CHEMTECH

284 Sheffield Street, Mountainside, New Jersey - 07092

Phone: (908) 789 8900 Fax: (908) 789 8922

LAB CHRONICLE

OrderID:	O1233	**OrderDate:**	1/19/2023 1:53:00 PM
Client:	Louis Berger U.S., Inc., A WSP Company	**Project:**	NYCDDC Phase II SCI Arthur Kill Road CEQR
Contact:	Jonathan Ganz	**Location:**	N11,VOA Ref. #2 Soil,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
O1233-02	**B-P34A**	**SOIL**			**01/18/23**			**01/19/23**
			PCB	8082A		01/20/23	01/20/23	
			Pesticide-TCL	8081B		01/20/23	01/21/23	
O1233-03	**B-P34B**	**SOIL**			**01/18/23**			**01/19/23**
			PCB	8082A		01/20/23	01/20/23	
			Pesticide-TCL	8081B		01/20/23	01/21/23	
O1233-04	**B-P36A**	**SOIL**			**01/18/23**			**01/19/23**
			PCB	8082A		01/20/23	01/20/23	
			Pesticide-TCL	8081B		01/20/23	01/21/23	
O1233-05	**B-P36B**	**SOIL**			**01/18/23**			**01/19/23**
			PCB	8082A		01/20/23	01/20/23	
			Pesticide-TCL	8081B		01/20/23	01/21/23	
O1233-06	**B-P37A**	**SOIL**			**01/18/23**			**01/19/23**
			PCB	8082A		01/20/23	01/21/23	
			Pesticide-TCL	8081B		01/20/23	01/21/23	
O1233-07	**B-P37B**	**SOIL**			**01/18/23**			**01/19/23**
			PCB	8082A		01/20/23	01/21/23	
			Pesticide-TCL	8081B		01/20/23	01/21/23	
O1233-08	**B-P38A**	**SOIL**			**01/18/23**			**01/19/23**
			PCB	8082A		01/20/23	01/21/23	
			Pesticide-TCL	8081B		01/20/23	01/21/23	
O1233-09	**B-P38B**	**SOIL**			**01/18/23**			**01/19/23**
			PCB	8082A		01/20/23	01/21/23	
			Pesticide-TCL	8081B		01/20/23	01/21/23	
O1233-10	**WC-38**	**SOIL**			**01/18/23**			**01/19/23**
			Diesel Range Organics	8015D		01/20/23	01/23/23	

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LAB CHRONICLE

			Gasoline Range Organics	8015D			01/23/23	
			PCB	8082A		01/20/23	01/21/23	
O1233-11	**B-P38C**	**SOIL**			**01/18/23**			**01/19/23**
			PCB	8082A		01/20/23	01/21/23	
			Pesticide-TCL	8081B		01/20/23	01/21/23	

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Hit Summary Sheet
SW-846

SDG No.: O1233 **Order ID:** O1233

Client: Louis Berger U.S., Inc., A WSP Company **Project ID:** NYCDDC Phase II SCI Arthur Kill Rc

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : B-P37A								
O1233-06	B-P37A	SOIL	4,4-DDE	0.74	JP	0.20	1.90	ug/kg
O1233-06	B-P37A	SOIL	4,4-DDT	0.53	JP	0.24	1.90	ug/kg
O1233-06	B-P37A	SOIL	alpha-Chlordane	9.10	P	0.24	1.90	ug/kg
O1233-06	B-P37A	SOIL	gamma-Chlordane	3.50	P	0.24	1.90	ug/kg
			Total Concentration:	**13.870**				
Client ID : B-P37B								
O1233-07	B-P37B	SOIL	4,4-DDE	0.55	J	0.22	2.00	ug/kg
O1233-07	B-P37B	SOIL	4,4-DDD	0.69	JP	0.25	2.00	ug/kg
O1233-07	B-P37B	SOIL	gamma-Chlordane	1.10	JP	0.25	2.00	ug/kg
			Total Concentration:	**2.340**				

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SAMPLE DATA

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P34A	SDG No.:	O1233
Lab Sample ID:	O1233-02	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	85.3 Decanted:
Sample Wt/Vol:	30.04 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080442.D	1	01/20/23 10:35	01/21/23 00:24	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	0.28	U	0.28	2.00	ug/kg
319-85-7	beta-BHC	0.61	U	0.61	2.00	ug/kg
319-86-8	delta-BHC	0.48	U	0.48	2.00	ug/kg
58-89-9	gamma-BHC (Lindane)	0.26	U	0.26	2.00	ug/kg
76-44-8	Heptachlor	0.27	U	0.27	2.00	ug/kg
309-00-2	Aldrin	0.23	U	0.23	2.00	ug/kg
1024-57-3	Heptachlor epoxide	0.34	U	0.34	2.00	ug/kg
959-98-8	Endosulfan I	0.22	U	0.22	2.00	ug/kg
60-57-1	Dieldrin	0.21	U	0.21	2.00	ug/kg
72-55-9	4,4-DDE	0.21	U	0.21	2.00	ug/kg
72-20-8	Endrin	0.20	U	0.20	2.00	ug/kg
33213-65-9	Endosulfan II	0.26	U	0.26	2.00	ug/kg
72-54-8	4,4-DDD	0.25	U	0.25	2.00	ug/kg
1031-07-8	Endosulfan Sulfate	0.21	U	0.21	2.00	ug/kg
50-29-3	4,4-DDT	0.25	U	0.25	2.00	ug/kg
72-43-5	Methoxychlor	0.29	U	0.29	2.00	ug/kg
53494-70-5	Endrin ketone	0.34	U	0.34	2.00	ug/kg
7421-93-4	Endrin aldehyde	0.34	U	0.34	2.00	ug/kg
5103-71-9	alpha-Chlordane	0.25	U	0.25	2.00	ug/kg
5103-74-2	gamma-Chlordane	0.25	U	0.25	2.00	ug/kg
8001-35-2	Toxaphene	7.80	U	7.80	38.6	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	16.2		12 - 143	81%	SPK: 20
877-09-8	Tetrachloro-m-xylene	18.6		10 - 159	93%	SPK: 20

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P34A	SDG No.:	O1233
Lab Sample ID:	O1233-02	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	85.3 Decanted:
Sample Wt/Vol:	30.04 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080442.D	1	01/20/23 10:35	01/21/23 00:24	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P34B	SDG No.:	O1233
Lab Sample ID:	O1233-03	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	90.7 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080445.D	1	01/20/23 10:35	01/21/23 01:05	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	0.26	U	0.26	1.90	ug/kg
319-85-7	beta-BHC	0.57	U	0.57	1.90	ug/kg
319-86-8	delta-BHC	0.45	U	0.45	1.90	ug/kg
58-89-9	gamma-BHC (Lindane)	0.24	U	0.24	1.90	ug/kg
76-44-8	Heptachlor	0.25	U	0.25	1.90	ug/kg
309-00-2	Aldrin	0.22	U	0.22	1.90	ug/kg
1024-57-3	Heptachlor epoxide	0.32	U	0.32	1.90	ug/kg
959-98-8	Endosulfan I	0.21	U	0.21	1.90	ug/kg
60-57-1	Dieldrin	0.20	U	0.20	1.90	ug/kg
72-55-9	4,4-DDE	0.20	U	0.20	1.90	ug/kg
72-20-8	Endrin	0.19	U	0.19	1.90	ug/kg
33213-65-9	Endosulfan II	0.24	U	0.24	1.90	ug/kg
72-54-8	4,4-DDD	0.23	U	0.23	1.90	ug/kg
1031-07-8	Endosulfan Sulfate	0.20	U	0.20	1.90	ug/kg
50-29-3	4,4-DDT	0.23	U	0.23	1.90	ug/kg
72-43-5	Methoxychlor	0.28	U	0.28	1.90	ug/kg
53494-70-5	Endrin ketone	0.32	U	0.32	1.90	ug/kg
7421-93-4	Endrin aldehyde	0.32	U	0.32	1.90	ug/kg
5103-71-9	alpha-Chlordane	0.23	U	0.23	1.90	ug/kg
5103-74-2	gamma-Chlordane	0.23	U	0.23	1.90	ug/kg
8001-35-2	Toxaphene	7.30	U	7.30	36.4	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	21.0		12 - 143	105%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.8		10 - 159	109%	SPK: 20

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P34B	SDG No.:	O1233
Lab Sample ID:	O1233-03	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	90.7 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080445.D	1	01/20/23 10:35	01/21/23 01:05	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

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LOD = Limit of Detection
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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36A	SDG No.:	O1233
Lab Sample ID:	O1233-04	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	89.6 Decanted:
Sample Wt/Vol:	30.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080446.D	1	01/20/23 10:35	01/21/23 01:19	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	0.27	U	0.27	1.90	ug/kg
319-85-7	beta-BHC	0.58	U	0.58	1.90	ug/kg
319-86-8	delta-BHC	0.46	U	0.46	1.90	ug/kg
58-89-9	gamma-BHC (Lindane)	0.25	U	0.25	1.90	ug/kg
76-44-8	Heptachlor	0.26	U	0.26	1.90	ug/kg
309-00-2	Aldrin	0.22	U	0.22	1.90	ug/kg
1024-57-3	Heptachlor epoxide	0.32	U	0.32	1.90	ug/kg
959-98-8	Endosulfan I	0.21	U	0.21	1.90	ug/kg
60-57-1	Dieldrin	0.20	U	0.20	1.90	ug/kg
72-55-9	4,4-DDE	0.20	U	0.20	1.90	ug/kg
72-20-8	Endrin	0.19	U	0.19	1.90	ug/kg
33213-65-9	Endosulfan II	0.25	U	0.25	1.90	ug/kg
72-54-8	4,4-DDD	0.23	U	0.23	1.90	ug/kg
1031-07-8	Endosulfan Sulfate	0.20	U	0.20	1.90	ug/kg
50-29-3	4,4-DDT	0.23	U	0.23	1.90	ug/kg
72-43-5	Methoxychlor	0.28	U	0.28	1.90	ug/kg
53494-70-5	Endrin ketone	0.32	U	0.32	1.90	ug/kg
7421-93-4	Endrin aldehyde	0.32	U	0.32	1.90	ug/kg
5103-71-9	alpha-Chlordane	0.23	U	0.23	1.90	ug/kg
5103-74-2	gamma-Chlordane	0.23	U	0.23	1.90	ug/kg
8001-35-2	Toxaphene	7.40	U	7.40	36.8	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	18.4		12 - 143	92%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.9		10 - 159	99%	SPK: 20

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36A	SDG No.:	O1233
Lab Sample ID:	O1233-04	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	89.6 Decanted:
Sample Wt/Vol:	30.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080446.D	1	01/20/23 10:35	01/21/23 01:19	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36B	SDG No.:	O1233
Lab Sample ID:	O1233-05	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	90.4 Decanted:
Sample Wt/Vol:	30.06 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080447.D	1	01/20/23 10:35	01/21/23 01:33	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	0.27	U	0.27	1.90	ug/kg
319-85-7	beta-BHC	0.57	U	0.57	1.90	ug/kg
319-86-8	delta-BHC	0.45	U	0.45	1.90	ug/kg
58-89-9	gamma-BHC (Lindane)	0.24	U	0.24	1.90	ug/kg
76-44-8	Heptachlor	0.25	U	0.25	1.90	ug/kg
309-00-2	Aldrin	0.22	U	0.22	1.90	ug/kg
1024-57-3	Heptachlor epoxide	0.32	U	0.32	1.90	ug/kg
959-98-8	Endosulfan I	0.21	U	0.21	1.90	ug/kg
60-57-1	Dieldrin	0.20	U	0.20	1.90	ug/kg
72-55-9	4,4-DDE	0.20	U	0.20	1.90	ug/kg
72-20-8	Endrin	0.19	U	0.19	1.90	ug/kg
33213-65-9	Endosulfan II	0.24	U	0.24	1.90	ug/kg
72-54-8	4,4-DDD	0.23	U	0.23	1.90	ug/kg
1031-07-8	Endosulfan Sulfate	0.20	U	0.20	1.90	ug/kg
50-29-3	4,4-DDT	0.23	U	0.23	1.90	ug/kg
72-43-5	Methoxychlor	0.28	U	0.28	1.90	ug/kg
53494-70-5	Endrin ketone	0.32	U	0.32	1.90	ug/kg
7421-93-4	Endrin aldehyde	0.32	U	0.32	1.90	ug/kg
5103-71-9	alpha-Chlordane	0.23	U	0.23	1.90	ug/kg
5103-74-2	gamma-Chlordane	0.23	U	0.23	1.90	ug/kg
8001-35-2	Toxaphene	7.30	U	7.30	36.4	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	18.1		12 - 143	90%	SPK: 20
877-09-8	Tetrachloro-m-xylene	23.4		10 - 159	117%	SPK: 20

