



284 Sheffield Street, Mountainside, New Jersey - 07092

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

LAB CHRONICLE

OrderID: O1232
Client: Louis Berger U.S., Inc., A WSP Company
Contact: Jonathan Ganz

OrderDate: 1/19/2023 1:44:00 PM
Project: NYCDDC Phase II SCI Arthur Kill Road CEQR
Location: N11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
O1232-01	B-P17A	SOIL	PCB	8082A	01/18/23	01/20/23	01/20/23	01/19/23
			Pesticide-TCL	8081B		01/20/23	01/20/23	
O1232-02	B-P17B	SOIL	PCB	8082A	01/18/23	01/20/23	01/20/23	01/19/23
			Pesticide-TCL	8081B		01/20/23	01/20/23	
O1232-03	WC-17	SOIL	Diesel Range Organics	8015D	01/18/23	01/20/23	01/20/23	01/19/23
			Gasoline Range Organics	8015D			01/20/23	
			PCB	8082A		01/20/23	01/20/23	
O1232-04	B-P18A	SOIL	PCB	8082A	01/18/23	01/20/23	01/20/23	01/19/23
			Pesticide-TCL	8081B		01/20/23	01/20/23	
O1232-05	B-P18B	SOIL	PCB	8082A	01/18/23	01/20/23	01/20/23	01/19/23
			Pesticide-TCL	8081B		01/20/23	01/20/23	
O1232-06	B-P19A	SOIL	PCB	8082A	01/18/23	01/20/23	01/20/23	01/19/23
			Pesticide-TCL	8081B		01/20/23	01/20/23	
O1232-07	B-P19B	SOIL	PCB	8082A	01/18/23	01/20/23	01/20/23	01/19/23
			Pesticide-TCL	8081B		01/20/23	01/23/23	
O1232-08	B-P35A	SOIL	PCB	8082A	01/18/23	01/20/23	01/20/23	01/19/23
			Pesticide-TCL	8081B		01/20/23	01/20/23	
O1232-09	B-P35B	SOIL			01/18/23			01/19/23



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LAB CHRONICLE							
O1232-10	DUP01	SOIL	PCB	8082A	01/18/23	01/20/23	01/20/23
			Pesticide-TCL	8081B		01/20/23	01/20/23
			PCB	8082A		01/20/23	01/20/23
			Pesticide-TCL	8081B		01/20/23	01/20/23
						01/19/23	

- A
- B
- C
- D
- E
- F
- G
- H



Hit Summary Sheet
SW-846

SDG No.:	O1232	Order ID:	O1232
Client:	Louis Berger U.S., Inc., A WSP Company	Project ID:	NYCDDC Phase II SCI Arthur Kill Re

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : B-P19A								
O1232-06	B-P19A	SOIL	4,4-DDE	1.10	J	0.20	1.90	ug/kg
Total Concentration:				1.100				
Client ID : B-P19B								
O1232-07	B-P19B	SOIL	4,4-DDE	0.88	J	0.18	1.90	ug/kg
Total Concentration:				0.880				
Client ID : B-P35A								
O1232-08	B-P35A	SOIL	4,4-DDE	1.10	J	0.20	1.90	ug/kg
O1232-08	B-P35A	SOIL	4,4-DDT	1.90		0.23	1.90	ug/kg
O1232-08	B-P35A	SOIL	alpha-Chlordane	0.65	JP	0.23	1.90	ug/kg
O1232-08	B-P35A	SOIL	gamma-Chlordane	0.43	J	0.23	1.90	ug/kg
Total Concentration:				4.080				

SAMPLE DATA

A

B

C

D

E

F

G

H

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-P17A		SDG No.:	O1232	
Lab Sample ID:	O1232-01		Matrix:	SOIL	
Analytical Method:	SW8081		% Solid:	89.4	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
PL080431.D	1	01/20/23 10:35	01/20/23 21:09	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	19.2		12 - 143	96%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.4		10 - 159	97%	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-P17A	SDG No.:	O1232		
Lab Sample ID:	O1232-01	Matrix:	SOIL		
Analytical Method:	SW8081	% Solid:	89.4	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
PL080431.D	1	01/20/23 10:35	01/20/23 21:09	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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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

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-P17B		SDG No.:	O1232	
Lab Sample ID:	O1232-02		Matrix:	SOIL	
Analytical Method:	SW8081		% Solid:	86.9	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
PL080432.D	1	01/20/23 10:35	01/20/23 21:23	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	0.47	U	0.47	2.00	ug/kg
58-89-9	gamma-BHC (Lindane)	0.25	U	0.25	2.00	ug/kg
76-44-8	Heptachlor	0.26	U	0.26	2.00	ug/kg
309-00-2	Aldrin	0.23	U	0.23	2.00	ug/kg
1024-57-3	Heptachlor epoxide	0.33	U	0.33	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	0.25	U	0.25	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	0.33	U	0.33	2.00	ug/kg
7421-93-4	Endrin aldehyde	0.33	U	0.33	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	7.60	U	7.60	37.9	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	19.8		12 - 143	99%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.2		10 - 159	101%	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-P17B	SDG No.:	O1232		
Lab Sample ID:	O1232-02	Matrix:	SOIL		
Analytical Method:	SW8081	% Solid:	86.9	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
PL080432.D	1	01/20/23 10:35	01/20/23 21:23	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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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-P18A		SDG No.:	O1232	
Lab Sample ID:	O1232-04		Matrix:	SOIL	
Analytical Method:	SW8081		% Solid:	87.5	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
PL080433.D	1	01/20/23 10:35	01/20/23 21:37	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	0.21	U	0.21	1.90	ug/kg
72-55-9	4,4-DDE	0.21	U	0.21	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	0.21	U	0.21	1.90	ug/kg
50-29-3	4,4-DDT	0.24	U	0.24	1.90	ug/kg
72-43-5	Methoxychlor	0.29	U	0.29	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	0.24	U	0.24	1.90	ug/kg
5103-74-2	gamma-Chlordane	0.24	U	0.24	1.90	ug/kg
8001-35-2	Toxaphene	7.60	U	7.60	37.6	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	19.5		12 - 143	97%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.6		10 - 159	103%	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-P18A	SDG No.:	O1232		
Lab Sample ID:	O1232-04	Matrix:	SOIL		
Analytical Method:	SW8081	% Solid:	87.5	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
PL080433.D	1	01/20/23 10:35	01/20/23 21:37	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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Comments:

