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November 19, 2019

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Environmental Restoration, LLC
1666 Fabick Drive
Fenton, MO 63026

Certificate of Analysis

Project Name:	**2019-UHC CONTAMINANT LIST**	Workorder:	**3065932**
Purchase Order:		Workorder ID:	**Shiloh Church Rd/3-5467**

Dear Non-responsive due to revise:

Enclosed are the analytical results for samples received by the laboratory on Thursday, October 24, 2019.

The Non-responsive due to revised scope is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Non-responsive due to revised scope (Project Coordinator) at Non-responsive due to revised scope

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of Non-responsive due to revised scope.

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This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Project Coordinator

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[redacted]

SAMPLE SUMMARY

Workorder: 3065932 Shiloh Church Rd/3-5467

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3065932001	UHC-01	Solid	10/23/2019 16:30	10/24/2019 16:25	Collected by Client

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[redacted]

SAMPLE SUMMARY

Workorder: 3065932 Shiloh Church Rd/3-5467

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the [redacted] Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All L brary Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Sp ke
MSD	Matrix Sp ke Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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[redacted]

PROJECT SUMMARY

Workorder: 3065932 Shiloh Church Rd/3-5467

Workorder Comments

Please see attached 8141 results from [redacted] 11/14/19

Please see attached TCLP VOC results from [redacted] 11/14/19

Please see attached 8316/8290/8270 results from [redacted] 11/19/19

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[redacted]

ANALYTICAL RESULTS

Workorder: 3065932 Shiloh Church Rd/3-5467

Lab ID: **3065932001** Date Collected: 10/23/2019 16:30 Matrix: Solid

Sample ID: **UHC-01** Date Received: 10/24/2019 16:25

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS									Non-responsiv	
Acetone	ND		ug/kg	18.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Acetonitrile	ND		ug/kg	18.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Acrolein	ND		ug/kg	93.5	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Acrylonitrile	ND		ug/kg	18.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Benzene	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Bromodichloromethane	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Bromoform	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Bromomethane	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
2-Butanone	ND		ug/kg	18.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Carbon Tetrachloride	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Chlorobenzene	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Chlorodibromomethane	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Chloroethane	ND		ug/kg	9.4	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
2-Chloroethylvinyl ether	ND		ug/kg	281	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Chloroform	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Chloromethane	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Chloroprene	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
3-Chloro-1-propene	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
1,2-Dibromo-3-chloropropane	ND		ug/kg	9.4	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
1,2-Dibromoethane	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
D bromomethane	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
1,2-Dichlorobenzene	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
1,3-Dichlorobenzene	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
1,4-Dichlorobenzene	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Dichlorodifluoromethane	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
1,1-Dichloroethane	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
1,2-Dichloroethane	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
1,1-Dichloroethene	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
trans-1,2-Dichloroethene	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
1,2-Dichloropropane	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
cis-1,3-Dichloropropene	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
trans-1,3-Dichloropropene	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Ethyl Ether	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Ethyl Acetate	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Ethylbenzene	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Freon 113	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2

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ANALYTICAL RESULTS

Workorder: 3065932 Shiloh Church Rd/3-5467

Lab ID: **3065932001** Date Collected: 10/23/2019 16:30 Matrix: Solid

Sample ID: **UHC-01** Date Received: 10/24/2019 16:25

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Hexachloroethane	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
2-Hexanone	ND		ug/kg	18.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Iodomethane	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Isobutyl alcohol	ND		ug/kg	93.5	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Isopropylbenzene	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Methacrylonitrile	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Methyl methacrylate	ND		ug/kg	9.4	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	18.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Methylene Chloride	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Propionitrile	ND		ug/kg	18.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
1,1,1,2-Tetrachloroethane	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
1,1,2,2-Tetrachloroethane	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Tetrachloroethene	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Toluene	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Total Xylenes	ND		ug/kg	11.2	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
1,2,4-Trichlorobenzene	ND		ug/kg	9.4	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
1,1,1-Trichloroethane	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
1,1,2-Trichloroethane	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Trichloroethene	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Trichlorofluoromethane	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
1,2,3-Trichloropropane	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Vinyl Chloride	ND		ug/kg	3.7	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	[redacted]	*Cntr*
1,2-Dichloroethane-d4 (S)	99.6		%	56 - 124	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
4-Bromofluorobenzene (S)	87.8		%	51 - 128	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
D bromofluoromethane (S)	101		%	62 - 123	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
Toluene-d8 (S)	90.5		%	59 - 131	SW846 8260B	10/25/19 10:30	DPC	10/30/19 15:18	[redacted]	A2
LIBRARY SEARCH - VOLATILES										
No TIC's Detected	.				Lib Search VOC			10/30/19 15:18	[redacted]	G
Library Search - SemiVolatiles										
1,1-Biphenyl, 2,3,4,6-tet	18700	J N	ug/kg		SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
1,1-Biphenyl, 2,2,3,4-tet	8320	J N	ug/kg		SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
1,1-Biphenyl, 3,3,4,4-te	7450	J N	ug/kg		SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
1,1-Biphenyl, 2,2,4,5,5-	30300	J N	ug/kg		SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
1,1-Biphenyl, 2,3,3,4,6-	8610	J N	ug/kg		SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
1,1-Biphenyl, 2,3,3,4,4-	43600	J N	ug/kg		SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A

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ANALYTICAL RESULTS

Workorder: 3065932 Shiloh Church Rd/3-5467

Lab ID: **3065932001** Date Collected: 10/23/2019 16:30 Matrix: Solid

Sample ID: **UHC-01** Date Received: 10/24/2019 16:25

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,1-Biphenyl, 2,3,4,4,5-	14600	J N	ug/kg		SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
1,1-Biphenyl, 2,3,3,4,4-	11000	J N	ug/kg		SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
1,1-Biphenyl, 2,2,3,4,5-	8040	J N	ug/kg		SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
1,1-Biphenyl, 2,2,4,4,5-	18200	J N	ug/kg		SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
1,1-Biphenyl, 2,3,4,5,5-	22400	J N	ug/kg		SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
1,1-Biphenyl, 2,2,3,3,4,	8530	J N	ug/kg		SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
1,1-Biphenyl, 2,2,3,4,6-P	10800	J N	ug/kg		SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
1,1-Biphenyl, 2,3,4,4,5,	13900	J N	ug/kg		SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
1,1-Biphenyl, 3,3,4,4,5,	3550	J N	ug/kg		SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
SEMIVOLATILES										
Acenaphthene	ND		ug/kg	60.8	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Acenaphthylene	ND		ug/kg	60.8	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Acetophenone	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
2-Acetylaminofluorene	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
4-Aminobiphenyl	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
Aniline	ND	5,6, 7,8	ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Anthracene	ND		ug/kg	60.8	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Aramite	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
Benzo(a)anthracene	72.6		ug/kg	60.8	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Benzo(a)pyrene	78.8		ug/kg	60.8	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Benzo(b)fluoranthene	83.2		ug/kg	60.8	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Benzo(g,h,i)perylene	153		ug/kg	60.8	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Benzo(k)fluoranthene	ND		ug/kg	60.8	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
4-Bromophenyl-phenylether	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Butylbenzylphthalate	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
4-Chloro-3-methylphenol	ND		ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
4-Chloroaniline	ND		ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Chlorobenzilate	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
bis(2-Chloroethoxy)methane	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
bis(2-Chloroethyl)ether	ND	9	ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
2-Chloronaphthalene	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
2-Chlorophenol	ND		ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Chrysene	94.9		ug/kg	60.8	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
mp-Cresol	ND		ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
o-Cresol	ND		ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Di-n-Butylphthalate	2390		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Di-n-Octylphthalate	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A

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[redacted]

ANALYTICAL RESULTS

Workorder: 3065932 Shiloh Church Rd/3-5467

Lab ID: **3065932001** Date Collected: 10/23/2019 16:30 Matrix: Solid

Sample ID: **UHC-01** Date Received: 10/24/2019 16:25

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Diallate	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	Non-respons	A
D benzo(a,h)anthracene	ND		ug/kg	60.8	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00		A
2,4-Dichlorophenol	ND		ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00		A
2,6-Dichlorophenol	ND		ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00		A
O,O-Diethyl O-pyrazinylphoshor	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20		A
Diethylphthalate	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00		A
p-(Dimethylamino)azobenzene	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20		A
7,12-Dimethylbenz(a)anthracene	ND	23	ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20		A
3,3'-Dimethylbenzidine	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20		A
2,4-Dimethylphenol	ND		ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00		A
a,a-Dimethylphenethylamine	ND		ug/kg	1150	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20		A
Dimethylphthalate	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00		A
1,4-Dinitrobenzene	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00		A
2,4-Dinitrophenol	ND	13,14	ug/kg	486	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00		A
2,4-Dinitrotoluene	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00		A
2,6-Dinitrotoluene	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00		A
1,4-Dioxane	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00		A
Diphenylamine	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00		A
1,2-Diphenylhydrazine	ND	20	ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00		A
Disulfoton	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20		A
Ethyl methanesulfonate	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20		A
bis(2-Ethylhexyl)phthalate	3070		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00		A
Famphur	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20		A
Fluoranthene	82.8		ug/kg	60.8	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00		A
Fluorene	ND		ug/kg	60.8	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00		A
Hexachlorobenzene	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00		A
Hexachlorobutadiene	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00		A
Hexachlorocyclopentadiene	ND	10,11,12	ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00		A
Hexachloropropene	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20		A
Indeno(1,2,3-cd)pyrene	ND		ug/kg	60.8	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00		A
Isodrin	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20		A
Isosafrole	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20		A
Kepone	ND		ug/kg	1150	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20		A
Methapyriline	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20		A

Non-responsive due to revised scope

Non-responsive due to revised scope

[redacted]

ANALYTICAL RESULTS

Workorder: 3065932 Shiloh Church Rd/3-5467

Lab ID: **3065932001** Date Collected: 10/23/2019 16:30 Matrix: Solid

Sample ID: **UHC-01** Date Received: 10/24/2019 16:25

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Methyl Parathion	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
2-Methyl-4,6-dinitrophenol	ND	17,18	ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
3-Methylcholanthrene	ND	24	ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
Methyl methanesulfonate	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
1,4-Naphthoquinone	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
1-Naphthylamine	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
2-Naphthylamine	ND	15,16	ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Naphthalene	ND		ug/kg	60.8	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
5-Nitro-o-Toluidine	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
2-Nitroaniline	ND		ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
3-Nitroaniline	ND		ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Nitrobenzene	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
2-Nitrophenol	ND		ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
4-Nitrophenol	ND		ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Nitroquinoline-N-oxide	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
N-Nitrosodi-n-butylamine	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
N-Nitrosodiethylamine	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
N-Nitrosodimethylamine	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
N-Nitroso-di-n-propylamine	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
N-Nitrosodiphenylamine	ND	19	ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
N-Nitrosomethylethylamine	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
N-Nitrosomorpholine	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
N-Nitrosopiperidine	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
Parathion	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
Pentachlorobenzene	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Pentachloroethane	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
Pentachloronitrobenzene	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
Phenacetin	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
Phenanthrene	74.1		ug/kg	60.8	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Phenol	ND		ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
p-Phenylenediamine	ND		ug/kg	1150	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
Phorate	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
2-Picoline	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
Pronamide	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
Pyrene	95.9	1	ug/kg	60.8	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Pyridine	ND	3,4	ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A

Non-responsive due to revised scope

Non-responsive due to revised scope

[redacted]

ANALYTICAL RESULTS

Workorder: 3065932 Shiloh Church Rd/3-5467

Lab ID: **3065932001** Date Collected: 10/23/2019 16:30 Matrix: Solid

Sample ID: **UHC-01** Date Received: 10/24/2019 16:25

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Safrole	ND	21	ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	Non-responsive [redacted]	A
Sulfotep	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	122	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
2,3,4,6-Tetrachlorophenol	ND		ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
o-Toluidine	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
2,4,5-Trichlorophenol	ND		ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
2,4,6-Trichlorophenol	ND		ug/kg	243	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
O,O,O-Triethylphosphorothioate	ND		ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
1,3,5-Trinitrobenzene	ND	22	ug/kg	346	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	[redacted]	*Cntr*
2,4,6-Tr bromophenol (S)	85.7		%	19 - 132	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
2-Fluorobiphenyl (S)	71.3		%	40 - 110	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
2-Fluorophenol (S)	64.4		%	26 - 116	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Nitrobenzene-d5 (S)	69.5		%	38 - 112	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Phenol-d5 (S)	65.4		%	35 - 111	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Terphenyl-d14 (S)	81.9		%	45 - 126	SW846 8270D	10/27/19 18:20	J1H	10/29/19 04:00	[redacted]	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	[redacted]	*Cntr*
2,4,6-Tr bromophenol (S)	49.8		%	19 - 132	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
2-Fluorobiphenyl (S)	40.5		%	40 - 110	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
2-Fluorophenol (S)	30		%	26 - 116	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
Nitrobenzene-d5 (S)	37.8	26	%	38 - 112	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
Phenol-d5 (S)	34.4	25	%	35 - 111	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
Terphenyl-d14 (S)	51.7		%	45 - 126	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	[redacted]	*Cntr*
2,4,6-Tr bromophenol (S)	52.1		%	19 - 132	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
2-Fluorobiphenyl (S)	40.6		%	40 - 110	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
2-Fluorophenol (S)	30.6		%	26 - 116	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
Nitrobenzene-d5 (S)	37.5	27	%	38 - 112	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
Phenol-d5 (S)	35.1		%	35 - 111	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
Terphenyl-d14 (S)	51.2		%	45 - 126	SW846 8270D	10/28/19 17:55	J1H	10/29/19 13:20	[redacted]	A
PCBs										
Total Polychlorinated Biphenyl	410		mg/kg	173	SW846 8082A	10/27/19 14:55	J1H	10/29/19 02:14	[redacted]	G
Aroclor-1016	ND	36	mg/kg	19.0	SW846 8082A	10/27/19 14:55	J1H	10/29/19 02:14	[redacted]	G
Aroclor-1221	ND		mg/kg	19.0	SW846 8082A	10/27/19 14:55	J1H	10/29/19 02:14	[redacted]	G

Non-responsive due to revised scope

Non-responsive due to revised scope

[redacted]

