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

LAB CHRONICLE

OrderID:	Q1206	**OrderDate:**	1/28/2025 11:18:51 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1206-01	**JPP-20.1-012725**	**SOIL**			**01/27/25**			**01/28/25**
			VOCMS Group1	8260D			02/03/25	
Q1206-02	**JPP-20.1-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP VOA	8260D			01/29/25	
Q1206-05	**JPP-16.3-012725**	**SOIL**			**01/27/25**			**01/28/25**
			VOCMS Group1	8260D			02/03/25	
Q1206-06	**JPP-16.3-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP VOA	8260D			01/29/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units

Client ID:

0

Total Voc :

Total Concentration:

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.5
Sample Wt/Vol:	5.08 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021039.D	1		02/03/25 18:58	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	5.80	U	1.90	5.80	ug/Kg
74-87-3	Chloromethane	5.80	U	1.30	5.80	ug/Kg
75-01-4	Vinyl Chloride	5.80	U	0.89	5.80	ug/Kg
74-83-9	Bromomethane	5.80	U	1.20	5.80	ug/Kg
75-00-3	Chloroethane	5.80	U	1.20	5.80	ug/Kg
75-69-4	Trichlorofluoromethane	5.80	U	1.00	5.80	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	5.80	U	1.20	5.80	ug/Kg
75-65-0	Tert butyl alcohol	28.8	U	18.0	28.8	ug/Kg
75-35-4	1,1-Dichloroethene	5.80	U	0.90	5.80	ug/Kg
67-64-1	Acetone	28.8	U	7.20	28.8	ug/Kg
75-15-0	Carbon Disulfide	5.80	U	1.50	5.80	ug/Kg
1634-04-4	Methyl tert-butyl Ether	5.80	U	0.77	5.80	ug/Kg
79-20-9	Methyl Acetate	5.80	U	2.10	5.80	ug/Kg
75-09-2	Methylene Chloride	11.5	U	3.90	11.5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	5.80	U	0.97	5.80	ug/Kg
75-34-3	1,1-Dichloroethane	5.80	U	0.73	5.80	ug/Kg
110-82-7	Cyclohexane	5.80	U	0.79	5.80	ug/Kg
78-93-3	2-Butanone	28.8	U	6.50	28.8	ug/Kg
56-23-5	Carbon Tetrachloride	5.80	U	1.00	5.80	ug/Kg
156-59-2	cis-1,2-Dichloroethene	5.80	U	0.70	5.80	ug/Kg
74-97-5	Bromochloromethane	5.80	U	2.80	5.80	ug/Kg
67-66-3	Chloroform	5.80	U	0.77	5.80	ug/Kg
71-55-6	1,1,1-Trichloroethane	5.80	U	0.90	5.80	ug/Kg
108-87-2	Methylcyclohexane	5.80	U	1.00	5.80	ug/Kg
71-43-2	Benzene	5.80	U	0.83	5.80	ug/Kg
107-06-2	1,2-Dichloroethane	5.80	U	0.70	5.80	ug/Kg
79-01-6	Trichloroethene	5.80	U	0.86	5.80	ug/Kg
78-87-5	1,2-Dichloropropane	5.80	U	0.76	5.80	ug/Kg
75-27-4	Bromodichloromethane	5.80	U	0.64	5.80	ug/Kg
108-10-1	4-Methyl-2-Pentanone	28.8	U	5.00	28.8	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.5
Sample Wt/Vol:	5.08 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021039.D	1		02/03/25 18:58	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	5.80	U	0.77	5.80	ug/Kg
10061-02-6	t-1,3-Dichloropropene	5.80	U	0.69	5.80	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	5.80	U	0.66	5.80	ug/Kg
79-00-5	1,1,2-Trichloroethane	5.80	U	0.97	5.80	ug/Kg
591-78-6	2-Hexanone	28.8	U	5.50	28.8	ug/Kg
124-48-1	Dibromochloromethane	5.80	U	0.75	5.80	ug/Kg
106-93-4	1,2-Dibromoethane	5.80	U	0.91	5.80	ug/Kg
127-18-4	Tetrachloroethene	5.80	U	1.00	5.80	ug/Kg
108-90-7	Chlorobenzene	5.80	U	0.85	5.80	ug/Kg
100-41-4	Ethyl Benzene	5.80	U	0.71	5.80	ug/Kg
179601-23-1	m/p-Xylenes	11.5	U	1.60	11.5	ug/Kg
95-47-6	o-Xylene	5.80	U	0.81	5.80	ug/Kg
100-42-5	Styrene	5.80	U	0.69	5.80	ug/Kg
75-25-2	Bromoform	5.80	U	0.93	5.80	ug/Kg
98-82-8	Isopropylbenzene	5.80	U	0.77	5.80	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	5.80	U	1.30	5.80	ug/Kg
541-73-1	1,3-Dichlorobenzene	5.80	U	0.85	5.80	ug/Kg
106-46-7	1,4-Dichlorobenzene	5.80	U	0.92	5.80	ug/Kg
95-50-1	1,2-Dichlorobenzene	5.80	U	0.68	5.80	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	5.80	U	1.80	5.80	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	5.80	U	0.91	5.80	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	5.80	U	0.90	5.80	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	62.7		50 - 163	125%	SPK: 50
1868-53-7	Dibromofluoromethane	53.6		54 - 147	107%	SPK: 50
2037-26-5	Toluene-d8	50.3		58 - 134	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.6		29 - 146	99%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	179000	7.707			
540-36-3	1,4-Difluorobenzene	339000	8.616			
3114-55-4	Chlorobenzene-d5	316000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	131000	13.352			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.5
Sample Wt/Vol:	5.08 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021039.D	1		02/03/25 18:58	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.9
Sample Wt/Vol:	5.07 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021040.D	1		02/03/25 19:21	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	5.70	U	1.90	5.70	ug/Kg
74-87-3	Chloromethane	5.70	U	1.30	5.70	ug/Kg
75-01-4	Vinyl Chloride	5.70	U	0.88	5.70	ug/Kg
74-83-9	Bromomethane	5.70	U	1.20	5.70	ug/Kg
75-00-3	Chloroethane	5.70	U	1.20	5.70	ug/Kg
75-69-4	Trichlorofluoromethane	5.70	U	1.00	5.70	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	5.70	U	1.20	5.70	ug/Kg
75-65-0	Tert butyl alcohol	28.7	U	17.9	28.7	ug/Kg
75-35-4	1,1-Dichloroethene	5.70	U	0.90	5.70	ug/Kg
67-64-1	Acetone	28.7	U	7.20	28.7	ug/Kg
75-15-0	Carbon Disulfide	5.70	U	1.50	5.70	ug/Kg
1634-04-4	Methyl tert-butyl Ether	5.70	U	0.77	5.70	ug/Kg
79-20-9	Methyl Acetate	5.70	U	2.10	5.70	ug/Kg
75-09-2	Methylene Chloride	11.5	U	3.90	11.5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	5.70	U	0.96	5.70	ug/Kg
75-34-3	1,1-Dichloroethane	5.70	U	0.72	5.70	ug/Kg
110-82-7	Cyclohexane	5.70	U	0.79	5.70	ug/Kg
78-93-3	2-Butanone	28.7	U	6.50	28.7	ug/Kg
56-23-5	Carbon Tetrachloride	5.70	U	1.00	5.70	ug/Kg
156-59-2	cis-1,2-Dichloroethene	5.70	U	0.70	5.70	ug/Kg
74-97-5	Bromochloromethane	5.70	U	2.80	5.70	ug/Kg
67-66-3	Chloroform	5.70	U	0.77	5.70	ug/Kg
71-55-6	1,1,1-Trichloroethane	5.70	U	0.90	5.70	ug/Kg
108-87-2	Methylcyclohexane	5.70	U	1.00	5.70	ug/Kg
71-43-2	Benzene	5.70	U	0.83	5.70	ug/Kg
107-06-2	1,2-Dichloroethane	5.70	U	0.70	5.70	ug/Kg
79-01-6	Trichloroethene	5.70	U	0.86	5.70	ug/Kg
78-87-5	1,2-Dichloropropane	5.70	U	0.76	5.70	ug/Kg
75-27-4	Bromodichloromethane	5.70	U	0.64	5.70	ug/Kg
108-10-1	4-Methyl-2-Pentanone	28.7	U	5.00	28.7	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.9
Sample Wt/Vol:	5.07 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021040.D	1		02/03/25 19:21	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	5.70	U	0.77	5.70	ug/Kg
10061-02-6	t-1,3-Dichloropropene	5.70	U	0.69	5.70	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	5.70	U	0.65	5.70	ug/Kg
79-00-5	1,1,2-Trichloroethane	5.70	U	0.96	5.70	ug/Kg
591-78-6	2-Hexanone	28.7	U	5.50	28.7	ug/Kg
124-48-1	Dibromochloromethane	5.70	U	0.75	5.70	ug/Kg
106-93-4	1,2-Dibromoethane	5.70	U	0.91	5.70	ug/Kg
127-18-4	Tetrachloroethene	5.70	U	1.00	5.70	ug/Kg
108-90-7	Chlorobenzene	5.70	U	0.85	5.70	ug/Kg
100-41-4	Ethyl Benzene	5.70	U	0.71	5.70	ug/Kg
179601-23-1	m/p-Xylenes	11.5	U	1.50	11.5	ug/Kg
95-47-6	o-Xylene	5.70	U	0.80	5.70	ug/Kg
100-42-5	Styrene	5.70	U	0.69	5.70	ug/Kg
75-25-2	Bromoform	5.70	U	0.93	5.70	ug/Kg
98-82-8	Isopropylbenzene	5.70	U	0.77	5.70	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	5.70	U	1.30	5.70	ug/Kg
541-73-1	1,3-Dichlorobenzene	5.70	U	0.85	5.70	ug/Kg
106-46-7	1,4-Dichlorobenzene	5.70	U	0.92	5.70	ug/Kg
95-50-1	1,2-Dichlorobenzene	5.70	U	0.68	5.70	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	5.70	U	1.80	5.70	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	5.70	U	0.91	5.70	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	5.70	U	0.90	5.70	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	59.0		50 - 163	118%	SPK: 50
1868-53-7	Dibromofluoromethane	52.2		54 - 147	104%	SPK: 50
2037-26-5	Toluene-d8	50.1		58 - 134	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.5		29 - 146	97%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	172000	7.713			
540-36-3	1,4-Difluorobenzene	325000	8.616			
3114-55-4	Chlorobenzene-d5	298000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	121000	13.353			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	85.9
Sample Wt/Vol:	5.07 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021040.D	1		02/03/25 19:21	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

QC SUMMARY

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Surrogate Summary

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
Q1206-01	JPP-20.1-012725	1,2-Dichloroethane-d4	50	62.7	125	50	163
		Dibromofluoromethane	50	53.6	107	54	147
		Toluene-d8	50	50.4	101	58	134
		4-Bromofluorobenzene	50	49.6	99	29	146
Q1206-05	JPP-16.3-012725	1,2-Dichloroethane-d4	50	59.0	118	50	163
		Dibromofluoromethane	50	52.2	104	54	147
		Toluene-d8	50	50.1	100	58	134
		4-Bromofluorobenzene	50	48.5	97	29	146
VY0203SBL01	VY0203SBL01	1,2-Dichloroethane-d4	50	50.6	101	50	163
		Dibromofluoromethane	50	49.4	99	54	147
		Toluene-d8	50	47.8	96	58	134
		4-Bromofluorobenzene	50	43.4	87	29	146
VY0203SBS01	VY0203SBS01	1,2-Dichloroethane-d4	50	45.9	92	50	163
		Dibromofluoromethane	50	48.8	98	54	147
		Toluene-d8	50	50.2	100	58	134
		4-Bromofluorobenzene	50	49.7	99	29	146
VY0203SBSD01	VY0203SBSD01	1,2-Dichloroethane-d4	50	49.0	98	50	163
		Dibromofluoromethane	50	48.3	97	54	147
		Toluene-d8	50	50.2	100	58	134
		4-Bromofluorobenzene	50	49.7	99	29	146

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VY021029.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VY0203SBS01	Dichlorodifluoromethane	20	18.1	ug/Kg	91			64	136	
	Chloromethane	20	18.2	ug/Kg	91			70	130	
	Vinyl chloride	20	17.8	ug/Kg	89			72	129	
	Bromomethane	20	18.3	ug/Kg	92			58	141	
	Chloroethane	20	17.5	ug/Kg	88			69	130	
	Trichlorofluoromethane	20	18.1	ug/Kg	91			69	134	
	1,1,2-Trichlorotrifluoroethane	20	18.5	ug/Kg	93			81	123	
	Tert butyl alcohol	100	91.7	ug/Kg	92			24	175	
	1,1-Dichloroethene	20	18.0	ug/Kg	90			79	121	
	Acetone	100	83.7	ug/Kg	84			60	131	
	Carbon disulfide	20	17.7	ug/Kg	89			45	154	
	Methyl tert-butyl Ether	20	16.1	ug/Kg	81			77	129	
	Methyl Acetate	20	15.4	ug/Kg	77			69	149	
	Methylene Chloride	20	17.1	ug/Kg	86			56	174	
	trans-1,2-Dichloroethene	20	17.9	ug/Kg	90			80	123	
	1,1-Dichloroethane	20	17.6	ug/Kg	88			82	123	
	Cyclohexane	20	17.8	ug/Kg	89			76	122	
	2-Butanone	100	78.6	ug/Kg	79			69	131	
	Carbon Tetrachloride	20	18.0	ug/Kg	90			76	129	
	cis-1,2-Dichloroethene	20	17.4	ug/Kg	87			82	123	
	Bromochloromethane	20	16.4	ug/Kg	82			80	127	
	Chloroform	20	17.5	ug/Kg	88			82	125	
	1,1,1-Trichloroethane	20	18.1	ug/Kg	91			80	126	
	Methylcyclohexane	20	18.5	ug/Kg	93			77	123	
	Benzene	20	18.1	ug/Kg	91			84	121	
	1,2-Dichloroethane	20	16.9	ug/Kg	85			81	126	
	Trichloroethene	20	18.1	ug/Kg	91			83	122	
	1,2-Dichloropropane	20	17.6	ug/Kg	88			83	122	
	Bromodichloromethane	20	17.2	ug/Kg	86			82	123	
	4-Methyl-2-Pentanone	100	79.4	ug/Kg	79			70	135	
	Toluene	20	18.1	ug/Kg	91			83	122	
	t-1,3-Dichloropropene	20	17.1	ug/Kg	86			78	124	
	cis-1,3-Dichloropropene	20	17.5	ug/Kg	88			81	122	
	1,1,2-Trichloroethane	20	16.7	ug/Kg	84			82	125	
	2-Hexanone	100	76.7	ug/Kg	77			66	138	
	Dibromochloromethane	20	16.5	ug/Kg	83			79	125	
	1,2-Dibromoethane	20	16.7	ug/Kg	84			80	125	
	Tetrachloroethene	20	18.7	ug/Kg	94			83	125	
	Chlorobenzene	20	17.7	ug/Kg	89			84	122	
	Ethyl Benzene	20	18.5	ug/Kg	93			82	124	
	m/p-Xylenes	40	37.2	ug/Kg	93			83	124	
	o-Xylene	20	18.2	ug/Kg	91			83	123	
	Styrene	20	18.2	ug/Kg	91			82	124	
	Bromoform	20	17.0	ug/Kg	85			75	127	
	Isopropylbenzene	20	18.7	ug/Kg	94			82	124	
	1,1,2,2-Tetrachloroethane	20	16.4	ug/Kg	82			77	127	
	1,3-Dichlorobenzene	20	18.2	ug/Kg	91			83	122	
	1,4-Dichlorobenzene	20	17.9	ug/Kg	90			84	121	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VY021029.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VY0203SBS01	1,2-Dichlorobenzene	20	17.5	ug/Kg	88			83	124	
	1,2-Dibromo-3-Chloropropane	20	16.6	ug/Kg	83			66	134	
	1,2,4-Trichlorobenzene	20	17.5	ug/Kg	88			78	127	
	1,2,3-Trichlorobenzene	20	17.3	ug/Kg	86			70	137	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VY021030.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VY0203SBSD01	Dichlorodifluoromethane	20	19.5	ug/Kg	98	7		64	136	20
	Chloromethane	20	19.0	ug/Kg	95	4		70	130	20
	Vinyl chloride	20	18.7	ug/Kg	94	5		72	129	20
	Bromomethane	20	19.2	ug/Kg	96	4		58	141	20
	Chloroethane	20	18.9	ug/Kg	95	8		69	130	20
	Trichlorofluoromethane	20	19.3	ug/Kg	97	6		69	134	20
	1,1,2-Trichlorotrifluoroethane	20	19.7	ug/Kg	99	6		81	123	20
	Tert butyl alcohol	100	120	ug/Kg	120	26	*	24	175	20
	1,1-Dichloroethene	20	19.6	ug/Kg	98	9		79	121	20
	Acetone	100	97.7	ug/Kg	98	15		60	131	20
	Carbon disulfide	20	18.9	ug/Kg	95	7		45	154	20
	Methyl tert-butyl Ether	20	19.6	ug/Kg	98	19		77	129	20
	Methyl Acetate	20	19.3	ug/Kg	97	23	*	69	149	20
	Methylene Chloride	20	19.3	ug/Kg	97	12		56	174	20
	trans-1,2-Dichloroethene	20	18.9	ug/Kg	95	5		80	123	20
	1,1-Dichloroethane	20	18.7	ug/Kg	94	7		82	123	20
	Cyclohexane	20	19.5	ug/Kg	98	10		76	122	20
	2-Butanone	100	99.3	ug/Kg	99	22	*	69	131	20
	Carbon Tetrachloride	20	19.2	ug/Kg	96	6		76	129	20
	cis-1,2-Dichloroethene	20	19.0	ug/Kg	95	9		82	123	20
	Bromochloromethane	20	18.1	ug/Kg	91	10		80	127	20
	Chloroform	20	19.2	ug/Kg	96	9		82	125	20
	1,1,1-Trichloroethane	20	19.4	ug/Kg	97	6		80	126	20
	Methylcyclohexane	20	19.7	ug/Kg	99	6		77	123	20
	Benzene	20	19.4	ug/Kg	97	6		84	121	20
	1,2-Dichloroethane	20	19.3	ug/Kg	97	13		81	126	20
	Trichloroethene	20	19.3	ug/Kg	97	6		83	122	20
	1,2-Dichloropropane	20	19.5	ug/Kg	98	11		83	122	20
	Bromodichloromethane	20	18.9	ug/Kg	95	10		82	123	20
	4-Methyl-2-Pentanone	100	99.9	ug/Kg	100	23	*	70	135	20
	Toluene	20	19.8	ug/Kg	99	8		83	122	20
	t-1,3-Dichloropropene	20	19.5	ug/Kg	98	13		78	124	20
	cis-1,3-Dichloropropene	20	19.2	ug/Kg	96	9		81	122	20
	1,1,2-Trichloroethane	20	19.3	ug/Kg	97	14		82	125	20
	2-Hexanone	100	99.3	ug/Kg	99	25	*	66	138	20
	Dibromochloromethane	20	19.2	ug/Kg	96	15		79	125	20
	1,2-Dibromoethane	20	19.0	ug/Kg	95	12		80	125	20
	Tetrachloroethene	20	19.9	ug/Kg	100	6		83	125	20
	Chlorobenzene	20	19.7	ug/Kg	99	11		84	122	20
	Ethyl Benzene	20	19.9	ug/Kg	100	7		82	124	20
	m/p-Xylenes	40	40.2	ug/Kg	101	8		83	124	20
	o-Xylene	20	19.8	ug/Kg	99	8		83	123	20
	Styrene	20	20.1	ug/Kg	101	10		82	124	20
	Bromoform	20	20.0	ug/Kg	100	16		75	127	20
	Isopropylbenzene	20	19.5	ug/Kg	98	4		82	124	20
	1,1,2,2-Tetrachloroethane	20	19.2	ug/Kg	96	16		77	127	20
	1,3-Dichlorobenzene	20	19.5	ug/Kg	98	7		83	122	20
	1,4-Dichlorobenzene	20	19.3	ug/Kg	97	7		84	121	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VY021030.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VY0203SBSD01	1,2-Dichlorobenzene	20	19.3	ug/Kg	97	10		83	124	20
	1,2-Dibromo-3-Chloropropane	20	18.9	ug/Kg	95	13		66	134	20
	1,2,4-Trichlorobenzene	20	18.9	ug/Kg	95	8		78	127	20
	1,2,3-Trichlorobenzene	20	19.3	ug/Kg	97	12		70	137	20

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VY0203SBL01

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: VY021028.D Lab Sample ID: VY0203SBL01

Date Analyzed: 02/03/2025 Time Analyzed: 14:13

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

Instrument ID: MSVOA_Y

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VY0203SBS01	VY0203SBS01	VY021029.D	02/03/2025
VY0203SBSD01	VY0203SBSD01	VY021030.D	02/03/2025
JPP-20.1-012725	Q1206-01	VY021039.D	02/03/2025
JPP-16.3-012725	Q1206-05	VY021040.D	02/03/2025

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: VY021019.D BFB Injection Date: 02/03/2025

Instrument ID: MSVOA_Y BFB Injection Time: 09:51

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.3
75	30.0 - 60.0% of mass 95	49
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.3 (0.4) 1
174	50.0 - 100.0% of mass 95	89.7
175	5.0 - 9.0% of mass 174	7 (7.8) 1
176	95.0 - 101.0% of mass 174	87 (97) 1
177	5.0 - 9.0% of mass 176	5.9 (6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC005	VSTDICC005	VY021020.D	02/03/2025	10:35
VSTDICC010	VSTDICC010	VY021021.D	02/03/2025	10:57
VSTDICC020	VSTDICC020	VY021022.D	02/03/2025	11:20
VSTDICCC050	VSTDICCC050	VY021023.D	02/03/2025	11:43
VSTDICC100	VSTDICC100	VY021024.D	02/03/2025	12:21
VSTDICC150	VSTDICC150	VY021025.D	02/03/2025	12:44
VY0203SBL01	VY0203SBL01	VY021028.D	02/03/2025	14:13
VY0203SBS01	VY0203SBS01	VY021029.D	02/03/2025	14:55
VY0203SBSD01	VY0203SBSD01	VY021030.D	02/03/2025	15:17
JPP-20.1-012725	Q1206-01	VY021039.D	02/03/2025	18:58
JPP-16.3-012725	Q1206-05	VY021040.D	02/03/2025	19:21

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: VY021023.D Date Analyzed: 02/03/2025

Instrument ID: MSVOA_Y Time Analyzed: 11:43

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	185055	7.71	285755	8.62	250150	11.42
UPPER LIMIT	370110	8.213	571510	9.122	500300	11.92
LOWER LIMIT	92527.5	7.213	142878	8.122	125075	10.92
EPA SAMPLE NO.						
JPP-20.1-012725	179216	7.71	339349	8.62	315655	11.42
JPP-16.3-012725	171656	7.71	325368	8.62	298186	11.42
VY0203SBL01	159750	7.71	285727	8.62	240190	11.42
VY0203SBS01	208053	7.71	315310	8.62	265413	11.42
VY0203SBSD01	203811	7.71	313701	8.62	262239	11.42

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: VY021023.D Date Analyzed: 02/03/2025

Instrument ID: MSVOA_Y Time Analyzed: 11:43

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	121069	13.353				
UPPER LIMIT	242138	13.853				
LOWER LIMIT	60534.5	12.853				
EPA SAMPLE NO.						
JPP-20.1-012725	130519	13.35				
JPP-16.3-012725	120880	13.35				
VY0203SBL01	89793	13.35				
VY0203SBS01	127785	13.35				
VY0203SBSD01	128240	13.35				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0203SBL01	SDG No.:	Q1206
Lab Sample ID:	VY0203SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021028.D	1		02/03/25 14:13	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	5.00	U	1.70	5.00	ug/Kg
74-87-3	Chloromethane	5.00	U	1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	5.00	U	0.77	5.00	ug/Kg
74-83-9	Bromomethane	5.00	U	1.00	5.00	ug/Kg
75-00-3	Chloroethane	5.00	U	1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	5.00	U	0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	5.00	U	1.10	5.00	ug/Kg
75-65-0	Tert butyl alcohol	25.0	U	15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	5.00	U	0.78	5.00	ug/Kg
67-64-1	Acetone	25.0	U	6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	5.00	U	1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	5.00	U	0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	5.00	U	1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	10.0	U	3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	5.00	U	0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	5.00	U	0.63	5.00	ug/Kg
110-82-7	Cyclohexane	5.00	U	0.69	5.00	ug/Kg
78-93-3	2-Butanone	25.0	U	5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	5.00	U	0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	5.00	U	0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	5.00	U	2.40	5.00	ug/Kg
67-66-3	Chloroform	5.00	U	0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	5.00	U	0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	5.00	U	0.87	5.00	ug/Kg
71-43-2	Benzene	5.00	U	0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	5.00	U	0.61	5.00	ug/Kg
79-01-6	Trichloroethene	5.00	U	0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	5.00	U	0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	5.00	U	0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	25.0	U	4.40	25.0	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0203SBL01	SDG No.:	Q1206
Lab Sample ID:	VY0203SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021028.D	1		02/03/25 14:13	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	5.00	U	0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	5.00	U	0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	5.00	U	0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	5.00	U	0.84	5.00	ug/Kg
591-78-6	2-Hexanone	25.0	U	4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	5.00	U	0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	5.00	U	0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	5.00	U	0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	5.00	U	0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	5.00	U	0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	10.0	U	1.40	10.0	ug/Kg
95-47-6	o-Xylene	5.00	U	0.70	5.00	ug/Kg
100-42-5	Styrene	5.00	U	0.60	5.00	ug/Kg
75-25-2	Bromoform	5.00	U	0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	5.00	U	0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	5.00	U	1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	5.00	U	0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	5.00	U	0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	5.00	U	0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	5.00	U	1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	5.00	U	0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	5.00	U	0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.6		50 - 163	101%	SPK: 50
1868-53-7	Dibromofluoromethane	49.4		54 - 147	99%	SPK: 50
2037-26-5	Toluene-d8	47.8		58 - 134	96%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.4		29 - 146	87%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	160000	7.713			
540-36-3	1,4-Difluorobenzene	286000	8.622			
3114-55-4	Chlorobenzene-d5	240000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	89800	13.353			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0203SBL01	SDG No.:	Q1206
Lab Sample ID:	VY0203SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021028.D	1		02/03/25 14:13	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0203SBS01	SDG No.:	Q1206
Lab Sample ID:	VY0203SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021029.D	1		02/03/25 14:55	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	18.1		1.70	5.00	ug/Kg
74-87-3	Chloromethane	18.2		1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	17.8		0.77	5.00	ug/Kg
74-83-9	Bromomethane	18.3		1.00	5.00	ug/Kg
75-00-3	Chloroethane	17.5		1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	18.1		0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	18.5		1.10	5.00	ug/Kg
75-65-0	Tert butyl alcohol	91.7		15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	18.0		0.78	5.00	ug/Kg
67-64-1	Acetone	83.7		6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	17.7		1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	16.1		0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	15.4		1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	17.1		3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	17.9		0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	17.6		0.63	5.00	ug/Kg
110-82-7	Cyclohexane	17.8		0.69	5.00	ug/Kg
78-93-3	2-Butanone	78.6		5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	18.0		0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	17.4		0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	16.4		2.40	5.00	ug/Kg
67-66-3	Chloroform	17.5		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	18.1		0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	18.5		0.87	5.00	ug/Kg
71-43-2	Benzene	18.1		0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	16.9		0.61	5.00	ug/Kg
79-01-6	Trichloroethene	18.1		0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	17.6		0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	17.2		0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	79.4		4.40	25.0	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0203SBS01	SDG No.:	Q1206
Lab Sample ID:	VY0203SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021029.D	1		02/03/25 14:55	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	18.1		0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	17.1		0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	17.5		0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	16.7		0.84	5.00	ug/Kg
591-78-6	2-Hexanone	76.7		4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	16.5		0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	16.7		0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	18.7		0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	17.7		0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	18.5		0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	37.2		1.40	10.0	ug/Kg
95-47-6	o-Xylene	18.2		0.70	5.00	ug/Kg
100-42-5	Styrene	18.2		0.60	5.00	ug/Kg
75-25-2	Bromoform	17.0		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	18.7		0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	16.4		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	18.2		0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	17.9		0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	17.5		0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	16.6		1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	17.5		0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	17.3		0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	45.9		50 - 163	92%	SPK: 50
1868-53-7	Dibromofluoromethane	48.8		54 - 147	98%	SPK: 50
2037-26-5	Toluene-d8	50.2		58 - 134	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.7		29 - 146	99%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	208000	7.713			
540-36-3	1,4-Difluorobenzene	315000	8.622			
3114-55-4	Chlorobenzene-d5	265000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	128000	13.352			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0203SBS01	SDG No.:	Q1206
Lab Sample ID:	VY0203SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021029.D	1		02/03/25 14:55	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0203SBSD01	SDG No.:	Q1206
Lab Sample ID:	VY0203SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021030.D	1		02/03/25 15:17	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	19.5		1.70	5.00	ug/Kg
74-87-3	Chloromethane	19.0		1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	18.7		0.77	5.00	ug/Kg
74-83-9	Bromomethane	19.2		1.00	5.00	ug/Kg
75-00-3	Chloroethane	18.9		1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	19.3		0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	19.7		1.10	5.00	ug/Kg
75-65-0	Tert butyl alcohol	120		15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	19.6		0.78	5.00	ug/Kg
67-64-1	Acetone	97.7		6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	18.9		1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	19.6		0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	19.3		1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	19.3		3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	18.9		0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	18.7		0.63	5.00	ug/Kg
110-82-7	Cyclohexane	19.5		0.69	5.00	ug/Kg
78-93-3	2-Butanone	99.3		5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	19.2		0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	19.0		0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	18.1		2.40	5.00	ug/Kg
67-66-3	Chloroform	19.2		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	19.4		0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	19.7		0.87	5.00	ug/Kg
71-43-2	Benzene	19.4		0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	19.3		0.61	5.00	ug/Kg
79-01-6	Trichloroethene	19.3		0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	19.5		0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	18.9		0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	99.9		4.40	25.0	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0203SBSD01	SDG No.:	Q1206
Lab Sample ID:	VY0203SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021030.D	1		02/03/25 15:17	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	19.8		0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	19.5		0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	19.2		0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	19.3		0.84	5.00	ug/Kg
591-78-6	2-Hexanone	99.3		4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	19.2		0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	19.0		0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	19.9		0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	19.7		0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	19.9		0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	40.2		1.40	10.0	ug/Kg
95-47-6	o-Xylene	19.8		0.70	5.00	ug/Kg
100-42-5	Styrene	20.1		0.60	5.00	ug/Kg
75-25-2	Bromoform	20.0		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	19.5		0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	19.2		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	19.5		0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	19.3		0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	19.3		0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	18.9		1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	18.9		0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	19.3		0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.0		50 - 163	98%	SPK: 50
1868-53-7	Dibromofluoromethane	48.3		54 - 147	97%	SPK: 50
2037-26-5	Toluene-d8	50.2		58 - 134	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.7		29 - 146	99%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	204000	7.713			
540-36-3	1,4-Difluorobenzene	314000	8.616			
3114-55-4	Chlorobenzene-d5	262000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	128000	13.352			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0203SBSD01	SDG No.:	Q1206
Lab Sample ID:	VY0203SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021030.D	1		02/03/25 15:17	VY020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CALIBRATION SUMMARY

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

Instrument ID: MSVOA_Y Calibration Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Calibration Time(s): 10:35 12:44

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF005 = VY021020.D RRF010 = VY021021.D RRF020 = VY021022.D
RRF050 = VY021023.D RRF100 = VY021024.D RRF150 = VY021025.D

COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.503	0.438	0.413	0.445	0.419	0.457	0.446	7.2
Chloromethane	0.524	0.445	0.408	0.421	0.404	0.437	0.440	10.1
Vinyl Chloride	0.535	0.441	0.404	0.424	0.408	0.443	0.443	10.9
Bromomethane	0.356	0.275	0.249	0.258	0.246	0.257	0.274	15.2
Chloroethane	0.316	0.270	0.240	0.255	0.239	0.261	0.263	10.7
Trichlorofluoromethane	0.924	0.814	0.755	0.789	0.743	0.813	0.806	8
1,1,2-Trichlorotrifluoroethane	0.587	0.507	0.472	0.494	0.466	0.510	0.506	8.6
Tert butyl alcohol	0.042	0.039	0.035	0.032	0.028	0.032	0.035	14.8
1,1-Dichloroethene	0.529	0.471	0.441	0.469	0.452	0.498	0.477	6.8
Acetone	0.087	0.083	0.078	0.077	0.070	0.083	0.080	7.5
Carbon Disulfide	1.673	1.456	1.389	1.475	1.421	1.556	1.495	7
Methyl tert-butyl Ether	1.271	1.185	1.168	1.216	1.124	1.265	1.205	4.8
Methyl Acetate	0.300	0.282	0.268	0.287	0.253	0.291	0.280	6.1
Methylene Chloride	0.570	0.506	0.473	0.485	0.452	0.494	0.497	8.2
trans-1,2-Dichloroethene	0.578	0.518	0.502	0.522	0.490	0.538	0.525	5.8
1,1-Dichloroethane	1.104	0.948	0.923	0.947	0.911	0.989	0.970	7.3
Cyclohexane	1.093	0.885	0.807	0.827	0.779	0.852	0.874	13
2-Butanone	0.134	0.133	0.126	0.135	0.121	0.139	0.131	5.2
Carbon Tetrachloride	0.604	0.551	0.522	0.547	0.522	0.581	0.555	5.9
cis-1,2-Dichloroethene	0.662	0.584	0.577	0.599	0.575	0.626	0.604	5.7
Bromochloromethane	0.373	0.368	0.381	0.413	0.374	0.394	0.384	4.4
Chloroform	1.107	1.016	0.947	0.982	0.921	1.006	0.997	6.5
1,1,1-Trichloroethane	1.067	0.901	0.867	0.912	0.863	0.949	0.927	8.2
Methylcyclohexane	0.609	0.550	0.536	0.588	0.570	0.629	0.581	6.1
Benzene	1.512	1.382	1.327	1.378	1.323	1.436	1.393	5.1
1,2-Dichloroethane	0.435	0.390	0.367	0.379	0.352	0.395	0.386	7.4
Trichloroethene	0.401	0.355	0.341	0.349	0.338	0.375	0.360	6.7
1,2-Dichloropropane	0.357	0.329	0.319	0.327	0.311	0.341	0.331	5
Bromodichloromethane	0.528	0.500	0.469	0.482	0.459	0.506	0.491	5.2
4-Methyl-2-Pentanone	0.202	0.211	0.202	0.216	0.194	0.224	0.208	5.2

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

Instrument ID: MSVOA_Y Calibration Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Calibration Time(s): 10:35 12:44

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF005 = VY021020.D RRF010 = VY021021.D RRF020 = VY021022.D
RRF050 = VY021023.D RRF100 = VY021024.D RRF150 = VY021025.D

COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Toluene	0.913	0.856	0.840	0.876	0.844	0.918	0.875	3.9
t-1,3-Dichloropropene	0.441	0.426	0.419	0.449	0.427	0.483	0.441	5.3
cis-1,3-Dichloropropene	0.528	0.516	0.502	0.525	0.501	0.560	0.522	4.2
1,1,2-Trichloroethane	0.261	0.235	0.231	0.235	0.217	0.242	0.237	6.1
2-Hexanone	0.124	0.131	0.128	0.144	0.129	0.149	0.134	7.4
Dibromochloromethane	0.359	0.330	0.324	0.329	0.310	0.346	0.333	5.2
1,2-Dibromoethane	0.232	0.223	0.215	0.225	0.203	0.233	0.222	5
Tetrachloroethene	0.409	0.367	0.352	0.361	0.351	0.387	0.371	6.2
Chlorobenzene	1.237	1.115	1.054	1.080	1.048	1.146	1.113	6.4
Ethyl Benzene	2.101	1.899	1.865	1.943	1.914	2.093	1.969	5.2
m/p-Xylenes	0.772	0.723	0.709	0.733	0.711	0.773	0.737	3.9
o-Xylene	0.723	0.658	0.660	0.681	0.670	0.729	0.687	4.6
Styrene	1.154	1.118	1.105	1.156	1.128	1.208	1.145	3.2
Bromoform	0.231	0.222	0.217	0.216	0.205	0.229	0.220	4.4
Isopropylbenzene	4.122	3.695	3.673	3.809	3.871	4.263	3.906	6.1
1,1,2,2-Tetrachloroethane	0.707	0.646	0.635	0.632	0.597	0.680	0.650	6
1,3-Dichlorobenzene	1.937	1.686	1.660	1.683	1.652	1.824	1.740	6.6
1,4-Dichlorobenzene	1.906	1.702	1.632	1.665	1.599	1.778	1.714	6.6
1,2-Dichlorobenzene	1.668	1.524	1.440	1.460	1.405	1.567	1.510	6.4
1,2-Dibromo-3-Chloropropane	0.099	0.099	0.089	0.097	0.089	0.109	0.097	7.6
1,2,4-Trichlorobenzene	0.796	0.754	0.743	0.875	0.873	1.004	0.841	11.6
1,2,3-Trichlorobenzene	0.641	0.640	0.626	0.733	0.726	0.832	0.700	11.4
1,2-Dichloroethane-d4	0.566	0.557	0.478	0.503	0.454	0.516	0.512	8.5
Dibromofluoromethane	0.351	0.326	0.301	0.313	0.297	0.333	0.320	6.4
Toluene-d8	1.295	1.237	1.139	1.202	1.158	1.288	1.220	5.3
4-Bromofluorobenzene	0.417	0.408	0.371	0.403	0.375	0.418	0.399	5.2

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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LAB CHRONICLE

OrderID:	Q1206	**OrderDate:**	1/28/2025 11:18:51 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1206-02	**JPP-20.1-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP VOA	8260D			01/29/25	
Q1206-06	**JPP-16.3-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP VOA	8260D			01/29/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	**JPP-20.1-012725**							
Q1206-02	JPP-20.1-012725	TCLP	2-Butanone	6.00	J	1.30	25.0	ug/L
			Total Voc :	6.00				
			Total Concentration:	6.00				
Client ID:	**JPP-16.3-012725**							
Q1206-06	JPP-16.3-012725	TCLP	2-Butanone	5.70	J	1.30	25.0	ug/L
			Total Voc :	5.70				
			Total Concentration:	5.70				

SAMPLE DATA

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-02	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :	SW5035		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085555.D	1		01/29/25 14:16	VN012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	5.00	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	U	0.26	5.00	ug/L
78-93-3	2-Butanone	6.00	J	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	U	0.25	5.00	ug/L
67-66-3	Chloroform	5.00	U	0.26	5.00	ug/L
71-43-2	Benzene	5.00	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	5.00	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	5.00	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	5.00	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.9		74 - 125	110%	SPK: 50
1868-53-7	Dibromofluoromethane	51.7		75 - 124	103%	SPK: 50
2037-26-5	Toluene-d8	52.8		86 - 113	106%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.8		77 - 121	86%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	160000	8.224			
540-36-3	1,4-Difluorobenzene	299000	9.1			
3114-55-4	Chlorobenzene-d5	275000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	91000	13.788			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-06	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :	SW5035		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085556.D	1		01/29/25 14:40	VN012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	5.00	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	U	0.26	5.00	ug/L
78-93-3	2-Butanone	5.70	J	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	U	0.25	5.00	ug/L
67-66-3	Chloroform	5.00	U	0.26	5.00	ug/L
71-43-2	Benzene	5.00	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	5.00	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	5.00	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	5.00	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56.9		74 - 125	114%	SPK: 50
1868-53-7	Dibromofluoromethane	52.1		75 - 124	104%	SPK: 50
2037-26-5	Toluene-d8	53.3		86 - 113	107%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.7		77 - 121	91%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	166000	8.224			
540-36-3	1,4-Difluorobenzene	316000	9.1			
3114-55-4	Chlorobenzene-d5	302000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	108000	13.788			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

QC SUMMARY

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Surrogate Summary

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
Q1206-02	JPP-20.1-012725	1,2-Dichloroethane-d4	50	55.0	110	74	125
		Dibromofluoromethane	50	51.7	103	75	124
		Toluene-d8	50	52.8	106	86	113
		4-Bromofluorobenzene	50	42.8	86	77	121
Q1206-06	JPP-16.3-012725	1,2-Dichloroethane-d4	50	56.9	114	74	125
		Dibromofluoromethane	50	52.1	104	75	124
		Toluene-d8	50	53.3	107	86	113
		4-Bromofluorobenzene	50	45.7	91	77	121
VN0129WBL01	VN0129WBL01	1,2-Dichloroethane-d4	50	57.3	115	74	125
		Dibromofluoromethane	50	53.7	107	75	124
		Toluene-d8	50	50.2	100	86	113
		4-Bromofluorobenzene	50	48.3	97	77	121
VN0129WBS01	VN0129WBS01	1,2-Dichloroethane-d4	50	50.8	102	74	125
		Dibromofluoromethane	50	52.1	104	75	124
		Toluene-d8	50	53.0	106	86	113
		4-Bromofluorobenzene	50	55.3	111	77	121
VN0129WBSD0	VN0129WBSD01	1,2-Dichloroethane-d4	50	52.0	104	74	125
		Dibromofluoromethane	50	52.8	106	75	124
		Toluene-d8	50	53.1	106	86	113
		4-Bromofluorobenzene	50	54.8	110	77	121

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VN085551.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0129WBS01	Vinyl chloride	20	16.6	ug/L	83			65	117	
	1,1-Dichloroethene	20	18.0	ug/L	90			74	110	
	2-Butanone	100	100	ug/L	100			65	122	
	Carbon Tetrachloride	20	19.5	ug/L	98			77	113	
	Chloroform	20	19.2	ug/L	96			79	113	
	Benzene	20	19.4	ug/L	97			82	109	
	1,2-Dichloroethane	20	20.0	ug/L	100			80	115	
	Trichloroethene	20	18.9	ug/L	95			77	113	
	Tetrachloroethene	20	19.4	ug/L	97			67	123	
	Chlorobenzene	20	19.3	ug/L	97			82	109	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: SW8260D **Datafile :** VN085552.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0129WBSD01	Vinyl chloride	20	16.3	ug/L	81	2		65	117	20
	1,1-Dichloroethene	20	17.9	ug/L	90	0		74	110	20
	2-Butanone	100	110	ug/L	110	10		65	122	20
	Carbon Tetrachloride	20	18.8	ug/L	94	4		77	113	20
	Chloroform	20	19.4	ug/L	97	1		79	113	20
	Benzene	20	19.3	ug/L	97	0		82	109	20
	1,2-Dichloroethane	20	20.6	ug/L	103	3		80	115	20
	Trichloroethene	20	18.3	ug/L	92	3		77	113	20
	Tetrachloroethene	20	19.1	ug/L	96	1		67	123	20
	Chlorobenzene	20	19.2	ug/L	96	1		82	109	20

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0129WBL01

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: VN085550.D Lab Sample ID: VN0129WBL01

Date Analyzed: 01/29/2025 Time Analyzed: 12:06

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN0129WBS01	VN0129WBS01	VN085551.D	01/29/2025
VN0129WBSD01	VN0129WBSD01	VN085552.D	01/29/2025
JPP-20.1-012725	Q1206-02	VN085555.D	01/29/2025
JPP-16.3-012725	Q1206-06	VN085556.D	01/29/2025

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: VN085437.D BFB Injection Date: 01/14/2025

Instrument ID: MSVOA_N BFB Injection Time: 14:22

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.3
75	30.0 - 60.0% of mass 95	58
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.8
173	Less than 2.0% of mass 174	1.4 (1.8) 1
174	50.0 - 100.0% of mass 95	76
175	5.0 - 9.0% of mass 174	5.4 (7.1) 1
176	95.0 - 101.0% of mass 174	74.1 (97.4) 1
177	5.0 - 9.0% of mass 176	4.9 (6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC100	VSTDICC100	VN085438.D	01/14/2025	14:56
VSTDICCC050	VSTDICCC050	VN085439.D	01/14/2025	15:19
VSTDICC020	VSTDICC020	VN085440.D	01/14/2025	15:43
VSTDICC010	VSTDICC010	VN085441.D	01/14/2025	16:07
VSTDICC005	VSTDICC005	VN085442.D	01/14/2025	16:31
VSTDICC001	VSTDICC001	VN085443.D	01/14/2025	17:19

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: VN085547.D BFB Injection Date: 01/29/2025

Instrument ID: MSVOA_N BFB Injection Time: 10:35

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.3
75	30.0 - 60.0% of mass 95	54
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	1.5 (2) 1
174	50.0 - 100.0% of mass 95	73.6
175	5.0 - 9.0% of mass 174	5 (6.8) 1
176	95.0 - 101.0% of mass 174	70.7 (96) 1
177	5.0 - 9.0% of mass 176	5.2 (7.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VN085548.D	01/29/2025	11:08
VN0129WBL01	VN0129WBL01	VN085550.D	01/29/2025	12:06
VN0129WBS01	VN0129WBS01	VN085551.D	01/29/2025	12:30
VN0129WBSD01	VN0129WBSD01	VN085552.D	01/29/2025	13:04
JPP-20.1-012725	Q1206-02	VN085555.D	01/29/2025	14:16
JPP-16.3-012725	Q1206-06	VN085556.D	01/29/2025	14:40

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: VN085548.D Date Analyzed: 01/29/2025

Instrument ID: MSVOA_N Time Analyzed: 11:08

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	190920	8.22	314840	9.10	285899	11.87
UPPER LIMIT	381840	8.724	629680	9.6	571798	12.365
LOWER LIMIT	95460	7.724	157420	8.6	142950	11.365
EPA SAMPLE NO.						
JPP-20.1-012725	159764	8.22	299409	9.10	275083	11.87
JPP-16.3-012725	165855	8.22	316150	9.10	301938	11.87
VN0129WBL01	180587	8.22	341456	9.10	305749	11.87
VN0129WBS01	209601	8.22	351459	9.10	313028	11.87
VN0129WBSD01	199890	8.22	334279	9.10	300606	11.87

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: VN085548.D Date Analyzed: 01/29/2025

Instrument ID: MSVOA_N Time Analyzed: 11:08

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	149148	13.788				
UPPER LIMIT	298296	14.288				
LOWER LIMIT	74574	13.288				
EPA SAMPLE NO.						
JPP-20.1-012725	91021	13.79				
JPP-16.3-012725	107837	13.79				
VN0129WBL01	123478	13.79				
VN0129WBS01	156507	13.79				
VN0129WBSD01	149604	13.79				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VN0129WBL01	SDG No.:	Q1206
Lab Sample ID:	VN0129WBL01	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085550.D	1		01/29/25 12:06	VN012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	5.00	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	U	0.26	5.00	ug/L
78-93-3	2-Butanone	25.0	U	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	U	0.25	5.00	ug/L
67-66-3	Chloroform	5.00	U	0.26	5.00	ug/L
71-43-2	Benzene	5.00	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	5.00	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	5.00	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	5.00	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	57.3		74 - 125	115%	SPK: 50
1868-53-7	Dibromofluoromethane	53.7		75 - 124	107%	SPK: 50
2037-26-5	Toluene-d8	50.2		86 - 113	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.3		77 - 121	97%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	181000	8.224			
540-36-3	1,4-Difluorobenzene	341000	9.1			
3114-55-4	Chlorobenzene-d5	306000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	123000	13.788			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Alliance TECHNICAL GROUP
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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VN0129WBS01	SDG No.:	Q1206
Lab Sample ID:	VN0129WBS01	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085551.D	1		01/29/25 12:30	VN012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	16.6		0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	18.0		0.26	5.00	ug/L
78-93-3	2-Butanone	100		1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	19.5		0.25	5.00	ug/L
67-66-3	Chloroform	19.2		0.26	5.00	ug/L
71-43-2	Benzene	19.4		0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	20.0		0.24	5.00	ug/L
79-01-6	Trichloroethene	18.9		0.32	5.00	ug/L
127-18-4	Tetrachloroethene	19.4		0.25	5.00	ug/L
108-90-7	Chlorobenzene	19.3		0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.8		74 - 125	102%	SPK: 50
1868-53-7	Dibromofluoromethane	52.1		75 - 124	104%	SPK: 50
2037-26-5	Toluene-d8	53.0		86 - 113	106%	SPK: 50
460-00-4	4-Bromofluorobenzene	55.3		77 - 121	111%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	210000	8.224			
540-36-3	1,4-Difluorobenzene	351000	9.1			
3114-55-4	Chlorobenzene-d5	313000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	157000	13.788			

U = Not Detected
LOQ = Limit of Quantitation
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A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VN0129WBSD01	SDG No.:	Q1206
Lab Sample ID:	VN0129WBSD01	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085552.D	1		01/29/25 13:04	VN012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	16.3		0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	17.9		0.26	5.00	ug/L
78-93-3	2-Butanone	110		1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	18.8		0.25	5.00	ug/L
67-66-3	Chloroform	19.4		0.26	5.00	ug/L
71-43-2	Benzene	19.3		0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	20.6		0.24	5.00	ug/L
79-01-6	Trichloroethene	18.3		0.32	5.00	ug/L
127-18-4	Tetrachloroethene	19.1		0.25	5.00	ug/L
108-90-7	Chlorobenzene	19.2		0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.9		74 - 125	104%	SPK: 50
1868-53-7	Dibromofluoromethane	52.8		75 - 124	106%	SPK: 50
2037-26-5	Toluene-d8	53.2		86 - 113	106%	SPK: 50
460-00-4	4-Bromofluorobenzene	54.8		77 - 121	110%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	200000	8.224			
540-36-3	1,4-Difluorobenzene	334000	9.1			
3114-55-4	Chlorobenzene-d5	301000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	150000	13.788			

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CALIBRATION SUMMARY

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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

Instrument ID: MSVOA_N Calibration Date(s): 01/14/2025 01/14/2025

Heated Purge: (Y/N) N Calibration Time(s): 14:56 17:19

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF100 = VN085438.D RRF050 = VN085439.D RRF020 = VN085440.D
RRF010 = VN085441.D RRF005 = VN085442.D RRF001 = VN085443.D

COMPOUND	RRF100	RRF050	RRF020	RRF010	RRF005	RRF001	$\overline{RRF}$	% RSD
Vinyl Chloride	0.697	0.686	0.727	0.711	0.781	0.819	0.737	7.1
1,1-Dichloroethene	0.548	0.533	0.556	0.526	0.559	0.497	0.537	4.3
2-Butanone	0.378	0.390	0.398	0.363	0.387	0.386	0.384	3.1
Carbon Tetrachloride	0.574	0.530	0.579	0.529	0.565	0.567	0.557	4
Chloroform	1.197	1.175	1.241	1.169	1.253	1.273	1.218	3.6
Benzene	1.551	1.449	1.527	1.376	1.474	1.400	1.463	4.7
1,2-Dichloroethane	0.569	0.547	0.575	0.522	0.574	0.517	0.551	4.8
Trichloroethene	0.362	0.324	0.352	0.310	0.343	0.352	0.341	5.8
Tetrachloroethene	0.351	0.322	0.365	0.338	0.346	0.323	0.341	4.9
Chlorobenzene	1.133	1.076	1.154	1.047	1.110	1.051	1.095	4
1,2-Dichloroethane-d4	0.774	0.831	0.754	0.762	0.914		0.807	8.3
Dibromofluoromethane	0.359	0.358	0.335	0.310	0.373		0.347	7.1
Toluene-d8	1.339	1.267	1.207	1.076	1.274		1.232	8.1
4-Bromofluorobenzene	0.475	0.449	0.410	0.357	0.417		0.422	10.6

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

Instrument ID: MSVOA_N Calibration Date/Time: 01/29/2025 11:08

Lab File ID: VN085548.D Init. Calib. Date(s): 01/14/2025 01/14/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 14:56 17:19

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Vinyl Chloride	0.737	0.641		-13.03	20
1,1-Dichloroethene	0.537	0.511		-4.84	20
2-Butanone	0.384	0.403		4.95	20
Carbon Tetrachloride	0.557	0.568		1.98	20
Chloroform	1.218	1.236		1.48	20
Benzene	1.463	1.501		2.6	20
1,2-Dichloroethane	0.551	0.584		5.99	20
Trichloroethene	0.341	0.338		-0.88	20
Tetrachloroethene	0.341	0.339		-0.59	20
Chlorobenzene	1.095	1.109	0.3	1.28	20
1,2-Dichloroethane-d4	0.807	0.877		8.67	20
Dibromofluoromethane	0.347	0.387		11.53	20
Toluene-d8	1.232	1.409		14.37	20
4-Bromofluorobenzene	0.422	0.503		19.19	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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LAB CHRONICLE

OrderID:	Q1206	**OrderDate:**	1/28/2025 11:18:51 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1206-01	**JPP-20.1-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Diesel Range Organics	8015D		01/29/25	01/30/25	
			Gasoline Range Organics	8015D			01/29/25	
Q1206-05	**JPP-16.3-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Diesel Range Organics	8015D		01/29/25	01/30/25	
			Gasoline Range Organics	8015D			01/29/25	

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-01	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	85.5 Decanted:
Sample Wt/Vol:	4.99 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031369.D	1	01/29/25 15:01	FB012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	53.0	U	9.00	53.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	16.5		50 - 150	83%	SPK: 20

Comments:

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-05	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	85.9 Decanted:
Sample Wt/Vol:	5.09 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031370.D	1	01/29/25 15:28	FB012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	51.0	U	9.00	51.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	12.8		50 - 150	64%	SPK: 20

Comments:

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QC SUMMARY

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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SOIL GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: RU2 Engineering, LLC

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

EPA SAMPLE NO.	S1 AAA-TFT	S2	S3	S4	TOT OUT
VBF0129S1	86				0
BSF0129S1	94				0
BSF0129S2	88				0
JPP-20.1-012725	83				0
JPP-16.3-012725	64				0

	QC LIMITS
AAA-TFT	For Water : 50-150 For Soil : 50-150

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate Diluted Out

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SOIL GASOLINE RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICAT

Lab Name: Chemtech **Client:** RU2 Engineering, LLC

Lab Code: CHEM **Cas No:** Q1206 **SAS No :** Q1206 **SDG No:** Q1206

Matrix Spike - EPA Sample No : BSF0129S1 **Datafile:** FB031359.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
GRO	180	0	205	114	50-150

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SOIL GASOLINE RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICAT

Lab Name: Chemtech **Client:** RU2 Engineering, LLC

Lab Code: CHEM **Cas No:** Q1206 **SAS No :** Q1206 **SDG No:** Q1206

Matrix Spike - EPA Sample No : BSF0129S2 **Datafile:** FB031367.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
GRO	180	0	183	102	50-150

LCS/LCSD % Recovery RPD : 10.14

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METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBF0129S1

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: FB031357.D Lab Sample ID: VBF0129S1

Date Analyzed: 01/29/25 Time Analyzed: 9:17

GC Column: RTX-502.2 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: FB

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
BSF0129S1	BSF0129S1	FB031359.D	01/29/25
BSF0129S2	BSF0129S2	FB031367.D	01/29/25
JPP-20.1-012725	Q1206-01	FB031369.D	01/29/25
JPP-16.3-012725	Q1206-05	FB031370.D	01/29/25

COMMENTS:

QC SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VBF0129S1	SDG No.:	Q1206
Lab Sample ID:	VBF0129S1	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	100 Decanted:
Sample Wt/Vol:	5 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031357.D	1	01/29/25 9:17	FB012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	45.0	U	8.00	45.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	17.1		50 - 150	86%	SPK: 20

Comments:

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() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	BSF0129S1	SDG No.:	Q1206
Lab Sample ID:	BSF0129S1	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	100 Decanted:
Sample Wt/Vol:	5 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031359.D	1	01/29/25 10:11	FB012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	205		8.00	45.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	18.9		50 - 150	94%	SPK: 20

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	BSF0129S2	SDG No.:	Q1206
Lab Sample ID:	BSF0129S2	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	100 Decanted:
Sample Wt/Vol:	5 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031367.D	1	01/29/25 14:07	FB012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	183		8.00	45.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	17.6		50 - 150	88%	SPK: 20

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
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CALIBRATION SUMMARY

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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GASOLINE RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

Calibration Sequence : FB011525		Test : Gasoline Range Organics	
Concentration (PPB)	**Area Count**	**Reference Factor**	**File ID**
45	1619248	35983	FB031307.D
90	2849383	31660	FB031308.D
180	5927461	32930	FB031309.D
450	17402832	38673	FB031310.D
900	36014388	40016	FB031311.D
AVG RF : 35852	**% RSD : 10.001**		**AVG RT : 8.7886**

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GASOLINE RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

20 PPB GRO STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

DataFile: FB031356.D Analyst Name: YP/AJ Analyst Date: 01-29-2025

Conc. (PPB)	Area Count	RF	Average RF	%D
180	6971344	38730	35852	8.027

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GASOLINE RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

20 PPB GRO STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

DataFile: FB031368.D Analyst Name: YP/AJ Analyst Date: 01-29-2025

Conc. (PPB)	Area Count	RF	Average RF	%D
180	6618938	36772	35852	2.566

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GASOLINE RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

20 PPB GRO STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

DataFile: FB031374.D Analyst Name: YP/AJ Analyst Date: 01-29-2025

Conc. (PPB)	Area Count	RF	Average RF	%D
180	6660371	37002	35852	3.208

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR **Instrument ID:** FID_B

GC Column: RTX-502.2 **ID:** 0.53 **(mm)**

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

MEAN SUROGATE RT FROM INITIAL CALIBRATION **8.7886**

EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
20 PPB GRO STD	20 PPB GRO STD	29 Jan 2025 8:39	FB031356.D	8.789	
VBF0129S1	VBF0129S1	29 Jan 2025 9:17	FB031357.D	8.793	
BSF0129S1	BSF0129S1	29 Jan 2025 10:11	FB031359.D	8.796	
BSF0129S2	BSF0129S2	29 Jan 2025 14:07	FB031367.D	8.795	
20 PPB GRO STD	20 PPB GRO STD	29 Jan 2025 14:34	FB031368.D	8.795	
JPP-20.1-012725	Q1206-01	29 Jan 2025 15:01	FB031369.D	8.795	
JPP-16.3-012725	Q1206-05	29 Jan 2025 15:28	FB031370.D	8.795	
20 PPB GRO STD	20 PPB GRO STD	29 Jan 2025 17:15	FB031374.D	8.794	

 # Column used to flag RT values with an * values outside of QC limits

QC Limits	Lower Limit	Upper Limits
(± 0.10 minutes)	8.6886	8.8886

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LAB CHRONICLE

OrderID:	Q1206	**OrderDate:**	1/28/2025 11:18:51 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1206-03	**JPP-20.1-012725**	**SOIL**			**01/27/25**			**01/28/25**
			SVOC-TCL BNA -20	8270E		01/29/25	02/05/25	
Q1206-03DL	**JPP-20.1-012725DL**	**SOIL**			**01/27/25**			**01/28/25**
			SVOC-TCL BNA -20	8270E		01/29/25	02/11/25	
Q1206-04	**JPP-20.1-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP BNA	8270E		01/29/25	02/04/25	
Q1206-07	**JPP-16.3-012725**	**SOIL**			**01/27/25**			**01/28/25**
			SVOC-TCL BNA -20	8270E		01/29/25	02/05/25	
Q1206-08	**JPP-16.3-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP BNA	8270E		01/29/25	02/04/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Client ID :	**JPP-20.1-012725**								
Q1206-03	JPP-20.1-012725	SOIL	Acenaphthene		200.000		94.7	200	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Fluorene		180.000	J	99.8	200	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Phenanthrene		2,000.000		98	200	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Anthracene		630.000		98.5	200	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Carbazole		140.000	J	93.7	200	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Fluoranthene		3,600.000	E	95.4	200	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Pyrene		2,400.000		96.9	200	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Benzo(a)anthracene		1,800.000		94.2	200	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Chrysene		1,400.000		92.8	200	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Benzo(b)fluoranthene		2,000.000		94.7	200	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Benzo(k)fluoranthene		810.000		96.4	200	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Benzo(a)pyrene		1,800.000		110	200	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Indeno(1,2,3-cd)pyrene		700.000		91.2	200	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Dibenzo(a,h)anthracene		230.000		94.8	200	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Benzo(g,h,i)perylene		820.000		93.5	200	ug/Kg
			Total Svoc :		**18,710.00**				
Q1206-03	JPP-20.1-012725	SOIL	11H-Benzo[b]fluorene	*	180.000	J	0	0	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	1H-Cyclopropa[l]phenanthrene,1a	*	210.000	J	0	0	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	3-Methyl-[1,1-biphenyl]-4-carbal	*	130.000	J	0	0	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	3-Methylcarbazole	*	120.000	J	0	0	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	4H-Cyclopenta[def]phenanthrene	*	820.000	J	0	0	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	9H-Fluoren-9-one	*	93.800	J	0	0	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	9H-Fluorene, 2-methyl-	*	140.000	J	0	0	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Anthracene, 2-ethyl-	*	140.000	J	0	0	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Benzo[e]pyrene	*	320.000	J	0	0	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Benzo[j]fluoranthene	*	1,200.000	J	0	0	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Benzophenone	*	390.000	J	0	0	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Cyclopenta(def)phenanthrenone	*	240.000	J	0	0	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Dibenzothiophene	*	120.000	J	0	0	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Fluoranthene, 2-methyl-	*	120.000	J	0	0	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Naphthalene, 2-phenyl-	*	270.000	J	0	0	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Phenanthrene, 1-methyl-	*	580.000	J	0	0	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Phenanthrene, 2,5-dimethyl-	*	260.000	J	0	0	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Phenanthrene, 2-methyl-	*	330.000	J	0	0	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Pyrene, 1-methyl-	*	130.000	J	0	0	ug/Kg
Q1206-03	JPP-20.1-012725	SOIL	Pyrene, 4,5,9,10-tetrahydro-	*	160.000	J	0	0	ug/Kg
			Total Tics :		**5,953.80**				

