	06/28/19 15:24	1
Aroclor 1232	0.0099	U	0.075	0.0099	mg/Kg	☼	06/28/19 05:04	06/28/19 15:24	1
Aroclor 1242	0.0099	U	0.075	0.0099	mg/Kg	☼	06/28/19 05:04	06/28/19 15:24	1
Aroclor 1248	0.15	J	0.075	0.0099	mg/Kg	☼	06/28/19 05:04	06/28/19 15:24	1
Aroclor 1254	0.010	U	0.075	0.010	mg/Kg	☼	06/28/19 05:04	06/28/19 15:24	1
Aroclor 1260	0.010	U	0.075	0.010	mg/Kg	☼	06/28/19 05:04	06/28/19 15:24	1
Aroclor-1262	0.010	U	0.075	0.010	mg/Kg	☼	06/28/19 05:04	06/28/19 15:24	1
Aroclor 1268	0.010	U	0.075	0.010	mg/Kg	☼	06/28/19 05:04	06/28/19 15:24	1
Polychlorinated biphenyls, Total	0.15	J	0.075	0.010	mg/Kg	☼	06/28/19 05:04	06/28/19 15:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	102		53 - 150	06/28/19 05:04	06/28/19 15:24	1
DCB Decachlorobiphenyl	102		53 - 150	06/28/19 05:04	06/28/19 15:24	1

Client Sample ID: WP-FB-062719

Date Collected: 06/27/19 14:25
Date Received: 06/27/19 16:10

Lab Sample ID: 460-185378-10

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		06/28/19 01:12	06/28/19 10:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	86		51 - 108	06/28/19 01:12	06/28/19 10:09	1
Terphenyl-d14 (Surr)	94		40 - 148	06/28/19 01:12	06/28/19 10:09	1
2-Fluorobiphenyl	81		45 - 107	06/28/19 01:12	06/28/19 10:09	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		06/27/19 23:49	06/28/19 08:09	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		06/27/19 23:49	06/28/19 08:09	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		06/27/19 23:49	06/28/19 08:09	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		06/27/19 23:49	06/28/19 08:09	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		06/27/19 23:49	06/28/19 08:09	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		06/27/19 23:49	06/28/19 08:09	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		06/27/19 23:49	06/28/19 08:09	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		06/27/19 23:49	06/28/19 08:09	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		06/27/19 23:49	06/28/19 08:09	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		06/27/19 23:49	06/28/19 08:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	77		10 - 150	06/27/19 23:49	06/28/19 08:09	1
DCB Decachlorobiphenyl	101		10 - 150	06/27/19 23:49	06/28/19 08:09	1

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-185437

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/19/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on June 28, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-SB-BS28-M-N-0-062819	460-185437-1	Sediment	PCBs, BEHP*
WP-FB-062819	460-185437-2	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable for the requested analyses. The data package contains required elements.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The continuing calibration verification (CCV) associated with batch 460-621371 recovered above the upper control limit for bis(2-ethylhexyl) phthalate. Since the only sample associated

with this non-compliant CCV was the field blank and since bis(2-ethylhexyl)phthalate was not detected in the field blank, the reporting limit was estimated (UJ) for field blank WP-FB-062819.

The MS/MSD analyses were performed on a sample unrelated to the site, therefore their results were not used to qualify BEHP result in this report.

PCBs

The MS/MSD analyses were performed on a sample unrelated to the site, therefore their results were not used to qualify BEHP result in this report.

In the initial submittal, none of the target Aroclors was detected in the sediment sample, but Aroclor-1242 and Aroclor-2460 were detected in the field blank. The examination of chromatograms of both samples raised the suspicion of sample identification mix-up during samples acquisition. After contacted for an investigation, the lab re-analyzed the sediment sample extract and found it yielding similar result, i.e. free of any Aroclors. The lab also re-extracted and re-analyzed the sediment sample and confirmed that the sediment sample free of Aroclors. Although this re-extraction was performed after the 14-day holding time has expired, with low degradation rate for PCBs, this re-extraction still lends insight into whether the initial analysis was indeed performed on the sediment sample, not as a result of sample identification error.

As for the Aroclors identified in the field blank samples, since only one sample jar was delivered to the lab for analysis, all sample volume was depleted with the initial extraction and analysis. A re-extraction was thus not formed. The case narrative of the revised lab report stated that the samples around the field blank in the analytical run did not contain a high amount of PCBs, so carryover is not suspected. The aqueous prep batch also did not contain any samples that contained a high concentration of PCBs, so a contamination is not suspected.

Since the sediment sample is demonstrated free of Aroclors, the detection of Aroclor-1242 and Aroclor-1260, regardless how irregular this may be, posed no impact to the non-detects of PCBs reported for sediment sample WP-SB-BS28-M-N-0-062819.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Although the non-detect BHEP result was estimated (UJ) for the field blank due to non-compliant instrument QC result, as documented in the lab report case narrative, the non-compliance did not warrant data rejections. All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-185437-1

Client Sample ID: WP-SB-BS28-M-N-0-062819

Lab Sample ID: 460-185437-1

Date Collected: 06/28/19 10:25
Date Received: 06/28/19 12:38

Matrix: Solid
Percent Solids: 70.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.54		0.47	0.025	mg/Kg	☼	06/28/19 23:29	06/29/19 22:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*55*		*25 - 113*	*06/28/19 23:29*	*06/29/19 22:08*	*1*
Terphenyl-d14 (Surr)	*85*		*27 - 123*	*06/28/19 23:29*	*06/29/19 22:08*	*1*
2-Fluorobiphenyl	*63*		*29 - 107*	*06/28/19 23:29*	*06/29/19 22:08*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.095	0.013	mg/Kg	☼	06/28/19 18:27	06/29/19 12:14	1
Aroclor 1221	0.013	U	0.095	0.013	mg/Kg	☼	06/28/19 18:27	06/29/19 12:14	1
Aroclor 1232	0.013	U	0.095	0.013	mg/Kg	☼	06/28/19 18:27	06/29/19 12:14	1
Aroclor 1242	0.013	U	0.095	0.013	mg/Kg	☼	06/28/19 18:27	06/29/19 12:14	1
Aroclor 1248	0.013	U	0.095	0.013	mg/Kg	☼	06/28/19 18:27	06/29/19 12:14	1
Aroclor 1254	0.013	U	0.095	0.013	mg/Kg	☼	06/28/19 18:27	06/29/19 12:14	1
Aroclor 1260	0.013	U	0.095	0.013	mg/Kg	☼	06/28/19 18:27	06/29/19 12:14	1
Aroclor-1262	0.013	U	0.095	0.013	mg/Kg	☼	06/28/19 18:27	06/29/19 12:14	1
Aroclor 1268	0.013	U	0.095	0.013	mg/Kg	☼	06/28/19 18:27	06/29/19 12:14	1
Polychlorinated biphenyls, Total	0.013	U	0.095	0.013	mg/Kg	☼	06/28/19 18:27	06/29/19 12:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*59*		*53 - 150*	*06/28/19 18:27*	*06/29/19 12:14*	*1*
DCB Decachlorobiphenyl	*65*		*53 - 150*	*06/28/19 18:27*	*06/29/19 12:14*	*1*

Client Sample ID: WP-FB-062819

Lab Sample ID: 460-185437-2

Date Collected: 06/28/19 10:39
Date Received: 06/28/19 12:38

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U J	2.0	1.7	ug/L		06/29/19 07:09	06/29/19 21:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*100*		*51 - 108*	*06/29/19 07:09*	*06/29/19 21:20*	*1*
Terphenyl-d14 (Surr)	*128*		*40 - 148*	*06/29/19 07:09*	*06/29/19 21:20*	*1*
2-Fluorobiphenyl	*95*		*45 - 107*	*06/29/19 07:09*	*06/29/19 21:20*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		06/29/19 16:15	06/30/19 15:33	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		06/29/19 16:15	06/30/19 15:33	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		06/29/19 16:15	06/30/19 15:33	1
Aroclor 1242	0.44		0.40	0.12	ug/L		06/29/19 16:15	06/30/19 15:33	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		06/29/19 16:15	06/30/19 15:33	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		06/29/19 16:15	06/30/19 15:33	1
Aroclor 1260	4.0		0.40	0.11	ug/L		06/29/19 16:15	06/30/19 15:33	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		06/29/19 16:15	06/30/19 15:33	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		06/29/19 16:15	06/30/19 15:33	1
Polychlorinated biphenyls, Total	4.4		0.40	0.12	ug/L		06/29/19 16:15	06/30/19 15:33	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-185437-1

Client Sample ID: WP-FB-062819

Date Collected: 06/28/19 10:39
Date Received: 06/28/19 12:38

Lab Sample ID: 460-185437-2

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	44		10 - 150	06/29/19 16:15	06/30/19 15:33	1
DCB Decachlorobiphenyl	42		10 - 150	06/29/19 16:15	06/30/19 15:33	1

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-185770

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/19/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on July 2, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-STC-BK6-A-B-0-070219	460-185770-1	Sediment	PCBs, BEHP*
WP-STC-BK6-C-D-0-070219	460-185770-2	Sediment	PCBs, BEHP*
WP-STC-BJ6-A-B-0-070219	460-185770-3	Sediment	PCBs, BEHP*
WP-STC-BJ6-C-D-0-070219	460-185770-4	Sediment	PCBs, BEHP*
WP-STC-BL6-A-B-0-070219	460-185770-5	Sediment	PCBs, BEHP*
WP-STC-BL6-C-D-0-070219	460-185770-6	Sediment	PCBs, BEHP*
WP-FB-070219	460-185770-7	Field Blank	PCBs, BEHP*
WP-STC-BH1-A-B-0-070219	460-185770-8	Sediment	PCBs, BEHP*
WP-STC-BH1-C-D-0-070219	460-185770-9	Sediment	PCBs, BEHP*
WP-STC-BH4-A-B-0-070219	460-185770-10	Sediment	PCBs, BEHP*
WP-STC-BH4-C-D-0-070219	460-185770-11	Sediment	PCBs, BEHP*
WP-STC-BK4-A-B-0-070219	460-185770-12	Sediment	PCBs, BEHP*
WP-STC-BK4-C-D-070219	460-185770-13	Sediment	PCBs, BEHP*
WP-STC-BK1-A-B-0-070219	460-185770-14	Sediment	PCBs, BEHP*
WP-STC-BK1-C-D-0-070219	460-185770-15	Sediment	PCBs, BEHP*
WP-STC-BN4-A-B-0-070219	460-185770-16	Sediment	PCBs, BEHP*
WP-STC-BN4-C-D-0-070219	460-185770-17	Sediment	PCBs, BEHP*

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-STC-BN1-A-B-0-070219	460-185770-18	Sediment	PCBs, BEHP*
WP-STC-BN1-C-D-0-070219	460-185770-19	Sediment	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable which contains all required elements for the requested analyses. Please note that the field sample identification was incorrectly logged in by the lab for lab sample 460-185770-12 as WP-STC-BH4-A-B-0-070219 when the correct identification should have been WP-STC-BK4-A-B-0-070219. The lab provided a revised report with correct information. The correct field identification is used in discussion throughout this report.

With the exception of WP-STC-BK6-A-B-0-070219, WP-STC-BJ6-A-B-0-070219, WP-STC-BL6-A-B-0-070219, and WP-FB-070219, the analyses of sediment samples were placed on hold upon lab receipt. However, the analyses of these contingent samples were later released on July 3, 2019.

The worksheet for percent solid determination batch 622193 did not provide the tare weights of dishes used for each sample. After contacted for explanation, the lab responded that an infrared (IR) analyzer, which zero the dish weight prior to sample analysis, was used to determine the moisture/solid contents of samples in batch 622193. Although a deviation from the analytical method referenced from the case narrative, the sample solid contents were correctly determined based information on the worksheet. These solid content results were used to adjust BEHP and Aroclor results in the associated sediment samples, with the exception of WP-STC-BH1-A-B-0-070219. The review of the worksheet for the said batch showed that incorrect wet sample mass value was entered for sample WP-STC-BH1-A-B-0-07021. Instead of a decimal point, a comma (,) was entered, resulting in an erroneous percent solid result. After contacted for a revision, the lab submitted a revised lab report that included correct percent solid result and recalculated BEHP and Aroclor results for sample WP-STC-BH1-A-B-0-07021.

The solid content of sample WP-STC-BJ6-A-B-0-070219 was less than (<) 30%. The BEHP and Aroclor results were estimated (J/UJ).

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

<u>BIS(2-ETHYLHEXYL)PHTHALATE</u>

As per lab report case narrative, the continuing calibration verification (CCV) associated with batch 460-622123 recovered above the upper control limit for BEHP. Since field blank WP-FB-070219 was the only sample associated with this non-compliant CCV, its non-detect of BEHP was estimated (UJ).

The lab report case narrative also documented non-compliant responses of several internal standards in the analysis of sample WP-STC-BJ6-A-B-0-070219. Since none of these internal standards was associated with BEHP, data qualification was not required.

An asterisk (*) was applied by the lab to the recovery of nitrobenzene-d5 for sample WP-STC-BJ6-A-B-0-070219 even though the recovery (79%) was within the control limit of 25-113%. After contacted for an explanation, the lab responded that the qualification was due to nitrobenzene-d5 concentration was affected due to aforementioned non-compliant internal standard response that was associated with nitrobenzene-d5. Data qualification was not required.

The MS/MSD analyses were performed on samples WP-STC-BK6-A-B-0-070219 and WP-STC-BN1-C-D-0-070219. The accuracy and precision results were within lab-established control limits for both sets of MS/MSD.

A two-fold dilution was performed for sample WP-STC-BJ6-A-B-0-070219. The BEHP concentration and the corresponding reporting limit were adjusted accordingly.

PCBs

The surrogate compound recovery from the CLP-2 column was less than the control limit in the analysis of sample WP-STC-BJ6-A-B-0-070219. Since the recovery from the Rtx-CLP column was within the lab-established the control limits, data qualification was not applied based on professional judgment.

The MS/MSD analyses were performed on sample WP-STC-BN4-A-B-0-070219 and yielded Aroclor-1016 recoveries less than the lab-established control limits from both columns. The non-detect of Aroclor-1016 was estimated (UJ) for sample WP-STC-BN4-A-B-0-070219. The MS/MSD analyses yielded acceptable Aroclor-1260 recoveries except that from the CLP-2 column in the MSD analysis with a recovery less than the control limit. The Aroclor-1260 result for sample WP-STC-BN4-A-B-0-070219 was not qualified based on professional judgment.

Two more sets of MS/MSD analyses were associated with sediments sample submitted in this report; however, the source samples were unrelated to this site. These MS/MSD results were not used data qualification.

A two-fold dilution was performed for sample WP-STC-BN1-A-B-0-070219. The positive Aroclor-1248 concentration and the corresponding reporting limits of other Aroclors were adjusted accordingly.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Although some sediment sample results were qualified due to non-compliant QC results, none warranted data rejection. All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-185770-1

Client Sample ID: WP-STC-BK6-A-B-0-070219

Lab Sample ID: 460-185770-1
Matrix: Solid
Percent Solids: 39.8

Date Collected: 07/02/19 10:48
Date Received: 07/02/19 18:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7		0.83	0.044	mg/Kg	☼	07/03/19 03:56	07/03/19 12:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*71*		*25 - 113*	*07/03/19 03:56*	*07/03/19 12:09*	*1*
Terphenyl-d14 (Surr)	*72*		*27 - 123*	*07/03/19 03:56*	*07/03/19 12:09*	*1*
2-Fluorobiphenyl	*76*		*29 - 107*	*07/03/19 03:56*	*07/03/19 12:09*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.022	U	0.17	0.022	mg/Kg	☼	07/02/19 23:16	07/03/19 09:02	1
Aroclor 1221	0.022	U	0.17	0.022	mg/Kg	☼	07/02/19 23:16	07/03/19 09:02	1
Aroclor 1232	0.022	U	0.17	0.022	mg/Kg	☼	07/02/19 23:16	07/03/19 09:02	1
Aroclor 1242	0.022	U	0.17	0.022	mg/Kg	☼	07/02/19 23:16	07/03/19 09:02	1
Aroclor 1248	0.55		0.17	0.022	mg/Kg	☼	07/02/19 23:16	07/03/19 09:02	1
Aroclor 1254	0.023	U	0.17	0.023	mg/Kg	☼	07/02/19 23:16	07/03/19 09:02	1
Aroclor 1260	0.023	U	0.17	0.023	mg/Kg	☼	07/02/19 23:16	07/03/19 09:02	1
Aroclor-1262	0.023	U	0.17	0.023	mg/Kg	☼	07/02/19 23:16	07/03/19 09:02	1
Aroclor 1268	0.023	U	0.17	0.023	mg/Kg	☼	07/02/19 23:16	07/03/19 09:02	1
Polychlorinated biphenyls, Total	0.55		0.17	0.023	mg/Kg	☼	07/02/19 23:16	07/03/19 09:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*62*		*53 - 150*	*07/02/19 23:16*	*07/03/19 09:02*	*1*
DCB Decachlorobiphenyl	*73*		*53 - 150*	*07/02/19 23:16*	*07/03/19 09:02*	*1*

Client Sample ID: WP-STC-BK6-C-D-0-070219

Lab Sample ID: 460-185770-2
Matrix: Solid
Percent Solids: 74.5

Date Collected: 07/02/19 10:55
Date Received: 07/02/19 18:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.12	J	0.44	0.023	mg/Kg	☼	07/05/19 10:58	07/05/19 23:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*54*		*25 - 113*	*07/05/19 10:58*	*07/05/19 23:46*	*1*
Terphenyl-d14 (Surr)	*85*		*27 - 123*	*07/05/19 10:58*	*07/05/19 23:46*	*1*
2-Fluorobiphenyl	*59*		*29 - 107*	*07/05/19 10:58*	*07/05/19 23:46*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.090	0.012	mg/Kg	☼	07/05/19 08:54	07/06/19 03:55	1
Aroclor 1221	0.012	U	0.090	0.012	mg/Kg	☼	07/05/19 08:54	07/06/19 03:55	1
Aroclor 1232	0.012	U	0.090	0.012	mg/Kg	☼	07/05/19 08:54	07/06/19 03:55	1
Aroclor 1242	0.012	U	0.090	0.012	mg/Kg	☼	07/05/19 08:54	07/06/19 03:55	1
Aroclor 1248	0.012	U	0.090	0.012	mg/Kg	☼	07/05/19 08:54	07/06/19 03:55	1
Aroclor 1254	0.012	U	0.090	0.012	mg/Kg	☼	07/05/19 08:54	07/06/19 03:55	1
Aroclor 1260	0.012	U	0.090	0.012	mg/Kg	☼	07/05/19 08:54	07/06/19 03:55	1
Aroclor-1262	0.012	U	0.090	0.012	mg/Kg	☼	07/05/19 08:54	07/06/19 03:55	1
Aroclor 1268	0.012	U	0.090	0.012	mg/Kg	☼	07/05/19 08:54	07/06/19 03:55	1
Polychlorinated biphenyls, Total	0.012	U	0.090	0.012	mg/Kg	☼	07/05/19 08:54	07/06/19 03:55	1

YY 8/19/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-185770-1

Client Sample ID: WP-STC-BK6-C-D-0-070219

Lab Sample ID: 460-185770-2
Date Collected: 07/02/19 10:55
Matrix: Solid
Date Received: 07/02/19 18:00
Percent Solids: 74.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	97		53 - 150	07/05/19 08:54	07/06/19 03:55	1
DCB Decachlorobiphenyl	105		53 - 150	07/05/19 08:54	07/06/19 03:55	1

Client Sample ID: WP-STC-BJ6-A-B-0-070219

Lab Sample ID: 460-185770-3
Date Collected: 07/02/19 11:05
Matrix: Solid
Date Received: 07/02/19 18:00
Percent Solids: 28.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	31	J	2.3	0.12	mg/Kg	☼	07/03/19 03:56	07/03/19 14:31	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	79		25 - 113	07/03/19 03:56	07/03/19 14:31	2
Terphenyl-d14 (Surr)	76		27 - 123	07/03/19 03:56	07/03/19 14:31	2
2-Fluorobiphenyl	76		29 - 107	07/03/19 03:56	07/03/19 14:31	2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.032	U	0.24	0.032	mg/Kg	☼	07/02/19 23:16	07/03/19 09:19	1
Aroclor 1221	0.032	U	0.24	0.032	mg/Kg	☼	07/02/19 23:16	07/03/19 09:19	1
Aroclor 1232	0.032	U	0.24	0.032	mg/Kg	☼	07/02/19 23:16	07/03/19 09:19	1
Aroclor 1242	0.032	U	0.24	0.032	mg/Kg	☼	07/02/19 23:16	07/03/19 09:19	1
Aroclor 1248	0.93		0.24	0.032	mg/Kg	☼	07/02/19 23:16	07/03/19 09:19	1
Aroclor 1254	0.033	U	0.24	0.033	mg/Kg	☼	07/02/19 23:16	07/03/19 09:19	1
Aroclor 1260	0.033	U	0.24	0.033	mg/Kg	☼	07/02/19 23:16	07/03/19 09:19	1
Aroclor-1262	0.033	U	0.24	0.033	mg/Kg	☼	07/02/19 23:16	07/03/19 09:19	1
Aroclor 1268	0.033	U	0.24	0.033	mg/Kg	☼	07/02/19 23:16	07/03/19 09:19	1
Polychlorinated biphenyls, Total	0.93		0.24	0.033	mg/Kg	☼	07/02/19 23:16	07/03/19 09:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	52	X	53 - 150	07/02/19 23:16	07/03/19 09:19	1
DCB Decachlorobiphenyl	57		53 - 150	07/02/19 23:16	07/03/19 09:19	1

Client Sample ID: WP-STC-BJ6-C-D-0-070219

Lab Sample ID: 460-185770-4
Date Collected: 07/02/19 11:17
Matrix: Solid
Date Received: 07/02/19 18:00
Percent Solids: 67.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.14	J	0.49	0.026	mg/Kg	☼	07/05/19 10:58	07/06/19 00:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	51		25 - 113	07/05/19 10:58	07/06/19 00:09	1
Terphenyl-d14 (Surr)	79		27 - 123	07/05/19 10:58	07/06/19 00:09	1
2-Fluorobiphenyl	51		29 - 107	07/05/19 10:58	07/06/19 00:09	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.099	0.013	mg/Kg	☼	07/05/19 08:54	07/06/19 03:38	1
Aroclor 1221	0.013	U	0.099	0.013	mg/Kg	☼	07/05/19 08:54	07/06/19 03:38	1
Aroclor 1232	0.013	U	0.099	0.013	mg/Kg	☼	07/05/19 08:54	07/06/19 03:38	1
Aroclor 1242	0.013	U	0.099	0.013	mg/Kg	☼	07/05/19 08:54	07/06/19 03:38	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-185770-1

Client Sample ID: WP-STC-BJ6-C-D-0-070219

Lab Sample ID: 460-185770-4

Date Collected: 07/02/19 11:17
Date Received: 07/02/19 18:00

Matrix: Solid
Percent Solids: 67.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.013	U	0.099	0.013	mg/Kg	☼	07/05/19 08:54	07/06/19 03:38	1
Aroclor 1254	0.014	U	0.099	0.014	mg/Kg	☼	07/05/19 08:54	07/06/19 03:38	1
Aroclor 1260	0.014	U	0.099	0.014	mg/Kg	☼	07/05/19 08:54	07/06/19 03:38	1
Aroclor-1262	0.014	U	0.099	0.014	mg/Kg	☼	07/05/19 08:54	07/06/19 03:38	1
Aroclor 1268	0.014	U	0.099	0.014	mg/Kg	☼	07/05/19 08:54	07/06/19 03:38	1
Polychlorinated biphenyls, Total	0.014	U	0.099	0.014	mg/Kg	☼	07/05/19 08:54	07/06/19 03:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*85*		*53 - 150*	*07/05/19 08:54*	*07/06/19 03:38*	*1*
DCB Decachlorobiphenyl	*102*		*53 - 150*	*07/05/19 08:54*	*07/06/19 03:38*	*1*

Client Sample ID: WP-STC-BL6-A-B-0-070219

Lab Sample ID: 460-185770-5

Date Collected: 07/02/19 11:25
Date Received: 07/02/19 18:00

Matrix: Solid
Percent Solids: 59.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.077	J	0.55	0.029	mg/Kg	☼	07/03/19 03:56	07/03/19 12:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*66*		*25 - 113*	*07/03/19 03:56*	*07/03/19 12:56*	*1*
Terphenyl-d14 (Surr)	*68*		*27 - 123*	*07/03/19 03:56*	*07/03/19 12:56*	*1*
2-Fluorobiphenyl	*71*		*29 - 107*	*07/03/19 03:56*	*07/03/19 12:56*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.015	U	0.11	0.015	mg/Kg	☼	07/02/19 23:16	07/03/19 09:36	1
Aroclor 1221	0.015	U	0.11	0.015	mg/Kg	☼	07/02/19 23:16	07/03/19 09:36	1
Aroclor 1232	0.015	U	0.11	0.015	mg/Kg	☼	07/02/19 23:16	07/03/19 09:36	1
Aroclor 1242	0.015	U	0.11	0.015	mg/Kg	☼	07/02/19 23:16	07/03/19 09:36	1
Aroclor 1248	0.015	U	0.11	0.015	mg/Kg	☼	07/02/19 23:16	07/03/19 09:36	1
Aroclor 1254	0.015	U	0.11	0.015	mg/Kg	☼	07/02/19 23:16	07/03/19 09:36	1
Aroclor 1260	0.015	U	0.11	0.015	mg/Kg	☼	07/02/19 23:16	07/03/19 09:36	1
Aroclor-1262	0.015	U	0.11	0.015	mg/Kg	☼	07/02/19 23:16	07/03/19 09:36	1
Aroclor 1268	0.015	U	0.11	0.015	mg/Kg	☼	07/02/19 23:16	07/03/19 09:36	1
Polychlorinated biphenyls, Total	0.015	U	0.11	0.015	mg/Kg	☼	07/02/19 23:16	07/03/19 09:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*54*		*53 - 150*	*07/02/19 23:16*	*07/03/19 09:36*	*1*
DCB Decachlorobiphenyl	*63*		*53 - 150*	*07/02/19 23:16*	*07/03/19 09:36*	*1*

Client Sample ID: WP-STC-BL6-C-D-0-070219

Lab Sample ID: 460-185770-6

Date Collected: 07/02/19 11:35
Date Received: 07/02/19 18:00

Matrix: Solid
Percent Solids: 79.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.022	U	0.41	0.022	mg/Kg	☼	07/05/19 10:58	07/06/19 00:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*61*		*25 - 113*	*07/05/19 10:58*	*07/06/19 00:33*	*1*
Terphenyl-d14 (Surr)	*85*		*27 - 123*	*07/05/19 10:58*	*07/06/19 00:33*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-185770-1

Client Sample ID: WP-STC-BL6-C-D-0-070219

Lab Sample ID: 460-185770-6

Date Collected: 07/02/19 11:35
Date Received: 07/02/19 18:00

Matrix: Solid
Percent Solids: 79.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	58		29 - 107	07/05/19 10:58	07/06/19 00:33	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.084	0.011	mg/Kg	☼	07/03/19 22:31	07/05/19 19:01	1
Aroclor 1221	0.011	U	0.084	0.011	mg/Kg	☼	07/03/19 22:31	07/05/19 19:01	1
Aroclor 1232	0.011	U	0.084	0.011	mg/Kg	☼	07/03/19 22:31	07/05/19 19:01	1
Aroclor 1242	0.011	U	0.084	0.011	mg/Kg	☼	07/03/19 22:31	07/05/19 19:01	1
Aroclor 1248	0.011	U	0.084	0.011	mg/Kg	☼	07/03/19 22:31	07/05/19 19:01	1
Aroclor 1254	0.012	U	0.084	0.012	mg/Kg	☼	07/03/19 22:31	07/05/19 19:01	1
Aroclor 1260	0.012	U	0.084	0.012	mg/Kg	☼	07/03/19 22:31	07/05/19 19:01	1
Aroclor-1262	0.012	U	0.084	0.012	mg/Kg	☼	07/03/19 22:31	07/05/19 19:01	1
Aroclor 1268	0.012	U	0.084	0.012	mg/Kg	☼	07/03/19 22:31	07/05/19 19:01	1
Polychlorinated biphenyls, Total	0.012	U	0.084	0.012	mg/Kg	☼	07/03/19 22:31	07/05/19 19:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	86		53 - 150	07/03/19 22:31	07/05/19 19:01	1
DCB Decachlorobiphenyl	101		53 - 150	07/03/19 22:31	07/05/19 19:01	1

Client Sample ID: WP-FB-070219

Lab Sample ID: 460-185770-7

Date Collected: 07/02/19 11:53
Date Received: 07/02/19 18:00

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U J	2.0	1.7	ug/L		07/02/19 21:49	07/03/19 14:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	89		51 - 108	07/02/19 21:49	07/03/19 14:14	1
Terphenyl-d14 (Surr)	117		40 - 148	07/02/19 21:49	07/03/19 14:14	1
2-Fluorobiphenyl	88		45 - 107	07/02/19 21:49	07/03/19 14:14	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		07/03/19 03:38	07/03/19 11:13	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		07/03/19 03:38	07/03/19 11:13	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		07/03/19 03:38	07/03/19 11:13	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		07/03/19 03:38	07/03/19 11:13	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		07/03/19 03:38	07/03/19 11:13	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		07/03/19 03:38	07/03/19 11:13	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		07/03/19 03:38	07/03/19 11:13	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		07/03/19 03:38	07/03/19 11:13	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		07/03/19 03:38	07/03/19 11:13	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		07/03/19 03:38	07/03/19 11:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	76		10 - 150	07/03/19 03:38	07/03/19 11:13	1
DCB Decachlorobiphenyl	86		10 - 150	07/03/19 03:38	07/03/19 11:13	1

YY 8/19/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-185770-1

Client Sample ID: WP-STC-BH1-A-B-0-070219

Lab Sample ID: 460-185770-8

Date Collected: 07/02/19 15:08
Date Received: 07/02/19 18:00

Matrix: Solid
Percent Solids: 62.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.028	U	0.53	0.028	mg/Kg	☼	07/05/19 10:58	07/06/19 00:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*57*		*25 - 113*	*07/05/19 10:58*	*07/06/19 00:56*	*1*
Terphenyl-d14 (Surr)	*86*		*27 - 123*	*07/05/19 10:58*	*07/06/19 00:56*	*1*
2-Fluorobiphenyl	*62*		*29 - 107*	*07/05/19 10:58*	*07/06/19 00:56*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.014	U	0.11	0.014	mg/Kg	☼	07/03/19 22:31	07/05/19 19:19	1
Aroclor 1221	0.014	U	0.11	0.014	mg/Kg	☼	07/03/19 22:31	07/05/19 19:19	1
Aroclor 1232	0.014	U	0.11	0.014	mg/Kg	☼	07/03/19 22:31	07/05/19 19:19	1
Aroclor 1242	0.014	U	0.11	0.014	mg/Kg	☼	07/03/19 22:31	07/05/19 19:19	1
Aroclor 1248	0.014	U	0.11	0.014	mg/Kg	☼	07/03/19 22:31	07/05/19 19:19	1
Aroclor 1254	0.015	U	0.11	0.015	mg/Kg	☼	07/03/19 22:31	07/05/19 19:19	1
Aroclor 1260	0.015	U	0.11	0.015	mg/Kg	☼	07/03/19 22:31	07/05/19 19:19	1
Aroclor-1262	0.015	U	0.11	0.015	mg/Kg	☼	07/03/19 22:31	07/05/19 19:19	1
Aroclor 1268	0.015	U	0.11	0.015	mg/Kg	☼	07/03/19 22:31	07/05/19 19:19	1
Polychlorinated biphenyls, Total	0.015	U	0.11	0.015	mg/Kg	☼	07/03/19 22:31	07/05/19 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*93*		*53 - 150*	*07/03/19 22:31*	*07/05/19 19:19*	*1*
DCB Decachlorobiphenyl	*96*		*53 - 150*	*07/03/19 22:31*	*07/05/19 19:19*	*1*