ANALYTICAL RESULTS

Workorder: 3065932 Shiloh Church Rd/3-5467

Lab ID: **3065932001** Date Collected: 10/23/2019 16:30 Matrix: Solid

Sample ID: **UHC-01** Date Received: 10/24/2019 16:25

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Aroclor-1232	ND		mg/kg	19.0	SW846 8082A	10/27/19 14:55	J1H	10/29/19 02:14		G
Aroclor-1242	ND		mg/kg	19.0	SW846 8082A	10/27/19 14:55	J1H	10/29/19 02:14		G
Aroclor-1248	ND		mg/kg	19.0	SW846 8082A	10/27/19 14:55	J1H	10/29/19 02:14		G
Aroclor-1254	410		mg/kg	19.0	SW846 8082A	10/27/19 14:55	J1H	10/29/19 02:14		G
Aroclor-1260	ND		mg/kg	19.0	SW846 8082A	10/27/19 14:55	J1H	10/29/19 02:14		G
Aroclor-1262	ND		mg/kg	19.0	SW846 8082A	10/27/19 14:55	J1H	10/29/19 02:14		G
Aroclor-1268	ND		mg/kg	19.0	SW846 8082A	10/27/19 14:55	J1H	10/29/19 02:14		G
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*		*Cntr*
Decachlorobiphenyl (S)	0		%	49 - 115	SW846 8082A	10/27/19 14:55	J1H	10/29/19 02:14		G
Tetrachloro-m-xylene (S)	0		%	27 - 137	SW846 8082A	10/27/19 14:55	J1H	10/29/19 02:14		G
PESTICIDES										
Aldrin	ND	28,29	ug/kg	9.8	SW846 8081B	10/27/19 14:55	J1H	10/28/19 19:50		A
beta-BHC	ND		ug/kg	9.8	SW846 8081B	10/27/19 14:55	J1H	10/28/19 19:50		A
delta-BHC	ND		ug/kg	9.8	SW846 8081B	10/27/19 14:55	J1H	10/28/19 19:50		A
gamma-BHC	ND		ug/kg	9.8	SW846 8081B	10/27/19 14:55	J1H	10/28/19 19:50		A
Chlordane	ND		ug/kg	202	SW846 8081B	10/27/19 14:55	J1H	10/28/19 19:50		A
alpha-Chlordane	ND		ug/kg	9.8	SW846 8081B	10/27/19 14:55	J1H	10/28/19 19:50		A
gamma-Chlordane	ND		ug/kg	9.8	SW846 8081B	10/27/19 14:55	J1H	10/28/19 19:50		A
4,4'-DDD	ND		ug/kg	762	SW846 8081B	10/27/19 14:55	J1H	10/29/19 14:04		A
4,4'-DDE	ND		ug/kg	762	SW846 8081B	10/27/19 14:55	J1H	10/29/19 14:04		A
4,4'-DDT	ND		ug/kg	762	SW846 8081B	10/27/19 14:55	J1H	10/29/19 14:04		A
Dieldrin	ND		ug/kg	19.0	SW846 8081B	10/27/19 14:55	J1H	10/28/19 19:50		A
Endosulfan I	ND		ug/kg	392	SW846 8081B	10/27/19 14:55	J1H	10/29/19 14:04		A
Endosulfan II	ND		ug/kg	19.0	SW846 8081B	10/27/19 14:55	J1H	10/28/19 19:50		A
Endosulfan Sulfate	ND		ug/kg	19.0	SW846 8081B	10/27/19 14:55	J1H	10/28/19 19:50		A
Endrin	ND		ug/kg	19.0	SW846 8081B	10/27/19 14:55	J1H	10/28/19 19:50		A
Endrin Aldehyde	ND		ug/kg	19.0	SW846 8081B	10/27/19 14:55	J1H	10/28/19 19:50		A
alpha-HCH (alpha-BHC)	ND		ug/kg	9.8	SW846 8081B	10/27/19 14:55	J1H	10/28/19 19:50		A
Heptachlor	ND		ug/kg	9.8	SW846 8081B	10/27/19 14:55	J1H	10/28/19 19:50		A
Heptachlor Epoxide	ND		ug/kg	9.8	SW846 8081B	10/27/19 14:55	J1H	10/28/19 19:50		A
Methoxychlor	ND		ug/kg	762	SW846 8081B	10/27/19 14:55	J1H	10/29/19 14:04		A
Toxaphene	ND		ug/kg	202	SW846 8081B	10/27/19 14:55	J1H	10/28/19 19:50		A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*		*Cntr*
Decachlorobiphenyl (S)	98.2		%	30 - 135	SW846 8081B	10/27/19 14:55	J1H	10/29/19 14:04		A
Decachlorobiphenyl (S)	47.1		%	30 - 135	SW846 8081B	10/27/19 14:55	J1H	10/28/19 19:50		A
Tetrachloro-m-xylene (S)	53.7		%	30 - 111	SW846 8081B	10/27/19 14:55	J1H	10/28/19 19:50		A

Non-responsive due to revised scope

Non-responsive due to revised scope

[redacted]

ANALYTICAL RESULTS

Workorder: 3065932 Shiloh Church Rd/3-5467

Lab ID: **3065932001** Date Collected: 10/23/2019 16:30 Matrix: Solid

Sample ID: **UHC-01** Date Received: 10/24/2019 16:25

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
									Non-responsive	
Tetrachloro-m-xylene (S)	49.7		%	30 - 111	SW846 8081B	10/27/19 14:55	J1H	10/29/19 14:04	[redacted]	A
ALCOHOLS AND ACETATES										
n-Butanol	ND		mg/kg	24.0	SW846 8015C	10/28/19 00:15	EGO	10/28/19 07:11	[redacted]	A
Methanol	ND		mg/kg	24.0	SW846 8015C	10/28/19 00:15	EGO	10/28/19 07:11	[redacted]	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*		*Cntr*
Amyl Alcohol (S)	90.6		%	70 - 130	SW846 8015C	10/28/19 00:15	EGO	10/28/19 07:11	[redacted]	A
HERBICIDES										
2,4-D	ND		ug/kg	122	SW846 8151A	10/26/19 00:40	S7M	10/30/19 14:20	[redacted]	A
Dinoseb	ND		ug/kg	207	SW846 8151A	10/26/19 00:40	S7M	10/30/19 14:20	[redacted]	A
2,4,5-T	ND		ug/kg	207	SW846 8151A	10/26/19 00:40	S7M	10/30/19 14:20	[redacted]	A
2,4,5-TP	ND		ug/kg	122	SW846 8151A	10/26/19 00:40	S7M	10/30/19 14:20	[redacted]	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*		*Cntr*
2,4-Dichlorophenylacetic acid (S)	51.8		%	36 - 113	SW846 8151A	10/26/19 00:40	S7M	10/30/19 14:20	[redacted]	A
SUBCONTRACTED ANALYSIS										
Method SW846 8141	see attached				SW846 8141B			11/14/19 07:25	[redacted]	G
Subcontracted Analysis	See attached				Subcontract			11/19/19 14:43	[redacted]	G
WET CHEMISTRY										
Acid Soluble Sulfide	ND		mg/kg	24.5	SW846 9034r0-96	10/26/19 12:30	MXO	10/26/19 15:37	[redacted]	G
Cyanide, Amenable	0.61		mg/kg	0.25	SW846 9012B	11/1/19 11:00	LXB	11/5/19 10:56	[redacted]	A
Cyanide, Total	1.5	37,38	mg/kg	0.31	SW846 9012B	10/30/19 14:45	LXB	10/31/19 13:59	[redacted]	A
Fluoride	ND		mg/kg	2.4	SW846 9056A	10/31/19 09:30	CHW	10/31/19 14:46	[redacted]	A2
Moisture	18.3		%	0.1	S2540G-11			10/28/19 09:00	[redacted]	
Total Solids	81.7		%	0.1	S2540G-11			10/28/19 09:00	[redacted]	
TCLP METALS										
Antimony, Total	ND		mg/L	0.15	SW846 6010C	10/29/19 16:05	SXC	10/30/19 09:19	[redacted]	A1
Nickel, Total	0.39		mg/L	0.11	SW846 6010C	10/29/19 16:05	SXC	10/30/19 09:19	[redacted]	A1
Thallium, Total	ND		mg/L	0.11	SW846 6010C	10/29/19 16:05	SXC	10/30/19 09:19	[redacted]	A1
Vanadium, Total	ND		mg/L	0.028	SW846 6010C	10/29/19 16:05	SXC	10/30/19 09:19	[redacted]	A1
Zinc, Total	19.9		mg/L	0.11	SW846 6010C	10/29/19 16:05	SXC	10/30/19 09:19	[redacted]	A1

Non-responsive due to revised scope

Non-responsive due to revised scope

[redacted]

ANALYTICAL RESULTS

Workorder: 3065932 Shiloh Church Rd/3-5467

Lab ID:	**3065932001**	Date Collected:	10/23/2019 16:30	Matrix:	Solid
Sample ID:	**UHC-01**	Date Received:	10/24/2019 16:25		

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*

Non-responsive due to revised scope

[redacted]

Project Coordinator

Non-responsive due to revised scope

Non-responsive due to revised scope

[redacted]

ANALYTICAL RESULTS

Workorder: 3065932 Shiloh Church Rd/3-5467

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3065932001	1	UHC-01	SW846 8270D	Pyrene
The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Pyrene. The % Recovery was reported as 119 and the control limits were 60 to 114.				
3065932001	3	UHC-01	SW846 8270D	Pyridine
The QC sample type MS for method SW846 8270D was outside the control limits for the analyte Pyridine. The % Recovery was reported as 42.6 and the control limits were 46 to 104.				
3065932001	4	UHC-01	SW846 8270D	Pyridine
The QC sample type MSD for method SW846 8270D was outside the control limits for the analyte Pyridine. The % Recovery was reported as 45 and the control limits were 46 to 104.				
3065932001	5	UHC-01	SW846 8270D	Aniline
The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Aniline. The % Recovery was reported as 111 and the control limits were 39 to 110.				
3065932001	6	UHC-01	SW846 8270D	Aniline
The QC sample type MS for method SW846 8270D was outside the control limits for the analyte Aniline. The % Recovery was reported as 0 and the control limits were 39 to 110.				
3065932001	7	UHC-01	SW846 8270D	Aniline
The QC sample type MSD for method SW846 8270D was outside the control limits for the analyte Aniline. The % Recovery was reported as 2.74 and the control limits were 39 to 110.				
3065932001	8	UHC-01	SW846 8270D	Aniline
The QC sample type MSD for method SW846 8270D was outside the control limits for the analyte Aniline. The RPD was reported as 200 and the upper control limit is 23.				
3065932001	9	UHC-01	SW846 8270D	bis(2-Chloroethyl)ether
The QC sample type MS for method SW846 8270D was outside the control limits for the analyte bis(2-Chloroethyl)ether. The % Recovery was reported as 106 and the control limits were 51 to 105.				
3065932001	10	UHC-01	SW846 8270D	Hexachlorocyclopentadiene
The QC sample type MS for method SW846 8270D was outside the control limits for the analyte Hexachlorocyclopentadiene. The % Recovery was reported as 1.23 and the control limits were 33 to 109.				
3065932001	11	UHC-01	SW846 8270D	Hexachlorocyclopentadiene
The QC sample type MSD for method SW846 8270D was outside the control limits for the analyte Hexachlorocyclopentadiene. The % Recovery was reported as 9.54 and the control limits were 33 to 109.				
3065932001	12	UHC-01	SW846 8270D	Hexachlorocyclopentadiene
The QC sample type MSD for method SW846 8270D was outside the control limits for the analyte Hexachlorocyclopentadiene. The RPD was reported as 155 and the upper control limit is 29.				
3065932001	13	UHC-01	SW846 8270D	2,4-Dinitrophenol
The QC sample type MS for method SW846 8270D was outside the control limits for the analyte 2,4-Dinitrophenol. The % Recovery was reported as 12.3 and the control limits were 36 to 131.				
3065932001	14	UHC-01	SW846 8270D	2,4-Dinitrophenol
The QC sample type MSD for method SW846 8270D was outside the control limits for the analyte 2,4-Dinitrophenol. The % Recovery was reported as 12.4 and the control limits were 36 to 131.				
3065932001	15	UHC-01	SW846 8270D	2-Naphthylamine
The QC sample type MS for method SW846 8270D was outside the control limits for the analyte 2-Naphthylamine. The % Recovery was reported as 3.5 and the control limits were 15 to 116.				

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Non-responsive due to revised scope

[redacted]

ANALYTICAL RESULTS

Workorder: 3065932 Shiloh Church Rd/3-5467

3065932001	16	UHC-01	SW846 8270D	2-Naphthylamine

The QC sample type MSD for method SW846 8270D was outside the control limits for the analyte 2-Naphthylamine. The % Recovery was reported as 2.8 and the control limits were 15 to 116.

3065932001	17	UHC-01	SW846 8270D	2-Methyl-4,6-dinitrophenol

The QC sample type MS for method SW846 8270D was outside the control limits for the analyte 2-Methyl-4,6-dinitrophenol. The % Recovery was reported as 22.2 and the control limits were 53 to 131.

3065932001	18	UHC-01	SW846 8270D	2-Methyl-4,6-dinitrophenol

The QC sample type MSD for method SW846 8270D was outside the control limits for the analyte 2-Methyl-4,6-dinitrophenol. The % Recovery was reported as 21.1 and the control limits were 53 to 131.

3065932001	19	UHC-01	SW846 8270D	N-Nitrosodiphenylamine

The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte N-Nitrosodiphenylamine. The % Recovery was reported as 135 and the control limits were 65 to 134.

3065932001	20	UHC-01	SW846 8270D	1,2-Diphenylhydrazine

The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte 1,2-Diphenylhydrazine. The % Recovery was reported as 123 and the control limits were 59 to 122.

3065932001	21	UHC-01	SW846 8270D	Safrole

The QC sample type LCS_AB for method SW846 8270D was outside the control limits for the analyte Safrole. The % Recovery was reported as 55.7 and the control limits were 59 to 104.

3065932001	22	UHC-01	SW846 8270D	1,3,5-Trinitrobenzene

The QC sample type CCV for method SW846 8270D was outside the control limits for the analyte 1,3,5-Trinitrobenzene. The % Recovery was reported as 121.9 and the control limits were 80 to 120.

3065932001	23	UHC-01	SW846 8270D	7,12-Dimethylbenz(a)anthracene

The QC sample type LCS_AB for method SW846 8270D was outside the control limits for the analyte 7,12-Dimethy benz(a)anthracene. The % Recovery was reported as 21.3 and the control limits were 58 to 112.

3065932001	24	UHC-01	SW846 8270D	3-Methylcholanthrene

The QC sample type LCS_AB for method SW846 8270D was outside the control limits for the analyte 3-Methylcholanthrene. The % Recovery was reported as 21.8 and the control limits were 59 to 107.

3065932001	25	UHC-01	SW846 8270D	Phenol-d5

The surrogate Phenol-d5 for method SW846 8270D was outside of control limits. The % Recovery was reported as 34.4 and the control limits were 35 to 111. This result was reported at a dilution of 1.

3065932001	26	UHC-01	SW846 8270D	Nitrobenzene-d5

The surrogate Nitrobenzene-d5 for method SW846 8270D was outside of control limits. The % Recovery was reported as 37.8 and the control limits were 38 to 112. This result was reported at a dilution of 1.

3065932001	27	UHC-01	SW846 8270D	Nitrobenzene-d5

The surrogate Nitrobenzene-d5 for method SW846 8270D was outside of control limits. The % Recovery was reported as 37.5 and the control limits were 38 to 112. This result was reported at a dilution of 1.

3065932001	28	UHC-01	SW846 8081B	Aldrin

This sample was analyzed at a dilution in the 8081 Pesticide analysis. Reporting limits were adjusted accordingly.

3065932001	29	UHC-01	SW846 8081B	Aldrin

Method criteria requires continuing cal bration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. The following compounds were biased low in the bracketing CCV: Endosulfan Sulfate (-24%) and Decachlorobiphenyl (-44%).

3065932001	36	UHC-01	SW846 8082A	Aroclor-1016

This sample was analyzed at a dilution in the 8082 PCB analysis due to the level of Aroclor detected. Reporting limits were adjusted accordingly. One or more of the surrogates could not be evaluated as a result of the dilution.

3065932001	37	UHC-01	SW846 9012B	Cyanide, Total

The QC sample type MS for method SW846 9012B was outside the control limits for the analyte Cyanide, Total. The % Recovery was reported as -5.5 and the control limits were 80 to 120.

Non-responsive due to revised scope

Non-responsive due to revised scope

[redacted]

ANALYTICAL RESULTS

Workorder: 3065932 Shiloh Church Rd/3-5467

3065932001	38	UHC-01	SW846 9012B	Cyanide, Total

The QC sample type MSD for method SW846 9012B was outside the control limits for the analyte Cyanide, Total. The % Recovery was reported as -2 and the control limits were 80 to 120.