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Hit Summary Sheet
SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
			Total Concentration:		**24,663.80**				
Client ID :	**JPP-20.1-012725DL**								
Q1206-03DL	JPP-20.1-012725DL	SOIL	Acenaphthene		210.000	JD	190	400	ug/Kg
Q1206-03DL	JPP-20.1-012725DL	SOIL	Phenanthrene		2,000.000	D	200	400	ug/Kg
Q1206-03DL	JPP-20.1-012725DL	SOIL	Anthracene		610.000	D	200	400	ug/Kg
Q1206-03DL	JPP-20.1-012725DL	SOIL	Fluoranthene		3,200.000	D	190	400	ug/Kg
Q1206-03DL	JPP-20.1-012725DL	SOIL	Pyrene		2,500.000	D	190	400	ug/Kg
Q1206-03DL	JPP-20.1-012725DL	SOIL	Benzo(a)anthracene		1,800.000	D	190	400	ug/Kg
Q1206-03DL	JPP-20.1-012725DL	SOIL	Chrysene		1,500.000	D	190	400	ug/Kg
Q1206-03DL	JPP-20.1-012725DL	SOIL	Benzo(b)fluoranthene		1,800.000	D	190	400	ug/Kg
Q1206-03DL	JPP-20.1-012725DL	SOIL	Benzo(k)fluoranthene		620.000	D	190	400	ug/Kg
Q1206-03DL	JPP-20.1-012725DL	SOIL	Benzo(a)pyrene		1,700.000	D	220	400	ug/Kg
Q1206-03DL	JPP-20.1-012725DL	SOIL	Indeno(1,2,3-cd)pyrene		770.000	D	180	400	ug/Kg
Q1206-03DL	JPP-20.1-012725DL	SOIL	Dibenzo(a,h)anthracene		240.000	JD	190	400	ug/Kg
Q1206-03DL	JPP-20.1-012725DL	SOIL	Benzo(g,h,i)perylene		830.000	D	190	400	ug/Kg
			Total Svoc :		**17,780.00**				
			Total Concentration:		**17,780.00**				
Client ID :	**JPP-16.3-012725**								
Q1206-07	JPP-16.3-012725	SOIL	Phenanthrene		700.000		200	400	ug/Kg
Q1206-07	JPP-16.3-012725	SOIL	Fluoranthene		1,700.000		190	400	ug/Kg
Q1206-07	JPP-16.3-012725	SOIL	Pyrene		1,400.000		200	400	ug/Kg
Q1206-07	JPP-16.3-012725	SOIL	Benzo(a)anthracene		730.000		190	400	ug/Kg
Q1206-07	JPP-16.3-012725	SOIL	Chrysene		680.000		190	400	ug/Kg
Q1206-07	JPP-16.3-012725	SOIL	Benzo(b)fluoranthene		900.000		190	400	ug/Kg
Q1206-07	JPP-16.3-012725	SOIL	Benzo(k)fluoranthene		410.000		190	400	ug/Kg
Q1206-07	JPP-16.3-012725	SOIL	Benzo(a)pyrene		820.000		220	400	ug/Kg
Q1206-07	JPP-16.3-012725	SOIL	Indeno(1,2,3-cd)pyrene		360.000	J	180	400	ug/Kg
Q1206-07	JPP-16.3-012725	SOIL	Benzo(g,h,i)perylene		420.000		190	400	ug/Kg
			Total Svoc :		**8,120.00**				
Q1206-07	JPP-16.3-012725	SOIL	Benzophenone	*	260.000	J	0	0	ug/Kg
Q1206-07	JPP-16.3-012725	SOIL	4H-Cyclopenta[def]phenanthrene	*	300.000	J	0	0	ug/Kg
Q1206-07	JPP-16.3-012725	SOIL	Anthracene, 2-methyl-	*	220.000	J	0	0	ug/Kg
			Total Tics :		**780.00**				
			Total Concentration:		**8,900.00**				

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-03	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	85.5
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141461.D	1	01/29/25 08:40	02/05/25 21:31	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	390	U	210	390	ug/Kg
108-95-2	Phenol	200	U	96.8	200	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	200	U	97.7	200	ug/Kg
95-57-8	2-Chlorophenol	200	U	97.5	200	ug/Kg
95-48-7	2-Methylphenol	200	U	94.1	200	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	200	U	110	200	ug/Kg
98-86-2	Acetophenone	200	U	100	200	ug/Kg
65794-96-9	3+4-Methylphenols	390	U	93.1	390	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	93.4	U	47.0	93.4	ug/Kg
67-72-1	Hexachloroethane	200	U	96.9	200	ug/Kg
98-95-3	Nitrobenzene	200	U	110	200	ug/Kg
78-59-1	Isophorone	200	U	98.7	200	ug/Kg
88-75-5	2-Nitrophenol	200	U	110	200	ug/Kg
105-67-9	2,4-Dimethylphenol	200	U	110	200	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	200	U	100	200	ug/Kg
120-83-2	2,4-Dichlorophenol	200	U	88.1	200	ug/Kg
91-20-3	Naphthalene	200	U	96.4	200	ug/Kg
106-47-8	4-Chloroaniline	200	U	96.4	200	ug/Kg
87-68-3	Hexachlorobutadiene	200	U	97.2	200	ug/Kg
105-60-2	Caprolactam	390	U	100	390	ug/Kg
59-50-7	4-Chloro-3-methylphenol	200	U	90.5	200	ug/Kg
91-57-6	2-Methylnaphthalene	200	U	96.3	200	ug/Kg
77-47-4	Hexachlorocyclopentadiene	390	UQ	180	390	ug/Kg
88-06-2	2,4,6-Trichlorophenol	200	U	83.3	200	ug/Kg
95-95-4	2,4,5-Trichlorophenol	200	U	86.4	200	ug/Kg
92-52-4	1,1-Biphenyl	200	U	100	200	ug/Kg
91-58-7	2-Chloronaphthalene	200	U	97.2	200	ug/Kg
88-74-4	2-Nitroaniline	200	U	110	200	ug/Kg
131-11-3	Dimethylphthalate	200	U	95.4	200	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-03	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	85.5
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141461.D	1	01/29/25 08:40	02/05/25 21:31	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	200	U	100	200	ug/Kg
606-20-2	2,6-Dinitrotoluene	200	U	97.1	200	ug/Kg
99-09-2	3-Nitroaniline	200	U	100	200	ug/Kg
83-32-9	Acenaphthene	200		94.7	200	ug/Kg
51-28-5	2,4-Dinitrophenol	390	U	280	390	ug/Kg
100-02-7	4-Nitrophenol	390	U	140	390	ug/Kg
132-64-9	Dibenzofuran	200	U	98.5	200	ug/Kg
121-14-2	2,4-Dinitrotoluene	200	U	100	200	ug/Kg
84-66-2	Diethylphthalate	200	U	93.5	200	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	200	U	99.9	200	ug/Kg
86-73-7	Fluorene	180	J	99.8	200	ug/Kg
100-01-6	4-Nitroaniline	200	U	120	200	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	390	U	140	390	ug/Kg
86-30-6	n-Nitrosodiphenylamine	200	U	95.2	200	ug/Kg
101-55-3	4-Bromophenyl-phenylether	200	U	92.1	200	ug/Kg
118-74-1	Hexachlorobenzene	200	U	99.2	200	ug/Kg
1912-24-9	Atrazine	200	U	110	200	ug/Kg
87-86-5	Pentachlorophenol	390	U	90.2	390	ug/Kg
85-01-8	Phenanthrene	2000		98.0	200	ug/Kg
120-12-7	Anthracene	630		98.5	200	ug/Kg
86-74-8	Carbazole	140	J	93.7	200	ug/Kg
84-74-2	Di-n-butylphthalate	200	U	98.4	200	ug/Kg
206-44-0	Fluoranthene	3600	E	95.4	200	ug/Kg
129-00-0	Pyrene	2400		96.9	200	ug/Kg
85-68-7	Butylbenzylphthalate	200	U	110	200	ug/Kg
91-94-1	3,3-Dichlorobenzidine	390	U	120	390	ug/Kg
56-55-3	Benzo(a)anthracene	1800		94.2	200	ug/Kg
218-01-9	Chrysene	1400		92.8	200	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	200	U	110	200	ug/Kg
117-84-0	Di-n-octyl phthalate	390	U	130	390	ug/Kg
205-99-2	Benzo(b)fluoranthene	2000		94.7	200	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-03	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	85.5
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141461.D	1	01/29/25 08:40	02/05/25 21:31	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	810		96.4	200	ug/Kg
50-32-8	Benzo(a)pyrene	1800		110	200	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	700		91.2	200	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	230		94.8	200	ug/Kg
191-24-2	Benzo(g,h,i)perylene	820		93.5	200	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	200	U	100	200	ug/Kg
123-91-1	1,4-Dioxane	200	U	130	200	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	200	U	87.2	200	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	70.2		18 - 112	47%	SPK: 150
13127-88-3	Phenol-d6	68.9		15 - 107	46%	SPK: 150
4165-60-0	Nitrobenzene-d5	52.0		18 - 107	52%	SPK: 100
321-60-8	2-Fluorobiphenyl	49.9		20 - 109	50%	SPK: 100
118-79-6	2,4,6-Tribromophenol	67.1		10 - 116	45%	SPK: 150
1718-51-0	Terphenyl-d14	35.5		10 - 105	36%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	73900	6.787			
1146-65-2	Naphthalene-d8	280000	8.069			
15067-26-2	Acenaphthene-d10	130000	9.828			
1517-22-2	Phenanthrene-d10	190000	11.316			
1719-03-5	Chrysene-d12	151000	13.963			
1520-96-3	Perylene-d12	120000	15.421			
TENTATIVE IDENTIFIED COMPOUNDS						
000119-61-9	Benzophenone	390	J		10.5	ug/Kg
001430-97-3	9H-Fluorene, 2-methyl-	140	J		10.9	ug/Kg
000486-25-9	9H-Fluoren-9-one	93.8	J		11.1	ug/Kg
400744-83-4	3-Methyl-[1,1-biphenyl]-4-carbal	130	J		11.2	ug/Kg
000132-65-0	Dibenzothiophene	120	J		11.2	ug/Kg
002531-84-2	Phenanthrene, 2-methyl-	330	J		11.8	ug/Kg
000832-69-9	Phenanthrene, 1-methyl-	580	J		11.8	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-03	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	85.5
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141461.D	1	01/29/25 08:40	02/05/25 21:31	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
000949-41-7	1H-Cyclopropa[l]phenanthrene,1a,9b	210	J		11.9	ug/Kg
000203-64-5	4H-Cyclopenta[def]phenanthrene	820	J		11.9	ug/Kg
004630-20-0	3-Methylcarbazole	120	J		12.0	ug/Kg
000612-94-2	Naphthalene, 2-phenyl-	270	J		12.1	ug/Kg
052251-71-5	Anthracene, 2-ethyl-	140	J		12.3	ug/Kg
003674-66-6	Phenanthrene, 2,5-dimethyl-	260	J		12.4	ug/Kg
000781-17-9	Pyrene, 4,5,9,10-tetrahydro-	160	J		12.4	ug/Kg
005737-13-3	Cyclopenta(def)phenanthrenone	240	J		12.5	ug/Kg
002381-21-7	Pyrene, 1-methyl-	130	J		13.0	ug/Kg
000243-17-4	11H-Benzo[b]fluorene	180	J		13.1	ug/Kg
033543-31-6	Fluoranthene, 2-methyl-	120	J		13.2	ug/Kg
000192-97-2	Benzo[e]pyrene	320	J		15.1	ug/Kg
000205-82-3	Benzo[j]fluoranthene	1200	J		15.3	ug/Kg

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725DL	SDG No.:	Q1206
Lab Sample ID:	Q1206-03DL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	85.5
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141567.D	2	01/29/25 08:40	02/11/25 17:35	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	770	UD	420	770	ug/Kg
108-95-2	Phenol	400	UD	190	400	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	400	UD	200	400	ug/Kg
95-57-8	2-Chlorophenol	400	UD	190	400	ug/Kg
95-48-7	2-Methylphenol	400	UD	190	400	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	400	UD	210	400	ug/Kg
98-86-2	Acetophenone	400	UD	200	400	ug/Kg
65794-96-9	3+4-Methylphenols	770	UD	190	770	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	190	UD	94.1	190	ug/Kg
67-72-1	Hexachloroethane	400	UD	190	400	ug/Kg
98-95-3	Nitrobenzene	400	UD	210	400	ug/Kg
78-59-1	Isophorone	400	UD	200	400	ug/Kg
88-75-5	2-Nitrophenol	400	UD	220	400	ug/Kg
105-67-9	2,4-Dimethylphenol	400	UD	220	400	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	400	UD	200	400	ug/Kg
120-83-2	2,4-Dichlorophenol	400	UD	180	400	ug/Kg
91-20-3	Naphthalene	400	UD	190	400	ug/Kg
106-47-8	4-Chloroaniline	400	UD	190	400	ug/Kg
87-68-3	Hexachlorobutadiene	400	UD	190	400	ug/Kg
105-60-2	Caprolactam	770	UD	200	770	ug/Kg
59-50-7	4-Chloro-3-methylphenol	400	UD	180	400	ug/Kg
91-57-6	2-Methylnaphthalene	400	UD	190	400	ug/Kg
77-47-4	Hexachlorocyclopentadiene	770	UDQ	360	770	ug/Kg
88-06-2	2,4,6-Trichlorophenol	400	UD	170	400	ug/Kg
95-95-4	2,4,5-Trichlorophenol	400	UD	170	400	ug/Kg
92-52-4	1,1-Biphenyl	400	UD	200	400	ug/Kg
91-58-7	2-Chloronaphthalene	400	UD	190	400	ug/Kg
88-74-4	2-Nitroaniline	400	UD	220	400	ug/Kg
131-11-3	Dimethylphthalate	400	UD	190	400	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725DL	SDG No.:	Q1206
Lab Sample ID:	Q1206-03DL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	85.5
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141567.D	2	01/29/25 08:40	02/11/25 17:35	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	400	UD	200	400	ug/Kg
606-20-2	2,6-Dinitrotoluene	400	UD	190	400	ug/Kg
99-09-2	3-Nitroaniline	400	UD	210	400	ug/Kg
83-32-9	Acenaphthene	210	JD	190	400	ug/Kg
51-28-5	2,4-Dinitrophenol	770	UD	570	770	ug/Kg
100-02-7	4-Nitrophenol	770	UD	270	770	ug/Kg
132-64-9	Dibenzofuran	400	UD	200	400	ug/Kg
121-14-2	2,4-Dinitrotoluene	400	UD	200	400	ug/Kg
84-66-2	Diethylphthalate	400	UD	190	400	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	400	UD	200	400	ug/Kg
86-73-7	Fluorene	400	UD	200	400	ug/Kg
100-01-6	4-Nitroaniline	400	UD	250	400	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	770	UD	270	770	ug/Kg
86-30-6	n-Nitrosodiphenylamine	400	UD	190	400	ug/Kg
101-55-3	4-Bromophenyl-phenylether	400	UD	180	400	ug/Kg
118-74-1	Hexachlorobenzene	400	UD	200	400	ug/Kg
1912-24-9	Atrazine	400	UD	210	400	ug/Kg
87-86-5	Pentachlorophenol	770	UD	180	770	ug/Kg
85-01-8	Phenanthrene	2000	D	200	400	ug/Kg
120-12-7	Anthracene	610	D	200	400	ug/Kg
86-74-8	Carbazole	400	UD	190	400	ug/Kg
84-74-2	Di-n-butylphthalate	400	UD	200	400	ug/Kg
206-44-0	Fluoranthene	3200	D	190	400	ug/Kg
129-00-0	Pyrene	2500	D	190	400	ug/Kg
85-68-7	Butylbenzylphthalate	400	UD	230	400	ug/Kg
91-94-1	3,3-Dichlorobenzidine	770	UD	230	770	ug/Kg
56-55-3	Benzo(a)anthracene	1800	D	190	400	ug/Kg
218-01-9	Chrysene	1500	D	190	400	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	400	UD	210	400	ug/Kg
117-84-0	Di-n-octyl phthalate	770	UD	260	770	ug/Kg
205-99-2	Benzo(b)fluoranthene	1800	D	190	400	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725DL	SDG No.:	Q1206
Lab Sample ID:	Q1206-03DL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	85.5
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141567.D	2	01/29/25 08:40	02/11/25 17:35	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	620	D	190	400	ug/Kg
50-32-8	Benzo(a)pyrene	1700	D	220	400	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	770	D	180	400	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	240	JD	190	400	ug/Kg
191-24-2	Benzo(g,h,i)perylene	830	D	190	400	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	400	UD	200	400	ug/Kg
123-91-1	1,4-Dioxane	400	UD	260	400	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	400	UD	170	400	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	67.9		18 - 112	45%	SPK: 150
13127-88-3	Phenol-d6	67.7		15 - 107	45%	SPK: 150
4165-60-0	Nitrobenzene-d5	50.4		18 - 107	50%	SPK: 100
321-60-8	2-Fluorobiphenyl	47.5		20 - 109	48%	SPK: 100
118-79-6	2,4,6-Tribromophenol	58.3		10 - 116	39%	SPK: 150
1718-51-0	Terphenyl-d14	34.9		10 - 105	35%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	83600	6.787			
1146-65-2	Naphthalene-d8	319000	8.069			
15067-26-2	Acenaphthene-d10	161000	9.822			
1517-22-2	Phenanthrene-d10	233000	11.304			
1719-03-5	Chrysene-d12	199000	13.951			
1520-96-3	Perylene-d12	227000	15.416			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-07	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.5
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141466.D	2	01/29/25 08:40	02/05/25 23:41	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	780	U	430	780	ug/Kg
108-95-2	Phenol	400	U	200	400	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	400	U	200	400	ug/Kg
95-57-8	2-Chlorophenol	400	U	200	400	ug/Kg
95-48-7	2-Methylphenol	400	U	190	400	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	400	U	210	400	ug/Kg
98-86-2	Acetophenone	400	U	210	400	ug/Kg
65794-96-9	3+4-Methylphenols	780	U	190	780	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	190	U	95.1	190	ug/Kg
67-72-1	Hexachloroethane	400	U	200	400	ug/Kg
98-95-3	Nitrobenzene	400	U	210	400	ug/Kg
78-59-1	Isophorone	400	U	200	400	ug/Kg
88-75-5	2-Nitrophenol	400	U	220	400	ug/Kg
105-67-9	2,4-Dimethylphenol	400	U	220	400	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	400	U	200	400	ug/Kg
120-83-2	2,4-Dichlorophenol	400	U	180	400	ug/Kg
91-20-3	Naphthalene	400	U	190	400	ug/Kg
106-47-8	4-Chloroaniline	400	U	190	400	ug/Kg
87-68-3	Hexachlorobutadiene	400	U	200	400	ug/Kg
105-60-2	Caprolactam	780	U	200	780	ug/Kg
59-50-7	4-Chloro-3-methylphenol	400	U	180	400	ug/Kg
91-57-6	2-Methylnaphthalene	400	U	190	400	ug/Kg
77-47-4	Hexachlorocyclopentadiene	780	UQ	370	780	ug/Kg
88-06-2	2,4,6-Trichlorophenol	400	U	170	400	ug/Kg
95-95-4	2,4,5-Trichlorophenol	400	U	170	400	ug/Kg
92-52-4	1,1-Biphenyl	400	U	210	400	ug/Kg
91-58-7	2-Chloronaphthalene	400	U	200	400	ug/Kg
88-74-4	2-Nitroaniline	400	U	220	400	ug/Kg
131-11-3	Dimethylphthalate	400	U	190	400	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-07	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.5
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141466.D	2	01/29/25 08:40	02/05/25 23:41	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	400	U	200	400	ug/Kg
606-20-2	2,6-Dinitrotoluene	400	U	200	400	ug/Kg
99-09-2	3-Nitroaniline	400	U	210	400	ug/Kg
83-32-9	Acenaphthene	400	U	190	400	ug/Kg
51-28-5	2,4-Dinitrophenol	780	U	570	780	ug/Kg
100-02-7	4-Nitrophenol	780	U	270	780	ug/Kg
132-64-9	Dibenzofuran	400	U	200	400	ug/Kg
121-14-2	2,4-Dinitrotoluene	400	U	200	400	ug/Kg
84-66-2	Diethylphthalate	400	U	190	400	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	400	U	200	400	ug/Kg
86-73-7	Fluorene	400	U	200	400	ug/Kg
100-01-6	4-Nitroaniline	400	U	250	400	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	780	U	280	780	ug/Kg
86-30-6	n-Nitrosodiphenylamine	400	U	190	400	ug/Kg
101-55-3	4-Bromophenyl-phenylether	400	U	190	400	ug/Kg
118-74-1	Hexachlorobenzene	400	U	200	400	ug/Kg
1912-24-9	Atrazine	400	U	220	400	ug/Kg
87-86-5	Pentachlorophenol	780	U	180	780	ug/Kg
85-01-8	Phenanthrene	700		200	400	ug/Kg
120-12-7	Anthracene	400	U	200	400	ug/Kg
86-74-8	Carbazole	400	U	190	400	ug/Kg
84-74-2	Di-n-butylphthalate	400	U	200	400	ug/Kg
206-44-0	Fluoranthene	1700		190	400	ug/Kg
129-00-0	Pyrene	1400		200	400	ug/Kg
85-68-7	Butylbenzylphthalate	400	U	230	400	ug/Kg
91-94-1	3,3-Dichlorobenzidine	780	U	230	780	ug/Kg
56-55-3	Benzo(a)anthracene	730		190	400	ug/Kg
218-01-9	Chrysene	680		190	400	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	400	U	210	400	ug/Kg
117-84-0	Di-n-octyl phthalate	780	U	260	780	ug/Kg
205-99-2	Benzo(b)fluoranthene	900		190	400	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-07	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.5
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141466.D	2	01/29/25 08:40	02/05/25 23:41	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	410		190	400	ug/Kg
50-32-8	Benzo(a)pyrene	820		220	400	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	360	J	180	400	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	400	U	190	400	ug/Kg
191-24-2	Benzo(g,h,i)perylene	420		190	400	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	400	U	200	400	ug/Kg
123-91-1	1,4-Dioxane	400	U	260	400	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	400	U	180	400	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	51.0		18 - 112	34%	SPK: 150
13127-88-3	Phenol-d6	46.4		15 - 107	31%	SPK: 150
4165-60-0	Nitrobenzene-d5	36.7		18 - 107	37%	SPK: 100
321-60-8	2-Fluorobiphenyl	36.1		20 - 109	36%	SPK: 100
118-79-6	2,4,6-Tribromophenol	51.1		10 - 116	34%	SPK: 150
1718-51-0	Terphenyl-d14	31.5		10 - 105	32%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	60500	6.792			
1146-65-2	Naphthalene-d8	216000	8.075			
15067-26-2	Acenaphthene-d10	104000	9.828			
1517-22-2	Phenanthrene-d10	181000	11.316			
1719-03-5	Chrysene-d12	126000	13.957			
1520-96-3	Perylene-d12	92200	15.415			
TENTATIVE IDENTIFIED COMPOUNDS						
000119-61-9	Benzophenone	260	J		10.5	ug/Kg
000613-12-7	Anthracene, 2-methyl-	220	J		11.8	ug/Kg
000203-64-5	4H-Cyclopenta[def]phenanthrene	300	J		11.9	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-07	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.5
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141466.D	2	01/29/25 08:40	02/05/25 23:41	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

QC SUMMARY

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Surrogate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
PB166335BL	PB166335BL	2-Fluorophenol	150	143	96		18	112
		Phenol-d6	150	140	93		15	107
		Nitrobenzene-d5	100	100.0	100		18	107
		2-Fluorobiphenyl	100	98.4	98		20	109
		2,4,6-Tribromophenol	150	158	105		10	116
		Terphenyl-d14	100	90.7	91		10	105
PB166335BS	PB166335BS	2-Fluorophenol	150	128	85		18	112
		Phenol-d6	150	128	85		15	107
		Nitrobenzene-d5	100	87.9	88		18	107
		2-Fluorobiphenyl	100	83.5	83		20	109
		2,4,6-Tribromophenol	150	133	89		10	116
		Terphenyl-d14	100	88.2	88		10	105
Q1206-03	JPP-20.1-012725	2-Fluorophenol	150	70.2	47		18	112
		Phenol-d6	150	68.9	46		15	107
		Nitrobenzene-d5	100	52.0	52		18	107
		2-Fluorobiphenyl	100	49.9	50		20	109
		2,4,6-Tribromophenol	150	67.1	45		10	116
		Terphenyl-d14	100	35.5	36		10	105
Q1206-03DL	JPP-20.1-012725DL	2-Fluorophenol	150	67.9	45		18	112
		Phenol-d6	150	67.7	45		15	107
		Nitrobenzene-d5	100	50.4	50		18	107
		2-Fluorobiphenyl	100	47.5	48		20	109
		2,4,6-Tribromophenol	150	58.3	39		10	116
		Terphenyl-d14	100	34.9	35		10	105
Q1206-07	JPP-16.3-012725	2-Fluorophenol	150	51.0	34		18	112
		Phenol-d6	150	46.4	31		15	107
		Nitrobenzene-d5	100	36.7	37		18	107
		2-Fluorobiphenyl	100	36.1	36		20	109
		2,4,6-Tribromophenol	150	51.1	34		10	116
		Terphenyl-d14	100	31.5	32		10	105
Q1209-05MS	WC-5MS	2-Fluorophenol	150	88.1	59		18	112
		Phenol-d6	150	88.4	59		15	107
		Nitrobenzene-d5	100	61.6	62		18	107
		2-Fluorobiphenyl	100	57.4	57		20	109
		2,4,6-Tribromophenol	150	93.3	62		10	116
		Terphenyl-d14	100	65.2	65		10	105
Q1209-05MSD	WC-5MSD	2-Fluorophenol	150	89.7	60		18	112
		Phenol-d6	150	90.9	61		15	107
		Nitrobenzene-d5	100	63.3	63		18	107
		2-Fluorobiphenyl	100	59.4	59		20	109
		2,4,6-Tribromophenol	150	97.4	65		10	116
		Terphenyl-d14	100	66.2	66		10	105

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: Q1209-05MS		**Client Sample ID: WC-5MS**						**DataFile: BF141315.D**			
Benzaldehyde	1100	0	1100	ug/Kg	100	*			10	86	
Phenol	1100	0	880	ug/Kg	80				67	126	
bis(2-Chloroethyl)ether	1100	0	870	ug/Kg	79				54	125	
2-Chlorophenol	1100	0	890	ug/Kg	81				79	107	
2-Methylphenol	1100	0	890	ug/Kg	81				66	122	
2,2-oxybis(1-Chloropropane)	1100	0	910	ug/Kg	83				65	110	
Acetophenone	1100	0	930	ug/Kg	85				75	111	
3+4-Methylphenols	1100	0	840	ug/Kg	76				66	104	
N-Nitroso-di-n-propylamine	1100	0	850	ug/Kg	77				59	119	
Hexachloroethane	1100	0	840	ug/Kg	76				65	117	
Nitrobenzene	1100	0	830	ug/Kg	75				70	119	
Isophorone	1100	0	890	ug/Kg	81				76	122	
2-Nitrophenol	1100	0	890	ug/Kg	81				54	145	
2,4-Dimethylphenol	1100	0	1100	ug/Kg	100				44	135	
bis(2-Chloroethoxy)methane	1100	0	870	ug/Kg	79				68	112	
2,4-Dichlorophenol	1100	0	870	ug/Kg	79				72	118	
Naphthalene	1100	0	830	ug/Kg	75				72	110	
4-Chloroaniline	1100	0	340	ug/Kg	31				10	91	
Hexachlorobutadiene	1100	0	820	ug/Kg	75				66	114	
Caprolactam	1100	0	970	ug/Kg	88				51	134	
4-Chloro-3-methylphenol	1100	0	890	ug/Kg	81				57	132	
2-Methylnaphthalene	1100	0	820	ug/Kg	75				59	123	
Hexachlorocyclopentadiene	2300	0	3300	ug/Kg	143				10	175	
2,4,6-Trichlorophenol	1100	0	910	ug/Kg	83				72	117	
2,4,5-Trichlorophenol	1100	0	810	ug/Kg	74				72	117	
1,1-Biphenyl	1100	0	920	ug/Kg	84				75	113	
2-Chloronaphthalene	1100	0	820	ug/Kg	75				67	118	
2-Nitroaniline	1100	0	880	ug/Kg	80				69	127	
Dimethylphthalate	1100	0	860	ug/Kg	78				70	113	
Acenaphthylene	1100	0	910	ug/Kg	83				79	118	
2,6-Dinitrotoluene	1100	0	820	ug/Kg	75				70	125	
3-Nitroaniline	1100	0	400	ug/Kg	36				30	99	
Acenaphthene	1100	0	940	ug/Kg	85				70	121	
2,4-Dinitrophenol	2300	0	2100	ug/Kg	91				10	155	
4-Nitrophenol	2300	0	2000	ug/Kg	87				45	133	
Dibenzofuran	1100	0	840	ug/Kg	76				72	110	
2,4-Dinitrotoluene	1100	0	860	ug/Kg	78				55	128	
Diethylphthalate	1100	0	850	ug/Kg	77				70	112	
4-Chlorophenyl-phenylether	1100	0	820	ug/Kg	75				71	108	
Fluorene	1100	0	830	ug/Kg	75				68	116	
4-Nitroaniline	1100	0	880	ug/Kg	80				55	120	
4,6-Dinitro-2-methylphenol	1100	0	1000	ug/Kg	91				10	160	
N-Nitrosodiphenylamine	1100	0	900	ug/Kg	82				73	118	
4-Bromophenyl-phenylether	1100	0	880	ug/Kg	80				65	121	
Hexachlorobenzene	1100	0	870	ug/Kg	79				67	118	
Atrazine	1100	0	980	ug/Kg	89				79	127	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Pentachlorophenol	2300	0	1900	ug/Kg	83				47	128	
Phenanthrene	1100	0	890	ug/Kg	81				52	128	
Anthracene	1100	0	920	ug/Kg	84				62	124	
Carbazole	1100	0	910	ug/Kg	83				59	119	
Di-n-butylphthalate	1100	0	910	ug/Kg	83				69	118	
Fluoranthene	1100	0	870	ug/Kg	79				44	125	
Pyrene	1100	0	880	ug/Kg	80				26	142	
Butylbenzylphthalate	1100	0	1000	ug/Kg	91				64	126	
3,3-Dichlorobenzidine	1100	0	660	ug/Kg	60				33	116	
Benzo(a)anthracene	1100	0	830	ug/Kg	75				71	114	
Chrysene	1100	0	880	ug/Kg	80				57	121	
bis(2-Ethylhexyl)phthalate	1100	0	960	ug/Kg	87				42	169	
Di-n-octyl phthalate	1100	0	910	ug/Kg	83				23	175	
Benzo(b)fluoranthene	1100	0	860	ug/Kg	78				67	121	
Benzo(k)fluoranthene	1100	0	870	ug/Kg	79				57	134	
Benzo(a)pyrene	1100	0	950	ug/Kg	86				70	142	
Indeno(1,2,3-cd)pyrene	1100	0	1000	ug/Kg	91				40	129	
Dibenz(a,h)anthracene	1100	0	1000	ug/Kg	91				43	123	
Benzo(g,h,i)perylene	1100	0	940	ug/Kg	85				24	125	
1,2,4,5-Tetrachlorobenzene	1100	0	910	ug/Kg	83				69	124	
1,4-Dioxane	1100	0	870	ug/Kg	79				46	112	
2,3,4,6-Tetrachlorophenol	1100	0	910	ug/Kg	83				69	112	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: Q1209-05MSD		**Client Sample ID: WC-5MSD**						**DataFile: BF141316.D**			
Benzaldehyde	1100	0	1200	ug/Kg	109	*	9		10	86	20
Phenol	1100	0	900	ug/Kg	82		2		67	126	20
bis(2-Chloroethyl)ether	1100	0	880	ug/Kg	80		1		54	125	20
2-Chlorophenol	1100	0	920	ug/Kg	84		4		79	107	20
2-Methylphenol	1100	0	900	ug/Kg	82		1		66	122	20
2,2-oxybis(1-Chloropropane)	1100	0	930	ug/Kg	85		2		65	110	20
Acetophenone	1100	0	960	ug/Kg	87		2		75	111	20
3+4-Methylphenols	1100	0	850	ug/Kg	77		1		66	104	20
N-Nitroso-di-n-propylamine	1100	0	880	ug/Kg	80		4		59	119	20
Hexachloroethane	1100	0	870	ug/Kg	79		4		65	117	20
Nitrobenzene	1100	0	840	ug/Kg	76		1		70	119	20
Isophorone	1100	0	910	ug/Kg	83		2		76	122	20
2-Nitrophenol	1100	0	920	ug/Kg	84		4		54	145	20
2,4-Dimethylphenol	1100	0	1100	ug/Kg	100		0		44	135	20
bis(2-Chloroethoxy)methane	1100	0	890	ug/Kg	81		3		68	112	20
2,4-Dichlorophenol	1100	0	890	ug/Kg	81		3		72	118	20
Naphthalene	1100	0	840	ug/Kg	76		1		72	110	20
4-Chloroaniline	1100	0	320	ug/Kg	29		7		10	91	20
Hexachlorobutadiene	1100	0	830	ug/Kg	75		0		66	114	20
Caprolactam	1100	0	970	ug/Kg	88		0		51	134	20
4-Chloro-3-methylphenol	1100	0	900	ug/Kg	82		1		57	132	20
2-Methylnaphthalene	1100	0	840	ug/Kg	76		1		59	123	20
Hexachlorocyclopentadiene	2300	0	3500	ug/Kg	152		6		10	175	20
2,4,6-Trichlorophenol	1100	0	960	ug/Kg	87		5		72	117	20
2,4,5-Trichlorophenol	1100	0	850	ug/Kg	77		4		72	117	20
1,1-Biphenyl	1100	0	960	ug/Kg	87		4		75	113	20
2-Chloronaphthalene	1100	0	850	ug/Kg	77		3		67	118	20
2-Nitroaniline	1100	0	940	ug/Kg	85		6		69	127	20
Dimethylphthalate	1100	0	890	ug/Kg	81		4		70	113	20
Acenaphthylene	1100	0	940	ug/Kg	85		2		79	118	20
2,6-Dinitrotoluene	1100	0	860	ug/Kg	78		4		70	125	20
3-Nitroaniline	1100	0	410	ug/Kg	37		3		30	99	20
Acenaphthene	1100	0	980	ug/Kg	89		5		70	121	20
2,4-Dinitrophenol	2300	0	2200	ug/Kg	96		5		10	155	20
4-Nitrophenol	2300	0	2100	ug/Kg	91		4		45	133	20
Dibenzofuran	1100	0	870	ug/Kg	79		4		72	110	20
2,4-Dinitrotoluene	1100	0	890	ug/Kg	81		4		55	128	20
Diethylphthalate	1100	0	880	ug/Kg	80		4		70	112	20
4-Chlorophenyl-phenylether	1100	0	850	ug/Kg	77		3		71	108	20
Fluorene	1100	0	860	ug/Kg	78		4		68	116	20
4-Nitroaniline	1100	0	910	ug/Kg	83		4		55	120	20
4,6-Dinitro-2-methylphenol	1100	0	1100	ug/Kg	100		9		10	160	20
N-Nitrosodiphenylamine	1100	0	920	ug/Kg	84		2		73	118	20
4-Bromophenyl-phenylether	1100	0	910	ug/Kg	83		4		65	121	20
Hexachlorobenzene	1100	0	880	ug/Kg	80		1		67	118	20
Atrazine	1100	0	1000	ug/Kg	91		2		79	127	20

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Pentachlorophenol	2300	0	1900	ug/Kg	83	0			47	128	20
Phenanthrene	1100	0	910	ug/Kg	83	2			52	128	20
Anthracene	1100	0	940	ug/Kg	85	1			62	124	20
Carbazole	1100	0	930	ug/Kg	85	2			59	119	20
Di-n-butylphthalate	1100	0	930	ug/Kg	85	2			69	118	20
Fluoranthene	1100	0	910	ug/Kg	83	5			44	125	20
Pyrene	1100	0	900	ug/Kg	82	2			26	142	20
Butylbenzylphthalate	1100	0	1000	ug/Kg	91	0			64	126	20
3,3-Dichlorobenzidine	1100	0	700	ug/Kg	64	6			33	116	20
Benzo(a)anthracene	1100	0	890	ug/Kg	81	8			71	114	20
Chrysene	1100	0	890	ug/Kg	81	1			57	121	20
bis(2-Ethylhexyl)phthalate	1100	0	1000	ug/Kg	91	4			42	169	20
Di-n-octyl phthalate	1100	0	950	ug/Kg	86	4			23	175	20
Benzo(b)fluoranthene	1100	0	950	ug/Kg	86	10			67	121	20
Benzo(k)fluoranthene	1100	0	850	ug/Kg	77	3			57	134	20
Benzo(a)pyrene	1100	0	980	ug/Kg	89	3			70	142	20
Indeno(1,2,3-cd)pyrene	1100	0	1000	ug/Kg	91	0			40	129	20
Dibenz(a,h)anthracene	1100	0	1000	ug/Kg	91	0			43	123	20
Benzo(g,h,i)perylene	1100	0	960	ug/Kg	87	2			24	125	20
1,2,4,5-Tetrachlorobenzene	1100	0	950	ug/Kg	86	4			69	124	20
1,4-Dioxane	1100	0	870	ug/Kg	79	0			46	112	20
2,3,4,6-Tetrachlorophenol	1100	0	950	ug/Kg	86	4			69	112	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8270E **DataFile:** BF141303.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	Limits RPD
PB166335BS	Benzaldehyde	1700	220	ug/Kg	13				10	133	
	Phenol	1700	1500	ug/Kg	88				62	112	
	bis(2-Chloroethyl)ether	1700	1600	ug/Kg	94				60	101	
	2-Chlorophenol	1700	1600	ug/Kg	94				65	112	
	2-Methylphenol	1700	1600	ug/Kg	94				61	108	
	2,2-oxybis(1-Chloropropane)	1700	1600	ug/Kg	94				51	100	
	Acetophenone	1700	1500	ug/Kg	88				66	98	
	3+4-Methylphenols	1700	1500	ug/Kg	88				58	111	
	N-Nitroso-di-n-propylamine	1700	1500	ug/Kg	88				63	95	
	Hexachloroethane	1700	1500	ug/Kg	88				72	108	
	Nitrobenzene	1700	1400	ug/Kg	82				57	101	
	Isophorone	1700	1600	ug/Kg	94				59	99	
	2-Nitrophenol	1700	1500	ug/Kg	88				61	111	
	2,4-Dimethylphenol	1700	1900	ug/Kg	112				46	141	
	bis(2-Chloroethoxy)methane	1700	1500	ug/Kg	88				66	97	
	2,4-Dichlorophenol	1700	1500	ug/Kg	88				62	107	
	Naphthalene	1700	1500	ug/Kg	88				62	100	
	4-Chloroaniline	1700	790	ug/Kg	46				16	100	
	Hexachlorobutadiene	1700	1400	ug/Kg	82				53	98	
	Caprolactam	1700	1600	ug/Kg	94				67	110	
	4-Chloro-3-methylphenol	1700	1600	ug/Kg	94				58	112	
	2-Methylnaphthalene	1700	1500	ug/Kg	88				60	104	
	Hexachlorocyclopentadiene	3300	5800	ug/Kg	176		*		45	165	
	2,4,6-Trichlorophenol	1700	1500	ug/Kg	88				59	102	
	2,4,5-Trichlorophenol	1700	1500	ug/Kg	88				61	98	
	1,1-Biphenyl	1700	1500	ug/Kg	88				57	103	
	2-Chloronaphthalene	1700	1400	ug/Kg	82				58	99	
	2-Nitroaniline	1700	1600	ug/Kg	94				66	101	
	Dimethylphthalate	1700	1500	ug/Kg	88				61	99	
	Acenaphthylene	1700	1600	ug/Kg	94				63	101	
	2,6-Dinitrotoluene	1700	1500	ug/Kg	88				61	104	
	3-Nitroaniline	1700	970	ug/Kg	57				28	100	
	Acenaphthene	1700	1600	ug/Kg	94				57	104	
	2,4-Dinitrophenol	3300	3400	ug/Kg	103				37	128	
	4-Nitrophenol	3300	3300	ug/Kg	100				48	119	
	Dibenzofuran	1700	1500	ug/Kg	88				63	99	
	2,4-Dinitrotoluene	1700	1500	ug/Kg	88				60	106	
	Diethylphthalate	1700	1500	ug/Kg	88				60	101	
	4-Chlorophenyl-phenylether	1700	1400	ug/Kg	82				58	98	
	Fluorene	1700	1400	ug/Kg	82				61	101	
	4-Nitroaniline	1700	1600	ug/Kg	94				64	103	
	4,6-Dinitro-2-methylphenol	1700	1700	ug/Kg	100				76	113	
	N-Nitrosodiphenylamine	1700	1500	ug/Kg	88				71	99	
	4-Bromophenyl-phenylether	1700	1500	ug/Kg	88				66	102	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8270E **DataFile:** BF141303.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166335BS	Hexachlorobenzene	1700	1500	ug/Kg	88				64	98	
	Atrazine	1700	1600	ug/Kg	94				47	152	
	Pentachlorophenol	3300	3100	ug/Kg	94				67	105	
	Phenanthrene	1700	1600	ug/Kg	94				59	103	
	Anthracene	1700	1600	ug/Kg	94				61	105	
	Carbazole	1700	1600	ug/Kg	94				61	99	
	Di-n-butylphthalate	1700	1600	ug/Kg	94				58	104	
	Fluoranthene	1700	1600	ug/Kg	94				57	107	
	Pyrene	1700	1500	ug/Kg	88				59	103	
	Butylbenzylphthalate	1700	1600	ug/Kg	94				55	103	
	3,3-Dichlorobenzidine	1700	840	ug/Kg	49				42	91	
	Benzo(a)anthracene	1700	1500	ug/Kg	88				60	102	
	Chrysene	1700	1500	ug/Kg	88				59	101	
	bis(2-Ethylhexyl)phthalate	1700	1600	ug/Kg	94				54	135	
	Di-n-octyl phthalate	1700	1600	ug/Kg	94				52	137	
	Benzo(b)fluoranthene	1700	1600	ug/Kg	94				62	109	
	Benzo(k)fluoranthene	1700	1700	ug/Kg	100				62	109	
	Benzo(a)pyrene	1700	1700	ug/Kg	100				63	103	
	Indeno(1,2,3-cd)pyrene	1700	1600	ug/Kg	94				63	101	
	Dibenz(a,h)anthracene	1700	1600	ug/Kg	94				61	112	
	Benzo(g,h,i)perylene	1700	1500	ug/Kg	88				70	108	
	1,2,4,5-Tetrachlorobenzene	1700	1400	ug/Kg	82				53	101	
	1,4-Dioxane	1700	1300	ug/Kg	76				50	96	
	2,3,4,6-Tetrachlorophenol	1700	1600	ug/Kg	94				59	108	

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166335BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: BF141374.D Lab Sample ID: PB166335BL

Instrument ID: BNA_F Date Extracted: 01/29/2025

Matrix: (soil/water) SOIL Date Analyzed: 02/03/2025

Level: (low/med) LOW Time Analyzed: 17:41

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
JPP-20.1-012725	Q1206-03	BF141461.D	02/05/2025
JPP-16.3-012725	Q1206-07	BF141466.D	02/05/2025
PB166335BS	PB166335BS	BF141303.D	01/30/2025
WC-5MS	Q1209-05MS	BF141315.D	01/30/2025
WC-5MSD	Q1209-05MSD	BF141316.D	01/30/2025

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: BF141289.D DFTPP Injection Date: 01/29/2025

Instrument ID: BNA_F DFTPP Injection Time: 10:03

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	41.1
68	Less than 2.0% of mass 69	0.6 (1.7) 1
69	Mass 69 relative abundance	35.1
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	47.1
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	26.5
365	Greater than 1% of mass 198	3.2
441	Present, but less than mass 443	13.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	16.2 (19.4) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC2.5	SSTDICC2.5	BF141290.D	01/29/2025	10:30
SSTDICC005	SSTDICC005	BF141291.D	01/29/2025	10:56
SSTDICC010	SSTDICC010	BF141292.D	01/29/2025	11:49
SSTDICC020	SSTDICC020	BF141293.D	01/29/2025	15:17
SSTDICCC040	SSTDICCC040	BF141294.D	01/29/2025	15:45
SSTDICC050	SSTDICC050	BF141295.D	01/29/2025	16:11
SSTDICC060	SSTDICC060	BF141296.D	01/29/2025	16:38
SSTDICC080	SSTDICC080	BF141297.D	01/29/2025	17:05

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: BF141300.D DFTPP Injection Date: 01/30/2025

Instrument ID: BNA_F DFTPP Injection Time: 08:28

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	45
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	37.4
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	49.1
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	25.8
365	Greater than 1% of mass 198	3
441	Present, but less than mass 443	11.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.4 (19.8) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141301.D	01/30/2025	08:54
PB166335BS	PB166335BS	BF141303.D	01/30/2025	09:57
WC-5MS	Q1209-05MS	BF141315.D	01/30/2025	16:03
WC-5MSD	Q1209-05MSD	BF141316.D	01/30/2025	16:30

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: BF141372.D DFTPP Injection Date: 02/03/2025

Instrument ID: BNA_F DFTPP Injection Time: 16:43

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	44.1
68	Less than 2.0% of mass 69	0.8 (2) 1
69	Mass 69 relative abundance	37.8
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	50.3
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198	26.7
365	Greater than 1% of mass 198	3.2
441	Present, but less than mass 443	12.1
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.7 (19.5) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141373.D	02/03/2025	17:14
PB166335BL	PB166335BL	BF141374.D	02/03/2025	17:41

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: BF141446.D DFTPP Injection Date: 02/05/2025

Instrument ID: BNA_F DFTPP Injection Time: 14:50

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	40.8
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	36.3
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	47.7
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.3
275	10.0 - 60.0% of mass 198	26.9
365	Greater than 1% of mass 198	3.2
441	Present, but less than mass 443	12.6
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.9 (18.2) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141447.D	02/05/2025	15:16
JPP-20.1-012725	Q1206-03	BF141461.D	02/05/2025	21:31
JPP-16.3-012725	Q1206-07	BF141466.D	02/05/2025	23:41

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: BF141471.D DFTPP Injection Date: 02/06/2025

Instrument ID: BNA_F DFTPP Injection Time: 10:41

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	43.2
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	36.7
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	49.1
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	25.6
365	Greater than 1% of mass 198	3.3
441	Present, but less than mass 443	12.2
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.4 (18.9) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC2.5	SSTDICC2.5	BF141472.D	02/06/2025	11:07
SSTDICC005	SSTDICC005	BF141473.D	02/06/2025	11:34
SSTDICC010	SSTDICC010	BF141474.D	02/06/2025	12:00
SSTDICC020	SSTDICC020	BF141475.D	02/06/2025	12:26
SSTDICCC040	SSTDICCC040	BF141476.D	02/06/2025	12:55
SSTDICC050	SSTDICC050	BF141477.D	02/06/2025	13:21
SSTDICC060	SSTDICC060	BF141478.D	02/06/2025	13:47
SSTDICC080	SSTDICC080	BF141479.D	02/06/2025	14:14

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: BF141550.D DFTPP Injection Date: 02/11/2025

Instrument ID: BNA_F DFTPP Injection Time: 10:02

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	41.7
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	36.4
70	Less than 2.0% of mass 69	0.2 (0.7) 1
127	10.0 - 80.0% of mass 198	48.6
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	28.2
365	Greater than 1% of mass 198	3.3
441	Present, but less than mass 443	13.1
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	15.6 (19.1) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141551.D	02/11/2025	10:28
JPP-20.1-012725DL	Q1206-03DL	BF141567.D	02/11/2025	17:35

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

EPA Sample No.: SSTDCCC040 Date Analyzed: 01/30/2025

Lab File ID: BF141301.D Time Analyzed: 08:54

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	146467	6.798	575983	8.08	308835	9.84
	UPPER LIMIT	292934	7.298	1151970	8.581	617670	10.339
	LOWER LIMIT	73233.5	6.298	287992	7.581	154418	9.339
	EPA SAMPLE NO.						
01	PB166335BS	142147	6.80	577653	8.08	314839	9.84
02	WC-5MS	167075	6.80	669898	8.08	361408	9.84
03	WC-5MSD	167424	6.80	670473	8.08	356498	9.84

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

EPA Sample No.: SSTDCCC040 Date Analyzed: 01/30/2025

Lab File ID: BF141301.D Time Analyzed: 08:54

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	511005	11.322	290304	13.969	298783	15.421
	UPPER LIMIT	1022010	11.822	580608	14.469	597566	15.921
	LOWER LIMIT	255503	10.822	145152	13.469	149392	14.921
	EPA SAMPLE NO.						
01	PB166335BS	527268	11.33	325031	13.97	295368	15.45
02	WC-5MS	589870	11.33	319317	13.97	315915	15.45
03	WC-5MSD	588680	11.33	325949	13.97	310604	15.46

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/03/2025

Lab File ID: BF141373.D Time Analyzed: 17:14

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	104167	6.798	414412	8.08	226326	9.83
	UPPER LIMIT	208334	7.298	828824	8.581	452652	10.333
	LOWER LIMIT	52083.5	6.298	207206	7.581	113163	9.333
	EPA SAMPLE NO.						
01	PB166335BL	90939	6.79	365110	8.08	206122	9.83

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/03/2025

Lab File ID: BF141373.D Time Analyzed: 17:14

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	383558	11.322	233911	13.963	231577	15.415
	UPPER LIMIT	767116	11.822	467822	14.463	463154	15.915
	LOWER LIMIT	191779	10.822	116956	13.463	115789	14.915
	EPA SAMPLE NO.						
01	PB166335BL	372851	11.32	290144	13.96	250729	15.40

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/05/2025

Lab File ID: BF141447.D Time Analyzed: 15:16

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	82418	6.792	312528	8.08	169230	9.83
	UPPER LIMIT	164836	7.292	625056	8.575	338460	10.328
	LOWER LIMIT	41209	6.292	156264	7.575	84615	9.328
	EPA SAMPLE NO.						
01	JPP-20.1-012725	73862	6.79	280125	8.07	130310	9.83
02	JPP-16.3-012725	60479	6.79	215731	8.08	104225	9.83

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/05/2025

Lab File ID: BF141447.D Time Analyzed: 15:16

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	293274	11.316	189132	13.963	170936	15.421
	UPPER LIMIT	586548	11.816	378264	14.463	341872	15.921
	LOWER LIMIT	146637	10.816	94566	13.463	85468	14.921
	EPA SAMPLE NO.						
01	JPP-20.1-012725	189517	11.32	150837	13.96	120024	15.42
02	JPP-16.3-012725	180536	11.32	126264	13.96	92226	15.42

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/11/2025

Lab File ID: BF141551.D Time Analyzed: 10:28

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	100982	6.793	399334	8.08	220290	9.83
	UPPER LIMIT	201964	7.293	798668	8.575	440580	10.328
	LOWER LIMIT	50491	6.293	199667	7.575	110145	9.328
	EPA SAMPLE NO.						
01	JPP-20.1-012725DL	83557	6.79	319161	8.07	160811	9.82

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/11/2025

Lab File ID: BF141551.D Time Analyzed: 10:28

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	380364	11.31	221485	13.957	189149	15.41
	UPPER LIMIT	760728	11.81	442970	14.457	378298	15.91
	LOWER LIMIT	190182	10.81	110743	13.457	94574.5	14.91
	EPA SAMPLE NO.						
01	JPP-20.1-012725DL	232903	11.30	199404	13.95	227355	15.42

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166335BL	SDG No.:	Q1206
Lab Sample ID:	PB166335BL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141374.D	1	01/29/25 08:40	02/03/25 17:41	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	330	U	180	330	ug/Kg
108-95-2	Phenol	170	U	82.8	170	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	170	U	83.6	170	ug/Kg
95-57-8	2-Chlorophenol	170	U	83.4	170	ug/Kg
95-48-7	2-Methylphenol	170	U	80.5	170	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	170	U	90.8	170	ug/Kg
98-86-2	Acetophenone	170	U	86.8	170	ug/Kg
65794-96-9	3+4-Methylphenols	330	U	79.7	330	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	79.9	U	40.3	79.9	ug/Kg
67-72-1	Hexachloroethane	170	U	82.9	170	ug/Kg
98-95-3	Nitrobenzene	170	U	90.7	170	ug/Kg
78-59-1	Isophorone	170	U	84.5	170	ug/Kg
88-75-5	2-Nitrophenol	170	U	94.4	170	ug/Kg
105-67-9	2,4-Dimethylphenol	170	U	93.1	170	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	170	U	85.7	170	ug/Kg
120-83-2	2,4-Dichlorophenol	170	U	75.4	170	ug/Kg
91-20-3	Naphthalene	170	U	82.5	170	ug/Kg
106-47-8	4-Chloroaniline	170	U	82.5	170	ug/Kg
87-68-3	Hexachlorobutadiene	170	U	83.2	170	ug/Kg
105-60-2	Caprolactam	330	U	86.7	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	170	U	77.4	170	ug/Kg
91-57-6	2-Methylnaphthalene	170	U	82.4	170	ug/Kg
77-47-4	Hexachlorocyclopentadiene	330	U	160	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	170	U	71.4	170	ug/Kg
95-95-4	2,4,5-Trichlorophenol	170	U	74.0	170	ug/Kg
92-52-4	1,1-Biphenyl	170	U	87.3	170	ug/Kg
91-58-7	2-Chloronaphthalene	170	U	83.2	170	ug/Kg
88-74-4	2-Nitroaniline	170	U	94.9	170	ug/Kg
131-11-3	Dimethylphthalate	170	U	81.6	170	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166335BL	SDG No.:	Q1206
Lab Sample ID:	PB166335BL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141374.D	1	01/29/25 08:40	02/03/25 17:41	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	170	U	86.4	170	ug/Kg
606-20-2	2,6-Dinitrotoluene	170	U	83.1	170	ug/Kg
99-09-2	3-Nitroaniline	170	U	89.1	170	ug/Kg
83-32-9	Acenaphthene	170	U	81.0	170	ug/Kg
51-28-5	2,4-Dinitrophenol	330	U	240	330	ug/Kg
100-02-7	4-Nitrophenol	330	U	120	330	ug/Kg
132-64-9	Dibenzofuran	170	U	84.3	170	ug/Kg
121-14-2	2,4-Dinitrotoluene	170	U	86.1	170	ug/Kg
84-66-2	Diethylphthalate	170	U	80.0	170	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	170	U	85.5	170	ug/Kg
86-73-7	Fluorene	170	U	85.4	170	ug/Kg
100-01-6	4-Nitroaniline	170	U	110	170	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	330	U	120	330	ug/Kg
86-30-6	n-Nitrosodiphenylamine	170	U	81.5	170	ug/Kg
101-55-3	4-Bromophenyl-phenylether	170	U	78.8	170	ug/Kg
118-74-1	Hexachlorobenzene	170	U	84.9	170	ug/Kg
1912-24-9	Atrazine	170	U	91.3	170	ug/Kg
87-86-5	Pentachlorophenol	330	U	77.2	330	ug/Kg
85-01-8	Phenanthrene	170	U	83.9	170	ug/Kg
120-12-7	Anthracene	170	U	84.3	170	ug/Kg
86-74-8	Carbazole	170	U	80.2	170	ug/Kg
84-74-2	Di-n-butylphthalate	170	U	84.2	170	ug/Kg
206-44-0	Fluoranthene	170	U	81.6	170	ug/Kg
129-00-0	Pyrene	170	U	82.9	170	ug/Kg
85-68-7	Butylbenzylphthalate	170	U	96.7	170	ug/Kg
91-94-1	3,3-Dichlorobenzidine	330	U	98.5	330	ug/Kg
56-55-3	Benzo(a)anthracene	170	U	80.6	170	ug/Kg
218-01-9	Chrysene	170	U	79.4	170	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	170	U	90.9	170	ug/Kg
117-84-0	Di-n-octyl phthalate	330	U	110	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	170	U	81.0	170	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166335BL	SDG No.:	Q1206
Lab Sample ID:	PB166335BL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141374.D	1	01/29/25 08:40	02/03/25 17:41	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	170	U	82.5	170	ug/Kg
50-32-8	Benzo(a)pyrene	170	U	92.9	170	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	170	U	78.0	170	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	170	U	81.1	170	ug/Kg
191-24-2	Benzo(g,h,i)perylene	170	U	80.0	170	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	170	U	86.7	170	ug/Kg
123-91-1	1,4-Dioxane	170	U	110	170	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	170	U	74.7	170	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	143		18 - 112	96%	SPK: 150
13127-88-3	Phenol-d6	140		15 - 107	93%	SPK: 150
4165-60-0	Nitrobenzene-d5	100.0		18 - 107	100%	SPK: 100
321-60-8	2-Fluorobiphenyl	98.4		20 - 109	98%	SPK: 100
118-79-6	2,4,6-Tribromophenol	158		10 - 116	105%	SPK: 150
1718-51-0	Terphenyl-d14	90.7		10 - 105	91%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	90900	6.792			
1146-65-2	Naphthalene-d8	365000	8.075			
15067-26-2	Acenaphthene-d10	206000	9.827			
1517-22-2	Phenanthrene-d10	373000	11.316			
1719-03-5	Chrysene-d12	290000	13.957			
1520-96-3	Perylene-d12	251000	15.404			
TENTATIVE IDENTIFIED COMPOUNDS						
004744-10-9	Propane, 1,1-dimethoxy-	150	J		2.18	ug/Kg
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	70.6	A		5.02	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166335BL	SDG No.:	Q1206
Lab Sample ID:	PB166335BL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141374.D	1	01/29/25 08:40	02/03/25 17:41	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166335BS	SDG No.:	Q1206
Lab Sample ID:	PB166335BS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141303.D	1	01/29/25 08:40	01/30/25 09:57	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	220	J	180	330	ug/Kg
108-95-2	Phenol	1500		82.9	170	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1600		83.7	170	ug/Kg
95-57-8	2-Chlorophenol	1600		83.5	170	ug/Kg
95-48-7	2-Methylphenol	1600		80.6	170	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1600		90.9	170	ug/Kg
98-86-2	Acetophenone	1500		86.9	170	ug/Kg
65794-96-9	3+4-Methylphenols	1500		79.8	330	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	1500		40.3	80.0	ug/Kg
67-72-1	Hexachloroethane	1500		83.0	170	ug/Kg
98-95-3	Nitrobenzene	1400		90.8	170	ug/Kg
78-59-1	Isophorone	1600		84.6	170	ug/Kg
88-75-5	2-Nitrophenol	1500		94.5	170	ug/Kg
105-67-9	2,4-Dimethylphenol	1900		93.2	170	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1500		85.8	170	ug/Kg
120-83-2	2,4-Dichlorophenol	1500		75.5	170	ug/Kg
91-20-3	Naphthalene	1500		82.6	170	ug/Kg
106-47-8	4-Chloroaniline	790		82.6	170	ug/Kg
87-68-3	Hexachlorobutadiene	1400		83.3	170	ug/Kg
105-60-2	Caprolactam	1600		86.8	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1600		77.5	170	ug/Kg
91-57-6	2-Methylnaphthalene	1500		82.5	170	ug/Kg
77-47-4	Hexachlorocyclopentadiene	5800	E	160	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1500		71.4	170	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1500		74.0	170	ug/Kg
92-52-4	1,1-Biphenyl	1500		87.4	170	ug/Kg
91-58-7	2-Chloronaphthalene	1400		83.3	170	ug/Kg
88-74-4	2-Nitroaniline	1600		95.0	170	ug/Kg
131-11-3	Dimethylphthalate	1500		81.7	170	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166335BS	SDG No.:	Q1206
Lab Sample ID:	PB166335BS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141303.D	1	01/29/25 08:40	01/30/25 09:57	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	1600		86.5	170	ug/Kg
606-20-2	2,6-Dinitrotoluene	1500		83.2	170	ug/Kg
99-09-2	3-Nitroaniline	970		89.2	170	ug/Kg
83-32-9	Acenaphthene	1600		81.1	170	ug/Kg
51-28-5	2,4-Dinitrophenol	3400	E	240	330	ug/Kg
100-02-7	4-Nitrophenol	3300	E	120	330	ug/Kg
132-64-9	Dibenzofuran	1500		84.4	170	ug/Kg
121-14-2	2,4-Dinitrotoluene	1500		86.2	170	ug/Kg
84-66-2	Diethylphthalate	1500		80.1	170	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1400		85.6	170	ug/Kg
86-73-7	Fluorene	1400		85.5	170	ug/Kg
100-01-6	4-Nitroaniline	1600		110	170	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1700		120	330	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1500		81.6	170	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1500		78.9	170	ug/Kg
118-74-1	Hexachlorobenzene	1500		85.0	170	ug/Kg
1912-24-9	Atrazine	1600		91.4	170	ug/Kg
87-86-5	Pentachlorophenol	3100	E	77.3	330	ug/Kg
85-01-8	Phenanthrene	1600		84.0	170	ug/Kg
120-12-7	Anthracene	1600		84.4	170	ug/Kg
86-74-8	Carbazole	1600		80.3	170	ug/Kg
84-74-2	Di-n-butylphthalate	1600		84.3	170	ug/Kg
206-44-0	Fluoranthene	1600		81.7	170	ug/Kg
129-00-0	Pyrene	1500		83.0	170	ug/Kg
85-68-7	Butylbenzylphthalate	1600		96.8	170	ug/Kg
91-94-1	3,3-Dichlorobenzidine	840		98.6	330	ug/Kg
56-55-3	Benzo(a)anthracene	1500		80.7	170	ug/Kg
218-01-9	Chrysene	1500		79.5	170	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	1600		91.0	170	ug/Kg
117-84-0	Di-n-octyl phthalate	1600		110	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	1600		81.1	170	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166335BS	SDG No.:	Q1206
Lab Sample ID:	PB166335BS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141303.D	1	01/29/25 08:40	01/30/25 09:57	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1700		82.6	170	ug/Kg
50-32-8	Benzo(a)pyrene	1700		93.0	170	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1600		78.1	170	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1600		81.2	170	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1500		80.1	170	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1400		86.8	170	ug/Kg
123-91-1	1,4-Dioxane	1300		110	170	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1600		74.7	170	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	128		18 - 112	85%	SPK: 150
13127-88-3	Phenol-d6	128		15 - 107	85%	SPK: 150
4165-60-0	Nitrobenzene-d5	87.9		18 - 107	88%	SPK: 100
321-60-8	2-Fluorobiphenyl	83.5		20 - 109	83%	SPK: 100
118-79-6	2,4,6-Tribromophenol	133		10 - 116	89%	SPK: 150
1718-51-0	Terphenyl-d14	88.2		10 - 105	88%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	142000	6.798			
1146-65-2	Naphthalene-d8	578000	8.081			
15067-26-2	Acenaphthene-d10	315000	9.839			
1517-22-2	Phenanthrene-d10	527000	11.328			
1719-03-5	Chrysene-d12	325000	13.974			
1520-96-3	Perylene-d12	295000	15.451			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	WC-5MS	SDG No.:	Q1206
Lab Sample ID:	Q1209-05MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	88.4
Sample Wt/Vol:	50.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141315.D	1	01/29/25 08:40	01/30/25 16:03	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	1100		120	220	ug/Kg
108-95-2	Phenol	880		56.2	120	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	870		56.7	120	ug/Kg
95-57-8	2-Chlorophenol	890		56.6	120	ug/Kg
95-48-7	2-Methylphenol	890		54.6	120	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	910		61.6	120	ug/Kg
98-86-2	Acetophenone	930		58.9	120	ug/Kg
65794-96-9	3+4-Methylphenols	840		54.1	220	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	850		27.3	54.2	ug/Kg
67-72-1	Hexachloroethane	840		56.3	120	ug/Kg
98-95-3	Nitrobenzene	830		61.5	120	ug/Kg
78-59-1	Isophorone	890		57.3	120	ug/Kg
88-75-5	2-Nitrophenol	890		64.1	120	ug/Kg
105-67-9	2,4-Dimethylphenol	1100		63.2	120	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	870		58.2	120	ug/Kg
120-83-2	2,4-Dichlorophenol	870		51.2	120	ug/Kg
91-20-3	Naphthalene	830		56.0	120	ug/Kg
106-47-8	4-Chloroaniline	340		56.0	120	ug/Kg
87-68-3	Hexachlorobutadiene	820		56.5	120	ug/Kg
105-60-2	Caprolactam	970		58.8	220	ug/Kg
59-50-7	4-Chloro-3-methylphenol	890		52.5	120	ug/Kg
91-57-6	2-Methylnaphthalene	820		55.9	120	ug/Kg
77-47-4	Hexachlorocyclopentadiene	3300	E	110	220	ug/Kg
88-06-2	2,4,6-Trichlorophenol	910		48.4	120	ug/Kg
95-95-4	2,4,5-Trichlorophenol	810		50.2	120	ug/Kg
92-52-4	1,1-Biphenyl	920		59.2	120	ug/Kg
91-58-7	2-Chloronaphthalene	820		56.5	120	ug/Kg
88-74-4	2-Nitroaniline	880		64.4	120	ug/Kg
131-11-3	Dimethylphthalate	860		55.4	120	ug/Kg