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P36B	SDG No.:	O1233
Lab Sample ID:	O1233-05	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	90.4 Decanted:
Sample Wt/Vol:	30.06 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080447.D	1	01/20/23 10:35	01/21/23 01:33	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P37A	SDG No.:	O1233
Lab Sample ID:	O1233-06	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	87.9 Decanted:
Sample Wt/Vol:	30.09 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080448.D	1	01/20/23 10:35	01/21/23 01:47	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	0.27	U	0.27	1.90	ug/kg
319-85-7	beta-BHC	0.59	U	0.59	1.90	ug/kg
319-86-8	delta-BHC	0.47	U	0.47	1.90	ug/kg
58-89-9	gamma-BHC (Lindane)	0.25	U	0.25	1.90	ug/kg
76-44-8	Heptachlor	0.26	U	0.26	1.90	ug/kg
309-00-2	Aldrin	0.23	U	0.23	1.90	ug/kg
1024-57-3	Heptachlor epoxide	0.33	U	0.33	1.90	ug/kg
959-98-8	Endosulfan I	0.22	U	0.22	1.90	ug/kg
60-57-1	Dieldrin	0.20	U	0.20	1.90	ug/kg
72-55-9	4,4-DDE	0.74	JP	0.20	1.90	ug/kg
72-20-8	Endrin	0.19	U	0.19	1.90	ug/kg
33213-65-9	Endosulfan II	0.25	U	0.25	1.90	ug/kg
72-54-8	4,4-DDD	0.24	U	0.24	1.90	ug/kg
1031-07-8	Endosulfan Sulfate	0.20	U	0.20	1.90	ug/kg
50-29-3	4,4-DDT	0.53	JP	0.24	1.90	ug/kg
72-43-5	Methoxychlor	0.28	U	0.28	1.90	ug/kg
53494-70-5	Endrin ketone	0.33	U	0.33	1.90	ug/kg
7421-93-4	Endrin aldehyde	0.33	U	0.33	1.90	ug/kg
5103-71-9	alpha-Chlordane	9.10	P	0.24	1.90	ug/kg
5103-74-2	gamma-Chlordane	3.50	P	0.24	1.90	ug/kg
8001-35-2	Toxaphene	7.50	U	7.50	37.4	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	17.6		12 - 143	88%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.0		10 - 159	95%	SPK: 20

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P37A	SDG No.:	O1233
Lab Sample ID:	O1233-06	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	87.9 Decanted:
Sample Wt/Vol:	30.09 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080448.D	1	01/20/23 10:35	01/21/23 01:47	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P37B	SDG No.:	O1233
Lab Sample ID:	O1233-07	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	83.5 Decanted:
Sample Wt/Vol:	30.04 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080449.D	1	01/20/23 10:35	01/21/23 02:01	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	0.29	U	0.29	2.00	ug/kg
319-85-7	beta-BHC	0.62	U	0.62	2.00	ug/kg
319-86-8	delta-BHC	0.49	U	0.49	2.00	ug/kg
58-89-9	gamma-BHC (Lindane)	0.26	U	0.26	2.00	ug/kg
76-44-8	Heptachlor	0.28	U	0.28	2.00	ug/kg
309-00-2	Aldrin	0.24	U	0.24	2.00	ug/kg
1024-57-3	Heptachlor epoxide	0.35	U	0.35	2.00	ug/kg
959-98-8	Endosulfan I	0.23	U	0.23	2.00	ug/kg
60-57-1	Dieldrin	0.22	U	0.22	2.00	ug/kg
72-55-9	4,4-DDE	0.55	J	0.22	2.00	ug/kg
72-20-8	Endrin	0.20	U	0.20	2.00	ug/kg
33213-65-9	Endosulfan II	0.26	U	0.26	2.00	ug/kg
72-54-8	4,4-DDD	0.69	JP	0.25	2.00	ug/kg
1031-07-8	Endosulfan Sulfate	0.22	U	0.22	2.00	ug/kg
50-29-3	4,4-DDT	0.25	U	0.25	2.00	ug/kg
72-43-5	Methoxychlor	0.30	U	0.30	2.00	ug/kg
53494-70-5	Endrin ketone	0.35	U	0.35	2.00	ug/kg
7421-93-4	Endrin aldehyde	0.35	U	0.35	2.00	ug/kg
5103-71-9	alpha-Chlordane	0.25	U	0.25	2.00	ug/kg
5103-74-2	gamma-Chlordane	1.10	JP	0.25	2.00	ug/kg
8001-35-2	Toxaphene	7.90	U	7.90	39.5	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	17.6		12 - 143	88%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.4		10 - 159	102%	SPK: 20

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P37B	SDG No.:	O1233
Lab Sample ID:	O1233-07	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	83.5 Decanted:
Sample Wt/Vol:	30.04 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080449.D	1	01/20/23 10:35	01/21/23 02:01	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
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J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
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D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38A	SDG No.:	O1233
Lab Sample ID:	O1233-08	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	89.3 Decanted:
Sample Wt/Vol:	30.07 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080450.D	1	01/20/23 10:35	01/21/23 02:15	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	0.27	U	0.27	1.90	ug/kg
319-85-7	beta-BHC	0.58	U	0.58	1.90	ug/kg
319-86-8	delta-BHC	0.46	U	0.46	1.90	ug/kg
58-89-9	gamma-BHC (Lindane)	0.25	U	0.25	1.90	ug/kg
76-44-8	Heptachlor	0.26	U	0.26	1.90	ug/kg
309-00-2	Aldrin	0.22	U	0.22	1.90	ug/kg
1024-57-3	Heptachlor epoxide	0.32	U	0.32	1.90	ug/kg
959-98-8	Endosulfan I	0.21	U	0.21	1.90	ug/kg
60-57-1	Dieldrin	0.20	U	0.20	1.90	ug/kg
72-55-9	4,4-DDE	0.20	U	0.20	1.90	ug/kg
72-20-8	Endrin	0.19	U	0.19	1.90	ug/kg
33213-65-9	Endosulfan II	0.25	U	0.25	1.90	ug/kg
72-54-8	4,4-DDD	0.23	U	0.23	1.90	ug/kg
1031-07-8	Endosulfan Sulfate	0.20	U	0.20	1.90	ug/kg
50-29-3	4,4-DDT	0.23	U	0.23	1.90	ug/kg
72-43-5	Methoxychlor	0.28	U	0.28	1.90	ug/kg
53494-70-5	Endrin ketone	0.32	U	0.32	1.90	ug/kg
7421-93-4	Endrin aldehyde	0.32	U	0.32	1.90	ug/kg
5103-71-9	alpha-Chlordane	0.23	U	0.23	1.90	ug/kg
5103-74-2	gamma-Chlordane	0.23	U	0.23	1.90	ug/kg
8001-35-2	Toxaphene	7.40	U	7.40	36.9	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	10.4		12 - 143	52%	SPK: 20
877-09-8	Tetrachloro-m-xylene	9.61		10 - 159	48%	SPK: 20

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38A	SDG No.:	O1233
Lab Sample ID:	O1233-08	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	89.3 Decanted:
Sample Wt/Vol:	30.07 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080450.D	1	01/20/23 10:35	01/21/23 02:15	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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J = Estimated Value
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() = Laboratory InHouse Limit

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38B	SDG No.:	O1233
Lab Sample ID:	O1233-09	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	80.7 Decanted:
Sample Wt/Vol:	30.1 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080451.D	1	01/20/23 10:35	01/21/23 02:29	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	0.30	U	0.30	2.10	ug/kg
319-85-7	beta-BHC	0.64	U	0.64	2.10	ug/kg
319-86-8	delta-BHC	0.51	U	0.51	2.10	ug/kg
58-89-9	gamma-BHC (Lindane)	0.27	U	0.27	2.10	ug/kg
76-44-8	Heptachlor	0.28	U	0.28	2.10	ug/kg
309-00-2	Aldrin	0.25	U	0.25	2.10	ug/kg
1024-57-3	Heptachlor epoxide	0.36	U	0.36	2.10	ug/kg
959-98-8	Endosulfan I	0.23	U	0.23	2.10	ug/kg
60-57-1	Dieldrin	0.22	U	0.22	2.10	ug/kg
72-55-9	4,4-DDE	0.22	U	0.22	2.10	ug/kg
72-20-8	Endrin	0.21	U	0.21	2.10	ug/kg
33213-65-9	Endosulfan II	0.27	U	0.27	2.10	ug/kg
72-54-8	4,4-DDD	0.26	U	0.26	2.10	ug/kg
1031-07-8	Endosulfan Sulfate	0.22	U	0.22	2.10	ug/kg
50-29-3	4,4-DDT	0.26	U	0.26	2.10	ug/kg
72-43-5	Methoxychlor	0.31	U	0.31	2.10	ug/kg
53494-70-5	Endrin ketone	0.36	U	0.36	2.10	ug/kg
7421-93-4	Endrin aldehyde	0.36	U	0.36	2.10	ug/kg
5103-71-9	alpha-Chlordane	0.26	U	0.26	2.10	ug/kg
5103-74-2	gamma-Chlordane	0.26	U	0.26	2.10	ug/kg
8001-35-2	Toxaphene	8.20	U	8.20	40.8	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	14.1		12 - 143	71%	SPK: 20
877-09-8	Tetrachloro-m-xylene	17.7		10 - 159	88%	SPK: 20

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38B	SDG No.:	O1233
Lab Sample ID:	O1233-09	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	80.7 Decanted:
Sample Wt/Vol:	30.1 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080451.D	1	01/20/23 10:35	01/21/23 02:29	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
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J = Estimated Value
B = Analyte Found in Associated Method Blank
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* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38C	SDG No.:	O1233
Lab Sample ID:	O1233-11	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	85.9 Decanted:
Sample Wt/Vol:	30.09 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080452.D	1	01/20/23 10:35	01/21/23 02:43	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	0.28	U	0.28	2.00	ug/kg
319-85-7	beta-BHC	0.60	U	0.60	2.00	ug/kg
319-86-8	delta-BHC	0.48	U	0.48	2.00	ug/kg
58-89-9	gamma-BHC (Lindane)	0.26	U	0.26	2.00	ug/kg
76-44-8	Heptachlor	0.27	U	0.27	2.00	ug/kg
309-00-2	Aldrin	0.23	U	0.23	2.00	ug/kg
1024-57-3	Heptachlor epoxide	0.34	U	0.34	2.00	ug/kg
959-98-8	Endosulfan I	0.22	U	0.22	2.00	ug/kg
60-57-1	Dieldrin	0.21	U	0.21	2.00	ug/kg
72-55-9	4,4-DDE	0.21	U	0.21	2.00	ug/kg
72-20-8	Endrin	0.20	U	0.20	2.00	ug/kg
33213-65-9	Endosulfan II	0.26	U	0.26	2.00	ug/kg
72-54-8	4,4-DDD	0.24	U	0.24	2.00	ug/kg
1031-07-8	Endosulfan Sulfate	0.21	U	0.21	2.00	ug/kg
50-29-3	4,4-DDT	0.24	U	0.24	2.00	ug/kg
72-43-5	Methoxychlor	0.29	U	0.29	2.00	ug/kg
53494-70-5	Endrin ketone	0.34	U	0.34	2.00	ug/kg
7421-93-4	Endrin aldehyde	0.34	U	0.34	2.00	ug/kg
5103-71-9	alpha-Chlordane	0.24	U	0.24	2.00	ug/kg
5103-74-2	gamma-Chlordane	0.24	U	0.24	2.00	ug/kg
8001-35-2	Toxaphene	7.70	U	7.70	38.3	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	16.9		12 - 143	84%	SPK: 20
877-09-8	Tetrachloro-m-xylene	17.1		10 - 159	85%	SPK: 20

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P38C	SDG No.:	O1233
Lab Sample ID:	O1233-11	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	85.9 Decanted:
Sample Wt/Vol:	30.09 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080452.D	1	01/20/23 10:35	01/21/23 02:43	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
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J = Estimated Value
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QC SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Surrogate Summary

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PL080405.D	PIBLK-PL080405.D	Decachlorobiphenyl	1	20	23.3	116		27	142
		Tetrachloro-m-xylene	1	20	23.0	115		60	145
		Decachlorobiphenyl	2	20	20.9	104		27	142
		Tetrachloro-m-xylene	2	20	21.7	109		60	145
I.BLK-PL080426.D	PIBLK-PL080426.D	Decachlorobiphenyl	1	20	21.8	109		27	142
		Tetrachloro-m-xylene	1	20	20.5	102		60	145
		Decachlorobiphenyl	2	20	21.7	108		27	142
		Tetrachloro-m-xylene	2	20	20.8	104		60	145
PB150373BL	PB150373BL	Decachlorobiphenyl	1	20	18.6	93		12	143
		Tetrachloro-m-xylene	1	20	16.7	83		10	159
		Decachlorobiphenyl	2	20	18.2	91		12	143
		Tetrachloro-m-xylene	2	20	16.6	83		10	159
PB150373BS	PB150373BS	Decachlorobiphenyl	1	20	20.2	101		12	143
		Tetrachloro-m-xylene	1	20	18.3	91		10	159
		Decachlorobiphenyl	2	20	20.0	100		12	143
		Tetrachloro-m-xylene	2	20	18.4	92		10	159
I.BLK-PL080440.D	PIBLK-PL080440.D	Decachlorobiphenyl	1	20	21.8	109		27	142
		Tetrachloro-m-xylene	1	20	20.8	104		60	145
		Decachlorobiphenyl	2	20	20.9	104		27	142
		Tetrachloro-m-xylene	2	20	20.7	104		60	145
O1233-02	B-P34A	Decachlorobiphenyl	1	20	16.2	81		12	143
		Tetrachloro-m-xylene	1	20	18.4	92		10	159
		Decachlorobiphenyl	2	20	15.8	79		12	143
		Tetrachloro-m-xylene	2	20	18.6	93		10	159
O1233-02MS	B-P34AMS	Decachlorobiphenyl	1	20	15.5	77		12	143
		Tetrachloro-m-xylene	1	20	16.9	85		10	159
		Decachlorobiphenyl	2	20	15.1	75		12	143
		Tetrachloro-m-xylene	2	20	16.8	84		10	159
O1233-02MSD	B-P34AMSD	Decachlorobiphenyl	1	20	15.7	78		12	143
		Tetrachloro-m-xylene	1	20	17.1	85		10	159
		Decachlorobiphenyl	2	20	15.2	76		12	143
		Tetrachloro-m-xylene	2	20	17.1	85		10	159
O1233-03	B-P34B	Decachlorobiphenyl	1	20	21.0	105		12	143
		Tetrachloro-m-xylene	1	20	21.8	109		10	159
		Decachlorobiphenyl	2	20	20.5	102		12	143
		Tetrachloro-m-xylene	2	20	20.6	103		10	159
O1233-04	B-P36A	Decachlorobiphenyl	1	20	18.4	92		12	143
		Tetrachloro-m-xylene	1	20	19.7	99		10	159
		Decachlorobiphenyl	2	20	16.9	84		12	143
		Tetrachloro-m-xylene	2	20	19.9	99		10	159
O1233-05	B-P36B	Decachlorobiphenyl	1	20	18.1	90		12	143
		Tetrachloro-m-xylene	1	20	23.4	117		10	159
		Decachlorobiphenyl	2	20	17.7	88		12	143