Non-responsive due to revised scope

Non-responsive due to revised scope

[redacted]

ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3065932 Shiloh Church Rd/3-5467

Lab ID	Sample ID	Analysis Method	Prep Method
3065932001	UHC-01	L b Search SV	
3065932001	UHC-01	L b Search VOC	
3065932001	UHC-01	S2540G-11	
3065932001	UHC-01	SW846 6010C	SW846 3015
3065932001	UHC-01	SW846 8015C	In House
3065932001	UHC-01	SW846 8081B	SW846 3546
3065932001	UHC-01	SW846 8082A	SW846 3546
3065932001	UHC-01	SW846 8141B	
3065932001	UHC-01	SW846 8151A	SW846 8151A
3065932001	UHC-01	SW846 8260B	SW846 5035
3065932001	UHC-01	SW846 8270D	SW846 3546
3065932001	UHC-01	SW846 9012B	SW846 9012B
3065932001	UHC-01	SW846 9034r0-96	SW846 9030Br2-96
3065932001	UHC-01	SW846 9056A	SW846 9056A
3065932001	UHC-01	Subcontract	

Non-responsive due to revised scope

[redacted]

CHAIN OF CUSTODY
REQUEST FOR ANALY[redacted]

ALL SHADED AREAS MUST BE COMPLE[redacted]
SAMPLER. INSTRUCTIONS ON [redacted]

3065932

[redacted] #: 5932 016 | 1 of 1

[redacted] Quote #:

Client Name: ENVIRONMENTAL RESTORATION

Address: 1666 Fabick Dr.
FENTON, MO 63026

Contact: [redacted]

Phone#: [redacted]

Project Name/#: Shiloh Church Rd / 3-5467

Bill To:

TAT: [X] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to [redacted] approval and surcharges.

Date Required: [redacted] Approved?

Email? [X] [redacted]@ERELC.com

Fax? [ ] -Y No.:

Container Type	Clear Glass
Container Size	16oz
Preservative	N/A

ANALYSES/METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	*G or C	**Matrix	UHC
1	UHC-01	10/23/19	16:30	C	SO	6
2						
3						
4						
5						
6						
7						
8						
9						
10						

Enter Number of Containers Per Sample or Field Results Below.

Receipt Information (completed by Receiving Lab)

W.O. Temp: 1°C Therm ID: 402

Analyst Initials:

Courier/Tracking #:

Purchase Order #:

Project Comments:
PERFORM ANALYSIS PER [redacted] QUOTE # 733849 ATTACHED

ALS Field Services: ☐ Pickup ☐ Labor ☐ Composite Sampling ☐ Rental Equipment

Other:

Sample/COC Comments
HOLD SAMPLE FOR 60 DAYS

[redacted] QUOTE # 733849 DATED 10/21/19

UHC - UNDERLYING HAZARDOUS CONSTITUENTS

SAMPLED BY (Please Print): NJD and START

Sampler Comments: REPORT DUE NLT 11/15/19

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[redacted] / ERELC	10/24/19	0900	2	[redacted], Weston	10/24/19	0905
3	[redacted]			4	[redacted]	10/24/19	1625
5				6			
7				8			
9				10			

Data Deliverables: [X] Standard [ ] CLP-like [ ] USACE/DOD [ ]

Special Processing: USACE [ ] [ ] [ ]

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] [X] VA other

Reportable to PADEP? Yes [ ] No [X]

PWSID #

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type-

* G=Grab; C=Composite **Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

[redacted]

Rev 04/19

ALS

Non-responsive due to revised scope

[redacted]

Condition of Sample Receipt Form

Client:	Work Order #:	Initials:	Date:
Environmental	30105932 Restoration	DN	10/25

1. Were airbills / tracking numbers present and recorded?	NONE	YES	NO
Tracking number:			
2. Are Custody Seals on shipping containers intact?	NONE	YES	NO
3. Are Custody Seals on sample containers intact?	NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present?		YES	NO
5. Are the COC and bottle labels complete, legible and in agreement?		YES	NO
5a. Does the COC contain sample locations?		YES	NO
5b. Does the COC contain date and time of sample collection for all samples?		YES	NO
5c. Does the COC contain sample collectors name?		YES	NO
5d. Does the COC note the type(s) of preservation for all bottles?		YES	NO
5e. Does the COC note the number of bottles submitted for each sample?		YES	NO
5f. Does the COC note the type of sample, composite or grab?		YES	NO
5g. Does the COC note the matrix of the sample(s)?		YES	NO
6. Are all aqueous samples requiring preservation preserved correctly?	N/A	YES	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		YES	NO
8. Are all samples within holding times for the requested analyses?		YES	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		YES	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	N/A	YES	NO
11. Were the samples received on ice?		YES	NO
12. Were sample temperatures measured at 0.0-6.0°C		YES	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	NO
13a. Are the samples required for SDWA compliance reporting?	N/A	YES	NO
13b. Did the client provide a SDWA PWS ID#?	N/A	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	N/A	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	N/A	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	N/A	YES	NO

Cooler #:								
Temperature (°C):	1							
Thermometer ID:	1/C3							
Radiological (µCi):								

COMMENTS (Required for all NO responses above and any sample non-conformance):

Rev. 4/29/2019

Non-responsive due to revised

Non-responsive due to revised scope [redacted]

Non-responsive due to revised scope [redacted]

November 18, 2019

Non-responsive due to revised scope [redacted]

Work Order: **HS19101778**

Laboratory Results for: **3065932**

Dear [redacted]

Non-responsive due to revised scope [redacted] received 1 sample(s) on Oct 30, 2019 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by Non-responsive due to revised scope [redacted] and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by Non-responsive due to revised scope [redacted] Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Non-responsive due to revised scope [redacted]

Project Manager

Client: Non-responsive due to revised scope
Project: 3065932
Work Order: HS19101778

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	Tag No	Collection Date	Date Received	Hold
HS19101778-01	3065932001	Solid		23-Oct-2019 16:30	30-Oct-2019 09:30	☐

Client: Non-responsive due to revised scope [redacted]

Project: 3065932

Work Order: HS19101778

CASE NARRATIVE

Work Order Comments

- The analysis for Dioxins/Furans was subcontracted to our Non-responsive due to revised scope [redacted] High Resolution Lab. Final report attached.

GCMS Semivolatiles by Method SW8270

Batch ID: 147228

Sample ID: HS19101626-01MS

- MS and MSD are for an unrelated sample

Sample ID: LCS-147228

- Under our analytical conditions phthalic acid and phthalic anhydride cannot be differentiated. The total is reported as phthalic acid.

Sample ID: 3065932001 (HS19101778-01)

- The GCMS semi-volatile extract of this sample was run at a dilution due to a high level of matrix interference.
- Under our analytical conditions phthalic acid and phthalic anhydride cannot be differentiated. The total is reported as phthalic acid.

GCMS Volatiles by Method SW8260

Batch ID: R349528

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

HPLC by Method SW8316

Batch ID: 147047

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: Non-responsive due to revised scope [redacted]
Project: 3065932
Sample ID: 3065932001
Collection Date: 23-Oct-2019 16:30

ANALYTICAL REPORT
WorkOrder:HS19101778
Lab ID:HS19101778-01
Matrix:Solid

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**						Analyst: Non-responsive [redacted]
2-Chloro-1,3-butadiene	1.2	U	0.48	1.2	4.8	ug/Kg	1	31-Oct-2019 13:33
Surr: 1,2-Dichloroethane-d4	*105*			**0**	*70-126*	*%REC*	*1*	*31-Oct-2019 13:33*
Surr: 4-Bromofluorobenzene	*100*			**0**	*70-130*	*%REC*	*1*	*31-Oct-2019 13:33*
Surr: Dibromofluoromethane	*100*			**0**	*70-130*	*%REC*	*1*	*31-Oct-2019 13:33*
Surr: Toluene-d8	*97.5*			**0**	*70-130*	*%REC*	*1*	*31-Oct-2019 13:33*
LOW-LEVEL SEMIVOLATILES BY 8270D		**Method:SW8270**				Prep:SW3541 / 06-Nov-2019		Analyst: Non-resp [redacted]
1,3-Phenylenediamine	66	U	66	66	66	ug/Kg	10	07-Nov-2019 14:51
2,4-Dimethylaniline	66	U	66	66	66	ug/Kg	10	07-Nov-2019 14:51
4,4'-Methylene-bis(2-chloroaniline)	66	U	66	66	66	ug/Kg	10	07-Nov-2019 14:51
Benzal Chloride	66	U	66	66	66	ug/Kg	10	07-Nov-2019 14:51
o-Anisidine	66	U	66	66	66	ug/Kg	10	07-Nov-2019 14:51
p-Cresidine	66	U	66	66	66	ug/Kg	10	07-Nov-2019 14:51
Phthalic acid	**1,800**		**66**	**66**	**66**	**ug/Kg**	10	07-Nov-2019 14:51
Phthalic anhydride	66	U	66	66	66	ug/Kg	10	07-Nov-2019 14:51
Tris(2,3-dibromopropyl) phosphate	66	U	66	66	66	ug/Kg	10	07-Nov-2019 14:51
Surr: 2,4,6-Tribromophenol	*116*			**0**	*36-126*	*%REC*	*10*	*07-Nov-2019 14:51*
Surr: 2-Fluorobiphenyl	*100*			**0**	*43-125*	*%REC*	*10*	*07-Nov-2019 14:51*
Surr: 2-Fluorophenol	*72.1*			**0**	*37-125*	*%REC*	*10*	*07-Nov-2019 14:51*
Surr: 4-Terphenyl-d14	*98.8*			**0**	*32-125*	*%REC*	*10*	*07-Nov-2019 14:51*
Surr: Nitrobenzene-d5	*75.7*			**0**	*37-125*	*%REC*	*10*	*07-Nov-2019 14:51*
Surr: Phenol-d6	*79.2*			**0**	*40-125*	*%REC*	*10*	*07-Nov-2019 14:51*
ACRYLAMIDE BY SW8316		**Method:SW8316**				Prep:SW8316 / 31-Oct-2019		Analyst: Non-respons [redacted]
Acrylamide	0.00050	U	0.00030	0.00050	0.00099	mg/Kg	1	31-Oct-2019 14:19
SUBCONTRACT ANALYSIS - DIOXINS/FURANS 8290A		**Method:NA**						Analyst: Non-responsiv [redacted]
Subcontract Analysis	See Attached		0	0			1	15-Nov-2019 16:24

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Weight / Prep Log

Client: Non-responsive due to revised scope
Project: 3065932
WorkOrder: HS19101778

Batch ID: 3411 **Start Date:** 30 Oct 2019 15:02 **End Date:** 30 Oct 2019 15:02
Method: VOLATILES BY SW8260C

Sample ID	Container	Sample Wt/Vol	Final Volume	Weight Factor	Container Type
HS19101778-01	1	5.141 (g)	5 (mL)	0.97	Bulk (5030B)

Batch ID: 147047 **Start Date:** 31 Oct 2019 12:18 **End Date:** 31 Oct 2019 12:21
Method: ACRYLAMIDE - HPLC PREP **Prep Code:** 8316_S_PR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS19101778-01		10.08 (g)	10 (mL)	0.9921

Batch ID: 147228 **Start Date:** 06 Nov 2019 10:05 **End Date:** 06 Nov 2019 15:30
Method: SV SOXHLET EXTRACT-LOWLEVEL-SW3541 **Prep Code:** 3541_B_LOW

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS19101778-01		30 (g)	1 (mL)	0.03333

Client: Non-responsive due to revised scope [redacted]
Project: 3065932
WorkOrder: HS19101778

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 147047 (0)	**Test Name:** ACRYLAMIDE BY SW8316				**Matrix:** Solid	
HS19101778-01	3065932001	23 Oct 2019 16:30		31 Oct 2019 12:18	31 Oct 2019 14:19	1
Batch ID: 147228 (0)	**Test Name:** LOW-LEVEL SEMIVOLATILES BY 8270D				**Matrix:** Solid	
HS19101778-01	3065932001	23 Oct 2019 16:30		06 Nov 2019 10:05	07 Nov 2019 14:51	10
Batch ID: R349528 (0)	**Test Name:** VOLATILES BY SW8260C				**Matrix:** Solid	
HS19101778-01	3065932001	23 Oct 2019 16:30			31 Oct 2019 13:33	1
Batch ID: R350617 (0)	**Test Name:** SUBCONTRACT ANALYSIS - DIOXINS/FURANS 8290A				**Matrix:** Solid	
HS19101778-01	3065932001	23 Oct 2019 16:30			15 Nov 2019 16:24	1

Client: Non-responsive due to revised scope [redacted]
Project: 3065932
WorkOrder: HS19101778

QC BATCH REPORT

Batch ID: 147047 (0) **Instrument:** HPLC3 **Method:** ACRYLAMIDE BY SW8316

MBLK Sample ID: **MBLK-147047** Units: **ug/Kg** Analysis Date: **31-Oct-2019 15:03**
Client ID: Run ID: **HPLC3_349571** SeqNo: **5324113** PrepDate: **31-Oct-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acrylamide	0.50	1.0								U

LCS Sample ID: **LCS-147047** Units: **ug/Kg** Analysis Date: **31-Oct-2019 15:18**
Client ID: Run ID: **HPLC3_349571** SeqNo: **5324114** PrepDate: **31-Oct-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acrylamide	26.56	1.0	25	0	106	60 - 120				

LCSD Sample ID: **LCSD-147047** Units: **ug/Kg** Analysis Date: **31-Oct-2019 15:33**
Client ID: Run ID: **HPLC3_349571** SeqNo: **5324115** PrepDate: **31-Oct-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acrylamide	26.89	1.0	25	0	108	60 - 120	26.56	1.23	20	

MS Sample ID: **HS19101778-01MS** Units: **ug/Kg** Analysis Date: **31-Oct-2019 14:34**
Client ID: **3065932001** Run ID: **HPLC3_349571** SeqNo: **5324111** PrepDate: **31-Oct-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acrylamide	29.56	1.0	24.93	0	119	60 - 120				

MSD Sample ID: **HS19101778-01MSD** Units: **ug/Kg** Analysis Date: **31-Oct-2019 14:48**
Client ID: **3065932001** Run ID: **HPLC3_349571** SeqNo: **5324112** PrepDate: **31-Oct-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acrylamide	27.86	1.0	24.88	0	112	60 - 120	29.56	5.91	30	

The following samples were analyzed in this batch: HS19101778-01

Client: Non-responsive due to revised scope [redacted]
Project: 3065932
WorkOrder: HS19101778

QC BATCH REPORT

Batch ID: 147228 (0) **Instrument: SV-6** **Method: LOW-LEVEL SEMIVOLATILES BY 8270D**

MBLK Sample ID: **MBLK-147228** Units: **ug/Kg** Analysis Date: **07-Nov-2019 09:50**
Client ID: Run ID: **SV-6_350011** SeqNo: **5334098** PrepDate: **06-Nov-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,3-Phenylenediamine	6.6	6.6								U
2,4-Dimethylaniline	6.6	6.6								U
4,4'-Methylene-bis(2-chloroaniline)	6.6	6.6								U
Benzal Chloride	6.6	6.6								U
o-Anisidine	6.6	6.6								U
p-Cresidine	6.6	6.6								U
Phthalic acid	6.6	6.6								U
Phthalic anhydride	6.6	6.6								U
Tris(2,3-dibromopropyl) phosphate	6.6	6.6								U
Surr: 2,4,6-Tribromophenol	*128.8*	*0*	*167*	*0*	*77.1*	*36 - 126*				
Surr: 2-Fluorobiphenyl	*124.9*	*0*	*167*	*0*	*74.8*	*43 - 125*				
Surr: 2-Fluorophenol	*116.7*	*0*	*167*	*0*	*69.9*	*37 - 125*				
Surr: 4-Terphenyl-d14	*143.1*	*0*	*167*	*0*	*85.7*	*32 - 125*				
Surr: Nitrobenzene-d5	*113.1*	*0*	*167*	*0*	*67.7*	*37 - 125*				
Surr: Phenol-d6	*124.8*	*0*	*167*	*0*	*74.8*	*40 - 125*				