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

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	WC-5MS	SDG No.:	Q1206
Lab Sample ID:	Q1209-05MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	88.4
Sample Wt/Vol:	50.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141315.D	1	01/29/25 08:40	01/30/25 16:03	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	910		58.6	120	ug/Kg
606-20-2	2,6-Dinitrotoluene	820		56.4	120	ug/Kg
99-09-2	3-Nitroaniline	400		60.5	120	ug/Kg
83-32-9	Acenaphthene	940		55.0	120	ug/Kg
51-28-5	2,4-Dinitrophenol	2100	E	160	220	ug/Kg
100-02-7	4-Nitrophenol	2000	E	78.6	220	ug/Kg
132-64-9	Dibenzofuran	840		57.2	120	ug/Kg
121-14-2	2,4-Dinitrotoluene	860		58.4	120	ug/Kg
84-66-2	Diethylphthalate	850		54.3	120	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	820		58.0	120	ug/Kg
86-73-7	Fluorene	830		58.0	120	ug/Kg
100-01-6	4-Nitroaniline	880		72.5	120	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1000		79.3	220	ug/Kg
86-30-6	n-Nitrosodiphenylamine	900		55.3	120	ug/Kg
101-55-3	4-Bromophenyl-phenylether	880		53.5	120	ug/Kg
118-74-1	Hexachlorobenzene	870		57.6	120	ug/Kg
1912-24-9	Atrazine	980		61.9	120	ug/Kg
87-86-5	Pentachlorophenol	1900	E	52.4	220	ug/Kg
85-01-8	Phenanthrene	890		56.9	120	ug/Kg
120-12-7	Anthracene	920		57.2	120	ug/Kg
86-74-8	Carbazole	910		54.4	120	ug/Kg
84-74-2	Di-n-butylphthalate	910		57.1	120	ug/Kg
206-44-0	Fluoranthene	870		55.4	120	ug/Kg
129-00-0	Pyrene	880		56.3	120	ug/Kg
85-68-7	Butylbenzylphthalate	1000		65.6	120	ug/Kg
91-94-1	3,3-Dichlorobenzidine	660		66.8	220	ug/Kg
56-55-3	Benzo(a)anthracene	830		54.7	120	ug/Kg
218-01-9	Chrysene	880		53.9	120	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	960		61.7	120	ug/Kg
117-84-0	Di-n-octyl phthalate	910		74.6	220	ug/Kg
205-99-2	Benzo(b)fluoranthene	860		55.0	120	ug/Kg

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	WC-5MS	SDG No.:	Q1206
Lab Sample ID:	Q1209-05MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	88.4
Sample Wt/Vol:	50.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141315.D	1	01/29/25 08:40	01/30/25 16:03	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	870		56.0	120	ug/Kg
50-32-8	Benzo(a)pyrene	950		63.0	120	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1000		52.9	120	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1000		55.0	120	ug/Kg
191-24-2	Benzo(g,h,i)perylene	940		54.3	120	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	910		58.8	120	ug/Kg
123-91-1	1,4-Dioxane	870		74.6	120	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	910		50.6	120	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	88.1		18 - 112	59%	SPK: 150
13127-88-3	Phenol-d6	88.4		15 - 107	59%	SPK: 150
4165-60-0	Nitrobenzene-d5	61.6		18 - 107	62%	SPK: 100
321-60-8	2-Fluorobiphenyl	57.4		20 - 109	57%	SPK: 100
118-79-6	2,4,6-Tribromophenol	93.3		10 - 116	62%	SPK: 150
1718-51-0	Terphenyl-d14	65.2		10 - 105	65%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	167000	6.798			
1146-65-2	Naphthalene-d8	670000	8.081			
15067-26-2	Acenaphthene-d10	361000	9.839			
1517-22-2	Phenanthrene-d10	590000	11.328			
1719-03-5	Chrysene-d12	319000	13.974			
1520-96-3	Perylene-d12	316000	15.445			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	WC-5MSD	SDG No.:	Q1206
Lab Sample ID:	Q1209-05MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	88.4
Sample Wt/Vol:	50.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141316.D	1	01/29/25 08:40	01/30/25 16:30	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	1200		120	220	ug/Kg
108-95-2	Phenol	900		56.2	120	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	880		56.7	120	ug/Kg
95-57-8	2-Chlorophenol	920		56.6	120	ug/Kg
95-48-7	2-Methylphenol	900		54.6	120	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	930		61.6	120	ug/Kg
98-86-2	Acetophenone	960		58.9	120	ug/Kg
65794-96-9	3+4-Methylphenols	850		54.1	220	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	880		27.3	54.2	ug/Kg
67-72-1	Hexachloroethane	870		56.3	120	ug/Kg
98-95-3	Nitrobenzene	840		61.6	120	ug/Kg
78-59-1	Isophorone	910		57.4	120	ug/Kg
88-75-5	2-Nitrophenol	920		64.1	120	ug/Kg
105-67-9	2,4-Dimethylphenol	1100		63.2	120	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	890		58.2	120	ug/Kg
120-83-2	2,4-Dichlorophenol	890		51.2	120	ug/Kg
91-20-3	Naphthalene	840		56.0	120	ug/Kg
106-47-8	4-Chloroaniline	320		56.0	120	ug/Kg
87-68-3	Hexachlorobutadiene	830		56.5	120	ug/Kg
105-60-2	Caprolactam	970		58.8	220	ug/Kg
59-50-7	4-Chloro-3-methylphenol	900		52.5	120	ug/Kg
91-57-6	2-Methylnaphthalene	840		55.9	120	ug/Kg
77-47-4	Hexachlorocyclopentadiene	3500	E	110	220	ug/Kg
88-06-2	2,4,6-Trichlorophenol	960		48.4	120	ug/Kg
95-95-4	2,4,5-Trichlorophenol	850		50.2	120	ug/Kg
92-52-4	1,1-Biphenyl	960		59.3	120	ug/Kg
91-58-7	2-Chloronaphthalene	850		56.5	120	ug/Kg
88-74-4	2-Nitroaniline	940		64.4	120	ug/Kg
131-11-3	Dimethylphthalate	890		55.4	120	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	WC-5MSD	SDG No.:	Q1206
Lab Sample ID:	Q1209-05MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	88.4
Sample Wt/Vol:	50.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141316.D	1	01/29/25 08:40	01/30/25 16:30	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	940		58.6	120	ug/Kg
606-20-2	2,6-Dinitrotoluene	860		56.4	120	ug/Kg
99-09-2	3-Nitroaniline	410		60.5	120	ug/Kg
83-32-9	Acenaphthene	980		55.0	120	ug/Kg
51-28-5	2,4-Dinitrophenol	2200	E	160	220	ug/Kg
100-02-7	4-Nitrophenol	2100	E	78.6	220	ug/Kg
132-64-9	Dibenzofuran	870		57.2	120	ug/Kg
121-14-2	2,4-Dinitrotoluene	890		58.4	120	ug/Kg
84-66-2	Diethylphthalate	880		54.3	120	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	850		58.0	120	ug/Kg
86-73-7	Fluorene	860		58.0	120	ug/Kg
100-01-6	4-Nitroaniline	910		72.5	120	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1100		79.3	220	ug/Kg
86-30-6	n-Nitrosodiphenylamine	920		55.3	120	ug/Kg
101-55-3	4-Bromophenyl-phenylether	910		53.5	120	ug/Kg
118-74-1	Hexachlorobenzene	880		57.6	120	ug/Kg
1912-24-9	Atrazine	1000		62.0	120	ug/Kg
87-86-5	Pentachlorophenol	1900	E	52.4	220	ug/Kg
85-01-8	Phenanthrene	910		56.9	120	ug/Kg
120-12-7	Anthracene	940		57.2	120	ug/Kg
86-74-8	Carbazole	930		54.4	120	ug/Kg
84-74-2	Di-n-butylphthalate	930		57.1	120	ug/Kg
206-44-0	Fluoranthene	910		55.4	120	ug/Kg
129-00-0	Pyrene	900		56.3	120	ug/Kg
85-68-7	Butylbenzylphthalate	1000		65.6	120	ug/Kg
91-94-1	3,3-Dichlorobenzidine	700		66.8	220	ug/Kg
56-55-3	Benzo(a)anthracene	890		54.7	120	ug/Kg
218-01-9	Chrysene	890		53.9	120	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	1000		61.7	120	ug/Kg
117-84-0	Di-n-octyl phthalate	950		74.6	220	ug/Kg
205-99-2	Benzo(b)fluoranthene	950		55.0	120	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	WC-5MSD	SDG No.:	Q1206
Lab Sample ID:	Q1209-05MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	88.4
Sample Wt/Vol:	50.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141316.D	1	01/29/25 08:40	01/30/25 16:30	PB166335

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	850		56.0	120	ug/Kg
50-32-8	Benzo(a)pyrene	980		63.0	120	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1000		52.9	120	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1000		55.0	120	ug/Kg
191-24-2	Benzo(g,h,i)perylene	960		54.3	120	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	950		58.8	120	ug/Kg
123-91-1	1,4-Dioxane	870		74.6	120	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	950		50.6	120	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	89.7		18 - 112	60%	SPK: 150
13127-88-3	Phenol-d6	90.9		15 - 107	61%	SPK: 150
4165-60-0	Nitrobenzene-d5	63.3		18 - 107	63%	SPK: 100
321-60-8	2-Fluorobiphenyl	59.4		20 - 109	59%	SPK: 100
118-79-6	2,4,6-Tribromophenol	97.4		10 - 116	65%	SPK: 150
1718-51-0	Terphenyl-d14	66.2		10 - 105	66%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	167000	6.798			
1146-65-2	Naphthalene-d8	670000	8.081			
15067-26-2	Acenaphthene-d10	356000	9.839			
1517-22-2	Phenanthrene-d10	589000	11.328			
1719-03-5	Chrysene-d12	326000	13.974			
1520-96-3	Perylene-d12	311000	15.457			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CALIBRATION SUMMARY

Response Factor Report BNA_F

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF012925.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Wed Jan 29 17:41:25 2025
Response Via : Initial Calibration

Calibration Files
2.5 =BF141290.D 5 =BF141291.D 10 =BF141292.D 20 =BF141293.D 40 =BF141294.D 50 =BF141295.D 60 =BF141296.D 80 =BF1412
97.D

		Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------									
2)		1,4-Dioxane		0.600	0.603	0.597	0.538	0.574	0.569	0.530	0.573	5.19
3)		Pyridine		1.364	1.410	1.450	1.320	1.394	1.404	1.322	1.380	3.46
4)		n-Nitrosodimet...		0.770	0.789	0.824	0.751	0.803	0.813	0.771	0.789	3.32
5)	S	2-Fluorophenol		1.428	1.391	1.402	1.201	1.267	1.268	1.163	1.303	8.03
6)		Aniline		1.480	1.511	1.542	1.359	1.404	1.350	1.174	1.403	8.93
7)	S	Phenol-d6		1.841	1.800	1.743	1.520	1.611	1.611	1.475	1.657	8.47
8)		2-Chlorophenol		1.535	1.510	1.487	1.297	1.353	1.355	1.237	1.396	8.24
9)		Benzaldehyde		1.166	1.130	1.104	0.895	0.861	0.837	0.727	0.960	17.81
10)	C	Phenol		1.938	1.879	1.884	1.643	1.696	1.704	1.554	1.757	8.22
11)		bis(2-Chloroet...		1.478	1.413	1.426	1.232	1.299	1.329	1.253	1.347	6.93
12)		1,3-Dichlorobe...		1.697	1.668	1.648	1.429	1.499	1.474	1.362	1.540	8.49
13)	C	1,4-Dichlorobe...		1.719	1.663	1.659	1.432	1.502	1.487	1.365	1.547	8.66
14)		1,2-Dichlorobe...		1.629	1.609	1.565	1.338	1.392	1.366	1.240	1.448	10.46
15)		Benzyl Alcohol		1.138	1.201	1.216	1.082	1.137	1.125	1.028	1.133	5.72
16)		2,2'-oxybis(1-...		2.533	2.484	2.495	2.189	2.296	2.287	2.112	2.342	7.01
17)		2-Methylphenol		1.237	1.175	1.210	1.042	1.107	1.120	1.053	1.135	6.62
18)		Hexachloroethane		0.609	0.612	0.610	0.530	0.560	0.561	0.513	0.571	7.09
19)	P	n-Nitroso-di-n...	1.084	1.052	1.060	1.032	0.895	0.936	0.945	0.874	0.985	8.27
20)		3+4-Methylphenols		1.561	1.564	1.502	1.287	1.331	1.323	1.186	1.393	10.65
21)	I	Naphthalene-d8	----------ISTD----------									
22)		Acetophenone		0.547	0.523	0.517	0.436	0.449	0.443	0.412	0.475	11.06
23)	S	Nitrobenzene-d5		0.405	0.396	0.406	0.354	0.373	0.373	0.349	0.379	6.14
24)		Nitrobenzene		0.418	0.411	0.420	0.371	0.385	0.389	0.358	0.393	6.14
25)		Isophorone		0.698	0.685	0.694	0.611	0.640	0.648	0.615	0.656	5.62
26)	C	2-Nitrophenol		0.176	0.187	0.199	0.177	0.189	0.191	0.179	0.185	4.66
27)		2,4-Dimethylph...		0.244	0.239	0.249	0.224	0.235	0.238	0.223	0.236	4.12
28)		bis(2-Chloroet...		0.454	0.440	0.445	0.389	0.405	0.411	0.384	0.418	6.70
29)	C	2,4-Dichloroph...		0.307	0.300	0.312	0.271	0.284	0.286	0.262	0.289	6.39
30)		1,2,4-Trichlor...		0.372	0.354	0.354	0.304	0.318	0.316	0.292	0.330	9.11
31)		Naphthalene		1.193	1.145	1.140	0.976	1.020	1.002	0.919	1.057	9.72
32)		Benzoic acid		0.140	0.178	0.238	0.221	0.241	0.259	0.242	0.217	19.59
33)		4-Chloroaniline		0.382	0.378	0.391	0.338	0.351	0.349	0.318	0.358	7.38
34)	C	Hexachlorobuta...		0.209	0.207	0.209	0.179	0.190	0.187	0.174	0.194	7.52
35)		Caprolactam		0.097	0.095	0.102	0.089	0.094	0.096	0.089	0.094	4.89
36)	C	4-Chloro-3-met...		0.328	0.328	0.334	0.287	0.301	0.307	0.283	0.310	6.71
37)		2-Methylnaphth...		0.755	0.732	0.724	0.624	0.643	0.639	0.583	0.672	9.68
38)		1-Methylnaphth...		0.757	0.723	0.711	0.606	0.625	0.623	0.573	0.660	10.56

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF012925.M

39)	I	Acenaphthene-d10	----------ISTD----------								
40)		1,2,4,5-Tetrac...	0.615	0.613	0.603	0.534	0.555	0.551	0.512	0.569	7.25
41)	P	Hexachlorocycl...	0.136	0.157	0.174	0.172	0.182	0.181	0.174	0.168	9.69
42)	S	2,4,6-Tribromo...	0.198	0.198	0.198	0.173	0.175	0.179	0.163	0.183	7.98
43)	C	2,4,6-Trichlor...	0.381	0.380	0.390	0.364	0.375	0.369	0.347	0.372	3.79
44)		2,4,5-Trichlor...	0.429	0.425	0.429	0.377	0.391	0.403	0.383	0.405	5.50
45)	S	2-Fluorobiphenyl	1.597	1.464	1.398	1.184	1.202	1.168	1.083	1.299	14.48
46)		1,1'-Biphenyl	1.810	1.692	1.650	1.454	1.492	1.460	1.360	1.560	10.27
47)		2-Chloronaphth...	1.396	1.310	1.290	1.122	1.159	1.156	1.077	1.216	9.59
48)		2-Nitroaniline	0.386	0.389	0.407	0.364	0.382	0.385	0.364	0.382	3.91
49)		Acenaphthylene	1.921	1.854	1.815	1.595	1.620	1.612	1.495	1.702	9.38
50)		Dimethylphthalate	1.498	1.456	1.445	1.239	1.299	1.296	1.223	1.351	8.34
51)		2,6-Dinitrotol...	0.333	0.331	0.333	0.296	0.304	0.309	0.290	0.314	5.90
52)	C	Acenaphthene	1.361	1.300	1.291	1.128	1.170	1.180	1.079	1.216	8.46
53)		3-Nitroaniline	0.321	0.330	0.341	0.303	0.293	0.298	0.264	0.307	8.44
54)	P	2,4-Dinitrophenol		0.102	0.136	0.147	0.156	0.169	0.164	0.146	16.81
55)		Dibenzofuran	1.869	1.788	1.755	1.518	1.525	1.539	1.398	1.627	10.72
56)	P	4-Nitrophenol	0.187	0.215	0.251	0.224	0.231	0.244	0.222	0.225	9.21
57)		2,4-Dinitrotol...	0.424	0.431	0.443	0.386	0.392	0.404	0.362	0.406	7.03
58)		Fluorene	1.512	1.410	1.353	1.167	1.164	1.172	1.059	1.262	12.96
59)		2,3,4,6-Tetrac...	0.325	0.343	0.341	0.304	0.305	0.324	0.291	0.319	6.11
60)		Diethylphthalate	1.470	1.417	1.412	1.225	1.238	1.260	1.146	1.310	9.32
61)		4-Chlorophenyl...	0.738	0.694	0.659	0.567	0.565	0.571	0.522	0.617	13.04
62)		4-Nitroaniline	0.297	0.312	0.330	0.290	0.294	0.311	0.281	0.302	5.45
63)		Azobenzene	1.464	1.411	1.390	1.224	1.249	1.276	1.162	1.311	8.51
64)	I	Phenanthrene-d10	----------ISTD----------								
65)		4,6-Dinitro-2-...	0.080	0.105	0.122	0.125	0.131	0.134	0.131	0.118	16.29
66)	c	n-Nitrosodiphe...	0.716	0.684	0.674	0.626	0.622	0.614	0.593	0.647	6.89
67)		4-Bromophenyl-...	0.235	0.234	0.234	0.217	0.218	0.220	0.210	0.224	4.57
68)		Hexachlorobenzene	0.257	0.250	0.248	0.229	0.229	0.232	0.217	0.238	6.07
69)		Atrazine	0.211	0.202	0.213	0.213	0.215	0.235	0.224	0.216	4.86
70)	C	Pentachlorophenol	0.112	0.136	0.146	0.143	0.146	0.149	0.141	0.139	9.08
71)		Phenanthrene	1.233	1.170	1.142	1.025	1.008	1.010	0.937	1.075	9.96
72)		Anthracene	1.179	1.146	1.120	1.009	0.999	0.996	0.924	1.053	9.00
73)		Carbazole	1.019	1.014	1.021	0.899	0.878	0.900	0.807	0.934	9.04
74)		Di-n-butylphth...	1.244	1.239	1.245	1.086	1.051	1.081	0.978	1.132	9.65
75)	C	Fluoranthene	1.195	1.202	1.196	1.013	0.963	0.982	0.880	1.062	12.57
76)	I	Chrysene-d12	----------ISTD----------								
77)		Benzidine	0.882	0.480	0.210	0.730	0.906	0.724	0.556	0.641	38.34
78)		Pyrene	2.178	2.063	2.002	1.754	1.870	1.898	1.674	1.920	9.14
79)	S	Terphenyl-d14	1.543	1.411	1.370	1.183	1.238	1.230	1.103	1.297	11.68
80)		Butylbenzylpht...	0.686	0.690	0.739	0.626	0.657	0.688	0.610	0.671	6.49
81)		Benzo(a)anthra...	1.532	1.410	1.453	1.270	1.375	1.355	1.265	1.380	6.96
82)		3,3'-Dichlorob...	0.412	0.422	0.427	0.418	0.478	0.466	0.449	0.439	5.82
83)		Chrysene	1.332	1.325	1.342	1.136	1.267	1.243	1.210	1.265	5.98
84)		Bis(2-ethylhex...	0.882	0.903	0.956	0.785	0.831	0.834	0.764	0.851	7.93
85)	c	Di-n-octyl pht...	1.194	1.267	1.438	1.230	1.365	1.406	1.352	1.321	6.98

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF012925.M

86)	I	Perylene-d12	----------ISTD----------							
87)		Indeno(1,2,3-c...	1.217	1.268	1.337	1.257	1.348	1.322	1.287	1.291	3.67
88)		Benzo(b)fluora...	1.358	1.382	1.328	1.120	1.265	1.218	1.136	1.258	8.33
89)		Benzo(k)fluora...	1.167	1.114	1.274	1.083	1.049	1.060	1.054	1.114	7.32
90)	C	Benzo(a)pyrene	1.118	1.059	1.131	1.011	1.061	1.051	1.010	1.063	4.44
91)		Dibenzo(a,h)an...	0.966	1.001	1.101	1.016	1.087	1.071	1.028	1.039	4.73
92)		Benzo(g,h,i)pe...	1.011	1.075	1.139	1.043	1.123	1.105	1.063	1.080	4.22

(#) = Out of Range

Response Factor Report BNA_F

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF020625.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Thu Feb 06 16:58:59 2025
Response Via : Initial Calibration

Calibration Files
2.5 =BF141472.D 5 =BF141473.D 10 =BF141474.D 20 =BF141475.D 40 =BF141476.D 50 =BF141477.D 60 =BF141478.D 80 =BF1414
79.D

		Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------									
2)		1,4-Dioxane		0.511	0.519	0.523	0.517	0.502	0.521	0.501	0.513	1.73
3)		Pyridine		1.053	1.205	1.311	1.263	1.256	1.261	1.204	1.222	6.79
4)		n-Nitrosodimet...		0.737	0.774	0.820	0.818	0.835	0.846	0.833	0.809	4.83
5)	S	2-Fluorophenol		1.235	1.290	1.365	1.289	1.273	1.264	1.214	1.276	3.77
6)		Aniline		1.476	1.545	1.650	1.538	1.506	1.494	1.379	1.513	5.42
7)	S	Phenol-d6		1.619	1.629	1.704	1.613	1.599	1.585	1.538	1.612	3.13
8)		2-Chlorophenol		1.399	1.410	1.446	1.379	1.368	1.345	1.302	1.378	3.38
9)		Benzaldehyde		0.892	0.993	0.981	0.821	0.747	0.706		0.857	13.92
10)	C	Phenol		1.693	1.681	1.817	1.685	1.659	1.644	1.569	1.678	4.42
11)		bis(2-Chloroet...		1.262	1.229	1.296	1.266	1.252	1.262	1.256	1.261	1.59
12)		1,3-Dichlorobe...		1.473	1.482	1.554	1.441	1.441	1.430	1.366	1.455	3.95
13)	C	1,4-Dichlorobe...		1.546	1.538	1.571	1.471	1.465	1.439	1.379	1.487	4.59
14)		1,2-Dichlorobe...		1.393	1.439	1.473	1.374	1.351	1.345	1.285	1.380	4.55
15)		Benzyl Alcohol		1.191	1.251	1.322	1.262	1.248	1.218	1.163	1.236	4.19
16)		2,2'-oxybis(1-...		2.222	2.245	2.313	2.165	2.119	2.082	1.959	2.158	5.45
17)		2-Methylphenol		1.116	1.089	1.121	1.077	1.059	1.066	1.024	1.079	3.15
18)		Hexachloroethane		0.539	0.545	0.589	0.553	0.556	0.544	0.526	0.550	3.59
19)	P	n-Nitroso-di-n...	0.950	0.978	0.985	1.039	0.969	0.947	0.941	0.907	0.964	4.03
20)		3+4-Methylphenols		1.442	1.417	1.459	1.372	1.344	1.319	1.244	1.371	5.52
21)	I	Naphthalene-d8	----------ISTD----------									
22)		Acetophenone		0.517	0.502	0.521	0.493	0.483	0.488	0.478	0.498	3.35
23)	S	Nitrobenzene-d5		0.380	0.379	0.396	0.385	0.378	0.381	0.384	0.383	1.58
24)		Nitrobenzene		0.370	0.371	0.383	0.374	0.369	0.375	0.376	0.374	1.29
25)		Isophorone		0.611	0.594	0.633	0.611	0.601	0.617	0.614	0.611	2.04
26)	C	2-Nitrophenol		0.171	0.175	0.190	0.193	0.190	0.193	0.191	0.186	4.91
27)		2,4-Dimethylph...		0.208	0.212	0.221	0.223	0.218	0.220	0.220	0.217	2.46
28)		bis(2-Chloroet...		0.384	0.390	0.408	0.394	0.387	0.391	0.388	0.392	2.03
29)	C	2,4-Dichloroph...		0.286	0.287	0.312	0.296	0.290	0.292	0.292	0.294	2.95
30)		1,2,4-Trichlor...		0.327	0.321	0.331	0.317	0.312	0.317	0.314	0.320	2.12
31)		Naphthalene		1.067	1.041	1.096	1.037	1.012	1.022	1.012	1.041	2.98
32)		Benzoic acid			0.186	0.217	0.229	0.233	0.243	0.246	0.226	9.70
33)		4-Chloroaniline		0.354	0.352	0.382	0.364	0.360	0.364	0.370	0.363	2.82
34)	C	Hexachlorobuta...		0.193	0.191	0.200	0.192	0.188	0.191	0.189	0.192	2.01
35)		Caprolactam		0.083	0.085	0.094	0.093	0.088	0.091	0.092	0.089	4.75
36)	C	4-Chloro-3-met...		0.310	0.324	0.342	0.329	0.324	0.325	0.324	0.325	2.91
37)		2-Methylnaphth...		0.688	0.689	0.719	0.669	0.659	0.666	0.652	0.677	3.42
38)		1-Methylnaphth...		0.680	0.657	0.691	0.656	0.637	0.640	0.631	0.656	3.40

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF020625.M

39)	I	Acenaphthene-d10	----------ISTD----------								
40)		1,2,4,5-Tetrac...	0.582	0.588	0.600	0.584	0.560	0.574	0.562	0.579	2.50
41)	P	Hexachlorocycl...		0.138	0.180	0.204	0.205	0.214	0.214	0.192	15.36
42)	S	2,4,6-Tribromo...	0.201	0.200	0.210	0.200	0.199	0.201	0.196	0.201	2.08
43)	C	2,4,6-Trichlor...	0.364	0.365	0.389	0.377	0.373	0.378	0.372	0.374	2.28
44)		2,4,5-Trichlor...	0.385	0.407	0.430	0.410	0.394	0.409	0.401	0.405	3.51
45)	S	2-Fluorobiphenyl	1.373	1.360	1.385	1.269	1.241	1.259	1.201	1.298	5.62
46)		1,1'-Biphenyl	1.582	1.564	1.632	1.545	1.517	1.537	1.478	1.551	3.16
47)		2-Chloronaphth...	1.167	1.161	1.211	1.135	1.114	1.136	1.103	1.147	3.18
48)		2-Nitroaniline	0.371	0.371	0.394	0.390	0.382	0.401	0.385	0.385	2.92
49)		Acenaphthylene	1.739	1.736	1.791	1.696	1.660	1.689	1.626	1.705	3.21
50)		Dimethylphthalate	1.382	1.359	1.408	1.345	1.324	1.341	1.345	1.358	2.09
51)		2,6-Dinitrotol...	0.289	0.290	0.314	0.301	0.295	0.299	0.290	0.297	3.06
52)	C	Acenaphthene	1.186	1.164	1.188	1.152	1.108	1.127	1.101	1.147	3.10
53)		3-Nitroaniline	0.312	0.313	0.335	0.319	0.320	0.321	0.316	0.319	2.35
54)	P	2,4-Dinitrophenol		0.133	0.167	0.177	0.185	0.198	0.198	0.176	13.83
55)		Dibenzofuran	1.768	1.722	1.774	1.673	1.633	1.634	1.576	1.683	4.44
56)	P	4-Nitrophenol	0.190	0.216	0.247	0.249	0.249	0.257	0.251	0.237	10.43
57)		2,4-Dinitrotol...	0.383	0.403	0.414	0.398	0.390	0.396	0.383	0.395	2.83
58)		Fluorene	1.359	1.361	1.377	1.290	1.239	1.263	1.221	1.301	4.90
59)		2,3,4,6-Tetrac...	0.332	0.361	0.359	0.348	0.348	0.355	0.340	0.349	2.95
60)		Diethylphthalate	1.400	1.346	1.398	1.330	1.300	1.308	1.269	1.336	3.71
61)		4-Chlorophenyl...	0.661	0.643	0.659	0.622	0.602	0.611	0.585	0.626	4.66
62)		4-Nitroaniline	0.315	0.319	0.333	0.335	0.319	0.327	0.324	0.324	2.28
63)		Azobenzene	1.348	1.329	1.385	1.326	1.295	1.320	1.294	1.328	2.38
64)	I	Phenanthrene-d10	----------ISTD----------								
65)		4,6-Dinitro-2-...		0.116	0.140	0.142	0.142	0.146	0.148	0.139	8.48
66)	c	n-Nitrosodiphe...	0.650	0.653	0.674	0.627	0.625	0.625	0.627	0.640	2.97
67)		4-Bromophenyl-...	0.228	0.220	0.234	0.221	0.220	0.221	0.221	0.224	2.46
68)		Hexachlorobenzene	0.229	0.234	0.241	0.227	0.224	0.228	0.228	0.230	2.46
69)		Atrazine	0.200	0.203	0.214	0.185	0.185	0.182	0.176	0.192	7.12
70)	C	Pentachlorophenol	0.116	0.131	0.151	0.154	0.158	0.159	0.160	0.147	11.68
71)		Phenanthrene	1.141	1.132	1.161	1.084	1.071	1.069	1.049	1.101	3.91
72)		Anthracene	1.168	1.126	1.158	1.082	1.084	1.071	1.057	1.107	3.99
73)		Carbazole	1.022	1.026	1.076	0.986	0.966	0.961	0.933	0.996	4.87
74)		Di-n-butylphth...	1.165	1.156	1.223	1.141	1.132	1.126	1.105	1.150	3.29
75)	C	Fluoranthene	1.251	1.239	1.243	1.151	1.129	1.091	1.065	1.167	6.63
76)	I	Chrysene-d12	----------ISTD----------								
77)		Benzidine	0.474	0.487	0.334	0.528	0.432	0.351	0.481	0.441	16.58
78)		Pyrene	1.528	1.557	1.717	1.745	1.774	1.807	1.789	1.703	6.67
79)	S	Terphenyl-d14	1.129	1.104	1.211	1.198	1.209	1.234	1.208	1.185	4.07
80)		Butylbenzylpht...	0.525	0.540	0.605	0.609	0.603	0.623	0.624	0.590	6.83
81)		Benzo(a)anthra...	1.381	1.332	1.350	1.345	1.309	1.309	1.279	1.329	2.51
82)		3,3'-Dichlorob...	0.397	0.411	0.407	0.377	0.363	0.353	0.358	0.381	6.31
83)		Chrysene	1.187	1.223	1.314	1.201	1.215	1.224	1.229	1.228	3.34
84)		Bis(2-ethylhex...	0.593	0.610	0.685	0.689	0.680	0.697	0.702	0.665	6.68
85)	c	Di-n-octyl pht...	0.802	0.814	0.910	0.965	1.010	1.051	1.090	0.949	11.82

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF020625.M

86)	I	Perylene-d12	----------ISTD----------							
87)		Indeno(1,2,3-c...	0.987	1.029	1.186	1.288	1.341	1.410	1.408	1.236	14.06
88)		Benzo(b)fluora...	1.286	1.407	1.398	1.336	1.350	1.356	1.268	1.343	3.88
89)		Benzo(k)fluora...	1.113	1.216	1.247	1.142	1.074	1.098	1.138	1.147	5.49
90)	C	Benzo(a)pyrene	1.085	1.074	1.115	1.080	1.069	1.094	1.089	1.087	1.41
91)		Dibenzo(a,h)an...	0.796	0.828	0.970	1.051	1.092	1.138	1.134	1.001	14.13
92)		Benzo(g,h,i)pe...	0.805	0.864	1.001	1.100	1.144	1.203	1.218	1.048	15.60

(#) = Out of Range

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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

Instrument ID: BNA_F Calibration Date/Time: 01/30/2025 08:54

Lab File ID: BF141301.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.303	1.194		-8.4	
Benzaldehyde	0.960	0.852		-11.3	
Phenol-d6	1.657	1.545		-6.8	
Phenol	1.757	1.657		-5.7	20.0
bis(2-Chloroethyl)ether	1.347	1.242		-7.8	
2-Chlorophenol	1.396	1.317		-5.7	
2-Methylphenol	1.135	1.057		-6.9	
2,2-oxybis(1-Chloropropane)	2.342	2.216		-5.4	
Acetophenone	0.475	0.435		-8.4	
3+4-Methylphenols	1.393	1.298		-6.8	
n-Nitroso-di-n-propylamine	0.985	0.911	0.050	-7.5	
Nitrobenzene-d5	0.379	0.356		-6.1	
Hexachloroethane	0.571	0.533		-6.7	
Nitrobenzene	0.393	0.370		-5.9	
Isophorone	0.656	0.621		-5.3	
2-Nitrophenol	0.185	0.177		-4.3	20.0
2,4-Dimethylphenol	0.236	0.227		-3.8	
bis(2-Chloroethoxy)methane	0.418	0.394		-5.7	
2,4-Dichlorophenol	0.289	0.273		-5.5	20.0
Naphthalene	1.057	0.980		-7.3	
4-Chloroaniline	0.358	0.341		-4.7	
Hexachlorobutadiene	0.194	0.181		-6.7	20.0
Caprolactam	0.094	0.091		-3.2	
4-Chloro-3-methylphenol	0.310	0.295		-4.8	20.0
2-Methylnaphthalene	0.672	0.622		-7.4	
Hexachlorocyclopentadiene	0.168	0.172	0.050	2.4	
2,4,6-Trichlorophenol	0.372	0.361		-3.0	20.0
2-Fluorobiphenyl	1.299	1.166		-10.2	
2,4,5-Trichlorophenol	0.405	0.374		-7.7	
1,1-Biphenyl	1.560	1.444		-7.4	
2-Chloronaphthalene	1.216	1.115		-8.3	
2-Nitroaniline	0.382	0.364		-4.7	
Dimethylphthalate	1.351	1.260		-6.7	
Acenaphthylene	1.702	1.594		-6.3	
2,6-Dinitrotoluene	0.314	0.293		-6.7	
3-Nitroaniline	0.307	0.296		-3.6	
Acenaphthene	1.216	1.130		-7.1	20.0
2,4-Dinitrophenol	0.146	0.139	0.050	-4.8	
4-Nitrophenol	0.225	0.221	0.050	-1.8	

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

Instrument ID: BNA_F Calibration Date/Time: 01/30/2025 08:54

Lab File ID: BF141301.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.627	1.502		-7.7	
2,4-Dinitrotoluene	0.406	0.387		-4.7	
Diethylphthalate	1.310	1.217		-7.1	
4-Chlorophenyl-phenylether	0.617	0.568		-7.9	
Fluorene	1.262	1.151		-8.8	
4-Nitroaniline	0.302	0.294		-2.6	
4,6-Dinitro-2-methylphenol	0.118	0.123		4.2	
n-Nitrosodiphenylamine	0.647	0.610		-5.7	20.0
2,4,6-Tribromophenol	0.183	0.174		-4.9	
4-Bromophenyl-phenylether	0.224	0.216		-3.6	
Hexachlorobenzene	0.238	0.229		-3.8	
Atrazine	0.216	0.194		-10.2	
Pentachlorophenol	0.139	0.142		2.2	20.0
Phenanthrene	1.075	1.008		-6.2	
Anthracene	1.053	0.988		-6.2	
Carbazole	0.934	0.889		-4.8	
Di-n-butylphthalate	1.132	1.094		-3.4	
Fluoranthene	1.062	1.005		-5.4	20.0
Pyrene	1.920	1.777		-7.4	
Terphenyl-d14	1.297	1.185		-8.6	
Butylbenzylphthalate	0.671	0.641		-4.5	
3,3-Dichlorobenzidine	0.439	0.407		-7.3	
Benzo(a)anthracene	1.380	1.214		-12.0	
Chrysene	1.265	1.188		-6.1	
Bis(2-ethylhexyl)phthalate	0.851	0.798		-6.2	
Di-n-octyl phthalate	1.321	1.218		-7.8	20.0
Benzo(b)fluoranthene	1.258	1.162		-7.6	
Benzo(k)fluoranthene	1.114	1.056		-5.2	
Benzo(a)pyrene	1.063	1.010		-5.0	20.0
Indeno(1,2,3-cd)pyrene	1.291	1.200		-7.0	
Dibenzo(a,h)anthracene	1.039	0.965		-7.1	
Benzo(g,h,i)perylene	1.080	0.995		-7.9	
1,2,4,5-Tetrachlorobenzene	0.569	0.533		-6.3	
1,4-Dioxane	0.573	0.542		-5.4	20.0
2,3,4,6-Tetrachlorophenol	0.319	0.312		-2.2	

All other compounds must meet a minimum RRF of 0.010.

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

Instrument ID: BNA_F Calibration Date/Time: 02/03/2025 17:14

Lab File ID: BF141373.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.303	1.302		-0.1	
Benzaldehyde	0.960	1.038		8.1	
Phenol-d6	1.657	1.598		-3.6	
Phenol	1.757	1.694		-3.6	20.0
bis(2-Chloroethyl)ether	1.347	1.310		-2.7	
2-Chlorophenol	1.396	1.391		-0.4	
2-Methylphenol	1.135	1.109		-2.3	
2,2-oxybis(1-Chloropropane)	2.342	2.192		-6.4	
Acetophenone	0.475	0.486		2.3	
3+4-Methylphenols	1.393	1.420		1.9	
n-Nitroso-di-n-propylamine	0.985	0.981	0.050	-0.4	
Nitrobenzene-d5	0.379	0.382		0.8	
Hexachloroethane	0.571	0.590		3.3	
Nitrobenzene	0.393	0.389		-1.0	
Isophorone	0.656	0.653		-0.5	
2-Nitrophenol	0.185	0.188		1.6	20.0
2,4-Dimethylphenol	0.236	0.237		0.4	
bis(2-Chloroethoxy)methane	0.418	0.408		-2.4	
2,4-Dichlorophenol	0.289	0.293		1.4	20.0
Naphthalene	1.057	1.046		-1.0	
4-Chloroaniline	0.358	0.293		-18.2	
Hexachlorobutadiene	0.194	0.204		5.2	20.0
Caprolactam	0.094	0.096		2.1	
4-Chloro-3-methylphenol	0.310	0.318		2.6	20.0
2-Methylnaphthalene	0.672	0.672		0.0	
Hexachlorocyclopentadiene	0.168	0.186	0.050	10.7	
2,4,6-Trichlorophenol	0.372	0.380		2.2	20.0
2-Fluorobiphenyl	1.299	1.292		-0.5	
2,4,5-Trichlorophenol	0.405	0.413		2.0	
1,1-Biphenyl	1.560	1.536		-1.5	
2-Chloronaphthalene	1.216	1.196		-1.6	
2-Nitroaniline	0.382	0.388		1.6	
Dimethylphthalate	1.351	1.357		0.4	
Acenaphthylene	1.702	1.683		-1.1	
2,6-Dinitrotoluene	0.314	0.315		0.3	
3-Nitroaniline	0.307	0.310		1.0	
Acenaphthene	1.216	1.226		0.8	20.0
2,4-Dinitrophenol	0.146	0.170	0.050	16.4	
4-Nitrophenol	0.225	0.235	0.050	4.4	

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

Instrument ID: BNA_F Calibration Date/Time: 02/03/2025 17:14

Lab File ID: BF141373.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.627	1.608		-1.2	
2,4-Dinitrotoluene	0.406	0.423		4.2	
Diethylphthalate	1.310	1.346		2.7	
4-Chlorophenyl-phenylether	0.617	0.621		0.6	
Fluorene	1.262	1.286		1.9	
4-Nitroaniline	0.302	0.327		8.3	
4,6-Dinitro-2-methylphenol	0.118	0.140		18.6	
n-Nitrosodiphenylamine	0.647	0.642		-0.8	20.0
2,4,6-Tribromophenol	0.183	0.194		6.0	
4-Bromophenyl-phenylether	0.224	0.234		4.5	
Hexachlorobenzene	0.238	0.244		2.5	
Atrazine	0.216	0.216		0.0	
Pentachlorophenol	0.139	0.157		12.9	20.0
Phenanthrene	1.075	1.095		1.9	
Anthracene	1.053	1.082		2.8	
Carbazole	0.934	0.977		4.6	
Di-n-butylphthalate	1.132	1.197		5.7	
Fluoranthene	1.062	1.123		5.7	20.0
Pyrene	1.920	1.838		-4.3	
Terphenyl-d14	1.297	1.274		-1.8	
Butylbenzylphthalate	0.671	0.703		4.8	
3,3-Dichlorobenzidine	0.439	0.424		-3.4	
Benzo(a)anthracene	1.380	1.292		-6.4	
Chrysene	1.265	1.240		-2.0	
Bis(2-ethylhexyl)phthalate	0.851	0.932		9.5	
Di-n-octyl phthalate	1.321	1.473		11.5	20.0
Benzo(b)fluoranthene	1.258	1.234		-1.9	
Benzo(k)fluoranthene	1.114	1.155		3.7	
Benzo(a)pyrene	1.063	1.088		2.4	20.0
Indeno(1,2,3-cd)pyrene	1.291	1.353		4.8	
Dibenzo(a,h)anthracene	1.039	1.102		6.1	
Benzo(g,h,i)perylene	1.080	1.119		3.6	
1,2,4,5-Tetrachlorobenzene	0.569	0.571		0.4	
1,4-Dioxane	0.573	0.582		1.6	20.0
2,3,4,6-Tetrachlorophenol	0.319	0.336		5.3	

All other compounds must meet a minimum RRF of 0.010.

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

Instrument ID: BNA_F Calibration Date/Time: 02/05/2025 15:16

Lab File ID: BF141447.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.303	1.309		0.5	
Benzaldehyde	0.960	1.065		10.9	
Phenol-d6	1.657	1.599		-3.5	
Phenol	1.757	1.692		-3.7	20.0
bis(2-Chloroethyl)ether	1.347	1.250		-7.2	
2-Chlorophenol	1.396	1.375		-1.5	
2-Methylphenol	1.135	1.070		-5.7	
2,2-oxybis(1-Chloropropane)	2.342	2.062		-12.0	
Acetophenone	0.475	0.495		4.2	
3+4-Methylphenols	1.393	1.393		0.0	
n-Nitroso-di-n-propylamine	0.985	0.936	0.050	-5.0	
Nitrobenzene-d5	0.379	0.401		5.8	
Hexachloroethane	0.571	0.587		2.8	
Nitrobenzene	0.393	0.410		4.3	
Isophorone	0.656	0.639		-2.6	
2-Nitrophenol	0.185	0.192		3.8	20.0
2,4-Dimethylphenol	0.236	0.229		-3.0	
bis(2-Chloroethoxy)methane	0.418	0.394		-5.7	
2,4-Dichlorophenol	0.289	0.299		3.5	20.0
Naphthalene	1.057	1.071		1.3	
4-Chloroaniline	0.358	0.310		-13.4	
Hexachlorobutadiene	0.194	0.212		9.3	20.0
Caprolactam	0.094	0.093		-1.1	
4-Chloro-3-methylphenol	0.310	0.324		4.5	20.0
2-Methylnaphthalene	0.672	0.677		0.7	
Hexachlorocyclopentadiene	0.168	0.169	0.050	0.6	
2,4,6-Trichlorophenol	0.372	0.384		3.2	20.0
2-Fluorobiphenyl	1.299	1.332		2.5	
2,4,5-Trichlorophenol	0.405	0.414		2.2	
1,1-Biphenyl	1.560	1.541		-1.2	
2-Chloronaphthalene	1.216	1.206		-0.8	
2-Nitroaniline	0.382	0.407		6.5	
Dimethylphthalate	1.351	1.366		1.1	
Acenaphthylene	1.702	1.722		1.2	
2,6-Dinitrotoluene	0.314	0.321		2.2	
3-Nitroaniline	0.307	0.312		1.6	
Acenaphthene	1.216	1.253		3.0	20.0
2,4-Dinitrophenol	0.146	0.168	0.050	15.1	
4-Nitrophenol	0.225	0.235	0.050	4.4	

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

Instrument ID: BNA_F Calibration Date/Time: 02/05/2025 15:16

Lab File ID: BF141447.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.627	1.652		1.5	
2,4-Dinitrotoluene	0.406	0.439		8.1	
Diethylphthalate	1.310	1.335		1.9	
4-Chlorophenyl-phenylether	0.617	0.647		4.9	
Fluorene	1.262	1.315		4.2	
4-Nitroaniline	0.302	0.331		9.6	
4,6-Dinitro-2-methylphenol	0.118	0.139		17.8	
n-Nitrosodiphenylamine	0.647	0.640		-1.1	20.0
2,4,6-Tribromophenol	0.183	0.203		10.9	
4-Bromophenyl-phenylether	0.224	0.230		2.7	
Hexachlorobenzene	0.238	0.245		2.9	
Atrazine	0.216	0.205		-5.1	
Pentachlorophenol	0.139	0.152		9.4	20.0
Phenanthrene	1.075	1.125		4.7	
Anthracene	1.053	1.105		4.9	
Carbazole	0.934	1.005		7.6	
Di-n-butylphthalate	1.132	1.175		3.8	
Fluoranthene	1.062	1.201		13.1	20.0
Pyrene	1.920	1.896		-1.3	
Terphenyl-d14	1.297	1.301		0.3	
Butylbenzylphthalate	0.671	0.684		1.9	
3,3-Dichlorobenzidine	0.439	0.417		-5.0	
Benzo(a)anthracene	1.380	1.336		-3.2	
Chrysene	1.265	1.238		-2.1	
Bis(2-ethylhexyl)phthalate	0.851	0.857		0.7	
Di-n-octyl phthalate	1.321	1.226		-7.2	20.0
Benzo(b)fluoranthene	1.258	1.311		4.2	
Benzo(k)fluoranthene	1.114	1.155		3.7	
Benzo(a)pyrene	1.063	1.108		4.2	20.0
Indeno(1,2,3-cd)pyrene	1.291	1.316		1.9	
Dibenzo(a,h)anthracene	1.039	1.048		0.9	
Benzo(g,h,i)perylene	1.080	1.092		1.1	
1,2,4,5-Tetrachlorobenzene	0.569	0.580		1.9	
1,4-Dioxane	0.573	0.522		-8.9	20.0
2,3,4,6-Tetrachlorophenol	0.319	0.343		7.5	

All other compounds must meet a minimum RRF of 0.010.

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

Instrument ID: BNA_F Calibration Date/Time: 02/11/2025 10:28

Lab File ID: BF141551.D Init. Calib. Date(s): 02/06/2025 02/06/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:07 14:14

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.276	1.265		-0.9	
Benzaldehyde	0.857	0.753		-12.1	
Phenol-d6	1.612	1.593		-1.2	
Phenol	1.678	1.648		-1.8	20.0
bis(2-Chloroethyl)ether	1.261	1.246		-1.2	
2-Chlorophenol	1.378	1.375		-0.2	
2-Methylphenol	1.079	1.043		-3.3	
2,2-oxybis(1-Chloropropane)	2.158	2.126		-1.5	
Acetophenone	0.498	0.484		-2.8	
3+4-Methylphenols	1.371	1.332		-2.8	
n-Nitroso-di-n-propylamine	0.964	0.956	0.050	-0.8	
Nitrobenzene-d5	0.383	0.379		-1.0	
Hexachloroethane	0.550	0.547		-0.5	
Nitrobenzene	0.374	0.368		-1.6	
Isophorone	0.611	0.609		-0.3	
2-Nitrophenol	0.186	0.189		1.6	20.0
2,4-Dimethylphenol	0.217	0.221		1.8	
bis(2-Chloroethoxy)methane	0.392	0.398		1.5	
2,4-Dichlorophenol	0.294	0.295		0.3	20.0
Naphthalene	1.041	1.028		-1.2	
4-Chloroaniline	0.363	0.326		-10.2	
Hexachlorobutadiene	0.192	0.193		0.5	20.0
Caprolactam	0.089	0.091		2.2	
4-Chloro-3-methylphenol	0.325	0.324		-0.3	20.0
2-Methylnaphthalene	0.677	0.671		-0.9	
Hexachlorocyclopentadiene	0.192	0.181	0.050	-5.7	
2,4,6-Trichlorophenol	0.374	0.373		-0.3	20.0
2-Fluorobiphenyl	1.298	1.271		-2.1	
2,4,5-Trichlorophenol	0.405	0.401		-1.0	
1,1-Biphenyl	1.551	1.544		-0.5	
2-Chloronaphthalene	1.147	1.123		-2.1	
2-Nitroaniline	0.385	0.372		-3.4	
Dimethylphthalate	1.358	1.360		0.1	
Acenaphthylene	1.705	1.686		-1.1	
2,6-Dinitrotoluene	0.297	0.295		-0.7	
3-Nitroaniline	0.319	0.310		-2.8	
Acenaphthene	1.147	1.121		-2.3	20.0
2,4-Dinitrophenol	0.176	0.181	0.050	2.8	
4-Nitrophenol	0.237	0.233	0.050	-1.7	

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

Instrument ID: BNA_F Calibration Date/Time: 02/11/2025 10:28

Lab File ID: BF141551.D Init. Calib. Date(s): 02/06/2025 02/06/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:07 14:14

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.683	1.653		-1.8	
2,4-Dinitrotoluene	0.395	0.398		0.8	
Diethylphthalate	1.336	1.353		1.3	
4-Chlorophenyl-phenylether	0.626	0.620		-1.0	
Fluorene	1.301	1.291		-0.8	
4-Nitroaniline	0.324	0.324		0.0	
4,6-Dinitro-2-methylphenol	0.139	0.139		0.0	
n-Nitrosodiphenylamine	0.640	0.634		-0.9	20.0
2,4,6-Tribromophenol	0.201	0.201		0.0	
4-Bromophenyl-phenylether	0.224	0.226		0.9	
Hexachlorobenzene	0.230	0.230		0.0	
Atrazine	0.192	0.174		-9.4	
Pentachlorophenol	0.147	0.147		0.0	20.0
Phenanthrene	1.101	1.067		-3.1	
Anthracene	1.107	1.091		-1.4	
Carbazole	0.996	0.961		-3.5	
Di-n-butylphthalate	1.150	1.169		1.7	
Fluoranthene	1.167	1.112		-4.7	20.0
Pyrene	1.703	1.914		12.4	
Terphenyl-d14	1.185	1.330		12.2	
Butylbenzylphthalate	0.590	0.654		10.8	
3,3-Dichlorobenzidine	0.381	0.368		-3.4	
Benzo(a)anthracene	1.329	1.313		-1.2	
Chrysene	1.228	1.216		-1.0	
Bis(2-ethylhexyl)phthalate	0.665	0.741		11.4	
Di-n-octyl phthalate	0.949	1.040		9.6	20.0
Benzo(b)fluoranthene	1.343	1.314		-2.2	
Benzo(k)fluoranthene	1.147	1.062		-7.4	
Benzo(a)pyrene	1.087	1.065		-2.0	20.0
Indeno(1,2,3-cd)pyrene	1.236	1.357		9.8	
Dibenzo(a,h)anthracene	1.001	1.106		10.5	
Benzo(g,h,i)perylene	1.048	1.156		10.3	
1,2,4,5-Tetrachlorobenzene	0.579	0.575		-0.7	
1,4-Dioxane	0.513	0.499		-2.7	20.0
2,3,4,6-Tetrachlorophenol	0.349	0.348		-0.3	

All other compounds must meet a minimum RRF of 0.010.