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Surrogate Summary

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
O1233-05	B-P36B	Tetrachloro-m-xylene	2	20	19.6	98		10	159
O1233-06	B-P37A	Decachlorobiphenyl	1	20	17.6	88		12	143
		Tetrachloro-m-xylene	1	20	19.0	95		10	159
		Decachlorobiphenyl	2	20	17.5	87		12	143
		Tetrachloro-m-xylene	2	20	18.9	94		10	159
O1233-07	B-P37B	Decachlorobiphenyl	1	20	17.6	88		12	143
		Tetrachloro-m-xylene	1	20	20.4	102		10	159
		Decachlorobiphenyl	2	20	16.2	81		12	143
		Tetrachloro-m-xylene	2	20	20.0	100		10	159
O1233-08	B-P38A	Decachlorobiphenyl	1	20	10.3	52		12	143
		Tetrachloro-m-xylene	1	20	9.61	48		10	159
		Decachlorobiphenyl	2	20	10.4	52		12	143
		Tetrachloro-m-xylene	2	20	9.28	46		10	159
O1233-09	B-P38B	Decachlorobiphenyl	1	20	14.1	71		12	143
		Tetrachloro-m-xylene	1	20	17.4	87		10	159
		Decachlorobiphenyl	2	20	14.1	71		12	143
		Tetrachloro-m-xylene	2	20	17.7	88		10	159
O1233-11	B-P38C	Decachlorobiphenyl	1	20	16.9	84		12	143
		Tetrachloro-m-xylene	1	20	17.1	85		10	159
		Decachlorobiphenyl	2	20	16.6	83		12	143
		Tetrachloro-m-xylene	2	20	15.7	78		10	159
I.BLK-PL080453.D	PIBLK-PL080453.D	Decachlorobiphenyl	1	20	21.2	106		27	142
		Tetrachloro-m-xylene	1	20	20.5	103		60	145
		Decachlorobiphenyl	2	20	21.3	106		27	142
		Tetrachloro-m-xylene	2	20	20.3	102		60	145

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Compan

Analytical Method: 8081B **DataFile :** PL080443.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**B-P34AMS**											
O1233-02MS	alpha-BHC	19.47	0	18.2	ug/kg	93				67	130	
	beta-BHC	19.47	0	17.7	ug/kg	91				63	134	
	delta-BHC	19.47	0	18.7	ug/kg	96				48	144	
	gamma-BHC (Lindane)	19.47	0	18.5	ug/kg	95				70	131	
	Heptachlor	19.47	0	18.4	ug/kg	95				65	131	
	Aldrin	19.47	0	19.0	ug/kg	98				67	134	
	Heptachlor epoxide	19.47	0	18.3	ug/kg	94				55	162	
	Endosulfan I	19.47	0	18.2	ug/kg	93				67	133	
	Dieldrin	19.47	0	19.2	ug/kg	99				47	161	
	4,4'-DDE	19.47	0	18.6	ug/kg	96				45	175	
	Endrin	19.47	0	19.7	ug/kg	101				47	158	
	Endosulfan II	19.47	0	20.8	ug/kg	107				57	149	
	4,4'-DDD	19.47	0	18.3	ug/kg	94				65	145	
	Endosulfan sulfate	19.47	0	18.6	ug/kg	96				62	139	
	4,4'-DDT	19.47	0	19.8	ug/kg	102				46	168	
	Methoxychlor	19.47	0	18.8	ug/kg	97				57	145	
	Endrin ketone	19.47	0	18.4	ug/kg	95				60	129	
	Endrin aldehyde	19.47	0	19.8	ug/kg	102				49	146	
	alpha-Chlordane	19.47	0	18.5	ug/kg	95				42	175	
	gamma-Chlordane	19.47	0	18.3	ug/kg	94				44	175	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Compan

Analytical Method: 8081B **DataFile :** PL080444.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**B-P34AMSD**											
O1233-02MSD	alpha-BHC	19.49	0	18.4	ug/kg	94		1		67	130	20
	beta-BHC	19.49	0	17.9	ug/kg	92		1		63	134	20
	delta-BHC	19.49	0	19.0	ug/kg	97		1		48	144	20
	gamma-BHC (Lindane)	19.49	0	18.8	ug/kg	96		1		70	131	20
	Heptachlor	19.49	0	18.6	ug/kg	95		0		65	131	20
	Aldrin	19.49	0	19.3	ug/kg	99		1		67	134	20
	Heptachlor epoxide	19.49	0	18.5	ug/kg	95		1		55	162	20
	Endosulfan I	19.49	0	18.4	ug/kg	94		1		67	133	20
	Dieldrin	19.49	0	19.4	ug/kg	100		1		47	161	20
	4,4'-DDE	19.49	0	18.9	ug/kg	97		1		45	175	20
	Endrin	19.49	0	19.9	ug/kg	102		1		47	158	20
	Endosulfan II	19.49	0	21.1	ug/kg	108		1		57	149	20
	4,4'-DDD	19.49	0	18.6	ug/kg	95		1		65	145	20
	Endosulfan sulfate	19.49	0	18.8	ug/kg	96		0		62	139	20
	4,4'-DDT	19.49	0	20.0	ug/kg	103		1		46	168	20
	Methoxychlor	19.49	0	19.0	ug/kg	97		0		57	145	20
	Endrin ketone	19.49	0	18.6	ug/kg	95		0		60	129	20
	Endrin aldehyde	19.49	0	20.1	ug/kg	103		1		49	146	20
	alpha-Chlordane	19.49	0	18.7	ug/kg	96		1		42	175	20
	gamma-Chlordane	19.49	0	18.8	ug/kg	96		2		44	175	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Compan

Analytical Method: 8081B **Datafile :** PL080430.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB150373BS	alpha-BHC	16.66	15.1	ug/kg	91				84	123	
	beta-BHC	16.66	14.3	ug/kg	86				82	123	
	delta-BHC	16.66	15.2	ug/kg	91				83	126	
	gamma-BHC (Lindane)	16.66	15.1	ug/kg	91				83	125	
	Heptachlor	16.66	15.2	ug/kg	91				83	122	
	Aldrin	16.66	15.5	ug/kg	93				82	124	
	Heptachlor epoxide	16.66	15.3	ug/kg	92				83	120	
	Endosulfan I	16.66	15.0	ug/kg	90				81	124	
	Dieldrin	16.66	15.9	ug/kg	95				85	121	
	4,4'-DDE	16.66	15.3	ug/kg	92				81	123	
	Endrin	16.66	16.5	ug/kg	99				76	130	
	Endosulfan II	16.66	17.4	ug/kg	104				80	125	
	4,4'-DDD	16.66	15.2	ug/kg	91				80	131	
	Endosulfan sulfate	16.66	15.6	ug/kg	94				81	122	
	4,4'-DDT	16.66	15.0	ug/kg	90				70	129	
	Methoxychlor	16.66	15.5	ug/kg	93				78	129	
	Endrin ketone	16.66	15.5	ug/kg	93				77	132	
	Endrin aldehyde	16.66	16.4	ug/kg	98				79	124	
	alpha-Chlordane	16.66	15.3	ug/kg	92				84	120	
	gamma-Chlordane	16.66	15.0	ug/kg	90				83	122	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB150373BL

Lab Name: CHEMTECH Contract: loui01

Lab Code: CHEM Case No.: O1233 SAS No.: O1233 SDG NO.: O1233

Lab Sample ID: PB150373BL Lab File ID: PL080429.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 01/20/2023

Date Analyzed (1): 01/20/2023 Date Analyzed (2): 01/20/2023

Time Analyzed (1): 20:42 Time Analyzed (2): 20:42

Instrument ID (1): ECD_L Instrument ID (2): ECD_L

GC Column (1): ZB-MR2 ID: 0.32 (mm) GC Column (2): ZB-MR1 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB150373BS	PB150373BS	PL080430.D	01/20/2023	01/20/2023
B-P34A	O1233-02	PL080442.D	01/21/2023	01/21/2023
B-P34AMS	O1233-02MS	PL080443.D	01/21/2023	01/21/2023
B-P34AMSD	O1233-02MSD	PL080444.D	01/21/2023	01/21/2023
B-P34B	O1233-03	PL080445.D	01/21/2023	01/21/2023
B-P36A	O1233-04	PL080446.D	01/21/2023	01/21/2023
B-P36B	O1233-05	PL080447.D	01/21/2023	01/21/2023
B-P37A	O1233-06	PL080448.D	01/21/2023	01/21/2023
B-P37B	O1233-07	PL080449.D	01/21/2023	01/21/2023
B-P38A	O1233-08	PL080450.D	01/21/2023	01/21/2023
B-P38B	O1233-09	PL080451.D	01/21/2023	01/21/2023
B-P38C	O1233-11	PL080452.D	01/21/2023	01/21/2023

COMMENTS:

CHEMTECH

A
B
C
D
E
F
G
H

QC SAMPLE DATA

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	PB150373BL	SDG No.:	O1233
Lab Sample ID:	PB150373BL	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	100 Decanted:
Sample Wt/Vol:	30.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080429.D	1	01/20/23 10:35	01/20/23 20:42	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	0.24	U	0.24	1.70	ug/kg
319-85-7	beta-BHC	0.52	U	0.52	1.70	ug/kg
319-86-8	delta-BHC	0.41	U	0.41	1.70	ug/kg
58-89-9	gamma-BHC (Lindane)	0.22	U	0.22	1.70	ug/kg
76-44-8	Heptachlor	0.23	U	0.23	1.70	ug/kg
309-00-2	Aldrin	0.20	U	0.20	1.70	ug/kg
1024-57-3	Heptachlor epoxide	0.29	U	0.29	1.70	ug/kg
959-98-8	Endosulfan I	0.19	U	0.19	1.70	ug/kg
60-57-1	Dieldrin	0.18	U	0.18	1.70	ug/kg
72-55-9	4,4-DDE	0.18	U	0.18	1.70	ug/kg
72-20-8	Endrin	0.17	U	0.17	1.70	ug/kg
33213-65-9	Endosulfan II	0.22	U	0.22	1.70	ug/kg
72-54-8	4,4-DDD	0.21	U	0.21	1.70	ug/kg
1031-07-8	Endosulfan Sulfate	0.18	U	0.18	1.70	ug/kg
50-29-3	4,4-DDT	0.21	U	0.21	1.70	ug/kg
72-43-5	Methoxychlor	0.25	U	0.25	1.70	ug/kg
53494-70-5	Endrin ketone	0.29	U	0.29	1.70	ug/kg
7421-93-4	Endrin aldehyde	0.29	U	0.29	1.70	ug/kg
5103-71-9	alpha-Chlordane	0.21	U	0.21	1.70	ug/kg
5103-74-2	gamma-Chlordane	0.21	U	0.21	1.70	ug/kg
8001-35-2	Toxaphene	6.60	U	6.60	33.0	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	18.6		12 - 143	93%	SPK: 20
877-09-8	Tetrachloro-m-xylene	16.7		10 - 159	83%	SPK: 20

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	PB150373BL	SDG No.:	O1233
Lab Sample ID:	PB150373BL	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	100 Decanted:
Sample Wt/Vol:	30.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080429.D	1	01/20/23 10:35	01/20/23 20:42	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/20/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/20/23
Client Sample ID:	PIBLK-PL080405.D	SDG No.:	O1233
Lab Sample ID:	I.BLK-PL080405.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080405.D	1		01/20/23	pl012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.0078	U	0.0078	0.050	ug/L
319-85-7	beta-BHC	0.014	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.012	U	0.012	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.0064	U	0.0064	0.050	ug/L
76-44-8	Heptachlor	0.0073	U	0.0073	0.050	ug/L
309-00-2	Aldrin	0.0071	U	0.0071	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.010	U	0.010	0.050	ug/L
959-98-8	Endosulfan I	0.0059	U	0.0059	0.050	ug/L
60-57-1	Dieldrin	0.0054	U	0.0054	0.050	ug/L
72-55-9	4,4-DDE	0.0059	U	0.0059	0.050	ug/L
72-20-8	Endrin	0.0043	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.0076	U	0.0076	0.050	ug/L
72-54-8	4,4-DDD	0.0084	U	0.0084	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.0051	U	0.0051	0.050	ug/L
50-29-3	4,4-DDT	0.0065	U	0.0065	0.050	ug/L
72-43-5	Methoxychlor	0.0066	U	0.0066	0.050	ug/L
53494-70-5	Endrin ketone	0.0084	U	0.0084	0.050	ug/L
7421-93-4	Endrin aldehyde	0.0070	U	0.0070	0.050	ug/L
5103-71-9	alpha-Chlordane	0.0074	U	0.0074	0.050	ug/L
5103-74-2	gamma-Chlordane	0.0065	U	0.0065	0.050	ug/L
8001-35-2	Toxaphene	0.18	U	0.18	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	23.3		27 - 142	116%	SPK: 20
877-09-8	Tetrachloro-m-xylene	23.0		60 - 145	115%	SPK: 20