LCS Sample ID: **LCS-147228** Units: **ug/Kg** Analysis Date: **07-Nov-2019 10:09**
Client ID: Run ID: **SV-6_350011** SeqNo: **5334099** PrepDate: **06-Nov-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,3-Phenylenediamine	122.2	6.6	167	0	73.2	40 - 140				
2,4-Dimethylaniline	75.07	6.6	167	0	45.0	40 - 140				
4,4'-Methylene-bis(2-chloroaniline)	96.3	6.6	167	0	57.7	40 - 140				
Benzal Chloride	148	6.6	167	0	88.6	40 - 140				
o-Anisidine	138.6	6.6	167	0	83.0	30 - 140				
p-Cresidine	89.96	6.6	167	0	53.9	30 - 140				
Phthalic acid	39.76	6.6	333	0	11.9	10 - 140				
Tris(2,3-dibromopropyl) phosphate	87.61	6.6	167	0	52.5	40 - 140				
Surr: 2,4,6-Tribromophenol	*157.5*	*0*	*167*	*0*	*94.3*	*36 - 126*				
Surr: 2-Fluorobiphenyl	*133.7*	*0*	*167*	*0*	*80.1*	*43 - 125*				
Surr: 2-Fluorophenol	*130.9*	*0*	*167*	*0*	*78.4*	*37 - 125*				
Surr: 4-Terphenyl-d14	*158*	*0*	*167*	*0*	*94.6*	*32 - 125*				
Surr: Nitrobenzene-d5	*122*	*0*	*167*	*0*	*73.1*	*37 - 125*				
Surr: Phenol-d6	*136*	*0*	*167*	*0*	*81.5*	*40 - 125*				

Client: Non-responsive due to revised scope
Project: 3065932
WorkOrder: HS19101778

QC BATCH REPORT

Batch ID: 147228 (0) **Instrument:** SV-6 **Method:** LOW-LEVEL SEMIVOLATILES BY 8270D

MS Sample ID: **HS19101626-01MS** Units: **ug/Kg** Analysis Date: **07-Nov-2019 12:19**
Client ID: Run ID: **SV-6_350011** SeqNo: **5334101** PrepDate: **06-Nov-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,3-Phenylenediamine	110.1	6.6	166.9	0	65.9	40 - 140				
2,4-Dimethylaniline	87.67	6.6	166.9	0	52.5	40 - 140				
4,4'-Methylene-bis(2-chloroaniline)	103.5	6.6	166.9	0	62.0	40 - 140				
Benzal Chloride	147.9	6.6	166.9	0	88.6	40 - 140				
o-Anisidine	131.3	6.6	166.9	0	78.7	30 - 140				
p-Cresidine	76.34	6.6	166.9	0	45.7	30 - 140				
Phthalic acid	405.5	6.6	332.9	0	122	10 - 148				E
Phthalic anhydride	6.6	6.6	332.9	0	0	10 - 140				SU
Tris(2,3-dibromopropyl) phosphate	87.58	6.6	166.9	0	52.5	40 - 140				
Surr: 2,4,6-Tribromophenol	*142.3*	*0*	*166.9*	*0*	*85.2*	*36 - 126*				
Surr: 2-Fluorobiphenyl	*131.3*	*0*	*166.9*	*0*	*78.6*	*43 - 125*				
Surr: 2-Fluorophenol	*128.6*	*0*	*166.9*	*0*	*77.0*	*37 - 125*				
Surr: 4-Terphenyl-d14	*145*	*0*	*166.9*	*0*	*86.9*	*32 - 125*				
Surr: Nitrobenzene-d5	*119.5*	*0*	*166.9*	*0*	*71.6*	*37 - 125*				
Surr: Phenol-d6	*141.8*	*0*	*166.9*	*0*	*84.9*	*40 - 125*				

Client: Non-responsive due to revised scope [redacted]
Project: 3065932
WorkOrder: HS19101778

QC BATCH REPORT

Batch ID: 147228 (0) **Instrument: SV-6** **Method: LOW-LEVEL SEMIVOLATILES BY 8270D**

MSD Sample ID: **HS19101626-01MSD** Units: **ug/Kg** Analysis Date: **07-Nov-2019 12:38**
Client ID: Run ID: **SV-6_350011** SeqNo: **5334102** PrepDate: **06-Nov-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,3-Phenylenediamine	111.3	6.6	165.9	0	67.1	40 - 140	110.1	1.1	30	
2,4-Dimethylaniline	88.9	6.6	165.9	0	53.6	40 - 140	87.67	1.4	30	
4,4'-Methylene-bis(2-chloroaniline)	95.66	6.6	165.9	0	57.7	40 - 140	103.5	7.9	30	
Benzal Chloride	135.4	6.6	165.9	0	81.6	40 - 140	147.9	8.87	30	
o-Anisidine	133.3	6.6	165.9	0	80.4	30 - 140	131.3	1.5	30	
p-Cresidine	83.66	6.6	165.9	0	50.4	30 - 140	76.34	9.15	30	
Phthalic acid	342.2	6.6	330.8	0	103	10 - 140	405.5	16.9	30	E
Phthalic anhydride	6.6	6.6	330.8	0	0	10 - 140	0	0	30	SU
Tris(2,3-dibromopropyl) phosphate	81.6	6.6	165.9	0	49.2	40 - 140	87.58	7.07	30	
Surr: 2,4,6-Tribromophenol	*145.6*	*0*	*165.9*	*0*	*87.8*	*36 - 126*	*142.3*	*2.29*	*30*	
Surr: 2-Fluorobiphenyl	*125.4*	*0*	*165.9*	*0*	*75.6*	*43 - 125*	*131.3*	*4.6*	*30*	
Surr: 2-Fluorophenol	*127.1*	*0*	*165.9*	*0*	*76.6*	*37 - 125*	*128.6*	*1.19*	*30*	
Surr: 4-Terphenyl-d14	*139.6*	*0*	*165.9*	*0*	*84.1*	*32 - 125*	*145*	*3.82*	*30*	
Surr: Nitrobenzene-d5	*111.8*	*0*	*165.9*	*0*	*67.4*	*37 - 125*	*119.5*	*6.65*	*30*	
Surr: Phenol-d6	*126.7*	*0*	*165.9*	*0*	*76.4*	*40 - 125*	*141.8*	*11.2*	*30*	

The following samples were analyzed in this batch: HS19101778-01

Client: Non-responsive due to revised scope [redacted]
Project: 3065932
WorkOrder: HS19101778

QC BATCH REPORT

Batch ID: R349528 (0) **Instrument:** VOA5 **Method:** VOLATILES BY SW8260C

MBLK Sample ID: **VBLKS1-103119** Units: **ug/Kg** Analysis Date: **31-Oct-2019 10:39**
Client ID: Run ID: **VOA5_349528** SeqNo: **5323209** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloro-1,3-butadiene	1.2	5.0								U
Surr: 1,2-Dichloroethane-d4	*50.22*	*0*	*50*	*0*	*100*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*51.36*	*0*	*50*	*0*	*103*	*80 - 120*				
Surr: Dibromofluoromethane	*48.89*	*0*	*50*	*0*	*97.8*	*80 - 119*				
Surr: Toluene-d8	*49.08*	*0*	*50*	*0*	*98.2*	*81 - 118*				

LCS Sample ID: **VLCSS1-1023119** Units: **ug/Kg** Analysis Date: **31-Oct-2019 09:49**
Client ID: Run ID: **VOA5_349528** SeqNo: **5323208** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloro-1,3-butadiene	48.88	5.0	50	0	97.8	72 - 126				
Surr: 1,2-Dichloroethane-d4	*57.36*	*0*	*50*	*0*	*115*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*51.57*	*0*	*50*	*0*	*103*	*80 - 120*				
Surr: Dibromofluoromethane	*53.33*	*0*	*50*	*0*	*107*	*80 - 119*				
Surr: Toluene-d8	*49.02*	*0*	*50*	*0*	*98.0*	*81 - 118*				

MS Sample ID: **HS19101767-01MS** Units: **ug/Kg** Analysis Date: **31-Oct-2019 13:58**
Client ID: Run ID: **VOA5_349528** SeqNo: **5324299** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloro-1,3-butadiene	42.22	4.9	49	0	86.2	72 - 126				
Surr: 1,2-Dichloroethane-d4	*54.49*	*0*	*49*	*0*	*111*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*50.04*	*0*	*49*	*0*	*102*	*70 - 130*				
Surr: Dibromofluoromethane	*51.36*	*0*	*49*	*0*	*105*	*70 - 130*				
Surr: Toluene-d8	*48.64*	*0*	*49*	*0*	*99.3*	*70 - 130*				

Client: Non-responsive due to revised scope
Project: 3065932
WorkOrder: HS19101778

QC BATCH REPORT

Batch ID: R349528 (0) **Instrument:** VOA5 **Method:** VOLATILES BY SW8260C

MSD Sample ID: **HS19101767-01MSD** Units: **ug/Kg** Analysis Date: **31-Oct-2019 14:23**
Client ID: Run ID: **VOA5_349528** SeqNo: **5324300** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloro-1,3-butadiene	41.33	4.9	49	0	84.3	72 - 126	42.22	2.13	30	
Surr: 1,2-Dichloroethane-d4	*54.48*	*0*	*49*	*0*	*111*	*70 - 126*	*54.49*	*0.0204*	*30*	
Surr: 4-Bromofluorobenzene	*51.35*	*0*	*49*	*0*	*105*	*70 - 130*	*50.04*	*2.58*	*30*	
Surr: Dibromofluoromethane	*52*	*0*	*49*	*0*	*106*	*70 - 130*	*51.36*	*1.22*	*30*	
Surr: Toluene-d8	*48.91*	*0*	*49*	*0*	*99.8*	*70 - 130*	*48.64*	*0.547*	*30*	

The following samples were analyzed in this batch: HS19101778-01

Client: Non-responsive due to revised scope [redacted]
Project: 3065932
WorkOrder: HS19101778

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/Kg-dry	Milligrams per Kilogram - Dry weight corrected

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Non-responsive due to revised scope

[redacted]

Sample Receipt Checklist

Client Name: Non-responsive due to revised scope

Work Order: HS19101778

Date/Time Received: **30-Oct-2019 09:30**

Received by: Non-responsive

Checklist completed by: Non-responsive due to revised scope — eSignature | 30-Oct-2019 Date

Reviewed by: Non-responsive due to revised sco — eSignature | 31-Oct-2019 Date

Matrices: **Solid**

Carrier name: **FedEx**

	Yes	No	
Shipping container/cooler in good condition?	☑	☐	Not Present ☐
Custody seals intact on shipping container/cooler?	☐	☐	Not Present ☑
Custody seals intact on sample bottles?	☐	☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	☐	☑	Not Present ☐
Chain of custody present?	☑	☐	1 Page(s)
Chain of custody signed when relinquished and received?	☑	☐	COC IDs: None
Samplers name present on COC?	☐	☑	
Chain of custody agrees with sample labels?	☑	☐	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	

Temperature(s)/Thermometer(s): 0.7c U/C | R25

Cooler(s)/Kit(s): Blue

Date/Time sample(s) sent to storage: 10/30/19 13:10

	Yes	No	
Water - VOA vials have zero headspace?	☐	☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	☐	☐	N/A ☑
pH adjusted?	☐	☐	N/A ☑

pH adjusted by:

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

Non-responsive due to revised scope [redacted]

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: | of

Non-responsive [redacted] Quote #:

Client Name: Non-responsive due to revised scope [redacted]

Address: Non-responsive due to revised scope [redacted]

Contact: Non-responsive due to re [redacted]

Phone#: [redacted]

Project Name/#: 3065932

Bill To: Non-responsive due [redacted]

TAT [ ] Normal-Standard TAT is 10-12 business days.
[X] Rush-Subject to Non-resp [redacted] approval and surcharges.

Date Required: 11/10/2019 Approved?

Email? [X] -Y Non-responsive due to revised scope [redacted]

Fax? [ ] -Y No.:

Container Type: G
Container Size: 16oz
Preservative: None

ANALYSES/METHOD REQUESTED

Receipt Information (completed by Receiving Lab)

W.O. Temp: ____ Therm ID: ____

Courier/Tracking #:

Purchase Order #:

Project Comments:

Non-re [redacted] Field Services: ☐ Pickup ☐ Labor
☐ Composite Sampling ☐ Rental Equipment
Other:

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	*G or C	**Matrix	8316- Acrylamide	8270- (See attached list) /8260	8290- Dioxins and Furans (see attached list)			Subcontract to:	ALS- Houston				Sample/COC Comments
						Enter Number of Containers Per Sample or Field Results Below.										
1	3065932001	10/23/19	16:30	G	S	1	X	X								
2																
3																
4																
5																
6																
7																
8																
9																
10																

HS19101778

Non-responsive due to revised scope [redacted]

3065932

SAMPLED BY (Please Print):

Sampler Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Non-responsive due to revised scope [redacted]	10/24/19	1500	2 Non-responsive due to revised scope [redacted]	10/30/19	09:30
3			4 Luk.		
5			6 Blue 0.70		
7			8 +25		
9			10 <16 0.0"		

Data Deliverables: [X] Standard [ ] CLP-like [ ] USACE/DOD [ ] DOD

Special Processing: USACE [ ] Navy [ ]

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [X] VA other

Reportable to PADEP? Yes [ ] No [ ]

PWSID #

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type-

* G=Grab; C=Composite **Matrix - Al=Air; DW=Drinking Water; GW=Groundwater; Ol=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Non-responsive due to revised scope [redacted]

Rev 11/18

RIGHT SOLUTIONS | RIGHT PARTNER

Non-responsive due to revis [redacted]