Client Sample ID: WP-STC-BH1-C-D-0-070219

Lab Sample ID: 460-185770-9

Date Collected: 07/02/19 15:17
Date Received: 07/02/19 18:00

Matrix: Solid
Percent Solids: 56.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.031	U	0.58	0.031	mg/Kg	☼	07/05/19 10:58	07/06/19 01:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*54*		*25 - 113*	*07/05/19 10:58*	*07/06/19 01:19*	*1*
Terphenyl-d14 (Surr)	*65*		*27 - 123*	*07/05/19 10:58*	*07/06/19 01:19*	*1*
2-Fluorobiphenyl	*64*		*29 - 107*	*07/05/19 10:58*	*07/06/19 01:19*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.016	U	0.12	0.016	mg/Kg	☼	07/03/19 22:31	07/05/19 19:36	1
Aroclor 1221	0.016	U	0.12	0.016	mg/Kg	☼	07/03/19 22:31	07/05/19 19:36	1
Aroclor 1232	0.016	U	0.12	0.016	mg/Kg	☼	07/03/19 22:31	07/05/19 19:36	1
Aroclor 1242	0.016	U	0.12	0.016	mg/Kg	☼	07/03/19 22:31	07/05/19 19:36	1
Aroclor 1248	0.016	U	0.12	0.016	mg/Kg	☼	07/03/19 22:31	07/05/19 19:36	1
Aroclor 1254	0.016	U	0.12	0.016	mg/Kg	☼	07/03/19 22:31	07/05/19 19:36	1
Aroclor 1260	0.016	U	0.12	0.016	mg/Kg	☼	07/03/19 22:31	07/05/19 19:36	1
Aroclor-1262	0.016	U	0.12	0.016	mg/Kg	☼	07/03/19 22:31	07/05/19 19:36	1
Aroclor 1268	0.016	U	0.12	0.016	mg/Kg	☼	07/03/19 22:31	07/05/19 19:36	1
Polychlorinated biphenyls, Total	0.016	U	0.12	0.016	mg/Kg	☼	07/03/19 22:31	07/05/19 19:36	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-185770-1

Client Sample ID: WP-STC-BH1-C-D-0-070219

Lab Sample ID: 460-185770-9
Date Collected: 07/02/19 15:17
Matrix: Solid
Date Received: 07/02/19 18:00
Percent Solids: 56.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	65		53 - 150	07/03/19 22:31	07/05/19 19:36	1
DCB Decachlorobiphenyl	67		53 - 150	07/03/19 22:31	07/05/19 19:36	1

Client Sample ID: WP-STC-BH4-A-B-0-070219

Lab Sample ID: 460-185770-10
Date Collected: 07/02/19 15:25
Matrix: Solid
Date Received: 07/02/19 18:00
Percent Solids: 39.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.044	U	0.83	0.044	mg/Kg	☼	07/05/19 10:58	07/06/19 05:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	55		25 - 113	07/05/19 10:58	07/06/19 05:35	1
Terphenyl-d14 (Surr)	66		27 - 123	07/05/19 10:58	07/06/19 05:35	1
2-Fluorobiphenyl	64		29 - 107	07/05/19 10:58	07/06/19 05:35	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.023	U	0.17	0.023	mg/Kg	☼	07/03/19 22:31	07/05/19 19:53	1
Aroclor 1221	0.023	U	0.17	0.023	mg/Kg	☼	07/03/19 22:31	07/05/19 19:53	1
Aroclor 1232	0.023	U	0.17	0.023	mg/Kg	☼	07/03/19 22:31	07/05/19 19:53	1
Aroclor 1242	0.023	U	0.17	0.023	mg/Kg	☼	07/03/19 22:31	07/05/19 19:53	1
Aroclor 1248	0.023	U	0.17	0.023	mg/Kg	☼	07/03/19 22:31	07/05/19 19:53	1
Aroclor 1254	0.25		0.17	0.023	mg/Kg	☼	07/03/19 22:31	07/05/19 19:53	1
Aroclor 1260	0.023	U	0.17	0.023	mg/Kg	☼	07/03/19 22:31	07/05/19 19:53	1
Aroclor-1262	0.023	U	0.17	0.023	mg/Kg	☼	07/03/19 22:31	07/05/19 19:53	1
Aroclor 1268	0.023	U	0.17	0.023	mg/Kg	☼	07/03/19 22:31	07/05/19 19:53	1
Polychlorinated biphenyls, Total	0.25		0.17	0.023	mg/Kg	☼	07/03/19 22:31	07/05/19 19:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	63		53 - 150	07/03/19 22:31	07/05/19 19:53	1
DCB Decachlorobiphenyl	72		53 - 150	07/03/19 22:31	07/05/19 19:53	1

Client Sample ID: WP-STC-BH4-C-D-0-070219

Lab Sample ID: 460-185770-11
Date Collected: 07/02/19 15:45
Matrix: Solid
Date Received: 07/02/19 18:00
Percent Solids: 68.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.025	U	0.48	0.025	mg/Kg	☼	07/05/19 10:58	07/06/19 01:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	59		25 - 113	07/05/19 10:58	07/06/19 01:43	1
Terphenyl-d14 (Surr)	93		27 - 123	07/05/19 10:58	07/06/19 01:43	1
2-Fluorobiphenyl	65		29 - 107	07/05/19 10:58	07/06/19 01:43	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.098	0.013	mg/Kg	☼	07/03/19 22:31	07/05/19 20:10	1
Aroclor 1221	0.013	U	0.098	0.013	mg/Kg	☼	07/03/19 22:31	07/05/19 20:10	1
Aroclor 1232	0.013	U	0.098	0.013	mg/Kg	☼	07/03/19 22:31	07/05/19 20:10	1
Aroclor 1242	0.013	U	0.098	0.013	mg/Kg	☼	07/03/19 22:31	07/05/19 20:10	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-185770-1

Client Sample ID: WP-STC-BH4-C-D-0-070219

Lab Sample ID: 460-185770-11

Date Collected: 07/02/19 15:45
Date Received: 07/02/19 18:00

Matrix: Solid
Percent Solids: 68.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.013	U	0.098	0.013	mg/Kg	☼	07/03/19 22:31	07/05/19 20:10	1
Aroclor 1254	0.013	U	0.098	0.013	mg/Kg	☼	07/03/19 22:31	07/05/19 20:10	1
Aroclor 1260	0.013	U	0.098	0.013	mg/Kg	☼	07/03/19 22:31	07/05/19 20:10	1
Aroclor-1262	0.013	U	0.098	0.013	mg/Kg	☼	07/03/19 22:31	07/05/19 20:10	1
Aroclor 1268	0.013	U	0.098	0.013	mg/Kg	☼	07/03/19 22:31	07/05/19 20:10	1
Polychlorinated biphenyls, Total	0.013	U	0.098	0.013	mg/Kg	☼	07/03/19 22:31	07/05/19 20:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*105*		*53 - 150*	*07/03/19 22:31*	*07/05/19 20:10*	*1*
DCB Decachlorobiphenyl	*114*		*53 - 150*	*07/03/19 22:31*	*07/05/19 20:10*	*1*

Client Sample ID: WP-STC-BK4-A-B-0-070219

Lab Sample ID: 460-185770-12

Date Collected: 07/02/19 15:53
Date Received: 07/02/19 18:00

Matrix: Solid
Percent Solids: 35.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.050	U	0.94	0.050	mg/Kg	☼	07/05/19 10:58	07/06/19 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*58*		*25 - 113*	*07/05/19 10:58*	*07/06/19 05:11*	*1*
Terphenyl-d14 (Surr)	*67*		*27 - 123*	*07/05/19 10:58*	*07/06/19 05:11*	*1*
2-Fluorobiphenyl	*71*		*29 - 107*	*07/05/19 10:58*	*07/06/19 05:11*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.025	U	0.19	0.025	mg/Kg	☼	07/03/19 22:31	07/05/19 20:27	1
Aroclor 1221	0.025	U	0.19	0.025	mg/Kg	☼	07/03/19 22:31	07/05/19 20:27	1
Aroclor 1232	0.025	U	0.19	0.025	mg/Kg	☼	07/03/19 22:31	07/05/19 20:27	1
Aroclor 1242	0.025	U	0.19	0.025	mg/Kg	☼	07/03/19 22:31	07/05/19 20:27	1
Aroclor 1248	0.025	U	0.19	0.025	mg/Kg	☼	07/03/19 22:31	07/05/19 20:27	1
Aroclor 1254	0.026	U	0.19	0.026	mg/Kg	☼	07/03/19 22:31	07/05/19 20:27	1
Aroclor 1260	0.026	U	0.19	0.026	mg/Kg	☼	07/03/19 22:31	07/05/19 20:27	1
Aroclor-1262	0.026	U	0.19	0.026	mg/Kg	☼	07/03/19 22:31	07/05/19 20:27	1
Aroclor 1268	0.026	U	0.19	0.026	mg/Kg	☼	07/03/19 22:31	07/05/19 20:27	1
Polychlorinated biphenyls, Total	0.026	U	0.19	0.026	mg/Kg	☼	07/03/19 22:31	07/05/19 20:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*71*		*53 - 150*	*07/03/19 22:31*	*07/05/19 20:27*	*1*
DCB Decachlorobiphenyl	*84*		*53 - 150*	*07/03/19 22:31*	*07/05/19 20:27*	*1*

Client Sample ID: WP-STC-BK4-C-D-070219

Lab Sample ID: 460-185770-13

Date Collected: 07/02/19 15:58
Date Received: 07/02/19 18:00

Matrix: Solid
Percent Solids: 55.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.031	U	0.59	0.031	mg/Kg	☼	07/05/19 10:58	07/06/19 02:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*49*		*25 - 113*	*07/05/19 10:58*	*07/06/19 02:06*	*1*
Terphenyl-d14 (Surr)	*73*		*27 - 123*	*07/05/19 10:58*	*07/06/19 02:06*	*1*

YY 8/19/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-185770-1

Client Sample ID: WP-STC-BK4-C-D-070219

Lab Sample ID: 460-185770-13

Date Collected: 07/02/19 15:58
Date Received: 07/02/19 18:00

Matrix: Solid
Percent Solids: 55.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	56		29 - 107	07/05/19 10:58	07/06/19 02:06	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.016	U	0.12	0.016	mg/Kg	☼	07/03/19 22:31	07/05/19 20:45	1
Aroclor 1221	0.016	U	0.12	0.016	mg/Kg	☼	07/03/19 22:31	07/05/19 20:45	1
Aroclor 1232	0.016	U	0.12	0.016	mg/Kg	☼	07/03/19 22:31	07/05/19 20:45	1
Aroclor 1242	0.016	U	0.12	0.016	mg/Kg	☼	07/03/19 22:31	07/05/19 20:45	1
Aroclor 1248	0.016	U	0.12	0.016	mg/Kg	☼	07/03/19 22:31	07/05/19 20:45	1
Aroclor 1254	0.017	U	0.12	0.017	mg/Kg	☼	07/03/19 22:31	07/05/19 20:45	1
Aroclor 1260	0.017	U	0.12	0.017	mg/Kg	☼	07/03/19 22:31	07/05/19 20:45	1
Aroclor-1262	0.017	U	0.12	0.017	mg/Kg	☼	07/03/19 22:31	07/05/19 20:45	1
Aroclor 1268	0.017	U	0.12	0.017	mg/Kg	☼	07/03/19 22:31	07/05/19 20:45	1
Polychlorinated biphenyls, Total	0.017	U	0.12	0.017	mg/Kg	☼	07/03/19 22:31	07/05/19 20:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	82		53 - 150	07/03/19 22:31	07/05/19 20:45	1
DCB Decachlorobiphenyl	106		53 - 150	07/03/19 22:31	07/05/19 20:45	1

Client Sample ID: WP-STC-BK1-A-B-0-070219

Lab Sample ID: 460-185770-14

Date Collected: 07/02/19 16:10
Date Received: 07/02/19 18:00

Matrix: Solid
Percent Solids: 32.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.054	U	1.0	0.054	mg/Kg	☼	07/05/19 10:58	07/06/19 02:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	54		25 - 113	07/05/19 10:58	07/06/19 02:29	1
Terphenyl-d14 (Surr)	67		27 - 123	07/05/19 10:58	07/06/19 02:29	1
2-Fluorobiphenyl	56		29 - 107	07/05/19 10:58	07/06/19 02:29	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.027	U	0.21	0.027	mg/Kg	☼	07/03/19 22:31	07/05/19 21:02	1
Aroclor 1221	0.027	U	0.21	0.027	mg/Kg	☼	07/03/19 22:31	07/05/19 21:02	1
Aroclor 1232	0.027	U	0.21	0.027	mg/Kg	☼	07/03/19 22:31	07/05/19 21:02	1
Aroclor 1242	0.027	U	0.21	0.027	mg/Kg	☼	07/03/19 22:31	07/05/19 21:02	1
Aroclor 1248	0.027	U	0.21	0.027	mg/Kg	☼	07/03/19 22:31	07/05/19 21:02	1
Aroclor 1254	0.028	U	0.21	0.028	mg/Kg	☼	07/03/19 22:31	07/05/19 21:02	1
Aroclor 1260	0.028	U	0.21	0.028	mg/Kg	☼	07/03/19 22:31	07/05/19 21:02	1
Aroclor-1262	0.028	U	0.21	0.028	mg/Kg	☼	07/03/19 22:31	07/05/19 21:02	1
Aroclor 1268	0.028	U	0.21	0.028	mg/Kg	☼	07/03/19 22:31	07/05/19 21:02	1
Polychlorinated biphenyls, Total	0.028	U	0.21	0.028	mg/Kg	☼	07/03/19 22:31	07/05/19 21:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	102		53 - 150	07/03/19 22:31	07/05/19 21:02	1
DCB Decachlorobiphenyl	109		53 - 150	07/03/19 22:31	07/05/19 21:02	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-185770-1

Client Sample ID: WP-STC-BK1-C-D-0-070219

Lab Sample ID: 460-185770-15

Date Collected: 07/02/19 16:25
Date Received: 07/02/19 18:00

Matrix: Solid
Percent Solids: 32.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.054	U	1.0	0.054	mg/Kg	☼	07/05/19 10:58	07/06/19 02:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*30*		*25 - 113*	*07/05/19 10:58*	*07/06/19 02:52*	*1*
Terphenyl-d14 (Surr)	*56*		*27 - 123*	*07/05/19 10:58*	*07/06/19 02:52*	*1*
2-Fluorobiphenyl	*49*		*29 - 107*	*07/05/19 10:58*	*07/06/19 02:52*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.028	U	0.21	0.028	mg/Kg	☼	07/03/19 22:31	07/05/19 21:19	1
Aroclor 1221	0.028	U	0.21	0.028	mg/Kg	☼	07/03/19 22:31	07/05/19 21:19	1
Aroclor 1232	0.028	U	0.21	0.028	mg/Kg	☼	07/03/19 22:31	07/05/19 21:19	1
Aroclor 1242	0.028	U	0.21	0.028	mg/Kg	☼	07/03/19 22:31	07/05/19 21:19	1
Aroclor 1248	0.028	U	0.21	0.028	mg/Kg	☼	07/03/19 22:31	07/05/19 21:19	1
Aroclor 1254	0.029	U	0.21	0.029	mg/Kg	☼	07/03/19 22:31	07/05/19 21:19	1
Aroclor 1260	0.029	U	0.21	0.029	mg/Kg	☼	07/03/19 22:31	07/05/19 21:19	1
Aroclor-1262	0.029	U	0.21	0.029	mg/Kg	☼	07/03/19 22:31	07/05/19 21:19	1
Aroclor 1268	0.029	U	0.21	0.029	mg/Kg	☼	07/03/19 22:31	07/05/19 21:19	1
Polychlorinated biphenyls, Total	0.029	U	0.21	0.029	mg/Kg	☼	07/03/19 22:31	07/05/19 21:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*72*		*53 - 150*	*07/03/19 22:31*	*07/05/19 21:19*	*1*
DCB Decachlorobiphenyl	*80*		*53 - 150*	*07/03/19 22:31*	*07/05/19 21:19*	*1*

Client Sample ID: WP-STC-BN4-A-B-0-070219

Lab Sample ID: 460-185770-16

Date Collected: 07/02/19 16:31
Date Received: 07/02/19 18:00

Matrix: Solid
Percent Solids: 85.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.10	J	0.39	0.020	mg/Kg	☼	07/05/19 16:04	07/06/19 15:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*55*		*25 - 113*	*07/05/19 16:04*	*07/06/19 15:51*	*1*
Terphenyl-d14 (Surr)	*71*		*27 - 123*	*07/05/19 16:04*	*07/06/19 15:51*	*1*
2-Fluorobiphenyl	*61*		*29 - 107*	*07/05/19 16:04*	*07/06/19 15:51*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.010	U ~~F1~~ J	0.078	0.010	mg/Kg	☼	07/03/19 22:31	07/05/19 11:29	1
Aroclor 1221	0.010	U	0.078	0.010	mg/Kg	☼	07/03/19 22:31	07/05/19 11:29	1
Aroclor 1232	0.010	U	0.078	0.010	mg/Kg	☼	07/03/19 22:31	07/05/19 11:29	1
Aroclor 1242	0.010	U	0.078	0.010	mg/Kg	☼	07/03/19 22:31	07/05/19 11:29	1
Aroclor 1248	0.010	U	0.078	0.010	mg/Kg	☼	07/03/19 22:31	07/05/19 11:29	1
Aroclor 1254	0.12		0.078	0.011	mg/Kg	☼	07/03/19 22:31	07/05/19 11:29	1
Aroclor 1260	0.011	U	0.078	0.011	mg/Kg	☼	07/03/19 22:31	07/05/19 11:29	1
Aroclor-1262	0.011	U	0.078	0.011	mg/Kg	☼	07/03/19 22:31	07/05/19 11:29	1
Aroclor 1268	0.011	U	0.078	0.011	mg/Kg	☼	07/03/19 22:31	07/05/19 11:29	1
Polychlorinated biphenyls, Total	0.12		0.078	0.011	mg/Kg	☼	07/03/19 22:31	07/05/19 11:29	1

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Client Sample ID: WP-STC-BN4-A-B-0-070219

Lab Sample ID: 460-185770-16

Date Collected: 07/02/19 16:31
Date Received: 07/02/19 18:00

Matrix: Solid
Percent Solids: 85.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	68		53 - 150	07/03/19 22:31	07/05/19 11:29	1
DCB Decachlorobiphenyl	75		53 - 150	07/03/19 22:31	07/05/19 11:29	1

Client Sample ID: WP-STC-BN4-C-D-0-070219

Lab Sample ID: 460-185770-17

Date Collected: 07/02/19 16:40
Date Received: 07/02/19 18:00

Matrix: Solid
Percent Solids: 87.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.020	U	0.38	0.020	mg/Kg	☼	07/05/19 16:04	07/06/19 16:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	51		25 - 113	07/05/19 16:04	07/06/19 16:08	1
Terphenyl-d14 (Surr)	81		27 - 123	07/05/19 16:04	07/06/19 16:08	1
2-Fluorobiphenyl	58		29 - 107	07/05/19 16:04	07/06/19 16:08	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.010	U	0.077	0.010	mg/Kg	☼	07/03/19 22:31	07/05/19 21:36	1
Aroclor 1221	0.010	U	0.077	0.010	mg/Kg	☼	07/03/19 22:31	07/05/19 21:36	1
Aroclor 1232	0.010	U	0.077	0.010	mg/Kg	☼	07/03/19 22:31	07/05/19 21:36	1
Aroclor 1242	0.010	U	0.077	0.010	mg/Kg	☼	07/03/19 22:31	07/05/19 21:36	1
Aroclor 1248	0.010	U	0.077	0.010	mg/Kg	☼	07/03/19 22:31	07/05/19 21:36	1
Aroclor 1254	0.011	U	0.077	0.011	mg/Kg	☼	07/03/19 22:31	07/05/19 21:36	1
Aroclor 1260	0.011	U	0.077	0.011	mg/Kg	☼	07/03/19 22:31	07/05/19 21:36	1
Aroclor-1262	0.011	U	0.077	0.011	mg/Kg	☼	07/03/19 22:31	07/05/19 21:36	1
Aroclor 1268	0.011	U	0.077	0.011	mg/Kg	☼	07/03/19 22:31	07/05/19 21:36	1
Polychlorinated biphenyls, Total	0.011	U	0.077	0.011	mg/Kg	☼	07/03/19 22:31	07/05/19 21:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	81		53 - 150	07/03/19 22:31	07/05/19 21:36	1
DCB Decachlorobiphenyl	84		53 - 150	07/03/19 22:31	07/05/19 21:36	1

Client Sample ID: WP-STC-BN1-A-B-0-070219

Lab Sample ID: 460-185770-18

Date Collected: 07/02/19 16:45
Date Received: 07/02/19 18:00

Matrix: Solid
Percent Solids: 91.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.95		0.36	0.019	mg/Kg	☼	07/05/19 16:04	07/06/19 16:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	69		25 - 113	07/05/19 16:04	07/06/19 16:25	1
Terphenyl-d14 (Surr)	82		27 - 123	07/05/19 16:04	07/06/19 16:25	1
2-Fluorobiphenyl	73		29 - 107	07/05/19 16:04	07/06/19 16:25	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.020	U	0.15	0.020	mg/Kg	☼	07/03/19 22:31	07/08/19 13:22	2
Aroclor 1221	0.020	U	0.15	0.020	mg/Kg	☼	07/03/19 22:31	07/08/19 13:22	2
Aroclor 1232	0.020	U	0.15	0.020	mg/Kg	☼	07/03/19 22:31	07/08/19 13:22	2
Aroclor 1242	0.020	U	0.15	0.020	mg/Kg	☼	07/03/19 22:31	07/08/19 13:22	2

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-185770-1

Client Sample ID: WP-STC-BN1-A-B-0-070219

Lab Sample ID: 460-185770-18

Date Collected: 07/02/19 16:45
Date Received: 07/02/19 18:00

Matrix: Solid
Percent Solids: 91.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	1.4		0.15	0.020	mg/Kg	☼	07/03/19 22:31	07/08/19 13:22	2
Aroclor 1254	0.020	U	0.15	0.020	mg/Kg	☼	07/03/19 22:31	07/08/19 13:22	2
Aroclor 1260	0.020	U	0.15	0.020	mg/Kg	☼	07/03/19 22:31	07/08/19 13:22	2
Aroclor-1262	0.020	U	0.15	0.020	mg/Kg	☼	07/03/19 22:31	07/08/19 13:22	2
Aroclor 1268	0.020	U	0.15	0.020	mg/Kg	☼	07/03/19 22:31	07/08/19 13:22	2
Polychlorinated biphenyls, Total	1.4		0.15	0.020	mg/Kg	☼	07/03/19 22:31	07/08/19 13:22	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*62*		*53 - 150*	*07/03/19 22:31*	*07/08/19 13:22*	*2*
DCB Decachlorobiphenyl	*71*		*53 - 150*	*07/03/19 22:31*	*07/08/19 13:22*	*2*

Client Sample ID: WP-STC-BN1-C-D-0-070219

Lab Sample ID: 460-185770-19

Date Collected: 07/02/19 16:55
Date Received: 07/02/19 18:00

Matrix: Solid
Percent Solids: 89.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.020	U	0.37	0.020	mg/Kg	☼	07/05/19 10:58	07/05/19 21:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*57*		*25 - 113*	*07/05/19 10:58*	*07/05/19 21:49*	*1*
Terphenyl-d14 (Surr)	*72*		*27 - 123*	*07/05/19 10:58*	*07/05/19 21:49*	*1*
2-Fluorobiphenyl	*50*		*29 - 107*	*07/05/19 10:58*	*07/05/19 21:49*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.010	U	0.075	0.010	mg/Kg	☼	07/03/19 22:31	07/05/19 22:11	1
Aroclor 1221	0.010	U	0.075	0.010	mg/Kg	☼	07/03/19 22:31	07/05/19 22:11	1
Aroclor 1232	0.010	U	0.075	0.010	mg/Kg	☼	07/03/19 22:31	07/05/19 22:11	1
Aroclor 1242	0.010	U	0.075	0.010	mg/Kg	☼	07/03/19 22:31	07/05/19 22:11	1
Aroclor 1248	0.010	U	0.075	0.010	mg/Kg	☼	07/03/19 22:31	07/05/19 22:11	1
Aroclor 1254	0.010	U	0.075	0.010	mg/Kg	☼	07/03/19 22:31	07/05/19 22:11	1
Aroclor 1260	0.010	U	0.075	0.010	mg/Kg	☼	07/03/19 22:31	07/05/19 22:11	1
Aroclor-1262	0.010	U	0.075	0.010	mg/Kg	☼	07/03/19 22:31	07/05/19 22:11	1
Aroclor 1268	0.010	U	0.075	0.010	mg/Kg	☼	07/03/19 22:31	07/05/19 22:11	1
Polychlorinated biphenyls, Total	0.010	U	0.075	0.010	mg/Kg	☼	07/03/19 22:31	07/05/19 22:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*95*		*53 - 150*	*07/03/19 22:31*	*07/05/19 22:11*	*1*
DCB Decachlorobiphenyl	*106*		*53 - 150*	*07/03/19 22:31*	*07/05/19 22:11*	*1*

YY 8/19/19

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-186189

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/19/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on July 9, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-PB-BE31-A-B-0-070919	460-186189-1	Sediment	PCBs, BEHP*
WP-PB-BE31-A-B-1-070919[1]	460-186189-2	Sediment	PCBs, BEHP*
WP-PB-BK34-M-N-0-070919	460-186189-3	Sediment	PCBs, BEHP*
WP-STC-BQ19-A-B-0-070919	460-186189-4	Sediment	PCBs, BEHP*
WP-STC-BQ19-C-D-0-070919	460-186189-5	Sediment	PCBs, BEHP*
WP-FB-070919	460-186189-6	Field Blank	PCBs, BEHP*
WP-STC-BO10-A-B-0-070919	460-186189-7	Sediment	PCBs, BEHP*
WP-STC-BO10-C-D-0-070919	460-186189-8	Sediment	PCBs, BEHP*
WP-STC-BO10-C-D-1-070919	460-186189-9	Sediment	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

[1]A field duplicate ofWP-PB-BE31-A-B-0-070919

General Comments

The laboratory submitted a NJDEP full data deliverable which contains all required elements for the requested analyses.

The analyses of sediment contingent samples WP-STC-BQ19-C-D-0-070919, WP-STC-BO10-C-D-0-070919, and WP-STC-BO10-C-D-1-070919 were placed on hold upon lab receipt. On July 11, 2019, the analyses of WP-STC-BQ19-C-D-0-070919 were released, but the analyses of samples WP-STC-BO10-C-D-0-070919 and WP-STC-BO10-C-D-1-070919 were canceled.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

As per lab report case narrative, BEHP recoveries exceeded control limits in the MS/MSD analyses associated with field blank. Since the source sample of these MS/MSD analyses was unrelated to the site, data qualification was not required.

The lab report case narrative also documented one non-compliant surrogate recovery in a solid method blank analysis (MB 460-623990/1-A). Since this was an isolated incident, data qualification was not required for associated sediment samples.

The MS/MSD analyses were performed on sample WP-PB-BK34-M-N-0-070919 and yielded acceptable accuracy and precision results.

A two-fold dilution was performed for sample WP-STC-BJ6-A-B-0-070219. The BEHP concentration and the corresponding reporting limit were adjusted accordingly.

PCBs

The MS/MSD analyses were performed on sample WP-PB-BK34-M-N-0-070919 and yielded acceptable accuracy and precision results.

The MS/MSD extraction and analyses were not evident from the extraction batch 623927, which was associated with sample WP-STC-BQ19-C-D-0-070919 that was released for analysis on a later date. Since the accuracy and precision results were acceptable for the associated LCS/LCSD analyses, data qualification was not applied to sample WP-STC-BQ19-C-D-0-070919 based on professional judgment.

The positive Aroclor-1248 result was estimated (J) for sample WP-STC-BQ19-A-B-0-070919 because the RPD of concentrations from the two analytical column was greater than 25%.