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LAB CHRONICLE

OrderID:	Q1206	**OrderDate:**	1/28/2025 11:18:51 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1206-04	**JPP-20.1-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP BNA	8270E		01/29/25	02/04/25	
Q1206-08	**JPP-16.3-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP BNA	8270E		01/29/25	02/04/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID :								
				0.000				
			Total Svoc :			**0.00**		
			Total Concentration:			**0.00**		

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	PB166318TB	SDG No.:	Q1206
Lab Sample ID:	PB166318TB	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141448.D	1	01/29/25 12:35	02/05/25 15:43	PB166354

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	50.0	U	15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	50.0	U	8.40	50.0	ug/L
95-48-7	2-Methylphenol	50.0	U	11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	100	U	11.5	100	ug/L
67-72-1	Hexachloroethane	50.0	U	10.1	50.0	ug/L
98-95-3	Nitrobenzene	50.0	U	12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	50.0	U	12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	50.0	U	8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	50.0	U	10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	50.0	U	15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	50.0	U	11.4	50.0	ug/L
87-86-5	Pentachlorophenol	100	U	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	135		10 - 139	90%	SPK: 150
13127-88-3	Phenol-d6	130		10 - 134	86%	SPK: 150
4165-60-0	Nitrobenzene-d5	96.2		49 - 133	96%	SPK: 100
321-60-8	2-Fluorobiphenyl	97.9		52 - 132	98%	SPK: 100
118-79-6	2,4,6-Tribromophenol	142		44 - 137	95%	SPK: 150
1718-51-0	Terphenyl-d14	96.0		48 - 125	96%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	70000	6.786			
1146-65-2	Naphthalene-d8	275000	8.069			
15067-26-2	Acenaphthene-d10	149000	9.827			
1517-22-2	Phenanthrene-d10	258000	11.31			
1719-03-5	Chrysene-d12	172000	13.957			
1520-96-3	Perylene-d12	140000	15.421			

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Report of Analysis

Client:	RU2 Engineering, LLC			Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR			Date Received:	01/29/25
Client Sample ID:	PB166318TB			SDG No.:	Q1206
Lab Sample ID:	PB166318TB			Matrix:	TCLP
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	100	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	TCLP BNA
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3541				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141448.D	1	01/29/25 12:35	02/05/25 15:43	PB166354

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-04	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141422.D	1	01/29/25 12:35	02/04/25 21:19	PB166354

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	50.0	U	15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	50.0	U	8.40	50.0	ug/L
95-48-7	2-Methylphenol	50.0	U	11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	100	U	11.5	100	ug/L
67-72-1	Hexachloroethane	50.0	U	10.1	50.0	ug/L
98-95-3	Nitrobenzene	50.0	U	12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	50.0	U	12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	50.0	U	8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	50.0	U	10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	50.0	U	15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	50.0	U	11.4	50.0	ug/L
87-86-5	Pentachlorophenol	100	U	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	148		10 - 139	98%	SPK: 150
13127-88-3	Phenol-d6	134		10 - 134	89%	SPK: 150
4165-60-0	Nitrobenzene-d5	108		49 - 133	108%	SPK: 100
321-60-8	2-Fluorobiphenyl	107		52 - 132	107%	SPK: 100
118-79-6	2,4,6-Tribromophenol	185		44 - 137	123%	SPK: 150
1718-51-0	Terphenyl-d14	87.9		48 - 125	88%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	73600	6.787			
1146-65-2	Naphthalene-d8	300000	8.069			
15067-26-2	Acenaphthene-d10	166000	9.822			
1517-22-2	Phenanthrene-d10	304000	11.31			
1719-03-5	Chrysene-d12	274000	13.957			
1520-96-3	Perylene-d12	217000	15.416			

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Report of Analysis

Client:	RU2 Engineering, LLC			Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR			Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725			SDG No.:	Q1206
Lab Sample ID:	Q1206-04			Matrix:	TCLP
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	100	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	TCLP BNA
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3541				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141422.D	1	01/29/25 12:35	02/04/25 21:19	PB166354

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-08	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141423.D	1	01/29/25 12:35	02/04/25 21:45	PB166354

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	50.0	U	15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	50.0	U	8.40	50.0	ug/L
95-48-7	2-Methylphenol	50.0	U	11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	100	U	11.5	100	ug/L
67-72-1	Hexachloroethane	50.0	U	10.1	50.0	ug/L
98-95-3	Nitrobenzene	50.0	U	12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	50.0	U	12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	50.0	U	8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	50.0	U	10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	50.0	U	15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	50.0	U	11.4	50.0	ug/L
87-86-5	Pentachlorophenol	100	U	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	143		10 - 139	95%	SPK: 150
13127-88-3	Phenol-d6	130		10 - 134	87%	SPK: 150
4165-60-0	Nitrobenzene-d5	110		49 - 133	110%	SPK: 100
321-60-8	2-Fluorobiphenyl	108		52 - 132	108%	SPK: 100
118-79-6	2,4,6-Tribromophenol	186		44 - 137	124%	SPK: 150
1718-51-0	Terphenyl-d14	89.6		48 - 125	90%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	74000	6.786			
1146-65-2	Naphthalene-d8	297000	8.069			
15067-26-2	Acenaphthene-d10	164000	9.822			
1517-22-2	Phenanthrene-d10	294000	11.31			
1719-03-5	Chrysene-d12	269000	13.951			
1520-96-3	Perylene-d12	215000	15.409			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-08	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141423.D	1	01/29/25 12:35	02/04/25 21:45	PB166354

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

QC SUMMARY

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Surrogate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
PB166318TB	PB166318TB	2-Fluorophenol	150	135	90		10	139
		Phenol-d6	150	130	86		10	134
		Nitrobenzene-d5	100	96.2	96		49	133
		2-Fluorobiphenyl	100	97.9	98		52	132
		2,4,6-Tribromophenol	150	142	95		44	137
		Terphenyl-d14	100	96.0	96		48	125
PB166354BL	PB166354BL	2-Fluorophenol	150	125	83		10	139
		Phenol-d6	150	122	81		10	134
		Nitrobenzene-d5	100	85.9	86		49	133
		2-Fluorobiphenyl	100	82.9	83		52	132
		2,4,6-Tribromophenol	150	125	84		44	137
		Terphenyl-d14	100	88.0	88		48	125
PB166354BS	PB166354BS	2-Fluorophenol	150	135	90		10	139
		Phenol-d6	150	128	85		10	134
		Nitrobenzene-d5	100	96.9	97		49	133
		2-Fluorobiphenyl	100	96.5	96		52	132
		2,4,6-Tribromophenol	150	159	106		44	137
		Terphenyl-d14	100	95.9	96		48	125
Q1205-02MS	VNJ-236MS	2-Fluorophenol	150	125	84		10	139
		Phenol-d6	150	121	81		10	134
		Nitrobenzene-d5	100	89.2	89		49	133
		2-Fluorobiphenyl	100	86.4	86		52	132
		2,4,6-Tribromophenol	150	126	84		44	137
		Terphenyl-d14	100	75.4	75		48	125
Q1205-02MSD	VNJ-236MSD	2-Fluorophenol	150	112	75		10	139
		Phenol-d6	150	103	69		10	134
		Nitrobenzene-d5	100	85.5	86		49	133
		2-Fluorobiphenyl	100	80.9	81		52	132
		2,4,6-Tribromophenol	150	119	79		44	137
		Terphenyl-d14	100	69.4	69		48	125
Q1206-04	JPP-20.1-012725	2-Fluorophenol	150	148	98		10	139
		Phenol-d6	150	134	89		10	134
		Nitrobenzene-d5	100	108	108		49	133
		2-Fluorobiphenyl	100	107	107		52	132
		2,4,6-Tribromophenol	150	185	123		44	137
		Terphenyl-d14	100	87.9	88		48	125
Q1206-08	JPP-16.3-012725	2-Fluorophenol	150	143	95		10	139
		Phenol-d6	150	130	87		10	134
		Nitrobenzene-d5	100	110	110		49	133
		2-Fluorobiphenyl	100	108	108		52	132
		2,4,6-Tribromophenol	150	186	124		44	137
		Terphenyl-d14	100	89.6	90		48	125

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: Q1205-02MS		**Client Sample ID: VNJ-236MS**						**DataFile: BF141347.D**			
Pyridine	500	0	240	ug/L	48				10	109	
1,4-Dichlorobenzene	500	0	370	ug/L	74				55	125	
2-Methylphenol	500	0	430	ug/L	86				37	126	
3+4-Methylphenols	500	0	480	ug/L	96				31	127	
Hexachloroethane	500	0	380	ug/L	76				49	110	
Nitrobenzene	500	0	420	ug/L	84				62	112	
Hexachlorobutadiene	500	0	400	ug/L	80				52	125	
2,4,6-Trichlorophenol	500	0	470	ug/L	94				78	112	
2,4,5-Trichlorophenol	500	0	470	ug/L	94				71	111	
2,4-Dinitrotoluene	500	0	450	ug/L	90				50	142	
Hexachlorobenzene	500	0	490	ug/L	98				72	115	
Pentachlorophenol	1000	0	940	ug/L	94				25	139	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: Q1205-02MSD		**Client Sample ID: VNJ-236MSD**						**DataFile: BF141348.D**			
Pyridine	500	0	360	ug/L	72		40	*	10	109	20
1,4-Dichlorobenzene	500	0	360	ug/L	72		3		55	125	20
2-Methylphenol	500	0	370	ug/L	74		15		37	126	20
3+4-Methylphenols	500	0	400	ug/L	80		18		31	127	20
Hexachloroethane	500	0	360	ug/L	72		5		49	110	20
Nitrobenzene	500	0	360	ug/L	72		15		62	112	20
Hexachlorobutadiene	500	0	360	ug/L	72		11		52	125	20
2,4,6-Trichlorophenol	500	0	390	ug/L	78		19		78	112	20
2,4,5-Trichlorophenol	500	0	380	ug/L	76		21	*	71	111	20
2,4-Dinitrotoluene	500	0	370	ug/L	74		20		50	142	20
Hexachlorobenzene	500	0	410	ug/L	82		18		72	115	20
Pentachlorophenol	1000	0	770	ug/L	77		20		25	139	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8270E **DataFile:** BF141445.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166354BS	Pyridine	50	38.6	ug/L	77				29	97	
	1,4-Dichlorobenzene	50	46.7	ug/L	93				76	103	
	2-Methylphenol	50	45.8	ug/L	92				69	109	
	3+4-Methylphenols	50	48.2	ug/L	96				67	106	
	Hexachloroethane	50	48.9	ug/L	98				76	118	
	Nitrobenzene	50	47.0	ug/L	94				58	106	
	Hexachlorobutadiene	50	49.7	ug/L	99				69	101	
	2,4,6-Trichlorophenol	50	50.3	ug/L	101				61	110	
	2,4,5-Trichlorophenol	50	49.8	ug/L	100				70	106	
	2,4-Dinitrotoluene	50	52.3	ug/L	105				60	115	
	Hexachlorobenzene	50	49.8	ug/L	100				73	106	
	Pentachlorophenol	100	100	ug/L	100				47	114	

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166354BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: BF141337.D Lab Sample ID: PB166354BL

Instrument ID: BNA_F Date Extracted: 01/29/2025

Matrix: (soil/water) water Date Analyzed: 01/31/2025

Level: (low/med) LOW Time Analyzed: 17:46

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VNJ-236MS	Q1205-02MS	BF141347.D	01/31/2025
VNJ-236MSD	Q1205-02MSD	BF141348.D	01/31/2025
JPP-20.1-012725	Q1206-04	BF141422.D	02/04/2025
JPP-16.3-012725	Q1206-08	BF141423.D	02/04/2025
PB166318TB	PB166318TB	BF141448.D	02/05/2025
PB166354BS	PB166354BS	BF141445.D	02/05/2025

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: BF141289.D DFTPP Injection Date: 01/29/2025

Instrument ID: BNA_F DFTPP Injection Time: 10:03

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	41.1
68	Less than 2.0% of mass 69	0.6 (1.7) 1
69	Mass 69 relative abundance	35.1
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	47.1
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	26.5
365	Greater than 1% of mass 198	3.2
441	Present, but less than mass 443	13.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	16.2 (19.4) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC2.5	SSTDICC2.5	BF141290.D	01/29/2025	10:30
SSTDICC005	SSTDICC005	BF141291.D	01/29/2025	10:56
SSTDICC010	SSTDICC010	BF141292.D	01/29/2025	11:49
SSTDICC020	SSTDICC020	BF141293.D	01/29/2025	15:17
SSTDICCC040	SSTDICCC040	BF141294.D	01/29/2025	15:45
SSTDICC050	SSTDICC050	BF141295.D	01/29/2025	16:11
SSTDICC060	SSTDICC060	BF141296.D	01/29/2025	16:38
SSTDICC080	SSTDICC080	BF141297.D	01/29/2025	17:05

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: BF141335.D DFTPP Injection Date: 01/31/2025

Instrument ID: BNA_F DFTPP Injection Time: 16:53

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	46.2
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	38.1
70	Less than 2.0% of mass 69	0.3 (0.7) 1
127	10.0 - 80.0% of mass 198	49
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	25.8
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	11.7
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.6 (19.7) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141336.D	01/31/2025	17:19
PB166354BL	PB166354BL	BF141337.D	01/31/2025	17:46
VNJ-236MS	Q1205-02MS	BF141347.D	01/31/2025	22:16
VNJ-236MSD	Q1205-02MSD	BF141348.D	01/31/2025	22:43

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: BF141409.D DFTPP Injection Date: 02/04/2025

Instrument ID: BNA_F DFTPP Injection Time: 15:32

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	41.7
68	Less than 2.0% of mass 69	0.6 (1.7) 1
69	Mass 69 relative abundance	36.7
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	48.6
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	27.1
365	Greater than 1% of mass 198	3.1
441	Present, but less than mass 443	12.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	15.1 (18.5) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141410.D	02/04/2025	15:58
JPP-20.1-012725	Q1206-04	BF141422.D	02/04/2025	21:19
JPP-16.3-012725	Q1206-08	BF141423.D	02/04/2025	21:45

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: BF141434.D DFTPP Injection Date: 02/05/2025

Instrument ID: BNA_F DFTPP Injection Time: 09:36

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	42.7
68	Less than 2.0% of mass 69	0.7 (2) 1
69	Mass 69 relative abundance	35.1
70	Less than 2.0% of mass 69	0.1 (0.4) 1
127	10.0 - 80.0% of mass 198	48.7
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.4
275	10.0 - 60.0% of mass 198	26.8
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	12.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.5 (19.2) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141435.D	02/05/2025	10:02
PB166354BS	PB166354BS	BF141445.D	02/05/2025	14:24

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: BF141446.D DFTPP Injection Date: 02/05/2025

Instrument ID: BNA_F DFTPP Injection Time: 14:50

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	40.8
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	36.3
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	47.7
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.3
275	10.0 - 60.0% of mass 198	26.9
365	Greater than 1% of mass 198	3.2
441	Present, but less than mass 443	12.6
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.9 (18.2) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF141447.D	02/05/2025	15:16
PB166318TB	PB166318TB	BF141448.D	02/05/2025	15:43

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

EPA Sample No.: SSTDCCC040 Date Analyzed: 01/31/2025

Lab File ID: BF141336.D Time Analyzed: 17:19

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	140033	6.798	558386	8.08	299701	9.84
	UPPER LIMIT	280066	7.298	1116770	8.581	599402	10.339
	LOWER LIMIT	70016.5	6.298	279193	7.581	149851	9.339
	EPA SAMPLE NO.						
01	PB166354BL	138010	6.80	554699	8.08	302564	9.83
02	VNJ-236MS	142849	6.80	564006	8.08	294756	9.84
03	VNJ-236MSD	153925	6.80	605647	8.08	316012	9.84

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

EPA Sample No.: SSTDCCC040 Date Analyzed: 01/31/2025

Lab File ID: BF141336.D Time Analyzed: 17:19

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	493954	11.322	281629	13.968	286623	15.433
	UPPER LIMIT	987908	11.822	563258	14.468	573246	15.933
	LOWER LIMIT	246977	10.822	140815	13.468	143312	14.933
	EPA SAMPLE NO.						
01	PB166354BL	518908	11.32	314414	13.96	272271	15.43
02	VNJ-236MS	431674	11.33	275611	13.97	282127	15.42
03	VNJ-236MSD	461856	11.33	294849	13.97	278615	15.42

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/04/2025

Lab File ID: BF141410.D Time Analyzed: 15:58

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	89972	6.792	349697	8.08	187729	9.83
	UPPER LIMIT	179944	7.292	699394	8.575	375458	10.328
	LOWER LIMIT	44986	6.292	174849	7.575	93864.5	9.328
	EPA SAMPLE NO.						
01	JPP-20.1-012725	73632	6.79	299992	8.07	166149	9.82
02	JPP-16.3-012725	73964	6.79	296677	8.07	164083	9.82

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/04/2025

Lab File ID: BF141410.D Time Analyzed: 15:58

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	325046	11.316	235785	13.963	203742	15.421
	UPPER LIMIT	650092	11.816	471570	14.463	407484	15.921
	LOWER LIMIT	162523	10.816	117893	13.463	101871	14.921
	EPA SAMPLE NO.						
01	JPP-20.1-012725	304189	11.31	273653	13.96	216976	15.42
02	JPP-16.3-012725	294148	11.31	269151	13.95	215370	15.41

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/05/2025

Lab File ID: BF141435.D Time Analyzed: 10:02

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	78610	6.792	301871	8.08	162758	9.83
	UPPER LIMIT	157220	7.292	603742	8.575	325516	10.328
	LOWER LIMIT	39305	6.292	150936	7.575	81379	9.328
	EPA SAMPLE NO.						
01	PB166354BS	68626	6.79	266966	8.08	145742	9.83

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/05/2025

Lab File ID: BF141435.D Time Analyzed: 10:02

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	271503	11.316	168458	13.963	170248	15.427
	UPPER LIMIT	543006	11.816	336916	14.463	340496	15.927
	LOWER LIMIT	135752	10.816	84229	13.463	85124	14.927
	EPA SAMPLE NO.						
01	PB166354BS	256036	11.32	181162	13.96	151994	15.43

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/05/2025

Lab File ID: BF141447.D Time Analyzed: 15:16

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	82418	6.792	312528	8.08	169230	9.83
	UPPER LIMIT	164836	7.292	625056	8.575	338460	10.328
	LOWER LIMIT	41209	6.292	156264	7.575	84615	9.328
	EPA SAMPLE NO.						
01	PB166318TB	70021	6.79	275257	8.07	148604	9.83

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/05/2025

Lab File ID: BF141447.D Time Analyzed: 15:16

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	293274	11.316	189132	13.963	170936	15.421
	UPPER LIMIT	586548	11.816	378264	14.463	341872	15.921
	LOWER LIMIT	146637	10.816	94566	13.463	85468	14.921
	EPA SAMPLE NO.						
01	PB166318TB	258070	11.31	172413	13.96	140295	15.42

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166354BL	SDG No.:	Q1206
Lab Sample ID:	PB166354BL	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141337.D	1	01/29/25 12:35	01/31/25 17:46	PB166354

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	5.00	U	1.60	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	5.00	U	0.84	5.00	ug/L
95-48-7	2-Methylphenol	5.00	U	1.10	5.00	ug/L
65794-96-9	3+4-Methylphenols	10.0	U	1.20	10.0	ug/L
67-72-1	Hexachloroethane	5.00	U	1.00	5.00	ug/L
98-95-3	Nitrobenzene	5.00	U	1.30	5.00	ug/L
87-68-3	Hexachlorobutadiene	5.00	U	1.30	5.00	ug/L
88-06-2	2,4,6-Trichlorophenol	5.00	U	0.89	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	5.00	U	1.00	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	5.00	U	1.50	5.00	ug/L
118-74-1	Hexachlorobenzene	5.00	U	1.10	5.00	ug/L
87-86-5	Pentachlorophenol	10.0	U	1.90	10.0	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	125		10 - 139	83%	SPK: 150
13127-88-3	Phenol-d6	122		10 - 134	81%	SPK: 150
4165-60-0	Nitrobenzene-d5	85.9		49 - 133	86%	SPK: 100
321-60-8	2-Fluorobiphenyl	82.9		52 - 132	83%	SPK: 100
118-79-6	2,4,6-Tribromophenol	125		44 - 137	84%	SPK: 150
1718-51-0	Terphenyl-d14	88.0		48 - 125	88%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	138000	6.799			
1146-65-2	Naphthalene-d8	555000	8.075			
15067-26-2	Acenaphthene-d10	303000	9.834			
1517-22-2	Phenanthrene-d10	519000	11.322			
1719-03-5	Chrysene-d12	314000	13.963			
1520-96-3	Perylene-d12	272000	15.427			

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Report of Analysis

Client:	RU2 Engineering, LLC			Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR			Date Received:	
Client Sample ID:	PB166354BL			SDG No.:	Q1206
Lab Sample ID:	PB166354BL			Matrix:	TCLP
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	TCLP BNA
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141337.D	1	01/29/25 12:35	01/31/25 17:46	PB166354

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166354BS	SDG No.:	Q1206
Lab Sample ID:	PB166354BS	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141445.D	1	01/29/25 12:35	02/05/25 14:24	PB166354

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	38.6		1.60	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	46.7		0.84	5.00	ug/L
95-48-7	2-Methylphenol	45.8		1.10	5.00	ug/L
65794-96-9	3+4-Methylphenols	48.2		1.20	10.0	ug/L
67-72-1	Hexachloroethane	48.9		1.00	5.00	ug/L
98-95-3	Nitrobenzene	47.0		1.30	5.00	ug/L
87-68-3	Hexachlorobutadiene	49.7		1.30	5.00	ug/L
88-06-2	2,4,6-Trichlorophenol	50.3		0.89	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	49.8		1.00	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	52.3		1.50	5.00	ug/L
118-74-1	Hexachlorobenzene	49.8		1.10	5.00	ug/L
87-86-5	Pentachlorophenol	100	E	1.90	10.0	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	135		10 - 139	90%	SPK: 150
13127-88-3	Phenol-d6	128		10 - 134	85%	SPK: 150
4165-60-0	Nitrobenzene-d5	96.9		49 - 133	97%	SPK: 100
321-60-8	2-Fluorobiphenyl	96.5		52 - 132	96%	SPK: 100
118-79-6	2,4,6-Tribromophenol	159		44 - 137	106%	SPK: 150
1718-51-0	Terphenyl-d14	95.9		48 - 125	96%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	68600	6.787			
1146-65-2	Naphthalene-d8	267000	8.075			
15067-26-2	Acenaphthene-d10	146000	9.828			
1517-22-2	Phenanthrene-d10	256000	11.316			
1719-03-5	Chrysene-d12	181000	13.963			
1520-96-3	Perylene-d12	152000	15.427			

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Report of Analysis

Client:	RU2 Engineering, LLC			Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR			Date Received:	
Client Sample ID:	PB166354BS			SDG No.:	Q1206
Lab Sample ID:	PB166354BS			Matrix:	TCLP
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	TCLP BNA
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141445.D	1	01/29/25 12:35	02/05/25 14:24	PB166354

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	VNJ-236MS	SDG No.:	Q1206
Lab Sample ID:	Q1205-02MS	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141347.D	1	01/29/25 12:35	01/31/25 22:16	PB166354

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	240		15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	370		8.40	50.0	ug/L
95-48-7	2-Methylphenol	430		11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	480		11.5	100	ug/L
67-72-1	Hexachloroethane	380		10.1	50.0	ug/L
98-95-3	Nitrobenzene	420		12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	400		12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	470		8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	470		10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	450		15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	490		11.4	50.0	ug/L
87-86-5	Pentachlorophenol	940	E	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	125		10 - 139	84%	SPK: 150
13127-88-3	Phenol-d6	121		10 - 134	81%	SPK: 150
4165-60-0	Nitrobenzene-d5	89.2		49 - 133	89%	SPK: 100
321-60-8	2-Fluorobiphenyl	86.4		52 - 132	86%	SPK: 100
118-79-6	2,4,6-Tribromophenol	126		44 - 137	84%	SPK: 150
1718-51-0	Terphenyl-d14	75.4		48 - 125	75%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	143000	6.798			
1146-65-2	Naphthalene-d8	564000	8.081			
15067-26-2	Acenaphthene-d10	295000	9.839			
1517-22-2	Phenanthrene-d10	432000	11.327			
1719-03-5	Chrysene-d12	276000	13.968			
1520-96-3	Perylene-d12	282000	15.421			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	VNJ-236MS	SDG No.:	Q1206
Lab Sample ID:	Q1205-02MS	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141347.D	1	01/29/25 12:35	01/31/25 22:16	PB166354

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
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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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	VNJ-236MSD	SDG No.:	Q1206
Lab Sample ID:	Q1205-02MSD	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141348.D	1	01/29/25 12:35	01/31/25 22:43	PB166354

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	360		15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	360		8.40	50.0	ug/L
95-48-7	2-Methylphenol	370		11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	400		11.5	100	ug/L
67-72-1	Hexachloroethane	360		10.1	50.0	ug/L
98-95-3	Nitrobenzene	360		12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	360		12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	390		8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	380		10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	370		15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	410		11.4	50.0	ug/L
87-86-5	Pentachlorophenol	770		18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	112		10 - 139	75%	SPK: 150
13127-88-3	Phenol-d6	103		10 - 134	69%	SPK: 150
4165-60-0	Nitrobenzene-d5	85.5		49 - 133	86%	SPK: 100
321-60-8	2-Fluorobiphenyl	80.9		52 - 132	81%	SPK: 100
118-79-6	2,4,6-Tribromophenol	119		44 - 137	79%	SPK: 150
1718-51-0	Terphenyl-d14	69.4		48 - 125	69%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	154000	6.798			
1146-65-2	Naphthalene-d8	606000	8.081			
15067-26-2	Acenaphthene-d10	316000	9.839			
1517-22-2	Phenanthrene-d10	462000	11.327			
1719-03-5	Chrysene-d12	295000	13.968			
1520-96-3	Perylene-d12	279000	15.421			

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	VNJ-236MSD	SDG No.:	Q1206
Lab Sample ID:	Q1205-02MSD	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF141348.D	1	01/29/25 12:35	01/31/25 22:43	PB166354

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CALIBRATION SUMMARY

Response Factor Report BNA_F

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF012925.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Wed Jan 29 17:41:25 2025
Response Via : Initial Calibration

Calibration Files
2.5 =BF141290.D 5 =BF141291.D 10 =BF141292.D 20 =BF141293.D 40 =BF141294.D 50 =BF141295.D 60 =BF141296.D 80 =BF1412
97.D

		Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------									
2)		1,4-Dioxane		0.600	0.603	0.597	0.538	0.574	0.569	0.530	0.573	5.19
3)		Pyridine		1.364	1.410	1.450	1.320	1.394	1.404	1.322	1.380	3.46
4)		n-Nitrosodimet...		0.770	0.789	0.824	0.751	0.803	0.813	0.771	0.789	3.32
5)	S	2-Fluorophenol		1.428	1.391	1.402	1.201	1.267	1.268	1.163	1.303	8.03
6)		Aniline		1.480	1.511	1.542	1.359	1.404	1.350	1.174	1.403	8.93
7)	S	Phenol-d6		1.841	1.800	1.743	1.520	1.611	1.611	1.475	1.657	8.47
8)		2-Chlorophenol		1.535	1.510	1.487	1.297	1.353	1.355	1.237	1.396	8.24
9)		Benzaldehyde		1.166	1.130	1.104	0.895	0.861	0.837	0.727	0.960	17.81
10)	C	Phenol		1.938	1.879	1.884	1.643	1.696	1.704	1.554	1.757	8.22
11)		bis(2-Chloroet...		1.478	1.413	1.426	1.232	1.299	1.329	1.253	1.347	6.93
12)		1,3-Dichlorobe...		1.697	1.668	1.648	1.429	1.499	1.474	1.362	1.540	8.49
13)	C	1,4-Dichlorobe...		1.719	1.663	1.659	1.432	1.502	1.487	1.365	1.547	8.66
14)		1,2-Dichlorobe...		1.629	1.609	1.565	1.338	1.392	1.366	1.240	1.448	10.46
15)		Benzyl Alcohol		1.138	1.201	1.216	1.082	1.137	1.125	1.028	1.133	5.72
16)		2,2'-oxybis(1-...		2.533	2.484	2.495	2.189	2.296	2.287	2.112	2.342	7.01
17)		2-Methylphenol		1.237	1.175	1.210	1.042	1.107	1.120	1.053	1.135	6.62
18)		Hexachloroethane		0.609	0.612	0.610	0.530	0.560	0.561	0.513	0.571	7.09
19)	P	n-Nitroso-di-n...	1.084	1.052	1.060	1.032	0.895	0.936	0.945	0.874	0.985	8.27
20)		3+4-Methylphenols		1.561	1.564	1.502	1.287	1.331	1.323	1.186	1.393	10.65
21)	I	Naphthalene-d8	----------ISTD----------									
22)		Acetophenone		0.547	0.523	0.517	0.436	0.449	0.443	0.412	0.475	11.06
23)	S	Nitrobenzene-d5		0.405	0.396	0.406	0.354	0.373	0.373	0.349	0.379	6.14
24)		Nitrobenzene		0.418	0.411	0.420	0.371	0.385	0.389	0.358	0.393	6.14
25)		Isophorone		0.698	0.685	0.694	0.611	0.640	0.648	0.615	0.656	5.62
26)	C	2-Nitrophenol		0.176	0.187	0.199	0.177	0.189	0.191	0.179	0.185	4.66
27)		2,4-Dimethylph...		0.244	0.239	0.249	0.224	0.235	0.238	0.223	0.236	4.12
28)		bis(2-Chloroet...		0.454	0.440	0.445	0.389	0.405	0.411	0.384	0.418	6.70
29)	C	2,4-Dichloroph...		0.307	0.300	0.312	0.271	0.284	0.286	0.262	0.289	6.39
30)		1,2,4-Trichlor...		0.372	0.354	0.354	0.304	0.318	0.316	0.292	0.330	9.11
31)		Naphthalene		1.193	1.145	1.140	0.976	1.020	1.002	0.919	1.057	9.72
32)		Benzoic acid		0.140	0.178	0.238	0.221	0.241	0.259	0.242	0.217	19.59
33)		4-Chloroaniline		0.382	0.378	0.391	0.338	0.351	0.349	0.318	0.358	7.38
34)	C	Hexachlorobuta...		0.209	0.207	0.209	0.179	0.190	0.187	0.174	0.194	7.52
35)		Caprolactam		0.097	0.095	0.102	0.089	0.094	0.096	0.089	0.094	4.89
36)	C	4-Chloro-3-met...		0.328	0.328	0.334	0.287	0.301	0.307	0.283	0.310	6.71
37)		2-Methylnaphth...		0.755	0.732	0.724	0.624	0.643	0.639	0.583	0.672	9.68
38)		1-Methylnaphth...		0.757	0.723	0.711	0.606	0.625	0.623	0.573	0.660	10.56

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF012925.M

39)	I	Acenaphthene-d10	----------ISTD----------								
40)		1,2,4,5-Tetrac...	0.615	0.613	0.603	0.534	0.555	0.551	0.512	0.569	7.25
41)	P	Hexachlorocycl...	0.136	0.157	0.174	0.172	0.182	0.181	0.174	0.168	9.69
42)	S	2,4,6-Tribromo...	0.198	0.198	0.198	0.173	0.175	0.179	0.163	0.183	7.98
43)	C	2,4,6-Trichlor...	0.381	0.380	0.390	0.364	0.375	0.369	0.347	0.372	3.79
44)		2,4,5-Trichlor...	0.429	0.425	0.429	0.377	0.391	0.403	0.383	0.405	5.50
45)	S	2-Fluorobiphenyl	1.597	1.464	1.398	1.184	1.202	1.168	1.083	1.299	14.48
46)		1,1'-Biphenyl	1.810	1.692	1.650	1.454	1.492	1.460	1.360	1.560	10.27
47)		2-Chloronaphth...	1.396	1.310	1.290	1.122	1.159	1.156	1.077	1.216	9.59
48)		2-Nitroaniline	0.386	0.389	0.407	0.364	0.382	0.385	0.364	0.382	3.91
49)		Acenaphthylene	1.921	1.854	1.815	1.595	1.620	1.612	1.495	1.702	9.38
50)		Dimethylphthalate	1.498	1.456	1.445	1.239	1.299	1.296	1.223	1.351	8.34
51)		2,6-Dinitrotol...	0.333	0.331	0.333	0.296	0.304	0.309	0.290	0.314	5.90
52)	C	Acenaphthene	1.361	1.300	1.291	1.128	1.170	1.180	1.079	1.216	8.46
53)		3-Nitroaniline	0.321	0.330	0.341	0.303	0.293	0.298	0.264	0.307	8.44
54)	P	2,4-Dinitrophenol		0.102	0.136	0.147	0.156	0.169	0.164	0.146	16.81
55)		Dibenzofuran	1.869	1.788	1.755	1.518	1.525	1.539	1.398	1.627	10.72
56)	P	4-Nitrophenol	0.187	0.215	0.251	0.224	0.231	0.244	0.222	0.225	9.21
57)		2,4-Dinitrotol...	0.424	0.431	0.443	0.386	0.392	0.404	0.362	0.406	7.03
58)		Fluorene	1.512	1.410	1.353	1.167	1.164	1.172	1.059	1.262	12.96
59)		2,3,4,6-Tetrac...	0.325	0.343	0.341	0.304	0.305	0.324	0.291	0.319	6.11
60)		Diethylphthalate	1.470	1.417	1.412	1.225	1.238	1.260	1.146	1.310	9.32
61)		4-Chlorophenyl...	0.738	0.694	0.659	0.567	0.565	0.571	0.522	0.617	13.04
62)		4-Nitroaniline	0.297	0.312	0.330	0.290	0.294	0.311	0.281	0.302	5.45
63)		Azobenzene	1.464	1.411	1.390	1.224	1.249	1.276	1.162	1.311	8.51
64)	I	Phenanthrene-d10	----------ISTD----------								
65)		4,6-Dinitro-2-...	0.080	0.105	0.122	0.125	0.131	0.134	0.131	0.118	16.29
66)	c	n-Nitrosodiphe...	0.716	0.684	0.674	0.626	0.622	0.614	0.593	0.647	6.89
67)		4-Bromophenyl-...	0.235	0.234	0.234	0.217	0.218	0.220	0.210	0.224	4.57
68)		Hexachlorobenzene	0.257	0.250	0.248	0.229	0.229	0.232	0.217	0.238	6.07
69)		Atrazine	0.211	0.202	0.213	0.213	0.215	0.235	0.224	0.216	4.86
70)	C	Pentachlorophenol	0.112	0.136	0.146	0.143	0.146	0.149	0.141	0.139	9.08
71)		Phenanthrene	1.233	1.170	1.142	1.025	1.008	1.010	0.937	1.075	9.96
72)		Anthracene	1.179	1.146	1.120	1.009	0.999	0.996	0.924	1.053	9.00
73)		Carbazole	1.019	1.014	1.021	0.899	0.878	0.900	0.807	0.934	9.04
74)		Di-n-butylphth...	1.244	1.239	1.245	1.086	1.051	1.081	0.978	1.132	9.65
75)	C	Fluoranthene	1.195	1.202	1.196	1.013	0.963	0.982	0.880	1.062	12.57
76)	I	Chrysene-d12	----------ISTD----------								
77)		Benzidine	0.882	0.480	0.210	0.730	0.906	0.724	0.556	0.641	38.34
78)		Pyrene	2.178	2.063	2.002	1.754	1.870	1.898	1.674	1.920	9.14
79)	S	Terphenyl-d14	1.543	1.411	1.370	1.183	1.238	1.230	1.103	1.297	11.68
80)		Butylbenzylpht...	0.686	0.690	0.739	0.626	0.657	0.688	0.610	0.671	6.49
81)		Benzo(a)anthra...	1.532	1.410	1.453	1.270	1.375	1.355	1.265	1.380	6.96
82)		3,3'-Dichlorob...	0.412	0.422	0.427	0.418	0.478	0.466	0.449	0.439	5.82
83)		Chrysene	1.332	1.325	1.342	1.136	1.267	1.243	1.210	1.265	5.98
84)		Bis(2-ethylhex...	0.882	0.903	0.956	0.785	0.831	0.834	0.764	0.851	7.93
85)	c	Di-n-octyl pht...	1.194	1.267	1.438	1.230	1.365	1.406	1.352	1.321	6.98

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF012925.M

86)	I	Perylene-d12	----------ISTD----------							
87)		Indeno(1,2,3-c...	1.217	1.268	1.337	1.257	1.348	1.322	1.287	1.291	3.67
88)		Benzo(b)fluora...	1.358	1.382	1.328	1.120	1.265	1.218	1.136	1.258	8.33
89)		Benzo(k)fluora...	1.167	1.114	1.274	1.083	1.049	1.060	1.054	1.114	7.32
90)	C	Benzo(a)pyrene	1.118	1.059	1.131	1.011	1.061	1.051	1.010	1.063	4.44
91)		Dibenzo(a,h)an...	0.966	1.001	1.101	1.016	1.087	1.071	1.028	1.039	4.73
92)		Benzo(g,h,i)pe...	1.011	1.075	1.139	1.043	1.123	1.105	1.063	1.080	4.22

(#) = Out of Range

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

Instrument ID: BNA_F Calibration Date/Time: 01/31/2025 17:19

Lab File ID: BF141336.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.380	1.326		-3.9	
2-Fluorophenol	1.303	1.218		-6.5	
Phenol-d6	1.657	1.534		-7.4	
1,4-Dichlorobenzene	1.547	1.437		-7.2	20.0
2-Methylphenol	1.135	1.062		-6.4	
3+4-Methylphenols	1.393	1.318		-5.4	
Nitrobenzene-d5	0.379	0.348		-8.2	
Hexachloroethane	0.571	0.536		-6.1	
Nitrobenzene	0.393	0.365		-7.1	
Hexachlorobutadiene	0.194	0.179		-7.7	20.0
2,4,6-Trichlorophenol	0.372	0.365		-1.9	20.0
2-Fluorobiphenyl	1.299	1.148		-11.6	
2,4,5-Trichlorophenol	0.405	0.381		-5.9	
2,4-Dinitrotoluene	0.406	0.427		5.2	
2,4,6-Tribromophenol	0.183	0.177		-3.3	
Hexachlorobenzene	0.238	0.232		-2.5	
Pentachlorophenol	0.139	0.186		33.8	20.0
Terphenyl-d14	1.297	1.177		-9.3	

All other compounds must meet a minimum RRF of 0.010.

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

Instrument ID: BNA_F Calibration Date/Time: 02/04/2025 15:58

Lab File ID: BF141410.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.380	1.264		-8.4	
2-Fluorophenol	1.303	1.284		-1.5	
Phenol-d6	1.657	1.572		-5.1	
1,4-Dichlorobenzene	1.547	1.553		0.4	20.0
2-Methylphenol	1.135	1.080		-4.8	
3+4-Methylphenols	1.393	1.396		0.2	
Nitrobenzene-d5	0.379	0.388		2.4	
Hexachloroethane	0.571	0.577		1.1	
Nitrobenzene	0.393	0.393		0.0	
Hexachlorobutadiene	0.194	0.208		7.2	20.0
2,4,6-Trichlorophenol	0.372	0.385		3.5	20.0
2-Fluorobiphenyl	1.299	1.327		2.2	
2,4,5-Trichlorophenol	0.405	0.420		3.7	
2,4-Dinitrotoluene	0.406	0.439		8.1	
2,4,6-Tribromophenol	0.183	0.206		12.6	
Hexachlorobenzene	0.238	0.248		4.2	
Pentachlorophenol	0.139	0.158		13.7	20.0
Terphenyl-d14	1.297	1.228		-5.3	

All other compounds must meet a minimum RRF of 0.010.

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

Instrument ID: BNA_F Calibration Date/Time: 02/05/2025 10:02

Lab File ID: BF141435.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.380	1.235		-10.5	
2-Fluorophenol	1.303	1.295		-0.6	
Phenol-d6	1.657	1.600		-3.4	
1,4-Dichlorobenzene	1.547	1.578		2.0	20.0
2-Methylphenol	1.135	1.083		-4.6	
3+4-Methylphenols	1.393	1.395		0.1	
Nitrobenzene-d5	0.379	0.397		4.5	
Hexachloroethane	0.571	0.582		1.9	
Nitrobenzene	0.393	0.403		2.5	
Hexachlorobutadiene	0.194	0.212		9.3	20.0
2,4,6-Trichlorophenol	0.372	0.385		3.5	20.0
2-Fluorobiphenyl	1.299	1.338		3.0	
2,4,5-Trichlorophenol	0.405	0.418		3.2	
2,4-Dinitrotoluene	0.406	0.428		5.4	
2,4,6-Tribromophenol	0.183	0.197		7.7	
Hexachlorobenzene	0.238	0.246		3.4	
Pentachlorophenol	0.139	0.151		8.6	20.0
Terphenyl-d14	1.297	1.290		-0.5	

All other compounds must meet a minimum RRF of 0.010.

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

Instrument ID: BNA_F Calibration Date/Time: 02/05/2025 15:16

Lab File ID: BF141447.D Init. Calib. Date(s): 01/29/2025 01/29/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 10:30 17:05

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.380	1.287		-6.7	
2-Fluorophenol	1.303	1.309		0.5	
Phenol-d6	1.657	1.599		-3.5	
1,4-Dichlorobenzene	1.547	1.560		0.8	20.0
2-Methylphenol	1.135	1.070		-5.7	
3+4-Methylphenols	1.393	1.393		0.0	
Nitrobenzene-d5	0.379	0.401		5.8	
Hexachloroethane	0.571	0.587		2.8	
Nitrobenzene	0.393	0.410		4.3	
Hexachlorobutadiene	0.194	0.212		9.3	20.0
2,4,6-Trichlorophenol	0.372	0.384		3.2	20.0
2-Fluorobiphenyl	1.299	1.332		2.5	
2,4,5-Trichlorophenol	0.405	0.414		2.2	
2,4-Dinitrotoluene	0.406	0.439		8.1	
2,4,6-Tribromophenol	0.183	0.203		10.9	
Hexachlorobenzene	0.238	0.245		2.9	
Pentachlorophenol	0.139	0.152		9.4	20.0
Terphenyl-d14	1.297	1.301		0.3	

All other compounds must meet a minimum RRF of 0.010.

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LAB CHRONICLE

OrderID:	Q1206	**OrderDate:**	1/28/2025 11:18:51 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1206-01	**JPP-20.1-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Diesel Range Organics	8015D		01/29/25	01/30/25	
			Gasoline Range Organics	8015D			01/29/25	
Q1206-03	**JPP-20.1-012725**	**SOIL**			**01/27/25**			**01/28/25**
			PCB	8082A		01/29/25	01/29/25	
			Pesticide-TCL	8081B		01/29/25	01/30/25	
Q1206-04	**JPP-20.1-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP Herbicide	8151A		01/29/25	01/30/25	
			TCLP Pesticide	8081B		01/29/25	02/03/25	
Q1206-05	**JPP-16.3-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Diesel Range Organics	8015D		01/29/25	01/30/25	
			Gasoline Range Organics	8015D			01/29/25	
Q1206-07	**JPP-16.3-012725**	**SOIL**			**01/27/25**			**01/28/25**
			PCB	8082A		01/29/25	01/29/25	
			Pesticide-TCL	8081B		01/29/25	02/04/25	
Q1206-08	**JPP-16.3-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP Herbicide	8151A		01/29/25	01/30/25	
			TCLP Pesticide	8081B		01/29/25	01/30/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1206 **Order ID:** Q1206

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bri

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : JPP-20.1-012725								
Q1206-03	JPP-20.1-012725	SOIL	Aldrin	0.54	JP	0.16	2.00	ug/kg
Q1206-03	JPP-20.1-012725	SOIL	4,4-DDE	3.30		0.15	2.00	ug/kg
Q1206-03	JPP-20.1-012725	SOIL	4,4-DDD	0.88	JP	0.22	2.00	ug/kg
Q1206-03	JPP-20.1-012725	SOIL	4,4-DDT	7.90		0.20	2.00	ug/kg
			Total Concentration:	**12.620**				
Client ID : JPP-16.3-012725								
Q1206-07	JPP-16.3-012725	SOIL	Heptachlor	0.25	J	0.20	2.00	ug/kg
Q1206-07	JPP-16.3-012725	SOIL	Heptachlor epoxide	0.70	JP	0.27	2.00	ug/kg
Q1206-07	JPP-16.3-012725	SOIL	4,4-DDE	3.10		0.15	2.00	ug/kg
Q1206-07	JPP-16.3-012725	SOIL	Endrin	0.84	JP	0.19	2.00	ug/kg
Q1206-07	JPP-16.3-012725	SOIL	4,4-DDT	1.90	JP	0.20	2.00	ug/kg
Q1206-07	JPP-16.3-012725	SOIL	alpha-Chlordane	2.40	P	0.20	2.00	ug/kg
Q1206-07	JPP-16.3-012725	SOIL	gamma-Chlordane	1.40	JP	0.22	2.00	ug/kg
			Total Concentration:	**10.590**				

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-03	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	85.5 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
PL093897.D	1	01/29/25 08:55	01/30/25 16:24	PB166334

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	2.00	U	0.21	2.00	ug/kg
319-85-7	beta-BHC	2.00	U	0.57	2.00	ug/kg
319-86-8	delta-BHC	2.00	U	0.55	2.00	ug/kg
58-89-9	gamma-BHC (Lindane)	2.00	U	0.22	2.00	ug/kg
76-44-8	Heptachlor	2.00	U	0.20	2.00	ug/kg
309-00-2	Aldrin	0.54	JP	0.16	2.00	ug/kg
1024-57-3	Heptachlor epoxide	2.00	U	0.27	2.00	ug/kg
959-98-8	Endosulfan I	2.00	U	0.20	2.00	ug/kg
60-57-1	Dieldrin	2.00	U	0.18	2.00	ug/kg
72-55-9	4,4-DDE	3.30		0.15	2.00	ug/kg
72-20-8	Endrin	2.00	U	0.19	2.00	ug/kg
33213-65-9	Endosulfan II	2.00	U	0.35	2.00	ug/kg
72-54-8	4,4-DDD	0.88	JP	0.22	2.00	ug/kg
1031-07-8	Endosulfan Sulfate	2.00	U	0.15	2.00	ug/kg
50-29-3	4,4-DDT	7.90		0.20	2.00	ug/kg
72-43-5	Methoxychlor	2.00	U	0.44	2.00	ug/kg
53494-70-5	Endrin ketone	2.00	U	0.26	2.00	ug/kg
7421-93-4	Endrin aldehyde	2.00	U	0.46	2.00	ug/kg
5103-71-9	alpha-Chlordane	2.00	U	0.20	2.00	ug/kg
5103-74-2	gamma-Chlordane	2.00	U	0.22	2.00	ug/kg
8001-35-2	Toxaphene	38.5	U	6.10	38.5	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	13.9		10 - 148	69%	SPK: 20
877-09-8	Tetrachloro-m-xylene	13.0		10 - 159	65%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-03	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	85.5 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
PL093897.D	1	01/29/25 08:55	01/30/25 16:24	PB166334

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-07	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	84.5 Decanted:
Sample Wt/Vol:	30.04 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL094040.D	1	01/29/25 08:55	02/04/25 09:47	PB166334

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	2.00	U	0.21	2.00	ug/kg
319-85-7	beta-BHC	2.00	U	0.58	2.00	ug/kg
319-86-8	delta-BHC	2.00	U	0.56	2.00	ug/kg
58-89-9	gamma-BHC (Lindane)	2.00	U	0.22	2.00	ug/kg
76-44-8	Heptachlor	0.25	J	0.20	2.00	ug/kg
309-00-2	Aldrin	2.00	U	0.17	2.00	ug/kg
1024-57-3	Heptachlor epoxide	0.70	JP	0.27	2.00	ug/kg
959-98-8	Endosulfan I	2.00	U	0.20	2.00	ug/kg
60-57-1	Dieldrin	2.00	U	0.18	2.00	ug/kg
72-55-9	4,4-DDE	3.10		0.15	2.00	ug/kg
72-20-8	Endrin	0.84	JP	0.19	2.00	ug/kg
33213-65-9	Endosulfan II	2.00	U	0.35	2.00	ug/kg
72-54-8	4,4-DDD	2.00	U	0.22	2.00	ug/kg
1031-07-8	Endosulfan Sulfate	2.00	U	0.15	2.00	ug/kg
50-29-3	4,4-DDT	1.90	JP	0.20	2.00	ug/kg
72-43-5	Methoxychlor	2.00	U	0.45	2.00	ug/kg
53494-70-5	Endrin ketone	2.00	U	0.26	2.00	ug/kg
7421-93-4	Endrin aldehyde	2.00	U	0.46	2.00	ug/kg
5103-71-9	alpha-Chlordane	2.40	P	0.20	2.00	ug/kg
5103-74-2	gamma-Chlordane	1.40	JP	0.22	2.00	ug/kg
8001-35-2	Toxaphene	39.0	U	6.20	39.0	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	28.9		10 - 148	145%	SPK: 20
877-09-8	Tetrachloro-m-xylene	13.8		10 - 159	69%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-07	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	84.5 Decanted:
Sample Wt/Vol:	30.04 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL094040.D	1	01/29/25 08:55	02/04/25 09:47	PB166334

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

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

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

QC SUMMARY

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Surrogate Summary

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PL093725.D	PIBLK-PL093725.D	Decachlorobiphenyl	1	20	22.1	111		43	140
		Tetrachloro-m-xylene	1	20	20.8	104		77	126
		Decachlorobiphenyl	2	20	21.9	109		43	140
		Tetrachloro-m-xylene	2	20	20.5	103		77	126
I.BLK-PL093874.D	PIBLK-PL093874.D	Decachlorobiphenyl	1	20	22.5	113		43	140
		Tetrachloro-m-xylene	1	20	19.9	100		77	126
		Decachlorobiphenyl	2	20	21.0	105		43	140
		Tetrachloro-m-xylene	2	20	18.1	91		77	126
Q1209-05MS	WC-5MS	Decachlorobiphenyl	1	20	22.2	111		10	148
		Tetrachloro-m-xylene	1	20	20.2	101		10	159
		Decachlorobiphenyl	2	20	21.5	107		10	148
		Tetrachloro-m-xylene	2	20	19.4	97		10	159
Q1209-05MSD	WC-5MSD	Decachlorobiphenyl	1	20	22.2	111		10	148
		Tetrachloro-m-xylene	1	20	20.4	102		10	159
		Decachlorobiphenyl	2	20	21.6	108		10	148
		Tetrachloro-m-xylene	2	20	19.8	99		10	159
PB166334BL	PB166334BL	Decachlorobiphenyl	1	20	24.8	124		10	148
		Tetrachloro-m-xylene	1	20	22.0	110		10	159
		Decachlorobiphenyl	2	20	24.4	122		10	148
		Tetrachloro-m-xylene	2	20	20.6	103		10	159
PB166334BS	PB166334BS	Decachlorobiphenyl	1	20	19.6	98		10	148
		Tetrachloro-m-xylene	1	20	16.9	84		10	159
		Decachlorobiphenyl	2	20	19.0	95		10	148
		Tetrachloro-m-xylene	2	20	15.9	80		10	159
I.BLK-PL093887.D	PIBLK-PL093887.D	Decachlorobiphenyl	1	20	21.4	107		43	140
		Tetrachloro-m-xylene	1	20	18.4	92		77	126
		Decachlorobiphenyl	2	20	21.2	106		43	140
		Tetrachloro-m-xylene	2	20	17.5	88		77	126
Q1206-03	JPP-20.1-012725	Decachlorobiphenyl	1	20	13.9	69		10	148
		Tetrachloro-m-xylene	1	20	13.0	65		10	159
		Decachlorobiphenyl	2	20	10.9	54		10	148
		Tetrachloro-m-xylene	2	20	12.7	64		10	159
I.BLK-PL093904.D	PIBLK-PL093904.D	Decachlorobiphenyl	1	20	20.2	101		43	140
		Tetrachloro-m-xylene	1	20	19.1	96		77	126
		Decachlorobiphenyl	2	20	16.0	80		43	140
		Tetrachloro-m-xylene	2	20	18.6	93		77	126
I.BLK-PL094036.D	PIBLK-PL094036.D	Decachlorobiphenyl	1	20	23.0	115		43	140
		Tetrachloro-m-xylene	1	20	22.4	112		77	126
		Decachlorobiphenyl	2	20	23.3	116		43	140
		Tetrachloro-m-xylene	2	20	21.9	110		77	126
Q1206-07	JPP-16.3-012725	Decachlorobiphenyl	1	20	28.9	145		10	148

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Surrogate Summary

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
Q1206-07	JPP-16.3-012725	Tetrachloro-m-xylene	1	20	13.1	66		10	159
		Decachlorobiphenyl	2	20	7.45	37		10	148
		Tetrachloro-m-xylene	2	20	13.8	69		10	159
I.BLK-PL094051.D	PIBLK-PL094051.D	Decachlorobiphenyl	1	20	20.1	101		43	140
		Tetrachloro-m-xylene	1	20	21.9	109		77	126
		Decachlorobiphenyl	2	20	19.6	98		43	140
		Tetrachloro-m-xylene	2	20	21.4	107		77	126

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8081B **DataFile :** PL093882.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**WC-5MS**											
Q1209-05MS	alpha-BHC	18.83	0	17.1	ug/kg	91				60	144	
	beta-BHC	18.83	0	17.9	ug/kg	95				54	143	
	delta-BHC	18.83	0	17.3	ug/kg	92				47	144	
	gamma-BHC (Lindane)	18.83	0	17.1	ug/kg	91				61	140	
	Heptachlor	18.83	0	18.1	ug/kg	96				63	135	
	Aldrin	18.83	0	17.1	ug/kg	91				49	139	
	Heptachlor epoxide	18.83	0	17.8	ug/kg	95				32	180	
	Endosulfan I	18.83	0	18.3	ug/kg	97				56	142	
	Dieldrin	18.83	0	18.1	ug/kg	96				47	161	
	4,4'-DDE	18.83	0	18.9	ug/kg	100				55	136	
	Endrin	18.83	0	18.8	ug/kg	100				57	139	
	Endosulfan II	18.83	0	18.7	ug/kg	99				40	163	
	4,4'-DDD	18.83	0	19.8	ug/kg	105				37	192	
	Endosulfan sulfate	18.83	0	18.7	ug/kg	99				62	139	
	4,4'-DDT	18.83	0	19.8	ug/kg	105				51	146	
	Methoxychlor	18.83	0	20.1	ug/kg	107				54	136	
	Endrin ketone	18.83	0	18.8	ug/kg	100				60	129	
	Endrin aldehyde	18.83	0	17.7	ug/kg	94				59	132	
	alpha-Chlordane	18.83	0	18.4	ug/kg	98				30	192	
	gamma-Chlordane	18.83	0	18.4	ug/kg	98				44	175	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8081B **DataFile :** PL093883.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**WC-5MSD**											
Q1209-05MSD	alpha-BHC	18.85	0	17.4	ug/kg	92		1		60	144	20
	beta-BHC	18.85	0	18.0	ug/kg	95		0		54	143	20
	delta-BHC	18.85	0	17.5	ug/kg	93		1		47	144	20
	gamma-BHC (Lindane)	18.85	0	17.3	ug/kg	92		1		61	140	20
	Heptachlor	18.85	0	18.1	ug/kg	96		0		63	135	20
	Aldrin	18.85	0	17.4	ug/kg	92		1		49	139	20
	Heptachlor epoxide	18.85	0	18.0	ug/kg	95		0		32	180	20
	Endosulfan I	18.85	0	18.5	ug/kg	98		1		56	142	20
	Dieldrin	18.85	0	18.3	ug/kg	97		1		47	161	20
	4,4'-DDE	18.85	0	19.2	ug/kg	102		2		55	136	20
	Endrin	18.85	0	19.2	ug/kg	102		2		57	139	20
	Endosulfan II	18.85	0	18.9	ug/kg	100		1		40	163	20
	4,4'-DDD	18.85	0	20.1	ug/kg	107		2		37	192	20
	Endosulfan sulfate	18.85	0	18.9	ug/kg	100		1		62	139	20
	4,4'-DDT	18.85	0	19.9	ug/kg	106		1		51	146	20
	Methoxychlor	18.85	0	20.2	ug/kg	107		0		54	136	20
	Endrin ketone	18.85	0	19.0	ug/kg	101		1		60	129	20
	Endrin aldehyde	18.85	0	17.9	ug/kg	95		1		59	132	20
	alpha-Chlordane	18.85	0	18.6	ug/kg	99		1		30	192	20
	gamma-Chlordane	18.85	0	18.5	ug/kg	98		0		44	175	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8081B **Datafile :** PL093885.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166334BS	alpha-BHC	16.65	14.2	ug/kg	85				84	123	
	beta-BHC	16.65	14.6	ug/kg	88				82	123	
	delta-BHC	16.65	14.3	ug/kg	86				83	126	
	gamma-BHC (Lindane)	16.65	14.1	ug/kg	85				83	125	
	Heptachlor	16.65	15.2	ug/kg	91				83	122	
	Aldrin	16.65	14.3	ug/kg	86				82	124	
	Heptachlor epoxide	16.65	14.7	ug/kg	88				83	120	
	Endosulfan I	16.65	15.1	ug/kg	91				81	124	
	Dieldrin	16.65	15.0	ug/kg	90				85	121	
	4,4'-DDE	16.65	15.7	ug/kg	94				81	123	
	Endrin	16.65	15.1	ug/kg	91				76	130	
	Endosulfan II	16.65	15.6	ug/kg	94				80	125	
	4,4'-DDD	16.65	16.5	ug/kg	99				80	131	
	Endosulfan sulfate	16.65	15.6	ug/kg	94				81	122	
	4,4'-DDT	16.65	16.3	ug/kg	98				70	129	
	Methoxychlor	16.65	16.2	ug/kg	97				60	119	
	Endrin ketone	16.65	15.8	ug/kg	95				77	132	
	Endrin aldehyde	16.65	15.1	ug/kg	91				79	124	
	alpha-Chlordane	16.65	15.1	ug/kg	91				84	120	
	gamma-Chlordane	16.65	15.2	ug/kg	91				83	122	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166334BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

Lab Sample ID: PB166334BL Lab File ID: PL093884.D

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

Sulfur Cleanup: (Y/N) N Date Extracted: 01/29/2025

Date Analyzed (1): 01/30/2025 Date Analyzed (2): 01/30/2025

Time Analyzed (1): 11:51 Time Analyzed (2): 11:51

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

GC Column (1): ZB-MR1 ID: 0.32 (mm) GC Column (2): ZB-MR2 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
WC-5MS	Q1209-05MS	PL093882.D	01/30/2025	01/30/2025
WC-5MSD	Q1209-05MSD	PL093883.D	01/30/2025	01/30/2025
PB166334BS	PB166334BS	PL093885.D	01/30/2025	01/30/2025
JPP-20.1-012725	Q1206-03	PL093897.D	01/30/2025	01/30/2025
JPP-16.3-012725	Q1206-07	PL094040.D	02/04/2025	02/04/2025

COMMENTS:

QC SAMPLE DATA

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166334BL	SDG No.:	Q1206
Lab Sample ID:	PB166334BL	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	100 Decanted:
Sample Wt/Vol:	30.02 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
PL093884.D	1	01/29/25 08:55	01/30/25 11:51	PB166334

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	1.70	U	0.18	1.70	ug/kg
319-85-7	beta-BHC	1.70	U	0.49	1.70	ug/kg
319-86-8	delta-BHC	1.70	U	0.47	1.70	ug/kg
58-89-9	gamma-BHC (Lindane)	1.70	U	0.19	1.70	ug/kg
76-44-8	Heptachlor	1.70	U	0.17	1.70	ug/kg
309-00-2	Aldrin	1.70	U	0.14	1.70	ug/kg
1024-57-3	Heptachlor epoxide	1.70	U	0.23	1.70	ug/kg
959-98-8	Endosulfan I	1.70	U	0.17	1.70	ug/kg
60-57-1	Dieldrin	1.70	U	0.15	1.70	ug/kg
72-55-9	4,4-DDE	1.70	U	0.13	1.70	ug/kg
72-20-8	Endrin	1.70	U	0.16	1.70	ug/kg
33213-65-9	Endosulfan II	1.70	U	0.30	1.70	ug/kg
72-54-8	4,4-DDD	1.70	U	0.19	1.70	ug/kg
1031-07-8	Endosulfan Sulfate	1.70	U	0.13	1.70	ug/kg
50-29-3	4,4-DDT	1.70	U	0.17	1.70	ug/kg
72-43-5	Methoxychlor	1.70	U	0.38	1.70	ug/kg
53494-70-5	Endrin ketone	1.70	U	0.22	1.70	ug/kg
7421-93-4	Endrin aldehyde	1.70	U	0.39	1.70	ug/kg
5103-71-9	alpha-Chlordane	1.70	U	0.17	1.70	ug/kg
5103-74-2	gamma-Chlordane	1.70	U	0.19	1.70	ug/kg
8001-35-2	Toxaphene	33.0	U	5.20	33.0	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	24.8		10 - 148	124%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.0		10 - 159	110%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166334BL	SDG No.:	Q1206
Lab Sample ID:	PB166334BL	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	100 Decanted:
Sample Wt/Vol:	30.02 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
PL093884.D	1	01/29/25 08:55	01/30/25 11:51	PB166334

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/21/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/21/25
Client Sample ID:	PIBLK-PL093725.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PL093725.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
PL093725.D	1		01/21/25	PL012125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.050	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.050	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.050	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.050	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.050	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.050	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.050	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.050	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.050	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.050	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.050	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.050	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.050	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.050	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	22.1		43 - 140	111%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.8		77 - 126	104%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/21/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/21/25
Client Sample ID:	PIBLK-PL093725.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PL093725.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
PL093725.D	1		01/21/25	PL012125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-PL093874.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PL093874.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
PL093874.D	1		01/30/25	pl013025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.050	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.050	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.050	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.050	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.050	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.050	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.050	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.050	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.050	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.050	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.050	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.050	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.050	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.050	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	22.5		43 - 140	113%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.9		77 - 126	100%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-PL093874.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PL093874.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
PL093874.D	1		01/30/25	pl013025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-PL093887.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PL093887.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
PL093887.D	1		01/30/25	pl013025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.050	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.050	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.050	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.050	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.050	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.050	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.050	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.050	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.050	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.050	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.050	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.050	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.050	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.050	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	21.4		43 - 140	107%	SPK: 20
877-09-8	Tetrachloro-m-xylene	18.4		77 - 126	92%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-PL093887.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PL093887.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
PL093887.D	1		01/30/25	pl013025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-PL093904.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PL093904.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
PL093904.D	1		01/30/25	pl013025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.050	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.050	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.050	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.050	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.050	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.050	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.050	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.050	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.050	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.050	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.050	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.050	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.050	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.050	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	20.2		43 - 140	101%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.1		77 - 126	96%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-PL093904.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PL093904.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
PL093904.D	1		01/30/25	pl013025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/04/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/04/25
Client Sample ID:	PIBLK-PL094036.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PL094036.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
PL094036.D	1		02/04/25	pl020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.050	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.050	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.050	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.050	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.050	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.050	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.050	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.050	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.050	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.050	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.050	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.050	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.050	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.050	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	23.3		43 - 140	116%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.4		77 - 126	112%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/04/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/04/25
Client Sample ID:	PIBLK-PL094036.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PL094036.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
PL094036.D	1		02/04/25	pl020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

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

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

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/04/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/04/25
Client Sample ID:	PIBLK-PL094051.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PL094051.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
PL094051.D	1		02/04/25	pl020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.050	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.050	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.050	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.050	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.050	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.050	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.050	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.050	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.050	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.050	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.050	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.050	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.050	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.050	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	20.1		43 - 140	101%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.9		77 - 126	109%	SPK: 20

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/04/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/04/25
Client Sample ID:	PIBLK-PL094051.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PL094051.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
PL094051.D	1		02/04/25	pl020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166334BS	SDG No.:	Q1206
Lab Sample ID:	PB166334BS	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
PL093885.D	1	01/29/25 08:55	01/30/25 12:05	PB166334

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	14.2		0.18	1.70	ug/kg
319-85-7	beta-BHC	14.6		0.49	1.70	ug/kg
319-86-8	delta-BHC	14.3		0.47	1.70	ug/kg
58-89-9	gamma-BHC (Lindane)	14.1		0.19	1.70	ug/kg
76-44-8	Heptachlor	15.2		0.17	1.70	ug/kg
309-00-2	Aldrin	14.3		0.14	1.70	ug/kg
1024-57-3	Heptachlor epoxide	14.7		0.23	1.70	ug/kg
959-98-8	Endosulfan I	15.1		0.17	1.70	ug/kg
60-57-1	Dieldrin	15.0		0.15	1.70	ug/kg
72-55-9	4,4-DDE	15.7		0.13	1.70	ug/kg
72-20-8	Endrin	15.1		0.16	1.70	ug/kg
33213-65-9	Endosulfan II	15.6		0.30	1.70	ug/kg
72-54-8	4,4-DDD	16.5		0.19	1.70	ug/kg
1031-07-8	Endosulfan Sulfate	15.6		0.13	1.70	ug/kg
50-29-3	4,4-DDT	16.3		0.17	1.70	ug/kg
72-43-5	Methoxychlor	16.2		0.38	1.70	ug/kg
53494-70-5	Endrin ketone	15.8		0.22	1.70	ug/kg
7421-93-4	Endrin aldehyde	15.1		0.39	1.70	ug/kg
5103-71-9	alpha-Chlordane	15.1		0.17	1.70	ug/kg
5103-74-2	gamma-Chlordane	15.2		0.19	1.70	ug/kg
8001-35-2	Toxaphene	33.0	U	5.20	33.0	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	19.6		10 - 148	98%	SPK: 20
877-09-8	Tetrachloro-m-xylene	16.9		10 - 159	84%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166334BS	SDG No.:	Q1206
Lab Sample ID:	PB166334BS	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
PL093885.D	1	01/29/25 08:55	01/30/25 12:05	PB166334