COMPOUND	METHOD-LAB	COMPOUND	METHOD-LAB	COMPOUND	METHOD-LAB	COMPOUND	METHOD-LAB
Acenaphthylene	8270	o,p'-DDD	TA	Fluoranthene	8270	Phenacetin	8270-APP9
Acenaphthene	8270	p,p'-DDD	8081	Fluorene	8270	Phenanthrene	8270
Acetone	8260	o,p'-DDE	TA	Heptachlor	8081	Phenol	8270
Acetonitrile	8260	p,p'-DDE	8081	1,2,3,4,6,7,8-HpCDD	HOUSTON	1,3-Phenylenediamine V	8270-HOUSTON
Acetophenone	8270	o,p'-DDT	TA	1,2,3,4,6,7,8-HpCDF	HOUSTON	Phorate	8270-APP9
2-Acetylaminofluorene	8270 APP9	p,p'-DDT	8081	1,2,3,4,7,8,9-HpCDF	HOUSTON	Phthalic acid V	8270-HOUSTON
Acrolein	8260	Dibenz(a,h)anthracene	8270	Heptachlor epoxide	8081	Phthalic anhydride V	8270-HOUSTON
Acrylamide V	8316-HOUSTON	Dibenzo(a,e)pyrene	TA	Hexachlorobenzene	8270	Pronamide	8270-APP9
Acrylonitrile	8260	1,2-Dibromo-3-chloropropane	8260	Hexachlorobutadiene	8270	Pyrene	8270
Aldrin	8081	1,2-Dibromoethane/Ethylene dibromide	8260	Hexachlorocyclopentadiene	8270	Pyridine	8270
4-Aminobiphenyl	8270-APP9	Dibromomethane	8260	HxCDDs (All Hexachlorodibenzo-p-dioxins)	HOUSTON	Safrole	8270
Aniline	8270	m-Dichlorobenzene	8260	HxCDFs (All Hexachlorodibenzofurans)	HOUSTON	Silvex/2,4,5-TP	8151
o-Anisidine (2-methoxyaniline) V	8270-HOUSTON	o-Dichlorobenzene	8260	Hexachloroethane	8260	1,2,4,5-Tetrachlorobenzene	8270
Anthracene	8270	p-Dichlorobenzene	8260	Hexachloropropylene	8270-APP9	TCDDs (All Tetrachlorodibenzo-p-dioxins)	HOUSTON
Aramite	8270-APP9	Dichlorodifluoromethane	8260	Indeno(1,2,3-c,d) pyrene	8270	TCDFs (All Tetrachlorodibenzofurans)	HOUSTON
alpha-BHC	8081	1,1-Dichloroethane	8260	Iodomethane	8260	1,1,1,2-Tetrachloroethane	8260
beta-BHC	8081	1,2-Dichloroethane	8260	Isobutyl alcohol	8260	1,1,2,2-Tetrachloroethane	8260
delta-BHC	8081	1,1-Dichloroethylene	8260	Isodrin	8270-APP9	Tetrachloroethylene	8260
gamma-BHC	8081	trans-1,2-Dichloroethylene	8260	Isosafrole	8270-APP9	2,3,4,6-Tetrachlorophenol	8270
Benzene	8260	2,4-Dichlorophenol	8270	Kepone	8270-APP9	Toluene	8260
Benz(a)anthracene	8270	2,6-Dichlorophenol	8270	Methacrylonitrile	8260	Toxaphene	8081
Benzal chloride V	8270-HOUSTON	2,4-Dichlorophenoxyacetic acid/2,4-D	8151	Methanol	8015	Tribromomethane/Bromoform	8260
Benzo(b)fluoranthene	8270	1,2-Dichloropropane	8260	Methapyrilene	8270-APP9	1,2,4-Trichlorobenzene	8260
Benzo(k)fluoranthene	8270	cis-1,3-Dichloropropylene	8260	Methoxychlor	8081	1,1,1-Trichloroethane	8260
Benzo(g,h,i)perylene	8270	trans-1,3-Dichloropropylene	8260	3-Methylcholanthrene	8270-APP9	1,1,2-Trichloroethane	8260
Benzo(a)pyrene	8270	Dieldrin	8081	4,4-Methylene bis(2-chloroaniline) V	8270-HOUSTON	Trichloroethylene	8260
Bromodichloromethane	8260	Diethyl phthalate	8270	Methylene chloride	8260	Trichlorofluoromethane	8260
Bromomethane/Methyl bromide	8260	p-Dimethylaminoazobenzene	8270-APP9	Methyl ethyl ketone	8260	2,4,5-Trichlorophenol	8260
4-Bromophenyl phenyl ether	8270	2,4-Dimethylaniline (2,4-xylidine) V	8270-HOUSTON	Methyl isobutyl ketone	8260	2,4,6-Trichlorophenol	8260
n-Butyl alcohol	8015	2,4-Dimethyl phenol	8270	Methyl methacrylate	8260	2,4,5-Trichlorophenoxyacetic acid/2,4,5-T	8151
Butyl benzyl phthalate	8270	Dimethyl phthalate	8270	Methyl methanesulfonate	8270-APP9	1,2,3-Trichloropropane	8260
2-sec-Butyl-4,6-dinitrophenol/Dinoseb	8151	Di-n-butyl phthalate	8270	Methyl parathion	8141-TA	1,1,2-Trichloro-1,2,2-trifluoroethane	8260
Carbon disulfide (TCLP)	8260-TCLP	1,4-Dinitrobenzene	8270	Naphthalene	8270	tris-(2,3-Dibromopropyl) phosphate V	8270-HOUSTON
Carbon tetrachloride	8260	4,6-Dinitro-o-cresol	8270	2-Naphthylamine	8270	Vinyl chloride	8260
Chlordane (alpha and gamma isomers)	8081	2,4-Dinitrophenol	8270	o-Nitroaniline	8270	Xylene(s)	8260
p-Chloroaniline	8270	2,4-Dinitrotoluene	8270	p-Nitroaniline	8270	METALS AND INORGANICS	
Chlorobenzene	8260	2,6-Dinitrotoluene	8270	Nitrobenzene	8270	Antimony (TCLP)	6010-1311
Chlorobenzilate	8270-APP9	Di-n-octyl phthalate	8270	5-Nitro-o-toluidine	8270-APP9	Arsenic (TCLP)	6010-1311
2-Chloro-1,3-butadiene V2,4,5	~~8270~~-HOUSTON	Di-n-propylnitrosamine N-Nitrosodi-n-propylamine	8270	o-Nitrophenol	8270	Barium (TCLP)	6010-1311
Chlorodibromomethane	8260	1,4-Dioxane	8270	p-Nitrophenol	8270	Beryllium (TCLP)	6010-1311
Chloroethane	8260	Diphenylamine	8270	N-Nitrosodiethylamine	8270	Chromium (TCLP)	6010-1311
bis(2-Chloroethoxy)methane	8270	Diphenylnitrosamine N-Nitrosodiphenylamine	8270	N-Nitrosodimethylamine	8270	Chromium (Total)	6010

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bis(2-Chloroethyl)ether	8270	1,2-Diphenylhydrazine	8270	N-Nitroso-di-n-butylamine	8270	Cyanides (Total)	9012
Chloroform	8260	Disulfoton	8141-TA	N-Nitrosomethylethylamine	8270-APP9	Cyanides (Amenable)	9012
bis(2-Chloroisopropyl)ether	8260	Endosulfan I	8081	N-Nitrosomorpholine	8270-APP9	Fluoride (Not a UHC)	9056
p-Chloro-m-cresol	8270	Endosulfan II	8081	N-Nitrosopiperidine	8270-APP9	Lead (TCLP)	6010-1311
2-Chloroethyl vinyl ether	8260	Endosulfan sulfate	8081	N-Nitrosopyrrolidine	8270-APP9	Mercury—Nonwastewater High Range (TCLP)	7470-1311
Chloromethane/Methyl chloride	8260	Endrin	8081	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	HOUSTON	Mercury—All Others (TCLP)	SAME
2-Chloronaphthalene	8270	Endrin aldehyde	8081	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	HOUSTON	Nickel (TCLP)	6010-1311
2-Chlorophenol	8270	Ethyl acetate	8260	Parathion	8141-TA	Selenium (TCLP) (Not a UHC)	6010-1311
3-Chloropropylene	8260	Ethyl benzene	8260	Total PCBs (All isomers)	8082	Silver (TCLP)	6010-1311
Chrysene	8270	Ethyl cyanide/Propanenitrile	8260	Pentachlorobenzene	8270	Sulfide (Not a UHC)	9034
p-Cresidine	8270-HOUSTON	Ethyl ether	8260	PeCDDs (All Pentachlorodibenzo-p-dioxins)	HOUSTON	Thallium (TCLP)	6010-1311
o-Cresol	8270	bis(2-Ethylhexyl)phthalate	8270	PeCDFs (All Pentachlorodibenzofurans)	HOUSTON	Vanadium (TCLP) (Not a UHC)	6010-1311
m-Cresol	8270	Ethyl methacrylate	8270-APP9	Pentachloroethane	8270-APP9	Zinc (TCLP) (Not a UHC)	6010-1311
p-Cresol	8270	Ethylene oxide	7A	Pentachloronitrobenzene	8270-APP9		
Cyclohexanone (TCLP)	8260-ROCHESTER	Fumphur	8141-TA	Pentachlorophenol	8270-APP9		

NOT NEEDED FOR THIS QUOTE

ALS ROCHESTER

ALS HOUSTON

TEST AMERICA PITTSBURGH

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After printing this label:
CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH
1. Fold the printed page along the horizontal line.
2. Place label in shipping pouch and affix it to your shipment.

TO ATTN:SAMPLE RECEIVING
[redacted]
Non-responsive due
Non-responsive du
[redacted]
REF:
DEPT:
SHIP DATE: 29OCT19
ACTWGT: 20.00 LB MAN
CAD: 0218589/CAFE3310
BILL THIRD PARTY
565C32A3C05A2

TRK# 0201
4798 9481 7545
WED - 30 OCT 3:00P
STANDARD OVERNIGHT
NH SGRA
TX-US
77099
IAH

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Tuesday, November 19, 2019 4:24:33 PM
Page 38 of 89

Non-responsive due to rev
[redacted]

Non-responsive due to revised scope

November 15, 2019

Service Request No:E1900771

Non-responsive due to revised scope

Laboratory Results for: HS19101778

Dear Non-respons

Enclosed are the results of the sample(s) submitted to our laboratory October 29, 2019
For your reference, these analyses have been assigned our service request number **E1900771.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and Non-responsive due to revised scope is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Respectfully submitted,

Non-responsive due to revised scope

Project Manager

Non-responsive due to revised scope

Non-responsive due to revised scope

[redacted]

Certificate of Analysis

Non-responsive due to revised scope

[redacted]

Non-responsive due to revise

[redacted]

Client:	Non-responsive due to revised scope [redacted]	**Service Request No.:**	E1900771
Project:	HS19101778	**Date Received:**	10/30/19
Sample Matrix:	Solid		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of Non-responsive due to revised scope [redacted] This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sample was received for analysis at Non-responsive due to revised scope [redacted] on 10/30/19.

The sample was received at 0.9°C in good condition and is consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4° C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ1900365: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch. The LCS and DLCS recoveries are within QC limits.

Method Blank

The Method Blank EQ1900365-01 contained low levels of target dioxin and furan compounds above the EDL however below the Method Reporting Limit (MRL).

The associated compounds in the samples are not flagged with 'B' flags as the sample results are greater than ten times the level detected in the method blank

P Flags

Chlorodiphenyl ether interference was present at the retention time of the target analyte 1,2,3,6,7,8-HxCDF. The reported result should be considered an estimate.

Detection Limits

Detection limits are calculated for each analyte in each sample by measuring the height of the noise level for each quantitation ion for the associated labeled standard. The concentration equivalent to 2.5 times the height of the noise is then calculated using the appropriate response factor and the weight of the sample. The calculated concentration equals the detection limit.

The TEQ Summary results for each sample have been calculated by ALS/Houston to include:

- WHO-2005 TEFs, The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds (M. Van den Berg et al., Toxicological Sciences 93(2):223-241, 2006)
- 2378-TCDF from the DB-225 column, when confirmation required
- Non-detected compounds are not included in the 'Total'

Certification is held for the state of [redacted] for the method/matrix/analytes provided in this report.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and [redacted] is not responsible for utilization of less than the complete report.

Use of [redacted] USA Corp [redacted] Name. Client shall not use [redacted] name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to [redacted] any test result, tolerance or specification derived from [redacted] data ("Attribution") without [redacted] prior written consent, which may be withheld by [redacted] for any reason in its sole discretion. To request [redacted] consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If [redacted] has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use [redacted] name or trademark in any Materials or Attribution shall be deemed denied. [redacted] may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of [redacted] name or trademark may cause [redacted] to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: [redacted] Non-responsive due to revised scope

Project: HS19101778

Service Request: E1900771

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E1900771-001	3065932001	10/23/2019	1520

Service Request Summary

Folder #: E1900771
Client Name: Non-responsive due to revised scope [redacted]
Project Name: HS19101778
Project Number:

Report To: Non-responsive due to revised scope [redacted]

Phone Number:
Cell Number:
Fax Number:
E-mail:

Project Chemist: Non-responsive due to revised sco [redacted]
Originating Lab:
Logged By:
Date Received: 10/29/19
Internal Due Date: 11/13/2019
QAP: LAB QAP
Qualifier Set: HRMS Qualifier Set
Formset: Lab Standard
Merged?: N, Y
Report to MDL?: Y
P.O. Number: HS19101778
EDD: No EDD Specified

1 4 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved
Location: EHRMS-WIC 10D
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	PCDD PCDF /8290	Total Solids/ALS SOP
				Non-responsive [redacted]	
E1900771-001	3065932001	Soil	10/23/19 1520	II	II

Print

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Non-responsive due to revis [redacted]

Service Request Summary

Folder #: **E1900771**
Client Name: Non-responsive due to revised scope [redacted]
Project Name: HS19101778
Project Number:

Report To: Non-responsive due to revised scope [redacted]

Phone Number:
Cell Number:
Fax Number:
E-mail:

Project Chemist: Non-responsive due to revised sco [redacted]
Originating Lab:
Logged By:
Date Received: 10/29/19
Internal Due Date: 11/13/2019
QAP: LAB QAP
Qualifier Set: HRMS Qualifier Set
Formset: Lab Standard
Merged?: N, Y
Report to MDL?: Y
P.O. Number: HS19101778
EDD: No EDD Specified

1 4 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved
Location: EHRMS-WIC 10D
Pressure Gas:

Data Qualifiers

HRMS Qualifier Set

B Indicates the associated analyte was found in the method blank at >1/10th the reported value.
E Estimated value. The reported concentration is above the calibration range of the instrument.
H Sample extracted and/or analyzed out of suggested holding time.
J Estimated value. The reported concentration is below the MRL.
K The ion abundance ratio between the primary and secondary ions were outside of theoretical acceptance limits.The concentration of this analyte should be considered as an estimate.
P Chlorodiphenyl ether interference was present at the retention time of the target analyte. Reported result should be considered an estimate.
Q Monitored lock-mass indicates matrix-interference. Reported result is estimated.
S Signal saturated detector. Result reported from dilution.
U Compound was analyzed for, but was not detected (ND).
X See Case Narrative.
Y Isotopically Labeled Standard recovery outside of acceptance limits. In all cases, the signal-to-nois ratios are greater than 10:1, making the recoveries acceptable.
i The MDL/MRL have been elevated due to a matrix interference.