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/20/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/20/23
Client Sample ID:	PIBLK-PL080405.D	SDG No.:	O1233
Lab Sample ID:	I.BLK-PL080405.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080405.D	1		01/20/23	pl012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/20/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/20/23
Client Sample ID:	PIBLK-PL080426.D	SDG No.:	O1233
Lab Sample ID:	I.BLK-PL080426.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080426.D	1		01/20/23	pl012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.0078	U	0.0078	0.050	ug/L
319-85-7	beta-BHC	0.014	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.012	U	0.012	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.0064	U	0.0064	0.050	ug/L
76-44-8	Heptachlor	0.0073	U	0.0073	0.050	ug/L
309-00-2	Aldrin	0.0071	U	0.0071	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.010	U	0.010	0.050	ug/L
959-98-8	Endosulfan I	0.0059	U	0.0059	0.050	ug/L
60-57-1	Dieldrin	0.0054	U	0.0054	0.050	ug/L
72-55-9	4,4-DDE	0.0059	U	0.0059	0.050	ug/L
72-20-8	Endrin	0.0043	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.0076	U	0.0076	0.050	ug/L
72-54-8	4,4-DDD	0.0084	U	0.0084	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.0051	U	0.0051	0.050	ug/L
50-29-3	4,4-DDT	0.0065	U	0.0065	0.050	ug/L
72-43-5	Methoxychlor	0.0066	U	0.0066	0.050	ug/L
53494-70-5	Endrin ketone	0.0084	U	0.0084	0.050	ug/L
7421-93-4	Endrin aldehyde	0.0070	U	0.0070	0.050	ug/L
5103-71-9	alpha-Chlordane	0.0074	U	0.0074	0.050	ug/L
5103-74-2	gamma-Chlordane	0.0065	U	0.0065	0.050	ug/L
8001-35-2	Toxaphene	0.18	U	0.18	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	21.8		27 - 142	109%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.8		60 - 145	104%	SPK: 20

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/20/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/20/23
Client Sample ID:	PIBLK-PL080426.D	SDG No.:	O1233
Lab Sample ID:	I.BLK-PL080426.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080426.D	1		01/20/23	pl012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/20/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/20/23
Client Sample ID:	PIBLK-PL080440.D	SDG No.:	O1233
Lab Sample ID:	I.BLK-PL080440.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080440.D	1		01/20/23	pl012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.0078	U	0.0078	0.050	ug/L
319-85-7	beta-BHC	0.014	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.012	U	0.012	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.0064	U	0.0064	0.050	ug/L
76-44-8	Heptachlor	0.0073	U	0.0073	0.050	ug/L
309-00-2	Aldrin	0.0071	U	0.0071	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.010	U	0.010	0.050	ug/L
959-98-8	Endosulfan I	0.0059	U	0.0059	0.050	ug/L
60-57-1	Dieldrin	0.0054	U	0.0054	0.050	ug/L
72-55-9	4,4-DDE	0.0059	U	0.0059	0.050	ug/L
72-20-8	Endrin	0.0043	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.0076	U	0.0076	0.050	ug/L
72-54-8	4,4-DDD	0.0084	U	0.0084	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.0051	U	0.0051	0.050	ug/L
50-29-3	4,4-DDT	0.0065	U	0.0065	0.050	ug/L
72-43-5	Methoxychlor	0.0066	U	0.0066	0.050	ug/L
53494-70-5	Endrin ketone	0.0084	U	0.0084	0.050	ug/L
7421-93-4	Endrin aldehyde	0.0070	U	0.0070	0.050	ug/L
5103-71-9	alpha-Chlordane	0.0074	U	0.0074	0.050	ug/L
5103-74-2	gamma-Chlordane	0.0065	U	0.0065	0.050	ug/L
8001-35-2	Toxaphene	0.18	U	0.18	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	21.8		27 - 142	109%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.8		60 - 145	104%	SPK: 20

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/20/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/20/23
Client Sample ID:	PIBLK-PL080440.D	SDG No.:	O1233
Lab Sample ID:	I.BLK-PL080440.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080440.D	1		01/20/23	pl012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/21/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/21/23
Client Sample ID:	PIBLK-PL080453.D	SDG No.:	O1233
Lab Sample ID:	I.BLK-PL080453.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080453.D	1		01/21/23	pl012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.0078	U	0.0078	0.050	ug/L
319-85-7	beta-BHC	0.014	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.012	U	0.012	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.0064	U	0.0064	0.050	ug/L
76-44-8	Heptachlor	0.0073	U	0.0073	0.050	ug/L
309-00-2	Aldrin	0.0071	U	0.0071	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.010	U	0.010	0.050	ug/L
959-98-8	Endosulfan I	0.0059	U	0.0059	0.050	ug/L
60-57-1	Dieldrin	0.0054	U	0.0054	0.050	ug/L
72-55-9	4,4-DDE	0.0059	U	0.0059	0.050	ug/L
72-20-8	Endrin	0.0043	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.0076	U	0.0076	0.050	ug/L
72-54-8	4,4-DDD	0.0084	U	0.0084	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.0051	U	0.0051	0.050	ug/L
50-29-3	4,4-DDT	0.0065	U	0.0065	0.050	ug/L
72-43-5	Methoxychlor	0.0066	U	0.0066	0.050	ug/L
53494-70-5	Endrin ketone	0.0084	U	0.0084	0.050	ug/L
7421-93-4	Endrin aldehyde	0.0070	U	0.0070	0.050	ug/L
5103-71-9	alpha-Chlordane	0.0074	U	0.0074	0.050	ug/L
5103-74-2	gamma-Chlordane	0.0065	U	0.0065	0.050	ug/L
8001-35-2	Toxaphene	0.18	U	0.18	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	21.3		27 - 142	106%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.5		60 - 145	103%	SPK: 20

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/21/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/21/23
Client Sample ID:	PIBLK-PL080453.D	SDG No.:	O1233
Lab Sample ID:	I.BLK-PL080453.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080453.D	1		01/21/23	pl012023

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	PB150373BS	SDG No.:	O1233
Lab Sample ID:	PB150373BS	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	100 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080430.D	1	01/20/23 10:35	01/20/23 20:55	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	15.1		0.24	1.70	ug/kg
319-85-7	beta-BHC	14.3		0.52	1.70	ug/kg
319-86-8	delta-BHC	15.2		0.41	1.70	ug/kg
58-89-9	gamma-BHC (Lindane)	15.1		0.22	1.70	ug/kg
76-44-8	Heptachlor	15.2		0.23	1.70	ug/kg
309-00-2	Aldrin	15.5		0.20	1.70	ug/kg
1024-57-3	Heptachlor epoxide	15.3		0.29	1.70	ug/kg
959-98-8	Endosulfan I	15.0		0.19	1.70	ug/kg
60-57-1	Dieldrin	15.9		0.18	1.70	ug/kg
72-55-9	4,4-DDE	15.3		0.18	1.70	ug/kg
72-20-8	Endrin	16.5		0.17	1.70	ug/kg
33213-65-9	Endosulfan II	17.4		0.22	1.70	ug/kg
72-54-8	4,4-DDD	15.2		0.21	1.70	ug/kg
1031-07-8	Endosulfan Sulfate	15.6		0.18	1.70	ug/kg
50-29-3	4,4-DDT	15.0		0.21	1.70	ug/kg
72-43-5	Methoxychlor	15.5		0.25	1.70	ug/kg
53494-70-5	Endrin ketone	15.5		0.29	1.70	ug/kg
7421-93-4	Endrin aldehyde	16.4		0.29	1.70	ug/kg
5103-71-9	alpha-Chlordane	15.3		0.21	1.70	ug/kg
5103-74-2	gamma-Chlordane	15.0		0.21	1.70	ug/kg
8001-35-2	Toxaphene	6.60	U	6.60	33.0	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	20.2		12 - 143	101%	SPK: 20
877-09-8	Tetrachloro-m-xylene	18.4		10 - 159	92%	SPK: 20

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	
Client Sample ID:	PB150373BS	SDG No.:	O1233
Lab Sample ID:	PB150373BS	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	100 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080430.D	1	01/20/23 10:35	01/20/23 20:55	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P34AMS	SDG No.:	O1233
Lab Sample ID:	O1233-02MS	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	85.3 Decanted:
Sample Wt/Vol:	30.1 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080443.D	1	01/20/23 10:35	01/21/23 00:38	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	18.2		0.28	2.00	ug/kg
319-85-7	beta-BHC	17.7		0.61	2.00	ug/kg
319-86-8	delta-BHC	18.7		0.48	2.00	ug/kg
58-89-9	gamma-BHC (Lindane)	18.5		0.26	2.00	ug/kg
76-44-8	Heptachlor	18.4		0.27	2.00	ug/kg
309-00-2	Aldrin	19.0		0.23	2.00	ug/kg
1024-57-3	Heptachlor epoxide	18.3		0.34	2.00	ug/kg
959-98-8	Endosulfan I	18.2		0.22	2.00	ug/kg
60-57-1	Dieldrin	19.2		0.21	2.00	ug/kg
72-55-9	4,4-DDE	18.6		0.21	2.00	ug/kg
72-20-8	Endrin	19.7		0.20	2.00	ug/kg
33213-65-9	Endosulfan II	20.8		0.26	2.00	ug/kg
72-54-8	4,4-DDD	18.3		0.25	2.00	ug/kg
1031-07-8	Endosulfan Sulfate	18.6		0.21	2.00	ug/kg
50-29-3	4,4-DDT	19.8		0.25	2.00	ug/kg
72-43-5	Methoxychlor	18.8		0.29	2.00	ug/kg
53494-70-5	Endrin ketone	18.4		0.34	2.00	ug/kg
7421-93-4	Endrin aldehyde	19.8		0.34	2.00	ug/kg
5103-71-9	alpha-Chlordane	18.5		0.25	2.00	ug/kg
5103-74-2	gamma-Chlordane	18.3		0.25	2.00	ug/kg
8001-35-2	Toxaphene	7.70	U	7.70	38.6	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	15.5		12 - 143	77%	SPK: 20
877-09-8	Tetrachloro-m-xylene	16.9		10 - 159	85%	SPK: 20

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P34AMS	SDG No.:	O1233
Lab Sample ID:	O1233-02MS	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	85.3 Decanted:
Sample Wt/Vol:	30.1 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080443.D	1	01/20/23 10:35	01/21/23 00:38	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P34AMSD	SDG No.:	O1233
Lab Sample ID:	O1233-02MSD	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	85.3 Decanted:
Sample Wt/Vol:	30.08 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080444.D	1	01/20/23 10:35	01/21/23 00:51	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	18.4		0.28	2.00	ug/kg
319-85-7	beta-BHC	17.9		0.61	2.00	ug/kg
319-86-8	delta-BHC	19.0		0.48	2.00	ug/kg
58-89-9	gamma-BHC (Lindane)	18.8		0.26	2.00	ug/kg
76-44-8	Heptachlor	18.6		0.27	2.00	ug/kg
309-00-2	Aldrin	19.3		0.23	2.00	ug/kg
1024-57-3	Heptachlor epoxide	18.5		0.34	2.00	ug/kg
959-98-8	Endosulfan I	18.4		0.22	2.00	ug/kg
60-57-1	Dieldrin	19.4		0.21	2.00	ug/kg
72-55-9	4,4-DDE	18.9		0.21	2.00	ug/kg
72-20-8	Endrin	19.9		0.20	2.00	ug/kg
33213-65-9	Endosulfan II	21.1		0.26	2.00	ug/kg
72-54-8	4,4-DDD	18.6		0.25	2.00	ug/kg
1031-07-8	Endosulfan Sulfate	18.8		0.21	2.00	ug/kg
50-29-3	4,4-DDT	20.0		0.25	2.00	ug/kg
72-43-5	Methoxychlor	19.0		0.29	2.00	ug/kg
53494-70-5	Endrin ketone	18.6		0.34	2.00	ug/kg
7421-93-4	Endrin aldehyde	20.1		0.34	2.00	ug/kg
5103-71-9	alpha-Chlordane	18.7		0.25	2.00	ug/kg
5103-74-2	gamma-Chlordane	18.8		0.25	2.00	ug/kg
8001-35-2	Toxaphene	7.70	U	7.70	38.6	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	15.7		12 - 143	78%	SPK: 20
877-09-8	Tetrachloro-m-xylene	17.1		10 - 159	85%	SPK: 20

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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/18/23
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/19/23
Client Sample ID:	B-P34AMSD	SDG No.:	O1233
Lab Sample ID:	O1233-02MSD	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	85.3 Decanted:
Sample Wt/Vol:	30.08 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL080444.D	1	01/20/23 10:35	01/21/23 00:51	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CHEMTECH