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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-P18B		SDG No.:	O1232	
Lab Sample ID:	O1232-05		Matrix:	SOIL	
Analytical Method:	SW8081		% Solid:	91.4	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
PL080434.D	1	01/20/23 10:35	01/20/23 21:51	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	0.27	U	0.27	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	7.20	U	7.20	36.1	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	13.4		12 - 143	67%	SPK: 20
877-09-8	Tetrachloro-m-xylene	10.7		10 - 159	53%	SPK: 20

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-P18B		SDG No.:	O1232	
Lab Sample ID:	O1232-05		Matrix:	SOIL	
Analytical Method:	SW8081		% Solid:	91.4	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
PL080434.D	1	01/20/23 10:35	01/20/23 21:51	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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Comments:

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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-P19A		SDG No.:	O1232	
Lab Sample ID:	O1232-06		Matrix:	SOIL	
Analytical Method:	SW8081		% Solid:	88.2	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
PL080435.D	1	01/20/23 10:35	01/20/23 22:05	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	0.46	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	0.23	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	0.21	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	1.10	J	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	0.24	U	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	0.24	U	0.24	1.90	ug/kg
5103-74-2	gamma-Chlordane	0.24	U	0.24	1.90	ug/kg
8001-35-2	Toxaphene	7.50	U	7.50	37.3	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	10.5		12 - 143	53%	SPK: 20
877-09-8	Tetrachloro-m-xylene	9.88		10 - 159	49%	SPK: 20

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-P19A		SDG No.:	O1232	
Lab Sample ID:	O1232-06		Matrix:	SOIL	
Analytical Method:	SW8081		% Solid:	88.2	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
PL080435.D	1	01/20/23 10:35	01/20/23 22:05	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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Comments:

U = Not Detected

LOQ = Limit of Quantitation

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P = Indicates >25% difference for detected concentrations between the two GC columns

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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

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-P19B		SDG No.:	O1232	
Lab Sample ID:	O1232-07		Matrix:	SOIL	
Analytical Method:	SW8081		% Solid:	88	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
PL080459.D	1	01/20/23 10:35	01/23/23 10:53	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	0.22	U	0.22	1.90	ug/kg
319-85-7	beta-BHC	0.39	U	0.39	1.90	ug/kg
319-86-8	delta-BHC	0.45	U	0.45	1.90	ug/kg
58-89-9	gamma-BHC (Lindane)	0.17	U	0.17	1.90	ug/kg
76-44-8	Heptachlor	0.22	U	0.22	1.90	ug/kg
309-00-2	Aldrin	0.19	U	0.19	1.90	ug/kg
1024-57-3	Heptachlor epoxide	0.27	U	0.27	1.90	ug/kg
959-98-8	Endosulfan I	0.16	U	0.16	1.90	ug/kg
60-57-1	Dieldrin	0.17	U	0.17	1.90	ug/kg
72-55-9	4,4-DDE	0.88	J	0.18	1.90	ug/kg
72-20-8	Endrin	0.19	U	0.19	1.90	ug/kg
33213-65-9	Endosulfan II	0.35	U	0.35	1.90	ug/kg
72-54-8	4,4-DDD	0.22	U	0.22	1.90	ug/kg
1031-07-8	Endosulfan Sulfate	0.20	U	0.20	1.90	ug/kg
50-29-3	4,4-DDT	0.20	U	0.20	1.90	ug/kg
72-43-5	Methoxychlor	0.23	U	0.23	1.90	ug/kg
53494-70-5	Endrin ketone	0.27	U	0.27	1.90	ug/kg
7421-93-4	Endrin aldehyde	0.40	U	0.40	1.90	ug/kg
5103-71-9	alpha-Chlordane	0.15	U	0.15	1.90	ug/kg
5103-74-2	gamma-Chlordane	0.16	U	0.16	1.90	ug/kg
8001-35-2	Toxaphene	6.70	U	6.70	37.4	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	11.8		12 - 143	59%	SPK: 20
877-09-8	Tetrachloro-m-xylene	11.0		10 - 159	55%	SPK: 20

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-P19B		SDG No.:	O1232	
Lab Sample ID:	O1232-07		Matrix:	SOIL	
Analytical Method:	SW8081		% Solid:	88	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
PL080459.D	1	01/20/23 10:35	01/23/23 10:53	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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() = Laboratory InHouse Limit

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-P35A		SDG No.:	O1232	
Lab Sample ID:	O1232-08		Matrix:	SOIL	
Analytical Method:	SW8081		% Solid:	91.3	Decanted:
Sample Wt/Vol:	30.05	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
PL080437.D	1	01/20/23 10:35	01/20/23 22:33	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	1.10	J	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	1.90		0.23	1.90	ug/kg
72-43-5	Methoxychlor	0.27	U	0.27	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	0.65	JP	0.23	1.90	ug/kg
5103-74-2	gamma-Chlordane	0.43	J	0.23	1.90	ug/kg
8001-35-2	Toxaphene	7.20	U	7.20	36.1	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	18.6		12 - 143	93%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.5		10 - 159	103%	SPK: 20