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Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

Non-responsive due to revised scope

[redacted]

Non-responsive due to revised scope

Data Processing/Form Production and Peer Review Signatures

SR# Unique ID E190077 | DB-5MSUI | SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Non-responsive due to revised scop

Date: 11/12/19	Analyst:	Samples: 001

Second Level - Data Review – to be filled by person doing peer review

Date: 11/12/19	Analyst:	Samples: 001

Non-responsive due to

Non-responsive due to revised scope

Data Processing/Form Production and Peer Review Signatures

SR# Unique ID E 1900771 DB-5MSUI SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date: 11/14/19 Analyst: [redacted] Samples: 001DL

Second Level - Data Review – to be filled by person doing peer review

Date: 11/15/19 Analyst: [redacted] Samples: 001DL

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[redacted]

Chain of Custody

Non-responsive due to revised scope

[redacted]

Non-responsive due to revised scope

[redacted]

Subcontract Chain of Custody

SAMPLING STATE:

COC ID: 12527

SUBCONTRACT TO:

Non-responsive due to revised scope

[redacted]

Phone: Non-responsive due to revised scope [redacted]

CUSTOMER INFORMATION:

Company: Non-responsive due to revised scope
Contact:
Address:
Phone:
Email:
Alternate Contact:
Email:

[redacted]

INVOICE INFORMATION:

Company: Non-responsive due to revised scope
Contact:
Address:
Phone:
Reference:
TSR:

[redacted]

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	HS19101778-01	3065932001	Solid	23 Oct 2019 16:30
	SUB_DIOXINS/FURANS			08 Nov 2019

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: STD (Laboratory Standard QC: method blank and LCS required)

Non-responsive due to revised scope

[redacted]

Relinquished By: _____ Date/Time: 10/30/19 14:30

Received By: _____ Date/Time: 10/30/19 14:30

Cooler ID(s): _____ Temperature(s): _____

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[redacted]

Non-responsive due to revised scope [redacted]

Cooler Receipt Form

Project Chemist: CG

Client/Project: ALS-H

Thermometer ID: GM64

Date/Time Received: 10/30/19 Initials: [redacted]

Date/Time Logged in: 10/30/19 Initials: CG

1. Method of delivery: ○ US Mail ✓ Fed Ex ○ UPS ○ DHL ○ Courier ○ Client
2. Samples received in: ✓ Cooler ○ Box ○ Envelope ○ Other
3. Were custody seals on coolers? ○ Yes ✓ No
   Were they intact? ○ Yes ○ No ✓ N/A
   Were they signed and dated? ○ Yes ○ No ✓ N/A
   If yes, how many and where?
4. Packing Material: ○ Inserts ✓ Baggies ○ Bubble Wrap ○ Gel Packs ✓ Wet Ice ○ Sleeves ○ Other
5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
–		10/30/19	1430	[redacted]	0.5/0.9	✓
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ✓ Yes ○ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ✓ Yes ○ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ✓ Yes ○ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ✓ Yes ○ No
10. Did sample labels and tags agree with custody documents? ✓ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label: Non-responsive due to revised scope [redacted]

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SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by [redacted]

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6°C.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10°C.
- ✓ Air samples are shipped and stored cold, at 0 to 6°C
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

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[redacted]

Preparation Information Benchsheets

Non-responsive due to revised scope

[redacted]

Non-responsive due to revised

[redacted]

Preparation Information Benchsheet

Prep Run#: 347951
Team: Semivoa GCMS/DBOTROS

Prep WorkFlow: OrgExtDioxS(30)
Prep Method: Method

Status: Prepped
Prep Date/Time: 11/4/19 12:00

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E1900709-001	SMS 1.5-LOD1 - 1613	.01	8290A/PCDD PCDF			Soil	10.123g	@ 75 u1 MDL
2	E1900709-002	SMS 3.0-LOD2 - 1613	.01	8290A/PCDD PCDF			Soil	10.521g	@ 150 u1MDL
3	E1900709-003	SMS 5-LOQ - 1613	.03	8290A/PCDD PCDF			Soil	10.371g	@ 250 u1MDL
4	E1900771-001	3065932001	.01	8290/PCDD PCDF			Soil	10.031g	Brown soil
5	E1900779-001	G21	.01	8290/PCDD PCDF			Soil	10.312g	Brown soil
6	E1900780-001	G18	.01	8290/PCDD PCDF			Soil	10.286g	Brown soil
7	E1900781-001	G19	.01	8290/PCDD PCDF			Soil	10.264g	Brown soil
8	E1900782-001	G16	.01	8290/PCDD PCDF			Soil	10.620g	Brown soil
9	E1900783-001	G12	.01	8290/PCDD PCDF			Soil	10.436g	Brown soil
10	E1900784-001	G08	.01	8290/PCDD PCDF			Soil	10.660g	Brown soil
11	E1900785-001	G22	.01	8290/PCDD PCDF			Soil	10.642g	Brown soil
12	E1900786-001	G07	.01	8290/PCDD PCDF			Soil	10.168g	Brown soil
13	E1900792-001	API-12	.01	8290/PCDD PCDF			Sludge, Solid	10.415g	black wet sludge
14	E1900792-002	P8-14	.01	8290/PCDD PCDF			Sludge, Solid	10.441g	black wet sludge
15	E1900792-003	P8-15	.01	8290/PCDD PCDF			Sludge, Solid	10.114g	black wet sludge
16	EQ1900365-01	MB		8290A/PCDD PCDF			Solid	10.614g	
17	EQ1900365-02	LCS		8290A/PCDD PCDF			Solid	10.231g	
18	EQ1900365-03	DLCS		8290A/PCDD PCDF			Solid	10.314g	
19	EQ1900365-04	SMS 5-LOQ - 1613 DUP	.03	8290A/PCDD PCDF			Solid	10.218g	

Spiking Solutions

Name: 1613B/23/TO-9A MDL Native Solution Inventory ID 201620 Logbook Ref: 201620 JG 8/1/19 Expires On: 01/21/2020

E1900709-001	75.00µL	E1900709-002	150.00µL	E1900709-003	250.00µL	EQ1900365-04	250.00µL

Name: 8290/1613B Cleanup Working Standard Inventory ID 204071 Logbook Ref: 204071 tw 10/24/19 8ng/ml Expires On: 03/16/2020

E1900709-001	100.00µL	E1900709-002	100.00µL	E1900709-003	100.00µL	E1900771-001	100.00µL	E1900779-001	100.00µL	E1900780-001	100.00µL
E1900781-001	100.00µL	E1900782-001	100.00µL	E1900783-001	100.00µL	E1900784-001	100.00µL	E1900785-001	100.00µL	E1900786-001	100.00µL
E1900792-001	100.00µL	E1900792-002	100.00µL	E1900792-003	100.00µL	EQ1900365-01	100.00µL	EQ1900365-01	100.00µL	EQ1900365-02	100.00µL
EQ1900365-02	100.00µL	EQ1900365-03	100.00µL	EQ1900365-03	100.00µL	EQ1900365-04	100.00µL				

Name: 1613B Labeled Working Standard Inventory ID 204240 Logbook Ref: DB103019 204240 2-4ng/ml Expires On: 03/24/2020

E1900709-001	1,000.00µL	E1900709-002	1,000.00µL	E1900709-003	1,000.00µL	E1900771-001	1,000.00µL	E1900779-001	1,000.00µL	E1900780-001	1,000.00µL
E1900781-001	1,000.00µL	E1900782-001	1,000.00µL	E1900783-001	1,000.00µL	E1900784-001	1,000.00µL	E1900785-001	1,000.00µL	E1900786-001	1,000.00µL
E1900792-001	1,000.00µL	E1900792-002	1,000.00µL	E1900792-003	1,000.00µL	EQ1900365-01	1,000.00µL	EQ1900365-01	1,000.00µL	EQ1900365-02	1,000.00µL

Preparation Information Benchsheet

Prep Run#: 347951 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped

Team: Semivoa GCMS/DBOTROS **Prep Method:** Method **Prep Date/Time:** 11/4/19 12:00

EQ1900365-02 1,000.00µL EQ1900365-03 1,000.00µL EQ1900365-03 1,000.00µL EQ1900365-04 1,000.00µL

Name:	1613B Matrix Working Standard	Inventory ID	204428	Logbook Ref:	204428 db 11/04/19 2-20ng/ml	Expires On:	04/05/2020

EQ1900365-02 100.00µL EQ1900365-02 100.00µL EQ1900365-03 100.00µL EQ1900365-03 100.00µL

Preparation Materials

Carbon, High Purity	tw 10/28/19 (204202)	Ethyl Acetate 99.9% Minimum EtOAc	JG 7/16/19 (201129)	Glass Wool	JG 8/1/19 (201624)
Hexanes 95%	tw 10/28/19 hexanes (204197)	Dichloromethane (Methylene Chloride) 99.9% MeC12	JG 7/19/19 (201263)	Sodium Chloride 5%	308051706 (202016)
Sodium Hydroxide 1N NaOH	sodsium hydroxide 1n (202287)	Sodium Sulfate Anhydrous Reagent Grade Na2SO4	JG 8/14/19 (202064)	Silica Gel	tw 10/15/19 (204490)
sulfuric acid	tw sulfric acid 10/1 (203771)	Toluene 99.9% Minimum	toluene tw 10/14/19 (203768)	Tridecane (n-Tridecane)	JG 6/25/19 (200486)

Preparation Steps

Step:	Extraction	Step:	Acid Clean	Step:	Silica Gel Clean	Step:	Final Volume
Started:	11/4/19 12:00	Started:	11/6/19 09:00	Started:	11/6/19 11:00	Started:	11/7/19 09:00
Finished:	11/5/19 09:30	Finished:	11/6/19 10:00	Finished:	11/6/19 14:00	Finished:	11/7/19 12:00
By:	TWOODS	By:	TWOODS	By:	TWOODS	By:	TWOODS
Comments		Comments		Comments		Comments	

Comments:

Reviewed By: Non-responsive du [redacted] Date: 11/13/19

Chain of Custody

Relinquished By: Date:

Received By: Date:

Extracts Examined

Yes No

RIGHT SOLUTIONS | RIGHT PARTNER

Non-responsive due to revised dc [redacted]

Non-responsive due to revised scope

[redacted]

Analytical Results

Non-responsive due to revised scope

[redacted]

Analytical Report

Client:	Non-responsive due to revised scope	**Service Request:**	E1900771
Project:	HS19101778	**Date Collected:**	10/23/19 15:20
Sample Matrix:	Soil	**Date Received:**	10/29/19 09:00
Sample Name:	3065932001	**Units:**	ng/Kg
Lab Code:	E1900771-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	11/08/19 12:55
Prep Method:	Method	**Date Extracted:**	11/4/19
Sample Amount:	10.031g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P525013	**Blank File Name:**	P620045
ICAL Date:	04/25/19	**Cal Ver. File Name:**	P525008

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	3.89		0.387	0.591	0.79	1.001	1
1,2,3,7,8-PeCDD	ND	U	0.447	2.95			1
1,2,3,4,7,8-HxCDD	45.7		1.09	2.95	1.28	1.000	1
1,2,3,6,7,8-HxCDD	132		1.03	2.95	1.25	1.000	1
1,2,3,7,8,9-HxCDD	60.9		1.03	2.95	1.15	1.007	1
1,2,3,4,6,7,8-HpCDD	10500		9.30	59.1	1.03	1.000	20
OCDD	149000		3.92	118	0.89	1.000	20
2,3,7,8-TCDF	1380		3.40	11.8	0.75	1.001	20
1,2,3,7,8-PeCDF	147		4.80	4.80	1.44	1.001	1
2,3,4,7,8-PeCDF	511		5.17	5.17	1.44	1.000	1
1,2,3,4,7,8-HxCDF	1000		1.77	2.95	1.16	1.000	1
1,2,3,6,7,8-HxCDF	526**P**		1.99	2.95	1.18	1.000	1
1,2,3,7,8,9-HxCDF	285		2.57	2.95	1.18	1.001	1
2,3,4,6,7,8-HxCDF	343		2.28	2.95	1.15	1.000	1
1,2,3,4,6,7,8-HpCDF	1830		8.89	8.89	1.00	1.000	1
1,2,3,4,7,8,9-HpCDF	354		12.5	12.5	0.92	1.000	1
OCDF	14900		4.03	118	0.88	1.005	20

Analytical Report

Client:	Non-responsive due to revised scope	**Service Request:**	E1900771
Project:	HS19101778	**Date Collected:**	10/23/19 15:20
Sample Matrix:	Soil	**Date Received:**	10/29/19 09:00
Sample Name:	3065932001	**Units:**	ng/Kg
Lab Code:	E1900771-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	11/08/19 12:55
Prep Method:	Method	**Date Extracted:**	11/4/19
Sample Amount:	10.031g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P525013	**Blank File Name:**	P620045
ICAL Date:	04/25/19	**Cal Ver. File Name:**	P525008

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	134		0.387	0.591	0.75		1
Total Penta-Dioxins	255		0.447	2.95	1.57		1
Total Hexa-Dioxins	1900		1.05	2.95	1.20		1
Total Hepta-Dioxins	21300		24.7	24.7	1.03		1
Total Tetra-Furans	3890		0.312	0.591	0.66		1
Total Penta-Furans	2590		4.98	4.98	1.46		1
Total Hexa-Furans	4770		2.12	2.95	1.15		1
Total Hepta-Furans	7620		10.5	10.5	1.00		1

Analytical Report

Client:	Non-responsive due to revised scope	**Service Request:**	E1900771
Project:	HS19101778	**Date Collected:**	10/23/19 15:20
Sample Matrix:	Soil	**Date Received:**	10/29/19 09:00
Sample Name:	3065932001	**Units:**	Percent
Lab Code:	E1900771-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	11/08/19 12:55
Prep Method:	Method	**Date Extracted:**	11/4/19
Sample Amount:	10.031g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P525013	**Blank File Name:**	P620045
ICAL Date:	04/25/19	**Cal Ver. File Name:**	P525008

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1102.101	55		40-135	0.78	1.019
13C-1,2,3,7,8-PeCDD	2000	1230.238	62		40-135	1.57	1.170
13C-1,2,3,4,7,8-HxCDD	2000	1165.678	58		40-135	1.32	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1355.418	68		40-135	1.27	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1056.401	53		40-135	1.05	1.065
13C-OCDD	4000	1708.611	43		40-135	0.91	1.142
13C-2,3,7,8-TCDF	2000	1030.813	52		40-135	0.79	0.994
13C-1,2,3,7,8-PeCDF	2000	1168.320	58		40-135	1.57	1.130
13C-2,3,4,7,8-PeCDF	2000	1103.761	55		40-135	1.57	1.161
13C-1,2,3,4,7,8-HxCDF	2000	1303.956	65		40-135	0.52	0.972
13C-1,2,3,6,7,8-HxCDF	2000	1192.219	60		40-135	0.50	0.975
13C-1,2,3,7,8,9-HxCDF	2000	1120.697	56		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1099.051	55		40-135	0.51	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	999.654	50		40-135	0.44	1.040
13C-1,2,3,4,7,8,9-HpCDF	2000	1056.591	53		40-135	0.44	1.079
37Cl-2,3,7,8-TCDD	800	413.579	52		40-135	NA	1.019

Analytical Report

Client:	Non-responsive due to revised scope	**Service Request:**	E1900771
Project:	HS19101778	**Date Collected:**	10/23/19 15:20
Sample Matrix:	Soil	**Date Received:**	10/29/19 09:00
Sample Name:	3065932001	**Units:**	ng/Kg
Lab Code:	E1900771-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	**3.89**	0.387	0.591	1	1	3.89
1,2,3,7,8-PeCDD	ND	0.447	2.95	1	1	
1,2,3,4,7,8-HxCDD	**45.7**	1.09	2.95	1	0.1	4.57
1,2,3,6,7,8-HxCDD	**132**	1.03	2.95	1	0.1	13.2
1,2,3,7,8,9-HxCDD	**60.9**	1.03	2.95	1	0.1	6.09
1,2,3,4,6,7,8-HpCDD	**10500**	9.30	59.1	20	0.01	105
OCDD	**149000**	3.92	118	20	0.0003	44.7
2,3,7,8-TCDF	**1380**	3.40	11.8	20	0.1	138
1,2,3,7,8-PeCDF	**147**	4.80	4.80	1	0.03	4.41
2,3,4,7,8-PeCDF	**511**	5.17	5.17	1	0.3	153
1,2,3,4,7,8-HxCDF	**1000**	1.77	2.95	1	0.1	100
1,2,3,6,7,8-HxCDF	**526**	1.99	2.95	1	0.1	52.6
1,2,3,7,8,9-HxCDF	**285**	2.57	2.95	1	0.1	28.5
2,3,4,6,7,8-HxCDF	**343**	2.28	2.95	1	0.1	34.3
1,2,3,4,6,7,8-HpCDF	**1830**	8.89	8.89	1	0.01	18.3
1,2,3,4,7,8,9-HpCDF	**354**	12.5	12.5	1	0.01	3.54
OCDF	**14900**	4.03	118	20	0.0003	4.47
		Total TEQ				715

2005 WHO TEFs, ND = 0

Analytical Report

Client:	Non-responsive due to revised scope	**Service Request:**	E1900771
Project:	HS19101778	**Date Collected:**	10/23/19 15:20
Sample Matrix:	Soil	**Date Received:**	10/29/19 09:00
Sample Name:	3065932001	**Units:**	Percent
Lab Code:	E1900771-001	**Basis:**	NA

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	11/01/19 14:16
	7.129g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	84.4		-	-			1