A 10-fold dilution was performed for sample WP-STC-BQ19-A-B-0-070919. The positive Aroclor-1248 concentration and the corresponding reporting limits of other Aroclors were adjusted accordingly.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Although one Aroclor-1248 result was qualified due to a non-compliant QC result, it did not warrant data rejection. All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-186189-1

Client Sample ID: WP-PB-BE31-A-B-0-070919

Date Collected: 07/09/19 12:15
Date Received: 07/09/19 17:21

Lab Sample ID: 460-186189-1
Matrix: Solid
Percent Solids: 80.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	5.5		0.41	0.022	mg/Kg	☼	07/09/19 22:39	07/10/19 06:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*56*		*25 - 113*	*07/09/19 22:39*	*07/10/19 06:49*	*1*
Terphenyl-d14 (Surr)	*57*		*27 - 123*	*07/09/19 22:39*	*07/10/19 06:49*	*1*
2-Fluorobiphenyl	*58*		*29 - 107*	*07/09/19 22:39*	*07/10/19 06:49*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.083	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 13:47	1
Aroclor 1221	0.011	U	0.083	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 13:47	1
Aroclor 1232	0.011	U	0.083	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 13:47	1
Aroclor 1242	0.011	U	0.083	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 13:47	1
Aroclor 1248	0.17		0.083	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 13:47	1
Aroclor 1254	0.011	U	0.083	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 13:47	1
Aroclor 1260	0.011	U	0.083	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 13:47	1
Aroclor-1262	0.011	U	0.083	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 13:47	1
Aroclor 1268	0.011	U	0.083	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 13:47	1
Polychlorinated biphenyls, Total	0.17		0.083	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 13:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*127*		*53 - 150*	*07/10/19 02:53*	*07/10/19 13:47*	*1*
DCB Decachlorobiphenyl	*116*		*53 - 150*	*07/10/19 02:53*	*07/10/19 13:47*	*1*

Client Sample ID: WP-PB-BE31-A-B-1-070919

Date Collected: 07/09/19 12:15
Date Received: 07/09/19 17:21

Lab Sample ID: 460-186189-2
Matrix: Solid
Percent Solids: 82.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	4.5		0.40	0.021	mg/Kg	☼	07/10/19 02:29	07/10/19 07:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*49*		*25 - 113*	*07/10/19 02:29*	*07/10/19 07:06*	*1*
Terphenyl-d14 (Surr)	*63*		*27 - 123*	*07/10/19 02:29*	*07/10/19 07:06*	*1*
2-Fluorobiphenyl	*56*		*29 - 107*	*07/10/19 02:29*	*07/10/19 07:06*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.081	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 14:04	1
Aroclor 1221	0.011	U	0.081	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 14:04	1
Aroclor 1232	0.011	U	0.081	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 14:04	1
Aroclor 1242	0.011	U	0.081	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 14:04	1
Aroclor 1248	0.011	U	0.081	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 14:04	1
Aroclor 1254	0.011	U	0.081	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 14:04	1
Aroclor 1260	0.011	U	0.081	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 14:04	1
Aroclor-1262	0.011	U	0.081	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 14:04	1
Aroclor 1268	0.011	U	0.081	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 14:04	1
Polychlorinated biphenyls, Total	0.011	U	0.081	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 14:04	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-186189-1

Client Sample ID: WP-PB-BE31-A-B-1-070919

Date Collected: 07/09/19 12:15
Date Received: 07/09/19 17:21

Lab Sample ID: 460-186189-2
Matrix: Solid
Percent Solids: 82.3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	121		53 - 150	07/10/19 02:53	07/10/19 14:04	1
DCB Decachlorobiphenyl	117		53 - 150	07/10/19 02:53	07/10/19 14:04	1

Client Sample ID: WP-PB-BK34-M-N-0-070919

Date Collected: 07/09/19 12:30
Date Received: 07/09/19 17:21

Lab Sample ID: 460-186189-3
Matrix: Solid
Percent Solids: 85.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.052	J	0.38	0.020	mg/Kg	☼	07/09/19 22:39	07/10/19 07:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	43		25 - 113	07/09/19 22:39	07/10/19 07:23	1
Terphenyl-d14 (Surr)	56		27 - 123	07/09/19 22:39	07/10/19 07:23	1
2-Fluorobiphenyl	46		29 - 107	07/09/19 22:39	07/10/19 07:23	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.010	U	0.078	0.010	mg/Kg	☼	07/10/19 02:53	07/10/19 14:21	1
Aroclor 1221	0.010	U	0.078	0.010	mg/Kg	☼	07/10/19 02:53	07/10/19 14:21	1
Aroclor 1232	0.010	U	0.078	0.010	mg/Kg	☼	07/10/19 02:53	07/10/19 14:21	1
Aroclor 1242	0.010	U	0.078	0.010	mg/Kg	☼	07/10/19 02:53	07/10/19 14:21	1
Aroclor 1248	0.010	U	0.078	0.010	mg/Kg	☼	07/10/19 02:53	07/10/19 14:21	1
Aroclor 1254	0.011	U	0.078	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 14:21	1
Aroclor 1260	0.011	U	0.078	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 14:21	1
Aroclor-1262	0.011	U	0.078	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 14:21	1
Aroclor 1268	0.011	U	0.078	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 14:21	1
Polychlorinated biphenyls, Total	0.011	U	0.078	0.011	mg/Kg	☼	07/10/19 02:53	07/10/19 14:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	130		53 - 150	07/10/19 02:53	07/10/19 14:21	1
DCB Decachlorobiphenyl	115		53 - 150	07/10/19 02:53	07/10/19 14:21	1

Client Sample ID: WP-STC-BQ19-A-B-0-070919

Date Collected: 07/09/19 15:40
Date Received: 07/09/19 17:21

Lab Sample ID: 460-186189-4
Matrix: Solid
Percent Solids: 55.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.2		0.59	0.031	mg/Kg	☼	07/10/19 02:29	07/10/19 07:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	52		25 - 113	07/10/19 02:29	07/10/19 07:40	1
Terphenyl-d14 (Surr)	59		27 - 123	07/10/19 02:29	07/10/19 07:40	1
2-Fluorobiphenyl	56		29 - 107	07/10/19 02:29	07/10/19 07:40	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.16	U	1.2	0.16	mg/Kg	☼	07/10/19 02:53	07/10/19 15:12	10
Aroclor 1221	0.16	U	1.2	0.16	mg/Kg	☼	07/10/19 02:53	07/10/19 15:12	10
Aroclor 1232	0.16	U	1.2	0.16	mg/Kg	☼	07/10/19 02:53	07/10/19 15:12	10
Aroclor 1242	0.16	U	1.2	0.16	mg/Kg	☼	07/10/19 02:53	07/10/19 15:12	10

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-186189-1

Client Sample ID: WP-STC-BQ19-A-B-0-070919

Date Collected: 07/09/19 15:40
Date Received: 07/09/19 17:21

Lab Sample ID: 460-186189-4
Matrix: Solid
Percent Solids: 55.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	9.6	J	1.2	0.16	mg/Kg	☼	07/10/19 02:53	07/10/19 15:12	10
Aroclor 1254	0.16	U	1.2	0.16	mg/Kg	☼	07/10/19 02:53	07/10/19 15:12	10
Aroclor 1260	0.16	U	1.2	0.16	mg/Kg	☼	07/10/19 02:53	07/10/19 15:12	10
Aroclor-1262	0.16	U	1.2	0.16	mg/Kg	☼	07/10/19 02:53	07/10/19 15:12	10
Aroclor 1268	0.16	U	1.2	0.16	mg/Kg	☼	07/10/19 02:53	07/10/19 15:12	10
Polychlorinated biphenyls, Total	9.6	J	1.2	0.16	mg/Kg	☼	07/10/19 02:53	07/10/19 15:12	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*110*		*53 - 150*	*07/10/19 02:53*	*07/10/19 15:12*	*10*
DCB Decachlorobiphenyl	*136*		*53 - 150*	*07/10/19 02:53*	*07/10/19 15:12*	*10*

Client Sample ID: WP-STC-BQ19-C-D-0-070919

Date Collected: 07/09/19 15:50
Date Received: 07/09/19 17:21

Lab Sample ID: 460-186189-5
Matrix: Solid
Percent Solids: 74.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.023	U	0.44	0.023	mg/Kg	☼	07/11/19 22:53	07/12/19 07:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*71*		*25 - 113*	*07/11/19 22:53*	*07/12/19 07:01*	*1*
Terphenyl-d14 (Surr)	*80*		*27 - 123*	*07/11/19 22:53*	*07/12/19 07:01*	*1*
2-Fluorobiphenyl	*60*		*29 - 107*	*07/11/19 22:53*	*07/12/19 07:01*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.089	0.012	mg/Kg	☼	07/11/19 16:27	07/12/19 08:40	1
Aroclor 1221	0.012	U	0.089	0.012	mg/Kg	☼	07/11/19 16:27	07/12/19 08:40	1
Aroclor 1232	0.012	U	0.089	0.012	mg/Kg	☼	07/11/19 16:27	07/12/19 08:40	1
Aroclor 1242	0.012	U	0.089	0.012	mg/Kg	☼	07/11/19 16:27	07/12/19 08:40	1
Aroclor 1248	0.26		0.089	0.012	mg/Kg	☼	07/11/19 16:27	07/12/19 08:40	1
Aroclor 1254	0.012	U	0.089	0.012	mg/Kg	☼	07/11/19 16:27	07/12/19 08:40	1
Aroclor 1260	0.012	U	0.089	0.012	mg/Kg	☼	07/11/19 16:27	07/12/19 08:40	1
Aroclor-1262	0.012	U	0.089	0.012	mg/Kg	☼	07/11/19 16:27	07/12/19 08:40	1
Aroclor 1268	0.012	U	0.089	0.012	mg/Kg	☼	07/11/19 16:27	07/12/19 08:40	1
Polychlorinated biphenyls, Total	0.26		0.089	0.012	mg/Kg	☼	07/11/19 16:27	07/12/19 08:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*103*		*53 - 150*	*07/11/19 16:27*	*07/12/19 08:40*	*1*
DCB Decachlorobiphenyl	*104*		*53 - 150*	*07/11/19 16:27*	*07/12/19 08:40*	*1*

Client Sample ID: WP-FB-070919

Date Collected: 07/09/19 15:55
Date Received: 07/09/19 17:21

Lab Sample ID: 460-186189-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		07/09/19 22:51	07/10/19 09:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*96*		*51 - 108*	*07/09/19 22:51*	*07/10/19 09:39*	*1*
Terphenyl-d14 (Surr)	*122*		*40 - 148*	*07/09/19 22:51*	*07/10/19 09:39*	*1*

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Woodbridge Pond

Job ID: 460-186189-1

Client Sample ID: WP-FB-070919

Date Collected: 07/09/19 15:55
Date Received: 07/09/19 17:21

Lab Sample ID: 460-186189-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	97		45 - 107	07/09/19 22:51	07/10/19 09:39	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		07/09/19 23:57	07/10/19 13:36	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		07/09/19 23:57	07/10/19 13:36	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		07/09/19 23:57	07/10/19 13:36	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		07/09/19 23:57	07/10/19 13:36	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		07/09/19 23:57	07/10/19 13:36	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		07/09/19 23:57	07/10/19 13:36	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		07/09/19 23:57	07/10/19 13:36	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		07/09/19 23:57	07/10/19 13:36	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		07/09/19 23:57	07/10/19 13:36	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		07/09/19 23:57	07/10/19 13:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	77		10 - 150	07/09/19 23:57	07/10/19 13:36	1
DCB Decachlorobiphenyl	83		10 - 150	07/09/19 23:57	07/10/19 13:36	1

Client Sample ID: WP-STC-BO10-A-B-0-070919

Date Collected: 07/09/19 16:00
Date Received: 07/09/19 17:21

Lab Sample ID: 460-186189-7
Matrix: Solid
Percent Solids: 77.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	5.4		0.43	0.023	mg/Kg	☼	07/10/19 02:29	07/10/19 07:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	45		25 - 113	07/10/19 02:29	07/10/19 07:58	1
Terphenyl-d14 (Surr)	57		27 - 123	07/10/19 02:29	07/10/19 07:58	1
2-Fluorobiphenyl	63		29 - 107	07/10/19 02:29	07/10/19 07:58	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.087	0.012	mg/Kg	☼	07/10/19 02:53	07/10/19 14:55	1
Aroclor 1221	0.012	U	0.087	0.012	mg/Kg	☼	07/10/19 02:53	07/10/19 14:55	1
Aroclor 1232	0.012	U	0.087	0.012	mg/Kg	☼	07/10/19 02:53	07/10/19 14:55	1
Aroclor 1242	0.012	U	0.087	0.012	mg/Kg	☼	07/10/19 02:53	07/10/19 14:55	1
Aroclor 1248	0.26		0.087	0.012	mg/Kg	☼	07/10/19 02:53	07/10/19 14:55	1
Aroclor 1254	0.012	U	0.087	0.012	mg/Kg	☼	07/10/19 02:53	07/10/19 14:55	1
Aroclor 1260	0.012	U	0.087	0.012	mg/Kg	☼	07/10/19 02:53	07/10/19 14:55	1
Aroclor-1262	0.012	U	0.087	0.012	mg/Kg	☼	07/10/19 02:53	07/10/19 14:55	1
Aroclor 1268	0.012	U	0.087	0.012	mg/Kg	☼	07/10/19 02:53	07/10/19 14:55	1
Polychlorinated biphenyls, Total	0.26		0.087	0.012	mg/Kg	☼	07/10/19 02:53	07/10/19 14:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	123		53 - 150	07/10/19 02:53	07/10/19 14:55	1
DCB Decachlorobiphenyl	110		53 - 150	07/10/19 02:53	07/10/19 14:55	1

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-186267

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/21/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on July 10, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-PB-BN34-K-L-0-071019	460-186267-1	Sediment	PCBs, BEHP*
WP-FB-071019	460-186267-2	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable which contains all required elements for the requested analyses.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

Based on available QC results, data qualification was not required for reported results.

BIS(2-ETHYLHEXYL)PHTHALATE

The lab report case narrative documented a high surrogate recovery in the solid method blank analysis (MB 460-623689/1-A). Since this was an isolated incident, data qualification was not required for associated sediment samples.

The MS/MSD analyses were performed on a sample unrelated to the site, therefore these results were not used to qualify sample results in this report.

A five-fold dilution was performed for sample WP-PB-BN34-K-L-0-071019. The BEHP concentration and the corresponding reporting limit were adjusted accordingly.

PCBs

The MS/MSD extraction and analyses were not evident from the extraction batch 623627, which was associated with sample WP-PB-BN34-K-L-0-071019. Since the accuracy and precision results were acceptable for the associated LCS/LCSD analyses, data qualification was not applied to sample WP-PB-BN34-K-L-0-071019 based on professional judgment.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco- Woodbridge Pond

Job ID: 460-186267-1

Client Sample ID: WP-PB-BN34-K-L-0-071019

Date Collected: 07/10/19 12:40
Date Received: 07/10/19 14:50

Lab Sample ID: 460-186267-1

Matrix: Solid
Percent Solids: 84.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	27		2.0	0.10	mg/Kg	☼	07/10/19 21:57	07/11/19 09:47	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*75*		*25 - 113*	*07/10/19 21:57*	*07/11/19 09:47*	*5*
Terphenyl-d14 (Surr)	*63*		*27 - 123*	*07/10/19 21:57*	*07/11/19 09:47*	*5*
2-Fluorobiphenyl	*60*		*29 - 107*	*07/10/19 21:57*	*07/11/19 09:47*	*5*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.079	0.011	mg/Kg	☼	07/10/19 16:13	07/11/19 09:29	1
Aroclor 1221	0.011	U	0.079	0.011	mg/Kg	☼	07/10/19 16:13	07/11/19 09:29	1
Aroclor 1232	0.011	U	0.079	0.011	mg/Kg	☼	07/10/19 16:13	07/11/19 09:29	1
Aroclor 1242	0.011	U	0.079	0.011	mg/Kg	☼	07/10/19 16:13	07/11/19 09:29	1
Aroclor 1248	0.42		0.079	0.011	mg/Kg	☼	07/10/19 16:13	07/11/19 09:29	1
Aroclor 1254	0.011	U	0.079	0.011	mg/Kg	☼	07/10/19 16:13	07/11/19 09:29	1
Aroclor 1260	0.011	U	0.079	0.011	mg/Kg	☼	07/10/19 16:13	07/11/19 09:29	1
Aroclor-1262	0.011	U	0.079	0.011	mg/Kg	☼	07/10/19 16:13	07/11/19 09:29	1
Aroclor 1268	0.011	U	0.079	0.011	mg/Kg	☼	07/10/19 16:13	07/11/19 09:29	1
Polychlorinated biphenyls, Total	0.42		0.079	0.011	mg/Kg	☼	07/10/19 16:13	07/11/19 09:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*105*		*53 - 150*	*07/10/19 16:13*	*07/11/19 09:29*	*1*
DCB Decachlorobiphenyl	*101*		*53 - 150*	*07/10/19 16:13*	*07/11/19 09:29*	*1*

Client Sample ID: WP-FB-071019

Date Collected: 07/10/19 12:50
Date Received: 07/10/19 14:50

Lab Sample ID: 460-186267-2

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		07/10/19 21:39	07/11/19 05:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*81*		*51 - 108*	*07/10/19 21:39*	*07/11/19 05:27*	*1*
Terphenyl-d14 (Surr)	*105*		*40 - 148*	*07/10/19 21:39*	*07/11/19 05:27*	*1*
2-Fluorobiphenyl	*75*		*45 - 107*	*07/10/19 21:39*	*07/11/19 05:27*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		07/10/19 22:46	07/11/19 13:22	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		07/10/19 22:46	07/11/19 13:22	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		07/10/19 22:46	07/11/19 13:22	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		07/10/19 22:46	07/11/19 13:22	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		07/10/19 22:46	07/11/19 13:22	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		07/10/19 22:46	07/11/19 13:22	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		07/10/19 22:46	07/11/19 13:22	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		07/10/19 22:46	07/11/19 13:22	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		07/10/19 22:46	07/11/19 13:22	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		07/10/19 22:46	07/11/19 13:22	1

YY 8/21/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco- Woodbridge Pond

Job ID: 460-186267-1

Client Sample ID: WP-FB-071019

Date Collected: 07/10/19 12:50
Date Received: 07/10/19 14:50

Lab Sample ID: 460-186267-2

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	95		10 - 150	07/10/19 22:46	07/11/19 13:22	1
DCB Decachlorobiphenyl	97		10 - 150	07/10/19 22:46	07/11/19 13:22	1

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-186501

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/21/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on July 12, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-PBC-BN34-C-D-0-071219	460-186501-1	Sediment	PCBs, BEHP*
WP-PBC-BN34-C-D-1-071219[1]	460-186501-2	Sediment	PCBs, BEHP*
WP-PB-BN31-A-B-0-071219	460-186501-3	Sediment	PCBs, BEHP*
WP-PBC-BN31-C-D-0-071219	460-186501-4	Sediment	PCBs, BEHP*
WP-PB-BP31-A-B-0-071219	460-186501-5	Sediment	PCBs, BEHP*
WP-FB-071219	460-186501-6	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

[1]A field duplicate of WP-PBC-BN34-C-D-0-071219

General Comments

The laboratory submitted a NJDEP full data deliverable which contains all required elements for the requested analyses.

The analyses of sediment contingent sample WP-PBC-BN31-C-D-0-071219 were placed on hold upon lab receipt but later canceled on July 16, 2019.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

As per lab report case narrative, difficulties were not encountered during the analysis and all QC results within control limits.

It should be noted that the MS/MSD analyses were performed on a sample unrelated to the site, therefore their results were not used to qualify sample results in this report.

In addition, it was observed that the LCSD associated with the sediment samples was not provided in the lab report and that it was not listed on the extraction worksheet or the applicable QC summary form. The lab previously responded to the inquiry of lack of such information that "LCSD is not provided when MS/MSD is reported. If reported elsewhere it should be considered redundant." Since the MS/MSD precision was within the lab-established control limit, though determined via a sample unrelated to the site, the precision of the analytical system was most likely acceptable as the LCSD was performed on a soil blank (a clean matrix blank).

The analyses of WP-PBC-BN34-C-D-0-071219 and its field duplicate yielded comparable BEHP results, even though both results were less than the reporting limits thus estimated.

PCBs

As per lab report case narrative, difficulties were not encountered during the analysis and all QC results within control limits.

It should be noted that the MS/MSD analyses were performed on a sample unrelated to the site, therefore their results were not used to qualify sample results in this report.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco-Woodbridge Pond

Job ID: 460-186501-1

Client Sample ID: WP-PBC-BN34-C-D-0-071219

Date Collected: 07/12/19 12:47
Date Received: 07/12/19 15:39

Lab Sample ID: 460-186501-1
Matrix: Solid
Percent Solids: 86.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.21	J	0.38	0.020	mg/Kg	☼	07/13/19 11:25	07/14/19 05:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*47*		*25 - 113*	*07/13/19 11:25*	*07/14/19 05:01*	*1*
Terphenyl-d14 (Surr)	*37*		*27 - 123*	*07/13/19 11:25*	*07/14/19 05:01*	*1*
2-Fluorobiphenyl	*37*		*29 - 107*	*07/13/19 11:25*	*07/14/19 05:01*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.010	U	0.077	0.010	mg/Kg	☼	07/13/19 03:30	07/14/19 11:29	1
Aroclor 1221	0.010	U	0.077	0.010	mg/Kg	☼	07/13/19 03:30	07/14/19 11:29	1
Aroclor 1232	0.010	U	0.077	0.010	mg/Kg	☼	07/13/19 03:30	07/14/19 11:29	1
Aroclor 1242	0.010	U	0.077	0.010	mg/Kg	☼	07/13/19 03:30	07/14/19 11:29	1
Aroclor 1248	0.010	U	0.077	0.010	mg/Kg	☼	07/13/19 03:30	07/14/19 11:29	1
Aroclor 1254	0.011	U	0.077	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 11:29	1
Aroclor 1260	0.011	U	0.077	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 11:29	1
Aroclor-1262	0.011	U	0.077	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 11:29	1
Aroclor 1268	0.011	U	0.077	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 11:29	1
Polychlorinated biphenyls, Total	0.011	U	0.077	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 11:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*131*		*53 - 150*	*07/13/19 03:30*	*07/14/19 11:29*	*1*
DCB Decachlorobiphenyl	*112*		*53 - 150*	*07/13/19 03:30*	*07/14/19 11:29*	*1*

Client Sample ID: WP-PBC-BN34-C-D-1-071219

Date Collected: 07/12/19 12:47
Date Received: 07/12/19 15:39

Lab Sample ID: 460-186501-2
Matrix: Solid
Percent Solids: 85.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.36	J	0.39	0.021	mg/Kg	☼	07/13/19 11:25	07/14/19 05:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*66*		*25 - 113*	*07/13/19 11:25*	*07/14/19 05:24*	*1*
Terphenyl-d14 (Surr)	*53*		*27 - 123*	*07/13/19 11:25*	*07/14/19 05:24*	*1*
2-Fluorobiphenyl	*52*		*29 - 107*	*07/13/19 11:25*	*07/14/19 05:24*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.010	U	0.079	0.010	mg/Kg	☼	07/13/19 03:30	07/14/19 11:46	1
Aroclor 1221	0.010	U	0.079	0.010	mg/Kg	☼	07/13/19 03:30	07/14/19 11:46	1
Aroclor 1232	0.010	U	0.079	0.010	mg/Kg	☼	07/13/19 03:30	07/14/19 11:46	1
Aroclor 1242	0.010	U	0.079	0.010	mg/Kg	☼	07/13/19 03:30	07/14/19 11:46	1
Aroclor 1248	0.010	U	0.079	0.010	mg/Kg	☼	07/13/19 03:30	07/14/19 11:46	1
Aroclor 1254	0.011	U	0.079	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 11:46	1
Aroclor 1260	0.011	U	0.079	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 11:46	1
Aroclor-1262	0.011	U	0.079	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 11:46	1
Aroclor 1268	0.011	U	0.079	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 11:46	1
Polychlorinated biphenyls, Total	0.011	U	0.079	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 11:46	1

YY 8/21/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco-Woodbridge Pond

Job ID: 460-186501-1

Client Sample ID: WP-PBC-BN34-C-D-1-071219

Lab Sample ID: 460-186501-2
Date Collected: 07/12/19 12:47
Matrix: Solid
Date Received: 07/12/19 15:39
Percent Solids: 85.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	123		53 - 150	07/13/19 03:30	07/14/19 11:46	1
DCB Decachlorobiphenyl	109		53 - 150	07/13/19 03:30	07/14/19 11:46	1

Client Sample ID: WP-PB-BN31-A-B-0-071219

Lab Sample ID: 460-186501-3
Date Collected: 07/12/19 13:12
Matrix: Solid
Date Received: 07/12/19 15:39
Percent Solids: 84.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.2		0.39	0.021	mg/Kg	☼	07/13/19 11:25	07/14/19 05:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	63		25 - 113	07/13/19 11:25	07/14/19 05:47	1
Terphenyl-d14 (Surr)	54		27 - 123	07/13/19 11:25	07/14/19 05:47	1
2-Fluorobiphenyl	51		29 - 107	07/13/19 11:25	07/14/19 05:47	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.079	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 12:03	1
Aroclor 1221	0.011	U	0.079	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 12:03	1
Aroclor 1232	0.011	U	0.079	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 12:03	1
Aroclor 1242	0.011	U	0.079	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 12:03	1
Aroclor 1248	0.011	U	0.079	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 12:03	1
Aroclor 1254	0.011	U	0.079	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 12:03	1
Aroclor 1260	0.011	U	0.079	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 12:03	1
Aroclor-1262	0.011	U	0.079	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 12:03	1
Aroclor 1268	0.011	U	0.079	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 12:03	1
Polychlorinated biphenyls, Total	0.011	U	0.079	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 12:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	122		53 - 150	07/13/19 03:30	07/14/19 12:03	1
DCB Decachlorobiphenyl	103		53 - 150	07/13/19 03:30	07/14/19 12:03	1

Client Sample ID: WP-PB-BP31-A-B-0-071219

Lab Sample ID: 460-186501-5
Date Collected: 07/12/19 13:30
Matrix: Solid
Date Received: 07/12/19 15:39
Percent Solids: 83.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.0		0.39	0.021	mg/Kg	☼	07/13/19 11:25	07/14/19 06:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	52		25 - 113	07/13/19 11:25	07/14/19 06:10	1
Terphenyl-d14 (Surr)	45		27 - 123	07/13/19 11:25	07/14/19 06:10	1
2-Fluorobiphenyl	44		29 - 107	07/13/19 11:25	07/14/19 06:10	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.080	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 12:19	1
Aroclor 1221	0.011	U	0.080	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 12:19	1
Aroclor 1232	0.011	U	0.080	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 12:19	1
Aroclor 1242	0.011	U	0.080	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 12:19	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco-Woodbridge Pond

Job ID: 460-186501-1

Client Sample ID: WP-PB-BP31-A-B-0-071219

Date Collected: 07/12/19 13:30
Date Received: 07/12/19 15:39

Lab Sample ID: 460-186501-5

Matrix: Solid
Percent Solids: 83.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.011	U	0.080	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 12:19	1
Aroclor 1254	0.011	U	0.080	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 12:19	1
Aroclor 1260	0.011	U	0.080	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 12:19	1
Aroclor-1262	0.011	U	0.080	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 12:19	1
Aroclor 1268	0.011	U	0.080	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 12:19	1
Polychlorinated biphenyls, Total	0.011	U	0.080	0.011	mg/Kg	☼	07/13/19 03:30	07/14/19 12:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*119*		*53 - 150*	*07/13/19 03:30*	*07/14/19 12:19*	*1*
DCB Decachlorobiphenyl	*107*		*53 - 150*	*07/13/19 03:30*	*07/14/19 12:19*	*1*

Client Sample ID: WP-FB-071219

Date Collected: 07/12/19 13:35
Date Received: 07/12/19 15:39

Lab Sample ID: 460-186501-6

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		07/13/19 06:54	07/14/19 02:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*81*		*51 - 108*	*07/13/19 06:54*	*07/14/19 02:03*	*1*
Terphenyl-d14 (Surr)	*113*		*40 - 148*	*07/13/19 06:54*	*07/14/19 02:03*	*1*
2-Fluorobiphenyl	*82*		*45 - 107*	*07/13/19 06:54*	*07/14/19 02:03*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		07/13/19 16:54	07/14/19 18:41	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		07/13/19 16:54	07/14/19 18:41	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		07/13/19 16:54	07/14/19 18:41	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		07/13/19 16:54	07/14/19 18:41	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		07/13/19 16:54	07/14/19 18:41	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		07/13/19 16:54	07/14/19 18:41	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		07/13/19 16:54	07/14/19 18:41	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		07/13/19 16:54	07/14/19 18:41	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		07/13/19 16:54	07/14/19 18:41	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		07/13/19 16:54	07/14/19 18:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*28*		*10 - 150*	*07/13/19 16:54*	*07/14/19 18:41*	*1*
DCB Decachlorobiphenyl	*32*		*10 - 150*	*07/13/19 16:54*	*07/14/19 18:41*	*1*

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DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-186929

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/22/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on July 18, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-PB-BN16-C-D-0-071819	460-186929-1	Sediment	PCBs, BEHP*
WP-PB-BN16-E-F-0-071819	460-186929-2	Sediment	PCBs, BEHP*
WP-BN1-5E-A-B-0-071819	460-186929-3	Sediment	PCBs, BEHP*
WP-BN1-5S-A-B-0-071819	460-186929-4	Sediment	PCBs, BEHP*
WP-BN1-5N-A-B-0-071819	460-186929-5	Sediment	PCBs, BEHP*
WP-BN1-5W-A-B-0-071819	460-186929-6	Sediment	PCBs, BEHP*
WP-PB-BK16-C-D-0-071819	460-186929-7	Sediment	PCBs, BEHP*
WP-FB-071819	460-186929-8	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable which contains all required elements for the requested analyses.

The analyses of sediment contingent sample WP-PB-BN16-E-F-0-071819 were placed on hold upon lab receipt but later canceled on July 22, 2019.

The solid content was greater than 30% in all sediment samples.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The MS/MSD analyses were performed on sample WP-PB-BN16-C-D-0-071819 and yielded an acceptable recovery (103%) for BEHP in the MSD analysis but less than 10% in the MS analysis. Due to the poor precision and low recovery in the MS analysis, the BEHP result was estimated (J) for sample WP-PB-BN16-C-D-0-071819.

In addition, it was observed that the LCSD associated with the sediment samples was not provided in the lab report and that it was not listed on the extraction worksheet or the applicable QC summary form. The lab previously responded to the inquiry of lack of such information that "LCSD is not provided when MS/MSD is reported. If reported elsewhere it should be considered redundant." Since the LCS recovery was acceptable, it demonstrated lab's ability in provide accurate BEHP result in clean matrix. No further action was required.

A two-fold dilution was performed for sample WP-PB-BN16-C-D-0-071819. The positive BEHP result and the reporting limit were adjusted accordingly.

PCBs

Due to a 25-fold dilution surrogate compound was not recovered in sample WP-BN1-5E-A-B-0-071819. Data qualification was not required.

The MS/MSD analyses were performed on a sample unrelated to the site, therefore their results were not used to qualify sample results in this report.