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-P35A		SDG No.:	O1232	
Lab Sample ID:	O1232-08		Matrix:	SOIL	
Analytical Method:	SW8081		% Solid:	91.3	Decanted:
Sample Wt/Vol:	30.05	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
PL080437.D	1	01/20/23 10:35	01/20/23 22:33	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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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-P35B		SDG No.:	O1232	
Lab Sample ID:	O1232-09		Matrix:	SOIL	
Analytical Method:	SW8081		% Solid:	93.3	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
PL080438.D	1	01/20/23 10:35	01/20/23 22:47	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	0.26	U	0.26	1.80	ug/kg
319-85-7	beta-BHC	0.56	U	0.56	1.80	ug/kg
319-86-8	delta-BHC	0.44	U	0.44	1.80	ug/kg
58-89-9	gamma-BHC (Lindane)	0.24	U	0.24	1.80	ug/kg
76-44-8	Heptachlor	0.25	U	0.25	1.80	ug/kg
309-00-2	Aldrin	0.21	U	0.21	1.80	ug/kg
1024-57-3	Heptachlor epoxide	0.31	U	0.31	1.80	ug/kg
959-98-8	Endosulfan I	0.20	U	0.20	1.80	ug/kg
60-57-1	Dieldrin	0.19	U	0.19	1.80	ug/kg
72-55-9	4,4-DDE	0.19	U	0.19	1.80	ug/kg
72-20-8	Endrin	0.18	U	0.18	1.80	ug/kg
33213-65-9	Endosulfan II	0.24	U	0.24	1.80	ug/kg
72-54-8	4,4-DDD	0.22	U	0.22	1.80	ug/kg
1031-07-8	Endosulfan Sulfate	0.19	U	0.19	1.80	ug/kg
50-29-3	4,4-DDT	0.22	U	0.22	1.80	ug/kg
72-43-5	Methoxychlor	0.27	U	0.27	1.80	ug/kg
53494-70-5	Endrin ketone	0.31	U	0.31	1.80	ug/kg
7421-93-4	Endrin aldehyde	0.31	U	0.31	1.80	ug/kg
5103-71-9	alpha-Chlordane	0.22	U	0.22	1.80	ug/kg
5103-74-2	gamma-Chlordane	0.22	U	0.22	1.80	ug/kg
8001-35-2	Toxaphene	7.10	U	7.10	35.3	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	17.7		12 - 143	88%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.2		10 - 159	96%	SPK: 20

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-P35B		SDG No.:	O1232	
Lab Sample ID:	O1232-09		Matrix:	SOIL	
Analytical Method:	SW8081		% Solid:	93.3	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
PL080438.D	1	01/20/23 10:35	01/20/23 22:47	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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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:	DUP01		SDG No.:	O1232	
Lab Sample ID:	O1232-10		Matrix:	SOIL	
Analytical Method:	SW8081		% Solid:	90.1	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
PL080439.D	1	01/20/23 10:35	01/20/23 23:00	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	0.45	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	36.5	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	12.8		12 - 143	64%	SPK: 20
877-09-8	Tetrachloro-m-xylene	10.8		10 - 159	54%	SPK: 20



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

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:	DUP01	SDG No.:	O1232		
Lab Sample ID:	O1232-10	Matrix:	SOIL		
Analytical Method:	SW8081	% Solid:	90.1	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
PL080439.D	1	01/20/23 10:35	01/20/23 23:00	PB150373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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QC SUMMARY

A

B

C

D

E

F

G

H

Surrogate Summary

SDG No.: **O1232**

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	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
O1232-01	B-P17A	Decachlorobiphenyl	1	20	19.2	96		12	143
		Tetrachloro-m-xylene	1	20	18.9	94		10	159
		Decachlorobiphenyl	2	20	18.8	94		12	143
		Tetrachloro-m-xylene	2	20	19.4	97		10	159
O1232-02	B-P17B	Decachlorobiphenyl	1	20	19.8	99		12	143
		Tetrachloro-m-xylene	1	20	20.2	101		10	159
		Decachlorobiphenyl	2	20	19.3	96		12	143
		Tetrachloro-m-xylene	2	20	20.1	101		10	159
O1232-04	B-P18A	Decachlorobiphenyl	1	20	19.5	97		12	143
		Tetrachloro-m-xylene	1	20	20.6	103		10	159
		Decachlorobiphenyl	2	20	19.0	95		12	143
		Tetrachloro-m-xylene	2	20	20.5	102		10	159
O1232-05	B-P18B	Decachlorobiphenyl	1	20	13.4	67		12	143
		Tetrachloro-m-xylene	1	20	10.7	53		10	159
		Decachlorobiphenyl	2	20	13.2	66		12	143
		Tetrachloro-m-xylene	2	20	9.57	48		10	159
O1232-06	B-P19A	Decachlorobiphenyl	1	20	10.5	53		12	143
		Tetrachloro-m-xylene	1	20	9.88	49		10	159
		Decachlorobiphenyl	2	20	10.4	52		12	143
		Tetrachloro-m-xylene	2	20	9.38	47		10	159
O1232-08	B-P35A	Decachlorobiphenyl	1	20	18.5	92		12	143
		Tetrachloro-m-xylene	1	20	20.0	100		10	159
		Decachlorobiphenyl	2	20	18.6	93		12	143
		Tetrachloro-m-xylene	2	20	20.5	103		10	159
O1232-09	B-P35B	Decachlorobiphenyl	1	20	17.7	88		12	143
		Tetrachloro-m-xylene	1	20	19.2	96		10	159
		Decachlorobiphenyl	2	20	17.4	87		12	143