Analytical Report

Client:	Non-responsive due to revised scope	**Service Request:**	E1900771
Project:	HS19101778	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ1900365-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	11/14/19 11:13
Prep Method:	Method	**Date Extracted:**	11/4/19
Sample Amount:	10.614g	**Instrument Name:**	E-HRMS-08
		GC Column:	DB-5MSUI
Data File Name:	P620045	**Blank File Name:**	P620045
ICAL Date:	10/04/19	**Cal Ver. File Name:**	P620042

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.0634	0.471			1
1,2,3,7,8-PeCDD	ND	U	0.0111	2.36			1
1,2,3,4,7,8-HxCDD	ND	U	0.00924	2.36			1
1,2,3,6,7,8-HxCDD	0.0254**JK**		0.00867	2.36	0.94	1.000	1
1,2,3,7,8,9-HxCDD	0.0183**JK**		0.00830	2.36	0.85	1.007	1
1,2,3,4,6,7,8-HpCDD	0.0477**J**		0.00933	2.36	0.98	1.000	1
OCDD	0.135**J**		0.0178	4.71	0.76	1.000	1
2,3,7,8-TCDF	ND	U	0.0318	0.471			1
1,2,3,7,8-PeCDF	ND	U	0.00509	2.36			1
2,3,4,7,8-PeCDF	ND	U	0.00519	2.36			1
1,2,3,4,7,8-HxCDF	ND	U	0.00669	2.36			1
1,2,3,6,7,8-HxCDF	ND	U	0.00754	2.36			1
1,2,3,7,8,9-HxCDF	0.0360**J**		0.00811	2.36	1.29	1.000	1
2,3,4,6,7,8-HxCDF	ND	U	0.00782	2.36			1
1,2,3,4,6,7,8-HpCDF	0.0193**J**		0.00547	2.36	0.93	1.000	1
1,2,3,4,7,8,9-HpCDF	0.0146**JK**		0.00688	2.36	2.15	1.000	1
OCDF	ND	U	0.0160	4.71			1

Analytical Report

Client:	Non-responsive due to revised scope	**Service Request:**	E1900771
Project:	HS19101778	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ1900365-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	11/14/19 11:13
Prep Method:	Method	**Date Extracted:**	11/4/19
Sample Amount:	10.614g	**Instrument Name:**	E-HRMS-08
		GC Column:	DB-5MSUI
Data File Name:	P620045	**Blank File Name:**	P620045
ICAL Date:	10/04/19	**Cal Ver. File Name:**	P620042

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.0634	0.471			1
Total Penta-Dioxins	ND	U	0.0111	2.36			1
Total Hexa-Dioxins	ND	U	0.00867	2.36			1
Total Hepta-Dioxins	0.0477**J**		0.00933	2.36	0.98		1
Total Tetra-Furans	ND	U	0.0318	0.471			1
Total Penta-Furans	ND	U	0.00519	2.36			1
Total Hexa-Furans	0.0360**J**		0.00754	2.36	1.29		1
Total Hepta-Furans	0.0193**J**		0.00613	2.36	0.93		1

Analytical Report

Client:	Non-responsive due to revised scope	**Service Request:**	E1900771
Project:	HS19101778	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	EQ1900365-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	11/14/19 11:13
Prep Method:	Method	**Date Extracted:**	11/4/19
Sample Amount:	10.614g	**Instrument Name:**	E-HRMS-08
		GC Column:	DB-5MSUI
Data File Name:	P620045	**Blank File Name:**	P620045
ICAL Date:	10/04/19	**Cal Ver. File Name:**	P620042

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1253.718	63		40-135	0.78	1.018
13C-1,2,3,7,8-PeCDD	2000	1579.766	79		40-135	1.57	1.172
13C-1,2,3,4,7,8-HxCDD	2000	1431.458	72		40-135	1.33	0.992
13C-1,2,3,6,7,8-HxCDD	2000	1624.250	81		40-135	1.21	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1320.776	66		40-135	1.06	1.066
13C-OCDD	4000	2598.455	65		40-135	0.89	1.141
13C-2,3,7,8-TCDF	2000	1076.851	54		40-135	0.78	0.993
13C-1,2,3,7,8-PeCDF	2000	1360.269	68		40-135	1.56	1.132
13C-2,3,4,7,8-PeCDF	2000	1288.934	64		40-135	1.55	1.163
13C-1,2,3,4,7,8-HxCDF	2000	1457.753	73		40-135	0.51	0.972
13C-1,2,3,6,7,8-HxCDF	2000	1290.950	65		40-135	0.52	0.975
13C-1,2,3,7,8,9-HxCDF	2000	1336.913	67		40-135	0.52	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1311.216	66		40-135	0.51	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	1200.415	60		40-135	0.44	1.041
13C-1,2,3,4,7,8,9-HpCDF	2000	1207.449	60		40-135	0.44	1.079
37Cl-2,3,7,8-TCDD	800	458.589	57		40-135	NA	1.019

Non-responsive due to revised scope

[redacted]

Accuracy & Precision

Non-responsive due to revised scope

[redacted]

Client:	Non-responsive due to revised scope [redacted]	**Service Request:**	E1900771
Project:	HS19101778	**Date Analyzed:**	11/08/19
Sample Matrix:	Soil	**Date Extracted:**	11/04/19

Duplicate Lab Control Sample Summary
Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Units:**	ng/Kg
Prep Method:	Method	**Basis:**	Dry
		Analysis Lot:	659684

	Lab Control Sample EQ1900365-02			Duplicate Lab Control Sample EQ1900365-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,2,3,4,6,7,8-HpCDD	109	97.7	112	92.0	97.0	95	70-130	17	25
1,2,3,4,7,8-HxCDD	114	97.7	117	96.9	97.0	100	70-130	17	25
1,2,3,6,7,8-HxCDD	102	97.7	104	84.9	97.0	88	70-130	18	25
1,2,3,7,8,9-HxCDD	104	97.7	106	87.1	97.0	90	70-130	17	25
1,2,3,7,8-PeCDD	100	97.7	103	88.0	97.0	91	70-130	13	25
2,3,7,8-TCDD	19.5	19.5	100	17.3	19.4	89	70-130	12	25
OCDD	225	195	115	195	194	101	70-130	14	25
1,2,3,4,6,7,8-HpCDF	105	97.7	107	86.8	97.0	90	70-130	19	25
1,2,3,4,7,8,9-HpCDF	105	97.7	107	90.3	97.0	93	70-130	15	25
1,2,3,4,7,8-HxCDF	93.1	97.7	95	80.5	97.0	83	70-130	15	25
1,2,3,6,7,8-HxCDF	101	97.7	103	88.8	97.0	92	70-130	13	25
1,2,3,7,8,9-HxCDF	96.6	97.7	99	84.3	97.0	87	70-130	14	25
1,2,3,7,8-PeCDF	97.0	97.7	99	79.6	97.0	82	70-130	20	25
2,3,4,6,7,8-HxCDF	106	97.7	108	92.0	97.0	95	70-130	14	25
2,3,4,7,8-PeCDF	105	97.7	108	89.4	97.0	92	70-130	16	25
2,3,7,8-TCDF	21.2	19.5	109	17.4	19.4	90	70-130	20	25
OCDF	221	195	113	188	194	97	70-130	16	25

Analytical Report

Client:	Non-responsive due to revised scope	**Service Request:**	E1900771
Project:	HS19101778	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ1900365-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	11/08/19 16:09
Prep Method:	Method	**Date Extracted:**	11/4/19
Sample Amount:	10.231g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P525017	**Blank File Name:**	P620045
ICAL Date:	04/25/19	**Cal Ver. File Name:**	P525008

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	19.5		1.11	1.11	0.71	1.001	1
1,2,3,7,8-PeCDD	100		0.546	2.44	1.58	1.000	1
1,2,3,4,7,8-HxCDD	114		0.520	2.44	1.32	1.000	1
1,2,3,6,7,8-HxCDD	102		0.466	2.44	1.21	1.000	1
1,2,3,7,8,9-HxCDD	104		0.479	2.44	1.31	1.007	1
1,2,3,4,6,7,8-HpCDD	109		0.819	2.44	1.04	1.000	1
OCDD	225		0.890	4.89	0.86	1.000	1
2,3,7,8-TCDF	21.2		0.927	0.927	0.72	1.001	1
1,2,3,7,8-PeCDF	97.0		0.395	2.44	1.45	1.000	1
2,3,4,7,8-PeCDF	105		0.419	2.44	1.44	1.000	1
1,2,3,4,7,8-HxCDF	93.1		0.279	2.44	1.23	1.000	1
1,2,3,6,7,8-HxCDF	101		0.311	2.44	1.16	1.000	1
1,2,3,7,8,9-HxCDF	96.6		0.438	2.44	1.22	1.000	1
2,3,4,6,7,8-HxCDF	106		0.339	2.44	1.20	1.000	1
1,2,3,4,6,7,8-HpCDF	105		0.788	2.44	0.99	1.000	1
1,2,3,4,7,8,9-HpCDF	105		1.13	2.44	0.98	1.000	1
OCDF	221		0.783	4.89	0.84	1.005	1

Analytical Report

Client:	Non-responsive due to revised scope	**Service Request:**	E1900771
Project:	HS19101778	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ1900365-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	11/08/19 16:09
Prep Method:	Method	**Date Extracted:**	11/4/19
Sample Amount:	10.231g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P525017	**Blank File Name:**	P620045
ICAL Date:	04/25/19	**Cal Ver. File Name:**	P525008

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	19.5		1.11	1.11	0.71		1
Total Penta-Dioxins	100		0.546	2.44	1.58		1
Total Hexa-Dioxins	320		0.487	2.44	1.32		1
Total Hepta-Dioxins	111		0.819	2.44	0.96		1
Total Tetra-Furans	21.2		0.927	0.927	0.72		1
Total Penta-Furans	202		0.406	2.44	1.45		1
Total Hexa-Furans	396		0.334	2.44	1.23		1
Total Hepta-Furans	211		0.936	2.44	0.99		1

Analytical Report

Client:	Non-responsive due to revised scope	**Service Request:**	E1900771
Project:	HS19101778	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	Percent
Lab Code:	EQ1900365-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	11/08/19 16:09
Prep Method:	Method	**Date Extracted:**	11/4/19
Sample Amount:	10.231g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P525017	**Blank File Name:**	P620045
ICAL Date:	04/25/19	**Cal Ver. File Name:**	P525008

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	901.494	45		40-135	0.79	1.018
13C-1,2,3,7,8-PeCDD	2000	1207.148	60		40-135	1.60	1.169
13C-1,2,3,4,7,8-HxCDD	2000	1256.019	63		40-135	1.35	0.992
13C-1,2,3,6,7,8-HxCDD	2000	1534.211	77		40-135	1.25	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1312.894	66		40-135	1.06	1.065
13C-OCDD	4000	2256.915	56		40-135	0.88	1.142
13C-2,3,7,8-TCDF	2000	869.829	43		40-135	0.79	0.993
13C-1,2,3,7,8-PeCDF	2000	1150.306	58		40-135	1.62	1.130
13C-2,3,4,7,8-PeCDF	2000	1147.080	57		40-135	1.56	1.160
13C-1,2,3,4,7,8-HxCDF	2000	1400.688	70		40-135	0.51	0.972
13C-1,2,3,6,7,8-HxCDF	2000	1316.395	66		40-135	0.52	0.976
13C-1,2,3,7,8,9-HxCDF	2000	1185.522	59		40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1251.587	63		40-135	0.51	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	1270.605	64		40-135	0.42	1.041
13C-1,2,3,4,7,8,9-HpCDF	2000	1298.109	65		40-135	0.45	1.079
37Cl-2,3,7,8-TCDD	800	343.272	43		40-135	NA	1.019

Analytical Report

Client:	Non-responsive due to revised scope	**Service Request:**	E1900771
Project:	HS19101778	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ1900365-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	11/08/19 16:58
Prep Method:	Method	**Date Extracted:**	11/4/19
Sample Amount:	10.314g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P525018	**Blank File Name:**	P620045
ICAL Date:	04/25/19	**Cal Ver. File Name:**	P525008

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	17.3		0.418	0.485	0.77	1.001	1
1,2,3,7,8-PeCDD	88.0		0.163	2.42	1.54	1.001	1
1,2,3,4,7,8-HxCDD	96.9		0.179	2.42	1.25	1.000	1
1,2,3,6,7,8-HxCDD	84.9		0.155	2.42	1.27	1.000	1
1,2,3,7,8,9-HxCDD	87.1		0.162	2.42	1.29	1.007	1
1,2,3,4,6,7,8-HpCDD	92.0		0.296	2.42	1.04	1.000	1
OCDD	195		0.187	4.85	0.91	1.000	1
2,3,7,8-TCDF	17.4		0.225	0.485	0.71	1.001	1
1,2,3,7,8-PeCDF	79.6		0.159	2.42	1.48	1.000	1
2,3,4,7,8-PeCDF	89.4		0.174	2.42	1.45	1.000	1
1,2,3,4,7,8-HxCDF	80.5		0.119	2.42	1.22	1.000	1
1,2,3,6,7,8-HxCDF	88.8		0.127	2.42	1.10	1.000	1
1,2,3,7,8,9-HxCDF	84.3		0.167	2.42	1.15	1.000	1
2,3,4,6,7,8-HxCDF	92.0		0.142	2.42	1.13	1.000	1
1,2,3,4,6,7,8-HpCDF	86.8		0.241	2.42	1.00	1.000	1
1,2,3,4,7,8,9-HpCDF	90.3		0.341	2.42	0.98	1.000	1
OCDF	188		0.275	4.85	0.87	1.005	1

Analytical Report

Client:	Non-responsive due to revised scope	**Service Request:**	E1900771
Project:	HS19101778	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ1900365-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	11/08/19 16:58
Prep Method:	Method	**Date Extracted:**	11/4/19
Sample Amount:	10.314g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P525018	**Blank File Name:**	P620045
ICAL Date:	04/25/19	**Cal Ver. File Name:**	P525008

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	17.3		0.418	0.485	0.77		1
Total Penta-Dioxins	88.0		0.163	2.42	1.54		1
Total Hexa-Dioxins	269		0.165	2.42	1.25		1
Total Hepta-Dioxins	94.1		0.296	2.42	0.94		1
Total Tetra-Furans	17.4		0.225	0.485	0.71		1
Total Penta-Furans	170		0.166	2.42	1.48		1
Total Hexa-Furans	346		0.137	2.42	1.22		1
Total Hepta-Furans	177		0.285	2.42	1.00		1

Analytical Report

Client:	Non-responsive due to revised scope	**Service Request:**	E1900771
Project:	HS19101778	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	Percent
Lab Code:	EQ1900365-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	11/08/19 16:58
Prep Method:	Method	**Date Extracted:**	11/4/19
Sample Amount:	10.314g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P525018	**Blank File Name:**	P620045
ICAL Date:	04/25/19	**Cal Ver. File Name:**	P525008

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1079.751	54		40-135	0.77	1.019
13C-1,2,3,7,8-PeCDD	2000	1095.169	55		40-135	1.62	1.170
13C-1,2,3,4,7,8-HxCDD	2000	1202.047	60		40-135	1.30	0.992
13C-1,2,3,6,7,8-HxCDD	2000	1474.004	74		40-135	1.27	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1196.961	60		40-135	1.04	1.065
13C-OCDD	4000	2064.732	52		40-135	0.88	1.141
13C-2,3,7,8-TCDF	2000	981.656	49		40-135	0.78	0.994
13C-1,2,3,7,8-PeCDF	2000	1058.721	53		40-135	1.58	1.131
13C-2,3,4,7,8-PeCDF	2000	991.105	50		40-135	1.58	1.161
13C-1,2,3,4,7,8-HxCDF	2000	1310.344	66		40-135	0.52	0.972
13C-1,2,3,6,7,8-HxCDF	2000	1209.901	60		40-135	0.51	0.975
13C-1,2,3,7,8,9-HxCDF	2000	1150.520	58		40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1135.785	57		40-135	0.51	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	1156.980	58		40-135	0.44	1.041
13C-1,2,3,4,7,8,9-HpCDF	2000	1225.391	61		40-135	0.44	1.079
37Cl-2,3,7,8-TCDD	800	420.833	53		40-135	NA	1.019

Non-responsive due to revised scope

[redacted]

ANALYTICAL REPORT

Non-responsive due to revised scope

[redacted]

Client Project/Site: 3065932

For:

Non-responsive due to revised scope

[redacted]

Authorized for release by:
11/11/2019 1:44:07 PM

Non-responsive due to revised scope

[redacted]

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Non-responsive due to revised scope

[redacted]

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Non-responsive due to revised scope

[redacted]

Non-responsive due to revised

[redacted]

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Case Narrative

Client: Non-responsive due to revised scope
Project/Site: 3065932

Job ID: 180-97987-1

Job ID: 180-97987-1

Laboratory: Non-responsive due to revised scope

Narrative

Job Narrative
180-97987-1

Comments
No additional comments.