A 25-fold dilution was performed for sample WP-BN1-5E-A-B-0-071819. The positive Aroclor-1248 result and the reporting limits of other non-detected Aroclors were adjusted accordingly.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Although one BEHP result was qualified due to non-compliant QC results, none warranted data rejection. All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-186929-1

Client Sample ID: WP-PB-BN16-C-D-0-071819

Lab Sample ID: 460-186929-1

Date Collected: 07/18/19 11:15
Date Received: 07/18/19 15:15

Matrix: Solid
Percent Solids: 71.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	13	~~F1~~ J	0.92	0.049	mg/Kg	☼	07/18/19 22:30	07/19/19 08:28	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*58*		*25 - 113*	*07/18/19 22:30*	*07/19/19 08:28*	*2*
Terphenyl-d14 (Surr)	*68*		*27 - 123*	*07/18/19 22:30*	*07/19/19 08:28*	*2*
2-Fluorobiphenyl	*67*		*29 - 107*	*07/18/19 22:30*	*07/19/19 08:28*	*2*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.093	0.012	mg/Kg	☼	07/19/19 05:49	07/19/19 13:53	1
Aroclor 1221	0.012	U	0.093	0.012	mg/Kg	☼	07/19/19 05:49	07/19/19 13:53	1
Aroclor 1232	0.012	U	0.093	0.012	mg/Kg	☼	07/19/19 05:49	07/19/19 13:53	1
Aroclor 1242	0.012	U	0.093	0.012	mg/Kg	☼	07/19/19 05:49	07/19/19 13:53	1
Aroclor 1248	0.91		0.093	0.012	mg/Kg	☼	07/19/19 05:49	07/19/19 13:53	1
Aroclor 1254	0.013	U	0.093	0.013	mg/Kg	☼	07/19/19 05:49	07/19/19 13:53	1
Aroclor 1260	0.013	U	0.093	0.013	mg/Kg	☼	07/19/19 05:49	07/19/19 13:53	1
Aroclor-1262	0.013	U	0.093	0.013	mg/Kg	☼	07/19/19 05:49	07/19/19 13:53	1
Aroclor 1268	0.013	U	0.093	0.013	mg/Kg	☼	07/19/19 05:49	07/19/19 13:53	1
Polychlorinated biphenyls, Total	0.91		0.093	0.013	mg/Kg	☼	07/19/19 05:49	07/19/19 13:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*139*		*53 - 150*	*07/19/19 05:49*	*07/19/19 13:53*	*1*
DCB Decachlorobiphenyl	*124*		*53 - 150*	*07/19/19 05:49*	*07/19/19 13:53*	*1*

Client Sample ID: WP-BN1-5E-A-B-0-071819

Lab Sample ID: 460-186929-3

Date Collected: 07/18/19 11:45
Date Received: 07/18/19 15:15

Matrix: Solid
Percent Solids: 89.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.5		0.37	0.020	mg/Kg	☼	07/18/19 22:30	07/19/19 06:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*53*		*25 - 113*	*07/18/19 22:30*	*07/19/19 06:12*	*1*
Terphenyl-d14 (Surr)	*63*		*27 - 123*	*07/18/19 22:30*	*07/19/19 06:12*	*1*
2-Fluorobiphenyl	*60*		*29 - 107*	*07/18/19 22:30*	*07/19/19 06:12*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.25	U	1.9	0.25	mg/Kg	☼	07/19/19 05:49	07/19/19 15:36	25
Aroclor 1221	0.25	U	1.9	0.25	mg/Kg	☼	07/19/19 05:49	07/19/19 15:36	25
Aroclor 1232	0.25	U	1.9	0.25	mg/Kg	☼	07/19/19 05:49	07/19/19 15:36	25
Aroclor 1242	0.25	U	1.9	0.25	mg/Kg	☼	07/19/19 05:49	07/19/19 15:36	25
Aroclor 1248	14		1.9	0.25	mg/Kg	☼	07/19/19 05:49	07/19/19 15:36	25
Aroclor 1254	0.26	U	1.9	0.26	mg/Kg	☼	07/19/19 05:49	07/19/19 15:36	25
Aroclor 1260	0.26	U	1.9	0.26	mg/Kg	☼	07/19/19 05:49	07/19/19 15:36	25
Aroclor-1262	0.26	U	1.9	0.26	mg/Kg	☼	07/19/19 05:49	07/19/19 15:36	25
Aroclor 1268	0.26	U	1.9	0.26	mg/Kg	☼	07/19/19 05:49	07/19/19 15:36	25
Polychlorinated biphenyls, Total	14		1.9	0.26	mg/Kg	☼	07/19/19 05:49	07/19/19 15:36	25

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-186929-1

Client Sample ID: WP-BN1-5E-A-B-0-071819

Lab Sample ID: 460-186929-3
Date Collected: 07/18/19 11:45
Matrix: Solid
Date Received: 07/18/19 15:15
Percent Solids: 89.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	X	53 - 150	07/19/19 05:49	07/19/19 15:36	25
DCB Decachlorobiphenyl	0	X	53 - 150	07/19/19 05:49	07/19/19 15:36	25

Client Sample ID: WP-BN1-5S-A-B-0-071819

Lab Sample ID: 460-186929-4
Date Collected: 07/18/19 11:50
Matrix: Solid
Date Received: 07/18/19 15:15
Percent Solids: 80.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.12	J	0.41	0.022	mg/Kg	☼	07/18/19 22:30	07/19/19 06:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	51		25 - 113	07/18/19 22:30	07/19/19 06:29	1
Terphenyl-d14 (Surr)	61		27 - 123	07/18/19 22:30	07/19/19 06:29	1
2-Fluorobiphenyl	56		29 - 107	07/18/19 22:30	07/19/19 06:29	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.083	0.011	mg/Kg	☼	07/19/19 05:49	07/19/19 14:25	1
Aroclor 1221	0.011	U	0.083	0.011	mg/Kg	☼	07/19/19 05:49	07/19/19 14:25	1
Aroclor 1232	0.011	U	0.083	0.011	mg/Kg	☼	07/19/19 05:49	07/19/19 14:25	1
Aroclor 1242	0.011	U	0.083	0.011	mg/Kg	☼	07/19/19 05:49	07/19/19 14:25	1
Aroclor 1248	0.41		0.083	0.011	mg/Kg	☼	07/19/19 05:49	07/19/19 14:25	1
Aroclor 1254	0.011	U	0.083	0.011	mg/Kg	☼	07/19/19 05:49	07/19/19 14:25	1
Aroclor 1260	0.011	U	0.083	0.011	mg/Kg	☼	07/19/19 05:49	07/19/19 14:25	1
Aroclor-1262	0.011	U	0.083	0.011	mg/Kg	☼	07/19/19 05:49	07/19/19 14:25	1
Aroclor 1268	0.011	U	0.083	0.011	mg/Kg	☼	07/19/19 05:49	07/19/19 14:25	1
Polychlorinated biphenyls, Total	0.41		0.083	0.011	mg/Kg	☼	07/19/19 05:49	07/19/19 14:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	145		53 - 150	07/19/19 05:49	07/19/19 14:25	1
DCB Decachlorobiphenyl	121		53 - 150	07/19/19 05:49	07/19/19 14:25	1

Client Sample ID: WP-BN1-5N-A-B-0-071819

Lab Sample ID: 460-186929-5
Date Collected: 07/18/19 12:20
Matrix: Solid
Date Received: 07/18/19 15:15
Percent Solids: 89.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.045	J	0.37	0.019	mg/Kg	☼	07/18/19 22:30	07/19/19 06:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	53		25 - 113	07/18/19 22:30	07/19/19 06:46	1
Terphenyl-d14 (Surr)	68		27 - 123	07/18/19 22:30	07/19/19 06:46	1
2-Fluorobiphenyl	61		29 - 107	07/18/19 22:30	07/19/19 06:46	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.0099	U	0.075	0.0099	mg/Kg	☼	07/19/19 05:49	07/19/19 14:42	1
Aroclor 1221	0.0099	U	0.075	0.0099	mg/Kg	☼	07/19/19 05:49	07/19/19 14:42	1
Aroclor 1232	0.0099	U	0.075	0.0099	mg/Kg	☼	07/19/19 05:49	07/19/19 14:42	1
Aroclor 1242	0.0099	U	0.075	0.0099	mg/Kg	☼	07/19/19 05:49	07/19/19 14:42	1

YY 8/21/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-186929-1

Client Sample ID: WP-BN1-5N-A-B-0-071819

Lab Sample ID: 460-186929-5

Date Collected: 07/18/19 12:20
Date Received: 07/18/19 15:15

Matrix: Solid
Percent Solids: 89.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.13		0.075	0.0099	mg/Kg	☼	07/19/19 05:49	07/19/19 14:42	1
Aroclor 1254	0.010	U	0.075	0.010	mg/Kg	☼	07/19/19 05:49	07/19/19 14:42	1
Aroclor 1260	0.010	U	0.075	0.010	mg/Kg	☼	07/19/19 05:49	07/19/19 14:42	1
Aroclor-1262	0.010	U	0.075	0.010	mg/Kg	☼	07/19/19 05:49	07/19/19 14:42	1
Aroclor 1268	0.010	U	0.075	0.010	mg/Kg	☼	07/19/19 05:49	07/19/19 14:42	1
Polychlorinated biphenyls, Total	0.13		0.075	0.010	mg/Kg	☼	07/19/19 05:49	07/19/19 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*121*		*53 - 150*	*07/19/19 05:49*	*07/19/19 14:42*	*1*
DCB Decachlorobiphenyl	*117*		*53 - 150*	*07/19/19 05:49*	*07/19/19 14:42*	*1*

Client Sample ID: WP-BN1-5W-A-B-0-071819

Lab Sample ID: 460-186929-6

Date Collected: 07/18/19 12:35
Date Received: 07/18/19 15:15

Matrix: Solid
Percent Solids: 54.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	12		0.61	0.032	mg/Kg	☼	07/18/19 22:30	07/19/19 07:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*46*		*25 - 113*	*07/18/19 22:30*	*07/19/19 07:03*	*1*
Terphenyl-d14 (Surr)	*48*		*27 - 123*	*07/18/19 22:30*	*07/19/19 07:03*	*1*
2-Fluorobiphenyl	*61*		*29 - 107*	*07/18/19 22:30*	*07/19/19 07:03*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.016	U	0.12	0.016	mg/Kg	☼	07/19/19 05:49	07/19/19 14:59	1
Aroclor 1221	0.016	U	0.12	0.016	mg/Kg	☼	07/19/19 05:49	07/19/19 14:59	1
Aroclor 1232	0.016	U	0.12	0.016	mg/Kg	☼	07/19/19 05:49	07/19/19 14:59	1
Aroclor 1242	0.016	U	0.12	0.016	mg/Kg	☼	07/19/19 05:49	07/19/19 14:59	1
Aroclor 1248	1.1		0.12	0.016	mg/Kg	☼	07/19/19 05:49	07/19/19 14:59	1
Aroclor 1254	0.017	U	0.12	0.017	mg/Kg	☼	07/19/19 05:49	07/19/19 14:59	1
Aroclor 1260	0.017	U	0.12	0.017	mg/Kg	☼	07/19/19 05:49	07/19/19 14:59	1
Aroclor-1262	0.017	U	0.12	0.017	mg/Kg	☼	07/19/19 05:49	07/19/19 14:59	1
Aroclor 1268	0.017	U	0.12	0.017	mg/Kg	☼	07/19/19 05:49	07/19/19 14:59	1
Polychlorinated biphenyls, Total	1.1		0.12	0.017	mg/Kg	☼	07/19/19 05:49	07/19/19 14:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*96*		*53 - 150*	*07/19/19 05:49*	*07/19/19 14:59*	*1*
DCB Decachlorobiphenyl	*88*		*53 - 150*	*07/19/19 05:49*	*07/19/19 14:59*	*1*

Client Sample ID: WP-PB-BK16-C-D-0-071819

Lab Sample ID: 460-186929-7

Date Collected: 07/18/19 14:25
Date Received: 07/18/19 15:15

Matrix: Solid
Percent Solids: 92.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.099	J	0.36	0.019	mg/Kg	☼	07/18/19 22:30	07/19/19 07:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*62*		*25 - 113*	*07/18/19 22:30*	*07/19/19 07:20*	*1*
Terphenyl-d14 (Surr)	*70*		*27 - 123*	*07/18/19 22:30*	*07/19/19 07:20*	*1*

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-186929-1

Client Sample ID: WP-PB-BK16-C-D-0-071819

Date Collected: 07/18/19 14:25
Date Received: 07/18/19 15:15

Lab Sample ID: 460-186929-7
Matrix: Solid
Percent Solids: 92.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	65		29 - 107	07/18/19 22:30	07/19/19 07:20	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.0096	U	0.072	0.0096	mg/Kg	☼	07/19/19 05:49	07/19/19 15:16	1
Aroclor 1221	0.0096	U	0.072	0.0096	mg/Kg	☼	07/19/19 05:49	07/19/19 15:16	1
Aroclor 1232	0.0096	U	0.072	0.0096	mg/Kg	☼	07/19/19 05:49	07/19/19 15:16	1
Aroclor 1242	0.0096	U	0.072	0.0096	mg/Kg	☼	07/19/19 05:49	07/19/19 15:16	1
Aroclor 1248	0.63		0.072	0.0096	mg/Kg	☼	07/19/19 05:49	07/19/19 15:16	1
Aroclor 1254	0.0099	U	0.072	0.0099	mg/Kg	☼	07/19/19 05:49	07/19/19 15:16	1
Aroclor 1260	0.0099	U	0.072	0.0099	mg/Kg	☼	07/19/19 05:49	07/19/19 15:16	1
Aroclor-1262	0.0099	U	0.072	0.0099	mg/Kg	☼	07/19/19 05:49	07/19/19 15:16	1
Aroclor 1268	0.0099	U	0.072	0.0099	mg/Kg	☼	07/19/19 05:49	07/19/19 15:16	1
Polychlorinated biphenyls, Total	0.63		0.072	0.0099	mg/Kg	☼	07/19/19 05:49	07/19/19 15:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	139		53 - 150	07/19/19 05:49	07/19/19 15:16	1
DCB Decachlorobiphenyl	115		53 - 150	07/19/19 05:49	07/19/19 15:16	1

Client Sample ID: WP-FB-071819

Date Collected: 07/18/19 14:30
Date Received: 07/18/19 15:15

Lab Sample ID: 460-186929-8
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		07/19/19 02:30	07/19/19 11:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	88		51 - 108	07/19/19 02:30	07/19/19 11:33	1
Terphenyl-d14 (Surr)	99		40 - 148	07/19/19 02:30	07/19/19 11:33	1
2-Fluorobiphenyl	82		45 - 107	07/19/19 02:30	07/19/19 11:33	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		07/18/19 20:03	07/19/19 12:14	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		07/18/19 20:03	07/19/19 12:14	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		07/18/19 20:03	07/19/19 12:14	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		07/18/19 20:03	07/19/19 12:14	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		07/18/19 20:03	07/19/19 12:14	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		07/18/19 20:03	07/19/19 12:14	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		07/18/19 20:03	07/19/19 12:14	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		07/18/19 20:03	07/19/19 12:14	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		07/18/19 20:03	07/19/19 12:14	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		07/18/19 20:03	07/19/19 12:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	95		10 - 150	07/18/19 20:03	07/19/19 12:14	1
DCB Decachlorobiphenyl	99		10 - 150	07/18/19 20:03	07/19/19 12:14	1

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DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-187175

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/22/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on July 22, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-ST-BR19-A-B-0-072219	460-187175-1	Sediment	PCBs, BEHP*
WP-SB-BR19-C-D-0-072219	460-187175-2	Sediment	PCBs, BEHP*
WP-PB-BN13-C-D-0-072219	460-187175-3	Sediment	PCBs, BEHP*
WP-SB-BQ16-C-D-0-072219	460-187175-4	Sediment	PCBs, BEHP*
WP-PB-BQ19-C-D-0-072219	460-187175-5	Sediment	PCBs, BEHP*
WP-FB-072219	460-187175-6	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable that contains all required elements for the requested analyses.

The solid content was greater than 30% in all sediment samples.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

Two out of three surrogate recoveries exceeded the lab-established control limits in the analysis of the field blank. Since BEHP was not detected in the field blank, data qualification was not required.

The MS/MSD analyses were performed on a sample unrelated to the site, therefore their results were not used for data assessment. Since the LCS and LCSD yielded acceptable accuracy and precision results, the analytical system was deemed reliable. Further action was not required.

The lab report case narrative stated that all other QC results were within control limits.

PCBs

The MS/MSD analyses were performed on sample WP-ST-BR19-A-B-0-072219. With the exception of high recoveries of Aroclor-1016 in both MS and MSD on the CLP-2 column, all accuracy and precision results were within control limits. Since Aroclor-1016 was not detected in sample WP-ST-BR19-A-B-0-072219 and the concentration of Aroclor-1248 in sample WP-ST-BR19-A-B-0-072219 was reported from the RTX-CLP column, data qualification was not required.

A two-fold dilution was performed for sample WP-PB-BN13-C-D-0-072219. The positive Aroclor-1248 result and the reporting limits of other non-detected Aroclors were adjusted accordingly for sample WP-PB-BN13-C-D-0-072219.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-187175-1

Client Sample ID: WP-ST-BR19-A-B-0-072219

Date Collected: 07/22/19 14:30
Date Received: 07/22/19 16:55

Lab Sample ID: 460-187175-1
Matrix: Solid
Percent Solids: 85.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.42		0.39	0.020	mg/Kg	☼	07/22/19 22:16	07/23/19 07:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*56*		*25 - 113*	*07/22/19 22:16*	*07/23/19 07:49*	*1*
Terphenyl-d14 (Surr)	*50*		*27 - 123*	*07/22/19 22:16*	*07/23/19 07:49*	*1*
2-Fluorobiphenyl	*53*		*29 - 107*	*07/22/19 22:16*	*07/23/19 07:49*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.010	U	0.078	0.010	mg/Kg	☼	07/23/19 02:00	07/23/19 10:34	1
Aroclor 1221	0.010	U	0.078	0.010	mg/Kg	☼	07/23/19 02:00	07/23/19 10:34	1
Aroclor 1232	0.010	U	0.078	0.010	mg/Kg	☼	07/23/19 02:00	07/23/19 10:34	1
Aroclor 1242	0.010	U	0.078	0.010	mg/Kg	☼	07/23/19 02:00	07/23/19 10:34	1
Aroclor 1248	0.97		0.078	0.010	mg/Kg	☼	07/23/19 02:00	07/23/19 10:34	1
Aroclor 1254	0.011	U	0.078	0.011	mg/Kg	☼	07/23/19 02:00	07/23/19 10:34	1
Aroclor 1260	0.011	U	0.078	0.011	mg/Kg	☼	07/23/19 02:00	07/23/19 10:34	1
Aroclor-1262	0.011	U	0.078	0.011	mg/Kg	☼	07/23/19 02:00	07/23/19 10:34	1
Aroclor 1268	0.011	U	0.078	0.011	mg/Kg	☼	07/23/19 02:00	07/23/19 10:34	1
Polychlorinated biphenyls, Total	0.97		0.078	0.011	mg/Kg	☼	07/23/19 02:00	07/23/19 10:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*111*		*53 - 150*	*07/23/19 02:00*	*07/23/19 10:34*	*1*
DCB Decachlorobiphenyl	*106*		*53 - 150*	*07/23/19 02:00*	*07/23/19 10:34*	*1*

Client Sample ID: WP-SB-BR19-C-D-0-072219

Date Collected: 07/22/19 14:45
Date Received: 07/22/19 16:55

Lab Sample ID: 460-187175-2
Matrix: Solid
Percent Solids: 76.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.027	J	0.43	0.023	mg/Kg	☼	07/22/19 22:16	07/23/19 08:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*64*		*25 - 113*	*07/22/19 22:16*	*07/23/19 08:11*	*1*
Terphenyl-d14 (Surr)	*69*		*27 - 123*	*07/22/19 22:16*	*07/23/19 08:11*	*1*
2-Fluorobiphenyl	*73*		*29 - 107*	*07/22/19 22:16*	*07/23/19 08:11*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.088	0.012	mg/Kg	☼	07/23/19 02:00	07/23/19 10:51	1
Aroclor 1221	0.012	U	0.088	0.012	mg/Kg	☼	07/23/19 02:00	07/23/19 10:51	1
Aroclor 1232	0.012	U	0.088	0.012	mg/Kg	☼	07/23/19 02:00	07/23/19 10:51	1
Aroclor 1242	0.012	U	0.088	0.012	mg/Kg	☼	07/23/19 02:00	07/23/19 10:51	1
Aroclor 1248	0.012	U	0.088	0.012	mg/Kg	☼	07/23/19 02:00	07/23/19 10:51	1
Aroclor 1254	0.012	U	0.088	0.012	mg/Kg	☼	07/23/19 02:00	07/23/19 10:51	1
Aroclor 1260	0.012	U	0.088	0.012	mg/Kg	☼	07/23/19 02:00	07/23/19 10:51	1
Aroclor-1262	0.012	U	0.088	0.012	mg/Kg	☼	07/23/19 02:00	07/23/19 10:51	1
Aroclor 1268	0.012	U	0.088	0.012	mg/Kg	☼	07/23/19 02:00	07/23/19 10:51	1
Polychlorinated biphenyls, Total	0.012	U	0.088	0.012	mg/Kg	☼	07/23/19 02:00	07/23/19 10:51	1

YY 8/22/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-187175-1

Client Sample ID: WP-SB-BR19-C-D-0-072219

Lab Sample ID: 460-187175-2

Date Collected: 07/22/19 14:45
Date Received: 07/22/19 16:55

Matrix: Solid
Percent Solids: 76.3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	140		53 - 150	07/23/19 02:00	07/23/19 10:51	1
DCB Decachlorobiphenyl	121		53 - 150	07/23/19 02:00	07/23/19 10:51	1

Client Sample ID: WP-PB-BN13-C-D-0-072219

Lab Sample ID: 460-187175-3

Date Collected: 07/22/19 15:00
Date Received: 07/22/19 16:55

Matrix: Solid
Percent Solids: 78.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	5.1		0.42	0.022	mg/Kg	☼	07/22/19 22:16	07/23/19 08:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	38		25 - 113	07/22/19 22:16	07/23/19 08:34	1
Terphenyl-d14 (Surr)	50		27 - 123	07/22/19 22:16	07/23/19 08:34	1
2-Fluorobiphenyl	59		29 - 107	07/22/19 22:16	07/23/19 08:34	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.023	U	0.17	0.023	mg/Kg	☼	07/23/19 02:00	07/23/19 12:16	2
Aroclor 1221	0.023	U	0.17	0.023	mg/Kg	☼	07/23/19 02:00	07/23/19 12:16	2
Aroclor 1232	0.023	U	0.17	0.023	mg/Kg	☼	07/23/19 02:00	07/23/19 12:16	2
Aroclor 1242	0.023	U	0.17	0.023	mg/Kg	☼	07/23/19 02:00	07/23/19 12:16	2
Aroclor 1248	1.8		0.17	0.023	mg/Kg	☼	07/23/19 02:00	07/23/19 12:16	2
Aroclor 1254	0.023	U	0.17	0.023	mg/Kg	☼	07/23/19 02:00	07/23/19 12:16	2
Aroclor 1260	0.023	U	0.17	0.023	mg/Kg	☼	07/23/19 02:00	07/23/19 12:16	2
Aroclor-1262	0.023	U	0.17	0.023	mg/Kg	☼	07/23/19 02:00	07/23/19 12:16	2
Aroclor 1268	0.023	U	0.17	0.023	mg/Kg	☼	07/23/19 02:00	07/23/19 12:16	2
Polychlorinated biphenyls, Total	1.8		0.17	0.023	mg/Kg	☼	07/23/19 02:00	07/23/19 12:16	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	126		53 - 150	07/23/19 02:00	07/23/19 12:16	2
DCB Decachlorobiphenyl	117		53 - 150	07/23/19 02:00	07/23/19 12:16	2

Client Sample ID: WP-SB-BQ16-C-D-0-072219

Lab Sample ID: 460-187175-4

Date Collected: 07/22/19 15:50
Date Received: 07/22/19 16:55

Matrix: Solid
Percent Solids: 82.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.021	U	0.40	0.021	mg/Kg	☼	07/22/19 22:16	07/23/19 08:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	65		25 - 113	07/22/19 22:16	07/23/19 08:57	1
Terphenyl-d14 (Surr)	66		27 - 123	07/22/19 22:16	07/23/19 08:57	1
2-Fluorobiphenyl	64		29 - 107	07/22/19 22:16	07/23/19 08:57	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.082	0.011	mg/Kg	☼	07/23/19 02:00	07/23/19 11:25	1
Aroclor 1221	0.011	U	0.082	0.011	mg/Kg	☼	07/23/19 02:00	07/23/19 11:25	1
Aroclor 1232	0.011	U	0.082	0.011	mg/Kg	☼	07/23/19 02:00	07/23/19 11:25	1
Aroclor 1242	0.011	U	0.082	0.011	mg/Kg	☼	07/23/19 02:00	07/23/19 11:25	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-187175-1

Client Sample ID: WP-SB-BQ16-C-D-0-072219

Lab Sample ID: 460-187175-4
Date Collected: 07/22/19 15:50
Matrix: Solid
Date Received: 07/22/19 16:55
Percent Solids: 82.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.011	U	0.082	0.011	mg/Kg	☼	07/23/19 02:00	07/23/19 11:25	1
Aroclor 1254	0.011	U	0.082	0.011	mg/Kg	☼	07/23/19 02:00	07/23/19 11:25	1
Aroclor 1260	0.011	U	0.082	0.011	mg/Kg	☼	07/23/19 02:00	07/23/19 11:25	1
Aroclor-1262	0.011	U	0.082	0.011	mg/Kg	☼	07/23/19 02:00	07/23/19 11:25	1
Aroclor 1268	0.011	U	0.082	0.011	mg/Kg	☼	07/23/19 02:00	07/23/19 11:25	1
Polychlorinated biphenyls, Total	0.011	U	0.082	0.011	mg/Kg	☼	07/23/19 02:00	07/23/19 11:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*122*		*53 - 150*	*07/23/19 02:00*	*07/23/19 11:25*	*1*
DCB Decachlorobiphenyl	*108*		*53 - 150*	*07/23/19 02:00*	*07/23/19 11:25*	*1*

Client Sample ID: WP-PB-BQ19-C-D-0-072219

Lab Sample ID: 460-187175-5
Date Collected: 07/22/19 16:05
Matrix: Solid
Date Received: 07/22/19 16:55
Percent Solids: 63.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.1		0.52	0.027	mg/Kg	☼	07/22/19 22:16	07/23/19 09:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*40*		*25 - 113*	*07/22/19 22:16*	*07/23/19 09:19*	*1*
Terphenyl-d14 (Surr)	*37*		*27 - 123*	*07/22/19 22:16*	*07/23/19 09:19*	*1*
2-Fluorobiphenyl	*61*		*29 - 107*	*07/22/19 22:16*	*07/23/19 09:19*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.014	U	0.11	0.014	mg/Kg	☼	07/23/19 02:00	07/23/19 11:42	1
Aroclor 1221	0.014	U	0.11	0.014	mg/Kg	☼	07/23/19 02:00	07/23/19 11:42	1
Aroclor 1232	0.014	U	0.11	0.014	mg/Kg	☼	07/23/19 02:00	07/23/19 11:42	1
Aroclor 1242	0.014	U	0.11	0.014	mg/Kg	☼	07/23/19 02:00	07/23/19 11:42	1
Aroclor 1248	0.34		0.11	0.014	mg/Kg	☼	07/23/19 02:00	07/23/19 11:42	1
Aroclor 1254	0.014	U	0.11	0.014	mg/Kg	☼	07/23/19 02:00	07/23/19 11:42	1
Aroclor 1260	0.014	U	0.11	0.014	mg/Kg	☼	07/23/19 02:00	07/23/19 11:42	1
Aroclor-1262	0.014	U	0.11	0.014	mg/Kg	☼	07/23/19 02:00	07/23/19 11:42	1
Aroclor 1268	0.014	U	0.11	0.014	mg/Kg	☼	07/23/19 02:00	07/23/19 11:42	1
Polychlorinated biphenyls, Total	0.34		0.11	0.014	mg/Kg	☼	07/23/19 02:00	07/23/19 11:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*120*		*53 - 150*	*07/23/19 02:00*	*07/23/19 11:42*	*1*
DCB Decachlorobiphenyl	*111*		*53 - 150*	*07/23/19 02:00*	*07/23/19 11:42*	*1*

Client Sample ID: WP-FB-072219

Lab Sample ID: 460-187175-6
Date Collected: 07/22/19 15:50
Matrix: Water
Date Received: 07/22/19 16:55

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		07/22/19 22:27	07/23/19 10:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*125*	*X*	*51 - 108*	*07/22/19 22:27*	*07/23/19 10:41*	*1*
Terphenyl-d14 (Surr)	*136*		*40 - 148*	*07/22/19 22:27*	*07/23/19 10:41*	*1*

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-187175-1

Client Sample ID: WP-FB-072219

Date Collected: 07/22/19 15:50
Date Received: 07/22/19 16:55

Lab Sample ID: 460-187175-6

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*133*	*X*	*45 - 107*	*07/22/19 22:27*	*07/23/19 10:41*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		07/22/19 22:28	07/23/19 09:53	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		07/22/19 22:28	07/23/19 09:53	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		07/22/19 22:28	07/23/19 09:53	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		07/22/19 22:28	07/23/19 09:53	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		07/22/19 22:28	07/23/19 09:53	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		07/22/19 22:28	07/23/19 09:53	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		07/22/19 22:28	07/23/19 09:53	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		07/22/19 22:28	07/23/19 09:53	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		07/22/19 22:28	07/23/19 09:53	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		07/22/19 22:28	07/23/19 09:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*20*		*10 - 150*	*07/22/19 22:28*	*07/23/19 09:53*	*1*
DCB Decachlorobiphenyl	*22*		*10 - 150*	*07/22/19 22:28*	*07/23/19 09:53*	*1*

YY 8/22/19

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-187389

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/22/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on July 24, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-ST-BQ16-A-B-0-072419	460-187389-1	Sediment	PCBs, BEHP*
WP-ST-BN11-A-B-0-072419	460-187389-2	Sediment	PCBs, BEHP*
WP-SB-BN11-C-D-0-072419	460-187389-3	Sediment	PCBs, BEHP*
WP-ST-BP13-A-B-0-072419	460-187389-4	Sediment	PCBs, BEHP*
WP-SB-BP13-C-D-0-072419	460-187389-5	Sediment	PCBs, BEHP*
WP-SB-BP13-C-D-1-072419[1]	460-187389-6	Sediment	PCBs, BEHP*
WP-FB-072419	460-187389-7	Field Blank	PCBs, BEHP*
WP-PBC-BN13-E-F-0-072419	460-187389-8	Sediment	PCBs, BEHP*
WP-PB-BK10-C-D-0-072419	460-187389-9	Sediment	PCBs, BEHP*
WP-PBC-BK10-E-F-0-072419	460-187389-10	Sediment	PCBs, BEHP*
WP-PBC-BK10-E-F-1-072419[2]	460-187389-11	Sediment	PCBs, BEHP*
WP-ST-BL10-A-B-0-072419	460-187389-12	Sediment	PCBs, BEHP*
WP-SB-BL10-C-D-0-072419	460-187389-13	Sediment	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

[1]Field duplicate of WP-SB-BP13-C-D-0-072419

[2]Field duplicate of WP-PBC-BK10-E-F-0-072419

General Comments

The laboratory submitted a NJDEP full data deliverable that contains all required elements for the requested analyses.

The analyses of sediment contingent samples WP-PBC-BK10-E-F-0-072419 and its field duplicate WP-PBC-BK10-E-F-1-0724192 were placed on hold upon lab receipt but later canceled on July 24, 2019.

The solid content was greater than 30% in all sediment samples.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The MS/MSD analyses were performed on samples WP-ST-BP13-A-B-0-072419 and WP-PBC-BN13-E-F-0-072419. All accuracy and precision results were within lab-established control limits.

The analyses of WP-SB-BP13-C-D-0-072419 and its field duplicate WP-SB-BP13-C-D-1-072419 yielded comparable BEHP results as their absolute difference was less than two times the reporting limit.

Dilution analyses were performed for samples WP-PB-BK10-C-D-0-072419 (two-fold) and WP-SB-BL10-C-D-0-072419 (100-fold). Their BEHP concentrations and reporting limits were adjusted accordingly.

The lab report case narrative stated that all other QC results were within control limits. None of the BEHP results required qualification.

PCBs

The MS/MSD analyses were performed on samples WP-ST-BP13-A-B-0-072419 and WP-PBC-BN13-E-F-0-072419. All accuracy and precision results were within lab-established control limits.