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	WC-5MS	SDG No.:	Q1206
Lab Sample ID:	Q1209-05MS	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	88.4 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
PL093882.D	1	01/29/25 08:55	01/30/25 11:25	PB166334

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	17.1		0.20	1.90	ug/kg
319-85-7	beta-BHC	17.9		0.55	1.90	ug/kg
319-86-8	delta-BHC	17.3		0.53	1.90	ug/kg
58-89-9	gamma-BHC (Lindane)	17.1		0.21	1.90	ug/kg
76-44-8	Heptachlor	18.1		0.19	1.90	ug/kg
309-00-2	Aldrin	17.1		0.16	1.90	ug/kg
1024-57-3	Heptachlor epoxide	17.8		0.26	1.90	ug/kg
959-98-8	Endosulfan I	18.3		0.19	1.90	ug/kg
60-57-1	Dieldrin	18.1		0.17	1.90	ug/kg
72-55-9	4,4-DDE	18.9		0.15	1.90	ug/kg
72-20-8	Endrin	18.8		0.18	1.90	ug/kg
33213-65-9	Endosulfan II	18.7		0.34	1.90	ug/kg
72-54-8	4,4-DDD	19.8		0.21	1.90	ug/kg
1031-07-8	Endosulfan Sulfate	18.7		0.15	1.90	ug/kg
50-29-3	4,4-DDT	19.8		0.19	1.90	ug/kg
72-43-5	Methoxychlor	20.1		0.43	1.90	ug/kg
53494-70-5	Endrin ketone	18.8		0.25	1.90	ug/kg
7421-93-4	Endrin aldehyde	17.7		0.44	1.90	ug/kg
5103-71-9	alpha-Chlordane	18.4		0.19	1.90	ug/kg
5103-74-2	gamma-Chlordane	18.4		0.21	1.90	ug/kg
8001-35-2	Toxaphene	37.3	U	5.90	37.3	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	22.2		10 - 148	111%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.2		10 - 159	101%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	WC-5MS	SDG No.:	Q1206
Lab Sample ID:	Q1209-05MS	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	88.4 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
PL093882.D	1	01/29/25 08:55	01/30/25 11:25	PB166334

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	WC-5MSD	SDG No.:	Q1206
Lab Sample ID:	Q1209-05MSD	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	88.4 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
PL093883.D	1	01/29/25 08:55	01/30/25 11:38	PB166334

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
319-84-6	alpha-BHC	17.4		0.20	1.90	ug/kg
319-85-7	beta-BHC	18.0		0.55	1.90	ug/kg
319-86-8	delta-BHC	17.5		0.53	1.90	ug/kg
58-89-9	gamma-BHC (Lindane)	17.3		0.21	1.90	ug/kg
76-44-8	Heptachlor	18.1		0.19	1.90	ug/kg
309-00-2	Aldrin	17.4		0.16	1.90	ug/kg
1024-57-3	Heptachlor epoxide	18.0		0.26	1.90	ug/kg
959-98-8	Endosulfan I	18.5		0.19	1.90	ug/kg
60-57-1	Dieldrin	18.3		0.17	1.90	ug/kg
72-55-9	4,4-DDE	19.2		0.15	1.90	ug/kg
72-20-8	Endrin	19.2		0.18	1.90	ug/kg
33213-65-9	Endosulfan II	18.9		0.34	1.90	ug/kg
72-54-8	4,4-DDD	20.1		0.21	1.90	ug/kg
1031-07-8	Endosulfan Sulfate	18.9		0.15	1.90	ug/kg
50-29-3	4,4-DDT	19.9		0.19	1.90	ug/kg
72-43-5	Methoxychlor	20.2		0.43	1.90	ug/kg
53494-70-5	Endrin ketone	19.0		0.25	1.90	ug/kg
7421-93-4	Endrin aldehyde	17.9		0.44	1.90	ug/kg
5103-71-9	alpha-Chlordane	18.6		0.19	1.90	ug/kg
5103-74-2	gamma-Chlordane	18.5		0.21	1.90	ug/kg
8001-35-2	Toxaphene	37.3	U	5.90	37.3	ug/kg
SURROGATES						
2051-24-3	Decachlorobiphenyl	22.2		10 - 148	111%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.4		10 - 159	102%	SPK: 20

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	WC-5MSD	SDG No.:	Q1206
Lab Sample ID:	Q1209-05MSD	Matrix:	SOIL
Analytical Method:	SW8081	% Solid:	88.4 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
PL093883.D	1	01/29/25 08:55	01/30/25 11:38	PB166334

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
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J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
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D = Dilution
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() = Laboratory InHouse Limit

CALIBRATION SUMMARY

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_L **Calibration Date(s):** 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

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

LAB FILE ID: RT 100 = PL093728.D RT 075 = PL093729.D

RT 050 = PL093730.D RT 025 = PL093731.D RT 005 = PL093732.D

COMPOUND	RT 100	RT 075	RT 050	RT 025	RT 005	MEAN RT	RT WINDOW FROM	RT WINDOW TO
4,4'-DDD	6.71	6.71	6.71	6.71	6.71	6.71	6.61	6.81
4,4'-DDE	6.19	6.19	6.19	6.19	6.19	6.19	6.09	6.29
4,4'-DDT	7.02	7.02	7.02	7.02	7.02	7.02	6.92	7.12
Aldrin	5.26	5.26	5.26	5.26	5.26	5.26	5.16	5.36
alpha-BHC	4.00	4.00	4.00	4.00	3.99	3.99	3.89	4.09
alpha-Chlordane	6.02	6.02	6.02	6.02	6.02	6.02	5.92	6.12
beta-BHC	4.53	4.53	4.53	4.53	4.53	4.53	4.43	4.63
Decachlorobiphenyl	9.05	9.05	9.05	9.05	9.05	9.05	8.95	9.15
delta-BHC	4.77	4.77	4.77	4.77	4.77	4.77	4.67	4.87
Dieldrin	6.34	6.34	6.34	6.34	6.34	6.34	6.24	6.44
Endosulfan I	6.07	6.07	6.07	6.07	6.07	6.07	5.97	6.17
Endosulfan II	6.79	6.79	6.79	6.79	6.79	6.79	6.69	6.89
Endosulfan sulfate	7.16	7.16	7.16	7.16	7.16	7.16	7.06	7.26
Endrin	6.57	6.57	6.57	6.57	6.57	6.57	6.47	6.67
Endrin aldehyde	6.92	6.92	6.92	6.92	6.92	6.92	6.82	7.02
Endrin ketone	7.64	7.64	7.64	7.64	7.64	7.64	7.54	7.74
gamma-BHC (Lindane)	4.33	4.33	4.33	4.33	4.33	4.33	4.23	4.43
gamma-Chlordane	5.94	5.94	5.94	5.94	5.94	5.94	5.84	6.04
Heptachlor	4.92	4.92	4.91	4.91	4.91	4.91	4.81	5.01
Heptachlor epoxide	5.68	5.68	5.68	5.68	5.68	5.68	5.58	5.78
Methoxychlor	7.50	7.50	7.50	7.50	7.50	7.50	7.40	7.60
Tetrachloro-m-xylene	3.54	3.54	3.54	3.54	3.54	3.54	3.44	3.64

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_L **Calibration Date(s):** 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

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

LAB FILE ID: RT 100 = PL093728.D RT 075 = PL093729.D

RT 050 = PL093730.D RT 025 = PL093731.D RT 005 = PL093732.D

COMPOUND	RT 100	RT 075	RT 050	RT 025	RT 005	MEAN RT	RT WINDOW FROM	RT WINDOW TO
4,4'-DDD	5.79	5.78	5.78	5.78	5.78	5.78	5.68	5.88
4,4'-DDE	5.23	5.23	5.23	5.23	5.23	5.23	5.13	5.33
4,4'-DDT	6.04	6.03	6.03	6.03	6.03	6.03	5.93	6.13
Aldrin	4.23	4.23	4.23	4.22	4.22	4.22	4.12	4.32
alpha-BHC	3.28	3.28	3.28	3.28	3.28	3.28	3.18	3.38
alpha-Chlordane	5.04	5.04	5.04	5.04	5.04	5.04	4.94	5.14
beta-BHC	3.91	3.91	3.91	3.91	3.91	3.91	3.81	4.01
Decachlorobiphenyl	7.91	7.91	7.91	7.91	7.91	7.91	7.81	8.01
delta-BHC	4.14	4.14	4.14	4.14	4.13	4.14	4.04	4.24
Dieldrin	5.36	5.36	5.36	5.36	5.36	5.36	5.26	5.46
Endosulfan I	5.10	5.10	5.10	5.10	5.10	5.10	5.00	5.20
Endosulfan II	5.93	5.93	5.93	5.93	5.93	5.93	5.83	6.03
Endosulfan sulfate	6.33	6.33	6.33	6.33	6.33	6.33	6.23	6.43
Endrin	5.64	5.64	5.64	5.64	5.64	5.64	5.54	5.74
Endrin aldehyde	6.11	6.11	6.11	6.11	6.11	6.11	6.01	6.21
Endrin ketone	6.84	6.84	6.84	6.84	6.84	6.84	6.74	6.94
gamma-BHC (Lindane)	3.61	3.61	3.61	3.61	3.61	3.61	3.51	3.71
gamma-Chlordane	4.98	4.98	4.98	4.98	4.98	4.98	4.88	5.08
Heptachlor	3.95	3.95	3.95	3.95	3.94	3.94	3.84	4.04
Heptachlor epoxide	4.73	4.73	4.73	4.73	4.73	4.73	4.63	4.83
Methoxychlor	6.61	6.61	6.61	6.61	6.61	6.61	6.51	6.71
Tetrachloro-m-xylene	2.78	2.77	2.77	2.77	2.77	2.77	2.67	2.87

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_L

Calibration Date(s): 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

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

LAB FILE ID: **CF 100 =** PL093728.D **CF 075 =** PL093729.D

CF 050 = PL093730.D **CF 025 =** PL093731.D **CF 005 =** PL093732.D

COMPOUND	CF 100	CF 075	CF 050	CF 025	CF 005	CF	% RSD
4,4'-DDD	1660930000	1679650000	1932670000	1802720000	2426830000	1900560000	17
4,4'-DDE	2179870000	2169930000	2489080000	2321590000	3012520000	2434600000	14
4,4'-DDT	1755570000	1766710000	2016720000	1907120000	2414170000	1972060000	14
Aldrin	2924220000	2896750000	3292630000	3099660000	4146570000	3271970000	16
alpha-BHC	3537700000	3490280000	3918110000	3562830000	4660310000	3833850000	13
alpha-Chlordane	2458070000	2458490000	2788200000	2666580000	3570690000	2788400000	16
beta-BHC	1393460000	1394440000	1618290000	1508890000	2121530000	1607320000	19
Decachlorobiphenyl	1768480000	1816480000	2098320000	2018470000	2757820000	2091910000	19
delta-BHC	3233860000	3194550000	3605880000	3303370000	4188780000	3505290000	12
Dieldrin	2456580000	2440810000	2788190000	2639340000	3554340000	2775850000	17
Endosulfan I	2304400000	2298550000	2637060000	2528610000	3445650000	2642860000	18
Endosulfan II	2084130000	2100600000	2413950000	2287820000	3160260000	2409350000	18
Endosulfan sulfate	1923100000	1945070000	2248580000	2190510000	3011450000	2263740000	20
Endrin	2079430000	2060990000	2363220000	2218560000	3001890000	2344820000	17
Endrin aldehyde	1673120000	1696040000	1958970000	1896570000	2495580000	1944060000	17
Endrin ketone	2196850000	2205550000	2539700000	2413910000	3257130000	2522630000	17
gamma-BHC (Lindane)	3375960000	3339350000	3767250000	3460830000	4470850000	3682850000	13
gamma-Chlordane	2455830000	2471830000	2815630000	2678390000	3515170000	2787370000	16
Heptachlor	2922500000	2901690000	3325290000	3144100000	4093120000	3277340000	15
Heptachlor epoxide	2568680000	2575960000	2953630000	2835830000	3935020000	2973820000	19
Methoxychlor	907284000	922109000	1080370000	1020090000	1287130000	1043400000	15
Tetrachloro-m-xylene	2397870000	2402980000	2740040000	2595500000	3327420000	2692760000	14

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_L

Calibration Date(s): 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

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

LAB FILE ID: **CF 100 =** PL093728.D **CF 075 =** PL093729.D

CF 050 = PL093730.D **CF 025 =** PL093731.D **CF 005 =** PL093732.D

COMPOUND	CF 100	CF 075	CF 050	CF 025	CF 005	CF	% RSD
4,4'-DDD	3134000000	3054730000	3379160000	2910470000	3304320000	3156540000	6
4,4'-DDE	3891920000	3807640000	4253650000	3749010000	4345130000	4009470000	7
4,4'-DDT	3270010000	3177800000	3542860000	3046890000	3232670000	3254050000	6
Aldrin	4482990000	4370810000	4856520000	4222470000	4876190000	4561800000	6
alpha-BHC	4914190000	4768640000	5271080000	4480730000	5010260000	4888980000	6
alpha-Chlordane	4056970000	3962110000	4424110000	3914810000	4574820000	4186560000	7
beta-BHC	1863440000	1842720000	2072180000	1889740000	2319100000	1997440000	10
Decachlorobiphenyl	3226690000	3193800000	3627020000	3320620000	4152210000	3504070000	11
delta-BHC	4741230000	4607910000	5098810000	4368820000	4939430000	4751240000	6
Dieldrin	4189300000	4076770000	4553570000	3958830000	4699760000	4295650000	7
Endosulfan I	3734100000	3661580000	4099030000	3635320000	4254550000	3876920000	7
Endosulfan II	3553260000	3487640000	3912960000	3484510000	4080760000	3703830000	7
Endosulfan sulfate	3408630000	3353240000	3757030000	3348270000	3963240000	3566080000	8
Endrin	3607760000	3481170000	3870730000	3406140000	4097610000	3692680000	8
Endrin aldehyde	2861460000	2820180000	3183430000	2892290000	3465840000	3044640000	9
Endrin ketone	3965120000	3881890000	4400080000	3907370000	4821740000	4195240000	10
gamma-BHC (Lindane)	4713370000	4597010000	5084610000	4384810000	4926270000	4741210000	6
gamma-Chlordane	4137240000	4016860000	4483010000	3935490000	4615500000	4237620000	7
Heptachlor	4505180000	4413750000	4924840000	4345980000	5084220000	4654790000	7
Heptachlor epoxide	4026840000	3946880000	4424170000	3927960000	4575440000	4180260000	7
Methoxychlor	1651870000	1634200000	1870410000	1643810000	2140390000	1788140000	12
Tetrachloro-m-xylene	3101220000	3058550000	3437230000	3066200000	3657590000	3264160000	8

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_L **Date(s) Analyzed:** 01/21/2025 01/21/2025

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

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Toxaphene	500	1	6.24	6.14	6.34	23446000
		2	6.44	6.34	6.54	14767200
		3	7.06	6.96	7.16	75896000
		4	7.15	7.05	7.25	57345100
		5	7.93	7.83	8.03	43067100

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_L **Date(s) Analyzed:** 01/21/2025 01/21/2025

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

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Toxaphene	500	1	5.00	4.90	5.10	27057100
		2	5.33	5.23	5.43	23947200
		3	5.68	5.58	5.78	24726400
		4	6.60	6.50	6.70	84987200
		5	7.04	6.94	7.14	80238300

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 09:58 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
alpha-BHC	4.00	4.00	3.90	4.10	0.01
beta-BHC	4.53	4.53	4.43	4.63	0.00
delta-BHC	4.77	4.77	4.67	4.87	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.92	4.91	4.81	5.01	0.00
Aldrin	5.26	5.26	5.16	5.36	0.00
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endosulfan I	6.07	6.07	5.97	6.17	0.00
Dieldrin	6.34	6.34	6.24	6.44	0.00
4,4'-DDE	6.19	6.19	6.09	6.29	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Endosulfan II	6.79	6.79	6.69	6.89	0.00
4,4'-DDD	6.71	6.71	6.61	6.81	0.00
Endosulfan sulfate	7.16	7.16	7.06	7.26	0.00
4,4'-DDT	7.02	7.02	6.92	7.12	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00
Endrin ketone	7.64	7.64	7.54	7.74	0.00
Endrin aldehyde	6.92	6.92	6.82	7.02	0.00
alpha-Chlordane	6.02	6.02	5.92	6.12	0.00
gamma-Chlordane	5.94	5.94	5.84	6.04	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 09:58 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
alpha-BHC	3.28	3.28	3.18	3.38	0.00
beta-BHC	3.91	3.91	3.81	4.01	0.00
delta-BHC	4.14	4.14	4.04	4.24	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.95	3.95	3.85	4.05	0.01
Aldrin	4.22	4.23	4.13	4.33	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endosulfan I	5.10	5.10	5.00	5.20	0.00
Dieldrin	5.36	5.36	5.26	5.46	0.00
4,4'-DDE	5.23	5.23	5.13	5.33	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Endosulfan II	5.93	5.93	5.83	6.03	0.00
4,4'-DDD	5.79	5.78	5.68	5.88	0.00
Endosulfan sulfate	6.33	6.33	6.23	6.43	0.00
4,4'-DDT	6.03	6.03	5.93	6.13	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00
Endrin ketone	6.84	6.84	6.74	6.94	0.00
Endrin aldehyde	6.11	6.11	6.01	6.21	0.00
alpha-Chlordane	5.04	5.04	4.94	5.14	0.00
gamma-Chlordane	4.98	4.98	4.88	5.08	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/30/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093876.D **Time Analyzed:** 09:58

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.710	6.608	6.808	50.170	50.000	0.3
4,4'-DDE	6.192	6.091	6.291	49.240	50.000	-1.5
4,4'-DDT	7.023	6.922	7.122	50.330	50.000	0.7
Aldrin	5.257	5.156	5.356	45.120	50.000	-9.8
alpha-BHC	3.995	3.895	4.095	45.760	50.000	-8.5
alpha-Chlordane	6.019	5.917	6.117	47.200	50.000	-5.6
beta-BHC	4.526	4.425	4.625	47.030	50.000	-5.9
Decachlorobiphenyl	9.055	8.953	9.153	48.590	50.000	-2.8
delta-BHC	4.773	4.672	4.872	45.450	50.000	-9.1
Dieldrin	6.344	6.243	6.443	46.380	50.000	-7.2
Endosulfan I	6.069	5.967	6.167	46.440	50.000	-7.1
Endosulfan II	6.794	6.692	6.892	46.940	50.000	-6.1
Endosulfan sulfate	7.158	7.057	7.257	46.630	50.000	-6.7
Endrin	6.574	6.472	6.672	48.110	50.000	-3.8
Endrin aldehyde	6.924	6.823	7.023	45.880	50.000	-8.2
Endrin ketone	7.643	7.542	7.742	47.110	50.000	-5.8
gamma-BHC (Lindane)	4.327	4.227	4.427	45.140	50.000	-9.7
gamma-Chlordane	5.939	5.838	6.038	47.300	50.000	-5.4
Heptachlor	4.915	4.814	5.014	47.560	50.000	-4.9
Heptachlor epoxide	5.683	5.582	5.782	45.130	50.000	-9.7
Methoxychlor	7.500	7.398	7.598	51.550	50.000	3.1
Tetrachloro-m-xylene	3.539	3.439	3.639	45.390	50.000	-9.2

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/30/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093876.D **Time Analyzed:** 09:58

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.785	5.684	5.884	51.350	50.000	2.7
4,4'-DDE	5.230	5.130	5.330	49.780	50.000	-0.4
4,4'-DDT	6.034	5.934	6.134	52.120	50.000	4.2
Aldrin	4.224	4.125	4.325	45.460	50.000	-9.1
alpha-BHC	3.277	3.177	3.377	46.900	50.000	-6.2
alpha-Chlordane	5.040	4.940	5.140	48.570	50.000	-2.9
beta-BHC	3.907	3.807	4.007	47.660	50.000	-4.7
Decachlorobiphenyl	7.910	7.810	8.010	49.800	50.000	-0.4
delta-BHC	4.135	4.036	4.236	45.620	50.000	-8.8
Dieldrin	5.361	5.261	5.461	47.730	50.000	-4.5
Endosulfan I	5.097	4.996	5.196	46.270	50.000	-7.5
Endosulfan II	5.932	5.831	6.031	49.200	50.000	-1.6
Endosulfan sulfate	6.334	6.233	6.433	48.600	50.000	-2.8
Endrin	5.636	5.536	5.736	48.870	50.000	-2.3
Endrin aldehyde	6.111	6.010	6.210	45.870	50.000	-8.3
Endrin ketone	6.838	6.739	6.939	48.600	50.000	-2.8
gamma-BHC (Lindane)	3.607	3.507	3.707	46.010	50.000	-8.0
gamma-Chlordane	4.977	4.877	5.077	48.760	50.000	-2.5
Heptachlor	3.945	3.845	4.045	47.440	50.000	-5.1
Heptachlor epoxide	4.727	4.627	4.827	46.460	50.000	-7.1
Methoxychlor	6.610	6.509	6.709	49.830	50.000	-0.3
Tetrachloro-m-xylene	2.774	2.674	2.874	45.470	50.000	-9.1

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 13:53 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
alpha-BHC	4.00	4.00	3.90	4.10	0.01
beta-BHC	4.53	4.53	4.43	4.63	0.00
delta-BHC	4.77	4.77	4.67	4.87	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.92	4.91	4.81	5.01	-0.01
Aldrin	5.26	5.26	5.16	5.36	0.00
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endosulfan I	6.07	6.07	5.97	6.17	0.00
Dieldrin	6.35	6.34	6.24	6.44	0.00
4,4'-DDE	6.19	6.19	6.09	6.29	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Endosulfan II	6.79	6.79	6.69	6.89	0.00
4,4'-DDD	6.71	6.71	6.61	6.81	0.00
Endosulfan sulfate	7.16	7.16	7.06	7.26	0.00
4,4'-DDT	7.02	7.02	6.92	7.12	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00
Endrin ketone	7.65	7.64	7.54	7.74	0.00
Endrin aldehyde	6.93	6.92	6.82	7.02	-0.01
alpha-Chlordane	6.02	6.02	5.92	6.12	0.00
gamma-Chlordane	5.94	5.94	5.84	6.04	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 13:53 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
alpha-BHC	3.28	3.28	3.18	3.38	0.00
beta-BHC	3.91	3.91	3.81	4.01	0.00
delta-BHC	4.14	4.14	4.04	4.24	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.95	3.95	3.85	4.05	0.01
Aldrin	4.22	4.23	4.13	4.33	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endosulfan I	5.10	5.10	5.00	5.20	0.00
Dieldrin	5.36	5.36	5.26	5.46	0.00
4,4'-DDE	5.23	5.23	5.13	5.33	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Endosulfan II	5.93	5.93	5.83	6.03	0.00
4,4'-DDD	5.79	5.78	5.68	5.88	0.00
Endosulfan sulfate	6.33	6.33	6.23	6.43	0.00
4,4'-DDT	6.04	6.03	5.93	6.13	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00
Endrin ketone	6.84	6.84	6.74	6.94	0.00
Endrin aldehyde	6.11	6.11	6.01	6.21	0.00
alpha-Chlordane	5.04	5.04	4.94	5.14	0.00
gamma-Chlordane	4.98	4.98	4.88	5.08	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 01/30/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093888.D **Time Analyzed:** 13:53

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.710	6.608	6.808	51.000	50.000	2.0
4,4'-DDE	6.193	6.091	6.291	48.290	50.000	-3.4
4,4'-DDT	7.024	6.922	7.122	47.220	50.000	-5.6
Aldrin	5.258	5.156	5.356	44.250	50.000	-11.5
alpha-BHC	3.995	3.895	4.095	45.350	50.000	-9.3
alpha-Chlordane	6.019	5.917	6.117	46.270	50.000	-7.5
beta-BHC	4.526	4.425	4.625	46.190	50.000	-7.6
Decachlorobiphenyl	9.056	8.953	9.153	48.490	50.000	-3.0
delta-BHC	4.773	4.672	4.872	44.920	50.000	-10.2
Dieldrin	6.345	6.243	6.443	45.520	50.000	-9.0
Endosulfan I	6.069	5.967	6.167	45.280	50.000	-9.4
Endosulfan II	6.794	6.692	6.892	46.220	50.000	-7.6
Endosulfan sulfate	7.159	7.057	7.257	45.860	50.000	-8.3
Endrin	6.573	6.472	6.672	43.820	50.000	-12.4
Endrin aldehyde	6.925	6.823	7.023	45.230	50.000	-9.5
Endrin ketone	7.645	7.542	7.742	46.160	50.000	-7.7
gamma-BHC (Lindane)	4.328	4.227	4.427	44.710	50.000	-10.6
gamma-Chlordane	5.940	5.838	6.038	46.270	50.000	-7.5
Heptachlor	4.916	4.814	5.014	46.250	50.000	-7.5
Heptachlor epoxide	5.684	5.582	5.782	44.430	50.000	-11.1
Methoxychlor	7.500	7.398	7.598	46.980	50.000	-6.0
Tetrachloro-m-xylene	3.539	3.439	3.639	45.400	50.000	-9.2

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 01/30/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093888.D **Time Analyzed:** 13:53

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.785	5.684	5.884	50.720	50.000	1.4
4,4'-DDE	5.230	5.130	5.330	47.940	50.000	-4.1
4,4'-DDT	6.035	5.934	6.134	46.590	50.000	-6.8
Aldrin	4.224	4.125	4.325	43.990	50.000	-12.0
alpha-BHC	3.277	3.177	3.377	45.710	50.000	-8.6
alpha-Chlordane	5.041	4.940	5.140	46.630	50.000	-6.7
beta-BHC	3.907	3.807	4.007	46.220	50.000	-7.6
Decachlorobiphenyl	7.910	7.810	8.010	48.940	50.000	-2.1
delta-BHC	4.135	4.036	4.236	44.430	50.000	-11.1
Dieldrin	5.361	5.261	5.461	45.590	50.000	-8.8
Endosulfan I	5.097	4.996	5.196	43.510	50.000	-13.0
Endosulfan II	5.932	5.831	6.031	47.250	50.000	-5.5
Endosulfan sulfate	6.334	6.233	6.433	46.850	50.000	-6.3
Endrin	5.637	5.536	5.736	45.280	50.000	-9.4
Endrin aldehyde	6.111	6.010	6.210	44.000	50.000	-12.0
Endrin ketone	6.839	6.739	6.939	47.490	50.000	-5.0
gamma-BHC (Lindane)	3.607	3.507	3.707	44.600	50.000	-10.8
gamma-Chlordane	4.977	4.877	5.077	46.810	50.000	-6.4
Heptachlor	3.945	3.845	4.045	45.400	50.000	-9.2
Heptachlor epoxide	4.727	4.627	4.827	44.970	50.000	-10.1
Methoxychlor	6.610	6.509	6.709	45.430	50.000	-9.1
Tetrachloro-m-xylene	2.774	2.674	2.874	44.780	50.000	-10.4

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 19:06 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.05	9.05	8.95	9.15	0.00
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
alpha-BHC	3.99	4.00	3.90	4.10	0.01
beta-BHC	4.52	4.53	4.43	4.63	0.01
delta-BHC	4.77	4.77	4.67	4.87	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.91	4.91	4.81	5.01	0.00
Aldrin	5.26	5.26	5.16	5.36	0.00
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endosulfan I	6.07	6.07	5.97	6.17	0.00
Dieldrin	6.34	6.34	6.24	6.44	0.00
4,4'-DDE	6.19	6.19	6.09	6.29	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Endosulfan II	6.79	6.79	6.69	6.89	0.00
4,4'-DDD	6.71	6.71	6.61	6.81	0.00
Endosulfan sulfate	7.16	7.16	7.06	7.26	0.00
4,4'-DDT	7.02	7.02	6.92	7.12	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00
Endrin ketone	7.64	7.64	7.54	7.74	0.00
Endrin aldehyde	6.92	6.92	6.82	7.02	0.00
alpha-Chlordane	6.02	6.02	5.92	6.12	0.00
gamma-Chlordane	5.94	5.94	5.84	6.04	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 19:06 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
alpha-BHC	3.28	3.28	3.18	3.38	0.00
beta-BHC	3.91	3.91	3.81	4.01	0.00
delta-BHC	4.13	4.14	4.04	4.24	0.01
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.94	3.95	3.85	4.05	0.01
Aldrin	4.22	4.23	4.13	4.33	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endosulfan I	5.10	5.10	5.00	5.20	0.01
Dieldrin	5.36	5.36	5.26	5.46	0.00
4,4'-DDE	5.23	5.23	5.13	5.33	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Endosulfan II	5.93	5.93	5.83	6.03	0.00
4,4'-DDD	5.78	5.78	5.68	5.88	0.00
Endosulfan sulfate	6.33	6.33	6.23	6.43	0.00
4,4'-DDT	6.03	6.03	5.93	6.13	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00
Endrin ketone	6.84	6.84	6.74	6.94	0.00
Endrin aldehyde	6.11	6.11	6.01	6.21	0.00
alpha-Chlordane	5.04	5.04	4.94	5.14	0.00
gamma-Chlordane	4.98	4.98	4.88	5.08	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 01/30/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093906.D **Time Analyzed:** 19:06

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.708	6.608	6.808	51.280	50.000	2.6
4,4'-DDE	6.190	6.091	6.291	47.710	50.000	-4.6
4,4'-DDT	7.021	6.922	7.122	43.720	50.000	-12.6
Aldrin	5.255	5.156	5.356	44.150	50.000	-11.7
alpha-BHC	3.993	3.895	4.095	45.670	50.000	-8.7
alpha-Chlordane	6.017	5.917	6.117	45.590	50.000	-8.8
beta-BHC	4.524	4.425	4.625	46.550	50.000	-6.9
Decachlorobiphenyl	9.053	8.953	9.153	45.970	50.000	-8.1
delta-BHC	4.771	4.672	4.872	45.080	50.000	-9.8
Dieldrin	6.343	6.243	6.443	44.310	50.000	-11.4
Endosulfan I	6.067	5.967	6.167	44.670	50.000	-10.7
Endosulfan II	6.792	6.692	6.892	44.900	50.000	-10.2
Endosulfan sulfate	7.157	7.057	7.257	44.430	50.000	-11.1
Endrin	6.571	6.472	6.672	41.650	50.000	-16.7
Endrin aldehyde	6.922	6.823	7.023	44.090	50.000	-11.8
Endrin ketone	7.642	7.542	7.742	45.310	50.000	-9.4
gamma-BHC (Lindane)	4.326	4.227	4.427	45.020	50.000	-10.0
gamma-Chlordane	5.937	5.838	6.038	46.090	50.000	-7.8
Heptachlor	4.914	4.814	5.014	45.190	50.000	-9.6
Heptachlor epoxide	5.681	5.582	5.782	43.240	50.000	-13.5
Methoxychlor	7.498	7.398	7.598	44.720	50.000	-10.6
Tetrachloro-m-xylene	3.537	3.439	3.639	45.460	50.000	-9.1

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 01/30/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093906.D **Time Analyzed:** 19:06

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.784	5.684	5.884	51.980	50.000	4.0
4,4'-DDE	5.229	5.130	5.330	49.710	50.000	-0.6
4,4'-DDT	6.034	5.934	6.134	43.660	50.000	-12.7
Aldrin	4.223	4.125	4.325	45.790	50.000	-8.4
alpha-BHC	3.276	3.177	3.377	47.430	50.000	-5.1
alpha-Chlordane	5.039	4.940	5.140	48.080	50.000	-3.8
beta-BHC	3.906	3.807	4.007	48.150	50.000	-3.7
Decachlorobiphenyl	7.909	7.810	8.010	45.120	50.000	-9.8
delta-BHC	4.134	4.036	4.236	46.050	50.000	-7.9
Dieldrin	5.360	5.261	5.461	46.390	50.000	-7.2
Endosulfan I	5.095	4.996	5.196	44.980	50.000	-10.0
Endosulfan II	5.931	5.831	6.031	46.350	50.000	-7.3
Endosulfan sulfate	6.333	6.233	6.433	45.570	50.000	-8.9
Endrin	5.635	5.536	5.736	44.130	50.000	-11.7
Endrin aldehyde	6.110	6.010	6.210	43.640	50.000	-12.7
Endrin ketone	6.837	6.739	6.939	45.440	50.000	-9.1
gamma-BHC (Lindane)	3.606	3.507	3.707	46.060	50.000	-7.9
gamma-Chlordane	4.976	4.877	5.077	48.720	50.000	-2.6
Heptachlor	3.944	3.845	4.045	45.820	50.000	-8.4
Heptachlor epoxide	4.726	4.627	4.827	46.510	50.000	-7.0
Methoxychlor	6.609	6.509	6.709	42.130	50.000	-15.7
Tetrachloro-m-xylene	2.774	2.674	2.874	46.540	50.000	-6.9

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 02/04/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 09:14 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
alpha-BHC	4.00	4.00	3.90	4.10	0.01
beta-BHC	4.53	4.53	4.43	4.63	0.00
delta-BHC	4.77	4.77	4.67	4.87	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.92	4.91	4.81	5.01	-0.01
Aldrin	5.26	5.26	5.16	5.36	0.00
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endosulfan I	6.07	6.07	5.97	6.17	0.00
Dieldrin	6.34	6.34	6.24	6.44	0.00
4,4'-DDE	6.19	6.19	6.09	6.29	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Endosulfan II	6.80	6.79	6.69	6.89	-0.01
4,4'-DDD	6.71	6.71	6.61	6.81	0.00
Endosulfan sulfate	7.16	7.16	7.06	7.26	0.00
4,4'-DDT	7.02	7.02	6.92	7.12	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00
Endrin ketone	7.64	7.64	7.54	7.74	0.00
Endrin aldehyde	6.93	6.92	6.82	7.02	-0.01
alpha-Chlordane	6.02	6.02	5.92	6.12	0.00
gamma-Chlordane	5.94	5.94	5.84	6.04	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 02/04/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 09:14 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
alpha-BHC	3.28	3.28	3.18	3.38	0.00
beta-BHC	3.91	3.91	3.81	4.01	0.00
delta-BHC	4.14	4.14	4.04	4.24	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.95	3.95	3.85	4.05	0.01
Aldrin	4.22	4.23	4.13	4.33	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endosulfan I	5.10	5.10	5.00	5.20	0.00
Dieldrin	5.36	5.36	5.26	5.46	0.00
4,4'-DDE	5.23	5.23	5.13	5.33	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Endosulfan II	5.93	5.93	5.83	6.03	0.00
4,4'-DDD	5.78	5.78	5.68	5.88	0.00
Endosulfan sulfate	6.33	6.33	6.23	6.43	0.00
4,4'-DDT	6.03	6.03	5.93	6.13	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00
Endrin ketone	6.84	6.84	6.74	6.94	0.00
Endrin aldehyde	6.11	6.11	6.01	6.21	0.00
alpha-Chlordane	5.04	5.04	4.94	5.14	0.00
gamma-Chlordane	4.98	4.98	4.88	5.08	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL04 **Date Analyzed:** 02/04/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL094038.D **Time Analyzed:** 09:14

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.710	6.608	6.808	56.810	50.000	13.6
4,4'-DDE	6.192	6.091	6.291	54.800	50.000	9.6
4,4'-DDT	7.024	6.922	7.122	48.210	50.000	-3.6
Aldrin	5.257	5.156	5.356	52.720	50.000	5.4
alpha-BHC	3.995	3.895	4.095	52.230	50.000	4.5
alpha-Chlordane	6.018	5.917	6.117	51.120	50.000	2.2
beta-BHC	4.526	4.425	4.625	51.890	50.000	3.8
Decachlorobiphenyl	9.056	8.953	9.153	47.740	50.000	-4.5
delta-BHC	4.773	4.672	4.872	53.360	50.000	6.7
Dieldrin	6.344	6.243	6.443	50.600	50.000	1.2
Endosulfan I	6.069	5.967	6.167	50.660	50.000	1.3
Endosulfan II	6.795	6.692	6.892	49.090	50.000	-1.8
Endosulfan sulfate	7.159	7.057	7.257	48.700	50.000	-2.6
Endrin	6.573	6.472	6.672	48.440	50.000	-3.1
Endrin aldehyde	6.925	6.823	7.023	48.990	50.000	-2.0
Endrin ketone	7.644	7.542	7.742	48.440	50.000	-3.1
gamma-BHC (Lindane)	4.328	4.227	4.427	51.900	50.000	3.8
gamma-Chlordane	5.939	5.838	6.038	51.540	50.000	3.1
Heptachlor	4.916	4.814	5.014	51.240	50.000	2.5
Heptachlor epoxide	5.684	5.582	5.782	50.560	50.000	1.1
Methoxychlor	7.500	7.398	7.598	48.720	50.000	-2.6
Tetrachloro-m-xylene	3.539	3.439	3.639	51.420	50.000	2.8

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL04 **Date Analyzed:** 02/04/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL094038.D **Time Analyzed:** 09:14

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.784	5.684	5.884	59.220	50.000	18.4
4,4'-DDE	5.229	5.130	5.330	56.530	50.000	13.1
4,4'-DDT	6.034	5.934	6.134	50.630	50.000	1.3
Aldrin	4.224	4.125	4.325	53.070	50.000	6.1
alpha-BHC	3.277	3.177	3.377	53.160	50.000	6.3
alpha-Chlordane	5.040	4.940	5.140	53.190	50.000	6.4
beta-BHC	3.907	3.807	4.007	52.950	50.000	5.9
Decachlorobiphenyl	7.910	7.810	8.010	52.230	50.000	4.5
delta-BHC	4.135	4.036	4.236	53.410	50.000	6.8
Dieldrin	5.361	5.261	5.461	53.220	50.000	6.4
Endosulfan I	5.097	4.996	5.196	50.920	50.000	1.8
Endosulfan II	5.931	5.831	6.031	53.410	50.000	6.8
Endosulfan sulfate	6.333	6.233	6.433	52.360	50.000	4.7
Endrin	5.636	5.536	5.736	53.510	50.000	7.0
Endrin aldehyde	6.110	6.010	6.210	51.970	50.000	3.9
Endrin ketone	6.838	6.739	6.939	53.020	50.000	6.0
gamma-BHC (Lindane)	3.607	3.507	3.707	52.640	50.000	5.3
gamma-Chlordane	4.977	4.877	5.077	53.910	50.000	7.8
Heptachlor	3.945	3.845	4.045	50.310	50.000	0.6
Heptachlor epoxide	4.727	4.627	4.827	52.780	50.000	5.6
Methoxychlor	6.609	6.509	6.709	48.950	50.000	-2.1
Tetrachloro-m-xylene	2.774	2.674	2.874	52.080	50.000	4.2

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 02/04/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 14:50 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
alpha-BHC	3.99	4.00	3.90	4.10	0.01
beta-BHC	4.53	4.53	4.43	4.63	0.00
delta-BHC	4.77	4.77	4.67	4.87	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.92	4.91	4.81	5.01	0.00
Aldrin	5.26	5.26	5.16	5.36	0.00
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endosulfan I	6.07	6.07	5.97	6.17	0.00
Dieldrin	6.34	6.34	6.24	6.44	0.00
4,4'-DDE	6.19	6.19	6.09	6.29	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Endosulfan II	6.79	6.79	6.69	6.89	0.00
4,4'-DDD	6.71	6.71	6.61	6.81	0.00
Endosulfan sulfate	7.16	7.16	7.06	7.26	0.00
4,4'-DDT	7.02	7.02	6.92	7.12	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00
Endrin ketone	7.64	7.64	7.54	7.74	0.00
Endrin aldehyde	6.92	6.92	6.82	7.02	0.00
alpha-Chlordane	6.02	6.02	5.92	6.12	0.00
gamma-Chlordane	5.94	5.94	5.84	6.04	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 02/04/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 14:50 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
alpha-BHC	3.28	3.28	3.18	3.38	0.00
beta-BHC	3.91	3.91	3.81	4.01	0.00
delta-BHC	4.14	4.14	4.04	4.24	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.94	3.95	3.85	4.05	0.01
Aldrin	4.22	4.23	4.13	4.33	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endosulfan I	5.10	5.10	5.00	5.20	0.00
Dieldrin	5.36	5.36	5.26	5.46	0.00
4,4'-DDE	5.23	5.23	5.13	5.33	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Endosulfan II	5.93	5.93	5.83	6.03	0.00
4,4'-DDD	5.78	5.78	5.68	5.88	0.00
Endosulfan sulfate	6.33	6.33	6.23	6.43	0.00
4,4'-DDT	6.03	6.03	5.93	6.13	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00
Endrin ketone	6.84	6.84	6.74	6.94	0.00
Endrin aldehyde	6.11	6.11	6.01	6.21	0.00
alpha-Chlordane	5.04	5.04	4.94	5.14	0.00
gamma-Chlordane	4.98	4.98	4.88	5.08	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL05 **Date Analyzed:** 02/04/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL094052.D **Time Analyzed:** 14:50

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.709	6.608	6.808	53.640	50.000	7.3
4,4'-DDE	6.192	6.091	6.291	51.850	50.000	3.7
4,4'-DDT	7.023	6.922	7.122	42.020	50.000	-16.0
Aldrin	5.256	5.156	5.356	50.810	50.000	1.6
alpha-BHC	3.994	3.895	4.095	51.110	50.000	2.2
alpha-Chlordane	6.018	5.917	6.117	48.500	50.000	-3.0
beta-BHC	4.525	4.425	4.625	50.410	50.000	0.8
Decachlorobiphenyl	9.055	8.953	9.153	45.130	50.000	-9.7
delta-BHC	4.772	4.672	4.872	51.820	50.000	3.6
Dieldrin	6.343	6.243	6.443	47.720	50.000	-4.6
Endosulfan I	6.068	5.967	6.167	48.260	50.000	-3.5
Endosulfan II	6.793	6.692	6.892	46.180	50.000	-7.6
Endosulfan sulfate	7.158	7.057	7.257	45.500	50.000	-9.0
Endrin	6.572	6.472	6.672	44.960	50.000	-10.1
Endrin aldehyde	6.923	6.823	7.023	45.100	50.000	-9.8
Endrin ketone	7.643	7.542	7.742	44.860	50.000	-10.3
gamma-BHC (Lindane)	4.327	4.227	4.427	50.110	50.000	0.2
gamma-Chlordane	5.939	5.838	6.038	49.830	50.000	-0.3
Heptachlor	4.915	4.814	5.014	47.450	50.000	-5.1
Heptachlor epoxide	5.683	5.582	5.782	48.530	50.000	-2.9
Methoxychlor	7.499	7.398	7.598	43.350	50.000	-13.3
Tetrachloro-m-xylene	3.538	3.439	3.639	50.380	50.000	0.8

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL05 **Date Analyzed:** 02/04/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL094052.D **Time Analyzed:** 14:50

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.784	5.684	5.884	56.310	50.000	12.6
4,4'-DDE	5.227	5.130	5.330	54.840	50.000	9.7
4,4'-DDT	6.034	5.934	6.134	43.890	50.000	-12.2
Aldrin	4.224	4.125	4.325	52.930	50.000	5.9
alpha-BHC	3.276	3.177	3.377	53.360	50.000	6.7
alpha-Chlordane	5.039	4.940	5.140	51.920	50.000	3.8
beta-BHC	3.906	3.807	4.007	52.630	50.000	5.3
Decachlorobiphenyl	7.909	7.810	8.010	43.570	50.000	-12.9
delta-BHC	4.135	4.036	4.236	53.220	50.000	6.4
Dieldrin	5.360	5.261	5.461	51.590	50.000	3.2
Endosulfan I	5.096	4.996	5.196	48.810	50.000	-2.4
Endosulfan II	5.931	5.831	6.031	50.270	50.000	0.5
Endosulfan sulfate	6.333	6.233	6.433	49.010	50.000	-2.0
Endrin	5.636	5.536	5.736	50.920	50.000	1.8
Endrin aldehyde	6.110	6.010	6.210	47.340	50.000	-5.3
Endrin ketone	6.838	6.739	6.939	46.510	50.000	-7.0
gamma-BHC (Lindane)	3.606	3.507	3.707	52.180	50.000	4.4
gamma-Chlordane	4.976	4.877	5.077	52.700	50.000	5.4
Heptachlor	3.944	3.845	4.045	48.050	50.000	-3.9
Heptachlor epoxide	4.726	4.627	4.827	51.700	50.000	3.4
Methoxychlor	6.609	6.509	6.709	42.000	50.000	-16.0
Tetrachloro-m-xylene	2.774	2.674	2.874	52.500	50.000	5.0

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093726.D **Date Analyzed:** 01/21/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 10:30

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.052	8.950	9.150	18.070	20.000	-9.7
Tetrachloro-m-xylene	3.538	3.490	3.590	18.530	20.000	-7.4
alpha-BHC	3.994	3.940	4.040	9.490	10.000	-5.1
beta-BHC	4.525	4.470	4.580	9.790	10.000	-2.1
gamma-BHC (Lindane)	4.326	4.280	4.380	9.300	10.000	-7.0
Endrin	6.572	6.500	6.640	41.270	50.000	-17.5
4,4'-DDT	7.022	6.950	7.090	82.410	100.000	-17.6
Methoxychlor	7.498	7.430	7.570	190.380	250.000	-23.8

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093726.D **Date Analyzed:** 01/21/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 10:30

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.909	7.810	8.010	17.950	20.000	-10.3
Tetrachloro-m-xylene	2.775	2.720	2.830	17.900	20.000	-10.5
alpha-BHC	3.277	3.230	3.330	8.620	10.000	-13.8
beta-BHC	3.907	3.860	3.960	9.800	10.000	-2.0
gamma-BHC (Lindane)	3.607	3.560	3.660	8.300	10.000	-17.0
Endrin	5.636	5.570	5.710	42.700	50.000	-14.6
4,4'-DDT	6.034	5.960	6.100	96.510	100.000	-3.5
Methoxychlor	6.609	6.540	6.680	209.940	250.000	-16.0

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093875.D **Date Analyzed:** 01/30/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 09:45

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.056	8.960	9.160	23.080	20.000	15.4
Tetrachloro-m-xylene	3.539	3.490	3.590	21.630	20.000	8.2
alpha-BHC	3.995	3.940	4.050	11.160	10.000	11.6
beta-BHC	4.525	4.470	4.580	11.630	10.000	16.3
gamma-BHC (Lindane)	4.327	4.280	4.380	11.090	10.000	10.9
Endrin	6.575	6.500	6.650	50.070	50.000	0.1
4,4'-DDT	7.025	6.950	7.100	105.300	100.000	5.3
Methoxychlor	7.501	7.430	7.570	246.960	250.000	-1.2

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093875.D **Date Analyzed:** 01/30/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 09:45

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.910	7.810	8.010	22.210	20.000	11.1
Tetrachloro-m-xylene	2.774	2.720	2.820	20.410	20.000	2.1
alpha-BHC	3.276	3.230	3.330	9.790	10.000	-2.1
beta-BHC	3.907	3.860	3.960	11.070	10.000	10.7
gamma-BHC (Lindane)	3.606	3.560	3.660	9.520	10.000	-4.8
Endrin	5.637	5.570	5.710	50.920	50.000	1.8
4,4'-DDT	6.035	5.960	6.110	119.020	100.000	19.0
Methoxychlor	6.610	6.540	6.680	257.770	250.000	3.1

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL094037.D **Date Analyzed:** 02/04/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 09:00

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.057	8.960	9.160	20.890	20.000	4.5
Tetrachloro-m-xylene	3.539	3.490	3.590	22.330	20.000	11.7
alpha-BHC	3.995	3.940	4.050	11.650	10.000	16.5
beta-BHC	4.526	4.480	4.580	11.780	10.000	17.8
gamma-BHC (Lindane)	4.327	4.280	4.380	11.270	10.000	12.7
Endrin	6.574	6.500	6.640	46.750	50.000	-6.5
4,4'-DDT	7.025	6.950	7.100	94.850	100.000	-5.2
Methoxychlor	7.502	7.430	7.570	219.360	250.000	-12.3

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL094037.D **Date Analyzed:** 02/04/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 09:00

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.911	7.810	8.010	22.030	20.000	10.2
Tetrachloro-m-xylene	2.774	2.720	2.820	21.750	20.000	8.8
alpha-BHC	3.276	3.230	3.330	10.410	10.000	4.1
beta-BHC	3.907	3.860	3.960	11.650	10.000	16.5
gamma-BHC (Lindane)	3.607	3.560	3.660	9.960	10.000	-0.4
Endrin	5.637	5.570	5.710	52.100	50.000	4.2
4,4'-DDT	6.035	5.960	6.110	107.610	100.000	7.6
Methoxychlor	6.610	6.540	6.680	234.420	250.000	-6.2

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_L

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/21/2025 01/21/2025

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

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	01/21/2025	10:16	PL093725.D	9.05	3.54
PEM	PEM	01/21/2025	10:30	PL093726.D	9.05	3.54
RESCHK	RESCHK	01/21/2025	10:43	PL093727.D	9.05	3.54
PSTDICC100	PSTDICC100	01/21/2025	10:57	PL093728.D	9.05	3.54
PSTDICC075	PSTDICC075	01/21/2025	11:10	PL093729.D	9.05	3.54
PSTDICC050	PSTDICC050	01/21/2025	11:24	PL093730.D	9.05	3.54
PSTDICC025	PSTDICC025	01/21/2025	11:38	PL093731.D	9.05	3.54
PSTDICC005	PSTDICC005	01/21/2025	11:51	PL093732.D	9.05	3.54
PCHLORICC500	PCHLORICC500	01/21/2025	12:32	PL093735.D	9.05	3.54
PTOXICC500	PTOXICC500	01/21/2025	13:39	PL093740.D	9.05	3.54
I.BLK	I.BLK	01/30/2025	09:31	PL093874.D	9.06	3.54
PEM	PEM	01/30/2025	09:45	PL093875.D	9.06	3.54
PSTDCCC050	PSTDCCC050	01/30/2025	09:58	PL093876.D	9.06	3.54
WC-5MS	Q1209-05MS	01/30/2025	11:25	PL093882.D	9.05	3.54
WC-5MSD	Q1209-05MSD	01/30/2025	11:38	PL093883.D	9.05	3.54
PB166334BL	PB166334BL	01/30/2025	11:51	PL093884.D	9.05	3.54
PB166334BS	PB166334BS	01/30/2025	12:05	PL093885.D	9.05	3.54
I.BLK	I.BLK	01/30/2025	13:40	PL093887.D	9.06	3.54
PSTDCCC050	PSTDCCC050	01/30/2025	13:53	PL093888.D	9.06	3.54
JPP-20.1-012725	Q1206-03	01/30/2025	16:24	PL093897.D	9.05	3.54
I.BLK	I.BLK	01/30/2025	17:59	PL093904.D	9.05	3.54
PSTDCCC050	PSTDCCC050	01/30/2025	19:06	PL093906.D	9.05	3.54
I.BLK	I.BLK	02/04/2025	08:47	PL094036.D	9.06	3.54
PEM	PEM	02/04/2025	09:00	PL094037.D	9.06	3.54
PSTDCCC050	PSTDCCC050	02/04/2025	09:14	PL094038.D	9.06	3.54
JPP-16.3-012725	Q1206-07	02/04/2025	09:47	PL094040.D	9.06	3.54
I.BLK	I.BLK	02/04/2025	14:37	PL094051.D	9.05	3.54
PSTDCCC050	PSTDCCC050	02/04/2025	14:50	PL094052.D	9.06	3.54

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_L

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/21/2025 01/21/2025

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

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	01/21/2025	10:16	PL093725.D	7.91	2.78
PEM	PEM	01/21/2025	10:30	PL093726.D	7.91	2.78
RESCHK	RESCHK	01/21/2025	10:43	PL093727.D	7.91	2.77
PSTDICC100	PSTDICC100	01/21/2025	10:57	PL093728.D	7.91	2.78
PSTDICC075	PSTDICC075	01/21/2025	11:10	PL093729.D	7.91	2.77
PSTDICC050	PSTDICC050	01/21/2025	11:24	PL093730.D	7.91	2.77
PSTDICC025	PSTDICC025	01/21/2025	11:38	PL093731.D	7.91	2.77
PSTDICC005	PSTDICC005	01/21/2025	11:51	PL093732.D	7.91	2.77
PCHLORICC500	PCHLORICC500	01/21/2025	12:32	PL093735.D	7.91	2.77
PTOXICC500	PTOXICC500	01/21/2025	13:39	PL093740.D	7.91	2.77
I.BLK	I.BLK	01/30/2025	09:31	PL093874.D	7.91	2.77
PEM	PEM	01/30/2025	09:45	PL093875.D	7.91	2.77
PSTDCCC050	PSTDCCC050	01/30/2025	09:58	PL093876.D	7.91	2.77
WC-5MS	Q1209-05MS	01/30/2025	11:25	PL093882.D	7.91	2.77
WC-5MSD	Q1209-05MSD	01/30/2025	11:38	PL093883.D	7.91	2.77
PB166334BL	PB166334BL	01/30/2025	11:51	PL093884.D	7.91	2.77
PB166334BS	PB166334BS	01/30/2025	12:05	PL093885.D	7.91	2.77
I.BLK	I.BLK	01/30/2025	13:40	PL093887.D	7.91	2.77
PSTDCCC050	PSTDCCC050	01/30/2025	13:53	PL093888.D	7.91	2.77
JPP-20.1-012725	Q1206-03	01/30/2025	16:24	PL093897.D	7.91	2.77
I.BLK	I.BLK	01/30/2025	17:59	PL093904.D	7.91	2.77
PSTDCCC050	PSTDCCC050	01/30/2025	19:06	PL093906.D	7.91	2.77
I.BLK	I.BLK	02/04/2025	08:47	PL094036.D	7.91	2.77
PEM	PEM	02/04/2025	09:00	PL094037.D	7.91	2.77
PSTDCCC050	PSTDCCC050	02/04/2025	09:14	PL094038.D	7.91	2.77
JPP-16.3-012725	Q1206-07	02/04/2025	09:47	PL094040.D	7.91	2.77
I.BLK	I.BLK	02/04/2025	14:37	PL094051.D	7.91	2.77
PSTDCCC050	PSTDCCC050	02/04/2025	14:50	PL094052.D	7.91	2.77

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-16.3-012725

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Lab Sample ID: Q1206-07 **Date(s) Analyzed:** 02/04/2025 02/04/2025

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

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

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
4,4'-DDT	1	7.02	6.97	7.07	0.65	97.6
	2	6.03	5.98	6.08	1.90	
Heptachlor epoxide	1	5.68	5.63	5.73	0.70	36.5
	2	4.73	4.68	4.78	0.48	
gamma-Chlordane	1	5.94	5.89	5.99	1.40	67
	2	4.97	4.92	5.02	0.70	
alpha-Chlordane	1	6.02	5.97	6.07	2.40	82.4
	2	5.04	4.99	5.09	1.00	
4,4'-DDE	1	6.19	6.14	6.24	2.90	6.7
	2	5.23	5.18	5.28	3.10	
Endrin	1	6.57	6.52	6.62	0.84	56.6
	2	5.64	5.59	5.69	0.47	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-20.1-012725

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Lab Sample ID: Q1206-03 **Date(s) Analyzed:** 01/30/2025 01/30/2025

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

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

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
4,4'-DDD	1	6.71	6.66	6.76	0.88	54.2
	2	5.78	5.73	5.83	0.50	
4,4'-DDT	1	7.02	6.97	7.07	7.90	15
	2	6.03	5.98	6.08	6.80	
Aldrin	1	5.25	5.20	5.30	0.54	28.1
	2	4.22	4.17	4.27	0.40	
4,4'-DDE	1	6.19	6.14	6.24	3.00	9.5
	2	5.23	5.18	5.28	3.30	

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Fax : 908 789 8922

COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

PB166334BS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Lab Sample ID: PB166334BS **Date(s) Analyzed:** 01/30/2025 01/30/2025

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

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

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
delta-BHC	1	4.77	4.72	4.82	14.3	2.8
	2	4.13	4.08	4.18	13.9	
Endosulfan I	1	6.07	6.02	6.12	14.8	2
	2	5.10	5.05	5.15	15.1	
Dieldrin	1	6.34	6.29	6.39	14.9	0.7
	2	5.36	5.31	5.41	15.0	
Endrin aldehyde	1	6.92	6.87	6.97	15.1	1.3
	2	6.11	6.06	6.16	14.9	
Methoxychlor	1	7.50	7.45	7.55	16.2	4.4
	2	6.61	6.56	6.66	15.5	
Endrin ketone	1	7.64	7.59	7.69	15.6	1.3
	2	6.84	6.79	6.89	15.8	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	14.1	1.4
	2	3.61	3.56	3.66	13.9	
Heptachlor	1	4.91	4.86	4.96	15.2	2.7
	2	3.94	3.89	3.99	14.8	
Heptachlor epoxide	1	5.68	5.63	5.73	14.3	2.8
	2	4.73	4.68	4.78	14.7	
gamma-Chlordane	1	5.94	5.89	5.99	15.1	0.7
	2	4.97	4.92	5.02	15.2	
Endrin	1	6.57	6.52	6.62	14.6	3.4
	2	5.63	5.58	5.68	15.1	
4,4'-DDD	1	6.71	6.66	6.76	16.5	2.5
	2	5.78	5.73	5.83	16.1	
4,4'-DDE	1	6.19	6.14	6.24	15.7	1.9
	2	5.23	5.18	5.28	15.4	
4,4'-DDT	1	7.02	6.97	7.07	16.3	3.1
	2	6.03	5.98	6.08	15.8	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

PB166334BS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Lab Sample ID: PB166334BS **Date(s) Analyzed:** 01/30/2025 01/30/2025

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

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

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
alpha-BHC	1	3.99	3.94	4.04	14.2	0
	2	3.28	3.23	3.33	14.2	
Aldrin	1	5.26	5.21	5.31	14.3	1.4
	2	4.22	4.17	4.27	14.1	
alpha-Chlordane	1	6.02	5.97	6.07	15.1	0
	2	5.04	4.99	5.09	15.1	
Endosulfan II	1	6.79	6.74	6.84	15.2	2.6
	2	5.93	5.88	5.98	15.6	
Endosulfan sulfate	1	7.16	7.11	7.21	15.3	1.9
	2	6.33	6.28	6.38	15.6	
beta-BHC	1	4.52	4.47	4.57	14.6	0.7
	2	3.91	3.86	3.96	14.5	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

WC-5MS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Lab Sample ID: Q1209-05MS **Date(s) Analyzed:** 01/30/2025 01/30/2025

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

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

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Endosulfan II	1	6.79	6.74	6.84	18.1	3.3
	2	5.93	5.88	5.98	18.7	
4,4'-DDD	1	6.71	6.66	6.76	19.8	3.6
	2	5.78	5.73	5.83	19.1	
4,4'-DDT	1	7.02	6.97	7.07	19.7	0.5
	2	6.03	5.98	6.08	19.8	
Endrin aldehyde	1	6.92	6.87	6.97	17.7	0
	2	6.11	6.06	6.16	17.7	
Endosulfan sulfate	1	7.16	7.11	7.21	18.3	2.2
	2	6.33	6.28	6.38	18.7	
Methoxychlor	1	7.50	7.45	7.55	20.1	4.1
	2	6.61	6.56	6.66	19.3	
Endrin ketone	1	7.64	7.59	7.69	18.8	1.1
	2	6.84	6.79	6.89	18.6	
alpha-BHC	1	3.99	3.94	4.04	17.0	0.6
	2	3.28	3.23	3.33	17.1	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	17.1	1.2
	2	3.61	3.56	3.66	16.9	
Heptachlor	1	4.91	4.86	4.96	18.1	1.1
	2	3.94	3.89	3.99	17.9	
Aldrin	1	5.26	5.21	5.31	17.1	0
	2	4.22	4.17	4.27	17.1	
beta-BHC	1	4.53	4.48	4.58	17.9	1.1
	2	3.91	3.86	3.96	17.7	
delta-BHC	1	4.77	4.72	4.82	17.3	2.3
	2	4.14	4.09	4.19	16.9	
Heptachlor epoxide	1	5.68	5.63	5.73	17.2	3.4
	2	4.73	4.68	4.78	17.8	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

WC-5MS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Lab Sample ID: Q1209-05MS **Date(s) Analyzed:** 01/30/2025 01/30/2025

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

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

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Endosulfan I	1	6.07	6.02	6.12	17.8	2.8
	2	5.10	5.05	5.15	18.3	
gamma-Chlordane	1	5.94	5.89	5.99	18.0	2.2
	2	4.98	4.93	5.03	18.4	
alpha-Chlordane	1	6.02	5.97	6.07	18.0	2.2
	2	5.04	4.99	5.09	18.4	
4,4'-DDE	1	6.19	6.14	6.24	18.9	1.1
	2	5.23	5.18	5.28	18.7	
Dieldrin	1	6.34	6.29	6.39	17.8	1.7
	2	5.36	5.31	5.41	18.1	
Endrin	1	6.57	6.52	6.62	18.1	3.8
	2	5.63	5.58	5.68	18.8	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

WC-5MSD

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Lab Sample ID: Q1209-05MSD **Date(s) Analyzed:** 01/30/2025 01/30/2025