A
B
C
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E
F
G
H

CALIBRATION SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

RETENTION TIMES OF INITIAL CALIBRATION

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

Instrument ID: ECD_L **Calibration Date(s):** 01/20/2023 01/20/2023

Calibration Times: 14:41 15:36

GC Column: ZB-MR2 ID: 0.32 (mm)

LAB FILE ID: RT 100 = PL080408.D RT 075 = PL080409.D

RT 050 = PL080410.D RT 025 = PL080411.D RT 005 = PL080412.D

COMPOUND	RT 100	RT 075	RT 050	RT 025	RT 005	MEAN RT	RT WINDOW FROM	RT WINDOW TO
4,4'-DDD	6.50	6.50	6.50	6.50	6.50	6.50	6.40	6.60
4,4'-DDE	5.99	5.99	5.99	5.99	5.99	5.99	5.89	6.09
4,4'-DDT	6.82	6.82	6.82	6.82	6.82	6.82	6.72	6.92
Aldrin	5.05	5.05	5.05	5.05	5.05	5.05	4.95	5.15
alpha-BHC	3.80	3.80	3.80	3.80	3.80	3.80	3.70	3.90
alpha-Chlordane	5.81	5.81	5.81	5.81	5.81	5.81	5.71	5.91
beta-BHC	4.33	4.33	4.33	4.33	4.33	4.33	4.23	4.43
Decachlorobiphenyl	8.79	8.79	8.79	8.79	8.79	8.79	8.69	8.89
delta-BHC	4.57	4.57	4.57	4.57	4.57	4.57	4.47	4.67
Dieldrin	6.13	6.13	6.13	6.13	6.13	6.13	6.03	6.23
Endosulfan I	5.86	5.86	5.86	5.86	5.86	5.86	5.76	5.96
Endosulfan II	6.58	6.58	6.58	6.58	6.58	6.58	6.48	6.68
Endosulfan sulfate	6.94	6.94	6.94	6.94	6.94	6.94	6.84	7.04
Endrin	6.36	6.36	6.36	6.36	6.36	6.36	6.26	6.46
Endrin aldehyde	6.71	6.71	6.71	6.71	6.71	6.71	6.61	6.81
Endrin ketone	7.42	7.42	7.42	7.42	7.42	7.42	7.32	7.52
gamma-BHC (Lindane)	4.13	4.13	4.13	4.13	4.13	4.13	4.03	4.23
gamma-Chlordane	5.73	5.73	5.73	5.73	5.73	5.73	5.63	5.83
Heptachlor	4.71	4.71	4.71	4.71	4.71	4.71	4.61	4.81
Heptachlor epoxide	5.48	5.48	5.48	5.48	5.48	5.48	5.38	5.58
Methoxychlor	7.30	7.29	7.29	7.29	7.29	7.29	7.19	7.39
Tetrachloro-m-xylene	3.35	3.35	3.35	3.35	3.35	3.35	3.25	3.45

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

Instrument ID: ECD_L **Calibration Date(s):** 01/20/2023 01/20/2023

Calibration Times: 14:41 15:36

GC Column: ZB-MR1 ID: 0.32 (mm)

LAB FILE ID: RT 100 = PL080408.D RT 075 = PL080409.D

RT 050 = PL080410.D RT 025 = PL080411.D RT 005 = PL080412.D

COMPOUND	RT 100	RT 075	RT 050	RT 025	RT 005	MEAN RT	RT WINDOW FROM	RT WINDOW TO
4,4'-DDD	5.71	5.71	5.71	5.71	5.70	5.71	5.61	5.81
4,4'-DDE	5.15	5.15	5.15	5.15	5.15	5.15	5.05	5.25
4,4'-DDT	5.96	5.96	5.96	5.96	5.96	5.96	5.86	6.06
Aldrin	4.14	4.14	4.14	4.14	4.14	4.14	4.04	4.24
alpha-BHC	3.19	3.19	3.19	3.19	3.19	3.19	3.09	3.29
alpha-Chlordane	4.96	4.96	4.96	4.96	4.96	4.96	4.86	5.06
beta-BHC	3.82	3.82	3.82	3.82	3.82	3.82	3.72	3.92
Decachlorobiphenyl	7.84	7.84	7.84	7.84	7.84	7.84	7.74	7.94
delta-BHC	4.05	4.05	4.05	4.05	4.05	4.05	3.95	4.15
Dieldrin	5.28	5.28	5.28	5.28	5.28	5.28	5.18	5.38
Endosulfan I	5.01	5.01	5.01	5.01	5.01	5.01	4.91	5.11
Endosulfan II	5.85	5.85	5.85	5.85	5.85	5.85	5.75	5.95
Endosulfan sulfate	6.25	6.25	6.25	6.25	6.25	6.25	6.15	6.35
Endrin	5.55	5.55	5.55	5.55	5.55	5.55	5.45	5.65
Endrin aldehyde	6.03	6.03	6.03	6.03	6.03	6.03	5.93	6.13
Endrin ketone	6.76	6.76	6.76	6.76	6.76	6.76	6.66	6.86
gamma-BHC (Lindane)	3.52	3.52	3.52	3.52	3.52	3.52	3.42	3.62
gamma-Chlordane	4.90	4.89	4.90	4.89	4.89	4.89	4.79	4.99
Heptachlor	3.86	3.86	3.86	3.86	3.86	3.86	3.76	3.96
Heptachlor epoxide	4.64	4.64	4.64	4.64	4.64	4.64	4.54	4.74
Methoxychlor	6.54	6.54	6.54	6.54	6.54	6.54	6.44	6.64
Tetrachloro-m-xylene	2.69	2.69	2.69	2.69	2.69	2.69	2.59	2.79

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

Instrument ID: ECD_L **Calibration Date(s):** 01/20/2023 01/20/2023

Calibration Times: 14:41 15:36

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

LAB FILE ID: **CF 100 =** PL080408.D **CF 075 =** PL080409.D

CF 050 = PL080410.D **CF 025 =** PL080411.D **CF 005 =** PL080412.D

COMPOUND	CF 100	CF 075	CF 050	CF 025	CF 005	CF	% RSD
4,4'-DDD	1905610000	1862000000	1887350000	1782240000	1722740000	1831990000	4
4,4'-DDE	2372610000	2301620000	2301670000	2141800000	2019030000	2227350000	6
4,4'-DDT	2121650000	2069360000	2105420000	2030590000	2061320000	2077670000	2
Aldrin	2860500000	2790820000	2808060000	2638150000	2581390000	2735780000	4
alpha-BHC	3459050000	3348520000	3326130000	3010010000	2696430000	3168030000	10
alpha-Chlordane	2569670000	2528060000	2582020000	2479710000	2461870000	2524270000	2
beta-BHC	1294560000	1302560000	1356950000	1344950000	1526100000	1365020000	7
Decachlorobiphenyl	1672970000	1677850000	1760440000	1790370000	1852150000	1750750000	4
delta-BHC	3060650000	3002620000	3011640000	2759300000	2640780000	2895000000	6
Dieldrin	2493900000	2438180000	2465990000	2329280000	2239460000	2393360000	4
Endosulfan I	2387790000	2351460000	2408380000	2317780000	2341910000	2361460000	2
Endosulfan II	2093230000	2100820000	2170130000	2223780000	2873670000	2292330000	14
Endosulfan sulfate	2062490000	2046210000	2111090000	2059180000	2070610000	2069910000	1
Endrin	2204570000	2155500000	2194160000	2079990000	2179270000	2162700000	2
Endrin aldehyde	1635600000	1625400000	1687620000	1663640000	1704770000	1663410000	2
Endrin ketone	2216140000	2194410000	2263130000	2186320000	2171720000	2206340000	2
gamma-BHC (Lindane)	3150720000	3065120000	3082440000	2837110000	2563450000	2939770000	8
gamma-Chlordane	2594350000	2547200000	2592760000	2465730000	2428580000	2525720000	3
Heptachlor	3043160000	2998050000	3040850000	2897830000	2796200000	2955220000	4
Heptachlor epoxide	2583000000	2553540000	2617140000	2527330000	2654290000	2587060000	2
Methoxychlor	1070870000	1072560000	1121380000	1119940000	1131700000	1103290000	3
Tetrachloro-m-xylene	2180590000	2154690000	2203650000	2127540000	2057690000	2144830000	3

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

Instrument ID: ECD_L **Calibration Date(s):** 01/20/2023 01/20/2023

Calibration Times: 14:41 15:36

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

LAB FILE ID: **CF 100 =** PL080408.D **CF 075 =** PL080409.D

CF 050 = PL080410.D **CF 025 =** PL080411.D **CF 005 =** PL080412.D

COMPOUND	CF 100	CF 075	CF 050	CF 025	CF 005	CF	% RSD
4,4'-DDD	2062880000	1990630000	1979590000	1798820000	1564090000	1879200000	11
4,4'-DDE	2603080000	2510310000	2474640000	2228870000	1977270000	2358830000	11
4,4'-DDT	2281330000	2209920000	2184000000	2010350000	1821830000	2101490000	9
Aldrin	3198240000	3090160000	3084560000	2816020000	2558890000	2949570000	9
alpha-BHC	3512950000	3389760000	3354830000	2995570000	2648950000	3180410000	11
alpha-Chlordane	2975110000	2908520000	2947310000	2785580000	2706870000	2864680000	4
beta-BHC	1331220000	1320290000	1367170000	1324970000	1329490000	1334630000	1
Decachlorobiphenyl	2264360000	2256580000	2379210000	2418120000	2594410000	2382540000	6
delta-BHC	3173510000	3070820000	3053200000	2725940000	2398720000	2884440000	11
Dieldrin	2915090000	2817980000	2814250000	2585500000	2392010000	2704970000	8
Endosulfan I	2719000000	2661400000	2696990000	2535860000	2393420000	2601340000	5
Endosulfan II	2247480000	2196770000	2218270000	2027050000	1729060000	2083730000	10
Endosulfan sulfate	2371950000	2330180000	2387060000	2290720000	2248450000	2325670000	2
Endrin	2455220000	2388810000	2416400000	2249330000	2096050000	2321160000	6
Endrin aldehyde	1820760000	1800700000	1844580000	1803290000	1861220000	1826110000	1
Endrin ketone	2628620000	2575270000	2643990000	2517280000	2400980000	2553230000	4
gamma-BHC (Lindane)	3253830000	3149320000	3144020000	2848560000	2540790000	2987310000	10
gamma-Chlordane	2995300000	2918520000	2933430000	2741630000	2582290000	2834240000	6
Heptachlor	3367270000	3281190000	3309620000	3080600000	2873130000	3182360000	6
Heptachlor epoxide	2894640000	2832800000	2871620000	2708730000	2603910000	2782340000	4
Methoxychlor	1210100000	1199400000	1243480000	1222610000	1191730000	1213470000	2
Tetrachloro-m-xylene	2253200000	2223250000	2272190000	2174740000	2058890000	2196450000	4

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

Instrument ID: ECD_L **Date(s) Analyzed:** 01/20/2023 01/20/2023

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Toxaphene	500	1	6.03	5.93	6.13	16579700
		2	6.84	6.74	6.94	67395000
		3	6.93	6.83	7.03	48523600
		4	7.03	6.93	7.13	26898900
		5	7.35	7.25	7.45	37572200

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

Instrument ID: ECD_L **Date(s) Analyzed:** 01/20/2023 01/20/2023

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Toxaphene	500	1	5.24	5.14	5.34	13842900
		2	5.88	5.78	5.98	16444600
		3	6.52	6.42	6.62	53738800
		4	6.65	6.55	6.75	73380200
		5	6.96	6.86	7.06	31164000

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CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

Continuing Calib Date: 01/20/2023 **Initial Calibration Date(s):** 01/20/2023 01/20/2023

Continuing Calib Time: 20:00 **Initial Calibration Time(s):** 14:41 15:36

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	8.79	8.79	8.69	8.89	0.00
Tetrachloro-m-xylene	3.35	3.35	3.25	3.45	0.00
alpha-BHC	3.80	3.80	3.70	3.90	0.00
beta-BHC	4.33	4.33	4.23	4.43	0.01
delta-BHC	4.57	4.57	4.47	4.67	0.00
gamma-BHC (Lindane)	4.13	4.13	4.03	4.23	0.00
Heptachlor	4.71	4.71	4.61	4.81	0.00
Aldrin	5.05	5.05	4.95	5.15	0.00
Heptachlor epoxide	5.48	5.48	5.38	5.58	0.01
Endosulfan I	5.86	5.86	5.76	5.96	0.00
Dieldrin	6.13	6.13	6.03	6.23	0.00
4,4'-DDE	5.99	5.99	5.89	6.09	0.00
Endrin	6.36	6.36	6.26	6.46	0.00
Endosulfan II	6.58	6.58	6.48	6.68	0.00
4,4'-DDD	6.50	6.50	6.40	6.60	0.00
Endosulfan sulfate	6.94	6.94	6.84	7.04	0.00
4,4'-DDT	6.82	6.82	6.72	6.92	0.00
Methoxychlor	7.29	7.29	7.19	7.39	0.00
Endrin ketone	7.42	7.42	7.32	7.52	0.00
Endrin aldehyde	6.71	6.71	6.61	6.81	0.00
alpha-Chlordane	5.81	5.81	5.71	5.91	0.00
gamma-Chlordane	5.73	5.73	5.63	5.83	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