Due to a 20-fold dilution performed for sample WP-SB-BL10-C-D-0-072419, surrogate compound was not recovered in the analysis. Action was not required. The positive Aroclor-1248 result and the reporting limits of other non-detected Aroclors were adjusted accordingly for sample WP-SB-BL10-C-D-0-072419.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Data qualification was not required for any reported results. All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-187389-1

Client Sample ID: WP-ST-BQ16-A-B-0-072419

Date Collected: 07/24/19 10:40
Date Received: 07/24/19 16:16

Lab Sample ID: 460-187389-1
Matrix: Solid
Percent Solids: 67.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.043	J	0.49	0.026	mg/Kg	☼	07/25/19 04:11	07/25/19 09:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*71*		*25 - 113*	*07/25/19 04:11*	*07/25/19 09:09*	*1*
Terphenyl-d14 (Surr)	*82*		*27 - 123*	*07/25/19 04:11*	*07/25/19 09:09*	*1*
2-Fluorobiphenyl	*81*		*29 - 107*	*07/25/19 04:11*	*07/25/19 09:09*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.099	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 13:43	1
Aroclor 1221	0.013	U	0.099	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 13:43	1
Aroclor 1232	0.013	U	0.099	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 13:43	1
Aroclor 1242	0.013	U	0.099	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 13:43	1
Aroclor 1248	0.013	U	0.099	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 13:43	1
Aroclor 1254	0.014	U	0.099	0.014	mg/Kg	☼	07/25/19 03:16	07/25/19 13:43	1
Aroclor 1260	0.014	U	0.099	0.014	mg/Kg	☼	07/25/19 03:16	07/25/19 13:43	1
Aroclor-1262	0.014	U	0.099	0.014	mg/Kg	☼	07/25/19 03:16	07/25/19 13:43	1
Aroclor 1268	0.014	U	0.099	0.014	mg/Kg	☼	07/25/19 03:16	07/25/19 13:43	1
Polychlorinated biphenyls, Total	0.014	U	0.099	0.014	mg/Kg	☼	07/25/19 03:16	07/25/19 13:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*110*		*53 - 150*	*07/25/19 03:16*	*07/25/19 13:43*	*1*
DCB Decachlorobiphenyl	*116*		*53 - 150*	*07/25/19 03:16*	*07/25/19 13:43*	*1*

Client Sample ID: WP-ST-BN11-A-B-0-072419

Date Collected: 07/24/19 10:50
Date Received: 07/24/19 16:16

Lab Sample ID: 460-187389-2
Matrix: Solid
Percent Solids: 72.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.044	J	0.45	0.024	mg/Kg	☼	07/25/19 04:11	07/25/19 09:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*77*		*25 - 113*	*07/25/19 04:11*	*07/25/19 09:26*	*1*
Terphenyl-d14 (Surr)	*81*		*27 - 123*	*07/25/19 04:11*	*07/25/19 09:26*	*1*
2-Fluorobiphenyl	*82*		*29 - 107*	*07/25/19 04:11*	*07/25/19 09:26*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.092	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 14:00	1
Aroclor 1221	0.012	U	0.092	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 14:00	1
Aroclor 1232	0.012	U	0.092	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 14:00	1
Aroclor 1242	0.012	U	0.092	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 14:00	1
Aroclor 1248	0.082	J	0.092	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 14:00	1
Aroclor 1254	0.013	U	0.092	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 14:00	1
Aroclor 1260	0.013	U	0.092	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 14:00	1
Aroclor-1262	0.013	U	0.092	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 14:00	1
Aroclor 1268	0.013	U	0.092	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 14:00	1
Polychlorinated biphenyls, Total	0.082	J	0.092	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 14:00	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-187389-1

Client Sample ID: WP-ST-BN11-A-B-0-072419

Date Collected: 07/24/19 10:50
Date Received: 07/24/19 16:16

Lab Sample ID: 460-187389-2
Matrix: Solid
Percent Solids: 72.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	109		53 - 150	07/25/19 03:16	07/25/19 14:00	1
DCB Decachlorobiphenyl	106		53 - 150	07/25/19 03:16	07/25/19 14:00	1

Client Sample ID: WP-SB-BN11-C-D-0-072419

Date Collected: 07/24/19 11:10
Date Received: 07/24/19 16:16

Lab Sample ID: 460-187389-3
Matrix: Solid
Percent Solids: 67.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.32	J	0.49	0.026	mg/Kg	☼	07/25/19 04:11	07/25/19 09:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	61		25 - 113	07/25/19 04:11	07/25/19 09:43	1
Terphenyl-d14 (Surr)	75		27 - 123	07/25/19 04:11	07/25/19 09:43	1
2-Fluorobiphenyl	75		29 - 107	07/25/19 04:11	07/25/19 09:43	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.099	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 14:18	1
Aroclor 1221	0.013	U	0.099	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 14:18	1
Aroclor 1232	0.013	U	0.099	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 14:18	1
Aroclor 1242	0.013	U	0.099	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 14:18	1
Aroclor 1248	0.11		0.099	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 14:18	1
Aroclor 1254	0.014	U	0.099	0.014	mg/Kg	☼	07/25/19 03:16	07/25/19 14:18	1
Aroclor 1260	0.014	U	0.099	0.014	mg/Kg	☼	07/25/19 03:16	07/25/19 14:18	1
Aroclor-1262	0.014	U	0.099	0.014	mg/Kg	☼	07/25/19 03:16	07/25/19 14:18	1
Aroclor 1268	0.014	U	0.099	0.014	mg/Kg	☼	07/25/19 03:16	07/25/19 14:18	1
Polychlorinated biphenyls, Total	0.11		0.099	0.014	mg/Kg	☼	07/25/19 03:16	07/25/19 14:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	91		53 - 150	07/25/19 03:16	07/25/19 14:18	1
DCB Decachlorobiphenyl	101		53 - 150	07/25/19 03:16	07/25/19 14:18	1

Client Sample ID: WP-ST-BP13-A-B-0-072419

Date Collected: 07/24/19 11:30
Date Received: 07/24/19 16:16

Lab Sample ID: 460-187389-4
Matrix: Solid
Percent Solids: 90.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.057	J	0.37	0.019	mg/Kg	☼	07/25/19 04:11	07/25/19 08:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	80		25 - 113	07/25/19 04:11	07/25/19 08:35	1
Terphenyl-d14 (Surr)	88		27 - 123	07/25/19 04:11	07/25/19 08:35	1
2-Fluorobiphenyl	86		29 - 107	07/25/19 04:11	07/25/19 08:35	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.0099	U	0.074	0.0099	mg/Kg	☼	07/25/19 03:16	07/25/19 12:52	1
Aroclor 1221	0.0099	U	0.074	0.0099	mg/Kg	☼	07/25/19 03:16	07/25/19 12:52	1
Aroclor 1232	0.0099	U	0.074	0.0099	mg/Kg	☼	07/25/19 03:16	07/25/19 12:52	1
Aroclor 1242	0.0099	U	0.074	0.0099	mg/Kg	☼	07/25/19 03:16	07/25/19 12:52	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-187389-1

Client Sample ID: WP-ST-BP13-A-B-0-072419

Lab Sample ID: 460-187389-4

Date Collected: 07/24/19 11:30
Date Received: 07/24/19 16:16

Matrix: Solid
Percent Solids: 90.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.0099	U	0.074	0.0099	mg/Kg	☼	07/25/19 03:16	07/25/19 12:52	1
Aroclor 1254	0.010	U	0.074	0.010	mg/Kg	☼	07/25/19 03:16	07/25/19 12:52	1
Aroclor 1260	0.010	U	0.074	0.010	mg/Kg	☼	07/25/19 03:16	07/25/19 12:52	1
Aroclor-1262	0.010	U	0.074	0.010	mg/Kg	☼	07/25/19 03:16	07/25/19 12:52	1
Aroclor 1268	0.010	U	0.074	0.010	mg/Kg	☼	07/25/19 03:16	07/25/19 12:52	1
Polychlorinated biphenyls, Total	0.010	U	0.074	0.010	mg/Kg	☼	07/25/19 03:16	07/25/19 12:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*102*		*53 - 150*	*07/25/19 03:16*	*07/25/19 12:52*	*1*
DCB Decachlorobiphenyl	*109*		*53 - 150*	*07/25/19 03:16*	*07/25/19 12:52*	*1*

Client Sample ID: WP-SB-BP13-C-D-0-072419

Lab Sample ID: 460-187389-5

Date Collected: 07/24/19 11:45
Date Received: 07/24/19 16:16

Matrix: Solid
Percent Solids: 75.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.19	J	0.44	0.023	mg/Kg	☼	07/25/19 04:11	07/25/19 10:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*71*		*25 - 113*	*07/25/19 04:11*	*07/25/19 10:00*	*1*
Terphenyl-d14 (Surr)	*77*		*27 - 123*	*07/25/19 04:11*	*07/25/19 10:00*	*1*
2-Fluorobiphenyl	*78*		*29 - 107*	*07/25/19 04:11*	*07/25/19 10:00*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.088	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 14:35	1
Aroclor 1221	0.012	U	0.088	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 14:35	1
Aroclor 1232	0.012	U	0.088	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 14:35	1
Aroclor 1242	0.012	U	0.088	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 14:35	1
Aroclor 1248	0.14		0.088	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 14:35	1
Aroclor 1254	0.012	U	0.088	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 14:35	1
Aroclor 1260	0.012	U	0.088	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 14:35	1
Aroclor-1262	0.012	U	0.088	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 14:35	1
Aroclor 1268	0.012	U	0.088	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 14:35	1
Polychlorinated biphenyls, Total	0.14		0.088	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*87*		*53 - 150*	*07/25/19 03:16*	*07/25/19 14:35*	*1*
DCB Decachlorobiphenyl	*92*		*53 - 150*	*07/25/19 03:16*	*07/25/19 14:35*	*1*

Client Sample ID: WP-SB-BP13-C-D-1-072419

Lab Sample ID: 460-187389-6

Date Collected: 07/24/19 11:45
Date Received: 07/24/19 16:16

Matrix: Solid
Percent Solids: 71.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.41	J	0.46	0.025	mg/Kg	☼	07/25/19 04:11	07/25/19 10:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*64*		*25 - 113*	*07/25/19 04:11*	*07/25/19 10:17*	*1*
Terphenyl-d14 (Surr)	*75*		*27 - 123*	*07/25/19 04:11*	*07/25/19 10:17*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-187389-1

Client Sample ID: WP-SB-BP13-C-D-1-072419

Lab Sample ID: 460-187389-6

Date Collected: 07/24/19 11:45
Date Received: 07/24/19 16:16

Matrix: Solid
Percent Solids: 71.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	75		29 - 107	07/25/19 04:11	07/25/19 10:17	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.094	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 14:52	1
Aroclor 1221	0.012	U	0.094	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 14:52	1
Aroclor 1232	0.012	U	0.094	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 14:52	1
Aroclor 1242	0.012	U	0.094	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 14:52	1
Aroclor 1248	0.089	J	0.094	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 14:52	1
Aroclor 1254	0.013	U	0.094	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 14:52	1
Aroclor 1260	0.013	U	0.094	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 14:52	1
Aroclor-1262	0.013	U	0.094	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 14:52	1
Aroclor 1268	0.013	U	0.094	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 14:52	1
Polychlorinated biphenyls, Total	0.089	J	0.094	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 14:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	108		53 - 150	07/25/19 03:16	07/25/19 14:52	1
DCB Decachlorobiphenyl	103		53 - 150	07/25/19 03:16	07/25/19 14:52	1

Client Sample ID: WP-FB-072419

Lab Sample ID: 460-187389-7

Date Collected: 07/24/19 11:55
Date Received: 07/24/19 16:16

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		07/24/19 23:00	07/25/19 06:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	86		51 - 108	07/24/19 23:00	07/25/19 06:14	1
Terphenyl-d14 (Surr)	112		40 - 148	07/24/19 23:00	07/25/19 06:14	1
2-Fluorobiphenyl	89		45 - 107	07/24/19 23:00	07/25/19 06:14	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		07/25/19 03:05	07/25/19 11:34	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		07/25/19 03:05	07/25/19 11:34	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		07/25/19 03:05	07/25/19 11:34	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		07/25/19 03:05	07/25/19 11:34	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		07/25/19 03:05	07/25/19 11:34	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		07/25/19 03:05	07/25/19 11:34	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		07/25/19 03:05	07/25/19 11:34	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		07/25/19 03:05	07/25/19 11:34	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		07/25/19 03:05	07/25/19 11:34	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		07/25/19 03:05	07/25/19 11:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	78		10 - 150	07/25/19 03:05	07/25/19 11:34	1
DCB Decachlorobiphenyl	81		10 - 150	07/25/19 03:05	07/25/19 11:34	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-187389-1

Client Sample ID: WP-PBC-BN13-E-F-0-072419

Lab Sample ID: 460-187389-8

Date Collected: 07/24/19 14:15
Date Received: 07/24/19 16:16

Matrix: Solid
Percent Solids: 72.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.16	J	0.46	0.024	mg/Kg	☼	07/25/19 04:11	07/25/19 08:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*57*		*25 - 113*	*07/25/19 04:11*	*07/25/19 08:52*	*1*
Terphenyl-d14 (Surr)	*69*		*27 - 123*	*07/25/19 04:11*	*07/25/19 08:52*	*1*
2-Fluorobiphenyl	*71*		*29 - 107*	*07/25/19 04:11*	*07/25/19 08:52*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.093	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 15:09	1
Aroclor 1221	0.012	U	0.093	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 15:09	1
Aroclor 1232	0.012	U	0.093	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 15:09	1
Aroclor 1242	0.012	U	0.093	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 15:09	1
Aroclor 1248	0.012	U	0.093	0.012	mg/Kg	☼	07/25/19 03:16	07/25/19 15:09	1
Aroclor 1254	0.013	U	0.093	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 15:09	1
Aroclor 1260	0.013	U	0.093	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 15:09	1
Aroclor-1262	0.013	U	0.093	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 15:09	1
Aroclor 1268	0.013	U	0.093	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 15:09	1
Polychlorinated biphenyls, Total	0.013	U	0.093	0.013	mg/Kg	☼	07/25/19 03:16	07/25/19 15:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*104*		*53 - 150*	*07/25/19 03:16*	*07/25/19 15:09*	*1*
DCB Decachlorobiphenyl	*103*		*53 - 150*	*07/25/19 03:16*	*07/25/19 15:09*	*1*

Client Sample ID: WP-PB-BK10-C-D-0-072419

Lab Sample ID: 460-187389-9

Date Collected: 07/24/19 14:45
Date Received: 07/24/19 16:16

Matrix: Solid
Percent Solids: 58.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	20		2.8	0.15	mg/Kg	☼	07/25/19 04:11	07/25/19 11:25	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*53*		*25 - 113*	*07/25/19 04:11*	*07/25/19 11:25*	*5*
Terphenyl-d14 (Surr)	*58*		*27 - 123*	*07/25/19 04:11*	*07/25/19 11:25*	*5*
2-Fluorobiphenyl	*61*		*29 - 107*	*07/25/19 04:11*	*07/25/19 11:25*	*5*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.015	U	0.11	0.015	mg/Kg	☼	07/25/19 03:16	07/25/19 15:49	1
Aroclor 1221	0.015	U	0.11	0.015	mg/Kg	☼	07/25/19 03:16	07/25/19 15:49	1
Aroclor 1232	0.015	U	0.11	0.015	mg/Kg	☼	07/25/19 03:16	07/25/19 15:49	1
Aroclor 1242	0.015	U	0.11	0.015	mg/Kg	☼	07/25/19 03:16	07/25/19 15:49	1
Aroclor 1248	0.36		0.11	0.015	mg/Kg	☼	07/25/19 03:16	07/25/19 15:49	1
Aroclor 1254	0.016	U	0.11	0.016	mg/Kg	☼	07/25/19 03:16	07/25/19 15:49	1
Aroclor 1260	0.016	U	0.11	0.016	mg/Kg	☼	07/25/19 03:16	07/25/19 15:49	1
Aroclor-1262	0.016	U	0.11	0.016	mg/Kg	☼	07/25/19 03:16	07/25/19 15:49	1
Aroclor 1268	0.016	U	0.11	0.016	mg/Kg	☼	07/25/19 03:16	07/25/19 15:49	1
Polychlorinated biphenyls, Total	0.36		0.11	0.016	mg/Kg	☼	07/25/19 03:16	07/25/19 15:49	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-187389-1

Client Sample ID: WP-PB-BK10-C-D-0-072419

Lab Sample ID: 460-187389-9

Date Collected: 07/24/19 14:45
Date Received: 07/24/19 16:16

Matrix: Solid
Percent Solids: 58.6

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*117*		*53 - 150*	*07/25/19 03:16*	*07/25/19 15:49*	*1*
DCB Decachlorobiphenyl	*111*		*53 - 150*	*07/25/19 03:16*	*07/25/19 15:49*	*1*

Client Sample ID: WP-ST-BL10-A-B-0-072419

Lab Sample ID: 460-187389-12

Date Collected: 07/24/19 15:15
Date Received: 07/24/19 16:16

Matrix: Solid
Percent Solids: 60.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.16	J	0.54	0.029	mg/Kg	☼	07/25/19 04:12	07/25/19 10:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*70*		*25 - 113*	*07/25/19 04:12*	*07/25/19 10:51*	*1*
Terphenyl-d14 (Surr)	*69*		*27 - 123*	*07/25/19 04:12*	*07/25/19 10:51*	*1*
2-Fluorobiphenyl	*72*		*29 - 107*	*07/25/19 04:12*	*07/25/19 10:51*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.015	U	0.11	0.015	mg/Kg	☼	07/25/19 03:16	07/25/19 15:32	1
Aroclor 1221	0.015	U	0.11	0.015	mg/Kg	☼	07/25/19 03:16	07/25/19 15:32	1
Aroclor 1232	0.015	U	0.11	0.015	mg/Kg	☼	07/25/19 03:16	07/25/19 15:32	1
Aroclor 1242	0.015	U	0.11	0.015	mg/Kg	☼	07/25/19 03:16	07/25/19 15:32	1
Aroclor 1248	0.15		0.11	0.015	mg/Kg	☼	07/25/19 03:16	07/25/19 15:32	1
Aroclor 1254	0.015	U	0.11	0.015	mg/Kg	☼	07/25/19 03:16	07/25/19 15:32	1
Aroclor 1260	0.015	U	0.11	0.015	mg/Kg	☼	07/25/19 03:16	07/25/19 15:32	1
Aroclor-1262	0.015	U	0.11	0.015	mg/Kg	☼	07/25/19 03:16	07/25/19 15:32	1
Aroclor 1268	0.015	U	0.11	0.015	mg/Kg	☼	07/25/19 03:16	07/25/19 15:32	1
Polychlorinated biphenyls, Total	0.15		0.11	0.015	mg/Kg	☼	07/25/19 03:16	07/25/19 15:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*120*		*53 - 150*	*07/25/19 03:16*	*07/25/19 15:32*	*1*
DCB Decachlorobiphenyl	*103*		*53 - 150*	*07/25/19 03:16*	*07/25/19 15:32*	*1*

Client Sample ID: WP-SB-BL10-C-D-0-072419

Lab Sample ID: 460-187389-13

Date Collected: 07/24/19 15:20
Date Received: 07/24/19 16:16

Matrix: Solid
Percent Solids: 61.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	760		54	2.9	mg/Kg	☼	07/25/19 04:12	07/25/19 12:50	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*63*		*25 - 113*	*07/25/19 04:12*	*07/25/19 12:50*	*100*
Terphenyl-d14 (Surr)	*84*		*27 - 123*	*07/25/19 04:12*	*07/25/19 12:50*	*100*
2-Fluorobiphenyl	*81*		*29 - 107*	*07/25/19 04:12*	*07/25/19 12:50*	*100*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.29	U	2.2	0.29	mg/Kg	☼	07/25/19 03:16	07/25/19 16:05	20
Aroclor 1221	0.29	U	2.2	0.29	mg/Kg	☼	07/25/19 03:16	07/25/19 16:05	20
Aroclor 1232	0.29	U	2.2	0.29	mg/Kg	☼	07/25/19 03:16	07/25/19 16:05	20
Aroclor 1242	0.29	U	2.2	0.29	mg/Kg	☼	07/25/19 03:16	07/25/19 16:05	20

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-187389-1

Client Sample ID: WP-SB-BL10-C-D-0-072419

Date Collected: 07/24/19 15:20
Date Received: 07/24/19 16:16

Lab Sample ID: 460-187389-13

Matrix: Solid
Percent Solids: 61.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	18		2.2	0.29	mg/Kg	☼	07/25/19 03:16	07/25/19 16:05	20
Aroclor 1254	0.30	U	2.2	0.30	mg/Kg	☼	07/25/19 03:16	07/25/19 16:05	20
Aroclor 1260	0.30	U	2.2	0.30	mg/Kg	☼	07/25/19 03:16	07/25/19 16:05	20
Aroclor-1262	0.30	U	2.2	0.30	mg/Kg	☼	07/25/19 03:16	07/25/19 16:05	20
Aroclor 1268	0.30	U	2.2	0.30	mg/Kg	☼	07/25/19 03:16	07/25/19 16:05	20
Polychlorinated biphenyls, Total	18		2.2	0.30	mg/Kg	☼	07/25/19 03:16	07/25/19 16:05	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*X*	*53 - 150*	*07/25/19 03:16*	*07/25/19 16:05*	*20*
DCB Decachlorobiphenyl	*0*	*X*	*53 - 150*	*07/25/19 03:16*	*07/25/19 16:05*	*20*

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DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-187462

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/26/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on July 25, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-BN1-5E-C-D-0-072519	460-187462-1	Sediment	PCBs, BEHP*
WP-BN1-10N-A-B-0-072519	460-187462-2	Sediment	PCBs, BEHP*
WP-BN1-10S-A-B-0-072519	460-187462-3	Sediment	PCBs, BEHP*
WP-BN1-10E-A-B-0-072519	460-187462-4	Sediment	PCBs, BEHP*
WP-FB-072519	460-187462-5	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable that contains all required elements for the requested analyses.

The solid content was greater than 30% in all sediment samples.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The MS/MSD analyses were performed on samples WP-ST-BP13-A-B-0-072419 and WP-PBC-BN13-E-F-0-072419. All accuracy and precision results were within lab-established control limits.

The lab report case narrative stated that two surrogate recoveries failed high for LCS 460-627314/4-A. Since this was an isolated incident and this was an unnecessary LCS for samples involved, action was not required.

The lab report case narrative stated that all other QC results were within control limits. None of the BEHP results required qualification.

PCBs

The MS/MSD analyses were performed on a sample unrelated to the site. Their accuracy and precision results were not used to qualify sample results in this report.

None required data qualification.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Data qualification was not required for any reported results. All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-187462-1

Client Sample ID: WP-BN1-5E-C-D-0-072519

Date Collected: 07/25/19 13:50
Date Received: 07/25/19 15:22

Lab Sample ID: 460-187462-1
Matrix: Solid
Percent Solids: 91.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.019	U	0.36	0.019	mg/Kg	☼	07/25/19 21:53	07/26/19 07:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*73*		*25 - 113*	*07/25/19 21:53*	*07/26/19 07:05*	*1*
Terphenyl-d14 (Surr)	*78*		*27 - 123*	*07/25/19 21:53*	*07/26/19 07:05*	*1*
2-Fluorobiphenyl	*72*		*29 - 107*	*07/25/19 21:53*	*07/26/19 07:05*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.0097	U	0.073	0.0097	mg/Kg	☼	07/25/19 18:34	07/26/19 09:19	1
Aroclor 1221	0.0097	U	0.073	0.0097	mg/Kg	☼	07/25/19 18:34	07/26/19 09:19	1
Aroclor 1232	0.0097	U	0.073	0.0097	mg/Kg	☼	07/25/19 18:34	07/26/19 09:19	1
Aroclor 1242	0.0097	U	0.073	0.0097	mg/Kg	☼	07/25/19 18:34	07/26/19 09:19	1
Aroclor 1248	0.0097	U	0.073	0.0097	mg/Kg	☼	07/25/19 18:34	07/26/19 09:19	1
Aroclor 1254	0.010	U	0.073	0.010	mg/Kg	☼	07/25/19 18:34	07/26/19 09:19	1
Aroclor 1260	0.010	U	0.073	0.010	mg/Kg	☼	07/25/19 18:34	07/26/19 09:19	1
Aroclor-1262	0.010	U	0.073	0.010	mg/Kg	☼	07/25/19 18:34	07/26/19 09:19	1
Aroclor 1268	0.010	U	0.073	0.010	mg/Kg	☼	07/25/19 18:34	07/26/19 09:19	1
Polychlorinated biphenyls, Total	0.010	U	0.073	0.010	mg/Kg	☼	07/25/19 18:34	07/26/19 09:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*83*		*53 - 150*	*07/25/19 18:34*	*07/26/19 09:19*	*1*
DCB Decachlorobiphenyl	*77*		*53 - 150*	*07/25/19 18:34*	*07/26/19 09:19*	*1*

Client Sample ID: WP-BN1-10N-A-B-0-072519

Date Collected: 07/25/19 14:10
Date Received: 07/25/19 15:22

Lab Sample ID: 460-187462-2
Matrix: Solid
Percent Solids: 89.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.041	J	0.37	0.019	mg/Kg	☼	07/25/19 21:53	07/26/19 07:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*65*		*25 - 113*	*07/25/19 21:53*	*07/26/19 07:28*	*1*
Terphenyl-d14 (Surr)	*73*		*27 - 123*	*07/25/19 21:53*	*07/26/19 07:28*	*1*
2-Fluorobiphenyl	*66*		*29 - 107*	*07/25/19 21:53*	*07/26/19 07:28*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.0099	U	0.075	0.0099	mg/Kg	☼	07/25/19 18:34	07/26/19 09:36	1
Aroclor 1221	0.0099	U	0.075	0.0099	mg/Kg	☼	07/25/19 18:34	07/26/19 09:36	1
Aroclor 1232	0.0099	U	0.075	0.0099	mg/Kg	☼	07/25/19 18:34	07/26/19 09:36	1
Aroclor 1242	0.0099	U	0.075	0.0099	mg/Kg	☼	07/25/19 18:34	07/26/19 09:36	1
Aroclor 1248	0.0099	U	0.075	0.0099	mg/Kg	☼	07/25/19 18:34	07/26/19 09:36	1
Aroclor 1254	0.010	U	0.075	0.010	mg/Kg	☼	07/25/19 18:34	07/26/19 09:36	1
Aroclor 1260	0.010	U	0.075	0.010	mg/Kg	☼	07/25/19 18:34	07/26/19 09:36	1
Aroclor-1262	0.010	U	0.075	0.010	mg/Kg	☼	07/25/19 18:34	07/26/19 09:36	1
Aroclor 1268	0.010	U	0.075	0.010	mg/Kg	☼	07/25/19 18:34	07/26/19 09:36	1
Polychlorinated biphenyls, Total	0.010	U	0.075	0.010	mg/Kg	☼	07/25/19 18:34	07/26/19 09:36	1

YY 8/26/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-187462-1

Client Sample ID: WP-BN1-10N-A-B-0-072519

Date Collected: 07/25/19 14:10
Date Received: 07/25/19 15:22

Lab Sample ID: 460-187462-2
Matrix: Solid
Percent Solids: 89.7

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	81		53 - 150	07/25/19 18:34	07/26/19 09:36	1
DCB Decachlorobiphenyl	75		53 - 150	07/25/19 18:34	07/26/19 09:36	1

Client Sample ID: WP-BN1-10S-A-B-0-072519

Date Collected: 07/25/19 14:15
Date Received: 07/25/19 15:22

Lab Sample ID: 460-187462-3
Matrix: Solid
Percent Solids: 85.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.087	J	0.39	0.020	mg/Kg	☼	07/25/19 21:53	07/26/19 07:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	74		25 - 113	07/25/19 21:53	07/26/19 07:51	1
Terphenyl-d14 (Surr)	74		27 - 123	07/25/19 21:53	07/26/19 07:51	1
2-Fluorobiphenyl	72		29 - 107	07/25/19 21:53	07/26/19 07:51	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.010	U	0.078	0.010	mg/Kg	☼	07/25/19 18:34	07/26/19 09:53	1
Aroclor 1221	0.010	U	0.078	0.010	mg/Kg	☼	07/25/19 18:34	07/26/19 09:53	1
Aroclor 1232	0.010	U	0.078	0.010	mg/Kg	☼	07/25/19 18:34	07/26/19 09:53	1
Aroclor 1242	0.010	U	0.078	0.010	mg/Kg	☼	07/25/19 18:34	07/26/19 09:53	1
Aroclor 1248	0.010	U	0.078	0.010	mg/Kg	☼	07/25/19 18:34	07/26/19 09:53	1
Aroclor 1254	0.011	U	0.078	0.011	mg/Kg	☼	07/25/19 18:34	07/26/19 09:53	1
Aroclor 1260	0.011	U	0.078	0.011	mg/Kg	☼	07/25/19 18:34	07/26/19 09:53	1
Aroclor-1262	0.011	U	0.078	0.011	mg/Kg	☼	07/25/19 18:34	07/26/19 09:53	1
Aroclor 1268	0.011	U	0.078	0.011	mg/Kg	☼	07/25/19 18:34	07/26/19 09:53	1
Polychlorinated biphenyls, Total	0.011	U	0.078	0.011	mg/Kg	☼	07/25/19 18:34	07/26/19 09:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	91		53 - 150	07/25/19 18:34	07/26/19 09:53	1
DCB Decachlorobiphenyl	77		53 - 150	07/25/19 18:34	07/26/19 09:53	1

Client Sample ID: WP-BN1-10E-A-B-0-072519

Date Collected: 07/25/19 14:25
Date Received: 07/25/19 15:22

Lab Sample ID: 460-187462-4
Matrix: Solid
Percent Solids: 42.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.36	J	0.79	0.042	mg/Kg	☼	07/25/19 21:53	07/26/19 08:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	63		25 - 113	07/25/19 21:53	07/26/19 08:14	1
Terphenyl-d14 (Surr)	79		27 - 123	07/25/19 21:53	07/26/19 08:14	1
2-Fluorobiphenyl	72		29 - 107	07/25/19 21:53	07/26/19 08:14	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.021	U	0.16	0.021	mg/Kg	☼	07/25/19 18:34	07/26/19 10:10	1
Aroclor 1221	0.021	U	0.16	0.021	mg/Kg	☼	07/25/19 18:34	07/26/19 10:10	1
Aroclor 1232	0.021	U	0.16	0.021	mg/Kg	☼	07/25/19 18:34	07/26/19 10:10	1
Aroclor 1242	0.021	U	0.16	0.021	mg/Kg	☼	07/25/19 18:34	07/26/19 10:10	1

YY 8/26/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-187462-1

Client Sample ID: WP-BN1-10E-A-B-0-072519

Date Collected: 07/25/19 14:25
Date Received: 07/25/19 15:22

Lab Sample ID: 460-187462-4

Matrix: Solid
Percent Solids: 42.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.29		0.16	0.021	mg/Kg	☼	07/25/19 18:34	07/26/19 10:10	1
Aroclor 1254	0.022	U	0.16	0.022	mg/Kg	☼	07/25/19 18:34	07/26/19 10:10	1
Aroclor 1260	0.022	U	0.16	0.022	mg/Kg	☼	07/25/19 18:34	07/26/19 10:10	1
Aroclor-1262	0.022	U	0.16	0.022	mg/Kg	☼	07/25/19 18:34	07/26/19 10:10	1
Aroclor 1268	0.022	U	0.16	0.022	mg/Kg	☼	07/25/19 18:34	07/26/19 10:10	1
Polychlorinated biphenyls, Total	0.29		0.16	0.022	mg/Kg	☼	07/25/19 18:34	07/26/19 10:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*60*		*53 - 150*	*07/25/19 18:34*	*07/26/19 10:10*	*1*
DCB Decachlorobiphenyl	*55*		*53 - 150*	*07/25/19 18:34*	*07/26/19 10:10*	*1*

Client Sample ID: WP-FB-072519

Date Collected: 07/25/19 14:30
Date Received: 07/25/19 15:22

Lab Sample ID: 460-187462-5

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.8	U	2.1	1.8	ug/L		07/25/19 23:08	07/26/19 03:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*92*		*51 - 108*	*07/25/19 23:08*	*07/26/19 03:39*	*1*
Terphenyl-d14 (Surr)	*103*		*40 - 148*	*07/25/19 23:08*	*07/26/19 03:39*	*1*
2-Fluorobiphenyl	*93*		*45 - 107*	*07/25/19 23:08*	*07/26/19 03:39*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		07/25/19 20:28	07/26/19 08:27	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		07/25/19 20:28	07/26/19 08:27	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		07/25/19 20:28	07/26/19 08:27	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		07/25/19 20:28	07/26/19 08:27	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		07/25/19 20:28	07/26/19 08:27	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		07/25/19 20:28	07/26/19 08:27	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		07/25/19 20:28	07/26/19 08:27	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		07/25/19 20:28	07/26/19 08:27	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		07/25/19 20:28	07/26/19 08:27	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		07/25/19 20:28	07/26/19 08:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*78*		*10 - 150*	*07/25/19 20:28*	*07/26/19 08:27*	*1*
DCB Decachlorobiphenyl	*84*		*10 - 150*	*07/25/19 20:28*	*07/26/19 08:27*	*1*

YY 8/26/19

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-187585

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 9/5/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on July 26, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-ST-BL7-A-B-0-072619	460-187585-1	Sediment	PCBs, BEHP*
WP-SB-BL7-C-D-0-072619	460-187585-2	Sediment	PCBs, BEHP*
WP-ST-BL6-A-B-0-072619	460-187585-3	Sediment	PCBs, BEHP*
WP-SB-BL6-C-D-0-072619	460-187585-4	Sediment	PCBs, BEHP*
WP-PB-BK13-C-D-0-072619	460-187585-5	Sediment	PCBs, BEHP*
WP-ST-BK6-A-B-0-072619	460-187585-6	Sediment	PCBs, BEHP*
WP-SB-BK6-C-D-0-072619	460-187585-7	Sediment	PCBs, BEHP*
WP-ST-BJ6-A-B-0-072619	460-187585-8	Sediment	PCBs, BEHP*
WP-SB-BJ6-C-D-0-072619	460-187585-9	Sediment	PCBs, BEHP*
WP-PB-BK7-C-D-0-072619	460-187585-10	Sediment	PCBs, BEHP*
WP-STC-BL10-A-B-0-072619	460-187585-11	Sediment	PCBs, BEHP*
WP-STC-BL10-A-B-1-072619[1]	460-187585-12	Sediment	PCBs, BEHP*
WP-ST-BH8-A-B-0-072619	460-187585-13	Sediment	PCBs, BEHP*
WP-SB-BH8-C-D-0-072619	460-187585-14	Sediment	PCBs, BEHP*
WP-ST-BH7-A-B-0-072619	460-187585-15	Sediment	PCBs, BEHP*
WP-SB-BH7-C-D-0-072619	460-187585-16	Sediment	PCBs, BEHP*
WP-ST-BG10-A-B-0-072619	460-187585-17	Sediment	PCBs, BEHP*

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-SB-BG10-C-D-0-072619	460-187585-18	Sediment	PCBs, BEHP*
WP-PB-BH10-C-D-0-072619	460-187585-19	Sediment	PCBs, BEHP*
WP-PB-BH10-E-F-0-072619	460-187585-20	Sediment	PCBs, BEHP*
WP-FB-072619	460-187585-21	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

[1]Field duplicate of WP-STC-BL10-A-B-0-072619

General Comments

The laboratory submitted a NJDEP full data deliverable that contains all required elements for the requested analyses.