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

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

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Endosulfan II	1	6.79	6.74	6.84	18.3	3.2
	2	5.93	5.88	5.98	18.9	
4,4'-DDD	1	6.71	6.66	6.76	20.1	3
	2	5.78	5.73	5.83	19.5	
4,4'-DDT	1	7.02	6.97	7.07	19.9	0
	2	6.03	5.98	6.08	19.9	
Endrin aldehyde	1	6.92	6.87	6.97	17.9	1.1
	2	6.11	6.06	6.16	17.7	
Endosulfan sulfate	1	7.16	7.11	7.21	18.7	1.1
	2	6.33	6.28	6.38	18.9	
Methoxychlor	1	7.50	7.45	7.55	20.2	5.1
	2	6.61	6.56	6.66	19.2	
Endrin ketone	1	7.64	7.59	7.69	19.0	0
	2	6.84	6.79	6.89	19.0	
alpha-BHC	1	3.99	3.94	4.04	17.3	0.6
	2	3.28	3.23	3.33	17.4	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	17.3	0.6
	2	3.61	3.56	3.66	17.2	
Heptachlor	1	4.91	4.86	4.96	18.1	0
	2	3.94	3.89	3.99	18.1	
Aldrin	1	5.26	5.21	5.31	17.4	1.2
	2	4.22	4.17	4.27	17.2	
beta-BHC	1	4.52	4.47	4.57	18.0	0
	2	3.91	3.86	3.96	18.0	
delta-BHC	1	4.77	4.72	4.82	17.5	2.3
	2	4.13	4.08	4.18	17.1	
Heptachlor epoxide	1	5.68	5.63	5.73	17.4	3.4
	2	4.73	4.68	4.78	18.0	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

WC-5MSD

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Lab Sample ID: Q1209-05MSD **Date(s) Analyzed:** 01/30/2025 01/30/2025

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

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

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Endosulfan I	1	6.07	6.02	6.12	18.0	2.7
	2	5.10	5.05	5.15	18.5	
gamma-Chlordane	1	5.94	5.89	5.99	18.2	1.6
	2	4.98	4.93	5.03	18.5	
alpha-Chlordane	1	6.02	5.97	6.07	18.3	1.6
	2	5.04	4.99	5.09	18.6	
4,4'-DDE	1	6.19	6.14	6.24	19.2	1.6
	2	5.23	5.18	5.28	18.9	
Dieldrin	1	6.34	6.29	6.39	18.0	1.7
	2	5.36	5.31	5.41	18.3	
Endrin	1	6.57	6.52	6.62	18.2	5.3
	2	5.64	5.59	5.69	19.2	

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LAB CHRONICLE

OrderID:	Q1206	**OrderDate:**	1/28/2025 11:18:51 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1206-01	**JPP-20.1-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Diesel Range Organics	8015D		01/29/25	01/30/25	
			Gasoline Range Organics	8015D			01/29/25	
Q1206-03	**JPP-20.1-012725**	**SOIL**			**01/27/25**			**01/28/25**
			PCB	8082A		01/29/25	01/29/25	
Q1206-04	**JPP-20.1-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP Herbicide	8151A		01/29/25	01/30/25	
			TCLP Pesticide	8081B		01/29/25	02/03/25	
Q1206-05	**JPP-16.3-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Diesel Range Organics	8015D		01/29/25	01/30/25	
			Gasoline Range Organics	8015D			01/29/25	
Q1206-07	**JPP-16.3-012725**	**SOIL**			**01/27/25**			**01/28/25**
			PCB	8082A		01/29/25	01/29/25	
Q1206-08	**JPP-16.3-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP Herbicide	8151A		01/29/25	01/30/25	
			TCLP Pesticide	8081B		01/29/25	01/30/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1206 **Order ID:** Q1206

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bri

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units

Client ID :

Total Concentration: 0.000

SAMPLE DATA

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	PB166318TB	SDG No.:	Q1206
Lab Sample ID:	PB166318TB	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093859.D	1	01/29/25 11:20	01/29/25 18:05	PB166353

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.50	U	0.049	0.50	ug/L
76-44-8	Heptachlor	0.50	U	0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	0.50	U	0.090	0.50	ug/L
72-20-8	Endrin	0.50	U	0.043	0.50	ug/L
72-43-5	Methoxychlor	0.50	U	0.11	0.50	ug/L
8001-35-2	Toxaphene	10.0	U	1.50	10.0	ug/L
57-74-9	Chlordane	5.00	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	26.8		43 - 140	134%	SPK: 20
877-09-8	Tetrachloro-m-xylene	23.6		77 - 126	118%	SPK: 20

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

Alliance TECHNICAL GROUP
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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-04	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093990.D	1	01/29/25 11:20	02/03/25 14:50	PB166353

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.50	U	0.049	0.50	ug/L
76-44-8	Heptachlor	0.50	U	0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	0.50	U	0.090	0.50	ug/L
72-20-8	Endrin	0.50	U	0.043	0.50	ug/L
72-43-5	Methoxychlor	0.50	U	0.11	0.50	ug/L
8001-35-2	Toxaphene	10.0	U	1.50	10.0	ug/L
57-74-9	Chlordane	5.00	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	23.4		43 - 140	117%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.3		77 - 126	106%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
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J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = 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

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-08	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093890.D	1	01/29/25 11:20	01/30/25 14:51	PB166353

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.50	U	0.049	0.50	ug/L
76-44-8	Heptachlor	0.50	U	0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	0.50	U	0.090	0.50	ug/L
72-20-8	Endrin	0.50	U	0.043	0.50	ug/L
72-43-5	Methoxychlor	0.50	U	0.11	0.50	ug/L
8001-35-2	Toxaphene	10.0	U	1.50	10.0	ug/L
57-74-9	Chlordane	5.00	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	25.6		43 - 140	128%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.9		77 - 126	99%	SPK: 20

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

QC SUMMARY

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

Surrogate Summary

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PL093725.D	PIBLK-PL093725.D	Decachlorobiphenyl	1	20	22.1	111		43	140
		Tetrachloro-m-xylene	1	20	20.8	104		77	126
		Decachlorobiphenyl	2	20	21.9	109		43	140
		Tetrachloro-m-xylene	2	20	20.5	103		77	126
I.BLK-PL093853.D	PIBLK-PL093853.D	Decachlorobiphenyl	1	20	23.0	115		43	140
		Tetrachloro-m-xylene	1	20	20.0	100		77	126
		Decachlorobiphenyl	2	20	22.0	110		43	140
		Tetrachloro-m-xylene	2	20	18.6	93		77	126
PB166353BL	PB166353BL	Decachlorobiphenyl	1	20	27.2	136		43	140
		Tetrachloro-m-xylene	1	20	23.7	119		77	126
		Decachlorobiphenyl	2	20	26.2	131		43	140
		Tetrachloro-m-xylene	2	20	22.3	111		77	126
PB166318TB	PB166318TB	Decachlorobiphenyl	1	20	26.8	134		43	140
		Tetrachloro-m-xylene	1	20	23.6	118		77	126
		Decachlorobiphenyl	2	20	26.1	130		43	140
		Tetrachloro-m-xylene	2	20	21.9	110		77	126
I.BLK-PL093863.D	PIBLK-PL093863.D	Decachlorobiphenyl	1	20	23.1	115		43	140
		Tetrachloro-m-xylene	1	20	19.8	99		77	126
		Decachlorobiphenyl	2	20	22.1	111		43	140
		Tetrachloro-m-xylene	2	20	18.7	93		77	126
I.BLK-PL093874.D	PIBLK-PL093874.D	Decachlorobiphenyl	1	20	22.5	113		43	140
		Tetrachloro-m-xylene	1	20	19.9	100		77	126
		Decachlorobiphenyl	2	20	21.0	105		43	140
		Tetrachloro-m-xylene	2	20	18.1	91		77	126
PB166353BS	PB166353BS	Decachlorobiphenyl	1	20	23.4	117		43	140
		Tetrachloro-m-xylene	1	20	19.9	99		77	126
		Decachlorobiphenyl	2	20	22.5	113		43	140
		Tetrachloro-m-xylene	2	20	19.1	95		77	126
I.BLK-PL093887.D	PIBLK-PL093887.D	Decachlorobiphenyl	1	20	21.4	107		43	140
		Tetrachloro-m-xylene	1	20	18.4	92		77	126
		Decachlorobiphenyl	2	20	21.2	106		43	140
		Tetrachloro-m-xylene	2	20	17.5	88		77	126
Q1206-08	JPP-16.3-012725	Decachlorobiphenyl	1	20	25.6	128		43	140
		Tetrachloro-m-xylene	1	20	19.9	99		77	126
		Decachlorobiphenyl	2	20	24.8	124		43	140
		Tetrachloro-m-xylene	2	20	19.1	96		77	126
I.BLK-PL093904.D	PIBLK-PL093904.D	Decachlorobiphenyl	1	20	20.2	101		43	140
		Tetrachloro-m-xylene	1	20	19.1	96		77	126
		Decachlorobiphenyl	2	20	16.0	80		43	140
		Tetrachloro-m-xylene	2	20	18.6	93		77	126
I.BLK-PL093980.D	PIBLK-PL093980.D	Decachlorobiphenyl	1	20	21.6	108		43	140

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Surrogate Summary

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PL093980.D	PIBLK-PL093980.D	Tetrachloro-m-xylene	1	20	22.2	111		77	126
		Decachlorobiphenyl	2	20	20.2	101		43	140
		Tetrachloro-m-xylene	2	20	21.8	109		77	126
Q1206-04	JPP-20.1-012725	Decachlorobiphenyl	1	20	23.4	117		43	140
		Tetrachloro-m-xylene	1	20	21.3	106		77	126
		Decachlorobiphenyl	2	20	22.2	111		43	140
		Tetrachloro-m-xylene	2	20	20.4	102		77	126
Q1206-04MS	JPP-20.1-012725MS	Decachlorobiphenyl	1	20	26.2	131		43	140
		Tetrachloro-m-xylene	1	20	21.8	109		77	126
		Decachlorobiphenyl	2	20	27.6	138		43	140
		Tetrachloro-m-xylene	2	20	21.3	106		77	126
Q1206-04MSD	JPP-20.1-012725MSD	Decachlorobiphenyl	1	20	26.6	133		43	140
		Tetrachloro-m-xylene	1	20	21.3	107		77	126
		Decachlorobiphenyl	2	20	27.5	138		43	140
		Tetrachloro-m-xylene	2	20	21.0	105		77	126
I.BLK-PL093999.D	PIBLK-PL093999.D	Decachlorobiphenyl	1	20	28.1	140		43	140
		Tetrachloro-m-xylene	1	20	21.1	106		77	126
		Decachlorobiphenyl	2	20	21.9	109		43	140
		Tetrachloro-m-xylene	2	20	20.5	102		77	126

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8081B **DataFile :** PL093991.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**JPP-20.1-012725MS**											
Q1206-04MS	gamma-BHC (Lindane)	5	0	5.80	ug/L	116				60	152	
	Heptachlor	5	0	5.80	ug/L	116				56	147	
	Heptachlor epoxide	5	0	5.90	ug/L	118				77	143	
	Endrin	5	0	6.00	ug/L	120				76	144	
	Methoxychlor	5	0	5.70	ug/L	114				70	142	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8081B **DataFile :** PL093992.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**JPP-20.1-012725MSD**											
Q1206-04MSD	gamma-BHC (Lindane)	5	0	5.70	ug/L	114		2		60	152	20
	Heptachlor	5	0	5.70	ug/L	114		2		56	147	20
	Heptachlor epoxide	5	0	5.80	ug/L	116		2		77	143	20
	Endrin	5	0	6.30	ug/L	126		5		76	144	20
	Methoxychlor	5	0	6.10	ug/L	122		7		70	142	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8081B **Datafile :** PL093886.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166353BS	gamma-BHC (Lindane)	0.5	0.47	ug/L	93				82	129	
	Heptachlor	0.5	0.49	ug/L	98				79	127	
	Heptachlor epoxide	0.5	0.49	ug/L	97				81	124	
	Endrin	0.5	0.48	ug/L	97				81	128	
	Methoxychlor	0.5	0.50	ug/L	100				78	108	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166353BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

Lab Sample ID: PB166353BL Lab File ID: PL093857.D

Matrix: (soil/water) water Extraction: (Type) SEPF

Sulfur Cleanup: (Y/N) N Date Extracted: 01/29/2025

Date Analyzed (1): 01/29/2025 Date Analyzed (2): 01/29/2025

Time Analyzed (1): 17:36 Time Analyzed (2): 17:36

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

GC Column (1): ZB-MR1 ID: 0.32 (mm) GC Column (2): ZB-MR2 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
PB166318TB	PB166318TB	PL093859.D	01/29/2025	01/29/2025
PB166353BS	PB166353BS	PL093886.D	01/30/2025	01/30/2025
JPP-16.3-012725	Q1206-08	PL093890.D	01/30/2025	01/30/2025
JPP-20.1-012725	Q1206-04	PL093990.D	02/03/2025	02/03/2025
JPP-20.1-012725MS	Q1206-04MS	PL093991.D	02/03/2025	02/03/2025
JPP-20.1-012725MSD	Q1206-04MSD	PL093992.D	02/03/2025	02/03/2025

COMMENTS:

QC SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166353BL	SDG No.:	Q1206
Lab Sample ID:	PB166353BL	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093857.D	1	01/29/25 11:20	01/29/25 17:36	PB166353

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	27.2		43 - 140	136%	SPK: 20
877-09-8	Tetrachloro-m-xylene	23.7		77 - 126	119%	SPK: 20

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/21/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/21/25
Client Sample ID:	PIBLK-PL093725.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PL093725.D	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093725.D	1		01/21/25	PL012125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	22.1		43 - 140	111%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.8		77 - 126	104%	SPK: 20

Comments:

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() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	PIBLK-PL093853.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PL093853.D	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093853.D	1		01/29/25	pl012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	23.0		43 - 140	115%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.0		77 - 126	100%	SPK: 20

Comments:

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	PIBLK-PL093863.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PL093863.D	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093863.D	1		01/29/25	pl012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	23.1		43 - 140	115%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.8		77 - 126	99%	SPK: 20

Comments:

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-PL093874.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PL093874.D	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093874.D	1		01/30/25	pl013025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	22.5		43 - 140	113%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.9		77 - 126	100%	SPK: 20

Comments:

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LOD = Limit of Detection
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M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
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() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-PL093887.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PL093887.D	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093887.D	1		01/30/25	pl013025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	21.4		43 - 140	107%	SPK: 20
877-09-8	Tetrachloro-m-xylene	18.4		77 - 126	92%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
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() = Laboratory InHouse Limit

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-PL093904.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PL093904.D	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093904.D	1		01/30/25	pl013025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	20.2		43 - 140	101%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.1		77 - 126	96%	SPK: 20

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/03/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/03/25
Client Sample ID:	PIBLK-PL093980.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PL093980.D	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093980.D	1		02/03/25	pl020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	21.6		43 - 140	108%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.2		77 - 126	111%	SPK: 20

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	02/03/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	02/03/25
Client Sample ID:	PIBLK-PL093999.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PL093999.D	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093999.D	1		02/03/25	pl020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	28.1		43 - 140	140%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.1		77 - 126	106%	SPK: 20

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166353BS	SDG No.:	Q1206
Lab Sample ID:	PB166353BS	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093886.D	1	01/29/25 11:20	01/30/25 13:24	PB166353

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.47		0.0049	0.050	ug/L
76-44-8	Heptachlor	0.49		0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.49		0.0090	0.050	ug/L
72-20-8	Endrin	0.48		0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.50		0.011	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.50	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	23.4		43 - 140	117%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.9		77 - 126	99%	SPK: 20

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725MS	SDG No.:	Q1206
Lab Sample ID:	Q1206-04MS	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093991.D	1	01/29/25 11:20	02/03/25 15:04	PB166353

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	5.80		0.049	0.50	ug/L
76-44-8	Heptachlor	5.80		0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	5.90		0.090	0.50	ug/L
72-20-8	Endrin	6.00		0.043	0.50	ug/L
72-43-5	Methoxychlor	5.70		0.11	0.50	ug/L
8001-35-2	Toxaphene	10.0	U	1.50	10.0	ug/L
57-74-9	Chlordane	5.00	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	27.6		43 - 140	138%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.8		77 - 126	109%	SPK: 20

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725MSD	SDG No.:	Q1206
Lab Sample ID:	Q1206-04MSD	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093992.D	1	01/29/25 11:20	02/03/25 15:22	PB166353

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	5.70		0.049	0.50	ug/L
76-44-8	Heptachlor	5.70		0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	5.80		0.090	0.50	ug/L
72-20-8	Endrin	6.30		0.043	0.50	ug/L
72-43-5	Methoxychlor	6.10		0.11	0.50	ug/L
8001-35-2	Toxaphene	10.0	U	1.50	10.0	ug/L
57-74-9	Chlordane	5.00	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	27.5		43 - 140	138%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.3		77 - 126	107%	SPK: 20

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

CALIBRATION SUMMARY

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_L **Calibration Date(s):** 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

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

LAB FILE ID: RT 100 = PL093728.D RT 075 = PL093729.D

RT 050 = PL093730.D RT 025 = PL093731.D RT 005 = PL093732.D

COMPOUND	RT 100	RT 075	RT 050	RT 025	RT 005	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Decachlorobiphenyl	9.05	9.05	9.05	9.05	9.05	9.05	8.95	9.15
Endrin	6.57	6.57	6.57	6.57	6.57	6.57	6.47	6.67
gamma-BHC (Lindane)	4.33	4.33	4.33	4.33	4.33	4.33	4.23	4.43
Heptachlor	4.92	4.92	4.91	4.91	4.91	4.91	4.81	5.01
Heptachlor epoxide	5.68	5.68	5.68	5.68	5.68	5.68	5.58	5.78
Methoxychlor	7.50	7.50	7.50	7.50	7.50	7.50	7.40	7.60
Tetrachloro-m-xylene	3.54	3.54	3.54	3.54	3.54	3.54	3.44	3.64

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_L **Calibration Date(s):** 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

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

LAB FILE ID: RT 100 = PL093728.D RT 075 = PL093729.D

RT 050 = PL093730.D RT 025 = PL093731.D RT 005 = PL093732.D

COMPOUND	RT 100	RT 075	RT 050	RT 025	RT 005	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Decachlorobiphenyl	7.91	7.91	7.91	7.91	7.91	7.91	7.81	8.01
Endrin	5.64	5.64	5.64	5.64	5.64	5.64	5.54	5.74
gamma-BHC (Lindane)	3.61	3.61	3.61	3.61	3.61	3.61	3.51	3.71
Heptachlor	3.95	3.95	3.95	3.95	3.94	3.94	3.84	4.04
Heptachlor epoxide	4.73	4.73	4.73	4.73	4.73	4.73	4.63	4.83
Methoxychlor	6.61	6.61	6.61	6.61	6.61	6.61	6.51	6.71
Tetrachloro-m-xylene	2.78	2.77	2.77	2.77	2.77	2.77	2.67	2.87

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_L

Calibration Date(s): 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

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

LAB FILE ID: **CF 100 =** PL093728.D **CF 075 =** PL093729.D

CF 050 = PL093730.D **CF 025 =** PL093731.D **CF 005 =** PL093732.D

COMPOUND	CF 100	CF 075	CF 050	CF 025	CF 005	CF	% RSD
Decachlorobiphenyl	1768480000	1816480000	2098320000	2018470000	2757820000	2091910000	19
Endrin	2079430000	2060990000	2363220000	2218560000	3001890000	2344820000	17
gamma-BHC (Lindane)	3375960000	3339350000	3767250000	3460830000	4470850000	3682850000	13
Heptachlor	2922500000	2901690000	3325290000	3144100000	4093120000	3277340000	15
Heptachlor epoxide	2568680000	2575960000	2953630000	2835830000	3935020000	2973820000	19
Methoxychlor	907284000	922109000	1080370000	1020090000	1287130000	1043400000	15
Tetrachloro-m-xylene	2397870000	2402980000	2740040000	2595500000	3327420000	2692760000	14

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_L

Calibration Date(s): 01/21/2025 01/21/2025

Calibration Times: 10:57 11:51

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

LAB FILE ID: **CF 100 =** PL093728.D **CF 075 =** PL093729.D

CF 050 = PL093730.D **CF 025 =** PL093731.D **CF 005 =** PL093732.D

COMPOUND	CF 100	CF 075	CF 050	CF 025	CF 005	CF	% RSD
Decachlorobiphenyl	3226690000	3193800000	3627020000	3320620000	4152210000	3504070000	11
Endrin	3607760000	3481170000	3870730000	3406140000	4097610000	3692680000	8
gamma-BHC (Lindane)	4713370000	4597010000	5084610000	4384810000	4926270000	4741210000	6
Heptachlor	4505180000	4413750000	4924840000	4345980000	5084220000	4654790000	7
Heptachlor epoxide	4026840000	3946880000	4424170000	3927960000	4575440000	4180260000	7
Methoxychlor	1651870000	1634200000	1870410000	1643810000	2140390000	1788140000	12
Tetrachloro-m-xylene	3101220000	3058550000	3437230000	3066200000	3657590000	3264160000	8

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_L **Date(s) Analyzed:** 01/21/2025 01/21/2025

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

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Chlordane	500	1	4.70	4.60	4.80	110671000
		2	5.23	5.13	5.33	111822000
		3	5.94	5.84	6.04	367564000
		4	6.02	5.92	6.12	441167000
		5	6.87	6.77	6.97	84311800
Toxaphene	500	1	6.24	6.14	6.34	23446000
		2	6.44	6.34	6.54	14767200
		3	7.06	6.96	7.16	75896000
		4	7.15	7.05	7.25	57345100
		5	7.93	7.83	8.03	43067100

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_L **Date(s) Analyzed:** 01/21/2025 01/21/2025

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

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Chlordane	500	1	3.77	3.67	3.87	122213000
		2	4.35	4.25	4.45	140610000
		3	4.98	4.88	5.08	427882000
		4	5.04	4.94	5.14	412254000
		5	5.94	5.84	6.04	148711000
Toxaphene	500	1	5.00	4.90	5.10	27057100
		2	5.33	5.23	5.43	23947200
		3	5.68	5.58	5.78	24726400
		4	6.60	6.50	6.70	84987200
		5	7.04	6.94	7.14	80238300

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/29/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 16:30 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.92	4.91	4.81	5.01	-0.01
Heptachlor epoxide	5.69	5.68	5.58	5.78	0.00
Endrin	6.58	6.57	6.47	6.67	-0.01
Methoxychlor	7.50	7.50	7.40	7.60	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/29/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 16:30 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.95	3.95	3.85	4.05	0.00
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/29/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093854.D **Time Analyzed:** 16:30

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.060	8.953	9.153	53.100	50.000	6.2
Endrin	6.576	6.472	6.672	53.640	50.000	7.3
gamma-BHC (Lindane)	4.328	4.227	4.427	50.860	50.000	1.7
Heptachlor	4.916	4.814	5.014	52.950	50.000	5.9
Heptachlor epoxide	5.685	5.582	5.782	49.820	50.000	-0.4
Methoxychlor	7.503	7.398	7.598	57.780	50.000	15.6
Tetrachloro-m-xylene	3.539	3.439	3.639	50.560	50.000	1.1

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/29/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093854.D **Time Analyzed:** 16:30

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.913	7.810	8.010	53.840	50.000	7.7
Endrin	5.638	5.536	5.736	53.380	50.000	6.8
gamma-BHC (Lindane)	3.607	3.507	3.707	50.260	50.000	0.5
Heptachlor	3.946	3.845	4.045	51.740	50.000	3.5
Heptachlor epoxide	4.728	4.627	4.827	50.190	50.000	0.4
Methoxychlor	6.612	6.509	6.709	55.130	50.000	10.3
Tetrachloro-m-xylene	2.774	2.674	2.874	49.850	50.000	-0.3

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/29/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 19:11 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.92	4.91	4.81	5.01	-0.01
Heptachlor epoxide	5.69	5.68	5.58	5.78	0.00
Endrin	6.58	6.57	6.47	6.67	-0.01
Methoxychlor	7.50	7.50	7.40	7.60	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/29/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 19:11 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.78	2.77	2.67	2.87	-0.01
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.95	3.95	3.85	4.05	0.00
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 01/29/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093864.D **Time Analyzed:** 19:11

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.059	8.953	9.153	49.770	50.000	-0.5
Endrin	6.576	6.472	6.672	49.830	50.000	-0.3
gamma-BHC (Lindane)	4.328	4.227	4.427	46.930	50.000	-6.1
Heptachlor	4.916	4.814	5.014	48.830	50.000	-2.3
Heptachlor epoxide	5.685	5.582	5.782	46.430	50.000	-7.1
Methoxychlor	7.502	7.398	7.598	53.490	50.000	7.0
Tetrachloro-m-xylene	3.539	3.439	3.639	46.770	50.000	-6.5

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 01/29/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093864.D **Time Analyzed:** 19:11

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.913	7.810	8.010	50.680	50.000	1.4
Endrin	5.639	5.536	5.736	49.190	50.000	-1.6
gamma-BHC (Lindane)	3.608	3.507	3.707	46.140	50.000	-7.7
Heptachlor	3.946	3.845	4.045	47.650	50.000	-4.7
Heptachlor epoxide	4.729	4.627	4.827	46.420	50.000	-7.2
Methoxychlor	6.612	6.509	6.709	51.050	50.000	2.1
Tetrachloro-m-xylene	2.775	2.674	2.874	46.240	50.000	-7.5

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 09:58 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.92	4.91	4.81	5.01	0.00
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 09:58 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.95	3.95	3.85	4.05	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 01/30/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093876.D **Time Analyzed:** 09:58

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.055	8.953	9.153	48.590	50.000	-2.8
Endrin	6.574	6.472	6.672	48.110	50.000	-3.8
gamma-BHC (Lindane)	4.327	4.227	4.427	45.140	50.000	-9.7
Heptachlor	4.915	4.814	5.014	47.560	50.000	-4.9
Heptachlor epoxide	5.683	5.582	5.782	45.130	50.000	-9.7
Methoxychlor	7.500	7.398	7.598	51.550	50.000	3.1
Tetrachloro-m-xylene	3.539	3.439	3.639	45.390	50.000	-9.2

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 01/30/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093876.D **Time Analyzed:** 09:58

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.910	7.810	8.010	49.800	50.000	-0.4
Endrin	5.636	5.536	5.736	48.870	50.000	-2.3
gamma-BHC (Lindane)	3.607	3.507	3.707	46.010	50.000	-8.0
Heptachlor	3.945	3.845	4.045	47.440	50.000	-5.1
Heptachlor epoxide	4.727	4.627	4.827	46.460	50.000	-7.1
Methoxychlor	6.610	6.509	6.709	49.830	50.000	-0.3
Tetrachloro-m-xylene	2.774	2.674	2.874	45.470	50.000	-9.1

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 13:53 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.92	4.91	4.81	5.01	-0.01
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 13:53 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.95	3.95	3.85	4.05	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL04 **Date Analyzed:** 01/30/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093888.D **Time Analyzed:** 13:53

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.056	8.953	9.153	48.490	50.000	-3.0
Endrin	6.573	6.472	6.672	43.820	50.000	-12.4
gamma-BHC (Lindane)	4.328	4.227	4.427	44.710	50.000	-10.6
Heptachlor	4.916	4.814	5.014	46.250	50.000	-7.5
Heptachlor epoxide	5.684	5.582	5.782	44.430	50.000	-11.1
Methoxychlor	7.500	7.398	7.598	46.980	50.000	-6.0
Tetrachloro-m-xylene	3.539	3.439	3.639	45.400	50.000	-9.2

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL04 **Date Analyzed:** 01/30/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093888.D **Time Analyzed:** 13:53

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.910	7.810	8.010	48.940	50.000	-2.1
Endrin	5.637	5.536	5.736	45.280	50.000	-9.4
gamma-BHC (Lindane)	3.607	3.507	3.707	44.600	50.000	-10.8
Heptachlor	3.945	3.845	4.045	45.400	50.000	-9.2
Heptachlor epoxide	4.727	4.627	4.827	44.970	50.000	-10.1
Methoxychlor	6.610	6.509	6.709	45.430	50.000	-9.1
Tetrachloro-m-xylene	2.774	2.674	2.874	44.780	50.000	-10.4

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 19:06 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.05	9.05	8.95	9.15	0.00
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.91	4.91	4.81	5.01	0.00
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 19:06 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.94	3.95	3.85	4.05	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL05 **Date Analyzed:** 01/30/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093906.D **Time Analyzed:** 19:06

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.053	8.953	9.153	45.970	50.000	-8.1
Endrin	6.571	6.472	6.672	41.650	50.000	-16.7
gamma-BHC (Lindane)	4.326	4.227	4.427	45.020	50.000	-10.0
Heptachlor	4.914	4.814	5.014	45.190	50.000	-9.6
Heptachlor epoxide	5.681	5.582	5.782	43.240	50.000	-13.5
Methoxychlor	7.498	7.398	7.598	44.720	50.000	-10.6
Tetrachloro-m-xylene	3.537	3.439	3.639	45.460	50.000	-9.1

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL05 **Date Analyzed:** 01/30/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093906.D **Time Analyzed:** 19:06

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.909	7.810	8.010	45.120	50.000	-9.8
Endrin	5.635	5.536	5.736	44.130	50.000	-11.7
gamma-BHC (Lindane)	3.606	3.507	3.707	46.060	50.000	-7.9
Heptachlor	3.944	3.845	4.045	45.820	50.000	-8.4
Heptachlor epoxide	4.726	4.627	4.827	46.510	50.000	-7.0
Methoxychlor	6.609	6.509	6.709	42.130	50.000	-15.7
Tetrachloro-m-xylene	2.774	2.674	2.874	46.540	50.000	-6.9

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 02/03/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 12:17 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.92	4.91	4.81	5.01	-0.01
Heptachlor epoxide	5.69	5.68	5.58	5.78	-0.01
Endrin	6.58	6.57	6.47	6.67	-0.01
Methoxychlor	7.50	7.50	7.40	7.60	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 02/03/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 12:17 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.95	3.95	3.85	4.05	0.00
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL06 **Date Analyzed:** 02/03/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093982.D **Time Analyzed:** 12:17

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.061	8.953	9.153	48.630	50.000	-2.7
Endrin	6.577	6.472	6.672	51.580	50.000	3.2
gamma-BHC (Lindane)	4.333	4.227	4.427	55.370	50.000	10.7
Heptachlor	4.921	4.814	5.014	55.190	50.000	10.4
Heptachlor epoxide	5.688	5.582	5.782	48.040	50.000	-3.9
Methoxychlor	7.503	7.398	7.598	57.600	50.000	15.2
Tetrachloro-m-xylene	3.544	3.439	3.639	54.550	50.000	9.1

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL06 **Date Analyzed:** 02/03/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL093982.D **Time Analyzed:** 12:17

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.913	7.810	8.010	46.730	50.000	-6.5
Endrin	5.638	5.536	5.736	52.920	50.000	5.8
gamma-BHC (Lindane)	3.608	3.507	3.707	52.550	50.000	5.1
Heptachlor	3.946	3.845	4.045	53.790	50.000	7.6
Heptachlor epoxide	4.728	4.627	4.827	53.570	50.000	7.1
Methoxychlor	6.612	6.509	6.709	55.210	50.000	10.4
Tetrachloro-m-xylene	2.774	2.674	2.874	54.490	50.000	9.0

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 02/03/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 17:50 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.92	4.91	4.81	5.01	-0.01
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endrin	6.58	6.57	6.47	6.67	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 02/03/2025 **Initial Calibration Date(s):** 01/21/2025 01/21/2025

Continuing Calib Time: 17:50 **Initial Calibration Time(s):** 10:57 11:51

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.91	7.81	8.01	0.00
Tetrachloro-m-xylene	2.77	2.77	2.67	2.87	0.00
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.94	3.95	3.85	4.05	0.01
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Methoxychlor	6.61	6.61	6.51	6.71	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL07 **Date Analyzed:** 02/03/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL094001.D **Time Analyzed:** 17:50

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.055	8.953	9.153	50.120	50.000	0.2
Endrin	6.575	6.472	6.672	53.310	50.000	6.6
gamma-BHC (Lindane)	4.328	4.227	4.427	53.780	50.000	7.6
Heptachlor	4.916	4.814	5.014	54.610	50.000	9.2
Heptachlor epoxide	5.684	5.582	5.782	51.770	50.000	3.5
Methoxychlor	7.501	7.398	7.598	56.300	50.000	12.6
Tetrachloro-m-xylene	3.540	3.439	3.639	52.880	50.000	5.8

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL07 **Date Analyzed:** 02/03/2025

Lab Sample No.: PSTDCCC050 **Data File :** PL094001.D **Time Analyzed:** 17:50

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.909	7.810	8.010	52.420	50.000	4.8
Endrin	5.636	5.536	5.736	55.090	50.000	10.2
gamma-BHC (Lindane)	3.606	3.507	3.707	53.550	50.000	7.1
Heptachlor	3.944	3.845	4.045	53.700	50.000	7.4
Heptachlor epoxide	4.727	4.627	4.827	54.320	50.000	8.6
Methoxychlor	6.609	6.509	6.709	58.410	50.000	16.8
Tetrachloro-m-xylene	2.773	2.674	2.874	53.550	50.000	7.1

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093726.D **Date Analyzed:** 01/21/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 10:30

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.052	8.950	9.150	18.070	20.000	-9.7
Tetrachloro-m-xylene	3.538	3.490	3.590	18.530	20.000	-7.4
alpha-BHC	3.994	3.940	4.040	9.490	10.000	-5.1
beta-BHC	4.525	4.470	4.580	9.790	10.000	-2.1
gamma-BHC (Lindane)	4.326	4.280	4.380	9.300	10.000	-7.0
Endrin	6.572	6.500	6.640	41.270	50.000	-17.5
4,4'-DDT	7.022	6.950	7.090	82.410	100.000	-17.6
Methoxychlor	7.498	7.430	7.570	190.380	250.000	-23.8

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093726.D **Date Analyzed:** 01/21/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 10:30

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.909	7.810	8.010	17.950	20.000	-10.3
Tetrachloro-m-xylene	2.775	2.720	2.830	17.900	20.000	-10.5
alpha-BHC	3.277	3.230	3.330	8.620	10.000	-13.8
beta-BHC	3.907	3.860	3.960	9.800	10.000	-2.0
gamma-BHC (Lindane)	3.607	3.560	3.660	8.300	10.000	-17.0
Endrin	5.636	5.570	5.710	42.700	50.000	-14.6
4,4'-DDT	6.034	5.960	6.100	96.510	100.000	-3.5
Methoxychlor	6.609	6.540	6.680	209.940	250.000	-16.0

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093842.D **Date Analyzed:** 01/29/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 10:10

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.060	8.960	9.160	22.550	20.000	12.8
Tetrachloro-m-xylene	3.538	3.490	3.590	21.480	20.000	7.4
alpha-BHC	3.994	3.940	4.040	11.230	10.000	12.3
beta-BHC	4.526	4.480	4.580	11.610	10.000	16.1
gamma-BHC (Lindane)	4.327	4.280	4.380	11.240	10.000	12.4
Endrin	6.576	6.510	6.650	50.170	50.000	0.3
4,4'-DDT	7.027	6.960	7.100	106.770	100.000	6.8
Methoxychlor	7.503	7.430	7.570	247.220	250.000	-1.1

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093842.D **Date Analyzed:** 01/29/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 10:10

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.913	7.810	8.010	20.860	20.000	4.3
Tetrachloro-m-xylene	2.774	2.720	2.820	20.210	20.000	1.1
alpha-BHC	3.277	3.230	3.330	9.770	10.000	-2.3
beta-BHC	3.907	3.860	3.960	11.050	10.000	10.5
gamma-BHC (Lindane)	3.607	3.560	3.660	9.350	10.000	-6.5
Endrin	5.638	5.570	5.710	48.690	50.000	-2.6
4,4'-DDT	6.036	5.970	6.110	116.290	100.000	16.3
Methoxychlor	6.612	6.540	6.680	254.730	250.000	1.9

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093875.D **Date Analyzed:** 01/30/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 09:45

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.056	8.960	9.160	23.080	20.000	15.4
Tetrachloro-m-xylene	3.539	3.490	3.590	21.630	20.000	8.2
alpha-BHC	3.995	3.940	4.050	11.160	10.000	11.6
beta-BHC	4.525	4.470	4.580	11.630	10.000	16.3
gamma-BHC (Lindane)	4.327	4.280	4.380	11.090	10.000	10.9
Endrin	6.575	6.500	6.650	50.070	50.000	0.1
4,4'-DDT	7.025	6.950	7.100	105.300	100.000	5.3
Methoxychlor	7.501	7.430	7.570	246.960	250.000	-1.2

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093875.D **Date Analyzed:** 01/30/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 09:45

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.910	7.810	8.010	22.210	20.000	11.1
Tetrachloro-m-xylene	2.774	2.720	2.820	20.410	20.000	2.1
alpha-BHC	3.276	3.230	3.330	9.790	10.000	-2.1
beta-BHC	3.907	3.860	3.960	11.070	10.000	10.7
gamma-BHC (Lindane)	3.606	3.560	3.660	9.520	10.000	-4.8
Endrin	5.637	5.570	5.710	50.920	50.000	1.8
4,4'-DDT	6.035	5.960	6.110	119.020	100.000	19.0
Methoxychlor	6.610	6.540	6.680	257.770	250.000	3.1

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093981.D **Date Analyzed:** 02/03/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 11:03

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.056	8.960	9.160	14.510	20.000	-27.5
Tetrachloro-m-xylene	3.540	3.490	3.590	18.660	20.000	-6.7
alpha-BHC	3.996	3.950	4.050	9.460	10.000	-5.4
beta-BHC	4.527	4.480	4.580	9.070	10.000	-9.3
gamma-BHC (Lindane)	4.329	4.280	4.380	9.100	10.000	-9.0
Endrin	6.574	6.500	6.640	37.910	50.000	-24.2
4,4'-DDT	7.025	6.950	7.100	80.590	100.000	-19.4
Methoxychlor	7.502	7.430	7.570	195.740	250.000	-21.7

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No. (PEM): PEM - PL093981.D **Date Analyzed:** 02/03/2025

Lab Sample No.(PEM): PEM **Time Analyzed:** 11:03

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.911	7.810	8.010	14.500	20.000	-27.5
Tetrachloro-m-xylene	2.775	2.720	2.830	18.090	20.000	-9.6
alpha-BHC	3.277	3.230	3.330	8.770	10.000	-12.3
beta-BHC	3.908	3.860	3.960	9.580	10.000	-4.2
gamma-BHC (Lindane)	3.607	3.560	3.660	7.660	10.000	-23.4
Endrin	5.638	5.570	5.710	37.350	50.000	-25.3
4,4'-DDT	6.035	5.960	6.110	88.620	100.000	-11.4
Methoxychlor	6.610	6.540	6.680	208.200	250.000	-16.7

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_L

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/21/2025 01/21/2025

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

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	01/21/2025	10:16	PL093725.D	9.05	3.54
PEM	PEM	01/21/2025	10:30	PL093726.D	9.05	3.54
RESCHK	RESCHK	01/21/2025	10:43	PL093727.D	9.05	3.54
PSTDICC100	PSTDICC100	01/21/2025	10:57	PL093728.D	9.05	3.54
PSTDICC075	PSTDICC075	01/21/2025	11:10	PL093729.D	9.05	3.54
PSTDICC050	PSTDICC050	01/21/2025	11:24	PL093730.D	9.05	3.54
PSTDICC025	PSTDICC025	01/21/2025	11:38	PL093731.D	9.05	3.54
PSTDICC005	PSTDICC005	01/21/2025	11:51	PL093732.D	9.05	3.54
PCHLORICC500	PCHLORICC500	01/21/2025	12:32	PL093735.D	9.05	3.54
PTOXICC500	PTOXICC500	01/21/2025	13:39	PL093740.D	9.05	3.54
PEM	PEM	01/29/2025	10:10	PL093842.D	9.06	3.54
I.BLK	I.BLK	01/29/2025	16:17	PL093853.D	9.07	3.54
PSTDCCC050	PSTDCCC050	01/29/2025	16:30	PL093854.D	9.06	3.54
PB166353BL	PB166353BL	01/29/2025	17:36	PL093857.D	9.06	3.54
PB166318TB	PB166318TB	01/29/2025	18:05	PL093859.D	9.06	3.54
I.BLK	I.BLK	01/29/2025	18:58	PL093863.D	9.06	3.54
PSTDCCC050	PSTDCCC050	01/29/2025	19:11	PL093864.D	9.06	3.54
I.BLK	I.BLK	01/30/2025	09:31	PL093874.D	9.06	3.54
PEM	PEM	01/30/2025	09:45	PL093875.D	9.06	3.54
PSTDCCC050	PSTDCCC050	01/30/2025	09:58	PL093876.D	9.06	3.54
PB166353BS	PB166353BS	01/30/2025	13:24	PL093886.D	9.06	3.54
I.BLK	I.BLK	01/30/2025	13:40	PL093887.D	9.06	3.54
PSTDCCC050	PSTDCCC050	01/30/2025	13:53	PL093888.D	9.06	3.54
JPP-16.3-012725	Q1206-08	01/30/2025	14:51	PL093890.D	9.05	3.54
I.BLK	I.BLK	01/30/2025	17:59	PL093904.D	9.05	3.54
PSTDCCC050	PSTDCCC050	01/30/2025	19:06	PL093906.D	9.05	3.54
I.BLK	I.BLK	02/03/2025	09:14	PL093980.D	9.06	3.54
PEM	PEM	02/03/2025	11:03	PL093981.D	9.06	3.54
PSTDCCC050	PSTDCCC050	02/03/2025	12:17	PL093982.D	9.06	3.54
JPP-20.1-012725	Q1206-04	02/03/2025	14:50	PL093990.D	9.06	3.54
JPP-20.1-012725MS	Q1206-04MS	02/03/2025	15:04	PL093991.D	9.06	3.54
JPP-20.1-012725MSD	Q1206-04MSD	02/03/2025	15:22	PL093992.D	9.06	3.54
I.BLK	I.BLK	02/03/2025	16:55	PL093999.D	9.05	3.54
PSTDCCC050	PSTDCCC050	02/03/2025	17:50	PL094001.D	9.06	3.54

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_L

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/21/2025 01/21/2025

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

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	01/21/2025	10:16	PL093725.D	7.91	2.78
PEM	PEM	01/21/2025	10:30	PL093726.D	7.91	2.78
RESCHK	RESCHK	01/21/2025	10:43	PL093727.D	7.91	2.77
PSTDICC100	PSTDICC100	01/21/2025	10:57	PL093728.D	7.91	2.78
PSTDICC075	PSTDICC075	01/21/2025	11:10	PL093729.D	7.91	2.77
PSTDICC050	PSTDICC050	01/21/2025	11:24	PL093730.D	7.91	2.77
PSTDICC025	PSTDICC025	01/21/2025	11:38	PL093731.D	7.91	2.77
PSTDICC005	PSTDICC005	01/21/2025	11:51	PL093732.D	7.91	2.77
PCHLORICC500	PCHLORICC500	01/21/2025	12:32	PL093735.D	7.91	2.77
PTOXICC500	PTOXICC500	01/21/2025	13:39	PL093740.D	7.91	2.77
PEM	PEM	01/29/2025	10:10	PL093842.D	7.91	2.77
I.BLK	I.BLK	01/29/2025	16:17	PL093853.D	7.92	2.77
PSTDCCC050	PSTDCCC050	01/29/2025	16:30	PL093854.D	7.91	2.77
PB166353BL	PB166353BL	01/29/2025	17:36	PL093857.D	7.91	2.78
PB166318TB	PB166318TB	01/29/2025	18:05	PL093859.D	7.91	2.78
I.BLK	I.BLK	01/29/2025	18:58	PL093863.D	7.91	2.77
PSTDCCC050	PSTDCCC050	01/29/2025	19:11	PL093864.D	7.91	2.78
I.BLK	I.BLK	01/30/2025	09:31	PL093874.D	7.91	2.77
PEM	PEM	01/30/2025	09:45	PL093875.D	7.91	2.77
PSTDCCC050	PSTDCCC050	01/30/2025	09:58	PL093876.D	7.91	2.77
PB166353BS	PB166353BS	01/30/2025	13:24	PL093886.D	7.91	2.77
I.BLK	I.BLK	01/30/2025	13:40	PL093887.D	7.91	2.77
PSTDCCC050	PSTDCCC050	01/30/2025	13:53	PL093888.D	7.91	2.77
JPP-16.3-012725	Q1206-08	01/30/2025	14:51	PL093890.D	7.91	2.77
I.BLK	I.BLK	01/30/2025	17:59	PL093904.D	7.91	2.77
PSTDCCC050	PSTDCCC050	01/30/2025	19:06	PL093906.D	7.91	2.77
I.BLK	I.BLK	02/03/2025	09:14	PL093980.D	7.91	2.78
PEM	PEM	02/03/2025	11:03	PL093981.D	7.91	2.78
PSTDCCC050	PSTDCCC050	02/03/2025	12:17	PL093982.D	7.91	2.77
JPP-20.1-012725	Q1206-04	02/03/2025	14:50	PL093990.D	7.91	2.77
JPP-20.1-012725MS	Q1206-04MS	02/03/2025	15:04	PL093991.D	7.91	2.78
JPP-20.1-012725MSD	Q1206-04MSD	02/03/2025	15:22	PL093992.D	7.91	2.78
I.BLK	I.BLK	02/03/2025	16:55	PL093999.D	7.91	2.77
PSTDCCC050	PSTDCCC050	02/03/2025	17:50	PL094001.D	7.91	2.77

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-20.1-012725MS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Lab Sample ID: Q1206-04MS **Date(s) Analyzed:** 02/03/2025 02/03/2025

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

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

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Methoxychlor	1	7.50	7.45	7.55	5.70	7.3
	2	6.61	6.56	6.66	5.30	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	5.80	1.7
	2	3.61	3.56	3.66	5.70	
Heptachlor	1	4.92	4.87	4.97	5.80	3.5
	2	3.95	3.90	4.00	5.60	
Heptachlor epoxide	1	5.68	5.63	5.73	5.50	7
	2	4.73	4.68	4.78	5.90	
Endrin	1	6.57	6.52	6.62	5.90	1.7
	2	5.64	5.59	5.69	6.00	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-20.1-012725MSD

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Lab Sample ID: Q1206-04MSD **Date(s) Analyzed:** 02/03/2025 02/03/2025

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

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

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Methoxychlor	1	7.50	7.45	7.55	6.00	1.7
	2	6.61	6.56	6.66	6.10	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	5.70	1.8
	2	3.61	3.56	3.66	5.60	
Heptachlor	1	4.92	4.87	4.97	5.70	3.6
	2	3.95	3.90	4.00	5.50	
Heptachlor epoxide	1	5.69	5.64	5.74	5.30	9
	2	4.73	4.68	4.78	5.80	
Endrin	1	6.58	6.53	6.63	5.70	10
	2	5.64	5.59	5.69	6.30	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

PB166353BS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Lab Sample ID: PB166353BS **Date(s) Analyzed:** 01/30/2025 01/30/2025

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

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

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Methoxychlor	1	7.50	7.45	7.55	0.50	0.4
	2	6.61	6.56	6.66	0.50	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	0.47	0.3
	2	3.61	3.56	3.66	0.46	
Heptachlor	1	4.92	4.87	4.97	0.49	0.9
	2	3.95	3.90	4.00	0.49	
Heptachlor epoxide	1	5.69	5.64	5.74	0.47	3.4
	2	4.73	4.68	4.78	0.49	
Endrin	1	6.58	6.53	6.63	0.47	3.8
	2	5.64	5.59	5.69	0.48	

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LAB CHRONICLE

OrderID:	Q1206	**OrderDate:**	1/28/2025 11:18:51 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1206-01	**JPP-20.1-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Diesel Range Organics	8015D		01/29/25	01/30/25	
			Gasoline Range Organics	8015D			01/29/25	
Q1206-03	**JPP-20.1-012725**	**SOIL**			**01/27/25**			**01/28/25**
			PCB	8082A		01/29/25	01/29/25	
Q1206-05	**JPP-16.3-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Diesel Range Organics	8015D		01/29/25	01/30/25	
			Gasoline Range Organics	8015D			01/29/25	
Q1206-07	**JPP-16.3-012725**	**SOIL**			**01/27/25**			**01/28/25**
			PCB	8082A		01/29/25	01/29/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1206 **Order ID:** Q1206

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bri

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : JPP-16.3-012725								
Q1206-07	JPP-16.3-012725	SOIL	Aroclor-1254	43.8		3.20	20.1	ug/kg
Q1206-07	JPP-16.3-012725	SOIL	Aroclor-1260	30.0		3.40	20.1	ug/kg
			Total Concentration:	**73.800**				

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-03	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	85.5 Decanted:
Sample Wt/Vol:	30.05 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109247.D	1	01/29/25 08:55	01/29/25 19:13	PB166333

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	19.9	U	4.00	19.9	ug/kg
11104-28-2	Aroclor-1221	19.9	U	7.50	19.9	ug/kg
11141-16-5	Aroclor-1232	19.9	U	4.00	19.9	ug/kg
53469-21-9	Aroclor-1242	19.9	U	4.00	19.9	ug/kg
12672-29-6	Aroclor-1248	19.9	U	9.20	19.9	ug/kg
11097-69-1	Aroclor-1254	19.9	U	3.20	19.9	ug/kg
37324-23-5	Aroclor-1262	19.9	U	5.30	19.9	ug/kg
11100-14-4	Aroclor-1268	19.9	U	4.00	19.9	ug/kg
11096-82-5	Aroclor-1260	19.9	U	3.40	19.9	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	21.8		32 - 144	109%	SPK: 20
2051-24-3	Decachlorobiphenyl	15.9		32 - 175	79%	SPK: 20

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-07	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	84.5 Decanted:
Sample Wt/Vol:	30.04 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109248.D	1	01/29/25 08:55	01/29/25 19:31	PB166333

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	20.1	U	4.00	20.1	ug/kg
11104-28-2	Aroclor-1221	20.1	U	7.60	20.1	ug/kg
11141-16-5	Aroclor-1232	20.1	U	4.00	20.1	ug/kg
53469-21-9	Aroclor-1242	20.1	U	4.00	20.1	ug/kg
12672-29-6	Aroclor-1248	20.1	U	9.30	20.1	ug/kg
11097-69-1	Aroclor-1254	43.8		3.20	20.1	ug/kg
37324-23-5	Aroclor-1262	20.1	U	5.40	20.1	ug/kg
11100-14-4	Aroclor-1268	20.1	U	4.10	20.1	ug/kg
11096-82-5	Aroclor-1260	30.0		3.40	20.1	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	21.5		32 - 144	108%	SPK: 20
2051-24-3	Decachlorobiphenyl	14.4		32 - 175	72%	SPK: 20

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

QC SUMMARY

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Surrogate Summary

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PO108981.D	PIBLK-PO108981.D	Tetrachloro-m-xylene	1	20	21.9	109		60	140
		Decachlorobiphenyl	1	20	21.6	108		60	140
		Tetrachloro-m-xylene	2	20	20.6	103		60	140
		Decachlorobiphenyl	2	20	21.9	109		60	140
I.BLK-PO109228.D	PIBLK-PO109228.D	Tetrachloro-m-xylene	1	20	25.2	126		60	140
		Decachlorobiphenyl	1	20	25.4	127		60	140
		Tetrachloro-m-xylene	2	20	24.3	121		60	140
		Decachlorobiphenyl	2	20	24.0	120		60	140
PB166333BL	PB166333BL	Tetrachloro-m-xylene	1	20	25.2	126		32	144
		Decachlorobiphenyl	1	20	25.1	125		32	175
		Tetrachloro-m-xylene	2	20	24.1	120		32	144
		Decachlorobiphenyl	2	20	24.9	124		32	175
PB166333BS	PB166333BS	Tetrachloro-m-xylene	1	20	23.9	120		32	144
		Decachlorobiphenyl	1	20	25.7	129		32	175
		Tetrachloro-m-xylene	2	20	23.1	116		32	144
		Decachlorobiphenyl	2	20	24.0	120		32	175
I.BLK-PO109243.D	PIBLK-PO109243.D	Tetrachloro-m-xylene	1	20	24.6	123		60	140
		Decachlorobiphenyl	1	20	25.3	126		60	140
		Tetrachloro-m-xylene	2	20	23.7	118		60	140
		Decachlorobiphenyl	2	20	23.6	118		60	140
Q1205-01MS	VNJ-236MS	Tetrachloro-m-xylene	1	20	19.5	98		32	144
		Decachlorobiphenyl	1	20	16.1	80		32	175
		Tetrachloro-m-xylene	2	20	18.9	94		32	144
		Decachlorobiphenyl	2	20	15.7	79		32	175
Q1205-01MSD	VNJ-236MSD	Tetrachloro-m-xylene	1	20	18.8	94		32	144
		Decachlorobiphenyl	1	20	15.4	77		32	175
		Tetrachloro-m-xylene	2	20	18.5	92		32	144
		Decachlorobiphenyl	2	20	15.5	77		32	175
Q1206-03	JPP-20.1-012725	Tetrachloro-m-xylene	1	20	21.8	109		32	144
		Decachlorobiphenyl	1	20	15.8	79		32	175
		Tetrachloro-m-xylene	2	20	21.8	109		32	144
		Decachlorobiphenyl	2	20	15.9	79		32	175
Q1206-07	JPP-16.3-012725	Tetrachloro-m-xylene	1	20	21.1	106		32	144
		Decachlorobiphenyl	1	20	14.3	72		32	175
		Tetrachloro-m-xylene	2	20	21.5	108		32	144
		Decachlorobiphenyl	2	20	14.4	72		32	175
I.BLK-PO109258.D	PIBLK-PO109258.D	Tetrachloro-m-xylene	1	20	23.4	117		60	140
		Decachlorobiphenyl	1	20	18.9	94		60	140
		Tetrachloro-m-xylene	2	20	23.9	119		60	140
		Decachlorobiphenyl	2	20	20.6	103		60	140

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8082A **DataFile :** PO109245.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**VNJ-236MS**											
Q1205-01MS	AR1016	190.8	0	182	ug/kg	95				55	146	
	AR1260	190.8	32.6	177	ug/kg	76				45	144	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8082A **DataFile :** PO109246.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**VNJ-236MSD**											
Q1205-01MSD	AR1016	190.6	0	178	ug/kg	93		2		55	146	20
	AR1260	190.6	32.6	174	ug/kg	74		3		45	144	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8082A **Datafile :** PO109238.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166333BS	AR1016	166.5	169	ug/kg	102				71	120	
	AR1260	166.5	159	ug/kg	95				65	130	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166333BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

Lab Sample ID: PB166333BL Lab File ID: PO109237.D

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

Sulfur Cleanup: (Y/N) N Date Extracted: 01/29/2025

Date Analyzed (1): 01/29/2025 Date Analyzed (2): 01/29/2025

Time Analyzed (1): 15:45 Time Analyzed (2): 15:45

Instrument ID (1): ECD_O Instrument ID (2): ECD_O

GC Column (1): ZB-MR1 ID: 0.32 (mm) GC Column (2): ZB-MR2 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
PB166333BS	PB166333BS	PO109238.D	01/29/2025	01/29/2025
VNJ-236MS	Q1205-01MS	PO109245.D	01/29/2025	01/29/2025
VNJ-236MSD	Q1205-01MSD	PO109246.D	01/29/2025	01/29/2025
JPP-20.1-012725	Q1206-03	PO109247.D	01/29/2025	01/29/2025
JPP-16.3-012725	Q1206-07	PO109248.D	01/29/2025	01/29/2025

COMMENTS:

CALIBRATION SUMMARY

Alliance TECHNICAL GROUP
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Fax : 908 789 8922

RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_O **Calibration Date(s):** 01/21/2025 01/22/2025

Calibration Times: 17:36 01:50

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

LAB FILE ID: RT 1000 = PO108982.D RT 750 = PO108983.D

RT 500 = PO108984.D RT 250 = PO108985.D RT 050 = PO108986.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	4.79	4.79	4.80	4.80	4.80	4.80	4.70	4.90
Aroclor-1016-2	(2)	4.81	4.82	4.81	4.81	4.81	4.81	4.71	4.91
Aroclor-1016-3	(3)	4.87	4.87	4.87	4.87	4.87	4.87	4.77	4.97
Aroclor-1016-4	(4)	4.99	4.99	4.99	4.99	4.99	4.99	4.89	5.09
Aroclor-1016-5	(5)	5.25	5.25	5.25	5.25	5.25	5.25	5.15	5.35
Aroclor-1260-1	(1)	6.29	6.29	6.29	6.29	6.29	6.29	6.19	6.39
Aroclor-1260-2	(2)	6.48	6.48	6.48	6.48	6.48	6.48	6.38	6.58
Aroclor-1260-3	(3)	6.85	6.85	6.85	6.85	6.85	6.85	6.75	6.95
Aroclor-1260-4	(4)	7.11	7.11	7.11	7.11	7.11	7.11	7.01	7.21
Aroclor-1260-5	(5)	7.35	7.35	7.35	7.35	7.35	7.35	7.25	7.45
Decachlorobiphenyl		8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1242-1	(1)	4.80	4.80	4.80	4.80	4.79	4.80	4.70	4.90
Aroclor-1242-2	(2)	4.82	4.82	4.82	4.82	4.81	4.82	4.72	4.92
Aroclor-1242-3	(3)	4.87	4.87	4.87	4.87	4.87	4.87	4.77	4.97
Aroclor-1242-4	(4)	4.99	4.99	4.99	4.99	4.99	4.99	4.89	5.09
Aroclor-1242-5	(5)	5.65	5.65	5.65	5.65	5.64	5.65	5.55	5.75
Decachlorobiphenyl		8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1248-1	(1)	4.80	4.79	4.79	4.80	4.80	4.80	4.70	4.90
Aroclor-1248-2	(2)	5.03	5.03	5.03	5.03	5.03	5.03	4.93	5.13
Aroclor-1248-3	(3)	5.25	5.25	5.25	5.25	5.25	5.25	5.15	5.35
Aroclor-1248-4	(4)	5.60	5.60	5.60	5.60	5.60	5.60	5.50	5.70
Aroclor-1248-5	(5)	5.65	5.65	5.65	5.65	5.65	5.65	5.55	5.75
Decachlorobiphenyl		8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1254-1	(1)	5.60	5.61	5.60	5.61	5.60	5.60	5.50	5.70
Aroclor-1254-2	(2)	5.75	5.75	5.75	5.75	5.75	5.75	5.65	5.85
Aroclor-1254-3	(3)	6.16	6.16	6.16	6.16	6.16	6.16	6.06	6.26
Aroclor-1254-4	(4)	6.39	6.39	6.39	6.39	6.39	6.39	6.29	6.49
Aroclor-1254-5	(5)	6.81	6.81	6.81	6.81	6.81	6.81	6.71	6.91
Decachlorobiphenyl		8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1268-1	(1)	7.63	7.64	7.64	7.64	7.64	7.64	7.54	7.74
Aroclor-1268-2	(2)	7.70	7.70	7.70	7.70	7.70	7.70	7.60	7.80
Aroclor-1268-3	(3)	7.91	7.91	7.91	7.91	7.91	7.91	7.81	8.01
Aroclor-1268-4	(4)	8.20	8.20	8.20	8.20	8.20	8.20	8.10	8.30
Aroclor-1268-5	(5)	8.50	8.50	8.50	8.50	8.50	8.50	8.40	8.60

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RETENTION TIMES OF INITIAL CALIBRATION

Decachlorobiphenyl	8.76	8.76	8.76	8.76	8.76	8.76	8.66	8.86
Tetrachloro-m-xylene	3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_O **Calibration Date(s):** 01/21/2025 01/22/2025