Continuing Calib Date: 01/20/2023 **Initial Calibration Date(s):** 01/20/2023 01/20/2023

Continuing Calib Time: 20:00 **Initial Calibration Time(s):** 14:41 15:36

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.84	7.84	7.74	7.94	0.00
Tetrachloro-m-xylene	2.69	2.69	2.59	2.79	0.00
alpha-BHC	3.19	3.19	3.09	3.29	0.00
beta-BHC	3.82	3.82	3.72	3.92	0.00
delta-BHC	4.05	4.05	3.95	4.15	0.00
gamma-BHC (Lindane)	3.52	3.52	3.42	3.62	0.00
Heptachlor	3.86	3.86	3.76	3.96	0.00
Aldrin	4.14	4.14	4.04	4.24	0.00
Heptachlor epoxide	4.64	4.64	4.54	4.74	0.00
Endosulfan I	5.01	5.01	4.91	5.11	0.00
Dieldrin	5.28	5.28	5.18	5.38	0.00
4,4'-DDE	5.15	5.15	5.05	5.25	0.00
Endrin	5.55	5.55	5.45	5.65	0.00
Endosulfan II	5.85	5.85	5.75	5.95	0.01
4,4'-DDD	5.70	5.71	5.61	5.81	0.01
Endosulfan sulfate	6.25	6.25	6.15	6.35	0.00
4,4'-DDT	5.96	5.96	5.86	6.06	0.01
Methoxychlor	6.53	6.54	6.44	6.64	0.01
Endrin ketone	6.75	6.76	6.66	6.86	0.01
Endrin aldehyde	6.03	6.03	5.93	6.13	0.00
alpha-Chlordane	4.96	4.96	4.86	5.06	0.00
gamma-Chlordane	4.89	4.90	4.80	5.00	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/20/2023 01/20/2023

Client Sample No.: CCAL01 **Date Analyzed:** 01/20/2023

Lab Sample No.: PSTDCCC050 **Data File :** PL080428.D **Time Analyzed:** 20:00

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.501	6.404	6.604	48.270	50.000	-3.5
4,4'-DDE	5.987	5.889	6.089	49.010	50.000	-2.0
4,4'-DDT	6.815	6.716	6.916	47.330	50.000	-5.3
Aldrin	5.051	4.952	5.152	49.400	50.000	-1.2
alpha-BHC	3.800	3.701	3.901	50.520	50.000	1.0
alpha-Chlordane	5.810	5.711	5.911	48.940	50.000	-2.1
beta-BHC	4.325	4.225	4.425	48.490	50.000	-3.0
Decachlorobiphenyl	8.789	8.693	8.893	47.530	50.000	-4.9
delta-BHC	4.568	4.468	4.668	50.330	50.000	0.7
Dieldrin	6.132	6.033	6.233	49.250	50.000	-1.5
Endosulfan I	5.857	5.759	5.959	48.760	50.000	-2.5
Endosulfan II	6.577	6.480	6.680	42.260	50.000	-15.5
Endosulfan sulfate	6.941	6.843	7.043	48.650	50.000	-2.7
Endrin	6.359	6.261	6.461	48.680	50.000	-2.6
Endrin aldehyde	6.707	6.609	6.809	47.960	50.000	-4.1
Endrin ketone	7.421	7.324	7.524	48.690	50.000	-2.6
gamma-BHC (Lindane)	4.129	4.029	4.229	50.730	50.000	1.5
gamma-Chlordane	5.730	5.632	5.832	48.470	50.000	-3.1
Heptachlor	4.713	4.613	4.813	49.780	50.000	-0.4
Heptachlor epoxide	5.475	5.377	5.577	48.460	50.000	-3.1
Methoxychlor	7.292	7.194	7.394	48.170	50.000	-3.7
Tetrachloro-m-xylene	3.352	3.252	3.452	49.310	50.000	-1.4

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/20/2023 01/20/2023

Client Sample No.: CCAL01 **Date Analyzed:** 01/20/2023

Lab Sample No.: PSTDCCC050 **Data File :** PL080428.D **Time Analyzed:** 20:00

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.704	5.606	5.806	49.820	50.000	-0.4
4,4'-DDE	5.150	5.052	5.252	49.440	50.000	-1.1
4,4'-DDT	5.955	5.858	6.058	49.440	50.000	-1.1
Aldrin	4.140	4.041	4.241	50.500	50.000	1.0
alpha-BHC	3.191	3.091	3.291	51.440	50.000	2.9
alpha-Chlordane	4.957	4.859	5.059	49.040	50.000	-1.9
beta-BHC	3.815	3.716	3.916	49.090	50.000	-1.8
Decachlorobiphenyl	7.839	7.742	7.942	47.380	50.000	-5.2
delta-BHC	4.045	3.946	4.146	50.630	50.000	1.3
Dieldrin	5.277	5.179	5.379	49.990	50.000	0.0
Endosulfan I	5.012	4.913	5.113	49.610	50.000	-0.8
Endosulfan II	5.845	5.748	5.948	42.630	50.000	-14.7
Endosulfan sulfate	6.248	6.151	6.351	48.840	50.000	-2.3
Endrin	5.551	5.454	5.654	50.540	50.000	1.1
Endrin aldehyde	6.026	5.928	6.128	47.890	50.000	-4.2
Endrin ketone	6.754	6.656	6.856	49.490	50.000	-1.0
gamma-BHC (Lindane)	3.519	3.420	3.620	51.000	50.000	2.0
gamma-Chlordane	4.893	4.795	4.995	48.920	50.000	-2.2
Heptachlor	3.860	3.762	3.962	50.210	50.000	0.4
Heptachlor epoxide	4.642	4.544	4.744	49.890	50.000	-0.2
Methoxychlor	6.534	6.436	6.636	48.220	50.000	-3.6
Tetrachloro-m-xylene	2.690	2.590	2.790	50.300	50.000	0.6

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

Continuing Calib Date: 01/20/2023 **Initial Calibration Date(s):** 01/20/2023 01/20/2023

Continuing Calib Time: 23:28 **Initial Calibration Time(s):** 14:41 15:36

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	8.79	8.79	8.69	8.89	0.00
Tetrachloro-m-xylene	3.35	3.35	3.25	3.45	0.00
alpha-BHC	3.80	3.80	3.70	3.90	0.00
beta-BHC	4.33	4.33	4.23	4.43	0.01
delta-BHC	4.57	4.57	4.47	4.67	0.00
gamma-BHC (Lindane)	4.13	4.13	4.03	4.23	0.00
Heptachlor	4.71	4.71	4.61	4.81	0.00
Aldrin	5.05	5.05	4.95	5.15	0.00
Heptachlor epoxide	5.48	5.48	5.38	5.58	0.00
Endosulfan I	5.86	5.86	5.76	5.96	0.00
Dieldrin	6.13	6.13	6.03	6.23	0.00
4,4'-DDE	5.99	5.99	5.89	6.09	0.00
Endrin	6.36	6.36	6.26	6.46	0.00
Endosulfan II	6.58	6.58	6.48	6.68	0.00
4,4'-DDD	6.50	6.50	6.40	6.60	0.00
Endosulfan sulfate	6.94	6.94	6.84	7.04	0.00
4,4'-DDT	6.81	6.82	6.72	6.92	0.01
Methoxychlor	7.29	7.29	7.19	7.39	0.00
Endrin ketone	7.42	7.42	7.32	7.52	0.00
Endrin aldehyde	6.71	6.71	6.61	6.81	0.00
alpha-Chlordane	5.81	5.81	5.71	5.91	0.00
gamma-Chlordane	5.73	5.73	5.63	5.83	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

Continuing Calib Date: 01/20/2023 **Initial Calibration Date(s):** 01/20/2023 01/20/2023

Continuing Calib Time: 23:28 **Initial Calibration Time(s):** 14:41 15:36

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.84	7.84	7.74	7.94	0.00
Tetrachloro-m-xylene	2.69	2.69	2.59	2.79	0.00
alpha-BHC	3.19	3.19	3.09	3.29	0.00
beta-BHC	3.82	3.82	3.72	3.92	0.00
delta-BHC	4.05	4.05	3.95	4.15	0.00
gamma-BHC (Lindane)	3.52	3.52	3.42	3.62	0.00
Heptachlor	3.86	3.86	3.76	3.96	0.00
Aldrin	4.14	4.14	4.04	4.24	0.00
Heptachlor epoxide	4.64	4.64	4.54	4.74	0.00
Endosulfan I	5.01	5.01	4.91	5.11	0.00
Dieldrin	5.28	5.28	5.18	5.38	0.00
4,4'-DDE	5.15	5.15	5.05	5.25	0.00
Endrin	5.55	5.55	5.45	5.65	0.00
Endosulfan II	5.85	5.85	5.75	5.95	0.00
4,4'-DDD	5.70	5.71	5.61	5.81	0.01
Endosulfan sulfate	6.25	6.25	6.15	6.35	0.00
4,4'-DDT	5.96	5.96	5.86	6.06	0.00
Methoxychlor	6.53	6.54	6.44	6.64	0.01
Endrin ketone	6.75	6.76	6.66	6.86	0.01
Endrin aldehyde	6.03	6.03	5.93	6.13	0.00
alpha-Chlordane	4.96	4.96	4.86	5.06	0.00
gamma-Chlordane	4.89	4.90	4.80	5.00	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/20/2023 01/20/2023

Client Sample No.: CCAL02 **Date Analyzed:** 01/20/2023

Lab Sample No.: PSTDCCC050 **Data File :** PL080441.D **Time Analyzed:** 23:28

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.501	6.404	6.604	49.740	50.000	-0.5
4,4'-DDE	5.987	5.889	6.089	50.360	50.000	0.7
4,4'-DDT	6.814	6.716	6.916	48.460	50.000	-3.1
Aldrin	5.051	4.952	5.152	50.590	50.000	1.2
alpha-BHC	3.800	3.701	3.901	51.970	50.000	3.9
alpha-Chlordane	5.810	5.711	5.911	50.070	50.000	0.1
beta-BHC	4.325	4.225	4.425	49.540	50.000	-0.9
Decachlorobiphenyl	8.790	8.693	8.893	48.360	50.000	-3.3
delta-BHC	4.568	4.468	4.668	51.780	50.000	3.6
Dieldrin	6.132	6.033	6.233	50.140	50.000	0.3
Endosulfan I	5.857	5.759	5.959	49.840	50.000	-0.3
Endosulfan II	6.578	6.480	6.680	42.850	50.000	-14.3
Endosulfan sulfate	6.941	6.843	7.043	49.600	50.000	-0.8
Endrin	6.359	6.261	6.461	50.110	50.000	0.2
Endrin aldehyde	6.707	6.609	6.809	48.570	50.000	-2.9
Endrin ketone	7.421	7.324	7.524	49.160	50.000	-1.7
gamma-BHC (Lindane)	4.129	4.029	4.229	52.070	50.000	4.1
gamma-Chlordane	5.729	5.632	5.832	50.420	50.000	0.8
Heptachlor	4.713	4.613	4.813	51.320	50.000	2.6
Heptachlor epoxide	5.476	5.377	5.577	50.250	50.000	0.5
Methoxychlor	7.292	7.194	7.394	49.050	50.000	-1.9
Tetrachloro-m-xylene	3.352	3.252	3.452	50.350	50.000	0.7

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CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/20/2023 01/20/2023

Client Sample No.: CCAL02 **Date Analyzed:** 01/20/2023

Lab Sample No.: PSTDCCC050 **Data File :** PL080441.D **Time Analyzed:** 23:28

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.704	5.606	5.806	50.880	50.000	1.8
4,4'-DDE	5.150	5.052	5.252	50.190	50.000	0.4
4,4'-DDT	5.956	5.858	6.058	50.430	50.000	0.9
Aldrin	4.140	4.041	4.241	51.080	50.000	2.2
alpha-BHC	3.191	3.091	3.291	51.540	50.000	3.1
alpha-Chlordane	4.958	4.859	5.059	49.130	50.000	-1.7
beta-BHC	3.815	3.716	3.916	49.710	50.000	-0.6
Decachlorobiphenyl	7.838	7.742	7.942	47.060	50.000	-5.9
delta-BHC	4.045	3.946	4.146	51.450	50.000	2.9
Dieldrin	5.277	5.179	5.379	49.860	50.000	-0.3
Endosulfan I	5.012	4.913	5.113	49.140	50.000	-1.7
Endosulfan II	5.846	5.748	5.948	45.360	50.000	-9.3
Endosulfan sulfate	6.249	6.151	6.351	48.910	50.000	-2.2
Endrin	5.552	5.454	5.654	50.510	50.000	1.0
Endrin aldehyde	6.026	5.928	6.128	47.660	50.000	-4.7
Endrin ketone	6.754	6.656	6.856	49.070	50.000	-1.9
gamma-BHC (Lindane)	3.519	3.420	3.620	51.170	50.000	2.3
gamma-Chlordane	4.894	4.795	4.995	49.400	50.000	-1.2
Heptachlor	3.860	3.762	3.962	50.430	50.000	0.9
Heptachlor epoxide	4.643	4.544	4.744	49.840	50.000	-0.3
Methoxychlor	6.534	6.436	6.636	48.860	50.000	-2.3
Tetrachloro-m-xylene	2.690	2.590	2.790	50.670	50.000	1.3

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CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

Continuing Calib Date: 01/21/2023 **Initial Calibration Date(s):** 01/20/2023 01/20/2023