Surrogate Summary

SDG No.: O1232

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	High
O1232-09	B-P35B	Tetrachloro-m-xylene	2	20	18.5	93		10	159
O1232-10	DUP01	Decachlorobiphenyl	1	20	12.8	64		12	143
		Tetrachloro-m-xylene	1	20	10.8	54		10	159
		Decachlorobiphenyl	2	20	11.1	55		12	143
		Tetrachloro-m-xylene	2	20	10.1	51		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
O1233-02MS	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
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
I.BLK-PL080456.D	PIBLK-PL080456.D	Decachlorobiphenyl	1	20	19.5	98		27	142
		Tetrachloro-m-xylene	1	20	22.9	114		60	145
		Decachlorobiphenyl	2	20	17.2	86		27	142
		Tetrachloro-m-xylene	2	20	20.8	104		60	145
O1232-07	B-P19B	Decachlorobiphenyl	1	20	11.8	59		12	143
		Tetrachloro-m-xylene	1	20	11.0	55		10	159
		Decachlorobiphenyl	2	20	11.2	56		12	143
		Tetrachloro-m-xylene	2	20	10.2	51		10	159
I.BLK-PL080461.D	PIBLK-PL080461.D	Decachlorobiphenyl	1	20	19.1	96		27	142
		Tetrachloro-m-xylene	1	20	19.9	100		60	145
		Decachlorobiphenyl	2	20	17.9	89		27	142
		Tetrachloro-m-xylene	2	20	19.4	97		60	145



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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: O1232

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

Analytical Method: 8081B

DataFile : PL080443.D

Lab Sample ID:	Parameter	Spike	Sample		Units	Rec	Rec		RPD		Limits	
			Result	Result			Qual	RPD	Qual	Low	High	RPD
Client Sample ID: O1233-02MS	B-P34AMS											
	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	



Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: O1232Client: Louis Berger U.S., Inc., A WSP CompanAnalytical Method: 8081B

DataFile : PL080444.D

Lab Sample ID:	Parameter	Spike	Sample		Units	Rec	Rec		RPD		Limits	
			Result	Result			Qual	RPD	Qual	Low	High	RPD
Client Sample ID: O1233-02MSD	B-P34AMSD											
	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	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: O1232

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		Limits		RPD
								Qual	Low	High		
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.: O1232

SAS No.: O1232 SDG NO.: O1232

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-P17A	O1232-01	PL080431.D	01/20/2023	01/20/2023
B-P17B	O1232-02	PL080432.D	01/20/2023	01/20/2023
B-P18A	O1232-04	PL080433.D	01/20/2023	01/20/2023
B-P18B	O1232-05	PL080434.D	01/20/2023	01/20/2023
B-P19A	O1232-06	PL080435.D	01/20/2023	01/20/2023
B-P35A	O1232-08	PL080437.D	01/20/2023	01/20/2023
B-P35B	O1232-09	PL080438.D	01/20/2023	01/20/2023
DUP01	O1232-10	PL080439.D	01/20/2023	01/20/2023
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-P19B	O1232-07	PL080459.D	01/23/2023	01/23/2023

COMMENTS: _____

QC SAMPLE DATA

A

B

C

D

E

F

G

H

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.:	O1232	
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.:	O1232
Lab Sample ID:	PB150373BL	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	100
Sample Wt/Vol:	30.03	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume :	
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
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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

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.:	O1232	
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.:	O1232		
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
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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

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.:	O1232	
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.:	O1232		
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
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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

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.:	O1232	
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

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.:	O1232	
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
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Comments:

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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

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.:	O1232	
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.:	O1232			
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
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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

Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company		Date Collected:	01/23/23	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR		Date Received:	01/23/23	
Client Sample ID:	PIBLK-PL080456.D		SDG No.:	O1232	
Lab Sample ID:	I.BLK-PL080456.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
PL080456.D	1		01/23/23	pl012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.0057	U	0.0057	0.050	ug/L
319-85-7	beta-BHC	0.0080	U	0.0080	0.050	ug/L
319-86-8	delta-BHC	0.013	U	0.013	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.0052	U	0.0052	0.050	ug/L
76-44-8	Heptachlor	0.0060	U	0.0060	0.050	ug/L
309-00-2	Aldrin	0.0061	U	0.0061	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.0067	U	0.0067	0.050	ug/L
959-98-8	Endosulfan I	0.0045	U	0.0045	0.050	ug/L
60-57-1	Dieldrin	0.0045	U	0.0045	0.050	ug/L
72-55-9	4,4-DDE	0.0048	U	0.0048	0.050	ug/L
72-20-8	Endrin	0.0048	U	0.0048	0.050	ug/L
33213-65-9	Endosulfan II	0.0068	U	0.0068	0.050	ug/L
72-54-8	4,4-DDD	0.0048	U	0.0048	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.0050	U	0.0050	0.050	ug/L
50-29-3	4,4-DDT	0.0060	U	0.0060	0.050	ug/L
72-43-5	Methoxychlor	0.0060	U	0.0060	0.050	ug/L
53494-70-5	Endrin ketone	0.0068	U	0.0068	0.050	ug/L
7421-93-4	Endrin aldehyde	0.010	U	0.010	0.050	ug/L
5103-71-9	alpha-Chlordane	0.0045	U	0.0045	0.050	ug/L
5103-74-2	gamma-Chlordane	0.0044	U	0.0044	0.050	ug/L
8001-35-2	Toxaphene	0.17	U	0.17	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	19.5		27 - 142	98%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.9		60 - 145	114%	SPK: 20