Calibration Times: 17:36 01:50

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

LAB FILE ID: RT 1000 = PO108982.D RT 750 = PO108983.D

RT 500 = PO108984.D RT 250 = PO108985.D RT 050 = PO108986.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	4.78	4.78	4.80	4.78	4.78	4.79	4.69	4.89
Aroclor-1016-2	(2)	4.80	4.80	4.82	4.80	4.80	4.81	4.71	4.91
Aroclor-1016-3	(3)	4.98	4.98	5.00	4.98	4.98	4.98	4.88	5.08
Aroclor-1016-4	(4)	5.02	5.02	5.04	5.02	5.02	5.02	4.92	5.12
Aroclor-1016-5	(5)	5.23	5.23	5.25	5.23	5.23	5.24	5.14	5.34
Aroclor-1260-1	(1)	6.27	6.27	6.29	6.27	6.26	6.27	6.17	6.37
Aroclor-1260-2	(2)	6.45	6.45	6.47	6.45	6.45	6.46	6.36	6.56
Aroclor-1260-3	(3)	6.61	6.61	6.63	6.61	6.61	6.61	6.51	6.71
Aroclor-1260-4	(4)	7.08	7.08	7.10	7.08	7.08	7.08	6.98	7.18
Aroclor-1260-5	(5)	7.32	7.32	7.34	7.32	7.32	7.32	7.22	7.42
Decachlorobiphenyl		8.71	8.71	8.73	8.71	8.71	8.72	8.62	8.82
Tetrachloro-m-xylene		3.70	3.70	3.72	3.70	3.70	3.70	3.60	3.80
Aroclor-1242-1	(1)	4.78	4.78	4.78	4.78	4.78	4.78	4.68	4.88
Aroclor-1242-2	(2)	4.80	4.80	4.80	4.80	4.80	4.80	4.70	4.90
Aroclor-1242-3	(3)	4.98	4.98	4.98	4.98	4.98	4.98	4.88	5.08
Aroclor-1242-4	(4)	5.06	5.06	5.06	5.06	5.06	5.06	4.96	5.16
Aroclor-1242-5	(5)	5.58	5.58	5.58	5.58	5.58	5.58	5.48	5.68
Decachlorobiphenyl		8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1248-1	(1)	4.78	4.78	4.78	4.78	4.78	4.78	4.68	4.88
Aroclor-1248-2	(2)	5.02	5.02	5.02	5.02	5.02	5.02	4.92	5.12
Aroclor-1248-3	(3)	5.06	5.06	5.06	5.06	5.06	5.06	4.96	5.16
Aroclor-1248-4	(4)	5.23	5.23	5.23	5.23	5.23	5.23	5.13	5.33
Aroclor-1248-5	(5)	5.62	5.62	5.62	5.63	5.62	5.62	5.52	5.72
Decachlorobiphenyl		8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1254-1	(1)	5.58	5.58	5.58	5.59	5.58	5.58	5.48	5.68
Aroclor-1254-2	(2)	5.73	5.73	5.73	5.73	5.73	5.73	5.63	5.83
Aroclor-1254-3	(3)	6.13	6.14	6.13	6.14	6.13	6.14	6.04	6.24
Aroclor-1254-4	(4)	6.36	6.36	6.36	6.36	6.36	6.36	6.26	6.46
Aroclor-1254-5	(5)	6.78	6.78	6.78	6.78	6.78	6.78	6.68	6.88
Decachlorobiphenyl		8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene		3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
Aroclor-1268-1	(1)	7.60	7.60	7.60	7.60	7.60	7.60	7.50	7.70
Aroclor-1268-2	(2)	7.67	7.67	7.67	7.67	7.66	7.67	7.57	7.77
Aroclor-1268-3	(3)	7.87	7.87	7.87	7.88	7.87	7.87	7.77	7.97
Aroclor-1268-4	(4)	8.16	8.16	8.16	8.16	8.16	8.16	8.06	8.26
Aroclor-1268-5	(5)	8.45	8.45	8.45	8.45	8.45	8.45	8.35	8.55

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RETENTION TIMES OF INITIAL CALIBRATION

Decachlorobiphenyl	8.71	8.71	8.71	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene	3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_O **Calibration Date(s):** 01/21/2025 01/22/2025

Calibration Times: 17:36 01:50

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

LAB FILE ID: CF 1000 = PO108982.D CF 750 = PO108983.D

CF 500 = PO108984.D CF 250 = PO108985.D CF 050 = PO108986.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	233065045	244410019	248250902	263810212	271896440	252286524	6
Aroclor-1016-2	(2)	325363679	338972765	344308556	357996712	357782160	344884774	4
Aroclor-1016-3	(3)	223049536	234801713	240773660	257313424	264644780	244116623	7
Aroclor-1016-4	(4)	175974311	184579665	189100190	198987084	205504880	190829226	6
Aroclor-1016-5	(5)	190134930	199311205	207066494	222947156	224348000	208761557	7
Aroclor-1260-1	(1)	348800771	364882765	375462458	399932624	416699380	381155600	7
Aroclor-1260-2	(2)	430525248	448276513	461774946	488220872	519105560	469580628	7
Aroclor-1260-3	(3)	359859412	378331397	386511394	408169100	424938760	391562013	7
Aroclor-1260-4	(4)	332481764	347292652	354683668	372951676	382377400	357957432	6
Aroclor-1260-5	(5)	803151986	830038244	833771178	853559688	852457760	834595771	2
Decachlorobiphenyl		6434348190	6661231787	6830111140	7188416880	7524624800	6927746559	6
Tetrachloro-m-xylene		7601276640	7501278947	7481675880	7644109480	7553803600	7556428909	1
Aroclor-1242-1	(1)	195196952	201389908	214304986	226003920	225308640	212440881	7
Aroclor-1242-2	(2)	268098195	278641713	289244872	304071824	293574460	286726213	5
Aroclor-1242-3	(3)	186201466	194711956	206440658	220830688	215362160	204709386	7
Aroclor-1242-4	(4)	146339247	152438169	160415562	170237596	164916200	158869355	6
Aroclor-1242-5	(5)	154300112	158580243	167963632	178401740	175909460	167031037	6
Decachlorobiphenyl		6093757170	6273163067	6555969800	6873050240	6988220200	6556832095	6
Tetrachloro-m-xylene		7302831450	7496516067	7696349800	7451780120	6586958200	7306887127	6
Aroclor-1248-1	(1)	145246997	150453889	157781164	170519664	173855120	159571367	8
Aroclor-1248-2	(2)	197265768	209686637	218963792	239048120	252482700	223489403	10
Aroclor-1248-3	(3)	248188978	257855635	270690240	293270108	299294900	273859972	8
Aroclor-1248-4	(4)	351583188	362624208	379215116	402583304	426725120	384546187	8
Aroclor-1248-5	(5)	245666962	251879323	262640736	279614828	288543680	265669106	7
Decachlorobiphenyl		6072639940	6272001520	6560139460	6944778840	7129210800	6595754112	7
Tetrachloro-m-xylene		7184593920	7370395840	7484351680	7653720840	7312573400	7401127136	2
Aroclor-1254-1	(1)	374847163	389452248	410697836	433454068	459205320	413531327	8
Aroclor-1254-2	(2)	325342531	339278107	358066768	381289080	405152620	361825821	9
Aroclor-1254-3	(3)	522141746	540493293	562618572	587400960	607950820	564121078	6
Aroclor-1254-4	(4)	328382284	332039301	348673262	361037032	352970440	344620464	4
Aroclor-1254-5	(5)	475331089	489980032	515035558	537655848	547482260	513096957	6
Decachlorobiphenyl		6154630290	6360969147	6655043100	6960677720	7204237800	6667111611	6
Tetrachloro-m-xylene		7266635340	7453080907	7677404800	7686251640	7337350200	7484144577	3
Aroclor-1268-1	(1)	1033690630	1036942464	1067670602	1080273708	1104982020	1064711885	3

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Aroclor-1268-2	(2)	952087675	951155156	979561020	979388044	983362060	969110791	2
Aroclor-1268-3	(3)	786406202	784932265	807859298	814292396	834332900	805564612	3
Aroclor-1268-4	(4)	327369336	328395845	341390382	351699060	363994160	342569757	5
Aroclor-1268-5	(5)	2419252053	2385425329	2430042174	2398845144	2323360200	2391384980	2
Decachlorobiphenyl		11036128070	11026162653	11389192500	11664983320	12135593800	11450412069	4
Tetrachloro-m-xylene		7546638300	7604080347	7812040940	7844017680	7509481400	7663251733	2

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_O **Calibration Date(s):** 01/21/2025 01/22/2025

Calibration Times: 17:36 01:50

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

LAB FILE ID: **CF 1000 =** PO108982.D **CF 750 =** PO108983.D

CF 500 = PO108984.D **CF 250 =** PO108985.D **CF 050 =** PO108986.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	145518803	142573049	166649690	172900172	181948120	161917967	11
Aroclor-1016-2	(2)	223129267	236622256	232122136	250011316	249296120	238236219	5
Aroclor-1016-3	(3)	121270732	126119179	128693642	138175620	137629920	130377819	6
Aroclor-1016-4	(4)	98703058	105288716	109289440	120650588	118660940	110518548	8
Aroclor-1016-5	(5)	130939362	136319948	141694888	155164716	153595760	143542935	7
Aroclor-1260-1	(1)	229857010	239931019	247217984	265407312	277830920	252048849	8
Aroclor-1260-2	(2)	274616892	283537992	291890314	314812824	339164440	300804492	9
Aroclor-1260-3	(3)	255547157	264550967	272530098	288370904	310931080	278386041	8
Aroclor-1260-4	(4)	210034482	216033343	222462830	233977972	245747280	225651181	6
Aroclor-1260-5	(5)	481178354	492665984	499979908	514637484	514938920	500680130	3
Decachlorobiphenyl		3156544800	3289680693	3391332080	3623383520	3732817400	3438751699	7
Tetrachloro-m-xylene		5315746230	5437498093	5428207440	5462079080	5158066000	5360319369	2
Aroclor-1242-1	(1)	130294727	135534199	142873858	151389892	154466220	142911779	7
Aroclor-1242-2	(2)	183791222	188978371	198913930	207089908	207312700	197217226	5
Aroclor-1242-3	(3)	100083291	104057155	110676450	116018292	114379700	109042978	6
Aroclor-1242-4	(4)	101694040	106737525	114342192	123447428	121997980	113643833	8
Aroclor-1242-5	(5)	124175329	128045065	135895568	145256248	150561360	136786714	8
Decachlorobiphenyl		2975923130	3104041173	3249737920	3444762080	3552503800	3265393621	7
Tetrachloro-m-xylene		5146305370	5269389160	5422425040	5452266880	4942424000	5246562090	4
Aroclor-1248-1	(1)	97508588	101198119	106540372	114549420	116802080	107319716	8
Aroclor-1248-2	(2)	135954819	143343636	151605960	164947764	174030220	153976480	10
Aroclor-1248-3	(3)	145968318	152945292	161442194	176334456	190180940	165374240	11
Aroclor-1248-4	(4)	171715835	178859555	187881420	202639424	216432800	191505807	9
Aroclor-1248-5	(5)	167823607	172638881	180053168	192035492	203508660	183211962	8
Decachlorobiphenyl		3009595400	3126029333	3260555920	3479534800	3551272200	3285397531	7
Tetrachloro-m-xylene		5072748910	5224226253	5283938200	5402921120	5021628000	5201092497	3
Aroclor-1254-1	(1)	253547823	264686405	278940988	295164372	313075680	281083054	8
Aroclor-1254-2	(2)	223099297	232757513	247383274	262896088	285176280	250262490	10
Aroclor-1254-3	(3)	362340991	375750797	393412880	409817176	422789620	392822293	6
Aroclor-1254-4	(4)	207964031	212728924	222445680	231289600	227332320	220352111	4
Aroclor-1254-5	(5)	302636627	313319767	329146572	343115096	345356740	326714960	6
Decachlorobiphenyl		3009418030	3125275440	3274408080	3481058080	3592269800	3296485886	7
Tetrachloro-m-xylene		5157782560	5318511973	5462257400	5454366480	5168021000	5312187883	3
Aroclor-1268-1	(1)	605633372	613614913	625929052	644237020	658094440	629501759	3

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Aroclor-1268-2	(2)	555793036	560357999	571244564	587032548	581198500	571125329	2
Aroclor-1268-3	(3)	443116844	448542784	458393734	471576124	481232120	460572321	3
Aroclor-1268-4	(4)	171795401	175640587	181667170	188528320	184928840	180512064	4
Aroclor-1268-5	(5)	1182764439	1191499568	1205466938	1214359780	1189190120	1196656169	1
Decachlorobiphenyl		5296716160	5425177360	5590471540	5802552800	5997123200	5622408212	5
Tetrachloro-m-xylene		5377448880	5418716973	5531134800	5564772080	5234786600	5425371867	2

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_O **Date(s) Analyzed:** 01/21/2025 01/22/2025

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

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	500	1	3.91	3.81	4.01	100101000
		2	4.00	3.90	4.10	74407200
		3	4.08	3.98	4.18	208014000
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	4.08	3.98	4.18	165122000
		2	4.57	4.47	4.67	90981600
		3	4.81	4.71	4.91	160152000
		4	4.99	4.89	5.09	88001400
		5	5.03	4.93	5.13	64818200
Aroclor-1262	500	1	6.85	6.75	6.95	534016000
		2	7.35	7.25	7.45	919466000
		3	7.64	7.54	7.74	364572000
		4	7.70	7.60	7.80	687626000
		5	8.20	8.10	8.30	302118000

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_O **Date(s) Analyzed:** 01/21/2025 01/22/2025

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

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	500	1	3.91	3.81	4.01	65489800
		2	4.00	3.90	4.10	49387600
		3	4.07	3.97	4.17	145160000
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	4.07	3.97	4.17	115508000
		2	4.80	4.70	4.90	108913000
		3	4.98	4.88	5.08	59967000
		4	5.06	4.96	5.16	57262000
		5	5.23	5.13	5.33	60672000
Aroclor-1262	500	1	6.82	6.72	6.92	340358000
		2	7.32	7.22	7.42	554604000
		3	7.60	7.50	7.70	214440000
		4	7.67	7.57	7.77	391888000
		5	8.16	8.06	8.26	159461000

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/29/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 11:53 **Initial Calibration Time(s):** 17:36 01:50

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

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.80	4.80	4.70	4.90	0.00
Aroclor-1016-2	(2)	4.82	4.81	4.71	4.91	-0.01
Aroclor-1016-3	(3)	4.87	4.87	4.77	4.97	0.00
Aroclor-1016-4	(4)	4.99	4.99	4.89	5.09	0.00
Aroclor-1016-5	(5)	5.25	5.25	5.15	5.35	0.00
Aroclor-1260-1	(1)	6.29	6.29	6.19	6.39	0.00
Aroclor-1260-2	(2)	6.48	6.48	6.38	6.58	0.00
Aroclor-1260-3	(3)	6.85	6.85	6.75	6.95	0.00
Aroclor-1260-4	(4)	7.11	7.11	7.01	7.21	0.00
Aroclor-1260-5	(5)	7.35	7.35	7.25	7.45	0.00
Tetrachloro-m-xylene		3.70	3.70	3.60	3.80	0.00
Decachlorobiphenyl		8.76	8.76	8.66	8.86	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/29/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 11:53 **Initial Calibration Time(s):** 17:36 01:50

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

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.78	4.80	4.70	4.90	0.02
Aroclor-1016-2	(2)	4.80	4.82	4.72	4.92	0.02
Aroclor-1016-3	(3)	4.98	5.00	4.90	5.10	0.02
Aroclor-1016-4	(4)	5.02	5.04	4.94	5.14	0.02
Aroclor-1016-5	(5)	5.23	5.25	5.15	5.35	0.02
Aroclor-1260-1	(1)	6.27	6.29	6.19	6.39	0.02
Aroclor-1260-2	(2)	6.45	6.47	6.37	6.57	0.02
Aroclor-1260-3	(3)	6.61	6.63	6.53	6.73	0.02
Aroclor-1260-4	(4)	7.08	7.10	7.00	7.20	0.02
Aroclor-1260-5	(5)	7.32	7.34	7.24	7.44	0.02
Tetrachloro-m-xylene		3.70	3.72	3.62	3.82	0.02
Decachlorobiphenyl		8.72	8.73	8.63	8.83	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/29/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109224.D **Time Analyzed:** 11:53

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.795	4.695	4.895	537.920	500.000	7.6
Aroclor-1016-2	4.815	4.714	4.914	537.190	500.000	7.4
Aroclor-1016-3	4.872	4.770	4.970	534.470	500.000	6.9
Aroclor-1016-4	4.993	4.891	5.091	539.610	500.000	7.9
Aroclor-1016-5	5.250	5.149	5.349	532.740	500.000	6.5
Aroclor-1260-1	6.294	6.190	6.390	523.850	500.000	4.8
Aroclor-1260-2	6.482	6.379	6.579	520.770	500.000	4.2
Aroclor-1260-3	6.851	6.747	6.947	524.120	500.000	4.8
Aroclor-1260-4	7.112	7.008	7.208	526.960	500.000	5.4
Aroclor-1260-5	7.353	7.249	7.449	528.070	500.000	5.6
Decachlorobiphenyl	8.764	8.658	8.858	52.620	50.000	5.2
Tetrachloro-m-xylene	3.700	3.600	3.800	53.800	50.000	7.6

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/29/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109224.D **Time Analyzed:** 11:53

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.782	4.703	4.903	562.120	500.000	12.4
Aroclor-1016-2	4.801	4.722	4.922	506.190	500.000	1.2
Aroclor-1016-3	4.976	4.898	5.098	526.530	500.000	5.3
Aroclor-1016-4	5.019	4.940	5.140	524.730	500.000	4.9
Aroclor-1016-5	5.232	5.153	5.353	522.620	500.000	4.5
Aroclor-1260-1	6.267	6.186	6.386	515.120	500.000	3.0
Aroclor-1260-2	6.454	6.373	6.573	508.150	500.000	1.6
Aroclor-1260-3	6.608	6.527	6.727	511.800	500.000	2.4
Aroclor-1260-4	7.080	6.999	7.199	511.760	500.000	2.4
Aroclor-1260-5	7.320	7.239	7.439	509.550	500.000	1.9
Decachlorobiphenyl	8.715	8.633	8.833	49.550	50.000	-0.9
Tetrachloro-m-xylene	3.697	3.618	3.818	54.550	50.000	9.1

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/29/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 16:49 **Initial Calibration Time(s):** 17:36 01:50

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

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.80	4.80	4.70	4.90	0.00
Aroclor-1016-2	(2)	4.82	4.81	4.71	4.91	-0.01
Aroclor-1016-3	(3)	4.87	4.87	4.77	4.97	0.00
Aroclor-1016-4	(4)	4.99	4.99	4.89	5.09	0.00
Aroclor-1016-5	(5)	5.25	5.25	5.15	5.35	0.00
Aroclor-1260-1	(1)	6.29	6.29	6.19	6.39	0.00
Aroclor-1260-2	(2)	6.48	6.48	6.38	6.58	0.00
Aroclor-1260-3	(3)	6.85	6.85	6.75	6.95	0.00
Aroclor-1260-4	(4)	7.11	7.11	7.01	7.21	0.00
Aroclor-1260-5	(5)	7.35	7.35	7.25	7.45	0.00
Tetrachloro-m-xylene		3.70	3.70	3.60	3.80	0.00
Decachlorobiphenyl		8.76	8.76	8.66	8.86	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/29/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 16:49 **Initial Calibration Time(s):** 17:36 01:50

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

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.78	4.80	4.70	4.90	0.02
Aroclor-1016-2	(2)	4.80	4.82	4.72	4.92	0.02
Aroclor-1016-3	(3)	4.98	5.00	4.90	5.10	0.02
Aroclor-1016-4	(4)	5.02	5.04	4.94	5.14	0.02
Aroclor-1016-5	(5)	5.23	5.25	5.15	5.35	0.02
Aroclor-1260-1	(1)	6.27	6.29	6.19	6.39	0.02
Aroclor-1260-2	(2)	6.45	6.47	6.37	6.57	0.02
Aroclor-1260-3	(3)	6.61	6.63	6.53	6.73	0.02
Aroclor-1260-4	(4)	7.08	7.10	7.00	7.20	0.02
Aroclor-1260-5	(5)	7.32	7.34	7.24	7.44	0.02
Tetrachloro-m-xylene		3.70	3.72	3.62	3.82	0.02
Decachlorobiphenyl		8.71	8.73	8.63	8.83	0.02

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 01/29/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109239.D **Time Analyzed:** 16:49

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.795	4.695	4.895	548.700	500.000	9.7
Aroclor-1016-2	4.815	4.714	4.914	549.830	500.000	10.0
Aroclor-1016-3	4.871	4.770	4.970	544.000	500.000	8.8
Aroclor-1016-4	4.992	4.891	5.091	546.500	500.000	9.3
Aroclor-1016-5	5.250	5.149	5.349	549.970	500.000	10.0
Aroclor-1260-1	6.292	6.190	6.390	541.430	500.000	8.3
Aroclor-1260-2	6.481	6.379	6.579	533.430	500.000	6.7
Aroclor-1260-3	6.850	6.747	6.947	540.540	500.000	8.1
Aroclor-1260-4	7.110	7.008	7.208	539.260	500.000	7.9
Aroclor-1260-5	7.352	7.249	7.449	539.520	500.000	7.9
Decachlorobiphenyl	8.763	8.658	8.858	53.320	50.000	6.6
Tetrachloro-m-xylene	3.700	3.600	3.800	54.500	50.000	9.0

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL02 **Date Analyzed:** 01/29/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109239.D **Time Analyzed:** 16:49

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.781	4.703	4.903	523.890	500.000	4.8
Aroclor-1016-2	4.801	4.722	4.922	545.010	500.000	9.0
Aroclor-1016-3	4.976	4.898	5.098	534.620	500.000	6.9
Aroclor-1016-4	5.018	4.940	5.140	524.610	500.000	4.9
Aroclor-1016-5	5.231	5.153	5.353	535.200	500.000	7.0
Aroclor-1260-1	6.266	6.186	6.386	525.330	500.000	5.1
Aroclor-1260-2	6.453	6.373	6.573	521.480	500.000	4.3
Aroclor-1260-3	6.607	6.527	6.727	522.180	500.000	4.4
Aroclor-1260-4	7.079	6.999	7.199	522.690	500.000	4.5
Aroclor-1260-5	7.319	7.239	7.439	522.200	500.000	4.4
Decachlorobiphenyl	8.714	8.633	8.833	49.630	50.000	-0.7
Tetrachloro-m-xylene	3.697	3.618	3.818	54.990	50.000	10.0

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 00:46 **Initial Calibration Time(s):** 17:36 01:50

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

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.80	4.80	4.70	4.90	0.00
Aroclor-1016-2	(2)	4.82	4.81	4.71	4.91	-0.01
Aroclor-1016-3	(3)	4.87	4.87	4.77	4.97	0.00
Aroclor-1016-4	(4)	4.99	4.99	4.89	5.09	0.00
Aroclor-1016-5	(5)	5.25	5.25	5.15	5.35	0.00
Aroclor-1260-1	(1)	6.29	6.29	6.19	6.39	0.00
Aroclor-1260-2	(2)	6.48	6.48	6.38	6.58	0.00
Aroclor-1260-3	(3)	6.85	6.85	6.75	6.95	0.00
Aroclor-1260-4	(4)	7.11	7.11	7.01	7.21	0.00
Aroclor-1260-5	(5)	7.35	7.35	7.25	7.45	0.00
Tetrachloro-m-xylene		3.70	3.70	3.60	3.80	0.00
Decachlorobiphenyl		8.76	8.76	8.66	8.86	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/21/2025 01/22/2025

Continuing Calib Time: 00:46 **Initial Calibration Time(s):** 17:36 01:50

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

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.78	4.80	4.70	4.90	0.02
Aroclor-1016-2	(2)	4.80	4.82	4.72	4.92	0.02
Aroclor-1016-3	(3)	4.98	5.00	4.90	5.10	0.03
Aroclor-1016-4	(4)	5.02	5.04	4.94	5.14	0.02
Aroclor-1016-5	(5)	5.23	5.25	5.15	5.35	0.02
Aroclor-1260-1	(1)	6.27	6.29	6.19	6.39	0.03
Aroclor-1260-2	(2)	6.45	6.47	6.37	6.57	0.02
Aroclor-1260-3	(3)	6.61	6.63	6.53	6.73	0.02
Aroclor-1260-4	(4)	7.08	7.10	7.00	7.20	0.02
Aroclor-1260-5	(5)	7.32	7.34	7.24	7.44	0.02
Tetrachloro-m-xylene		3.70	3.72	3.62	3.82	0.02
Decachlorobiphenyl		8.71	8.73	8.63	8.83	0.02

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 01/30/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109254.D **Time Analyzed:** 00:46

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.795	4.695	4.895	505.990	500.000	1.2
Aroclor-1016-2	4.815	4.714	4.914	509.560	500.000	1.9
Aroclor-1016-3	4.871	4.770	4.970	498.380	500.000	-0.3
Aroclor-1016-4	4.992	4.891	5.091	501.440	500.000	0.3
Aroclor-1016-5	5.249	5.149	5.349	514.980	500.000	3.0
Aroclor-1260-1	6.292	6.190	6.390	453.860	500.000	-9.2
Aroclor-1260-2	6.481	6.379	6.579	431.160	500.000	-13.8
Aroclor-1260-3	6.849	6.747	6.947	415.340	500.000	-16.9
Aroclor-1260-4	7.109	7.008	7.208	437.080	500.000	-12.6
Aroclor-1260-5	7.350	7.249	7.449	451.440	500.000	-9.7
Decachlorobiphenyl	8.762	8.658	8.858	38.710	50.000	-22.6
Tetrachloro-m-xylene	3.700	3.600	3.800	50.770	50.000	1.5

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 01/21/2025 01/21/2025

Client Sample No.: CCAL03 **Date Analyzed:** 01/30/2025

Lab Sample No.: AR1660CCC500 **Data File :** PO109254.D **Time Analyzed:** 00:46

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.780	4.703	4.903	533.530	500.000	6.7
Aroclor-1016-2	4.800	4.722	4.922	527.150	500.000	5.4
Aroclor-1016-3	4.975	4.898	5.098	529.220	500.000	5.8
Aroclor-1016-4	5.018	4.940	5.140	507.710	500.000	1.5
Aroclor-1016-5	5.231	5.153	5.353	546.030	500.000	9.2
Aroclor-1260-1	6.265	6.186	6.386	517.230	500.000	3.4
Aroclor-1260-2	6.452	6.373	6.573	499.300	500.000	-0.1
Aroclor-1260-3	6.605	6.527	6.727	481.950	500.000	-3.6
Aroclor-1260-4	7.077	6.999	7.199	450.300	500.000	-9.9
Aroclor-1260-5	7.318	7.239	7.439	446.240	500.000	-10.8
Decachlorobiphenyl	8.712	8.633	8.833	42.230	50.000	-15.5
Tetrachloro-m-xylene	3.696	3.618	3.818	54.730	50.000	9.5

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_O

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/21/2025 01/21/2025

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

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	01/21/2025	17:18	PO108981.D	8.76	3.70
AR1660ICC1000	AR1660ICC1000	01/21/2025	17:36	PO108982.D	8.76	3.70
AR1660ICC750	AR1660ICC750	01/21/2025	17:54	PO108983.D	8.76	3.70
AR1660ICC500	AR1660ICC500	01/21/2025	18:13	PO108984.D	8.76	3.70
AR1660ICC250	AR1660ICC250	01/21/2025	18:31	PO108985.D	8.76	3.70
AR1660ICC050	AR1660ICC050	01/21/2025	18:49	PO108986.D	8.76	3.70
AR1221ICC500	AR1221ICC500	01/21/2025	19:07	PO108987.D	8.76	3.70
AR1232ICC500	AR1232ICC500	01/21/2025	19:26	PO108988.D	8.76	3.70
AR1242ICC1000	AR1242ICC1000	01/21/2025	19:44	PO108989.D	8.76	3.70
AR1242ICC750	AR1242ICC750	01/21/2025	20:02	PO108990.D	8.76	3.70
AR1242ICC500	AR1242ICC500	01/21/2025	20:21	PO108991.D	8.76	3.70
AR1242ICC250	AR1242ICC250	01/21/2025	20:39	PO108992.D	8.76	3.70
AR1242ICC050	AR1242ICC050	01/21/2025	20:57	PO108993.D	8.76	3.70
AR1248ICC1000	AR1248ICC1000	01/21/2025	21:16	PO108994.D	8.76	3.70
AR1248ICC750	AR1248ICC750	01/21/2025	21:34	PO108995.D	8.76	3.70
AR1248ICC500	AR1248ICC500	01/21/2025	21:52	PO108996.D	8.76	3.70
AR1248ICC250	AR1248ICC250	01/21/2025	22:10	PO108997.D	8.76	3.70
AR1248ICC050	AR1248ICC050	01/21/2025	22:29	PO108998.D	8.76	3.70
AR1254ICC1000	AR1254ICC1000	01/21/2025	22:47	PO108999.D	8.76	3.70
AR1254ICC750	AR1254ICC750	01/21/2025	23:05	PO109000.D	8.76	3.70
AR1254ICC500	AR1254ICC500	01/21/2025	23:23	PO109001.D	8.76	3.70
AR1254ICC250	AR1254ICC250	01/21/2025	23:42	PO109002.D	8.76	3.70
AR1254ICC050	AR1254ICC050	01/22/2025	00:00	PO109003.D	8.76	3.70
AR1262ICC500	AR1262ICC500	01/22/2025	00:18	PO109004.D	8.76	3.70
AR1268ICC1000	AR1268ICC1000	01/22/2025	00:37	PO109005.D	8.76	3.70
AR1268ICC750	AR1268ICC750	01/22/2025	00:55	PO109006.D	8.76	3.70
AR1268ICC500	AR1268ICC500	01/22/2025	01:13	PO109007.D	8.76	3.70
AR1268ICC250	AR1268ICC250	01/22/2025	01:31	PO109008.D	8.76	3.70
AR1268ICC050	AR1268ICC050	01/22/2025	01:50	PO109009.D	8.76	3.70
AR1660CCC500	AR1660CCC500	01/29/2025	11:53	PO109224.D	8.76	3.70
I.BLK	I.BLK	01/29/2025	13:04	PO109228.D	8.76	3.70
PB166333BL	PB166333BL	01/29/2025	15:45	PO109237.D	8.76	3.70
PB166333BS	PB166333BS	01/29/2025	16:02	PO109238.D	8.76	3.70
AR1660CCC500	AR1660CCC500	01/29/2025	16:49	PO109239.D	8.76	3.70
I.BLK	I.BLK	01/29/2025	18:02	PO109243.D	8.76	3.70
VNJ-236MS	Q1205-01MS	01/29/2025	18:37	PO109245.D	8.76	3.70
VNJ-236MSD	Q1205-01MSD	01/29/2025	18:55	PO109246.D	8.76	3.70
JPP-20.1-012725	Q1206-03	01/29/2025	19:13	PO109247.D	8.76	3.70
JPP-16.3-012725	Q1206-07	01/29/2025	19:31	PO109248.D	8.76	3.70
AR1660CCC500	AR1660CCC500	01/30/2025	00:46	PO109254.D	8.76	3.70
I.BLK	I.BLK	01/30/2025	01:59	PO109258.D	8.76	3.70

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Analytical Sequence

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_O

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/21/2025 01/21/2025

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

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	01/21/2025	17:18	PO108981.D	8.71	3.70
AR1660ICC1000	AR1660ICC1000	01/21/2025	17:36	PO108982.D	8.71	3.70
AR1660ICC750	AR1660ICC750	01/21/2025	17:54	PO108983.D	8.71	3.70
AR1660ICC500	AR1660ICC500	01/21/2025	18:13	PO108984.D	8.73	3.72
AR1660ICC250	AR1660ICC250	01/21/2025	18:31	PO108985.D	8.71	3.70
AR1660ICC050	AR1660ICC050	01/21/2025	18:49	PO108986.D	8.71	3.70
AR1221ICC500	AR1221ICC500	01/21/2025	19:07	PO108987.D	8.71	3.70
AR1232ICC500	AR1232ICC500	01/21/2025	19:26	PO108988.D	8.71	3.70
AR1242ICC1000	AR1242ICC1000	01/21/2025	19:44	PO108989.D	8.71	3.70
AR1242ICC750	AR1242ICC750	01/21/2025	20:02	PO108990.D	8.71	3.70
AR1242ICC500	AR1242ICC500	01/21/2025	20:21	PO108991.D	8.71	3.70
AR1242ICC250	AR1242ICC250	01/21/2025	20:39	PO108992.D	8.71	3.70
AR1242ICC050	AR1242ICC050	01/21/2025	20:57	PO108993.D	8.71	3.70
AR1248ICC1000	AR1248ICC1000	01/21/2025	21:16	PO108994.D	8.71	3.70
AR1248ICC750	AR1248ICC750	01/21/2025	21:34	PO108995.D	8.71	3.70
AR1248ICC500	AR1248ICC500	01/21/2025	21:52	PO108996.D	8.71	3.70
AR1248ICC250	AR1248ICC250	01/21/2025	22:10	PO108997.D	8.71	3.70
AR1248ICC050	AR1248ICC050	01/21/2025	22:29	PO108998.D	8.71	3.70
AR1254ICC1000	AR1254ICC1000	01/21/2025	22:47	PO108999.D	8.71	3.70
AR1254ICC750	AR1254ICC750	01/21/2025	23:05	PO109000.D	8.71	3.70
AR1254ICC500	AR1254ICC500	01/21/2025	23:23	PO109001.D	8.71	3.70
AR1254ICC250	AR1254ICC250	01/21/2025	23:42	PO109002.D	8.71	3.70
AR1254ICC050	AR1254ICC050	01/22/2025	00:00	PO109003.D	8.71	3.70
AR1262ICC500	AR1262ICC500	01/22/2025	00:18	PO109004.D	8.71	3.70
AR1268ICC1000	AR1268ICC1000	01/22/2025	00:37	PO109005.D	8.71	3.70
AR1268ICC750	AR1268ICC750	01/22/2025	00:55	PO109006.D	8.71	3.70
AR1268ICC500	AR1268ICC500	01/22/2025	01:13	PO109007.D	8.71	3.70
AR1268ICC250	AR1268ICC250	01/22/2025	01:31	PO109008.D	8.71	3.70
AR1268ICC050	AR1268ICC050	01/22/2025	01:50	PO109009.D	8.71	3.70
AR1660CCC500	AR1660CCC500	01/29/2025	11:53	PO109224.D	8.72	3.70
I.BLK	I.BLK	01/29/2025	13:04	PO109228.D	8.72	3.70
PB166333BL	PB166333BL	01/29/2025	15:45	PO109237.D	8.71	3.70
PB166333BS	PB166333BS	01/29/2025	16:02	PO109238.D	8.71	3.70
AR1660CCC500	AR1660CCC500	01/29/2025	16:49	PO109239.D	8.71	3.70
I.BLK	I.BLK	01/29/2025	18:02	PO109243.D	8.71	3.70
VNJ-236MS	Q1205-01MS	01/29/2025	18:37	PO109245.D	8.71	3.70
VNJ-236MSD	Q1205-01MSD	01/29/2025	18:55	PO109246.D	8.71	3.70
JPP-20.1-012725	Q1206-03	01/29/2025	19:13	PO109247.D	8.71	3.70
JPP-16.3-012725	Q1206-07	01/29/2025	19:31	PO109248.D	8.71	3.70
AR1660CCC500	AR1660CCC500	01/30/2025	00:46	PO109254.D	8.71	3.70
I.BLK	I.BLK	01/30/2025	01:59	PO109258.D	8.71	3.70

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Analytical Sequence

QC SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166333BL	SDG No.:	Q1206
Lab Sample ID:	PB166333BL	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	100 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109237.D	1	01/29/25 08:55	01/29/25 15:45	PB166333

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	17.0	U	3.40	17.0	ug/kg
11104-28-2	Aroclor-1221	17.0	U	6.40	17.0	ug/kg
11141-16-5	Aroclor-1232	17.0	U	3.40	17.0	ug/kg
53469-21-9	Aroclor-1242	17.0	U	3.40	17.0	ug/kg
12672-29-6	Aroclor-1248	17.0	U	7.90	17.0	ug/kg
11097-69-1	Aroclor-1254	17.0	U	2.70	17.0	ug/kg
37324-23-5	Aroclor-1262	17.0	U	4.60	17.0	ug/kg
11100-14-4	Aroclor-1268	17.0	U	3.40	17.0	ug/kg
11096-82-5	Aroclor-1260	17.0	U	2.90	17.0	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	25.2		32 - 144	126%	SPK: 20
2051-24-3	Decachlorobiphenyl	25.1		32 - 175	125%	SPK: 20

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

Alliance TECHNICAL GROUP
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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/21/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/21/25
Client Sample ID:	PIBLK-PO108981.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PO108981.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO108981.D	1		01/21/25	PO012125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.50	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.50	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.50	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.50	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.50	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.50	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.50	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.50	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.50	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	20.6		60 - 140	103%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.6		60 - 140	108%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
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LOD = Limit of Detection
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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
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D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	PIBLK-PO109228.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PO109228.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109228.D	1		01/29/25	Po012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.50	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.50	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.50	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.50	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.50	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.50	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.50	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.50	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.50	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	24.3		60 - 140	121%	SPK: 20
2051-24-3	Decachlorobiphenyl	24.0		60 - 140	120%	SPK: 20

Comments:

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

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

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/29/25
Client Sample ID:	PIBLK-PO109243.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PO109243.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109243.D	1		01/29/25	Po012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.50	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.50	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.50	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.50	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.50	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.50	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.50	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.50	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.50	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	23.7		60 - 140	118%	SPK: 20
2051-24-3	Decachlorobiphenyl	23.6		60 - 140	118%	SPK: 20

Comments:

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

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

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-PO109258.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PO109258.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109258.D	1		01/30/25	Po012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.50	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.50	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.50	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.50	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.50	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.50	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.50	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.50	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.50	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	23.4		60 - 140	117%	SPK: 20
2051-24-3	Decachlorobiphenyl	18.9		60 - 140	94%	SPK: 20

Comments:

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

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

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Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166333BS	SDG No.:	Q1206
Lab Sample ID:	PB166333BS	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	100 Decanted:
Sample Wt/Vol:	30.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109238.D	1	01/29/25 08:55	01/29/25 16:02	PB166333

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	169		3.40	17.0	ug/kg
11104-28-2	Aroclor-1221	17.0	U	6.40	17.0	ug/kg
11141-16-5	Aroclor-1232	17.0	U	3.40	17.0	ug/kg
53469-21-9	Aroclor-1242	17.0	U	3.40	17.0	ug/kg
12672-29-6	Aroclor-1248	17.0	U	7.90	17.0	ug/kg
11097-69-1	Aroclor-1254	17.0	U	2.70	17.0	ug/kg
37324-23-5	Aroclor-1262	17.0	U	4.60	17.0	ug/kg
11100-14-4	Aroclor-1268	17.0	U	3.40	17.0	ug/kg
11096-82-5	Aroclor-1260	159		2.90	17.0	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	23.9		32 - 144	120%	SPK: 20
2051-24-3	Decachlorobiphenyl	25.7		32 - 175	129%	SPK: 20

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	VNJ-236MS	SDG No.:	Q1206
Lab Sample ID:	Q1205-01MS	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	87.2 Decanted:
Sample Wt/Vol:	30.06 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109245.D	1	01/29/25 08:55	01/29/25 18:37	PB166333

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	182		3.90	19.5	ug/kg
11104-28-2	Aroclor-1221	19.5	U	7.30	19.5	ug/kg
11141-16-5	Aroclor-1232	19.5	U	3.90	19.5	ug/kg
53469-21-9	Aroclor-1242	19.5	U	3.90	19.5	ug/kg
12672-29-6	Aroclor-1248	19.5	U	9.00	19.5	ug/kg
11097-69-1	Aroclor-1254	19.5	U	3.10	19.5	ug/kg
37324-23-5	Aroclor-1262	19.5	U	5.20	19.5	ug/kg
11100-14-4	Aroclor-1268	19.5	U	3.90	19.5	ug/kg
11096-82-5	Aroclor-1260	177		3.30	19.5	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	19.5		32 - 144	98%	SPK: 20
2051-24-3	Decachlorobiphenyl	16.1		32 - 175	80%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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B = Analyte Found in Associated Method Blank
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() = Laboratory InHouse Limit

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/28/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	VNJ-236MSD	SDG No.:	Q1206
Lab Sample ID:	Q1205-01MSD	Matrix:	SOIL
Analytical Method:	SW8082A	% Solid:	87.2 Decanted:
Sample Wt/Vol:	30.08 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO109246.D	1	01/29/25 08:55	01/29/25 18:55	PB166333

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	178		3.90	19.4	ug/kg
11104-28-2	Aroclor-1221	19.4	U	7.30	19.4	ug/kg
11141-16-5	Aroclor-1232	19.4	U	3.90	19.4	ug/kg
53469-21-9	Aroclor-1242	19.4	U	3.90	19.4	ug/kg
12672-29-6	Aroclor-1248	19.4	U	9.00	19.4	ug/kg
11097-69-1	Aroclor-1254	19.4	U	3.10	19.4	ug/kg
37324-23-5	Aroclor-1262	19.4	U	5.20	19.4	ug/kg
11100-14-4	Aroclor-1268	19.4	U	3.90	19.4	ug/kg
11096-82-5	Aroclor-1260	174		3.30	19.4	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	18.8		32 - 144	94%	SPK: 20
2051-24-3	Decachlorobiphenyl	15.5		32 - 175	77%	SPK: 20

Comments:

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M = MS/MSD acceptance criteria did not meet requirements

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() = Laboratory InHouse Limit

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LAB CHRONICLE

OrderID:	Q1206	**OrderDate:**	1/28/2025 11:18:51 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1206-01	**JPP-20.1-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Diesel Range Organics	8015D		01/29/25	01/30/25	
			Gasoline Range Organics	8015D			01/29/25	
Q1206-03	**JPP-20.1-012725**	**SOIL**			**01/27/25**			**01/28/25**
			PCB	8082A		01/29/25	01/29/25	
Q1206-04	**JPP-20.1-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP Herbicide	8151A		01/29/25	01/30/25	
Q1206-05	**JPP-16.3-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Diesel Range Organics	8015D		01/29/25	01/30/25	
			Gasoline Range Organics	8015D			01/29/25	
Q1206-07	**JPP-16.3-012725**	**SOIL**			**01/27/25**			**01/28/25**
			PCB	8082A		01/29/25	01/29/25	
Q1206-08	**JPP-16.3-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP Herbicide	8151A		01/29/25	01/30/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1206 **Order ID:** Q1206

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bri

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units

Client ID :

Total Concentration: 0.000

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-04	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	8151A		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS028993.D	1	01/29/25 12:09	01/30/25 14:56	PB166382

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	20.0	U	4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	20.0	U	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	385		39 - 175	77%	SPK: 500

Comments:

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-08	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	8151A		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS028996.D	1	01/29/25 12:09	01/30/25 16:07	PB166382

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	20.0	U	4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	20.0	U	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	382		39 - 175	76%	SPK: 500

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

QC SUMMARY

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Surrogate Summary

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8151A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PS028900.D	PIBLK-PS028900.D	2,4-DCAA	1	500	474	95		39	175
		2,4-DCAA	2	500	492	98		39	175
I.BLK-PS028988.D	PIBLK-PS028988.D	2,4-DCAA	1	500	512	102		39	175
		2,4-DCAA	2	500	489	98		39	175
PB166382BL	PB166382BL	2,4-DCAA	1	500	445	89		39	175
		2,4-DCAA	2	500	404	81		39	175
PB166382BS	PB166382BS	2,4-DCAA	1	500	510	102		39	175
		2,4-DCAA	2	500	465	93		39	175
PB166318TB	PB166318TB	2,4-DCAA	1	500	462	92		39	175
		2,4-DCAA	2	500	313	63		39	175
Q1206-04	JPP-20.1-012725	2,4-DCAA	1	500	385	77		39	175
		2,4-DCAA	2	500	241	48		39	175
Q1206-04MS	JPP-20.1-012725MS	2,4-DCAA	1	500	424	85		39	175
		2,4-DCAA	2	500	267	53		39	175
Q1206-04MSD	JPP-20.1-012725MSD	2,4-DCAA	1	500	424	85		39	175
		2,4-DCAA	2	500	265	53		39	175
Q1206-08	JPP-16.3-012725	2,4-DCAA	1	500	382	76		39	175
		2,4-DCAA	2	500	263	53		39	175
I.BLK-PS028997.D	PIBLK-PS028997.D	2,4-DCAA	1	500	510	102		39	175
		2,4-DCAA	2	500	499	100		39	175

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8151A **DataFile :** PS028994.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**JPP-20.1-012725MS**											
Q1206-04MS	2,4-D	50	0	50.4	ug/L	101				65	135	
	2,4,5-TP(Silvex)	50	0	79.2	ug/L	158	*			62	139	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8151A **DataFile :** PS028995.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**JPP-20.1-012725MSD**											
Q1206-04MSD	2,4-D	50	0	49.9	ug/L	100		1		65	135	20
	2,4,5-TP(Silvex)	50	0	78.7	ug/L	157	*	1		62	139	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1206

Client: RU2 Engineering, LLC

Analytical Method: 8151A **Datafile :** PS028991.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166382BS	2,4-D	5	4.80	ug/L	96				83	130	
	2,4,5-TP(Silvex)	5	4.90	ug/L	98				78	127	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166382BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

Lab Sample ID: PB166382BL Lab File ID: PS028990.D

Matrix: (soil/water) water Extraction: (Type) SEPF

Sulfur Cleanup: (Y/N) N Date Extracted: 01/29/2025

Date Analyzed (1): 01/30/2025 Date Analyzed (2): 01/30/2025

Time Analyzed (1): 13:44 Time Analyzed (2): 13:44

Instrument ID (1): ECD_S Instrument ID (2): ECD_S

GC Column (1): RTX-CLP ID: 0.32 (mm) GC Column (2): RTX-CLP2 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
PB166382BS	PB166382BS	PS028991.D	01/30/2025	01/30/2025
PB166318TB	PB166318TB	PS028992.D	01/30/2025	01/30/2025
JPP-20.1-012725	Q1206-04	PS028993.D	01/30/2025	01/30/2025
JPP-20.1-012725MS	Q1206-04MS	PS028994.D	01/30/2025	01/30/2025
JPP-20.1-012725MSD	Q1206-04MSD	PS028995.D	01/30/2025	01/30/2025
JPP-16.3-012725	Q1206-08	PS028996.D	01/30/2025	01/30/2025

COMMENTS:

QC SAMPLE DATA

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166382BL	SDG No.:	Q1206
Lab Sample ID:	PB166382BL	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS028990.D	1	01/29/25 12:09	01/30/25 13:44	PB166382

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	2.00	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	2.00	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	445		39 - 175	89%	SPK: 500

Comments:

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/14/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/14/25
Client Sample ID:	PIBLK-PS028900.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PS028900.D	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS028900.D	1		01/14/25	PS011425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	2.00	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	2.00	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	492		39 - 175	98%	SPK: 500

Comments:

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LOQ = Limit of Quantitation
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LOD = Limit of Detection
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-PS028988.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PS028988.D	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS028988.D	1		01/30/25	PS013025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	2.00	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	2.00	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	512		39 - 175	102%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
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284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-PS028997.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-PS028997.D	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS028997.D	1		01/30/25	PS013025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	2.00	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	2.00	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	510		39 - 175	102%	SPK: 500

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166382BS	SDG No.:	Q1206
Lab Sample ID:	PB166382BS	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS028991.D	1	01/29/25 12:09	01/30/25 14:08	PB166382

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	4.80		0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	4.90		0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	510		39 - 175	102%	SPK: 500

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725MS	SDG No.:	Q1206
Lab Sample ID:	Q1206-04MS	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS028994.D	1	01/29/25 12:09	01/30/25 15:20	PB166382

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	50.4		4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	79.2	P	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	424		39 - 175	85%	SPK: 500

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725MSD	SDG No.:	Q1206
Lab Sample ID:	Q1206-04MSD	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS028995.D	1	01/29/25 12:09	01/30/25 15:43	PB166382

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	49.9		4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	78.7	P	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	424		39 - 175	85%	SPK: 500

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

CALIBRATION SUMMARY

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_S **Calibration Date(s):** 01/14/2025 01/14/2025

Calibration Times: 10:31 12:07

GC Column: RTX-CLP ID: 0.32 (mm)

LAB FILE ID: RT 200 = PS028901.D RT 500 = PS028902.D

RT 750 = PS028903.D RT 1000 = PS028904.D RT 1500 = PS028905.D

COMPOUND	RT 200	RT 500	RT 750	RT 1000	RT 1500	MEAN RT	RT WINDOW FROM	RT WINDOW TO
2,4,5-TP(Silvex)	9.19	9.19	9.19	9.19	9.19	9.19	9.09	9.29
2,4-D	8.32	8.32	8.32	8.32	8.32	8.32	8.22	8.42
2,4-DCAA	7.20	7.20	7.20	7.20	7.20	7.20	7.10	7.30

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_S **Calibration Date(s):** 01/14/2025 01/14/2025

Calibration Times: 10:31 12:07

GC Column: RTX-CLP2 ID: 0.32 (mm)

LAB FILE ID: RT 200 = PS028901.D RT 500 = PS028902.D

RT 750 = PS028903.D RT 1000 = PS028904.D RT 1500 = PS028905.D

COMPOUND	RT 200	RT 500	RT 750	RT 1000	RT 1500	MEAN RT	RT WINDOW FROM	RT WINDOW TO
2,4,5-TP(Silvex)	9.81	9.81	9.81	9.81	9.81	9.81	9.71	9.91
2,4-D	8.92	8.91	8.91	8.91	8.91	8.91	8.81	9.01
2,4-DCAA	7.68	7.68	7.68	7.68	7.68	7.68	7.58	7.78

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_S **Calibration Date(s):** 01/14/2025 01/14/2025

Calibration Times: 10:31 12:07

GC Column: RTX-CLP **ID:** 0.32 **(mm)**

LAB FILE ID: **CF 200 =** PS028901.D **CF 500 =** PS028902.D

CF 750 = PS028903.D **CF 1000 =** PS028904.D **CF 1500 =** PS028905.D

COMPOUND	CF 200	CF 500	CF 750	CF 1000	CF 1500	CF	% RSD
2,4,5-TP(Silvex)	21246200000	19217800000	18444300000	17622300000	16707400000	18647600000	9
2,4-D	3794730000	3389210000	3238030000	3095840000	2967500000	3297060000	10
2,4-DCAA	3179220000	2766210000	2659700000	2530920000	2413760000	2709960000	11

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Instrument ID: ECD_S **Calibration Date(s):** 01/14/2025 01/14/2025

Calibration Times: 10:31 12:07

GC Column: RTX-CLP2 **ID:** 0.32 **(mm)**

LAB FILE ID: **CF 200 =** PS028901.D **CF 500 =** PS028902.D

CF 750 = PS028903.D **CF 1000 =** PS028904.D **CF 1500 =** PS028905.D

COMPOUND	CF 200	CF 500	CF 750	CF 1000	CF 1500	CF	% RSD
2,4,5-TP(Silvex)	9615710000	9419870000	9409010000	9233020000	9015720000	9338670000	2
2,4-D	1602310000	1486700000	1468930000	1440130000	1429250000	1485460000	5
2,4-DCAA	1189550000	1103610000	1095350000	1074740000	1070080000	1106670000	4

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/14/2025 01/14/2025

Continuing Calib Time: 13:20 **Initial Calibration Time(s):** 10:31 12:07

GC Column: RTX-CLP **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
2,4-DCAA	7.19	7.20	7.10	7.30	0.01
2,4-D	8.31	8.32	8.22	8.42	0.01
2,4,5-TP(Silvex)	9.18	9.19	9.09	9.29	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/14/2025 01/14/2025

Continuing Calib Time: 13:20 **Initial Calibration Time(s):** 10:31 12:07

GC Column: RTX-CLP2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
2,4-DCAA	7.67	7.68	7.58	7.78	0.01
2,4-D	8.91	8.91	8.81	9.01	0.01
2,4,5-TP(Silvex)	9.80	9.81	9.71	9.91	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: RTX-CLP **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/14/2025 01/14/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/30/2025

Lab Sample No.: HSTDCCC750 **Data File :** PS028989.D **Time Analyzed:** 13:20

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.181	9.089	9.289	750.680	712.500	5.4
2,4-D	8.310	8.216	8.416	735.240	705.000	4.3
2,4-DCAA	7.192	7.097	7.297	777.790	750.000	3.7

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: RTX-CLP2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/14/2025 01/14/2025

Client Sample No.: CCAL01 **Date Analyzed:** 01/30/2025

Lab Sample No.: HSTDCCC750 **Data File :** PS028989.D **Time Analyzed:** 13:20

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.803	9.713	9.913	766.570	712.500	7.6
2,4-D	8.905	8.813	9.013	711.080	705.000	0.9
2,4-DCAA	7.670	7.577	7.777	736.960	750.000	-1.7

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/14/2025 01/14/2025

Continuing Calib Time: 16:55 **Initial Calibration Time(s):** 10:31 12:07

GC Column: RTX-CLP **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
2,4-DCAA	7.19	7.20	7.10	7.30	0.01
2,4-D	8.31	8.32	8.22	8.42	0.01
2,4,5-TP(Silvex)	9.18	9.19	9.09	9.29	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Continuing Calib Date: 01/30/2025 **Initial Calibration Date(s):** 01/14/2025 01/14/2025

Continuing Calib Time: 16:55 **Initial Calibration Time(s):** 10:31 12:07

GC Column: RTX-CLP2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
2,4-DCAA	7.67	7.68	7.58	7.78	0.01
2,4-D	8.90	8.91	8.81	9.01	0.01
2,4,5-TP(Silvex)	9.80	9.81	9.71	9.91	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: RTX-CLP **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/14/2025 01/14/2025

Client Sample No.: CCAL02 **Date Analyzed:** 01/30/2025

Lab Sample No.: HSTDCCC750 **Data File :** PS028998.D **Time Analyzed:** 16:55

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.181	9.089	9.289	751.030	712.500	5.4
2,4-D	8.309	8.216	8.416	735.060	705.000	4.3
2,4-DCAA	7.192	7.097	7.297	774.330	750.000	3.2

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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

GC Column: RTX-CLP2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 01/14/2025 01/14/2025

Client Sample No.: CCAL02 **Date Analyzed:** 01/30/2025

Lab Sample No.: HSTDCCC750 **Data File :** PS028998.D **Time Analyzed:** 16:55

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.803	9.713	9.913	780.240	712.500	9.5
2,4-D	8.904	8.813	9.013	724.010	705.000	2.7
2,4-DCAA	7.670	7.577	7.777	751.950	750.000	0.3

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_S

GC Column: RTX-CLP **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/14/2025 01/14/2025

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	DCAA RT #	RT #
I.BLK	I.BLK	01/14/2025	10:07	PS028900.D	7.20	0.00
HSTDICC200	HSTDICC200	01/14/2025	10:31	PS028901.D	7.20	0.00
HSTDICC500	HSTDICC500	01/14/2025	10:55	PS028902.D	7.20	0.00
HSTDICC750	HSTDICC750	01/14/2025	11:19	PS028903.D	7.20	0.00
HSTDICC1000	HSTDICC1000	01/14/2025	11:43	PS028904.D	7.20	0.00
HSTDICC1500	HSTDICC1500	01/14/2025	12:07	PS028905.D	7.20	0.00
I.BLK	I.BLK	01/30/2025	12:56	PS028988.D	7.19	0.00
HSTDCCC750	HSTDCCC750	01/30/2025	13:20	PS028989.D	7.19	0.00
PB166382BL	PB166382BL	01/30/2025	13:44	PS028990.D	7.19	0.00
PB166382BS	PB166382BS	01/30/2025	14:08	PS028991.D	7.19	0.00
PB166318TB	PB166318TB	01/30/2025	14:32	PS028992.D	7.19	0.00
JPP-20.1-012725	Q1206-04	01/30/2025	14:56	PS028993.D	7.19	0.00
JPP-20.1-012725MS	Q1206-04MS	01/30/2025	15:20	PS028994.D	7.19	0.00
JPP-20.1-012725MSD	Q1206-04MSD	01/30/2025	15:43	PS028995.D	7.19	0.00
JPP-16.3-012725	Q1206-08	01/30/2025	16:07	PS028996.D	7.19	0.00
I.BLK	I.BLK	01/30/2025	16:31	PS028997.D	7.19	0.00
HSTDCCC750	HSTDCCC750	01/30/2025	16:55	PS028998.D	7.19	0.00

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Project: NYCDDC SANTWOBR Brooklyn Bridge BI **Instrument ID:** ECD_S

GC Column: RTX-CLP2 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 01/14/2025 01/14/2025

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	DCAA RT #	RT #
I.BLK	I.BLK	01/14/2025	10:07	PS028900.D	7.68	0.00
HSTDICC200	HSTDICC200	01/14/2025	10:31	PS028901.D	7.68	0.00
HSTDICC500	HSTDICC500	01/14/2025	10:55	PS028902.D	7.68	0.00
HSTDICC750	HSTDICC750	01/14/2025	11:19	PS028903.D	7.68	0.00
HSTDICC1000	HSTDICC1000	01/14/2025	11:43	PS028904.D	7.68	0.00
HSTDICC1500	HSTDICC1500	01/14/2025	12:07	PS028905.D	7.68	0.00
I.BLK	I.BLK	01/30/2025	12:56	PS028988.D	7.67	0.00
HSTDCCC750	HSTDCCC750	01/30/2025	13:20	PS028989.D	7.67	0.00
PB166382BL	PB166382BL	01/30/2025	13:44	PS028990.D	7.67	0.00
PB166382BS	PB166382BS	01/30/2025	14:08	PS028991.D	7.67	0.00
PB166318TB	PB166318TB	01/30/2025	14:32	PS028992.D	7.67	0.00
JPP-20.1-012725	Q1206-04	01/30/2025	14:56	PS028993.D	7.67	0.00
JPP-20.1-012725MS	Q1206-04MS	01/30/2025	15:20	PS028994.D	7.67	0.00
JPP-20.1-012725MSD	Q1206-04MSD	01/30/2025	15:43	PS028995.D	7.67	0.00
JPP-16.3-012725	Q1206-08	01/30/2025	16:07	PS028996.D	7.67	0.00
I.BLK	I.BLK	01/30/2025	16:31	PS028997.D	7.67	0.00
HSTDCCC750	HSTDCCC750	01/30/2025	16:55	PS028998.D	7.67	0.00

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-20.1-012725MS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Lab Sample ID: Q1206-04MS **Date(s) Analyzed:** 01/30/2025 01/30/2025

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

GC Column: (1): RTX-CLP **ID:** 0.32 (mm) **GC Column:(2):** RTX-CLP2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
2,4-D	1	8.31	8.26	8.36	50.4	6.6
	2	8.90	8.85	8.95	47.2	
2,4,5-TP(Silvex)	1	9.18	9.13	9.23	48.1	48.9
	2	9.81	9.76	9.86	79.2	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-20.1-012725MSD

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Lab Sample ID: Q1206-04MSD **Date(s) Analyzed:** 01/30/2025 01/30/2025

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

GC Column: (1): RTX-CLP **ID:** 0.32 (mm) **GC Column:(2):** RTX-CLP2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
2,4-D	1	8.31	8.26	8.36	49.9	6.6
	2	8.90	8.85	8.95	46.7	
2,4,5-TP(Silvex)	1	9.18	9.13	9.23	47.5	49.4
	2	9.81	9.76	9.86	78.7	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

PB166382BS

Contract: RUTW01

Lab Code: CHEM **Case No.:** Q1206 **SAS No.:** Q1206 **SDG NO.:** Q1206

Lab Sample ID: PB166382BS **Date(s) Analyzed:** 01/30/2025 01/30/2025

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

GC Column: (1): RTX-CLP **ID:** 0.32 (mm) **GC Column:(2):** RTX-CLP2 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
2,4,5-TP(Silvex)	1	9.18	9.13	9.23	4.90	2.1
	2	9.80	9.75	9.85	4.80	
2,4-D	1	8.31	8.26	8.36	4.80	6.5
	2	8.91	8.86	8.96	4.50	

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LAB CHRONICLE

OrderID:	Q1206	**OrderDate:**	1/28/2025 11:18:51 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1206-01	**JPP-20.1-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Diesel Range Organics	8015D		01/29/25	01/30/25	
			Gasoline Range Organics	8015D			01/29/25	
Q1206-03	**JPP-20.1-012725**	**SOIL**			**01/27/25**			**01/28/25**
			PCB	8082A		01/29/25	01/29/25	
Q1206-04	**JPP-20.1-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP Herbicide	8151A		01/29/25	01/30/25	
			TCLP Pesticide	8081B		01/29/25	02/03/25	
Q1206-05	**JPP-16.3-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Diesel Range Organics	8015D		01/29/25	01/30/25	
			Gasoline Range Organics	8015D			01/29/25	
Q1206-07	**JPP-16.3-012725**	**SOIL**			**01/27/25**			**01/28/25**
			PCB	8082A		01/29/25	01/29/25	
Q1206-08	**JPP-16.3-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP Herbicide	8151A		01/29/25	01/30/25	
			TCLP Pesticide	8081B		01/29/25	01/30/25	

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-01	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	85.5 Decanted:
Sample Wt/Vol:	18.22 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052144.D	1	01/29/25 08:45	01/30/25 5:58	PB166348

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	47400		356	3210	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	17.5		37 - 130	87%	SPK: 20

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-05	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	85.9 Decanted:
Sample Wt/Vol:	23.1 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052145.D	1	01/29/25 08:45	01/30/25 6:28	PB166348

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	39800		279	2520	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	14.1		37 - 130	71%	SPK: 20

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

QC SUMMARY

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SOIL DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: RU2 Engineering, LLC

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

EPA SAMPLE NO.	S1 TETRACOSANE-d50	S2	S3	S4	TOT OUT
PIBLK-FE052139.D	91				0
PIBLK-FE052151.D	86				0
PB166348BL	90				0
PB166348BS	91				0
JPP-20.1-012725	87				0
JPP-16.3-012725	71				0

	QC LIMITS
TETRACOSANE-d50	For Water : 29-130 For Soil : 37-130

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate Diluted Out

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SOIL DIESEL RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RI

Lab Name: Chemtech **Client:** RU2 Engineering, LLC

Lab Code: CHEM **Cas No:** Q1206 **SAS No :** Q1206 **SDG No:** Q1206

Matrix Spike - EPA Sample No : PB166348BS **Datafile:** FE052143.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
DRO	6662	0	6174	93	68-131

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4B

METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166348BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: FE052142.D Lab Sample ID: PB166348BL