Continuing Calib Time: 03:10 **Initial Calibration Time(s):** 14:41 15:36

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	8.79	8.79	8.69	8.89	0.00
Tetrachloro-m-xylene	3.35	3.35	3.25	3.45	0.00
alpha-BHC	3.80	3.80	3.70	3.90	0.00
beta-BHC	4.32	4.33	4.23	4.43	0.01
delta-BHC	4.57	4.57	4.47	4.67	0.00
gamma-BHC (Lindane)	4.13	4.13	4.03	4.23	0.00
Heptachlor	4.71	4.71	4.61	4.81	0.00
Aldrin	5.05	5.05	4.95	5.15	0.00
Heptachlor epoxide	5.48	5.48	5.38	5.58	0.01
Endosulfan I	5.86	5.86	5.76	5.96	0.00
Dieldrin	6.13	6.13	6.03	6.23	0.00
4,4'-DDE	5.99	5.99	5.89	6.09	0.00
Endrin	6.36	6.36	6.26	6.46	0.00
Endosulfan II	6.58	6.58	6.48	6.68	0.00
4,4'-DDD	6.50	6.50	6.40	6.60	0.00
Endosulfan sulfate	6.94	6.94	6.84	7.04	0.00
4,4'-DDT	6.81	6.82	6.72	6.92	0.01
Methoxychlor	7.29	7.29	7.19	7.39	0.00
Endrin ketone	7.42	7.42	7.32	7.52	0.00
Endrin aldehyde	6.71	6.71	6.61	6.81	0.00
alpha-Chlordane	5.81	5.81	5.71	5.91	0.00
gamma-Chlordane	5.73	5.73	5.63	5.83	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

Continuing Calib Date: 01/21/2023 **Initial Calibration Date(s):** 01/20/2023 01/20/2023

Continuing Calib Time: 03:10 **Initial Calibration Time(s):** 14:41 15:36

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.84	7.84	7.74	7.94	0.00
Tetrachloro-m-xylene	2.69	2.69	2.59	2.79	0.00
alpha-BHC	3.19	3.19	3.09	3.29	0.00
beta-BHC	3.82	3.82	3.72	3.92	0.00
delta-BHC	4.05	4.05	3.95	4.15	0.00
gamma-BHC (Lindane)	3.52	3.52	3.42	3.62	0.00
Heptachlor	3.86	3.86	3.76	3.96	0.00
Aldrin	4.14	4.14	4.04	4.24	0.00
Heptachlor epoxide	4.64	4.64	4.54	4.74	0.00
Endosulfan I	5.01	5.01	4.91	5.11	0.00
Dieldrin	5.28	5.28	5.18	5.38	0.00
4,4'-DDE	5.15	5.15	5.05	5.25	0.00
Endrin	5.55	5.55	5.45	5.65	0.00
Endosulfan II	5.84	5.85	5.75	5.95	0.01
4,4'-DDD	5.70	5.71	5.61	5.81	0.01
Endosulfan sulfate	6.25	6.25	6.15	6.35	0.00
4,4'-DDT	5.96	5.96	5.86	6.06	0.01
Methoxychlor	6.53	6.54	6.44	6.64	0.01
Endrin ketone	6.75	6.76	6.66	6.86	0.01
Endrin aldehyde	6.03	6.03	5.93	6.13	0.00
alpha-Chlordane	4.96	4.96	4.86	5.06	0.00
gamma-Chlordane	4.89	4.90	4.80	5.00	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/20/2023 01/20/2023

Client Sample No.: CCAL03 **Date Analyzed:** 01/21/2023

Lab Sample No.: PSTDCCC050 **Data File :** PL080454.D **Time Analyzed:** 03:10

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.501	6.404	6.604	50.450	50.000	0.9
4,4'-DDE	5.987	5.889	6.089	50.250	50.000	0.5
4,4'-DDT	6.814	6.716	6.916	48.260	50.000	-3.5
Aldrin	5.050	4.952	5.152	50.390	50.000	0.8
alpha-BHC	3.799	3.701	3.901	51.560	50.000	3.1
alpha-Chlordane	5.809	5.711	5.911	50.040	50.000	0.1
beta-BHC	4.324	4.225	4.425	49.280	50.000	-1.4
Decachlorobiphenyl	8.789	8.693	8.893	48.200	50.000	-3.6
delta-BHC	4.567	4.468	4.668	51.820	50.000	3.6
Dieldrin	6.131	6.033	6.233	50.070	50.000	0.1
Endosulfan I	5.857	5.759	5.959	50.130	50.000	0.3
Endosulfan II	6.577	6.480	6.680	43.040	50.000	-13.9
Endosulfan sulfate	6.940	6.843	7.043	50.000	50.000	0.0
Endrin	6.358	6.261	6.461	53.860	50.000	7.7
Endrin aldehyde	6.706	6.609	6.809	48.530	50.000	-2.9
Endrin ketone	7.421	7.324	7.524	49.890	50.000	-0.2
gamma-BHC (Lindane)	4.128	4.029	4.229	51.830	50.000	3.7
gamma-Chlordane	5.728	5.632	5.832	50.570	50.000	1.1
Heptachlor	4.712	4.613	4.813	50.890	50.000	1.8
Heptachlor epoxide	5.475	5.377	5.577	51.910	50.000	3.8
Methoxychlor	7.292	7.194	7.394	48.720	50.000	-2.6
Tetrachloro-m-xylene	3.351	3.252	3.452	50.200	50.000	0.4

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CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/20/2023 01/20/2023

Client Sample No.: CCAL03 **Date Analyzed:** 01/21/2023

Lab Sample No.: PSTDCCC050 **Data File :** PL080454.D **Time Analyzed:** 03:10

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.703	5.606	5.806	51.750	50.000	3.5
4,4'-DDE	5.150	5.052	5.252	50.440	50.000	0.9
4,4'-DDT	5.955	5.858	6.058	50.090	50.000	0.2
Aldrin	4.139	4.041	4.241	52.640	50.000	5.3
alpha-BHC	3.190	3.091	3.291	51.070	50.000	2.1
alpha-Chlordane	4.957	4.859	5.059	48.930	50.000	-2.1
beta-BHC	3.815	3.716	3.916	49.760	50.000	-0.5
Decachlorobiphenyl	7.838	7.742	7.942	48.250	50.000	-3.5
delta-BHC	4.045	3.946	4.146	51.970	50.000	3.9
Dieldrin	5.276	5.179	5.379	50.620	50.000	1.2
Endosulfan I	5.011	4.913	5.113	47.620	50.000	-4.8
Endosulfan II	5.844	5.748	5.948	52.940	50.000	5.9
Endosulfan sulfate	6.248	6.151	6.351	49.390	50.000	-1.2
Endrin	5.551	5.454	5.654	50.690	50.000	1.4
Endrin aldehyde	6.026	5.928	6.128	47.950	50.000	-4.1
Endrin ketone	6.753	6.656	6.856	49.690	50.000	-0.6
gamma-BHC (Lindane)	3.519	3.420	3.620	50.960	50.000	1.9
gamma-Chlordane	4.893	4.795	4.995	49.060	50.000	-1.9
Heptachlor	3.860	3.762	3.962	49.840	50.000	-0.3
Heptachlor epoxide	4.642	4.544	4.744	49.640	50.000	-0.7
Methoxychlor	6.534	6.436	6.636	48.790	50.000	-2.4
Tetrachloro-m-xylene	2.689	2.590	2.790	49.770	50.000	-0.5

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/20/2023 01/20/2023

Client Sample No. (PEM): PEM - PL080406.D **Date Analyzed:** 01/20/2023

Lab Sample No.(PEM): PEM **Time Analyzed:** 09:30

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	8.792	8.690	8.890	21.460	20.000	7.3
Tetrachloro-m-xylene	3.353	3.300	3.400	21.770	20.000	8.9
alpha-BHC	3.801	3.750	3.850	9.970	10.000	-0.3
beta-BHC	4.325	4.270	4.380	11.340	10.000	13.4
gamma-BHC (Lindane)	4.130	4.080	4.180	10.430	10.000	4.3
Endrin	6.359	6.290	6.430	45.030	50.000	-9.9
4,4'-DDT	6.816	6.750	6.890	85.130	100.000	-14.9
Methoxychlor	7.294	7.220	7.360	208.720	250.000	-16.5

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/20/2023 01/20/2023

Client Sample No. (PEM): PEM - PL080406.D **Date Analyzed:** 01/20/2023

Lab Sample No.(PEM): PEM **Time Analyzed:** 09:30

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.840	7.740	7.940	19.940	20.000	-0.3
Tetrachloro-m-xylene	2.691	2.640	2.740	21.040	20.000	5.2
alpha-BHC	3.192	3.140	3.240	9.280	10.000	-7.2
beta-BHC	3.817	3.770	3.870	11.130	10.000	11.3
gamma-BHC (Lindane)	3.520	3.470	3.570	9.560	10.000	-4.4
Endrin	5.553	5.480	5.620	44.960	50.000	-10.1
4,4'-DDT	5.957	5.890	6.030	92.760	100.000	-7.2
Methoxychlor	6.535	6.460	6.610	206.490	250.000	-17.4

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/20/2023 01/20/2023

Client Sample No. (PEM): PEM - PL080427.D **Date Analyzed:** 01/20/2023

Lab Sample No.(PEM): PEM **Time Analyzed:** 19:46

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	8.790	8.690	8.890	19.820	20.000	-0.9
Tetrachloro-m-xylene	3.351	3.300	3.400	19.090	20.000	-4.6
alpha-BHC	3.799	3.750	3.850	8.770	10.000	-12.3
beta-BHC	4.324	4.270	4.370	10.600	10.000	6.0
gamma-BHC (Lindane)	4.128	4.080	4.180	9.260	10.000	-7.4
Endrin	6.358	6.290	6.430	44.080	50.000	-11.8
4,4'-DDT	6.815	6.740	6.890	91.710	100.000	-8.3
Methoxychlor	7.292	7.220	7.360	230.100	250.000	-8.0

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/20/2023 01/20/2023

Client Sample No. (PEM): PEM - PL080427.D **Date Analyzed:** 01/20/2023

Lab Sample No.(PEM): PEM **Time Analyzed:** 19:46

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.839	7.740	7.940	19.650	20.000	-1.8
Tetrachloro-m-xylene	2.689	2.640	2.740	19.380	20.000	-3.1
alpha-BHC	3.190	3.140	3.240	8.910	10.000	-10.9
beta-BHC	3.815	3.760	3.870	10.100	10.000	1.0
gamma-BHC (Lindane)	3.519	3.470	3.570	9.010	10.000	-9.9
Endrin	5.551	5.480	5.620	46.440	50.000	-7.1
4,4'-DDT	5.956	5.890	6.030	101.350	100.000	1.4
Methoxychlor	6.534	6.460	6.600	231.440	250.000	-7.4

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Analytical Sequence

Client: Louis Berger U.S., Inc., A WSP Company **SDG No.:** O1233

Project: NYCDDC Phase II SCI Arthur Kill Road CE **Instrument ID:** ECD_L

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/20/2023 01/20/2023

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	01/20/2023	09:16	PL080405.D	8.79	3.35
PEM	PEM	01/20/2023	09:30	PL080406.D	8.79	3.35
RESCHK	RESCHK	01/20/2023	14:27	PL080407.D	8.79	3.35
PSTDICC100	PSTDICC100	01/20/2023	14:41	PL080408.D	8.79	3.35
PSTDICC075	PSTDICC075	01/20/2023	14:54	PL080409.D	8.79	3.35
PSTDICC050	PSTDICC050	01/20/2023	15:08	PL080410.D	8.79	3.35
PSTDICC025	PSTDICC025	01/20/2023	15:22	PL080411.D	8.79	3.35
PSTDICC005	PSTDICC005	01/20/2023	15:36	PL080412.D	8.79	3.35
PCHLORICC500	PCHLORICC500	01/20/2023	16:18	PL080415.D	8.79	3.35
PTOXICC500	PTOXICC500	01/20/2023	17:27	PL080420.D	8.79	3.35
I.BLK	I.BLK	01/20/2023	19:32	PL080426.D	8.79	3.35
PEM	PEM	01/20/2023	19:46	PL080427.D	8.79	3.35
PSTDCCC050	PSTDCCC050	01/20/2023	20:00	PL080428.D	8.79	3.35
PB150373BL	PB150373BL	01/20/2023	20:42	PL080429.D	8.79	3.35
PB150373BS	PB150373BS	01/20/2023	20:55	PL080430.D	8.79	3.35
I.BLK	I.BLK	01/20/2023	23:14	PL080440.D	8.79	3.35
PSTDCCC050	PSTDCCC050	01/20/2023	23:28	PL080441.D	8.79	3.35
B-P34A	O1233-02	01/21/2023	00:24	PL080442.D	8.79	3.35
B-P34AMS	O1233-02MS	01/21/2023	00:38	PL080443.D	8.79	3.35
B-P34AMSD	O1233-02MSD	01/21/2023	00:51	PL080444.D	8.79	3.35
B-P34B	O1233-03	01/21/2023	01:05	PL080445.D	8.79	3.35
B-P36A	O1233-04	01/21/2023	01:19	PL080446.D	8.79	3.35
B-P36B	O1233-05	01/21/2023	01:33	PL080447.D	8.79	3.35
B-P37A	O1233-06	01/21/2023	01:47	PL080448.D	8.79	3.35
B-P37B	O1233-07	01/21/2023	02:01	PL080449.D	8.79	3.35
B-P38A	O1233-08	01/21/2023	02:15	PL080450.D	8.79	3.35
B-P38B	O1233-09	01/21/2023	02:29	PL080451.D	8.79	3.35
B-P38C	O1233-11	01/21/2023	02:43	PL080452.D	8.79	3.35
I.BLK	I.BLK	01/21/2023	02:57	PL080453.D	8.79	3.35
PSTDCCC050	PSTDCCC050	01/21/2023	03:10	PL080454.D	8.79	3.35