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/23/23		
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/23/23		
Client Sample ID:	PIBLK-PL080456.D	SDG No.:	O1232		
Lab Sample ID:	I.BLK-PL080456.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
PL080456.D	1		01/23/23	pl012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company		Date Collected:	01/23/23	
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR		Date Received:	01/23/23	
Client Sample ID:	PIBLK-PL080461.D		SDG No.:	O1232	
Lab Sample ID:	I.BLK-PL080461.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
PL080461.D	1		01/23/23	pl012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.0057	U	0.0057	0.050	ug/L
319-85-7	beta-BHC	0.0080	U	0.0080	0.050	ug/L
319-86-8	delta-BHC	0.013	U	0.013	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.0052	U	0.0052	0.050	ug/L
76-44-8	Heptachlor	0.0060	U	0.0060	0.050	ug/L
309-00-2	Aldrin	0.0061	U	0.0061	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.0067	U	0.0067	0.050	ug/L
959-98-8	Endosulfan I	0.0045	U	0.0045	0.050	ug/L
60-57-1	Dieldrin	0.0045	U	0.0045	0.050	ug/L
72-55-9	4,4-DDE	0.0048	U	0.0048	0.050	ug/L
72-20-8	Endrin	0.0048	U	0.0048	0.050	ug/L
33213-65-9	Endosulfan II	0.0068	U	0.0068	0.050	ug/L
72-54-8	4,4-DDD	0.0048	U	0.0048	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.0050	U	0.0050	0.050	ug/L
50-29-3	4,4-DDT	0.0060	U	0.0060	0.050	ug/L
72-43-5	Methoxychlor	0.0060	U	0.0060	0.050	ug/L
53494-70-5	Endrin ketone	0.0068	U	0.0068	0.050	ug/L
7421-93-4	Endrin aldehyde	0.010	U	0.010	0.050	ug/L
5103-71-9	alpha-Chlordane	0.0045	U	0.0045	0.050	ug/L
5103-74-2	gamma-Chlordane	0.0044	U	0.0044	0.050	ug/L
8001-35-2	Toxaphene	0.17	U	0.17	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	19.1		27 - 142	96%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.9		60 - 145	100%	SPK: 20



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Report of Analysis

Client:	Louis Berger U.S., Inc., A WSP Company	Date Collected:	01/23/23			
Project:	NYCDDC Phase II SCI Arthur Kill Road CEQR	Date Received:	01/23/23			
Client Sample ID:	PIBLK-PL080461.D	SDG No.:	O1232			
Lab Sample ID:	I.BLK-PL080461.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
PL080461.D	1		01/23/23	pl012323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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Comments:

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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.:	O1232	
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.:	O1232
Lab Sample ID:	PB150373BS	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	100
Sample Wt/Vol:	30.01	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume :	
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
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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

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.:	O1232	
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.:	O1232		
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
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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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B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

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() = Laboratory InHouse Limit

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.:	O1232	
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.:	O1232		
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
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Comments:

U = Not Detected

LOQ = Limit of Quantitation

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E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

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* = Values outside of QC limits

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S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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CALIBRATION SUMMARY

RETENTION TIMES OF INITIAL CALIBRATION

Contract:	<u>loui01</u>						
Lab Code:	<u>CHEM</u>	Case No.:	<u>O1232</u>	SAS No.:	<u>O1232</u>	SDG NO.:	<u>O1232</u>
Instrument ID:	<u>ECD_L</u>	Calibration Date(s):		<u>01/20/2023</u>	<u>01/20/2023</u>		
		Calibration Times:		<u>14:41</u>	<u>15:36</u>		

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

[illegible]

RETENTION TIMES OF INITIAL CALIBRATION

Contract:	<u>loui01</u>						
Lab Code:	<u>CHEM</u>	Case No.:	<u>O1232</u>	SAS No.:	<u>O1232</u>	SDG NO.:	<u>O1232</u>
Instrument ID:	<u>ECD_L</u>	Calibration Date(s):		<u>01/20/2023</u>	<u>01/20/2023</u>		
		Calibration Times:		<u>14:41</u>	<u>15:36</u>		

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

[illegible]

CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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

CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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 =	<u>PL080408.D</u>	CF 075 =	<u>PL080409.D</u>		
CF 050 =	<u>PL080410.D</u>	CF 025 =	<u>PL080411.D</u>	CF 005 =	<u>PL080412.D</u>		
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.:

O1232

SAS No.:

O1232

SDG NO.:

O1232

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		CALIBRATION FACTOR
				FROM	TO	
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.:

O1232

SAS No.:

O1232

SDG NO.:

O1232

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		CALIBRATION FACTOR
				FROM	TO	
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

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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 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

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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 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

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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 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

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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 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



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

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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		DIFF RT
			FROM	TO	
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

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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 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

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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 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

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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 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

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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 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

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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 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

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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 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

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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 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

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

Continuing Calib Date: 01/23/2023 Initial Calibration Date(s): 01/20/2023 01/20/2023

Continuing Calib Time: 10:21 Initial Calibration Time(s): 14:41 15:36

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM TO		DIFF RT
Decachlorobiphenyl	8.80	8.79	8.69	8.89	-0.01
Tetrachloro-m-xylene	3.36	3.35	3.25	3.45	-0.01
alpha-BHC	3.81	3.80	3.70	3.90	-0.01
beta-BHC	4.33	4.33	4.23	4.43	0.00
delta-BHC	4.58	4.57	4.47	4.67	-0.01
gamma-BHC (Lindane)	4.14	4.13	4.03	4.23	-0.01
Heptachlor	4.72	4.71	4.61	4.81	-0.01
Aldrin	5.06	5.05	4.95	5.15	-0.01
Heptachlor epoxide	5.48	5.48	5.38	5.58	0.00
Endosulfan I	5.87	5.86	5.76	5.96	-0.01
Dieldrin	6.14	6.13	6.03	6.23	-0.01
4,4'-DDE	6.00	5.99	5.89	6.09	-0.01
Endrin	6.37	6.36	6.26	6.46	-0.01
Endosulfan II	6.59	6.58	6.48	6.68	-0.01
4,4'-DDD	6.51	6.50	6.40	6.60	-0.01
Endosulfan sulfate	6.95	6.94	6.84	7.04	-0.01
4,4'-DDT	6.82	6.82	6.72	6.92	0.00
Methoxychlor	7.30	7.29	7.19	7.39	-0.01
Endrin ketone	7.43	7.42	7.32	7.52	-0.01
Endrin aldehyde	6.72	6.71	6.61	6.81	-0.01
alpha-Chlordane	5.82	5.81	5.71	5.91	-0.01
gamma-Chlordane	5.74	5.73	5.63	5.83	-0.01

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

Continuing Calib Date: 01/23/2023 Initial Calibration Date(s): 01/20/2023 01/20/2023