The analyses of sediment contingent sample WP-PB-BH10-E-F-0-072619 were placed on hold upon lab receipt but later canceled on July 30, 2019.

The solid content was less than 30% in sediment samples WP-ST-BH7-A-B-0-072619 and WP-ST-BG10-A-B-0-072619. Their BEHP and Aroclor results were estimated (J/UJ).

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The MS/MSD analyses were performed on sample WP-ST-BL6-A-B-0-072619 and yielded acceptable accuracy and precision results.

The analyses of WP-STC-BL10-A-B-0-072619 and its field duplicate WP-STC-BL10-A-B-1-072619 were free of BEHP.

Dilution analyses were performed for samples WP-PB-BK13-C-D-0-072619 (5-fold), WP-SB-BJ6-C-D-0-072619 (20-fold), and WP-ST-BG10-A-B-0-072619 (2-fold). Their BEHP concentrations and reporting limits were adjusted accordingly.

The lab report case narrative stated that all other QC results were within control limits. None of the BEHP results required qualification with the exception of samples WP-ST-BH7-A-B-0-072619 and WP-ST-BG10-A-B-0-072619, which were estimated due to low solid contents.

Note that the initial lab report contained an incorrect sample weight used for BEHP extraction for sample WP-ST-BK6-A-B-0-072619; a decimal point was omitted. As of this omission, incorrect method detection limit (MDL) and reporting limit (RL) were reported for this sample. After being contacted, the lab revised the lab report and associated electronic data deliverables with the correct sample weight, MDL, and RL for BEHP reported for sample WP-ST-BK6-A-B-0-072619.

PCBs

The surrogate compound recovery exceeded the laboratory-established control limit from the CLP-2 column analysis of sample WP-PB-BK7-C-D-0-072619. Since the recovery from the RTX-CLP column was within the control limits and none of the Aroclors was present, data qualification was not required.

The MS/MSD analyses were performed on samples WP-SB-BL7-C-D-0-072619. All accuracy and precision results were within lab-established control limits.

The analyses of WP-STC-BL10-A-B-0-072619 and its field duplicate WP-STC-BL10-A-B-1-072619 were free of BEHP.

A five-fold dilution analysis was performed for sample WP-SB-BJ6-C-D-0-072619. The positive Aroclor-1248 result and the reporting limits of other non-detected Aroclors were adjusted accordingly for sample WP-SB-BJ6-C-D-0-072619.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Although data qualifications were applied to reported results for samples WP-ST-BH7-A-B-0-072619 and WP-ST-BG10-A-B-0-072619 due to low solid contents, none warranted data rejection. All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-187585-1

Client Sample ID: WP-ST-BL7-A-B-0-072619

Lab Sample ID: 460-187585-1

Date Collected: 07/26/19 09:25
Date Received: 07/26/19 14:55

Matrix: Solid
Percent Solids: 35.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.049	U	0.93	0.049	mg/Kg	☼	07/27/19 09:42	07/28/19 08:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*70*		*25 - 113*	*07/27/19 09:42*	*07/28/19 08:31*	*1*
Terphenyl-d14 (Surr)	*58*		*27 - 123*	*07/27/19 09:42*	*07/28/19 08:31*	*1*
2-Fluorobiphenyl	*62*		*29 - 107*	*07/27/19 09:42*	*07/28/19 08:31*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.025	U	0.19	0.025	mg/Kg	☼	07/27/19 03:09	07/28/19 12:31	1
Aroclor 1221	0.025	U	0.19	0.025	mg/Kg	☼	07/27/19 03:09	07/28/19 12:31	1
Aroclor 1232	0.025	U	0.19	0.025	mg/Kg	☼	07/27/19 03:09	07/28/19 12:31	1
Aroclor 1242	0.025	U	0.19	0.025	mg/Kg	☼	07/27/19 03:09	07/28/19 12:31	1
Aroclor 1248	0.025	U	0.19	0.025	mg/Kg	☼	07/27/19 03:09	07/28/19 12:31	1
Aroclor 1254	0.026	U	0.19	0.026	mg/Kg	☼	07/27/19 03:09	07/28/19 12:31	1
Aroclor 1260	0.026	U	0.19	0.026	mg/Kg	☼	07/27/19 03:09	07/28/19 12:31	1
Aroclor-1262	0.026	U	0.19	0.026	mg/Kg	☼	07/27/19 03:09	07/28/19 12:31	1
Aroclor 1268	0.026	U	0.19	0.026	mg/Kg	☼	07/27/19 03:09	07/28/19 12:31	1
Polychlorinated biphenyls, Total	0.026	U	0.19	0.026	mg/Kg	☼	07/27/19 03:09	07/28/19 12:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*96*		*53 - 150*	*07/27/19 03:09*	*07/28/19 12:31*	*1*
DCB Decachlorobiphenyl	*88*		*53 - 150*	*07/27/19 03:09*	*07/28/19 12:31*	*1*

Client Sample ID: WP-SB-BL7-C-D-0-072619

Lab Sample ID: 460-187585-2

Date Collected: 07/26/19 09:40
Date Received: 07/26/19 14:55

Matrix: Solid
Percent Solids: 81.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.021	U	0.40	0.021	mg/Kg	☼	07/27/19 09:42	07/28/19 02:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*65*		*25 - 113*	*07/27/19 09:42*	*07/28/19 02:08*	*1*
Terphenyl-d14 (Surr)	*65*		*27 - 123*	*07/27/19 09:42*	*07/28/19 02:08*	*1*
2-Fluorobiphenyl	*62*		*29 - 107*	*07/27/19 09:42*	*07/28/19 02:08*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.082	0.011	mg/Kg	☼	07/27/19 03:09	07/28/19 12:10	1
Aroclor 1221	0.011	U	0.082	0.011	mg/Kg	☼	07/27/19 03:09	07/28/19 12:10	1
Aroclor 1232	0.011	U	0.082	0.011	mg/Kg	☼	07/27/19 03:09	07/28/19 12:10	1
Aroclor 1242	0.011	U	0.082	0.011	mg/Kg	☼	07/27/19 03:09	07/28/19 12:10	1
Aroclor 1248	0.011	U	0.082	0.011	mg/Kg	☼	07/27/19 03:09	07/28/19 12:10	1
Aroclor 1254	0.011	U	0.082	0.011	mg/Kg	☼	07/27/19 03:09	07/28/19 12:10	1
Aroclor 1260	0.011	U	0.082	0.011	mg/Kg	☼	07/27/19 03:09	07/28/19 12:10	1
Aroclor-1262	0.011	U	0.082	0.011	mg/Kg	☼	07/27/19 03:09	07/28/19 12:10	1
Aroclor 1268	0.011	U	0.082	0.011	mg/Kg	☼	07/27/19 03:09	07/28/19 12:10	1
Polychlorinated biphenyls, Total	0.011	U	0.082	0.011	mg/Kg	☼	07/27/19 03:09	07/28/19 12:10	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-187585-1

Client Sample ID: WP-SB-BL7-C-D-0-072619

Lab Sample ID: 460-187585-2
Date Collected: 07/26/19 09:40
Matrix: Solid
Date Received: 07/26/19 14:55
Percent Solids: 81.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	93		53 - 150	07/27/19 03:09	07/28/19 12:10	1
DCB Decachlorobiphenyl	85		53 - 150	07/27/19 03:09	07/28/19 12:10	1

Client Sample ID: WP-ST-BL6-A-B-0-072619

Lab Sample ID: 460-187585-3
Date Collected: 07/26/19 09:55
Matrix: Solid
Date Received: 07/26/19 14:55
Percent Solids: 93.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.019	U	0.35	0.019	mg/Kg	☼	07/27/19 09:42	07/28/19 01:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	75		25 - 113	07/27/19 09:42	07/28/19 01:00	1
Terphenyl-d14 (Surr)	72		27 - 123	07/27/19 09:42	07/28/19 01:00	1
2-Fluorobiphenyl	75		29 - 107	07/27/19 09:42	07/28/19 01:00	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.0095	U	0.071	0.0095	mg/Kg	☼	07/27/19 03:09	07/28/19 12:52	1
Aroclor 1221	0.0095	U	0.071	0.0095	mg/Kg	☼	07/27/19 03:09	07/28/19 12:52	1
Aroclor 1232	0.0095	U	0.071	0.0095	mg/Kg	☼	07/27/19 03:09	07/28/19 12:52	1
Aroclor 1242	0.0095	U	0.071	0.0095	mg/Kg	☼	07/27/19 03:09	07/28/19 12:52	1
Aroclor 1248	0.0095	U	0.071	0.0095	mg/Kg	☼	07/27/19 03:09	07/28/19 12:52	1
Aroclor 1254	0.0098	U	0.071	0.0098	mg/Kg	☼	07/27/19 03:09	07/28/19 12:52	1
Aroclor 1260	0.0098	U	0.071	0.0098	mg/Kg	☼	07/27/19 03:09	07/28/19 12:52	1
Aroclor-1262	0.0098	U	0.071	0.0098	mg/Kg	☼	07/27/19 03:09	07/28/19 12:52	1
Aroclor 1268	0.0098	U	0.071	0.0098	mg/Kg	☼	07/27/19 03:09	07/28/19 12:52	1
Polychlorinated biphenyls, Total	0.0098	U	0.071	0.0098	mg/Kg	☼	07/27/19 03:09	07/28/19 12:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	101		53 - 150	07/27/19 03:09	07/28/19 12:52	1
DCB Decachlorobiphenyl	94		53 - 150	07/27/19 03:09	07/28/19 12:52	1

Client Sample ID: WP-SB-BL6-C-D-0-072619

Lab Sample ID: 460-187585-4
Date Collected: 07/26/19 10:05
Matrix: Solid
Date Received: 07/26/19 14:55
Percent Solids: 84.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.021	U	0.39	0.021	mg/Kg	☼	07/27/19 09:42	07/28/19 02:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	69		25 - 113	07/27/19 09:42	07/28/19 02:30	1
Terphenyl-d14 (Surr)	61		27 - 123	07/27/19 09:42	07/28/19 02:30	1
2-Fluorobiphenyl	66		29 - 107	07/27/19 09:42	07/28/19 02:30	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.010	U	0.079	0.010	mg/Kg	☼	07/27/19 03:09	07/28/19 13:13	1
Aroclor 1221	0.010	U	0.079	0.010	mg/Kg	☼	07/27/19 03:09	07/28/19 13:13	1
Aroclor 1232	0.010	U	0.079	0.010	mg/Kg	☼	07/27/19 03:09	07/28/19 13:13	1
Aroclor 1242	0.010	U	0.079	0.010	mg/Kg	☼	07/27/19 03:09	07/28/19 13:13	1

YY 8/28/19

Client Sample ID: WP-SB-BL6-C-D-0-072619

Lab Sample ID: 460-187585-4

Date Collected: 07/26/19 10:05
Date Received: 07/26/19 14:55

Matrix: Solid
Percent Solids: 84.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.010	U	0.079	0.010	mg/Kg	☼	07/27/19 03:09	07/28/19 13:13	1
Aroclor 1254	0.011	U	0.079	0.011	mg/Kg	☼	07/27/19 03:09	07/28/19 13:13	1
Aroclor 1260	0.011	U	0.079	0.011	mg/Kg	☼	07/27/19 03:09	07/28/19 13:13	1
Aroclor-1262	0.011	U	0.079	0.011	mg/Kg	☼	07/27/19 03:09	07/28/19 13:13	1
Aroclor 1268	0.011	U	0.079	0.011	mg/Kg	☼	07/27/19 03:09	07/28/19 13:13	1
Polychlorinated biphenyls, Total	0.011	U	0.079	0.011	mg/Kg	☼	07/27/19 03:09	07/28/19 13:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*101*		*53 - 150*	*07/27/19 03:09*	*07/28/19 13:13*	*1*
DCB Decachlorobiphenyl	*93*		*53 - 150*	*07/27/19 03:09*	*07/28/19 13:13*	*1*

Client Sample ID: WP-PB-BK13-C-D-0-072619

Lab Sample ID: 460-187585-5

Date Collected: 07/26/19 10:15
Date Received: 07/26/19 14:55

Matrix: Solid
Percent Solids: 55.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	24		3.0	0.16	mg/Kg	☼	07/27/19 09:42	07/28/19 05:53	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*58*		*25 - 113*	*07/27/19 09:42*	*07/28/19 05:53*	*5*
Terphenyl-d14 (Surr)	*54*		*27 - 123*	*07/27/19 09:42*	*07/28/19 05:53*	*5*
2-Fluorobiphenyl	*59*		*29 - 107*	*07/27/19 09:42*	*07/28/19 05:53*	*5*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 13:34	1
Aroclor 1221	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 13:34	1
Aroclor 1232	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 13:34	1
Aroclor 1242	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 13:34	1
Aroclor 1248	2.0		0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 13:34	1
Aroclor 1254	0.017	U	0.12	0.017	mg/Kg	☼	07/27/19 03:09	07/28/19 13:34	1
Aroclor 1260	0.017	U	0.12	0.017	mg/Kg	☼	07/27/19 03:09	07/28/19 13:34	1
Aroclor-1262	0.017	U	0.12	0.017	mg/Kg	☼	07/27/19 03:09	07/28/19 13:34	1
Aroclor 1268	0.017	U	0.12	0.017	mg/Kg	☼	07/27/19 03:09	07/28/19 13:34	1
Polychlorinated biphenyls, Total	2.0		0.12	0.017	mg/Kg	☼	07/27/19 03:09	07/28/19 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*95*		*53 - 150*	*07/27/19 03:09*	*07/28/19 13:34*	*1*
DCB Decachlorobiphenyl	*86*		*53 - 150*	*07/27/19 03:09*	*07/28/19 13:34*	*1*

Client Sample ID: WP-ST-BK6-A-B-0-072619

Lab Sample ID: 460-187585-6

Date Collected: 07/26/19 10:40
Date Received: 07/26/19 14:55

Matrix: Solid
Percent Solids: 74.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.023	U	0.44	0.023	mg/Kg	☼	07/27/19 09:42	07/28/19 03:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*65*		*25 - 113*	*07/27/19 09:42*	*07/28/19 03:15*	*1*
Terphenyl-d14 (Surr)	*67*		*27 - 123*	*07/27/19 09:42*	*07/28/19 03:15*	*1*

YY 9/5/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-187585-1

Client Sample ID: WP-ST-BK6-A-B-0-072619

Lab Sample ID: 460-187585-6
Matrix: Solid
Percent Solids: 74.8

Date Collected: 07/26/19 10:40
Date Received: 07/26/19 14:55

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	62		29 - 107	07/27/19 09:42	07/28/19 03:15	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.012	U	0.089	0.012	mg/Kg	☼	07/27/19 03:09	07/28/19 13:55	1
Aroclor 1221	0.012	U	0.089	0.012	mg/Kg	☼	07/27/19 03:09	07/28/19 13:55	1
Aroclor 1232	0.012	U	0.089	0.012	mg/Kg	☼	07/27/19 03:09	07/28/19 13:55	1
Aroclor 1242	0.012	U	0.089	0.012	mg/Kg	☼	07/27/19 03:09	07/28/19 13:55	1
Aroclor 1248	0.012	U	0.089	0.012	mg/Kg	☼	07/27/19 03:09	07/28/19 13:55	1
Aroclor 1254	0.012	U	0.089	0.012	mg/Kg	☼	07/27/19 03:09	07/28/19 13:55	1
Aroclor 1260	0.012	U	0.089	0.012	mg/Kg	☼	07/27/19 03:09	07/28/19 13:55	1
Aroclor-1262	0.012	U	0.089	0.012	mg/Kg	☼	07/27/19 03:09	07/28/19 13:55	1
Aroclor 1268	0.012	U	0.089	0.012	mg/Kg	☼	07/27/19 03:09	07/28/19 13:55	1
Polychlorinated biphenyls, Total	0.012	U	0.089	0.012	mg/Kg	☼	07/27/19 03:09	07/28/19 13:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	98		53 - 150	07/27/19 03:09	07/28/19 13:55	1
DCB Decachlorobiphenyl	89		53 - 150	07/27/19 03:09	07/28/19 13:55	1

Client Sample ID: WP-SB-BK6-C-D-0-072619

Lab Sample ID: 460-187585-7
Matrix: Solid
Percent Solids: 56.7

Date Collected: 07/26/19 11:00
Date Received: 07/26/19 14:55

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.031	U	0.58	0.031	mg/Kg	☼	07/27/19 09:42	07/28/19 03:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	69		25 - 113	07/27/19 09:42	07/28/19 03:38	1
Terphenyl-d14 (Surr)	68		27 - 123	07/27/19 09:42	07/28/19 03:38	1
2-Fluorobiphenyl	66		29 - 107	07/27/19 09:42	07/28/19 03:38	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 14:16	1
Aroclor 1221	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 14:16	1
Aroclor 1232	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 14:16	1
Aroclor 1242	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 14:16	1
Aroclor 1248	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 14:16	1
Aroclor 1254	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 14:16	1
Aroclor 1260	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 14:16	1
Aroclor-1262	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 14:16	1
Aroclor 1268	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 14:16	1
Polychlorinated biphenyls, Total	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 14:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	101		53 - 150	07/27/19 03:09	07/28/19 14:16	1
DCB Decachlorobiphenyl	92		53 - 150	07/27/19 03:09	07/28/19 14:16	1

YY 9/5/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-187585-1

Client Sample ID: WP-ST-BJ6-A-B-0-072619

Lab Sample ID: 460-187585-8

Date Collected: 07/26/19 11:10
Date Received: 07/26/19 14:55

Matrix: Solid
Percent Solids: 40.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	17		0.81	0.043	mg/Kg	☼	07/27/19 09:42	07/28/19 08:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*61*		*25 - 113*	*07/27/19 09:42*	*07/28/19 08:54*	*1*
Terphenyl-d14 (Surr)	*55*		*27 - 123*	*07/27/19 09:42*	*07/28/19 08:54*	*1*
2-Fluorobiphenyl	*62*		*29 - 107*	*07/27/19 09:42*	*07/28/19 08:54*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.022	U	0.16	0.022	mg/Kg	☼	07/27/19 03:09	07/28/19 14:37	1
Aroclor 1221	0.022	U	0.16	0.022	mg/Kg	☼	07/27/19 03:09	07/28/19 14:37	1
Aroclor 1232	0.022	U	0.16	0.022	mg/Kg	☼	07/27/19 03:09	07/28/19 14:37	1
Aroclor 1242	0.022	U	0.16	0.022	mg/Kg	☼	07/27/19 03:09	07/28/19 14:37	1
Aroclor 1248	1.1		0.16	0.022	mg/Kg	☼	07/27/19 03:09	07/28/19 14:37	1
Aroclor 1254	0.022	U	0.16	0.022	mg/Kg	☼	07/27/19 03:09	07/28/19 14:37	1
Aroclor 1260	0.022	U	0.16	0.022	mg/Kg	☼	07/27/19 03:09	07/28/19 14:37	1
Aroclor-1262	0.022	U	0.16	0.022	mg/Kg	☼	07/27/19 03:09	07/28/19 14:37	1
Aroclor 1268	0.022	U	0.16	0.022	mg/Kg	☼	07/27/19 03:09	07/28/19 14:37	1
Polychlorinated biphenyls, Total	1.1		0.16	0.022	mg/Kg	☼	07/27/19 03:09	07/28/19 14:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*92*		*53 - 150*	*07/27/19 03:09*	*07/28/19 14:37*	*1*
DCB Decachlorobiphenyl	*84*		*53 - 150*	*07/27/19 03:09*	*07/28/19 14:37*	*1*

Client Sample ID: WP-SB-BJ6-C-D-0-072619

Lab Sample ID: 460-187585-9

Date Collected: 07/26/19 11:20
Date Received: 07/26/19 14:55

Matrix: Solid
Percent Solids: 53.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	140		12	0.65	mg/Kg	☼	07/27/19 09:42	07/29/19 01:34	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*55*		*25 - 113*	*07/27/19 09:42*	*07/29/19 01:34*	*20*
Terphenyl-d14 (Surr)	*86*		*27 - 123*	*07/27/19 09:42*	*07/29/19 01:34*	*20*
2-Fluorobiphenyl	*79*		*29 - 107*	*07/27/19 09:42*	*07/29/19 01:34*	*20*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.083	U	0.63	0.083	mg/Kg	☼	07/27/19 03:09	07/29/19 16:16	5
Aroclor 1221	0.083	U	0.63	0.083	mg/Kg	☼	07/27/19 03:09	07/29/19 16:16	5
Aroclor 1232	0.083	U	0.63	0.083	mg/Kg	☼	07/27/19 03:09	07/29/19 16:16	5
Aroclor 1242	0.083	U	0.63	0.083	mg/Kg	☼	07/27/19 03:09	07/29/19 16:16	5
Aroclor 1248	3.5		0.63	0.083	mg/Kg	☼	07/27/19 03:09	07/29/19 16:16	5
Aroclor 1254	0.086	U	0.63	0.086	mg/Kg	☼	07/27/19 03:09	07/29/19 16:16	5
Aroclor 1260	0.086	U	0.63	0.086	mg/Kg	☼	07/27/19 03:09	07/29/19 16:16	5
Aroclor-1262	0.086	U	0.63	0.086	mg/Kg	☼	07/27/19 03:09	07/29/19 16:16	5
Aroclor 1268	0.086	U	0.63	0.086	mg/Kg	☼	07/27/19 03:09	07/29/19 16:16	5
Polychlorinated biphenyls, Total	3.5		0.63	0.086	mg/Kg	☼	07/27/19 03:09	07/29/19 16:16	5

YY 8/28/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-187585-1

Client Sample ID: WP-SB-BJ6-C-D-0-072619

Lab Sample ID: 460-187585-9

Date Collected: 07/26/19 11:20
Date Received: 07/26/19 14:55

Matrix: Solid
Percent Solids: 53.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	90		53 - 150	07/27/19 03:09	07/29/19 16:16	5
DCB Decachlorobiphenyl	106		53 - 150	07/27/19 03:09	07/29/19 16:16	5

Client Sample ID: WP-PB-BK7-C-D-0-072619

Lab Sample ID: 460-187585-10

Date Collected: 07/26/19 11:30
Date Received: 07/26/19 14:55

Matrix: Solid
Percent Solids: 84.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.021	U	0.39	0.021	mg/Kg	☼	07/27/19 09:42	07/28/19 04:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	59		25 - 113	07/27/19 09:42	07/28/19 04:01	1
Terphenyl-d14 (Surr)	66		27 - 123	07/27/19 09:42	07/28/19 04:01	1
2-Fluorobiphenyl	57		29 - 107	07/27/19 09:42	07/28/19 04:01	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.010	U	0.079	0.010	mg/Kg	☼	07/27/19 03:09	07/28/19 15:19	1
Aroclor 1221	0.010	U	0.079	0.010	mg/Kg	☼	07/27/19 03:09	07/28/19 15:19	1
Aroclor 1232	0.010	U	0.079	0.010	mg/Kg	☼	07/27/19 03:09	07/28/19 15:19	1
Aroclor 1242	0.010	U	0.079	0.010	mg/Kg	☼	07/27/19 03:09	07/28/19 15:19	1
Aroclor 1248	0.010	U	0.079	0.010	mg/Kg	☼	07/27/19 03:09	07/28/19 15:19	1
Aroclor 1254	0.011	U	0.079	0.011	mg/Kg	☼	07/27/19 03:09	07/28/19 15:19	1
Aroclor 1260	0.011	U	0.079	0.011	mg/Kg	☼	07/27/19 03:09	07/28/19 15:19	1
Aroclor-1262	0.011	U	0.079	0.011	mg/Kg	☼	07/27/19 03:09	07/28/19 15:19	1
Aroclor 1268	0.011	U	0.079	0.011	mg/Kg	☼	07/27/19 03:09	07/28/19 15:19	1
Polychlorinated biphenyls, Total	0.011	U	0.079	0.011	mg/Kg	☼	07/27/19 03:09	07/28/19 15:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	155	X	53 - 150	07/27/19 03:09	07/28/19 15:19	1
DCB Decachlorobiphenyl	143		53 - 150	07/27/19 03:09	07/28/19 15:19	1

Client Sample ID: WP-STC-BL10-A-B-0-072619

Lab Sample ID: 460-187585-11

Date Collected: 07/26/19 12:25
Date Received: 07/26/19 14:55

Matrix: Solid
Percent Solids: 65.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.027	U	0.51	0.027	mg/Kg	☼	07/27/19 09:42	07/28/19 04:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	56		25 - 113	07/27/19 09:42	07/28/19 04:23	1
Terphenyl-d14 (Surr)	56		27 - 123	07/27/19 09:42	07/28/19 04:23	1
2-Fluorobiphenyl	56		29 - 107	07/27/19 09:42	07/28/19 04:23	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.014	U	0.10	0.014	mg/Kg	☼	07/27/19 03:09	07/28/19 15:40	1
Aroclor 1221	0.014	U	0.10	0.014	mg/Kg	☼	07/27/19 03:09	07/28/19 15:40	1
Aroclor 1232	0.014	U	0.10	0.014	mg/Kg	☼	07/27/19 03:09	07/28/19 15:40	1
Aroclor 1242	0.014	U	0.10	0.014	mg/Kg	☼	07/27/19 03:09	07/28/19 15:40	1

Client Sample ID: WP-STC-BL10-A-B-0-072619

Lab Sample ID: 460-187585-11
Date Collected: 07/26/19 12:25
Matrix: Solid
Date Received: 07/26/19 14:55
Percent Solids: 65.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.014	U	0.10	0.014	mg/Kg	☼	07/27/19 03:09	07/28/19 15:40	1
Aroclor 1254	0.014	U	0.10	0.014	mg/Kg	☼	07/27/19 03:09	07/28/19 15:40	1
Aroclor 1260	0.014	U	0.10	0.014	mg/Kg	☼	07/27/19 03:09	07/28/19 15:40	1
Aroclor-1262	0.014	U	0.10	0.014	mg/Kg	☼	07/27/19 03:09	07/28/19 15:40	1
Aroclor 1268	0.014	U	0.10	0.014	mg/Kg	☼	07/27/19 03:09	07/28/19 15:40	1
Polychlorinated biphenyls, Total	0.014	U	0.10	0.014	mg/Kg	☼	07/27/19 03:09	07/28/19 15:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*96*		*53 - 150*	*07/27/19 03:09*	*07/28/19 15:40*	*1*
DCB Decachlorobiphenyl	*88*		*53 - 150*	*07/27/19 03:09*	*07/28/19 15:40*	*1*