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Analytical Sequence

Client: Louis Berger U.S., Inc., A WSP Company **SDG No.:** O1233

Project: NYCDDC Phase II SCI Arthur Kill Road CE **Instrument ID:** ECD_L

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/20/2023 01/20/2023

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	01/20/2023	09:16	PL080405.D	7.84	2.69
PEM	PEM	01/20/2023	09:30	PL080406.D	7.84	2.69
RESCHK	RESCHK	01/20/2023	14:27	PL080407.D	7.84	2.69
PSTDICC100	PSTDICC100	01/20/2023	14:41	PL080408.D	7.84	2.69
PSTDICC075	PSTDICC075	01/20/2023	14:54	PL080409.D	7.84	2.69
PSTDICC050	PSTDICC050	01/20/2023	15:08	PL080410.D	7.84	2.69
PSTDICC025	PSTDICC025	01/20/2023	15:22	PL080411.D	7.84	2.69
PSTDICC005	PSTDICC005	01/20/2023	15:36	PL080412.D	7.84	2.69
PCHLORICC500	PCHLORICC500	01/20/2023	16:18	PL080415.D	7.84	2.69
PTOXICC500	PTOXICC500	01/20/2023	17:27	PL080420.D	7.84	2.69
I.BLK	I.BLK	01/20/2023	19:32	PL080426.D	7.84	2.69
PEM	PEM	01/20/2023	19:46	PL080427.D	7.84	2.69
PSTDCCC050	PSTDCCC050	01/20/2023	20:00	PL080428.D	7.84	2.69
PB150373BL	PB150373BL	01/20/2023	20:42	PL080429.D	7.84	2.69
PB150373BS	PB150373BS	01/20/2023	20:55	PL080430.D	7.84	2.69
I.BLK	I.BLK	01/20/2023	23:14	PL080440.D	7.84	2.69
PSTDCCC050	PSTDCCC050	01/20/2023	23:28	PL080441.D	7.84	2.69
B-P34A	O1233-02	01/21/2023	00:24	PL080442.D	7.84	2.69
B-P34AMS	O1233-02MS	01/21/2023	00:38	PL080443.D	7.84	2.69
B-P34AMSD	O1233-02MSD	01/21/2023	00:51	PL080444.D	7.84	2.69
B-P34B	O1233-03	01/21/2023	01:05	PL080445.D	7.84	2.69
B-P36A	O1233-04	01/21/2023	01:19	PL080446.D	7.84	2.69
B-P36B	O1233-05	01/21/2023	01:33	PL080447.D	7.84	2.69
B-P37A	O1233-06	01/21/2023	01:47	PL080448.D	7.84	2.69
B-P37B	O1233-07	01/21/2023	02:01	PL080449.D	7.84	2.69
B-P38A	O1233-08	01/21/2023	02:15	PL080450.D	7.84	2.69
B-P38B	O1233-09	01/21/2023	02:29	PL080451.D	7.84	2.69
B-P38C	O1233-11	01/21/2023	02:43	PL080452.D	7.84	2.69
I.BLK	I.BLK	01/21/2023	02:57	PL080453.D	7.84	2.69
PSTDCCC050	PSTDCCC050	01/21/2023	03:10	PL080454.D	7.84	2.69

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

B-P34AMS

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

Lab Sample ID: O1233-02MS **Date(s) Analyzed:** 01/21/2023 01/21/2023

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR2 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR1 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
4,4'-DDD	1	6.50	6.45	6.55	18.3	1.7
	2	5.70	5.65	5.75	18.0	
4,4'-DDE	1	5.99	5.94	6.04	18.6	1.6
	2	5.15	5.10	5.20	18.3	
4,4'-DDT	1	6.81	6.76	6.86	19.8	6.8
	2	5.96	5.91	6.01	18.5	
Aldrin	1	5.05	5.00	5.10	19.0	0.5
	2	4.14	4.09	4.19	18.9	
alpha-BHC	1	3.80	3.75	3.85	18.2	1.7
	2	3.19	3.14	3.24	17.9	
alpha-Chlordane	1	5.81	5.76	5.86	18.5	3.9
	2	4.96	4.91	5.01	17.8	
beta-BHC	1	4.32	4.27	4.37	17.7	2.3
	2	3.82	3.77	3.87	17.3	
delta-BHC	1	4.57	4.52	4.62	18.7	2.7
	2	4.05	4.00	4.10	18.2	
Endosulfan II	1	6.58	6.53	6.63	16.8	21.3
	2	5.84	5.79	5.89	20.8	
Endrin aldehyde	1	6.71	6.66	6.76	19.8	2
	2	6.03	5.98	6.08	19.4	
Endosulfan sulfate	1	6.94	6.89	6.99	18.6	1.6
	2	6.25	6.20	6.30	18.3	
Methoxychlor	1	7.29	7.24	7.34	18.8	1.6
	2	6.53	6.48	6.58	18.5	
Endrin ketone	1	7.42	7.37	7.47	18.4	0
	2	6.75	6.70	6.80	18.4	
gamma-BHC (Lindane)	1	4.13	4.08	4.18	18.5	2.7
	2	3.52	3.47	3.57	18.0	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

B-P34AMS

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

Lab Sample ID: O1233-02MS **Date(s) Analyzed:** 01/21/2023 01/21/2023

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR2 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR1 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Heptachlor	1	4.71	4.66	4.76	18.4	2.2
	2	3.86	3.81	3.91	18.0	
Heptachlor epoxide	1	5.48	5.43	5.53	18.3	1.1
	2	4.64	4.59	4.69	18.1	
Endosulfan I	1	5.86	5.81	5.91	18.2	2.2
	2	5.01	4.96	5.06	17.8	
gamma-Chlordane	1	5.73	5.68	5.78	18.3	2.2
	2	4.89	4.84	4.94	17.9	
Dieldrin	1	6.13	6.08	6.18	19.2	2.1
	2	5.28	5.23	5.33	18.8	
Endrin	1	6.36	6.31	6.41	19.0	3.6
	2	5.55	5.50	5.60	19.7	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

B-P34AMSD

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

Lab Sample ID: O1233-02MSD **Date(s) Analyzed:** 01/21/2023 01/21/2023

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR2 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR1 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Heptachlor epoxide	1	5.48	5.43	5.53	18.5	0.5
	2	4.64	4.59	4.69	18.4	
gamma-Chlordane	1	5.73	5.68	5.78	18.8	3.8
	2	4.89	4.84	4.94	18.1	
Endosulfan II	1	6.58	6.53	6.63	17.0	21.5
	2	5.84	5.79	5.89	21.1	
4,4'-DDD	1	6.50	6.45	6.55	18.6	2.2
	2	5.70	5.65	5.75	18.2	
4,4'-DDT	1	6.81	6.76	6.86	20.0	5.7
	2	5.96	5.91	6.01	18.9	
Endrin aldehyde	1	6.71	6.66	6.76	20.1	2
	2	6.03	5.98	6.08	19.7	
Endosulfan sulfate	1	6.94	6.89	6.99	18.8	1.1
	2	6.25	6.20	6.30	18.6	
Endrin ketone	1	7.42	7.37	7.47	18.6	0
	2	6.75	6.70	6.80	18.6	
alpha-BHC	1	3.80	3.75	3.85	18.4	1.6
	2	3.19	3.14	3.24	18.1	
gamma-BHC (Lindane)	1	4.13	4.08	4.18	18.8	3.2
	2	3.52	3.47	3.57	18.2	
Aldrin	1	5.05	5.00	5.10	19.3	1
	2	4.14	4.09	4.19	19.1	
beta-BHC	1	4.32	4.27	4.37	17.9	1.7
	2	3.82	3.77	3.87	17.6	
delta-BHC	1	4.57	4.52	4.62	19.0	2.7
	2	4.04	3.99	4.09	18.5	
Endosulfan I	1	5.86	5.81	5.91	18.4	2.2
	2	5.01	4.96	5.06	18.0	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

B-P34AMSD

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

Lab Sample ID: O1233-02MSD **Date(s) Analyzed:** 01/21/2023 01/21/2023

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR2 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR1 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
alpha-Chlordane	1	5.81	5.76	5.86	18.7	3.8
	2	4.96	4.91	5.01	18.0	
4,4'-DDE	1	5.99	5.94	6.04	18.9	1.6
	2	5.15	5.10	5.20	18.6	
Dieldrin	1	6.13	6.08	6.18	19.4	2.1
	2	5.28	5.23	5.33	19.0	
Endrin	1	6.36	6.31	6.41	19.3	3.1
	2	5.55	5.50	5.60	19.9	
Methoxychlor	1	7.29	7.24	7.34	19.0	1.6
	2	6.53	6.48	6.58	18.7	
Heptachlor	1	4.71	4.66	4.76	18.6	1.6
	2	3.86	3.81	3.91	18.3	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

B-P37A

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

Lab Sample ID: O1233-06 **Date(s) Analyzed:** 01/21/2023 01/21/2023

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR2 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR1 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
4,4'-DDT	1	6.81	6.76	6.86	0.39	31.2
	2	5.95	5.90	6.00	0.53	
gamma-Chlordane	1	5.73	5.68	5.78	3.50	74.5
	2	4.89	4.84	4.94	1.60	
alpha-Chlordane	1	5.81	5.76	5.86	9.10	84.4
	2	4.96	4.91	5.01	3.70	
4,4'-DDE	1	5.99	5.94	6.04	0.74	29.9
	2	5.15	5.10	5.20	0.55	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

B-P37B

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

Lab Sample ID: O1233-07 **Date(s) Analyzed:** 01/21/2023 01/21/2023

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR2 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR1 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
4,4'-DDD	1	6.50	6.45	6.55	0.69	82.9
	2	5.70	5.65	5.75	0.29	
gamma-Chlordane	1	5.73	5.68	5.78	1.10	54.3
	2	4.89	4.84	4.94	0.63	
4,4'-DDE	1	5.99	5.94	6.04	0.55	14.1
	2	5.15	5.10	5.20	0.47	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

PB150373BS

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

Lab Sample ID: PB150373BS **Date(s) Analyzed:** 01/20/2023 01/20/2023

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR2 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR1 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Endosulfan II	1	6.58	6.53	6.63	14.2	20.3
	2	5.84	5.79	5.89	17.4	
4,4'-DDD	1	6.50	6.45	6.55	15.1	0.7
	2	5.70	5.65	5.75	15.2	
4,4'-DDT	1	6.82	6.77	6.87	14.5	3.4
	2	5.96	5.91	6.01	15.0	
Endrin aldehyde	1	6.71	6.66	6.76	16.4	0.6
	2	6.03	5.98	6.08	16.3	
Endosulfan sulfate	1	6.94	6.89	6.99	15.6	1.3
	2	6.25	6.20	6.30	15.4	
Methoxychlor	1	7.29	7.24	7.34	15.5	2.6
	2	6.53	6.48	6.58	15.1	
Endrin ketone	1	7.42	7.37	7.47	15.4	0.6
	2	6.75	6.70	6.80	15.5	
alpha-BHC	1	3.80	3.75	3.85	15.0	0.7
	2	3.19	3.14	3.24	15.1	
gamma-BHC (Lindane)	1	4.13	4.08	4.18	15.1	0
	2	3.52	3.47	3.57	15.1	
Heptachlor	1	4.71	4.66	4.76	15.2	1.3
	2	3.86	3.81	3.91	15.0	
Aldrin	1	5.05	5.00	5.10	15.5	0
	2	4.14	4.09	4.19	15.5	
beta-BHC	1	4.32	4.27	4.37	14.3	0.7
	2	3.82	3.77	3.87	14.2	
delta-BHC	1	4.57	4.52	4.62	15.2	1.3
	2	4.05	4.00	4.10	15.0	
Heptachlor epoxide	1	5.48	5.43	5.53	15.0	2
	2	4.64	4.59	4.69	15.3	

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

PB150373BS

Contract: loui01

Lab Code: CHEM **Case No.:** O1233 **SAS No.:** O1233 **SDG NO.:** O1233

Lab Sample ID: PB150373BS **Date(s) Analyzed:** 01/20/2023 01/20/2023

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR2 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR1 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Endosulfan I	1	5.86	5.81	5.91	15.0	0
	2	5.01	4.96	5.06	15.0	
gamma-Chlordane	1	5.73	5.68	5.78	15.0	1.3
	2	4.89	4.84	4.94	14.8	
alpha-Chlordane	1	5.81	5.76	5.86	15.3	2.6
	2	4.96	4.91	5.01	14.9	
4,4'-DDE	1	5.99	5.94	6.04	15.3	2
	2	5.15	5.10	5.20	15.0	
Dieldrin	1	6.13	6.08	6.18	15.9	0.6
	2	5.28	5.23	5.33	15.8	
Endrin	1	6.36	6.31	6.41	15.7	5
	2	5.55	5.50	5.60	16.5	