Continuing Calib Time: 10:21 Initial Calibration Time(s): 14:41 15:36

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM 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	5.71	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	6.54	6.54	6.44	6.64	0.00
Endrin ketone	6.76	6.76	6.66	6.86	0.00
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

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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

Client Sample No.: CCAL04 Date Analyzed: 01/23/2023

Lab Sample No.: PSTDCCC050 Data File : PL080458.D Time Analyzed: 10:21

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
4,4'-DDD	6.510	6.404	6.604	48.410	50.000	-3.2
4,4'-DDE	5.996	5.889	6.089	48.250	50.000	-3.5
4,4'-DDT	6.823	6.716	6.916	45.650	50.000	-8.7
Aldrin	5.059	4.952	5.152	49.680	50.000	-0.6
alpha-BHC	3.808	3.701	3.901	53.660	50.000	7.3
alpha-Chlordane	5.818	5.711	5.911	48.510	50.000	-3.0
beta-BHC	4.333	4.225	4.425	48.430	50.000	-3.1
Decachlorobiphenyl	8.800	8.693	8.893	44.420	50.000	-11.2
delta-BHC	4.576	4.468	4.668	51.710	50.000	3.4
Dieldrin	6.141	6.033	6.233	48.520	50.000	-3.0
Endosulfan I	5.866	5.759	5.959	48.320	50.000	-3.4
Endosulfan II	6.586	6.480	6.680	41.880	50.000	-16.2
Endosulfan sulfate	6.950	6.843	7.043	47.120	50.000	-5.8
Endrin	6.367	6.261	6.461	46.290	50.000	-7.4
Endrin aldehyde	6.716	6.609	6.809	46.880	50.000	-6.2
Endrin ketone	7.430	7.324	7.524	48.430	50.000	-3.1
gamma-BHC (Lindane)	4.137	4.029	4.229	52.390	50.000	4.8
gamma-Chlordane	5.739	5.632	5.832	49.110	50.000	-1.8
Heptachlor	4.721	4.613	4.813	50.730	50.000	1.5
Heptachlor epoxide	5.484	5.377	5.577	49.040	50.000	-1.9
Methoxychlor	7.302	7.194	7.394	45.450	50.000	-9.1
Tetrachloro-m-xylene	3.359	3.252	3.452	51.670	50.000	3.3

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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

Client Sample No.: CCAL04 Date Analyzed: 01/23/2023

Lab Sample No.: PSTDCCC050 Data File : PL080458.D Time Analyzed: 10:21

COMPOUND	RT	RT WINDOW FROM TO		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.705	5.606	5.806	43.590	50.000	-12.8
4,4'-DDE	5.151	5.052	5.252	44.260	50.000	-11.5
4,4'-DDT	5.957	5.858	6.058	43.230	50.000	-13.5
Aldrin	4.140	4.041	4.241	46.980	50.000	-6.0
alpha-BHC	3.190	3.091	3.291	49.280	50.000	-1.4
alpha-Chlordane	4.958	4.859	5.059	44.240	50.000	-11.5
beta-BHC	3.815	3.716	3.916	47.360	50.000	-5.3
Decachlorobiphenyl	7.842	7.742	7.942	41.300	50.000	-17.4
delta-BHC	4.045	3.946	4.146	48.050	50.000	-3.9
Dieldrin	5.279	5.179	5.379	44.600	50.000	-10.8
Endosulfan I	5.013	4.913	5.113	44.620	50.000	-10.8
Endosulfan II	5.847	5.748	5.948	47.030	50.000	-5.9
Endosulfan sulfate	6.251	6.151	6.351	43.480	50.000	-13.0
Endrin	5.553	5.454	5.654	45.100	50.000	-9.8
Endrin aldehyde	6.027	5.928	6.128	43.080	50.000	-13.8
Endrin ketone	6.756	6.656	6.856	43.540	50.000	-12.9
gamma-BHC (Lindane)	3.519	3.420	3.620	48.810	50.000	-2.4
gamma-Chlordane	4.894	4.795	4.995	44.570	50.000	-10.9
Heptachlor	3.860	3.762	3.962	47.070	50.000	-5.9
Heptachlor epoxide	4.643	4.544	4.744	45.440	50.000	-9.1
Methoxychlor	6.536	6.436	6.636	42.310	50.000	-15.4
Tetrachloro-m-xylene	2.688	2.590	2.790	49.690	50.000	-0.6

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

Continuing Calib Date: 01/23/2023 Initial Calibration Date(s): 01/20/2023 01/20/2023

Continuing Calib Time: 11:34 Initial Calibration Time(s): 14:41 15:36

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM 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	6.82	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

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

Continuing Calib Date: 01/23/2023 Initial Calibration Date(s): 01/20/2023 01/20/2023

Continuing Calib Time: 11:34 Initial Calibration Time(s): 14:41 15:36

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM 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	5.71	5.71	5.61	5.81	0.00
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	6.54	6.54	6.44	6.64	0.01
Endrin ketone	6.76	6.76	6.66	6.86	0.00
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

CALIBRATION VERIFICATION SUMMARY

Contract: lou01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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