Receipt
The sample was received on 10/30/2019 9:00 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0° C.

GC Semi VOA
Method 8141B: The following samples were diluted due to the nature of the sample matrix: 3065932001 (180-97987-1), (180-97987-A-1-A MS) and (180-97987-A-1-B MSD) at 5x. Elevated reporting limits (RLs) are provided. Sample extracts were dark yellow in color.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 3541: The following samples were prepared outside of preparation holding time due to test being added after holding time expired. : 3065932001 (180-97987-1), (180-97987-A-1 MS) and (180-97987-A-1 MSD).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Non-responsive due to revised scope

Definitions/Glossary

Client: Non-responsive due to revised scope
Project/Site: 3065932

Job ID: 180-97987-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
DilFac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Non-responsive due to revised scope

Accreditation/Certification Summary

Client: Non-responsive due to revised scope
Project/Site: 3065932

Job ID: 180-97987-1

Laboratory: Non-responsive due to revised scope

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Jersey	NELAP	PA005	06-30-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Moisture
2540G		Solid	Percent Solids
EPA 8141B	3541	Solid	Famphur

New York	NELAP	11182	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Moisture
2540G		Solid	Percent Solids

North Carolina (WW/SW)	State Program	434	12-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Moisture
2540G		Solid	Percent Solids

Pennsylvania	NELAP	02-00416	04-30-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte

Non-responsive due to revised scope

Non-responsive due to revis

Sample Summary

Client: [redacted]
Project/Site: 3065932

Job ID: 180-97987-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-97987-1	3065932001	Solid	10/23/19 16:30	10/30/19 09:00	

[redacted]

[redacted]

Method Summary

Client: Non-responsive due to revised scope
Project/Site: 30659/32

Job ID: 180-97987-1

Method	Method Description	Protocol	Laboratory
EPA 8141B	Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique	SW846	Non-responsive due [redacted]
2540G	SM 2540G	SM22	
3541	Automated Soxhlet Extraction	SW846	

Protocol References:

SM22 = Standard Methods For The Examination Of Water And Wastewater, 22nd Edition

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

Non-responsive due to revised scope [redacted]

Non-responsive due to revised scope

Lab Chronicle

Client: Non-responsive due to revised scope
Project/Site: 3065932

Job ID: 180-97987-1

Client Sample ID: 3065932001
Date Collected: 10/23/19 16:30
Date Received: 10/30/19 09:00

Lab Sample ID: 180-97987-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			297419	11/07/19 11:28	Non-responsive due to revised scope	
	Instrument ID: NOEQUIP									

Client Sample ID: 3065932001
Date Collected: 10/23/19 16:30
Date Received: 10/30/19 09:00

Lab Sample ID: 180-97987-1
Matrix: Solid
Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.2 g	2.5 mL	297078	11/05/19 05:57	Non-responsive due to revised scope	
Total/NA	Analysis	EPA 8141B		5			297301	11/06/19 14:58		
	Instrument ID: CHGC5									

Laboratory References:
Non-responsive due to revised scope

Analyst References:
Lab: Non-responsive du

Batch Type: Prep
SAT = Non-responsive due to revised sco

Batch Type: Analysis
AGP = Non-responsive due to revised scop
DFE =

Non-responsive due to revised scope

Client Sample Results

Client: Non-responsive due to revised scope
Project/Site: 3065932

Job ID: 180-97987-1

Client Sample ID: 3065932001
Date Collected: 10/23/19 16:30
Date Received: 10/30/19 09:00

Lab Sample ID: 180-97987-1
Matrix: Solid
Percent Solids: 83.5

Method: EPA 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorpyrifos	ND	H	200	96	ug/Kg	☼	11/05/19 05:57	11/06/19 14:58	5
Diazinon	ND	H	200	83	ug/Kg	☼	11/05/19 05:57	11/06/19 14:58	5
Malathion	ND	H	200	120	ug/Kg	☼	11/05/19 05:57	11/06/19 14:58	5
Parathion	ND	H	200	110	ug/Kg	☼	11/05/19 05:57	11/06/19 14:58	5
Methyl parathion	ND	H	200	110	ug/Kg	☼	11/05/19 05:57	11/06/19 14:58	5
Phorate	ND	H	200	66	ug/Kg	☼	11/05/19 05:57	11/06/19 14:58	5
Ronnel	ND	H	200	96	ug/Kg	☼	11/05/19 05:57	11/06/19 14:58	5
Disulfoton	ND	H	200	130	ug/Kg	☼	11/05/19 05:57	11/06/19 14:58	5
Famphur	ND	H	200	100	ug/Kg	☼	11/05/19 05:57	11/06/19 14:58	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tributyl phosphate	*86*		*20 - 140*	*11/05/19 05:57*	*11/06/19 14:58*	*5*
Tributyl phosphate	*79*		*20 - 140*	*11/05/19 05:57*	*11/06/19 14:58*	*5*
Triphenylphosphate	*108*		*37 - 139*	*11/05/19 05:57*	*11/06/19 14:58*	*5*
Triphenylphosphate	*105*		*37 - 139*	*11/05/19 05:57*	*11/06/19 14:58*	*5*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**16.5**		0.1	0.1	%			11/07/19 11:28	1
Percent Solids	**83.5**		0.1	0.1	%			11/07/19 11:28	1

Non-responsive due to revised scope

QC Sample Results

Client: [redacted]
Project/Site: 3065932

Job ID: 180-97987-1

Method: EPA 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique

Lab Sample ID: MB 180-297078/1-A
Matrix: Solid
Analysis Batch: 297301

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 297078

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorpyrifos	ND		33	16	ug/Kg		11/05/19 05:57	11/06/19 13:55	1
Diazinon	ND		33	14	ug/Kg		11/05/19 05:57	11/06/19 13:55	1
Malathion	ND		33	20	ug/Kg		11/05/19 05:57	11/06/19 13:55	1
Parathion	ND		33	18	ug/Kg		11/05/19 05:57	11/06/19 13:55	1
Methyl parathion	ND		33	19	ug/Kg		11/05/19 05:57	11/06/19 13:55	1
Phorate	ND		33	11	ug/Kg		11/05/19 05:57	11/06/19 13:55	1
Ronnel	ND		33	16	ug/Kg		11/05/19 05:57	11/06/19 13:55	1
Disulfoton	ND		33	22	ug/Kg		11/05/19 05:57	11/06/19 13:55	1
Famphur	ND		33	18	ug/Kg		11/05/19 05:57	11/06/19 13:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tributyl phosphate	*57*		*20 - 140*	*11/05/19 05:57*	*11/06/19 13:55*	*1*
Tributyl phosphate	*50*		*20 - 140*	*11/05/19 05:57*	*11/06/19 13:55*	*1*
Triphenylphosphate	*84*		*37 - 139*	*11/05/19 05:57*	*11/06/19 13:55*	*1*
Triphenylphosphate	*87*		*37 - 139*	*11/05/19 05:57*	*11/06/19 13:55*	*1*

Lab Sample ID: LCS 180-297078/2-A
Matrix: Solid
Analysis Batch: 297301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 297078

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorpyrifos	333	332		ug/Kg		100	59 - 142
Diazinon	333	325		ug/Kg		98	57 - 135
Malathion	333	331		ug/Kg		99	57 - 134
Parathion	333	320		ug/Kg		96	54 - 129
Methyl parathion	333	315		ug/Kg		94	52 - 136
Phorate	333	292		ug/Kg		88	50 - 125
Ronnel	333	344		ug/Kg		103	60 - 136
Disulfoton	333	307		ug/Kg		92	27 - 150
Famphur	333	323		ug/Kg		97	54 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tributyl phosphate	*89*		*20 - 140*
Tributyl phosphate	*83*		*20 - 140*
Triphenylphosphate	*102*		*37 - 139*
Triphenylphosphate	*102*		*37 - 139*

Lab Sample ID: 180-97987-1 MS
Matrix: Solid
Analysis Batch: 297301

Client Sample ID: 3065932001
Prep Type: Total/NA
Prep Batch: 297078

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorpyrifos	ND	H	397	396		ug/Kg	☼	100	59 - 142
Diazinon	ND	H	397	373		ug/Kg	☼	94	57 - 135
Malathion	ND	H	397	361		ug/Kg	☼	91	57 - 134
Parathion	ND	H	397	373		ug/Kg	☼	94	54 - 129
Methyl parathion	ND	H	397	379		ug/Kg	☼	95	52 - 136

[redacted]

QC Sample Results

Client: Non-responsive due to revised scope
Project/Site: 3065932

Job ID: 180-97987-1

Method: EPA 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique (Continued)

Lab Sample ID: 180-97987-1 MS
Matrix: Solid
Analysis Batch: 297301

Client Sample ID: 3065932001
Prep Type: Total/NA
Prep Batch: 297078

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phorate	ND	H	397	321		ug/Kg	☼	81	50 - 125
Ronnel	ND	H	397	364		ug/Kg	☼	92	60 - 136
Disulfoton	ND	H	397	341		ug/Kg	☼	86	27 - 150
Famphur	ND	H	397	354		ug/Kg	☼	89	54 - 125

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tributyl phosphate	*93*		*20 - 140*
Tributyl phosphate	*88*		*20 - 140*
Triphenylphosphate	*118*		*37 - 139*
Triphenylphosphate	*112*		*37 - 139*

Lab Sample ID: 180-97987-1 MSD
Matrix: Solid
Analysis Batch: 297301

Client Sample ID: 3065932001
Prep Type: Total/NA
Prep Batch: 297078

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chlorpyrifos	ND	H	397	387		ug/Kg	☼	98	59 - 142	2	33
Diazinon	ND	H	397	375		ug/Kg	☼	95	57 - 135	0	40
Malathion	ND	H	397	370		ug/Kg	☼	93	57 - 134	3	35
Parathion	ND	H	397	374		ug/Kg	☼	94	54 - 129	0	29
Methyl parathion	ND	H	397	380		ug/Kg	☼	96	52 - 136	0	30
Phorate	ND	H	397	324		ug/Kg	☼	82	50 - 125	1	29
Ronnel	ND	H	397	368		ug/Kg	☼	93	60 - 136	1	27
Disulfoton	ND	H	397	352		ug/Kg	☼	89	27 - 150	3	40
Famphur	ND	H	397	352		ug/Kg	☼	89	54 - 125	1	33

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tributyl phosphate	*84*		*20 - 140*
Tributyl phosphate	*78*		*20 - 140*
Triphenylphosphate	*106*		*37 - 139*
Triphenylphosphate	*101*		*37 - 139*

Non-responsive due to revised scope

QC Association Summary

Client: Non-responsive due to revised scope
Project/Site: 3065932

Job ID: 180-97987-1

GC Semi VOA

Prep Batch: 297078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-97987-1	3065932001	Total/NA	Solid	3541	
MB 180-297078/1-A	Method Blank	Total/NA	Solid	3541	
LCS 180-297078/2-A	Lab Control Sample	Total/NA	Solid	3541	
180-97987-1 MS	3065932001	Total/NA	Solid	3541	
180-97987-1 MSD	3065932001	Total/NA	Solid	3541	

Analysis Batch: 297301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-97987-1	3065932001	Total/NA	Solid	EPA 8141B	297078
MB 180-297078/1-A	Method Blank	Total/NA	Solid	EPA 8141B	297078
LCS 180-297078/2-A	Lab Control Sample	Total/NA	Solid	EPA 8141B	297078
180-97987-1 MS	3065932001	Total/NA	Solid	EPA 8141B	297078
180-97987-1 MSD	3065932001	Total/NA	Solid	EPA 8141B	297078

General Chemistry

Analysis Batch: 297419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-97987-1	3065932001	Total/NA	Solid	2540G	

Non-responsive due to revised scope

[redacted]

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: | of
ALS Quote #:

Client Na[redacted]
Address: [redacted]
Contact: [redacted]
Phone#: [redacted]
Project Name/#: 3065932
Bill To: [redacted]

TAT [ ] Normal-Standard TAT is 10-12 business days.
[X] Rush-Subject to [redacted] approval and surcharges.
Date Required: 11/10/2019 Approved?
Email? [X] -Y [redacted]
Fax? [ ] -Y No.:

Container Type: G
Container Size: 16oz
Preservative: None

ANALYSES/METHOD REQUESTED

Enter Number of Containers Per Sample or Field Results Below.

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	*G or C	**Matrix	8141 (Disulfton, Methyl Parathion, Famphur, Parathion					Subcontract to:	Test America- Pittsburgh			
1	3065932001	10/23/19	16:30	G	S	1									
2															
3															
4															
5															
6															
7															
8															
9															
10															

Receipt Information (completed by Receiving Lab)
W.O. Temp: ____ Therm ID: ____
Courier/Tracking #:
Purchase Order #:
Project Comments:

[redacted] Field Services: □ Pickup □ Labor
□ Composite Sampling □ Rental Equipment
Other: ____

Sample/COC Comments

180-97987 Chain of Custody

SAMPLED BY (Please Print):

Sampler Comments:

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[redacted]	10/24/19	1500	2	[redacted]	10/30/19	900
3				4			
5				6			
7				8			
9				10			

Data Deliverables: [X] Standard [ ] CLP-like [ ] USACE/DOD [ ] DOD

Special Processing: USACE [ ] Navy [ ] [ ]

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [X] VA other

Reportable to PADEP? Yes [ ] No [ ]
PWSID #

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type-

* G=Grab; C=Composite **Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

[redacted]

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11/19/2019

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[redacted]

[redacted]

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After printing this label:
CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH
1. Fold the printed page along the horizontal line.
2. Place label in shipping pouch and affix it to your shipment.

SHIP DATE: 28OCT19
ACTWGT: 20.00 LB MAN
CAD: 0218589/CAFE3310

BILL THIRD PARTY

TO [redacted]

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INV
PO
DEPT:

FedEx Express

J131219061901ux

565C3/2A3C/05A2

WED - 30 OCT 3:00P
STANDARD OVERNIGHT

TRK# 0201 4798 9481 7604

15238
PIT
PA-US

EK AGCA

Uncorrected temp
Thermometer ID
CF 0 Initials
PT-WI-SR-001 effective 11/8/18
Incorrected temp

180-97987 Waybill

1 2 3 4 5 6 7 8 9 10 11 12 13

Login Sample Receipt Checklist

Client: Non-responsive due to revised scope

Job Number: 180-97987-1

Login Number: 97987
List Number: 1
Creator: Say, Thomas C

List Source: Non-responsive due to revised scope

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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