Client Sample ID: WP-STC-BL10-A-B-1-072619

Lab Sample ID: 460-187585-12
Date Collected: 07/26/19 12:25
Matrix: Solid
Date Received: 07/26/19 14:55
Percent Solids: 70.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.025	U	0.47	0.025	mg/Kg	☼	07/27/19 09:42	07/28/19 04:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*51*		*25 - 113*	*07/27/19 09:42*	*07/28/19 04:46*	*1*
Terphenyl-d14 (Surr)	*43*		*27 - 123*	*07/27/19 09:42*	*07/28/19 04:46*	*1*
2-Fluorobiphenyl	*47*		*29 - 107*	*07/27/19 09:42*	*07/28/19 04:46*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.013	U	0.095	0.013	mg/Kg	☼	07/27/19 03:09	07/28/19 16:01	1
Aroclor 1221	0.013	U	0.095	0.013	mg/Kg	☼	07/27/19 03:09	07/28/19 16:01	1
Aroclor 1232	0.013	U	0.095	0.013	mg/Kg	☼	07/27/19 03:09	07/28/19 16:01	1
Aroclor 1242	0.013	U	0.095	0.013	mg/Kg	☼	07/27/19 03:09	07/28/19 16:01	1
Aroclor 1248	0.013	U	0.095	0.013	mg/Kg	☼	07/27/19 03:09	07/28/19 16:01	1
Aroclor 1254	0.013	U	0.095	0.013	mg/Kg	☼	07/27/19 03:09	07/28/19 16:01	1
Aroclor 1260	0.013	U	0.095	0.013	mg/Kg	☼	07/27/19 03:09	07/28/19 16:01	1
Aroclor-1262	0.013	U	0.095	0.013	mg/Kg	☼	07/27/19 03:09	07/28/19 16:01	1
Aroclor 1268	0.013	U	0.095	0.013	mg/Kg	☼	07/27/19 03:09	07/28/19 16:01	1
Polychlorinated biphenyls, Total	0.013	U	0.095	0.013	mg/Kg	☼	07/27/19 03:09	07/28/19 16:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*97*		*53 - 150*	*07/27/19 03:09*	*07/28/19 16:01*	*1*
DCB Decachlorobiphenyl	*88*		*53 - 150*	*07/27/19 03:09*	*07/28/19 16:01*	*1*

Client Sample ID: WP-ST-BH8-A-B-0-072619

Lab Sample ID: 460-187585-13
Date Collected: 07/26/19 12:40
Matrix: Solid
Date Received: 07/26/19 14:55
Percent Solids: 44.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.039	U	0.74	0.039	mg/Kg	☼	07/27/19 09:42	07/28/19 05:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*67*		*25 - 113*	*07/27/19 09:42*	*07/28/19 05:08*	*1*
Terphenyl-d14 (Surr)	*68*		*27 - 123*	*07/27/19 09:42*	*07/28/19 05:08*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-187585-1

Client Sample ID: WP-ST-BH8-A-B-0-072619

Lab Sample ID: 460-187585-13

Date Collected: 07/26/19 12:40
Date Received: 07/26/19 14:55

Matrix: Solid
Percent Solids: 44.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	65		29 - 107	07/27/19 09:42	07/28/19 05:08	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.020	U	0.15	0.020	mg/Kg	☼	07/27/19 03:09	07/28/19 16:22	1
Aroclor 1221	0.020	U	0.15	0.020	mg/Kg	☼	07/27/19 03:09	07/28/19 16:22	1
Aroclor 1232	0.020	U	0.15	0.020	mg/Kg	☼	07/27/19 03:09	07/28/19 16:22	1
Aroclor 1242	0.020	U	0.15	0.020	mg/Kg	☼	07/27/19 03:09	07/28/19 16:22	1
Aroclor 1248	0.23		0.15	0.020	mg/Kg	☼	07/27/19 03:09	07/28/19 16:22	1
Aroclor 1254	0.020	U	0.15	0.020	mg/Kg	☼	07/27/19 03:09	07/28/19 16:22	1
Aroclor 1260	0.020	U	0.15	0.020	mg/Kg	☼	07/27/19 03:09	07/28/19 16:22	1
Aroclor-1262	0.020	U	0.15	0.020	mg/Kg	☼	07/27/19 03:09	07/28/19 16:22	1
Aroclor 1268	0.020	U	0.15	0.020	mg/Kg	☼	07/27/19 03:09	07/28/19 16:22	1
Polychlorinated biphenyls, Total	0.23		0.15	0.020	mg/Kg	☼	07/27/19 03:09	07/28/19 16:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	91		53 - 150	07/27/19 03:09	07/28/19 16:22	1
DCB Decachlorobiphenyl	89		53 - 150	07/27/19 03:09	07/28/19 16:22	1

Client Sample ID: WP-SB-BH8-C-D-0-072619

Lab Sample ID: 460-187585-14

Date Collected: 07/26/19 12:50
Date Received: 07/26/19 14:55

Matrix: Solid
Percent Solids: 41.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.042	U	0.80	0.042	mg/Kg	☼	07/27/19 09:42	07/28/19 06:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	66		25 - 113	07/27/19 09:42	07/28/19 06:16	1
Terphenyl-d14 (Surr)	58		27 - 123	07/27/19 09:42	07/28/19 06:16	1
2-Fluorobiphenyl	71		29 - 107	07/27/19 09:42	07/28/19 06:16	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.022	U	0.16	0.022	mg/Kg	☼	07/27/19 03:09	07/28/19 16:42	1
Aroclor 1221	0.022	U	0.16	0.022	mg/Kg	☼	07/27/19 03:09	07/28/19 16:42	1
Aroclor 1232	0.022	U	0.16	0.022	mg/Kg	☼	07/27/19 03:09	07/28/19 16:42	1
Aroclor 1242	0.022	U	0.16	0.022	mg/Kg	☼	07/27/19 03:09	07/28/19 16:42	1
Aroclor 1248	0.022	U	0.16	0.022	mg/Kg	☼	07/27/19 03:09	07/28/19 16:42	1
Aroclor 1254	0.022	U	0.16	0.022	mg/Kg	☼	07/27/19 03:09	07/28/19 16:42	1
Aroclor 1260	0.022	U	0.16	0.022	mg/Kg	☼	07/27/19 03:09	07/28/19 16:42	1
Aroclor-1262	0.022	U	0.16	0.022	mg/Kg	☼	07/27/19 03:09	07/28/19 16:42	1
Aroclor 1268	0.022	U	0.16	0.022	mg/Kg	☼	07/27/19 03:09	07/28/19 16:42	1
Polychlorinated biphenyls, Total	0.022	U	0.16	0.022	mg/Kg	☼	07/27/19 03:09	07/28/19 16:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	92		53 - 150	07/27/19 03:09	07/28/19 16:42	1
DCB Decachlorobiphenyl	89		53 - 150	07/27/19 03:09	07/28/19 16:42	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-187585-1

Client Sample ID: WP-ST-BH7-A-B-0-072619

Lab Sample ID: 460-187585-15

Date Collected: 07/26/19 13:10
Date Received: 07/26/19 14:55

Matrix: Solid
Percent Solids: 29.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.059	U J	1.1	0.059	mg/Kg	☼	07/27/19 09:42	07/28/19 06:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*64*		*25 - 113*	*07/27/19 09:42*	*07/28/19 06:38*	*1*
Terphenyl-d14 (Surr)	*57*		*27 - 123*	*07/27/19 09:42*	*07/28/19 06:38*	*1*
2-Fluorobiphenyl	*62*		*29 - 107*	*07/27/19 09:42*	*07/28/19 06:38*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.030	U J	0.23	0.030	mg/Kg	☼	07/27/19 03:09	07/28/19 17:02	1
Aroclor 1221	0.030	U	0.23	0.030	mg/Kg	☼	07/27/19 03:09	07/28/19 17:02	1
Aroclor 1232	0.030	U	0.23	0.030	mg/Kg	☼	07/27/19 03:09	07/28/19 17:02	1
Aroclor 1242	0.030	U	0.23	0.030	mg/Kg	☼	07/27/19 03:09	07/28/19 17:02	1
Aroclor 1248	0.17	J	0.23	0.030	mg/Kg	☼	07/27/19 03:09	07/28/19 17:02	1
Aroclor 1254	0.031	U J	0.23	0.031	mg/Kg	☼	07/27/19 03:09	07/28/19 17:02	1
Aroclor 1260	0.031	U	0.23	0.031	mg/Kg	☼	07/27/19 03:09	07/28/19 17:02	1
Aroclor-1262	0.031	U	0.23	0.031	mg/Kg	☼	07/27/19 03:09	07/28/19 17:02	1
Aroclor 1268	0.031	U	0.23	0.031	mg/Kg	☼	07/27/19 03:09	07/28/19 17:02	1
Polychlorinated biphenyls, Total	0.17	J	0.23	0.031	mg/Kg	☼	07/27/19 03:09	07/28/19 17:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*77*		*53 - 150*	*07/27/19 03:09*	*07/28/19 17:02*	*1*
DCB Decachlorobiphenyl	*72*		*53 - 150*	*07/27/19 03:09*	*07/28/19 17:02*	*1*

Client Sample ID: WP-SB-BH7-C-D-0-072619

Lab Sample ID: 460-187585-16

Date Collected: 07/26/19 13:20
Date Received: 07/26/19 14:55

Matrix: Solid
Percent Solids: 57.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.031	U	0.58	0.031	mg/Kg	☼	07/27/19 09:42	07/28/19 07:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*65*		*25 - 113*	*07/27/19 09:42*	*07/28/19 07:01*	*1*
Terphenyl-d14 (Surr)	*64*		*27 - 123*	*07/27/19 09:42*	*07/28/19 07:01*	*1*
2-Fluorobiphenyl	*64*		*29 - 107*	*07/27/19 09:42*	*07/28/19 07:01*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 17:22	1
Aroclor 1221	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 17:22	1
Aroclor 1232	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 17:22	1
Aroclor 1242	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 17:22	1
Aroclor 1248	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 17:22	1
Aroclor 1254	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 17:22	1
Aroclor 1260	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 17:22	1
Aroclor-1262	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 17:22	1
Aroclor 1268	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 17:22	1
Polychlorinated biphenyls, Total	0.016	U	0.12	0.016	mg/Kg	☼	07/27/19 03:09	07/28/19 17:22	1

YY 8/28/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-187585-1

Client Sample ID: WP-SB-BH7-C-D-0-072619

Lab Sample ID: 460-187585-16

Date Collected: 07/26/19 13:20
Date Received: 07/26/19 14:55

Matrix: Solid
Percent Solids: 57.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	85		53 - 150	07/27/19 03:09	07/28/19 17:22	1
DCB Decachlorobiphenyl	84		53 - 150	07/27/19 03:09	07/28/19 17:22	1

Client Sample ID: WP-ST-BG10-A-B-0-072619

Lab Sample ID: 460-187585-17

Date Collected: 07/26/19 13:40
Date Received: 07/26/19 14:55

Matrix: Solid
Percent Solids: 29.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	40	J	2.2	0.12	mg/Kg	☼	07/27/19 09:42	07/29/19 01:17	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	66		25 - 113	07/27/19 09:42	07/29/19 01:17	2
Terphenyl-d14 (Surr)	81		27 - 123	07/27/19 09:42	07/29/19 01:17	2
2-Fluorobiphenyl	73		29 - 107	07/27/19 09:42	07/29/19 01:17	2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.030	U	0.23	0.030	mg/Kg	☼	07/27/19 03:09	07/28/19 17:43	1
Aroclor 1221	0.030	U	0.23	0.030	mg/Kg	☼	07/27/19 03:09	07/28/19 17:43	1
Aroclor 1232	0.030	U	0.23	0.030	mg/Kg	☼	07/27/19 03:09	07/28/19 17:43	1
Aroclor 1242	0.030	U	0.23	0.030	mg/Kg	☼	07/27/19 03:09	07/28/19 17:43	1
Aroclor 1248	0.59	J	0.23	0.030	mg/Kg	☼	07/27/19 03:09	07/28/19 17:43	1
Aroclor 1254	0.031	U	0.23	0.031	mg/Kg	☼	07/27/19 03:09	07/28/19 17:43	1
Aroclor 1260	0.031	U	0.23	0.031	mg/Kg	☼	07/27/19 03:09	07/28/19 17:43	1
Aroclor-1262	0.031	U	0.23	0.031	mg/Kg	☼	07/27/19 03:09	07/28/19 17:43	1
Aroclor 1268	0.031	U	0.23	0.031	mg/Kg	☼	07/27/19 03:09	07/28/19 17:43	1
Polychlorinated biphenyls, Total	0.59	J	0.23	0.031	mg/Kg	☼	07/27/19 03:09	07/28/19 17:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	84		53 - 150	07/27/19 03:09	07/28/19 17:43	1
DCB Decachlorobiphenyl	80		53 - 150	07/27/19 03:09	07/28/19 17:43	1

Client Sample ID: WP-SB-BG10-C-D-0-072619

Lab Sample ID: 460-187585-18

Date Collected: 07/26/19 13:50
Date Received: 07/26/19 14:55

Matrix: Solid
Percent Solids: 34.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.051	U	0.96	0.051	mg/Kg	☼	07/27/19 09:42	07/28/19 07:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	57		25 - 113	07/27/19 09:42	07/28/19 07:46	1
Terphenyl-d14 (Surr)	72		27 - 123	07/27/19 09:42	07/28/19 07:46	1
2-Fluorobiphenyl	61		29 - 107	07/27/19 09:42	07/28/19 07:46	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.026	U	0.19	0.026	mg/Kg	☼	07/27/19 03:09	07/28/19 18:04	1
Aroclor 1221	0.026	U	0.19	0.026	mg/Kg	☼	07/27/19 03:09	07/28/19 18:04	1
Aroclor 1232	0.026	U	0.19	0.026	mg/Kg	☼	07/27/19 03:09	07/28/19 18:04	1
Aroclor 1242	0.026	U	0.19	0.026	mg/Kg	☼	07/27/19 03:09	07/28/19 18:04	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-187585-1

Client Sample ID: WP-SB-BG10-C-D-0-072619

Lab Sample ID: 460-187585-18
Date Collected: 07/26/19 13:50
Matrix: Solid
Date Received: 07/26/19 14:55
Percent Solids: 34.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.36		0.19	0.026	mg/Kg	☼	07/27/19 03:09	07/28/19 18:04	1
Aroclor 1254	0.027	U	0.19	0.027	mg/Kg	☼	07/27/19 03:09	07/28/19 18:04	1
Aroclor 1260	0.027	U	0.19	0.027	mg/Kg	☼	07/27/19 03:09	07/28/19 18:04	1
Aroclor-1262	0.027	U	0.19	0.027	mg/Kg	☼	07/27/19 03:09	07/28/19 18:04	1
Aroclor 1268	0.027	U	0.19	0.027	mg/Kg	☼	07/27/19 03:09	07/28/19 18:04	1
Polychlorinated biphenyls, Total	0.36		0.19	0.027	mg/Kg	☼	07/27/19 03:09	07/28/19 18:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*87*		*53 - 150*	*07/27/19 03:09*	*07/28/19 18:04*	*1*
DCB Decachlorobiphenyl	*81*		*53 - 150*	*07/27/19 03:09*	*07/28/19 18:04*	*1*

Client Sample ID: WP-PB-BH10-C-D-0-072619

Lab Sample ID: 460-187585-19
Date Collected: 07/26/19 14:00
Matrix: Solid
Date Received: 07/26/19 14:55
Percent Solids: 51.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.3		0.64	0.034	mg/Kg	☼	07/27/19 09:42	07/28/19 08:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*71*		*25 - 113*	*07/27/19 09:42*	*07/28/19 08:09*	*1*
Terphenyl-d14 (Surr)	*68*		*27 - 123*	*07/27/19 09:42*	*07/28/19 08:09*	*1*
2-Fluorobiphenyl	*71*		*29 - 107*	*07/27/19 09:42*	*07/28/19 08:09*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.017	U	0.13	0.017	mg/Kg	☼	07/27/19 03:09	07/28/19 18:25	1
Aroclor 1221	0.017	U	0.13	0.017	mg/Kg	☼	07/27/19 03:09	07/28/19 18:25	1
Aroclor 1232	0.017	U	0.13	0.017	mg/Kg	☼	07/27/19 03:09	07/28/19 18:25	1
Aroclor 1242	0.017	U	0.13	0.017	mg/Kg	☼	07/27/19 03:09	07/28/19 18:25	1
Aroclor 1248	0.16		0.13	0.017	mg/Kg	☼	07/27/19 03:09	07/28/19 18:25	1
Aroclor 1254	0.018	U	0.13	0.018	mg/Kg	☼	07/27/19 03:09	07/28/19 18:25	1
Aroclor 1260	0.018	U	0.13	0.018	mg/Kg	☼	07/27/19 03:09	07/28/19 18:25	1
Aroclor-1262	0.018	U	0.13	0.018	mg/Kg	☼	07/27/19 03:09	07/28/19 18:25	1
Aroclor 1268	0.018	U	0.13	0.018	mg/Kg	☼	07/27/19 03:09	07/28/19 18:25	1
Polychlorinated biphenyls, Total	0.16		0.13	0.018	mg/Kg	☼	07/27/19 03:09	07/28/19 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*90*		*53 - 150*	*07/27/19 03:09*	*07/28/19 18:25*	*1*
DCB Decachlorobiphenyl	*82*		*53 - 150*	*07/27/19 03:09*	*07/28/19 18:25*	*1*

Client Sample ID: WP-FB-072619

Lab Sample ID: 460-187585-21
Date Collected: 07/26/19 14:15
Matrix: Water
Date Received: 07/26/19 14:55

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		07/27/19 07:28	07/28/19 01:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*97*		*51 - 108*	*07/27/19 07:28*	*07/28/19 01:34*	*1*
Terphenyl-d14 (Surr)	*105*		*40 - 148*	*07/27/19 07:28*	*07/28/19 01:34*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-187585-1

Client Sample ID: WP-FB-072619

Date Collected: 07/26/19 14:15
Date Received: 07/26/19 14:55

Lab Sample ID: 460-187585-21

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*		*45 - 107*	*07/27/19 07:28*	*07/28/19 01:34*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		07/27/19 15:49	07/28/19 08:53	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		07/27/19 15:49	07/28/19 08:53	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		07/27/19 15:49	07/28/19 08:53	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		07/27/19 15:49	07/28/19 08:53	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		07/27/19 15:49	07/28/19 08:53	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		07/27/19 15:49	07/28/19 08:53	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		07/27/19 15:49	07/28/19 08:53	1
Aroclor 1262	0.11	U	0.40	0.11	ug/L		07/27/19 15:49	07/28/19 08:53	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		07/27/19 15:49	07/28/19 08:53	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		07/27/19 15:49	07/28/19 08:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*79*		*10 - 150*	*07/27/19 15:49*	*07/28/19 08:53*	*1*
DCB Decachlorobiphenyl	*83*		*10 - 150*	*07/27/19 15:49*	*07/28/19 08:53*	*1*

YY 8/28/19

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-187694

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/28/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on July 29, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-ST-BE13-A-B-0-072919	460-187694-1	Sediment	PCBs, BEHP*
WP-SB-BE13-C-D-0-072919	460-187694-2	Sediment	PCBs, BEHP*
WP-ST-BE11-A-B-0-072919	460-187694-3	Sediment	PCBs, BEHP*
WP-SB-BE11-C-D-0-072919	460-187694-4	Sediment	PCBs, BEHP*
WP-PB-BH13-C-D-0-072919	460-187694-5	Sediment	PCBs, BEHP*
WP-FB-072919	460-187694-6	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable that contains all required elements for the requested analyses.

The solid content was less than 30% in sediment samples WP-ST-BE13-A-B-0-072919 and WP-ST-BE11-A-B-0-072919. Their BEHP and Aroclor results were estimated (J/UJ).

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The report case narrative mentioned non-compliant MS/MSD results. Since the MS/MSD analyses were performed on a sample unrelated to the site, their accuracy and precision results were not used for data qualification.

None of the BEHP results required qualification, with the exception of those reported for samples WP-ST-BE13-A-B-0-072919 and WP-ST-BE11-A-B-0-072919 due to low solid contents.

PCBs

The MS/MSD analyses were performed on a sample unrelated to the site. Their accuracy and precision results were not used for data qualification.

All other QC results were within laboratory-established control limits.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Although data qualifications were applied to reported results for samples WP-ST-BE13-A-B-0-072919 and WP-ST-BE11-A-B-0-072919 due to low solid contents, none warranted data rejection. All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-187694-1

Client Sample ID: WP-ST-BE13-A-B-0-072919

Lab Sample ID: 460-187694-1

Date Collected: 07/29/19 09:45
Date Received: 07/29/19 14:04

Matrix: Solid
Percent Solids: 19.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.32	J	1.7	0.089	mg/Kg	☼	07/30/19 03:19	07/30/19 07:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*48*		*25 - 113*	*07/30/19 03:19*	*07/30/19 07:29*	*1*
Terphenyl-d14 (Surr)	*47*		*27 - 123*	*07/30/19 03:19*	*07/30/19 07:29*	*1*
2-Fluorobiphenyl	*53*		*29 - 107*	*07/30/19 03:19*	*07/30/19 07:29*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.045	U	0.34	0.045	mg/Kg	☼	07/29/19 15:59	07/30/19 09:19	1
Aroclor 1221	0.045	U	0.34	0.045	mg/Kg	☼	07/29/19 15:59	07/30/19 09:19	1
Aroclor 1232	0.045	U	0.34	0.045	mg/Kg	☼	07/29/19 15:59	07/30/19 09:19	1
Aroclor 1242	0.045	U	0.34	0.045	mg/Kg	☼	07/29/19 15:59	07/30/19 09:19	1
Aroclor 1248	0.35		0.34	0.045	mg/Kg	☼	07/29/19 15:59	07/30/19 09:19	1
Aroclor 1254	0.047	U	0.34	0.047	mg/Kg	☼	07/29/19 15:59	07/30/19 09:19	1
Aroclor 1260	0.047	U	0.34	0.047	mg/Kg	☼	07/29/19 15:59	07/30/19 09:19	1
Aroclor-1262	0.047	U	0.34	0.047	mg/Kg	☼	07/29/19 15:59	07/30/19 09:19	1
Aroclor 1268	0.047	U	0.34	0.047	mg/Kg	☼	07/29/19 15:59	07/30/19 09:19	1
Polychlorinated biphenyls, Total	0.35		0.34	0.047	mg/Kg	☼	07/29/19 15:59	07/30/19 09:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*71*		*53 - 150*	*07/29/19 15:59*	*07/30/19 09:19*	*1*
DCB Decachlorobiphenyl	*66*		*53 - 150*	*07/29/19 15:59*	*07/30/19 09:19*	*1*

Client Sample ID: WP-SB-BE13-C-D-0-072919

Lab Sample ID: 460-187694-2

Date Collected: 07/29/19 09:55
Date Received: 07/29/19 14:04

Matrix: Solid
Percent Solids: 45.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.038	U	0.72	0.038	mg/Kg	☼	07/30/19 03:19	07/30/19 07:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*46*		*25 - 113*	*07/30/19 03:19*	*07/30/19 07:46*	*1*
Terphenyl-d14 (Surr)	*51*		*27 - 123*	*07/30/19 03:19*	*07/30/19 07:46*	*1*
2-Fluorobiphenyl	*53*		*29 - 107*	*07/30/19 03:19*	*07/30/19 07:46*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.019	U	0.15	0.019	mg/Kg	☼	07/29/19 15:59	07/30/19 09:47	1
Aroclor 1221	0.019	U	0.15	0.019	mg/Kg	☼	07/29/19 15:59	07/30/19 09:47	1
Aroclor 1232	0.019	U	0.15	0.019	mg/Kg	☼	07/29/19 15:59	07/30/19 09:47	1
Aroclor 1242	0.019	U	0.15	0.019	mg/Kg	☼	07/29/19 15:59	07/30/19 09:47	1
Aroclor 1248	0.019	U	0.15	0.019	mg/Kg	☼	07/29/19 15:59	07/30/19 09:47	1
Aroclor 1254	0.020	U	0.15	0.020	mg/Kg	☼	07/29/19 15:59	07/30/19 09:47	1
Aroclor 1260	0.020	U	0.15	0.020	mg/Kg	☼	07/29/19 15:59	07/30/19 09:47	1
Aroclor-1262	0.020	U	0.15	0.020	mg/Kg	☼	07/29/19 15:59	07/30/19 09:47	1
Aroclor 1268	0.020	U	0.15	0.020	mg/Kg	☼	07/29/19 15:59	07/30/19 09:47	1
Polychlorinated biphenyls, Total	0.020	U	0.15	0.020	mg/Kg	☼	07/29/19 15:59	07/30/19 09:47	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-187694-1

Client Sample ID: WP-SB-BE13-C-D-0-072919

Lab Sample ID: 460-187694-2

Date Collected: 07/29/19 09:55
Date Received: 07/29/19 14:04

Matrix: Solid
Percent Solids: 45.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	115		53 - 150	07/29/19 15:59	07/30/19 09:47	1
DCB Decachlorobiphenyl	86		53 - 150	07/29/19 15:59	07/30/19 09:47	1

Client Sample ID: WP-ST-BE11-A-B-0-072919

Lab Sample ID: 460-187694-3

Date Collected: 07/29/19 10:10
Date Received: 07/29/19 14:04

Matrix: ~~Solid~~
Percent Solids: 19.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.12	J	1.7	0.092	mg/Kg	☼	07/30/19 03:20	07/30/19 08:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	58		25 - 113	07/30/19 03:20	07/30/19 08:03	1
Terphenyl-d14 (Surr)	65		27 - 123	07/30/19 03:20	07/30/19 08:03	1
2-Fluorobiphenyl	66		29 - 107	07/30/19 03:20	07/30/19 08:03	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.047	U J	0.35	0.047	mg/Kg	☼	07/29/19 15:59	07/30/19 10:04	1
Aroclor 1221	0.047	U	0.35	0.047	mg/Kg	☼	07/29/19 15:59	07/30/19 10:04	1
Aroclor 1232	0.047	U	0.35	0.047	mg/Kg	☼	07/29/19 15:59	07/30/19 10:04	1
Aroclor 1242	0.047	U	0.35	0.047	mg/Kg	☼	07/29/19 15:59	07/30/19 10:04	1
Aroclor 1248	0.047	U	0.35	0.047	mg/Kg	☼	07/29/19 15:59	07/30/19 10:04	1
Aroclor 1254	0.049	U	0.35	0.049	mg/Kg	☼	07/29/19 15:59	07/30/19 10:04	1
Aroclor 1260	0.049	U	0.35	0.049	mg/Kg	☼	07/29/19 15:59	07/30/19 10:04	1
Aroclor-1262	0.049	U	0.35	0.049	mg/Kg	☼	07/29/19 15:59	07/30/19 10:04	1
Aroclor 1268	0.049	U	0.35	0.049	mg/Kg	☼	07/29/19 15:59	07/30/19 10:04	1
Polychlorinated biphenyls, Total	0.049	U	0.35	0.049	mg/Kg	☼	07/29/19 15:59	07/30/19 10:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	73		53 - 150	07/29/19 15:59	07/30/19 10:04	1
DCB Decachlorobiphenyl	62		53 - 150	07/29/19 15:59	07/30/19 10:04	1

Client Sample ID: WP-SB-BE11-C-D-0-072919

Lab Sample ID: 460-187694-4

Date Collected: 07/29/19 10:20
Date Received: 07/29/19 14:04

Matrix: Solid
Percent Solids: 40.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.14	J	0.81	0.043	mg/Kg	☼	07/30/19 03:20	07/30/19 08:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	47		25 - 113	07/30/19 03:20	07/30/19 08:21	1
Terphenyl-d14 (Surr)	52		27 - 123	07/30/19 03:20	07/30/19 08:21	1
2-Fluorobiphenyl	54		29 - 107	07/30/19 03:20	07/30/19 08:21	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.022	U	0.16	0.022	mg/Kg	☼	07/29/19 15:59	07/30/19 10:38	1
Aroclor 1221	0.022	U	0.16	0.022	mg/Kg	☼	07/29/19 15:59	07/30/19 10:38	1
Aroclor 1232	0.022	U	0.16	0.022	mg/Kg	☼	07/29/19 15:59	07/30/19 10:38	1
Aroclor 1242	0.022	U	0.16	0.022	mg/Kg	☼	07/29/19 15:59	07/30/19 10:38	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-187694-1

Client Sample ID: WP-SB-BE11-C-D-0-072919

Lab Sample ID: 460-187694-4
Date Collected: 07/29/19 10:20
Matrix: Solid
Date Received: 07/29/19 14:04
Percent Solids: 40.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.022	U	0.16	0.022	mg/Kg	☼	07/29/19 15:59	07/30/19 10:38	1
Aroclor 1254	0.023	U	0.16	0.023	mg/Kg	☼	07/29/19 15:59	07/30/19 10:38	1
Aroclor 1260	0.023	U	0.16	0.023	mg/Kg	☼	07/29/19 15:59	07/30/19 10:38	1
Aroclor-1262	0.023	U	0.16	0.023	mg/Kg	☼	07/29/19 15:59	07/30/19 10:38	1
Aroclor 1268	0.023	U	0.16	0.023	mg/Kg	☼	07/29/19 15:59	07/30/19 10:38	1
Polychlorinated biphenyls, Total	0.023	U	0.16	0.023	mg/Kg	☼	07/29/19 15:59	07/30/19 10:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*80*		*53 - 150*	*07/29/19 15:59*	*07/30/19 10:38*	*1*
DCB Decachlorobiphenyl	*78*		*53 - 150*	*07/29/19 15:59*	*07/30/19 10:38*	*1*

Client Sample ID: WP-PB-BH13-C-D-0-072919

Lab Sample ID: 460-187694-5
Date Collected: 07/29/19 10:40
Matrix: Solid
Date Received: 07/29/19 14:04
Percent Solids: 83.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.28	J	0.39	0.021	mg/Kg	☼	07/30/19 03:20	07/30/19 08:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*61*		*25 - 113*	*07/30/19 03:20*	*07/30/19 08:38*	*1*
Terphenyl-d14 (Surr)	*68*		*27 - 123*	*07/30/19 03:20*	*07/30/19 08:38*	*1*
2-Fluorobiphenyl	*68*		*29 - 107*	*07/30/19 03:20*	*07/30/19 08:38*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.011	U	0.080	0.011	mg/Kg	☼	07/29/19 15:59	07/30/19 10:21	1
Aroclor 1221	0.011	U	0.080	0.011	mg/Kg	☼	07/29/19 15:59	07/30/19 10:21	1
Aroclor 1232	0.011	U	0.080	0.011	mg/Kg	☼	07/29/19 15:59	07/30/19 10:21	1
Aroclor 1242	0.011	U	0.080	0.011	mg/Kg	☼	07/29/19 15:59	07/30/19 10:21	1
Aroclor 1248	0.011	U	0.080	0.011	mg/Kg	☼	07/29/19 15:59	07/30/19 10:21	1
Aroclor 1254	0.011	U	0.080	0.011	mg/Kg	☼	07/29/19 15:59	07/30/19 10:21	1
Aroclor 1260	0.011	U	0.080	0.011	mg/Kg	☼	07/29/19 15:59	07/30/19 10:21	1
Aroclor-1262	0.011	U	0.080	0.011	mg/Kg	☼	07/29/19 15:59	07/30/19 10:21	1
Aroclor 1268	0.011	U	0.080	0.011	mg/Kg	☼	07/29/19 15:59	07/30/19 10:21	1
Polychlorinated biphenyls, Total	0.011	U	0.080	0.011	mg/Kg	☼	07/29/19 15:59	07/30/19 10:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*86*		*53 - 150*	*07/29/19 15:59*	*07/30/19 10:21*	*1*
DCB Decachlorobiphenyl	*96*		*53 - 150*	*07/29/19 15:59*	*07/30/19 10:21*	*1*

Client Sample ID: WP-FB-072919

Lab Sample ID: 460-187694-6
Date Collected: 07/29/19 10:45
Matrix: Water
Date Received: 07/29/19 14:04

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		07/29/19 23:12	07/30/19 09:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*95*		*51 - 108*	*07/29/19 23:12*	*07/30/19 09:28*	*1*
Terphenyl-d14 (Surr)	*115*		*40 - 148*	*07/29/19 23:12*	*07/30/19 09:28*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco

Job ID: 460-187694-1

Client Sample ID: WP-FB-072919

Date Collected: 07/29/19 10:45
Date Received: 07/29/19 14:04

Lab Sample ID: 460-187694-6

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*92*		*45 - 107*	*07/29/19 23:12*	*07/30/19 09:28*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		07/29/19 16:41	07/30/19 13:08	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		07/29/19 16:41	07/30/19 13:08	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		07/29/19 16:41	07/30/19 13:08	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		07/29/19 16:41	07/30/19 13:08	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		07/29/19 16:41	07/30/19 13:08	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		07/29/19 16:41	07/30/19 13:08	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		07/29/19 16:41	07/30/19 13:08	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		07/29/19 16:41	07/30/19 13:08	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		07/29/19 16:41	07/30/19 13:08	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		07/29/19 16:41	07/30/19 13:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*36*		*10 - 150*	*07/29/19 16:41*	*07/30/19 13:08*	*1*
DCB Decachlorobiphenyl	*36*		*10 - 150*	*07/29/19 16:41*	*07/30/19 13:08*	*1*

YY 8/28/19

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-187878

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/28/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on July 31, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-PBC-BK13-E-F-0-073119	460-187878-1	Sediment	PCBs, BEHP*
WP-STC-BJ6-A-B-0-073119	460-187878-2	Sediment	PCBs, BEHP*
WP-STC-BG10-A-B-0-073119	460-187878-3	Sediment	BEHP*
WP-FB-073119	460-187878-4	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable that contains all required elements for the requested analyses.