Client Sample No.: CCAL05 Date Analyzed: 01/23/2023

Lab Sample No.: PSTDCCC050 Data File : PL080462.D Time Analyzed: 11:34

COMPOUND	RT	RT WINDOW FROM TO		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.503	6.404	6.604	51.120	50.000	2.2
4,4'-DDE	5.989	5.889	6.089	50.470	50.000	0.9
4,4'-DDT	6.816	6.716	6.916	47.550	50.000	-4.9
Aldrin	5.052	4.952	5.152	51.140	50.000	2.3
alpha-BHC	3.801	3.701	3.901	54.130	50.000	8.3
alpha-Chlordane	5.811	5.711	5.911	50.210	50.000	0.4
beta-BHC	4.325	4.225	4.425	50.480	50.000	1.0
Decachlorobiphenyl	8.792	8.693	8.893	47.040	50.000	-5.9
delta-BHC	4.569	4.468	4.668	53.450	50.000	6.9
Dieldrin	6.134	6.033	6.233	50.060	50.000	0.1
Endosulfan I	5.859	5.759	5.959	50.130	50.000	0.3
Endosulfan II	6.579	6.480	6.680	43.120	50.000	-13.8
Endosulfan sulfate	6.943	6.843	7.043	49.450	50.000	-1.1
Endrin	6.360	6.261	6.461	52.680	50.000	5.4
Endrin aldehyde	6.709	6.609	6.809	48.760	50.000	-2.5
Endrin ketone	7.423	7.324	7.524	49.330	50.000	-1.3
gamma-BHC (Lindane)	4.130	4.029	4.229	53.920	50.000	7.8
gamma-Chlordane	5.732	5.632	5.832	50.920	50.000	1.8
Heptachlor	4.714	4.613	4.813	51.490	50.000	3.0
Heptachlor epoxide	5.477	5.377	5.577	51.630	50.000	3.3
Methoxychlor	7.294	7.194	7.394	47.320	50.000	-5.4
Tetrachloro-m-xylene	3.353	3.252	3.452	52.660	50.000	5.3

CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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

Client Sample No.: CCAL05 Date Analyzed: 01/23/2023

Lab Sample No.: PSTDCCC050 Data File : PL080462.D Time Analyzed: 11:34

COMPOUND	RT	RT WINDOW FROM TO		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.706	5.606	5.806	49.600	50.000	-0.8
4,4'-DDE	5.152	5.052	5.252	48.320	50.000	-3.4
4,4'-DDT	5.957	5.858	6.058	47.030	50.000	-5.9
Aldrin	4.141	4.041	4.241	50.440	50.000	0.9
alpha-BHC	3.191	3.091	3.291	51.960	50.000	3.9
alpha-Chlordane	4.958	4.859	5.059	46.710	50.000	-6.6
beta-BHC	3.816	3.716	3.916	49.900	50.000	-0.2
Decachlorobiphenyl	7.840	7.742	7.942	44.330	50.000	-11.3
delta-BHC	4.046	3.946	4.146	51.630	50.000	3.3
Dieldrin	5.278	5.179	5.379	48.020	50.000	-4.0
Endosulfan I	5.013	4.913	5.113	46.210	50.000	-7.6
Endosulfan II	5.847	5.748	5.948	50.120	50.000	0.2
Endosulfan sulfate	6.251	6.151	6.351	46.500	50.000	-7.0
Endrin	5.553	5.454	5.654	47.760	50.000	-4.5
Endrin aldehyde	6.027	5.928	6.128	45.600	50.000	-8.8
Endrin ketone	6.755	6.656	6.856	46.520	50.000	-7.0
gamma-BHC (Lindane)	3.520	3.420	3.620	51.320	50.000	2.6
gamma-Chlordane	4.894	4.795	4.995	47.030	50.000	-5.9
Heptachlor	3.861	3.762	3.962	48.550	50.000	-2.9
Heptachlor epoxide	4.643	4.544	4.744	47.710	50.000	-4.6
Methoxychlor	6.535	6.436	6.636	45.610	50.000	-8.8
Tetrachloro-m-xylene	2.690	2.590	2.790	51.770	50.000	3.5

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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		CALC	NOM	%D
		FROM	TO	AMOUNT(ng)	AMOUNT(ng)	
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		CALC	NOM	%D
		FROM	TO	AMOUNT(ng)	AMOUNT(ng)	
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

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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		CALC	NOM	%D
		FROM	TO	AMOUNT(ng)	AMOUNT(ng)	
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		CALC	NOM	%D
		FROM	TO	AMOUNT(ng)	AMOUNT(ng)	
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

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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

Client Sample No. (PEM): PEM - PL080457.D Date Analyzed: 01/23/2023

Lab Sample No.(PEM): PEM Time Analyzed: 09:38

PEM COMPOUND	RT	RT WINDOW		CALC	NOM	%D
		FROM	TO	AMOUNT(ng)	AMOUNT(ng)	
Decachlorobiphenyl	8.796	8.700	8.900	18.840	20.000	-5.8
Tetrachloro-m-xylene	3.354	3.300	3.400	21.610	20.000	8.1
alpha-BHC	3.803	3.750	3.850	9.940	10.000	-0.6
beta-BHC	4.328	4.280	4.380	10.950	10.000	9.5
gamma-BHC (Lindane)	4.132	4.080	4.180	10.390	10.000	3.9
Endrin	6.363	6.290	6.430	43.890	50.000	-12.2
4,4'-DDT	6.819	6.750	6.890	90.170	100.000	-9.8
Methoxychlor	7.297	7.230	7.370	222.910	250.000	-10.8

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

Client Sample No. (PEM): PEM - PL080457.D Date Analyzed: 01/23/2023

Lab Sample No.(PEM): PEM Time Analyzed: 09:38

PEM COMPOUND	RT	RT WINDOW		CALC	NOM	%D
		FROM	TO	AMOUNT(ng)	AMOUNT(ng)	
Decachlorobiphenyl	7.841	7.740	7.940	16.350	20.000	-18.3
Tetrachloro-m-xylene	2.691	2.640	2.740	20.120	20.000	0.6
alpha-BHC	3.192	3.140	3.240	8.870	10.000	-11.3
beta-BHC	3.817	3.770	3.870	10.540	10.000	5.4
gamma-BHC (Lindane)	3.521	3.470	3.570	9.040	10.000	-9.6
Endrin	5.554	5.480	5.620	41.800	50.000	-16.4
4,4'-DDT	5.959	5.890	6.030	90.470	100.000	-9.5
Methoxychlor	6.537	6.470	6.610	201.590	250.000	-19.4