Note that samples WP-PBC-BK13-C-D-0-073119 and WP-PBC-BK13-C-D-1-073119 were listed on the chain-of-custody form without requested analyses. They were marked to be discarded, thus not included in the summary table above.

The solid content was less than 30% in sediment sample WP-STC-BG10-A-B-0-073119. The non-detect of BEHP result was estimated (UJ) for sample WP-STC-BG10-A-B-0-073119.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The MS/MSD analyses were performed on sample WP-PBC-BK13-E-F-0-073119, and the accuracy and precision results were within laboratory-established control limits.

The lab report case narrative stated all other QC results were within acceptable limits. None of the BEHP results required qualification, with the exception of that reported for sample WP-STC-BG10-A-B-0-073119 due to low solid contents.

PCBs

The lab report case narrative mentioned failed matrix spike recoveries. Since the MS/MSD analyses were performed on a sample unrelated to the site, their accuracy and precision results were not used for data qualification.

All other QC results were within laboratory-established control limits.

Note that for positive Aroclor results, the laboratory used the higher concentration between the two analytical columns for reporting purpose as prescribed by Method 8082A.

Data Validation Summary

Although data qualification was applied to the BEHP result for sample WP-STC-BG10-A-B-0-073119 due to low solid contents, data rejection was not warranted. All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-187878-1

Client Sample ID: WP-PBC-BK13-E-F-0-073119

Lab Sample ID: 460-187878-1

Date Collected: 07/31/19 09:50
Date Received: 07/31/19 12:50

Matrix: Solid
Percent Solids: 89.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.5		0.37	0.019	mg/Kg	☼	07/31/19 22:29	08/01/19 07:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*60*		*25 - 113*	*07/31/19 22:29*	*08/01/19 07:24*	*1*
Terphenyl-d14 (Surr)	*60*		*27 - 123*	*07/31/19 22:29*	*08/01/19 07:24*	*1*
2-Fluorobiphenyl	*58*		*29 - 107*	*07/31/19 22:29*	*08/01/19 07:24*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.0099	U	0.075	0.0099	mg/Kg	☼	08/01/19 03:55	08/01/19 12:51	1
Aroclor 1221	0.0099	U	0.075	0.0099	mg/Kg	☼	08/01/19 03:55	08/01/19 12:51	1
Aroclor 1232	0.0099	U	0.075	0.0099	mg/Kg	☼	08/01/19 03:55	08/01/19 12:51	1
Aroclor 1242	0.0099	U	0.075	0.0099	mg/Kg	☼	08/01/19 03:55	08/01/19 12:51	1
Aroclor 1248	0.0099	U	0.075	0.0099	mg/Kg	☼	08/01/19 03:55	08/01/19 12:51	1
Aroclor 1254	0.010	U	0.075	0.010	mg/Kg	☼	08/01/19 03:55	08/01/19 12:51	1
Aroclor 1260	0.010	U	0.075	0.010	mg/Kg	☼	08/01/19 03:55	08/01/19 12:51	1
Aroclor-1262	0.010	U	0.075	0.010	mg/Kg	☼	08/01/19 03:55	08/01/19 12:51	1
Aroclor 1268	0.010	U	0.075	0.010	mg/Kg	☼	08/01/19 03:55	08/01/19 12:51	1
Polychlorinated biphenyls, Total	0.010	U	0.075	0.010	mg/Kg	☼	08/01/19 03:55	08/01/19 12:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*108*		*53 - 150*	*08/01/19 03:55*	*08/01/19 12:51*	*1*
DCB Decachlorobiphenyl	*112*		*53 - 150*	*08/01/19 03:55*	*08/01/19 12:51*	*1*

Client Sample ID: WP-STC-BJ6-A-B-0-073119

Lab Sample ID: 460-187878-2

Date Collected: 07/31/19 10:05
Date Received: 07/31/19 12:50

Matrix: Solid
Percent Solids: 30.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.8		1.1	0.057	mg/Kg	☼	07/31/19 22:29	08/01/19 07:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*54*		*25 - 113*	*07/31/19 22:29*	*08/01/19 07:47*	*1*
Terphenyl-d14 (Surr)	*62*		*27 - 123*	*07/31/19 22:29*	*08/01/19 07:47*	*1*
2-Fluorobiphenyl	*55*		*29 - 107*	*07/31/19 22:29*	*08/01/19 07:47*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.029	U	0.22	0.029	mg/Kg	☼	08/01/19 03:55	08/01/19 13:12	1
Aroclor 1221	0.029	U	0.22	0.029	mg/Kg	☼	08/01/19 03:55	08/01/19 13:12	1
Aroclor 1232	0.029	U	0.22	0.029	mg/Kg	☼	08/01/19 03:55	08/01/19 13:12	1
Aroclor 1242	0.029	U	0.22	0.029	mg/Kg	☼	08/01/19 03:55	08/01/19 13:12	1
Aroclor 1248	0.49		0.22	0.029	mg/Kg	☼	08/01/19 03:55	08/01/19 13:12	1
Aroclor 1254	0.030	U	0.22	0.030	mg/Kg	☼	08/01/19 03:55	08/01/19 13:12	1
Aroclor 1260	0.030	U	0.22	0.030	mg/Kg	☼	08/01/19 03:55	08/01/19 13:12	1
Aroclor-1262	0.030	U	0.22	0.030	mg/Kg	☼	08/01/19 03:55	08/01/19 13:12	1
Aroclor 1268	0.030	U	0.22	0.030	mg/Kg	☼	08/01/19 03:55	08/01/19 13:12	1
Polychlorinated biphenyls, Total	0.49		0.22	0.030	mg/Kg	☼	08/01/19 03:55	08/01/19 13:12	1

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-187878-1

Client Sample ID: WP-STC-BJ6-A-B-0-073119

Lab Sample ID: 460-187878-2
Date Collected: 07/31/19 10:05
Matrix: Solid
Date Received: 07/31/19 12:50
Percent Solids: 30.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	98		53 - 150	08/01/19 03:55	08/01/19 13:12	1
DCB Decachlorobiphenyl	101		53 - 150	08/01/19 03:55	08/01/19 13:12	1

Client Sample ID: WP-STC-BG10-A-B-0-073119

Lab Sample ID: 460-187878-3
Date Collected: 07/31/19 10:15
Matrix: Solid
Date Received: 07/31/19 12:50
Percent Solids: 18.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.093	U J	1.8	0.093	mg/Kg	☼	07/31/19 22:29	08/01/19 08:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	55		25 - 113	07/31/19 22:29	08/01/19 08:10	1
Terphenyl-d14 (Surr)	61		27 - 123	07/31/19 22:29	08/01/19 08:10	1
2-Fluorobiphenyl	53		29 - 107	07/31/19 22:29	08/01/19 08:10	1

Client Sample ID: WP-FB-073119

Lab Sample ID: 460-187878-4
Date Collected: 07/31/19 10:30
Matrix: Water
Date Received: 07/31/19 12:50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		07/31/19 21:41	08/01/19 09:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	91		51 - 108	07/31/19 21:41	08/01/19 09:30	1
Terphenyl-d14 (Surr)	105		40 - 148	07/31/19 21:41	08/01/19 09:30	1
2-Fluorobiphenyl	93		45 - 107	07/31/19 21:41	08/01/19 09:30	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		07/31/19 21:05	08/01/19 09:25	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		07/31/19 21:05	08/01/19 09:25	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		07/31/19 21:05	08/01/19 09:25	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		07/31/19 21:05	08/01/19 09:25	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		07/31/19 21:05	08/01/19 09:25	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		07/31/19 21:05	08/01/19 09:25	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		07/31/19 21:05	08/01/19 09:25	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		07/31/19 21:05	08/01/19 09:25	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		07/31/19 21:05	08/01/19 09:25	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		07/31/19 21:05	08/01/19 09:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	76		10 - 150	07/31/19 21:05	08/01/19 09:25	1
DCB Decachlorobiphenyl	78		10 - 150	07/31/19 21:05	08/01/19 09:25	1

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DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-188263

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 8/29/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.
- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative

percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.

- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

One wipe sample was collected by Weston Solutions, Inc. on August 5, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-Wipe-Auger-080519	460-188263-1	Wipe	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate, not analyzed

General Comments

The laboratory submitted a NJDEP full data deliverable that contains all required elements for the requested analysis.

Although BEHP and PCB were listed on the chain-of-custody form as requested analyses, only the PCB analysis was performed by the lab at the instruction of the project team, because the lab only received one wipe sample which was insufficient for both analyses.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

PCBs

There was no evidence that MS/MSD analyses were performed. All other QC results were within laboratory-established control limits.

None required data qualification. All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco Woodbridge Pond

Job ID: 460-188263-1

Client Sample ID: WP-Wipe-Auger-080519

Date Collected: 08/05/19 13:30
Date Received: 08/05/19 14:30

Lab Sample ID: 460-188263-1

Matrix: Wipe

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.048	U	0.40	0.048	ug/Wipe		08/09/19 19:25	08/14/19 02:14	1
Aroclor 1221	0.064	U	0.40	0.064	ug/Wipe		08/09/19 19:25	08/14/19 02:14	1
Aroclor 1232	0.11	U	0.40	0.11	ug/Wipe		08/09/19 19:25	08/14/19 02:14	1
Aroclor 1242	0.041	U	0.40	0.041	ug/Wipe		08/09/19 19:25	08/14/19 02:14	1
Aroclor 1248	0.11	U	0.40	0.11	ug/Wipe		08/09/19 19:25	08/14/19 02:14	1
Aroclor 1254	0.11	U	0.40	0.11	ug/Wipe		08/09/19 19:25	08/14/19 02:14	1
Aroclor 1260	0.057	U	0.40	0.057	ug/Wipe		08/09/19 19:25	08/14/19 02:14	1
Aroclor-1262	0.043	U	0.40	0.043	ug/Wipe		08/09/19 19:25	08/14/19 02:14	1
Aroclor 1268	0.043	U	0.40	0.043	ug/Wipe		08/09/19 19:25	08/14/19 02:14	1
Polychlorinated biphenyls, Total	0.041	U	0.40	0.041	ug/Wipe		08/09/19 19:25	08/14/19 02:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*88*		*60 - 142*	*08/09/19 19:25*	*08/14/19 02:14*	*1*
DCB Decachlorobiphenyl	*92*		*60 - 142*	*08/09/19 19:25*	*08/14/19 02:14*	*1*

YY 8/29/19

DATA VALIDATION REPORT

Project: Hatco Woodbridge Pond Post-Excavation

Laboratory Report No.: 460-189937

Laboratory: Eurofins TestAmerica, Edison, NJ

Analysis/Method: Bis(2-ethylhexyl)phthalate/SW846 8270D

Polychlorinated Biphenyls (PCBs)/SW-846 8082A

Data Validation Level: Limited

Prepared By: Yunru Yang/Weston Solutions, Inc. **Completed on:** 9/26/2019

As specified in the Quality Assurance Project Plan (QAPP) (Weston, 2007), Weston Solutions, Inc. performed a limited data validation of the laboratory data packages for the requested analyses. The following USEPA Region 2 data validation standard operating procedures (SOPs) were used for data validation.

- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-22, Revision 5 (December 2010), Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D.
- USEPA Region 2 Hazardous Waste Support Section SOP No. HW-37A, Revision 0 (June 2015), Polychlorinated Biphenyl (PCB) Aroclor Data Validation.

In addition to these SOPs, the data qualification principles outlined in National Functional Guidelines for Organic Superfund Methods Data Review, January, 2017, were also followed when necessary to exercise professional judgment. It should be noted that SOP No. HW-37A was prescribed for analytical data generated through the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organics Analysis (SOM02.2). For data validation performed for this project, the quality control (QC) requirements outlined in Methods 8270D and 8082A, and the QAPP were followed when applying data qualifiers, where applicable.

The results of QC data analyzed with site samples were used to assess the overall data reliability. The information specified in the QAPP, which are summarized below, were reviewed as applicable; however, this report only documents anomalies and/or non-compliant QC results observed during the data validation process.

- Review of chain-of-custody documents to verify sample identities.
- Review of sample log-in documents to identify any potential problems with custody seals, container integrity, sample preservation, labeling, etc.
- Review of sample analysis holding times.
- Review of field blank and trip blank (where applicable) data to identify any potential problems with sampling devices contamination, sample container contamination, preservative contamination, laboratory reagent water contamination, or cross-contamination between samples during transport.
- Review of method blank data to determine the presence or absence of any sources of contamination in the analytical process.

- Review of MS/MSD results (if performed) to evaluate the potential matrix effects on analytical accuracy (in terms of percent recovery) and precision (in terms of relative percent difference; PRD). MS/MSD results will be compared to laboratory-established acceptance.
- Review of blank spike and blank spike duplicate (BS/BSD) data (if required) as a measure of analytical accuracy and as a measure of analytical precision. BS/BSD data will be compared to laboratory-established acceptance criteria.
- Review of LCS data (if required) as a measure of analytical accuracy. LCS data will be compared to the certified acceptable ranges of analytical values.
- Review of sample and sample duplicate data (if available) as a measure of sample homogeneity and as a measure of analytical precision. The RPDs will be calculated by the data reviewer and will be compared to the acceptance limits established in the USEPA National Functional Guidelines for Data Validations.
- Review of surrogate recovery data (organic data only) to assess analytical performance. The laboratory-established control limits will be used for evaluation.

Where applicable, data qualification flags were applied to sample results as follows due to non-compliance with one or more of the aforementioned parameters. All results can be used for decision-making except for those qualified with the R-flags.

- J – Indicates that the concentration is an estimated value.
- R – Reported value is rejected due to serious QC deficiencies. The data are unusable. The analyte may or may not be present in the sample.
- U – The analyte was analyzed for but not detected at or above the corresponding value.
- UJ – The analyte was not detected at or above the estimated corresponding value.

The samples listed below were collected by Weston Solutions, Inc. on August 27, 2019 for the requested analyses.

Field Sample ID	Laboratory ID	Matrix	Analysis
WP-PAD01-08272019	460-189937-1	Soil	PCBs, BEHP*
WP-PAD02-08272019	460-189937-2	Soil	PCBs, BEHP*
WP-PAD03-08272019	460-189937-3	Soil	PCBs, BEHP*
WP-PAD04-08272019	460-189937-4	Soil	PCBs, BEHP*
WP-PAD05-08272019	460-189937-5	Soil	PCBs, BEHP*
WP-PAD06-08272019	460-189937-6	Soil	PCBs, BEHP*
WP-PAD07-08272019	460-189937-7	Soil	PCBs, BEHP*
WP-FB-08272019	460-189937-8	Field Blank	PCBs, BEHP*

*BEHP = bis(2-ethylhexyl)phthalate

General Comments

The laboratory submitted a NJDEP full data deliverable that contains all required elements for the requested analyses.

Since a limited data validation was conducted, the presence or absence of the target analytes was not reviewed, and the quantification results (positive concentration and/or the reporting limit) were not verified.

BIS(2-ETHYLHEXYL)PHTHALATE

The lab QC analyses were performed on sample WP-PAD04-08272019 and yielded acceptable results for accuracy and precision. All blanks were free of contamination.

As per lab report case narrative, the continuing calibration verification associated with the field blank analysis yielded a percent difference (%D) greater than 20, exceeding the control limit. The non-detect of BEHP was estimated (UJ) for the field blank.

PCBs

The MS/MSD analyses were performed on sample WP-PAD01-08272019. Their accuracy and precision results were within laboratory-established control limits. All blanks were free of contamination.

All other QC results were within laboratory-established control limits.

Data Validation Summary

None of the soil results required qualifications. All results can be used as reported and for decision-making.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-189937-1

Client Sample ID: WP-PAD01-08272019

Lab Sample ID: 460-189937-1

Date Collected: 08/27/19 12:50
Date Received: 08/27/19 13:55

Matrix: Solid
Percent Solids: 96.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.018	U	0.34	0.018	mg/Kg	☼	08/27/19 20:47	08/28/19 07:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*81*		*25 - 113*	*08/27/19 20:47*	*08/28/19 07:11*	*1*
Terphenyl-d14 (Surr)	*89*		*27 - 123*	*08/27/19 20:47*	*08/28/19 07:11*	*1*
2-Fluorobiphenyl	*80*		*29 - 107*	*08/27/19 20:47*	*08/28/19 07:11*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.0092	U	0.070	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 08:45	1
Aroclor 1221	0.0092	U	0.070	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 08:45	1
Aroclor 1232	0.0092	U	0.070	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 08:45	1
Aroclor 1242	0.0092	U	0.070	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 08:45	1
Aroclor 1248	0.0092	U	0.070	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 08:45	1
Aroclor 1254	0.0095	U	0.070	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 08:45	1
Aroclor 1260	0.0095	U	0.070	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 08:45	1
Aroclor-1262	0.0095	U	0.070	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 08:45	1
Aroclor 1268	0.0095	U	0.070	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 08:45	1
Polychlorinated biphenyls, Total	0.0095	U	0.070	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 08:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*98*		*53 - 150*	*08/27/19 21:39*	*08/28/19 08:45*	*1*
DCB Decachlorobiphenyl	*104*		*53 - 150*	*08/27/19 21:39*	*08/28/19 08:45*	*1*

Client Sample ID: WP-PAD02-08272019

Lab Sample ID: 460-189937-2

Date Collected: 08/27/19 12:55
Date Received: 08/27/19 13:55

Matrix: Solid
Percent Solids: 96.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.018	U	0.34	0.018	mg/Kg	☼	08/27/19 20:47	08/28/19 07:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*78*		*25 - 113*	*08/27/19 20:47*	*08/28/19 07:34*	*1*
Terphenyl-d14 (Surr)	*86*		*27 - 123*	*08/27/19 20:47*	*08/28/19 07:34*	*1*
2-Fluorobiphenyl	*79*		*29 - 107*	*08/27/19 20:47*	*08/28/19 07:34*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 09:02	1
Aroclor 1221	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 09:02	1
Aroclor 1232	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 09:02	1
Aroclor 1242	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 09:02	1
Aroclor 1248	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 09:02	1
Aroclor 1254	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 09:02	1
Aroclor 1260	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 09:02	1
Aroclor-1262	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 09:02	1
Aroclor 1268	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 09:02	1
Polychlorinated biphenyls, Total	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 09:02	1

YY 9/23/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-189937-1

Client Sample ID: WP-PAD02-08272019

Date Collected: 08/27/19 12:55
Date Received: 08/27/19 13:55

Lab Sample ID: 460-189937-2

Matrix: Solid
Percent Solids: 96.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*102*		*53 - 150*	*08/27/19 21:39*	*08/28/19 09:02*	*1*
DCB Decachlorobiphenyl	*112*		*53 - 150*	*08/27/19 21:39*	*08/28/19 09:02*	*1*

Client Sample ID: WP-PAD03-08272019

Date Collected: 08/27/19 13:00
Date Received: 08/27/19 13:55

Lab Sample ID: 460-189937-3

Matrix: Solid
Percent Solids: 96.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.018	U	0.34	0.018	mg/Kg	☼	08/27/19 20:47	08/28/19 07:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*83*		*25 - 113*	*08/27/19 20:47*	*08/28/19 07:57*	*1*
Terphenyl-d14 (Surr)	*96*		*27 - 123*	*08/27/19 20:47*	*08/28/19 07:57*	*1*
2-Fluorobiphenyl	*82*		*29 - 107*	*08/27/19 20:47*	*08/28/19 07:57*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.0093	U	0.070	0.0093	mg/Kg	☼	08/27/19 21:39	08/28/19 09:20	1
Aroclor 1221	0.0093	U	0.070	0.0093	mg/Kg	☼	08/27/19 21:39	08/28/19 09:20	1
Aroclor 1232	0.0093	U	0.070	0.0093	mg/Kg	☼	08/27/19 21:39	08/28/19 09:20	1
Aroclor 1242	0.0093	U	0.070	0.0093	mg/Kg	☼	08/27/19 21:39	08/28/19 09:20	1
Aroclor 1248	0.0093	U	0.070	0.0093	mg/Kg	☼	08/27/19 21:39	08/28/19 09:20	1
Aroclor 1254	0.0096	U	0.070	0.0096	mg/Kg	☼	08/27/19 21:39	08/28/19 09:20	1
Aroclor 1260	0.0096	U	0.070	0.0096	mg/Kg	☼	08/27/19 21:39	08/28/19 09:20	1
Aroclor-1262	0.0096	U	0.070	0.0096	mg/Kg	☼	08/27/19 21:39	08/28/19 09:20	1
Aroclor 1268	0.0096	U	0.070	0.0096	mg/Kg	☼	08/27/19 21:39	08/28/19 09:20	1
Polychlorinated biphenyls, Total	0.0096	U	0.070	0.0096	mg/Kg	☼	08/27/19 21:39	08/28/19 09:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*101*		*53 - 150*	*08/27/19 21:39*	*08/28/19 09:20*	*1*
DCB Decachlorobiphenyl	*108*		*53 - 150*	*08/27/19 21:39*	*08/28/19 09:20*	*1*

Client Sample ID: WP-PAD04-08272019

Date Collected: 08/27/19 13:05
Date Received: 08/27/19 13:55

Lab Sample ID: 460-189937-4

Matrix: Solid
Percent Solids: 96.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.018	U	0.34	0.018	mg/Kg	☼	08/27/19 20:47	08/28/19 06:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*86*		*25 - 113*	*08/27/19 20:47*	*08/28/19 06:48*	*1*
Terphenyl-d14 (Surr)	*97*		*27 - 123*	*08/27/19 20:47*	*08/28/19 06:48*	*1*
2-Fluorobiphenyl	*84*		*29 - 107*	*08/27/19 20:47*	*08/28/19 06:48*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 09:37	1
Aroclor 1221	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 09:37	1
Aroclor 1232	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 09:37	1
Aroclor 1242	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 09:37	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-189937-1

Client Sample ID: WP-PAD04-08272019

Lab Sample ID: 460-189937-4
Date Collected: 08/27/19 13:05
Matrix: Solid
Date Received: 08/27/19 13:55
Percent Solids: 96.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 09:37	1
Aroclor 1254	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 09:37	1
Aroclor 1260	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 09:37	1
Aroclor-1262	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 09:37	1
Aroclor 1268	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 09:37	1
Polychlorinated biphenyls, Total	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 09:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*119*		*53 - 150*	*08/27/19 21:39*	*08/28/19 09:37*	*1*
DCB Decachlorobiphenyl	*126*		*53 - 150*	*08/27/19 21:39*	*08/28/19 09:37*	*1*

Client Sample ID: WP-PAD05-08272019

Lab Sample ID: 460-189937-5
Date Collected: 08/27/19 13:10
Matrix: Solid
Date Received: 08/27/19 13:55
Percent Solids: 96.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.018	U	0.34	0.018	mg/Kg	☼	08/27/19 20:47	08/28/19 08:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*78*		*25 - 113*	*08/27/19 20:47*	*08/28/19 08:20*	*1*
Terphenyl-d14 (Surr)	*89*		*27 - 123*	*08/27/19 20:47*	*08/28/19 08:20*	*1*
2-Fluorobiphenyl	*79*		*29 - 107*	*08/27/19 20:47*	*08/28/19 08:20*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 09:54	1
Aroclor 1221	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 09:54	1
Aroclor 1232	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 09:54	1
Aroclor 1242	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 09:54	1
Aroclor 1248	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 09:54	1
Aroclor 1254	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 09:54	1
Aroclor 1260	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 09:54	1
Aroclor-1262	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 09:54	1
Aroclor 1268	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 09:54	1
Polychlorinated biphenyls, Total	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 09:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*96*		*53 - 150*	*08/27/19 21:39*	*08/28/19 09:54*	*1*
DCB Decachlorobiphenyl	*105*		*53 - 150*	*08/27/19 21:39*	*08/28/19 09:54*	*1*

Client Sample ID: WP-PAD06-08272019

Lab Sample ID: 460-189937-6
Date Collected: 08/27/19 13:15
Matrix: Solid
Date Received: 08/27/19 13:55
Percent Solids: 96.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.018	U	0.34	0.018	mg/Kg	☼	08/27/19 20:47	08/28/19 08:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*82*		*25 - 113*	*08/27/19 20:47*	*08/28/19 08:44*	*1*
Terphenyl-d14 (Surr)	*97*		*27 - 123*	*08/27/19 20:47*	*08/28/19 08:44*	*1*

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-189937-1

Client Sample ID: WP-PAD06-08272019

Lab Sample ID: 460-189937-6

Date Collected: 08/27/19 13:15
Date Received: 08/27/19 13:55

Matrix: Solid
Percent Solids: 96.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	82		29 - 107	08/27/19 20:47	08/28/19 08:44	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 10:31	1
Aroclor 1221	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 10:31	1
Aroclor 1232	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 10:31	1
Aroclor 1242	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 10:31	1
Aroclor 1248	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 10:31	1
Aroclor 1254	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 10:31	1
Aroclor 1260	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 10:31	1
Aroclor-1262	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 10:31	1
Aroclor 1268	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 10:31	1
Polychlorinated biphenyls, Total	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 10:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	98		53 - 150	08/27/19 21:39	08/28/19 10:31	1
DCB Decachlorobiphenyl	101		53 - 150	08/27/19 21:39	08/28/19 10:31	1

Client Sample ID: WP-PAD07-08272019

Lab Sample ID: 460-189937-7

Date Collected: 08/27/19 13:20
Date Received: 08/27/19 13:55

Matrix: Solid
Percent Solids: 96.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	0.018	U	0.34	0.018	mg/Kg	☼	08/27/19 20:47	08/28/19 09:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	86		25 - 113	08/27/19 20:47	08/28/19 09:07	1
Terphenyl-d14 (Surr)	92		27 - 123	08/27/19 20:47	08/28/19 09:07	1
2-Fluorobiphenyl	83		29 - 107	08/27/19 20:47	08/28/19 09:07	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 10:48	1
Aroclor 1221	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 10:48	1
Aroclor 1232	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 10:48	1
Aroclor 1242	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 10:48	1
Aroclor 1248	0.0092	U	0.069	0.0092	mg/Kg	☼	08/27/19 21:39	08/28/19 10:48	1
Aroclor 1254	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 10:48	1
Aroclor 1260	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 10:48	1
Aroclor-1262	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 10:48	1
Aroclor 1268	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 10:48	1
Polychlorinated biphenyls, Total	0.0095	U	0.069	0.0095	mg/Kg	☼	08/27/19 21:39	08/28/19 10:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	109		53 - 150	08/27/19 21:39	08/28/19 10:48	1
DCB Decachlorobiphenyl	108		53 - 150	08/27/19 21:39	08/28/19 10:48	1

YY 9/23/19

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Hatco - Woodbridge Pond

Job ID: 460-189937-1

Client Sample ID: WP-FB-08272019

Date Collected: 08/27/19 13:25
Date Received: 08/27/19 13:55

Lab Sample ID: 460-189937-8

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.7	U	2.0	1.7	ug/L		08/27/19 17:43	08/27/19 21:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*81*		*51 - 108*	*08/27/19 17:43*	*08/27/19 21:37*	*1*
Terphenyl-d14 (Surr)	*73*		*40 - 148*	*08/27/19 17:43*	*08/27/19 21:37*	*1*
2-Fluorobiphenyl	*73*		*45 - 107*	*08/27/19 17:43*	*08/27/19 21:37*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.12	U	0.40	0.12	ug/L		08/27/19 17:11	08/28/19 09:55	1
Aroclor 1221	0.12	U	0.40	0.12	ug/L		08/27/19 17:11	08/28/19 09:55	1
Aroclor 1232	0.12	U	0.40	0.12	ug/L		08/27/19 17:11	08/28/19 09:55	1
Aroclor 1242	0.12	U	0.40	0.12	ug/L		08/27/19 17:11	08/28/19 09:55	1
Aroclor 1248	0.12	U	0.40	0.12	ug/L		08/27/19 17:11	08/28/19 09:55	1
Aroclor 1254	0.11	U	0.40	0.11	ug/L		08/27/19 17:11	08/28/19 09:55	1
Aroclor 1260	0.11	U	0.40	0.11	ug/L		08/27/19 17:11	08/28/19 09:55	1
Aroclor-1262	0.11	U	0.40	0.11	ug/L		08/27/19 17:11	08/28/19 09:55	1
Aroclor 1268	0.11	U	0.40	0.11	ug/L		08/27/19 17:11	08/28/19 09:55	1
Polychlorinated biphenyls, Total	0.12	U	0.40	0.12	ug/L		08/27/19 17:11	08/28/19 09:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*59*		*10 - 150*	*08/27/19 17:11*	*08/28/19 09:55*	*1*
DCB Decachlorobiphenyl	*61*		*10 - 150*	*08/27/19 17:11*	*08/28/19 09:55*	*1*

YY 9/23/19