Analytical Sequence

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

SDG No.: O1232

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 #
IBLK	IBLK	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
IBLK	IBLK	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
B-P17A	O1232-01	01/20/2023	21:09	PL080431.D	8.79	3.35
B-P17B	O1232-02	01/20/2023	21:23	PL080432.D	8.79	3.35
B-P18A	O1232-04	01/20/2023	21:37	PL080433.D	8.79	3.35
B-P18B	O1232-05	01/20/2023	21:51	PL080434.D	8.79	3.35
B-P19A	O1232-06	01/20/2023	22:05	PL080435.D	8.79	3.35
B-P35A	O1232-08	01/20/2023	22:33	PL080437.D	8.79	3.35
B-P35B	O1232-09	01/20/2023	22:47	PL080438.D	8.79	3.35
DUP01	O1232-10	01/20/2023	23:00	PL080439.D	8.79	3.35
IBLK	IBLK	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-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
IBLK	IBLK	01/21/2023	02:57	PL080453.D	8.79	3.35
PSTDCCC050	PSTDCCC050	01/21/2023	03:10	PL080454.D	8.79	3.35
IBLK	IBLK	01/23/2023	09:24	PL080456.D	8.80	3.36
PEM	PEM	01/23/2023	09:38	PL080457.D	8.80	3.35
PSTDCCC050	PSTDCCC050	01/23/2023	10:21	PL080458.D	8.80	3.36
B-P19B	O1232-07	01/23/2023	10:53	PL080459.D	8.80	3.36
IBLK	IBLK	01/23/2023	11:20	PL080461.D	8.79	3.35
PSTDCCC050	PSTDCCC050	01/23/2023	11:34	PL080462.D	8.79	3.35

Analytical Sequence

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

SDG No.: O1232

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 #
IBLK	IBLK	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
IBLK	IBLK	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
B-P17A	O1232-01	01/20/2023	21:09	PL080431.D	7.84	2.69
B-P17B	O1232-02	01/20/2023	21:23	PL080432.D	7.84	2.69
B-P18A	O1232-04	01/20/2023	21:37	PL080433.D	7.84	2.69
B-P18B	O1232-05	01/20/2023	21:51	PL080434.D	7.84	2.69
B-P19A	O1232-06	01/20/2023	22:05	PL080435.D	7.84	2.69
B-P35A	O1232-08	01/20/2023	22:33	PL080437.D	7.84	2.69
B-P35B	O1232-09	01/20/2023	22:47	PL080438.D	7.84	2.69
DUP01	O1232-10	01/20/2023	23:00	PL080439.D	7.86	2.71
IBLK	IBLK	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-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
IBLK	IBLK	01/21/2023	02:57	PL080453.D	7.84	2.69
PSTDCCC050	PSTDCCC050	01/21/2023	03:10	PL080454.D	7.84	2.69
IBLK	IBLK	01/23/2023	09:24	PL080456.D	7.84	2.69
PEM	PEM	01/23/2023	09:38	PL080457.D	7.84	2.69
PSTDCCC050	PSTDCCC050	01/23/2023	10:21	PL080458.D	7.84	2.69
B-P19B	O1232-07	01/23/2023	10:53	PL080459.D	7.84	2.69
IBLK	IBLK	01/23/2023	11:20	PL080461.D	7.84	2.69
PSTDCCC050	PSTDCCC050	01/23/2023	11:34	PL080462.D	7.84	2.69



COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

B-P19A

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

Lab Sample ID: O1232-06 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		CONCENTRATION	%RPD
			FROM	TO		
4,4'-DDE	1	5.99	5.94	6.04	1.10	9.5
	2	5.15	5.10	5.20	1.00	



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

COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

B-P19B

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

Lab Sample ID: O1232-07 Date(s) Analyzed: 01/23/2023 01/23/2023

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		CONCENTRATION	%RPD
			FROM	TO		
4,4'-DDE	1	6.00	5.95	6.05	0.88	0
	2	5.15	5.10	5.20	0.88	

COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

B-P34AMS

Contract: loui01

Lab Code: CHEM

Case No.: O1232

SAS No.: O1232

SDG NO.: O1232

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		CONCENTRATION	%RPD
			FROM	TO		
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	

COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

B-P34AMS

Contract: loui01

Lab Code: CHEM

Case No.: O1232

SAS No.: O1232

SDG NO.: O1232

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		CONCENTRATION	%RPD
			FROM	TO		
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	

COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

B-P34AMSD

Contract: loui01

Lab Code: CHEM

Case No.: O1232

SAS No.: O1232

SDG NO.: O1232

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		CONCENTRATION	%RPD
			FROM	TO		
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	

COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

B-P34AMSD

Contract: loui01

Lab Code: CHEM

Case No.: O1232

SAS No.: O1232

SDG NO.: O1232

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		CONCENTRATION	%RPD
			FROM	TO		
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	

COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

B-P35A

Contract: loui01

Lab Code: CHEM

Case No.: O1232

SAS No.: O1232

SDG NO.: O1232

Lab Sample ID: O1232-08

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		CONCENTRATION	%RPD
			FROM	TO		
4,4'-DDE	1	5.99	5.94	6.04	1.10	0
	2	5.15	5.10	5.20	1.10	
4,4'-DDT	1	6.81	6.76	6.86	1.90	0
	2	5.96	5.91	6.01	1.90	
alpha-Chlordane	1	5.81	5.76	5.86	0.65	56.1
	2	4.96	4.91	5.01	0.36	
gamma-Chlordane	1	5.73	5.68	5.78	0.43	19.5
	2	4.89	4.84	4.94	0.35	

COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

PB150373BS

Contract: loui01

Lab Code: CHEM

Case No.: O1232

SAS No.: O1232

SDG NO.: O1232

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		CONCENTRATION	%RPD
			FROM	TO		
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	

COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

PB150373BS

Contract: loui01

Lab Code: CHEM Case No.: O1232 SAS No.: O1232 SDG NO.: O1232

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		CONCENTRATION	%RPD
			FROM	TO		
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	