Instrument ID: FE Date Extracted: 01/30/2025

Matrix: (soil/water) Soil Date Analyzed: 01/30/25

Level: (low/med) low Time Analyzed: 4:58

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB166348BS	PB166348BS	FE052143.D	01/30/25
JPP-20.1-012725	Q1206-01	FE052144.D	01/30/25
JPP-16.3-012725	Q1206-05	FE052145.D	01/30/25

COMMENTS:

QC SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166348BL	SDG No.:	Q1206
Lab Sample ID:	PB166348BL	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	100 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052142.D	1	01/29/25 08:45	01/30/25 4:58	PB166348

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	1670	U	185	1670	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	18.0		37 - 130	90%	SPK: 20

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-FE052139.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-FE052139.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052139.D	1		01/30/25	FE012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	50.0	U	10.0	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	18.3		29 - 130	91%	SPK: 20

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-FE052151.D	SDG No.:	Q1206
Lab Sample ID:	I.BLK-FE052151.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052151.D	1		01/30/25	FE012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	50.0	U	10.0	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	17.1		29 - 130	86%	SPK: 20

Comments:

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

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

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166348BS	SDG No.:	Q1206
Lab Sample ID:	PB166348BS	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	100 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052143.D	1	01/29/25 08:45	01/30/25 5:28	PB166348

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	6170		185	1670	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	18.2		37 - 130	91%	SPK: 20

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

CALIBRATION SUMMARY

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DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

Calibration Sequence : FE012325		Test : Diesel Range Organics	
Concentration (PPM)	**Area Count**	**Reference Factor**	**File ID**
1000	100840417	100840	FE052027.D
500	49711032	99422	FE052028.D
200	20907011	104535	FE052029.D
100	11272495	112725	FE052030.D
50	5669298	113386	FE052031.D
AVG RF : 106182	**% RSD : 6.169**		**AVG RT : 15.2554**

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DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

DataFile: FE052140.D Analyst Name: YP\AJ Analyst Date: 01-30-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	50016905	100034	106182	5.79

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DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

DataFile: FE052152.D Analyst Name: YP\AJ Analyst Date: 01-30-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	47032768	94066	106182	11.411

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Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR **Instrument ID:** FID_E

GC Column: RXI-1MS **ID:** 0.18 **(mm)**

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

MEAN SUROGATE RT FROM INITIAL CALIBRATION **15.2554**

EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	I.BLK01	30 Jan 2025 03:28	FE052139.D	15.244	
50 PPM TRPH STD	50 PPM TRPH STD	30 Jan 2025 03:58	FE052140.D	15.247	
PB166348BL	PB166348BL	30 Jan 2025 04:58	FE052142.D	15.244	
PB166348BS	PB166348BS	30 Jan 2025 05:28	FE052143.D	15.243	
JPP-20.1-012725	Q1206-01	30 Jan 2025 05:58	FE052144.D	15.247	
JPP-16.3-012725	Q1206-05	30 Jan 2025 06:28	FE052145.D	15.260	
PIBLK02	I.BLK02	30 Jan 2025 10:30	FE052151.D	15.274	
50 PPM TRPH STD	50 PPM TRPH STD	30 Jan 2025 11:00	FE052152.D	15.273	

 # Column used to flag RT values with an * values outside of QC limits

QC Limits	Lower Limit	Upper Limits
(± 0.10 minutes)	15.1554	15.3554

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LAB CHRONICLE

OrderID:	Q1206	**OrderDate:**	1/28/2025 11:18:51 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1206-03	**JPP-20.1-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Mercury	7471B		01/29/25	01/30/25	
			Metals ICP-TAL	6010D		01/29/25	01/30/25	
Q1206-07	**JPP-16.3-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Mercury	7471B		01/29/25	01/30/25	
			Metals ICP-TAL	6010D		01/29/25	01/30/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1206 **Order ID:** Q1206

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bridge

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : JPP-20.1-012725								
Q1206-03	JPP-20.1-012725	SOIL	Aluminum	2710		2.45	5.09	mg/Kg
Q1206-03	JPP-20.1-012725	SOIL	Antimony	391		0.15	2.54	mg/Kg
Q1206-03	JPP-20.1-012725	SOIL	Arsenic	36.1		0.30	1.02	mg/Kg
Q1206-03	JPP-20.1-012725	SOIL	Barium	75.5		0.65	5.09	mg/Kg
Q1206-03	JPP-20.1-012725	SOIL	Beryllium	0.29	J	0.012	0.31	mg/Kg
Q1206-03	JPP-20.1-012725	SOIL	Calcium	12500		2.85	102	mg/Kg
Q1206-03	JPP-20.1-012725	SOIL	Chromium	9.36		0.055	0.51	mg/Kg
Q1206-03	JPP-20.1-012725	SOIL	Cobalt	5.08		0.059	1.53	mg/Kg
Q1206-03	JPP-20.1-012725	SOIL	Copper	65.7		0.48	1.02	mg/Kg
Q1206-03	JPP-20.1-012725	SOIL	Iron	11200		2.74	5.09	mg/Kg
Q1206-03	JPP-20.1-012725	SOIL	Lead	1070		0.15	0.61	mg/Kg
Q1206-03	JPP-20.1-012725	SOIL	Magnesium	2310		3.49	102	mg/Kg
Q1206-03	JPP-20.1-012725	SOIL	Manganese	131		0.072	1.02	mg/Kg
Q1206-03	JPP-20.1-012725	SOIL	Mercury	0.41		0.0060	0.014	mg/Kg
Q1206-03	JPP-20.1-012725	SOIL	Nickel	13.1		0.092	2.03	mg/Kg
Q1206-03	JPP-20.1-012725	SOIL	Potassium	995		29.2	102	mg/Kg
Q1206-03	JPP-20.1-012725	SOIL	Silver	0.54		0.053	0.51	mg/Kg
Q1206-03	JPP-20.1-012725	SOIL	Sodium	2460		36.7	102	mg/Kg
Q1206-03	JPP-20.1-012725	SOIL	Vanadium	13.0		0.28	2.03	mg/Kg
Q1206-03	JPP-20.1-012725	SOIL	Zinc	272		0.11	2.03	mg/Kg
Client ID : JPP-16.3-012725								
Q1206-07	JPP-16.3-012725	SOIL	Aluminum	5180		2.60	5.40	mg/Kg
Q1206-07	JPP-16.3-012725	SOIL	Antimony	0.79	J	0.16	2.70	mg/Kg
Q1206-07	JPP-16.3-012725	SOIL	Arsenic	4.26		0.31	1.08	mg/Kg
Q1206-07	JPP-16.3-012725	SOIL	Barium	67.6		0.69	5.40	mg/Kg
Q1206-07	JPP-16.3-012725	SOIL	Beryllium	0.35		0.013	0.32	mg/Kg
Q1206-07	JPP-16.3-012725	SOIL	Cadmium	0.25	J	0.017	0.32	mg/Kg
Q1206-07	JPP-16.3-012725	SOIL	Calcium	38300		3.03	108	mg/Kg
Q1206-07	JPP-16.3-012725	SOIL	Chromium	14.1		0.058	0.54	mg/Kg
Q1206-07	JPP-16.3-012725	SOIL	Cobalt	4.93		0.063	1.62	mg/Kg
Q1206-07	JPP-16.3-012725	SOIL	Copper	69.1		0.51	1.08	mg/Kg
Q1206-07	JPP-16.3-012725	SOIL	Iron	10400		2.91	5.40	mg/Kg
Q1206-07	JPP-16.3-012725	SOIL	Lead	158		0.16	0.65	mg/Kg
Q1206-07	JPP-16.3-012725	SOIL	Magnesium	9710		3.71	108	mg/Kg
Q1206-07	JPP-16.3-012725	SOIL	Manganese	153		0.077	1.08	mg/Kg
Q1206-07	JPP-16.3-012725	SOIL	Mercury	0.21		0.0060	0.014	mg/Kg
Q1206-07	JPP-16.3-012725	SOIL	Nickel	13.8		0.097	2.16	mg/Kg

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Hit Summary Sheet
SW-846

SDG No.: Q1206 **Order ID:** Q1206

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bridge

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q1206-07	JPP-16.3-012725	SOIL	Potassium	1110		31.0	108	mg/Kg
Q1206-07	JPP-16.3-012725	SOIL	Silver	0.27	J	0.056	0.54	mg/Kg
Q1206-07	JPP-16.3-012725	SOIL	Sodium	3420		39.0	108	mg/Kg
Q1206-07	JPP-16.3-012725	SOIL	Vanadium	20.3		0.29	2.16	mg/Kg
Q1206-07	JPP-16.3-012725	SOIL	Zinc	90.3		0.12	2.16	mg/Kg

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-03	Matrix:	SOIL
Level (low/med):	low	% Solid:	85.5

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	2710		1	2.45	5.09	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7440-36-0	Antimony	391	N	1	0.15	2.54	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7440-38-2	Arsenic	36.1		1	0.30	1.02	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7440-39-3	Barium	75.5		1	0.65	5.09	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7440-41-7	Beryllium	0.29	J	1	0.012	0.31	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7440-43-9	Cadmium	0.31	U	1	0.016	0.31	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7440-70-2	Calcium	12500		1	2.85	102	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7440-47-3	Chromium	9.36		1	0.055	0.51	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7440-48-4	Cobalt	5.08		1	0.059	1.53	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7440-50-8	Copper	65.7	N	1	0.48	1.02	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7439-89-6	Iron	11200		1	2.74	5.09	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7439-92-1	Lead	1070	N	1	0.15	0.61	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7439-95-4	Magnesium	2310		1	3.49	102	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7439-96-5	Manganese	131		1	0.072	1.02	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7439-97-6	Mercury	0.41		1	0.0060	0.014	mg/Kg	01/29/25 13:30	01/30/25 07:49	SW7471B	
7440-02-0	Nickel	13.1		1	0.092	2.03	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7440-09-7	Potassium	995	N	1	29.2	102	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7782-49-2	Selenium	1.02	U	1	0.34	1.02	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7440-22-4	Silver	0.54		1	0.053	0.51	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7440-23-5	Sodium	2460		1	36.7	102	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7440-28-0	Thallium	2.03	U	1	0.45	2.03	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7440-62-2	Vanadium	13.0	N	1	0.28	2.03	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050
7440-66-6	Zinc	272		1	0.11	2.03	mg/Kg	01/29/25 09:30	01/30/25 15:08	SW6010	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-07	Matrix:	SOIL
Level (low/med):	low	% Solid:	84.5

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	5180		1	2.60	5.40	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7440-36-0	Antimony	0.79	JN	1	0.16	2.70	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7440-38-2	Arsenic	4.26		1	0.31	1.08	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7440-39-3	Barium	67.6		1	0.69	5.40	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7440-41-7	Beryllium	0.35		1	0.013	0.32	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7440-43-9	Cadmium	0.25	J	1	0.017	0.32	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7440-70-2	Calcium	38300		1	3.03	108	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7440-47-3	Chromium	14.1		1	0.058	0.54	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7440-48-4	Cobalt	4.93		1	0.063	1.62	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7440-50-8	Copper	69.1	N	1	0.51	1.08	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7439-89-6	Iron	10400		1	2.91	5.40	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7439-92-1	Lead	158	N	1	0.16	0.65	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7439-95-4	Magnesium	9710		1	3.71	108	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7439-96-5	Manganese	153		1	0.077	1.08	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7439-97-6	Mercury	0.21		1	0.0060	0.014	mg/Kg	01/29/25 13:30	01/30/25 07:51	SW7471B	
7440-02-0	Nickel	13.8		1	0.097	2.16	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7440-09-7	Potassium	1110	N	1	31.0	108	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7782-49-2	Selenium	1.08	U	1	0.36	1.08	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7440-22-4	Silver	0.27	J	1	0.056	0.54	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7440-23-5	Sodium	3420		1	39.0	108	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7440-28-0	Thallium	2.16	U	1	0.48	2.16	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7440-62-2	Vanadium	20.3	N	1	0.29	2.16	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050
7440-66-6	Zinc	90.3		1	0.12	2.16	mg/Kg	01/29/25 09:30	01/30/25 15:12	SW6010	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

METAL CALIBRATION DATA

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV74	Mercury	3.74	4.0	94	90 - 110	CV	01/30/2025	07:26	LB134478

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV84	Mercury	5.04	5.0	101	90 - 110	CV	01/30/2025	07:30	LB134478
CCV85	Mercury	5.10	5.0	102	90 - 110	CV	01/30/2025	07:58	LB134478
CCV86	Mercury	5.17	5.0	103	90 - 110	CV	01/30/2025	08:34	LB134478

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	2350	2500	94	90 - 110	P	01/30/2025	11:49	LB134493
	Antimony	1000	1000	100	90 - 110	P	01/30/2025	11:49	LB134493
	Arsenic	1040	1000	104	90 - 110	P	01/30/2025	11:49	LB134493
	Barium	470	520	90	90 - 110	P	01/30/2025	11:49	LB134493
	Beryllium	472	510	92	90 - 110	P	01/30/2025	11:49	LB134493
	Cadmium	502	510	98	90 - 110	P	01/30/2025	11:49	LB134493
	Calcium	9280	10000	93	90 - 110	P	01/30/2025	11:49	LB134493
	Chromium	522	520	100	90 - 110	P	01/30/2025	11:49	LB134493
	Cobalt	504	520	97	90 - 110	P	01/30/2025	11:49	LB134493
	Copper	523	510	103	90 - 110	P	01/30/2025	11:49	LB134493
	Iron	9560	10000	96	90 - 110	P	01/30/2025	11:49	LB134493
	Lead	1000	1000	100	90 - 110	P	01/30/2025	11:49	LB134493
	Magnesium	5450	6000	91	90 - 110	P	01/30/2025	11:49	LB134493
	Manganese	519	520	100	90 - 110	P	01/30/2025	11:49	LB134493
	Nickel	507	530	96	90 - 110	P	01/30/2025	11:49	LB134493
	Potassium	9440	9900	95	90 - 110	P	01/30/2025	11:49	LB134493
	Selenium	1040	1000	104	90 - 110	P	01/30/2025	11:49	LB134493
	Silver	252	250	101	90 - 110	P	01/30/2025	11:49	LB134493
	Sodium	9500	10000	95	90 - 110	P	01/30/2025	11:49	LB134493
	Thallium	1020	1000	102	90 - 110	P	01/30/2025	11:49	LB134493
	Vanadium	455	500	91	90 - 110	P	01/30/2025	11:49	LB134493
	Zinc	1010	1000	101	90 - 110	P	01/30/2025	11:49	LB134493

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Aluminum	89.2	100	89	80 - 120	P	01/30/2025	11:56	LB134493
	Antimony	49.5	50.0	99	80 - 120	P	01/30/2025	11:56	LB134493
	Arsenic	21.3	20.0	107	80 - 120	P	01/30/2025	11:56	LB134493
	Barium	83.9	100	84	80 - 120	P	01/30/2025	11:56	LB134493
	Beryllium	5.55	6.0	92	80 - 120	P	01/30/2025	11:56	LB134493
	Cadmium	5.60	6.0	93	80 - 120	P	01/30/2025	11:56	LB134493
	Calcium	1830	2000	92	80 - 120	P	01/30/2025	11:56	LB134493
	Chromium	9.80	10.0	98	80 - 120	P	01/30/2025	11:56	LB134493
	Cobalt	28.7	30.0	96	80 - 120	P	01/30/2025	11:56	LB134493
	Copper	21.6	20.0	108	80 - 120	P	01/30/2025	11:56	LB134493
	Iron	106	100	106	80 - 120	P	01/30/2025	11:56	LB134493
	Lead	12.2	12.0	102	80 - 120	P	01/30/2025	11:56	LB134493
	Magnesium	1970	2000	99	80 - 120	P	01/30/2025	11:56	LB134493
	Manganese	18.0	20.0	90	80 - 120	P	01/30/2025	11:56	LB134493
	Nickel	38.6	40.0	97	80 - 120	P	01/30/2025	11:56	LB134493
	Potassium	1920	2000	96	80 - 120	P	01/30/2025	11:56	LB134493
	Selenium	19.1	20.0	96	80 - 120	P	01/30/2025	11:56	LB134493
	Silver	10.4	10.0	104	80 - 120	P	01/30/2025	11:56	LB134493
	Sodium	1920	2000	96	80 - 120	P	01/30/2025	11:56	LB134493
	Thallium	39.0	40.0	98	80 - 120	P	01/30/2025	11:56	LB134493
	Vanadium	34.8	40.0	87	80 - 120	P	01/30/2025	11:56	LB134493
	Zinc	38.3	40.0	96	80 - 120	P	01/30/2025	11:56	LB134493

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	9490	10000	95	90 - 110	P	01/30/2025	12:41	LB134493
	Antimony	5010	5000	100	90 - 110	P	01/30/2025	12:41	LB134493
	Arsenic	4950	5000	99	90 - 110	P	01/30/2025	12:41	LB134493
	Barium	9130	10000	91	90 - 110	P	01/30/2025	12:41	LB134493
	Beryllium	237	250	95	90 - 110	P	01/30/2025	12:41	LB134493
	Cadmium	2420	2500	97	90 - 110	P	01/30/2025	12:41	LB134493
	Calcium	23200	25000	93	90 - 110	P	01/30/2025	12:41	LB134493
	Chromium	988	1000	99	90 - 110	P	01/30/2025	12:41	LB134493
	Cobalt	2420	2500	97	90 - 110	P	01/30/2025	12:41	LB134493
	Copper	1250	1250	100	90 - 110	P	01/30/2025	12:41	LB134493
	Iron	4690	5000	94	90 - 110	P	01/30/2025	12:41	LB134493
	Lead	4840	5000	97	90 - 110	P	01/30/2025	12:41	LB134493
	Magnesium	23200	25000	93	90 - 110	P	01/30/2025	12:41	LB134493
	Manganese	2260	2500	90	90 - 110	P	01/30/2025	12:41	LB134493
	Nickel	2420	2500	97	90 - 110	P	01/30/2025	12:41	LB134493
	Potassium	23700	25000	95	90 - 110	P	01/30/2025	12:41	LB134493
	Selenium	5010	5000	100	90 - 110	P	01/30/2025	12:41	LB134493
	Silver	1210	1250	97	90 - 110	P	01/30/2025	12:41	LB134493
	Sodium	24100	25000	96	90 - 110	P	01/30/2025	12:41	LB134493
	Thallium	5080	5000	102	90 - 110	P	01/30/2025	12:41	LB134493
	Vanadium	2350	2500	94	90 - 110	P	01/30/2025	12:41	LB134493
	Zinc	2460	2500	98	90 - 110	P	01/30/2025	12:41	LB134493
CCV02	Aluminum	9600	10000	96	90 - 110	P	01/30/2025	13:33	LB134493
	Antimony	5060	5000	101	90 - 110	P	01/30/2025	13:33	LB134493
	Arsenic	5000	5000	100	90 - 110	P	01/30/2025	13:33	LB134493
	Barium	9200	10000	92	90 - 110	P	01/30/2025	13:33	LB134493
	Beryllium	232	250	93	90 - 110	P	01/30/2025	13:33	LB134493
	Cadmium	2420	2500	97	90 - 110	P	01/30/2025	13:33	LB134493
	Calcium	23300	25000	93	90 - 110	P	01/30/2025	13:33	LB134493
	Chromium	988	1000	99	90 - 110	P	01/30/2025	13:33	LB134493
	Cobalt	2410	2500	96	90 - 110	P	01/30/2025	13:33	LB134493
	Copper	1250	1250	100	90 - 110	P	01/30/2025	13:33	LB134493
	Iron	4770	5000	96	90 - 110	P	01/30/2025	13:33	LB134493
	Lead	4830	5000	97	90 - 110	P	01/30/2025	13:33	LB134493

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Magnesium	23300	25000	93	90 - 110	P	01/30/2025	13:33	LB134493
	Manganese	2250	2500	90	90 - 110	P	01/30/2025	13:33	LB134493
	Nickel	2420	2500	97	90 - 110	P	01/30/2025	13:33	LB134493
	Potassium	24400	25000	97	90 - 110	P	01/30/2025	13:33	LB134493
	Selenium	5050	5000	101	90 - 110	P	01/30/2025	13:33	LB134493
	Silver	1200	1250	96	90 - 110	P	01/30/2025	13:33	LB134493
	Sodium	25000	25000	100	90 - 110	P	01/30/2025	13:33	LB134493
	Thallium	5120	5000	102	90 - 110	P	01/30/2025	13:33	LB134493
	Vanadium	2360	2500	94	90 - 110	P	01/30/2025	13:33	LB134493
	Zinc	2450	2500	98	90 - 110	P	01/30/2025	13:33	LB134493
CCV03	Aluminum	9650	10000	96	90 - 110	P	01/30/2025	14:34	LB134493
	Antimony	4780	5000	96	90 - 110	P	01/30/2025	14:34	LB134493
	Arsenic	4880	5000	98	90 - 110	P	01/30/2025	14:34	LB134493
	Barium	9430	10000	94	90 - 110	P	01/30/2025	14:34	LB134493
	Beryllium	231	250	92	90 - 110	P	01/30/2025	14:34	LB134493
	Cadmium	2490	2500	100	90 - 110	P	01/30/2025	14:34	LB134493
	Calcium	23500	25000	94	90 - 110	P	01/30/2025	14:34	LB134493
	Chromium	985	1000	98	90 - 110	P	01/30/2025	14:34	LB134493
	Cobalt	2440	2500	98	90 - 110	P	01/30/2025	14:34	LB134493
	Copper	1200	1250	96	90 - 110	P	01/30/2025	14:34	LB134493
	Iron	4870	5000	97	90 - 110	P	01/30/2025	14:34	LB134493
	Lead	4910	5000	98	90 - 110	P	01/30/2025	14:34	LB134493
	Magnesium	23400	25000	94	90 - 110	P	01/30/2025	14:34	LB134493
	Manganese	2300	2500	92	90 - 110	P	01/30/2025	14:34	LB134493
	Nickel	2450	2500	98	90 - 110	P	01/30/2025	14:34	LB134493
	Potassium	24900	25000	100	90 - 110	P	01/30/2025	14:34	LB134493
	Selenium	5010	5000	100	90 - 110	P	01/30/2025	14:34	LB134493
	Silver	1210	1250	97	90 - 110	P	01/30/2025	14:34	LB134493
	Sodium	25200	25000	101	90 - 110	P	01/30/2025	14:34	LB134493
	Thallium	5070	5000	102	90 - 110	P	01/30/2025	14:34	LB134493
	Vanadium	2380	2500	95	90 - 110	P	01/30/2025	14:34	LB134493
	Zinc	2450	2500	98	90 - 110	P	01/30/2025	14:34	LB134493
CCV04	Aluminum	9670	10000	97	90 - 110	P	01/30/2025	15:25	LB134493
	Antimony	4980	5000	100	90 - 110	P	01/30/2025	15:25	LB134493

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Arsenic	4890	5000	98	90 - 110	P	01/30/2025	15:25	LB134493
	Barium	9350	10000	94	90 - 110	P	01/30/2025	15:25	LB134493
	Beryllium	231	250	92	90 - 110	P	01/30/2025	15:25	LB134493
	Cadmium	2370	2500	95	90 - 110	P	01/30/2025	15:25	LB134493
	Calcium	23400	25000	94	90 - 110	P	01/30/2025	15:25	LB134493
	Chromium	1000	1000	100	90 - 110	P	01/30/2025	15:25	LB134493
	Cobalt	2370	2500	95	90 - 110	P	01/30/2025	15:25	LB134493
	Copper	1230	1250	98	90 - 110	P	01/30/2025	15:25	LB134493
	Iron	4940	5000	99	90 - 110	P	01/30/2025	15:25	LB134493
	Lead	4750	5000	95	90 - 110	P	01/30/2025	15:25	LB134493
	Magnesium	23400	25000	94	90 - 110	P	01/30/2025	15:25	LB134493
	Manganese	2280	2500	91	90 - 110	P	01/30/2025	15:25	LB134493
	Nickel	2380	2500	95	90 - 110	P	01/30/2025	15:25	LB134493
	Potassium	25200	25000	101	90 - 110	P	01/30/2025	15:25	LB134493
	Selenium	4950	5000	99	90 - 110	P	01/30/2025	15:25	LB134493
	Silver	1220	1250	98	90 - 110	P	01/30/2025	15:25	LB134493
	Sodium	25700	25000	103	90 - 110	P	01/30/2025	15:25	LB134493
	Thallium	5090	5000	102	90 - 110	P	01/30/2025	15:25	LB134493
	Vanadium	2390	2500	95	90 - 110	P	01/30/2025	15:25	LB134493
	Zinc	2480	2500	99	90 - 110	P	01/30/2025	15:25	LB134493
CCV05	Aluminum	9750	10000	98	90 - 110	P	01/30/2025	16:24	LB134493
	Antimony	4910	5000	98	90 - 110	P	01/30/2025	16:24	LB134493
	Arsenic	4830	5000	97	90 - 110	P	01/30/2025	16:24	LB134493
	Barium	9330	10000	93	90 - 110	P	01/30/2025	16:24	LB134493
	Beryllium	234	250	94	90 - 110	P	01/30/2025	16:24	LB134493
	Cadmium	2370	2500	95	90 - 110	P	01/30/2025	16:24	LB134493
	Calcium	23700	25000	95	90 - 110	P	01/30/2025	16:24	LB134493
	Chromium	991	1000	99	90 - 110	P	01/30/2025	16:24	LB134493
	Cobalt	2370	2500	95	90 - 110	P	01/30/2025	16:24	LB134493
	Copper	1220	1250	98	90 - 110	P	01/30/2025	16:24	LB134493
	Iron	4830	5000	96	90 - 110	P	01/30/2025	16:24	LB134493
	Lead	4740	5000	95	90 - 110	P	01/30/2025	16:24	LB134493
	Magnesium	23700	25000	95	90 - 110	P	01/30/2025	16:24	LB134493
	Manganese	2310	2500	92	90 - 110	P	01/30/2025	16:24	LB134493

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

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Nickel	2370	2500	95	90 - 110	P	01/30/2025	16:24	LB134493
	Potassium	24500	25000	98	90 - 110	P	01/30/2025	16:24	LB134493
	Selenium	4860	5000	97	90 - 110	P	01/30/2025	16:24	LB134493
	Silver	1210	1250	97	90 - 110	P	01/30/2025	16:24	LB134493
	Sodium	24900	25000	100	90 - 110	P	01/30/2025	16:24	LB134493
	Thallium	4980	5000	100	90 - 110	P	01/30/2025	16:24	LB134493
	Vanadium	2410	2500	96	90 - 110	P	01/30/2025	16:24	LB134493
	Zinc	2450	2500	98	90 - 110	P	01/30/2025	16:24	LB134493
CCV06	Aluminum	9690	10000	97	90 - 110	P	01/30/2025	17:19	LB134493
	Antimony	5050	5000	101	90 - 110	P	01/30/2025	17:19	LB134493
	Arsenic	4970	5000	99	90 - 110	P	01/30/2025	17:19	LB134493
	Barium	9260	10000	93	90 - 110	P	01/30/2025	17:19	LB134493
	Beryllium	235	250	94	90 - 110	P	01/30/2025	17:19	LB134493
	Cadmium	2440	2500	98	90 - 110	P	01/30/2025	17:19	LB134493
	Calcium	23500	25000	94	90 - 110	P	01/30/2025	17:19	LB134493
	Chromium	1010	1000	101	90 - 110	P	01/30/2025	17:19	LB134493
	Cobalt	2440	2500	98	90 - 110	P	01/30/2025	17:19	LB134493
	Copper	1260	1250	100	90 - 110	P	01/30/2025	17:19	LB134493
	Iron	4800	5000	96	90 - 110	P	01/30/2025	17:19	LB134493
	Lead	4880	5000	98	90 - 110	P	01/30/2025	17:19	LB134493
	Magnesium	23700	25000	95	90 - 110	P	01/30/2025	17:19	LB134493
	Manganese	2290	2500	92	90 - 110	P	01/30/2025	17:19	LB134493
	Nickel	2440	2500	98	90 - 110	P	01/30/2025	17:19	LB134493
	Potassium	24300	25000	97	90 - 110	P	01/30/2025	17:19	LB134493
	Selenium	4970	5000	100	90 - 110	P	01/30/2025	17:19	LB134493
	Silver	1230	1250	99	90 - 110	P	01/30/2025	17:19	LB134493
	Sodium	24900	25000	100	90 - 110	P	01/30/2025	17:19	LB134493
	Thallium	5010	5000	100	90 - 110	P	01/30/2025	17:19	LB134493
	Vanadium	2380	2500	95	90 - 110	P	01/30/2025	17:19	LB134493
	Zinc	2470	2500	99	90 - 110	P	01/30/2025	17:19	LB134493
CCV07	Aluminum	9880	10000	99	90 - 110	P	01/30/2025	18:11	LB134493
	Antimony	5060	5000	101	90 - 110	P	01/30/2025	18:11	LB134493
	Arsenic	4970	5000	99	90 - 110	P	01/30/2025	18:11	LB134493
	Barium	9620	10000	96	90 - 110	P	01/30/2025	18:11	LB134493

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Fax : 908 789 8922

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV07	Beryllium	237	250	95	90 - 110	P	01/30/2025	18:11	LB134493
	Cadmium	2440	2500	98	90 - 110	P	01/30/2025	18:11	LB134493
	Calcium	24100	25000	96	90 - 110	P	01/30/2025	18:11	LB134493
	Chromium	1020	1000	102	90 - 110	P	01/30/2025	18:11	LB134493
	Cobalt	2450	2500	98	90 - 110	P	01/30/2025	18:11	LB134493
	Copper	1250	1250	100	90 - 110	P	01/30/2025	18:11	LB134493
	Iron	5050	5000	101	90 - 110	P	01/30/2025	18:11	LB134493
	Lead	4880	5000	98	90 - 110	P	01/30/2025	18:11	LB134493
	Magnesium	24100	25000	96	90 - 110	P	01/30/2025	18:11	LB134493
	Manganese	2360	2500	94	90 - 110	P	01/30/2025	18:11	LB134493
	Nickel	2450	2500	98	90 - 110	P	01/30/2025	18:11	LB134493
	Potassium	25700	25000	103	90 - 110	P	01/30/2025	18:11	LB134493
	Selenium	5000	5000	100	90 - 110	P	01/30/2025	18:11	LB134493
	Silver	1270	1250	101	90 - 110	P	01/30/2025	18:11	LB134493
	Sodium	26300	25000	105	90 - 110	P	01/30/2025	18:11	LB134493
	Thallium	5060	5000	101	90 - 110	P	01/30/2025	18:11	LB134493
	Vanadium	2450	2500	98	90 - 110	P	01/30/2025	18:11	LB134493
	Zinc	2520	2500	101	90 - 110	P	01/30/2025	18:11	LB134493
CCV08	Aluminum	9710	10000	97	90 - 110	P	01/30/2025	18:45	LB134493
	Antimony	5060	5000	101	90 - 110	P	01/30/2025	18:45	LB134493
	Arsenic	5000	5000	100	90 - 110	P	01/30/2025	18:45	LB134493
	Barium	9470	10000	95	90 - 110	P	01/30/2025	18:45	LB134493
	Beryllium	234	250	94	90 - 110	P	01/30/2025	18:45	LB134493
	Cadmium	2430	2500	97	90 - 110	P	01/30/2025	18:45	LB134493
	Calcium	23600	25000	95	90 - 110	P	01/30/2025	18:45	LB134493
	Chromium	1010	1000	101	90 - 110	P	01/30/2025	18:45	LB134493
	Cobalt	2430	2500	97	90 - 110	P	01/30/2025	18:45	LB134493
	Copper	1250	1250	100	90 - 110	P	01/30/2025	18:45	LB134493
	Iron	4940	5000	99	90 - 110	P	01/30/2025	18:45	LB134493
	Lead	4860	5000	97	90 - 110	P	01/30/2025	18:45	LB134493
	Magnesium	23700	25000	95	90 - 110	P	01/30/2025	18:45	LB134493
	Manganese	2310	2500	92	90 - 110	P	01/30/2025	18:45	LB134493
	Nickel	2430	2500	97	90 - 110	P	01/30/2025	18:45	LB134493
	Potassium	25100	25000	100	90 - 110	P	01/30/2025	18:45	LB134493

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Fax : 908 789 8922

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV08	Selenium	5030	5000	101	90 - 110	P	01/30/2025	18:45	LB134493
	Silver	1250	1250	100	90 - 110	P	01/30/2025	18:45	LB134493
	Sodium	25600	25000	102	90 - 110	P	01/30/2025	18:45	LB134493
	Thallium	5060	5000	101	90 - 110	P	01/30/2025	18:45	LB134493
	Vanadium	2410	2500	96	90 - 110	P	01/30/2025	18:45	LB134493
	Zinc	2450	2500	98	90 - 110	P	01/30/2025	18:45	LB134493

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CRDL STANDARD FOR AA & ICP

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRA	Mercury	0.17	0.2	85	40 - 160	CV	01/30/2025	07:35	LB134478
CRI01	Aluminum	84.9	100	85	40 - 160	P	01/30/2025	12:05	LB134493
	Antimony	47.1	50.0	94	40 - 160	P	01/30/2025	12:05	LB134493
	Arsenic	21.5	20.0	107	40 - 160	P	01/30/2025	12:05	LB134493
	Barium	90.1	100	90	40 - 160	P	01/30/2025	12:05	LB134493
	Beryllium	5.61	6.0	93	40 - 160	P	01/30/2025	12:05	LB134493
	Cadmium	5.56	6.0	93	40 - 160	P	01/30/2025	12:05	LB134493
	Calcium	1880	2000	94	40 - 160	P	01/30/2025	12:05	LB134493
	Chromium	9.97	10.0	100	40 - 160	P	01/30/2025	12:05	LB134493
	Cobalt	28.5	30.0	95	40 - 160	P	01/30/2025	12:05	LB134493
	Copper	21.8	20.0	109	40 - 160	P	01/30/2025	12:05	LB134493
	Iron	81.5	100	82	40 - 160	P	01/30/2025	12:05	LB134493
	Lead	10.9	12.0	91	40 - 160	P	01/30/2025	12:05	LB134493
	Magnesium	2010	2000	101	40 - 160	P	01/30/2025	12:05	LB134493
	Manganese	18.2	20.0	91	40 - 160	P	01/30/2025	12:05	LB134493
	Nickel	38.1	40.0	95	40 - 160	P	01/30/2025	12:05	LB134493
	Potassium	2030	2000	101	40 - 160	P	01/30/2025	12:05	LB134493
	Selenium	18.4	20.0	92	40 - 160	P	01/30/2025	12:05	LB134493
	Silver	11.1	10.0	111	40 - 160	P	01/30/2025	12:05	LB134493
	Sodium	2020	2000	101	40 - 160	P	01/30/2025	12:05	LB134493
	Thallium	40.0	40.0	100	40 - 160	P	01/30/2025	12:05	LB134493
	Vanadium	34.7	40.0	87	40 - 160	P	01/30/2025	12:05	LB134493
	Zinc	39.3	40.0	98	40 - 160	P	01/30/2025	12:05	LB134493

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Fax : 908 789 8922

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB74	Mercury	0.20	+/-0.20	U	0.20	CV	01/30/2025	07:28	LB134478

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB84	Mercury	0.20	+/-0.20	U	0.20	CV	01/30/2025	07:32	LB134478
CCB85	Mercury	0.20	+/-0.20	U	0.20	CV	01/30/2025	08:00	LB134478
CCB86	Mercury	0.20	+/-0.20	U	0.20	CV	01/30/2025	08:37	LB134478

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	100	+/-100	U	100	P	01/30/2025	12:00	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	12:00	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	12:00	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	12:00	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	12:00	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	12:00	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	12:00	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	12:00	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	12:00	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	12:00	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	12:00	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	12:00	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	12:00	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	12:00	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	12:00	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	12:00	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	12:00	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	12:00	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	12:00	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	12:00	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	12:00	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	12:00	LB134493

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Fax : 908 789 8922

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	100	+/-100	U	100	P	01/30/2025	12:47	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	12:47	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	12:47	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	12:47	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	12:47	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	12:47	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	12:47	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	12:47	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	12:47	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	12:47	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	12:47	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	12:47	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	12:47	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	12:47	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	12:47	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	12:47	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	12:47	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	12:47	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	12:47	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	12:47	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	12:47	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	12:47	LB134493
CCB02	Aluminum	100	+/-100	U	100	P	01/30/2025	13:37	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	13:37	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	13:37	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	13:37	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	13:37	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	13:37	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	13:37	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	13:37	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	13:37	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	13:37	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	13:37	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	13:37	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	13:37	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	13:37	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	13:37	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	13:37	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	13:37	LB134493

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Fax : 908 789 8922

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	13:37	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	13:37	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	13:37	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	13:37	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	13:37	LB134493
CCB03	Aluminum	100	+/-100	U	100	P	01/30/2025	14:38	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	14:38	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	14:38	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	14:38	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	14:38	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	14:38	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	14:38	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	14:38	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	14:38	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	14:38	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	14:38	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	14:38	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	14:38	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	14:38	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	14:38	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	14:38	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	14:38	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	14:38	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	14:38	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	14:38	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	14:38	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	14:38	LB134493
CCB04	Aluminum	100	+/-100	U	100	P	01/30/2025	15:29	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	15:29	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	15:29	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	15:29	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	15:29	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	15:29	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	15:29	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	15:29	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	15:29	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	15:29	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	15:29	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	15:29	LB134493

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Fax : 908 789 8922

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	15:29	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	15:29	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	15:29	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	15:29	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	15:29	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	15:29	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	15:29	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	15:29	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	15:29	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	15:29	LB134493
CCB05	Aluminum	100	+/-100	U	100	P	01/30/2025	16:28	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	16:28	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	16:28	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	16:28	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	16:28	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	16:28	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	16:28	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	16:28	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	16:28	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	16:28	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	16:28	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	16:28	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	16:28	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	16:28	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	16:28	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	16:28	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	16:28	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	16:28	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	16:28	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	16:28	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	16:28	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	16:28	LB134493
CCB06	Aluminum	100	+/-100	U	100	P	01/30/2025	17:24	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	17:24	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	17:24	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	17:24	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	17:24	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	17:24	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	17:24	LB134493

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	17:24	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	17:24	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	17:24	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	17:24	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	17:24	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	17:24	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	17:24	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	17:24	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	17:24	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	17:24	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	17:24	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	17:24	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	17:24	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	17:24	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	17:24	LB134493
CCB07	Aluminum	100	+/-100	U	100	P	01/30/2025	18:15	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	18:15	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	18:15	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	18:15	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	18:15	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	18:15	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	18:15	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	18:15	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	18:15	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	18:15	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	18:15	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	18:15	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	18:15	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	18:15	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	18:15	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	18:15	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	18:15	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	18:15	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	18:15	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	18:15	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	18:15	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	18:15	LB134493
CCB08	Aluminum	100	+/-100	U	100	P	01/30/2025	18:51	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	18:51	LB134493

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB08	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	18:51	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	18:51	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	18:51	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	18:51	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	18:51	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	18:51	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	18:51	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	18:51	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	18:51	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	18:51	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	18:51	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	18:51	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	18:51	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	18:51	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	18:51	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	18:51	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	18:51	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	18:51	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	18:51	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	18:51	LB134493

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PREPARATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Instrument: CV1

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB166349BL		**SOLID**		**Batch Number:**	**PB166349**		**Prep Date:**	**01/29/2025**	
	Mercury	0.013	<0.013	U	0.013	CV	01/30/2025	07:42	LB134478

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Metals
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PREPARATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Instrument: P4

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB166330BL		**SOLID**		**Batch Number:**	**PB166330**		**Prep Date:**	**01/29/2025**	
	Aluminum	4.44	<4.44	U	4.44	P	01/30/2025	16:07	LB134493
	Antimony	2.22	<2.22	U	2.22	P	01/30/2025	16:07	LB134493
	Arsenic	0.89	<0.89	U	0.89	P	01/30/2025	16:07	LB134493
	Barium	4.44	<4.44	U	4.44	P	01/30/2025	16:07	LB134493
	Beryllium	0.27	<0.27	U	0.27	P	01/30/2025	16:07	LB134493
	Cadmium	0.27	<0.27	U	0.27	P	01/30/2025	16:07	LB134493
	Calcium	88.9	<88.9	U	88.9	P	01/30/2025	16:07	LB134493
	Chromium	0.44	<0.44	U	0.44	P	01/30/2025	16:07	LB134493
	Cobalt	1.33	<1.33	U	1.33	P	01/30/2025	16:07	LB134493
	Copper	0.89	<0.89	U	0.89	P	01/30/2025	16:07	LB134493
	Iron	4.44	<4.44	U	4.44	P	01/30/2025	16:07	LB134493
	Lead	0.53	<0.53	U	0.53	P	01/30/2025	16:07	LB134493
	Magnesium	88.9	<88.9	U	88.9	P	01/30/2025	16:07	LB134493
	Manganese	0.89	<0.89	U	0.89	P	01/30/2025	16:07	LB134493
	Nickel	1.78	<1.78	U	1.78	P	01/30/2025	16:07	LB134493
	Potassium	88.9	<88.9	U	88.9	P	01/30/2025	16:07	LB134493
	Selenium	0.89	<0.89	U	0.89	P	01/30/2025	16:07	LB134493
	Silver	0.44	<0.44	U	0.44	P	01/30/2025	16:07	LB134493
	Sodium	88.9	<88.9	U	88.9	P	01/30/2025	16:07	LB134493
	Thallium	1.78	<1.78	U	1.78	P	01/30/2025	16:07	LB134493
	Vanadium	1.78	<1.78	U	1.78	P	01/30/2025	16:07	LB134493
	Zinc	1.78	<1.78	U	1.78	P	01/30/2025	16:07	LB134493

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INTERFERENCE CHECK SAMPLE

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Aluminum	235000	255000	92	216000	294000	01/30/2025	12:10	LB134493
	Antimony	-3.14			-50	50	01/30/2025	12:10	LB134493
	Arsenic	-3.20			-20	20	01/30/2025	12:10	LB134493
	Barium	1.95	6.0	32	-94	106	01/30/2025	12:10	LB134493
	Beryllium	1.36			-6	6	01/30/2025	12:10	LB134493
	Cadmium	-0.88	1.0	88	-5	7	01/30/2025	12:10	LB134493
	Calcium	218000	245000	89	208000	282000	01/30/2025	12:10	LB134493
	Chromium	56.0	52.0	108	42	62	01/30/2025	12:10	LB134493
	Cobalt	0.92			-30	30	01/30/2025	12:10	LB134493
	Copper	21.7	2.0	1085	-18	22	01/30/2025	12:10	LB134493
	Iron	92700	101000	92	85600	116500	01/30/2025	12:10	LB134493
	Lead	6.67			-12	12	01/30/2025	12:10	LB134493
	Magnesium	234000	255000	92	216000	294000	01/30/2025	12:10	LB134493
	Manganese	3.50	7.0	50	-13	27	01/30/2025	12:10	LB134493
	Nickel	2.07	2.0	104	-38	42	01/30/2025	12:10	LB134493
	Potassium	133			0	0	01/30/2025	12:10	LB134493
	Selenium	-14.4			-20	20	01/30/2025	12:10	LB134493
	Silver	-0.54			-10	10	01/30/2025	12:10	LB134493
	Sodium	23.8			0	0	01/30/2025	12:10	LB134493
	Thallium	11.1			-40	40	01/30/2025	12:10	LB134493
	Vanadium	5.11			-40	40	01/30/2025	12:10	LB134493
	Zinc	1.05			-40	40	01/30/2025	12:10	LB134493
ICSAB01	Aluminum	243000	247000	98	209000	285000	01/30/2025	12:28	LB134493
	Antimony	644	618	104	525	711	01/30/2025	12:28	LB134493
	Arsenic	118	104	114	88.4	120	01/30/2025	12:28	LB134493
	Barium	456	537	85	437	637	01/30/2025	12:28	LB134493
	Beryllium	475	495	96	420	570	01/30/2025	12:28	LB134493
	Cadmium	1020	972	105	826	1120	01/30/2025	12:28	LB134493
	Calcium	224000	235000	95	199000	271000	01/30/2025	12:28	LB134493
	Chromium	583	542	108	460	624	01/30/2025	12:28	LB134493
	Cobalt	514	476	108	404	548	01/30/2025	12:28	LB134493
	Copper	526	511	103	434	588	01/30/2025	12:28	LB134493
	Iron	99900	99300	101	84400	114500	01/30/2025	12:28	LB134493
	Lead	57.1	49.0	116	37	61	01/30/2025	12:28	LB134493
	Magnesium	241000	248000	97	210000	286000	01/30/2025	12:28	LB134493
	Manganese	448	507	88	430	584	01/30/2025	12:28	LB134493
	Nickel	1020	954	107	810	1100	01/30/2025	12:28	LB134493
	Potassium	109			0	0	01/30/2025	12:28	LB134493
	Selenium	36.8	46.0	80	26	66	01/30/2025	12:28	LB134493
	Silver	222	201	110	170	232	01/30/2025	12:28	LB134493
	Sodium	7.13			0	0	01/30/2025	12:28	LB134493
	Thallium	104	108	96	68	148	01/30/2025	12:28	LB134493

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INTERFERENCE CHECK SAMPLE

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSAB01	Vanadium	463	491	94	417	565	01/30/2025	12:28	LB134493
	Zinc	1080	952	113	809	1095	01/30/2025	12:28	LB134493

METAL QC DATA

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MATRIX SPIKE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1206

contract: RUTW01 **lab code:** CHEM **case no.:** Q1206 **sas no.:** Q1206

matrix: Solid **sample id:** Q1207-03 **client id:** JPP-2.1-012725MS

Percent Solids for Sample: 87.6 **Spiked ID:** Q1207-03MS **Percent Solids for Spike Sample:** 87.6

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	5090		4740		100	352		P
Antimony	mg/Kg	75 - 125	16.4		0.22	J	41.0	39	N	P
Arsenic	mg/Kg	75 - 125	40.1		3.16		41.0	90		P
Barium	mg/Kg	75 - 125	66.4		49.6		10.2	165		P
Beryllium	mg/Kg	75 - 125	8.74		0.42		10.2	82		P
Cadmium	mg/Kg	75 - 125	10.0		0.20	J	10.2	96		P
Calcium	mg/Kg	75 - 125	8150		16700		51.2	-16707		P
Chromium	mg/Kg	75 - 125	32.7		12.4		20.5	99		P
Cobalt	mg/Kg	75 - 125	19.4		7.06		10.2	121		P
Copper	mg/Kg	75 - 125	93.0		56.0		15.4	240	N	P
Iron	mg/Kg	75 - 125	11900		11700		150	127		P
Lead	mg/Kg	75 - 125	274		168		51.2	208	N	P
Magnesium	mg/Kg	75 - 125	3040		8740		100	-5700		P
Manganese	mg/Kg	75 - 125	209		183		10.2	261		P
Nickel	mg/Kg	75 - 125	52.8		23.3		25.6	115		P
Potassium	mg/Kg	75 - 125	1300		886		510	81		P
Selenium	mg/Kg	75 - 125	83.9		0.99	U	100	84		P
Silver	mg/Kg	75 - 125	3.91		0.52		3.8	89		P
Sodium	mg/Kg	75 - 125	1870		1840		150	25		P
Thallium	mg/Kg	75 - 125	99.4		1.99	U	100	99		P
Vanadium	mg/Kg	75 - 125	29.0		18.7		15.4	67	N	P
Zinc	mg/Kg	75 - 125	348		171		10.2	1739		P

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MATRIX SPIKE DUPLICATE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1206

contract: RUTW01 **lab code:** CHEM **case no.:** Q1206 **sas no.:** Q1206

matrix: Solid **sample id:** Q1207-03 **client id:** JPP-2.1-012725MSD

Percent Solids for Sample: 87.6 **Spiked ID:** Q1207-03MSD **Percent Solids for Spike Sample:** 87.6

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	4620		4740		92.8	-128		P
Antimony	mg/Kg	75 - 125	14.9		0.22	J	37.1	40	N	P
Arsenic	mg/Kg	75 - 125	36.9		3.16		37.1	91		P
Barium	mg/Kg	75 - 125	61.8		49.6		9.3	131		P
Beryllium	mg/Kg	75 - 125	7.88		0.42		9.3	80		P
Cadmium	mg/Kg	75 - 125	9.20		0.20	J	9.3	97		P
Calcium	mg/Kg	75 - 125	7440		16700		46.4	-19970		P
Chromium	mg/Kg	75 - 125	29.2		12.4		18.6	90		P
Cobalt	mg/Kg	75 - 125	17.8		7.06		9.3	116		P
Copper	mg/Kg	75 - 125	85.5		56.0		13.9	212		P
Iron	mg/Kg	75 - 125	11000		11700		140	-514		P
Lead	mg/Kg	75 - 125	252		168		46.4	182	N	P
Magnesium	mg/Kg	75 - 125	2770		8740		92.8	-6433		P
Manganese	mg/Kg	75 - 125	194		183		9.3	119		P
Nickel	mg/Kg	75 - 125	48.6		23.3		23.2	109		P
Potassium	mg/Kg	75 - 125	1210		886		460	69	N	P
Selenium	mg/Kg	75 - 125	76.9		0.99	U	92.8	83		P
Silver	mg/Kg	75 - 125	3.57		0.52		3.5	87		P
Sodium	mg/Kg	75 - 125	1730		1840		140	-78		P
Thallium	mg/Kg	75 - 125	90.6		1.99	U	92.8	98		P
Vanadium	mg/Kg	75 - 125	26.6		18.7		13.9	57	N	P
Zinc	mg/Kg	75 - 125	310		171		9.3	1495		P

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MATRIX SPIKE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1206

contract: RUTW01 **lab code:** CHEM **case no.:** Q1206 **sas no.:** Q1206

matrix: Solid **sample id:** Q1207-15 **client id:** JPP-16.2-012725MS

Percent Solids for Sample: 88.8 **Spiked ID:** Q1207-15MS **Percent Solids for Spike Sample:** 88.8

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 120	0.54		0.28		0.28	90		CV

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MATRIX SPIKE DUPLICATE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1206

contract: RUTW01 **lab code:** CHEM **case no.:** Q1206 **sas no.:** Q1206

matrix: Solid **sample id:** Q1207-15 **client id:** JPP-16.2-012725MSD

Percent Solids for Sample: 88.8 **Spiked ID:** Q1207-15MSD **Percent Solids for Spike Sample:** 88.8

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 120	0.55		0.28		0.27	98		CV

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POST DIGEST SPIKE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Matrix: Solid **Level:** LOW **Client ID:** JPP-2.1-012725A

Sample ID: Q1207-03 **Spiked ID:** Q1207-03A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	mg/Kg	75 - 125	15.2		0.22	J	39.7	38		P
Copper	mg/Kg	75 - 125	91.3		56.0		14.9	237		P
Lead	mg/Kg	75 - 125	266		168		49.6	198		P
Potassium	mg/Kg	75 - 125	1250		886		500	73		P
Vanadium	mg/Kg	75 - 125	27.9		18.7		14.9	62		P

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Matrix: Solid **Sample ID:** Q1207-03 **Client ID:** JPP-2.1-012725DUP

Percent Solids for Sample: 87.6 **Duplicate ID** Q1207-03DUP **Percent Solids for Spike Sample:** 87.6

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	4740		4830		2		P
Antimony	mg/Kg	20	0.22	J	0.26	J	16		P
Arsenic	mg/Kg	20	3.16		3.01		5		P
Barium	mg/Kg	20	49.6		49.8		0		P
Beryllium	mg/Kg	20	0.42		0.43		2		P
Cadmium	mg/Kg	20	0.20	J	0.20	J	1		P
Calcium	mg/Kg	20	16700		17000		2		P
Chromium	mg/Kg	20	12.4		12.8		3		P
Cobalt	mg/Kg	20	7.06		7.12		1		P
Copper	mg/Kg	20	56.0		55.6		1		P
Iron	mg/Kg	20	11700		11900		2		P
Lead	mg/Kg	20	168		168		0		P
Magnesium	mg/Kg	20	8740		8820		1		P
Manganese	mg/Kg	20	183		183		0		P
Nickel	mg/Kg	20	23.3		23.4		0		P
Potassium	mg/Kg	20	886		898		1		P
Selenium	mg/Kg	20	0.99	U	0.99	U			P
Silver	mg/Kg	20	0.52		0.49	J	6		P
Sodium	mg/Kg	20	1840		1860		1		P
Thallium	mg/Kg	20	1.99	U	1.98	U			P
Vanadium	mg/Kg	20	18.7		19.0		2		P
Zinc	mg/Kg	20	171		175		2		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Matrix: Solid **Sample ID:** Q1207-03MS **Client ID:** JPP-2.1-012725MSD

Percent Solids for Sample: 87.6 **Duplicate ID** Q1207-03MSD **Percent Solids for Spike Sample:** 87.6

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	5090		4620		10		P
Antimony	mg/Kg	20	16.4		14.9		10		P
Arsenic	mg/Kg	20	40.1		36.9		8		P
Barium	mg/Kg	20	66.4		61.8		7		P
Beryllium	mg/Kg	20	8.74		7.88		10		P
Cadmium	mg/Kg	20	10.0		9.20		9		P
Calcium	mg/Kg	20	8150		7440		9		P
Chromium	mg/Kg	20	32.7		29.2		11		P
Cobalt	mg/Kg	20	19.4		17.8		9		P
Copper	mg/Kg	20	93.0		85.5		8		P
Iron	mg/Kg	20	11900		11000		8		P
Lead	mg/Kg	20	274		252		8		P
Magnesium	mg/Kg	20	3040		2770		9		P
Manganese	mg/Kg	20	209		194		7		P
Nickel	mg/Kg	20	52.8		48.6		8		P
Potassium	mg/Kg	20	1300		1210		7		P
Selenium	mg/Kg	20	83.9		76.9		9		P
Silver	mg/Kg	20	3.91		3.57		9		P
Sodium	mg/Kg	20	1870		1730		8		P
Thallium	mg/Kg	20	99.4		90.6		9		P
Vanadium	mg/Kg	20	29.0		26.6		9		P
Zinc	mg/Kg	20	348		310		12		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Matrix: Solid **Sample ID:** Q1207-15 **Client ID:** JPP-16.2-012725DUP

Percent Solids for Sample: 88.8 **Duplicate ID** Q1207-15DUP **Percent Solids for Spike Sample:** 88.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.28		0.29		0		CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Matrix: Solid **Sample ID:** Q1207-15MS **Client ID:** JPP-16.2-012725MSD

Percent Solids for Sample: 88.8 **Duplicate ID** Q1207-15MSD **Percent Solids for Spike Sample:** 88.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.54		0.55		2		CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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LABORATORY CONTROL SAMPLE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166330BS							
Aluminum	mg/Kg	88.9	82.1		92	80 - 120	P
Antimony	mg/Kg	35.6	35.5		100	80 - 120	P
Arsenic	mg/Kg	35.6	36.3		102	80 - 120	P
Barium	mg/Kg	8.9	7.73		87	80 - 120	P
Beryllium	mg/Kg	8.9	8.18		92	80 - 120	P
Cadmium	mg/Kg	8.9	8.60		97	80 - 120	P
Calcium	mg/Kg	44.4	42.2	J	95	80 - 120	P
Chromium	mg/Kg	17.8	18.0		101	80 - 120	P
Cobalt	mg/Kg	8.9	8.63		97	80 - 120	P
Copper	mg/Kg	13.3	13.8		104	80 - 120	P
Iron	mg/Kg	130	129		99	80 - 120	P
Lead	mg/Kg	44.4	43.2		97	80 - 120	P
Magnesium	mg/Kg	88.9	81.2	J	91	80 - 120	P
Manganese	mg/Kg	8.9	7.99		90	80 - 120	P
Nickel	mg/Kg	22.2	21.8		98	80 - 120	P
Potassium	mg/Kg	440	428		97	80 - 120	P
Selenium	mg/Kg	88.9	90.2		102	80 - 120	P
Silver	mg/Kg	3.3	3.23		98	80 - 120	P
Sodium	mg/Kg	130	134		103	80 - 120	P
Thallium	mg/Kg	88.9	91.0		102	80 - 120	P
Vanadium	mg/Kg	13.3	12.3		92	80 - 120	P
Zinc	mg/Kg	8.9	8.85		99	80 - 120	P

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LABORATORY CONTROL SAMPLE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166349BS							
Mercury	mg/Kg	0.25	0.23		90	80 - 120	CV

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ICP SERIAL DILUTIONS

SAMPLE NO.

JPP-2.1-012725L

Lab Name: Chemtech Consulting Group **Contract:** RUTW01

Lab Code: CHEM **Lb No.:** lb134493 **Lab Sample ID :** Q1207-03L **SDG No.:** Q1206

Matrix (soil/water): Solid **Level (low/med):** LOW

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	4740		5170		9		P
Antimony	0.22	J	12.4	U	100.0		P
Arsenic	3.16		3.28	J	4		P
Barium	49.6		51.8		5		P
Beryllium	0.42		0.51	J	21		P
Cadmium	0.20	J	1.49	U	100.0		P
Calcium	16700		18700		12		P
Chromium	12.4		14.6		18		P
Cobalt	7.06		7.20	J	2		P
Copper	56.0		66.5		19		P
Iron	11700		12900		10		P
Lead	168		177		6		P
Magnesium	8740		9610		10		P
Manganese	183		205		12		P
Nickel	23.3		24.2		4		P
Potassium	886		933		5		P
Selenium	0.99	U	4.96	U			P
Silver	0.52		0.65	J	27		P
Sodium	1840		1890		3		P
Thallium	1.99	U	9.93	U			P
Vanadium	18.7		20.7		11		P
Zinc	171		197		16		P

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ICP SERIAL DILUTIONS

SAMPLE NO.

JPP-16.2-012725L

Lab Name: Chemtech Consulting Group **Contract:** RUTW01

Lab Code: CHEM **Lb No.:** lb134478 **Lab Sample ID :** Q1207-15L **SDG No.:** Q1206

Matrix (soil/water): Solid **Level (low/med):** LOW

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Mercury	0.28		0.31		9		CV

METAL PREPARATION & INSTRUMENT DATA

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Ag
Aluminum	396.100	0.0000000	-0.0002060	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	-0.0000440	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000930	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	-0.0075970	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0007850	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000920	0.0000000	0.0000380	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	-0.0001440	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	-0.0001490	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0001050	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: As	Ba	Be	Cd	Co
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0002870
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0000000	0.0009530
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	-0.0039600
Lead	220.353	0.0000000	0.0003170	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	-0.0003570
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0054900
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Cr	Cu	K	Mn	Mo
Aluminum	396.100	0.0000000	0.0000000	0.0000590	0.0000000	0.0396900
Antimony	206.833	0.0122000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	-0.0029000	0.0000000	0.0000000	0.0000000	0.0004900
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	-0.0000710	-0.0003400
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000070	0.0002200	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	-0.0007860
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0006510	0.0020500
Iron	240.488	0.0000000	0.0000000	0.0000730	0.0000000	-0.0015250
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0001400	-0.0008600
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0007460	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000120
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0017400	-0.0100400
Vanadium	292.402	-0.0025100	0.0000000	0.0000000	0.0000000	-0.0072000
Zinc	213.800	0.0000000	0.0009010	0.0000000	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Na	Ni	Pb	Sb	Se
Aluminum	396.100	0.0000000	0.0000000	0.0012800	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	-0.0047000	0.0036100	0.0000000	0.0000000
Iron	240.488	0.0000000	-0.0017000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0006580	0.0000000	0.0000000	0.0001290
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0003330	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0067600	0.0000000	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Sn	Ti	Tl	V	Zn
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	-0.0035600	-0.0007970	0.0000000	-0.0018900	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000630	0.0001280	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0001110	0.0000000
Cobalt	228.616	0.0000000	0.0018800	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0003840	0.0000000	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	-0.0003610	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	-0.0007420	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	-0.0039700	0.0000000	-0.0115600	0.0000000
Vanadium	292.402	0.0000000	0.0005320	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

METAL PREPARATION & ANALYICAL SUMMARY

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SAMPLE PREPARATION SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Method:**

Case No.: Q1206 **SAS No.:** Q1206

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB166330**						
PB166330BL	PB166330BL	MB	SOLID	01/29/2025	2.25	100.0	100.00
PB166330BS	PB166330BS	LCS	SOLID	01/29/2025	2.25	100.0	100.00
Q1206-03	JPP-20.1-012725	SAM	SOLID	01/29/2025	2.30	100.0	85.50
Q1206-07	JPP-16.3-012725	SAM	SOLID	01/29/2025	2.19	100.0	84.50
Q1207-03DUP	JPP-2.1-012725DUP	DUP	SOLID	01/29/2025	2.31	100.0	87.60
Q1207-03MS	JPP-2.1-012725MS	MS	SOLID	01/29/2025	2.23	100.0	87.60
Q1207-03MSD	JPP-2.1-012725MSD	MSD	SOLID	01/29/2025	2.46	100.0	87.60

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SAMPLE PREPARATION SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Method:**

Case No.: Q1206 **SAS No.:** Q1206

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB166349**						
PB166349BL	PB166349BL	MB	SOLID	01/29/2025	0.56	35.0	100.00
PB166349BS	PB166349BS	LCS	SOLID	01/29/2025	0.57	35.0	100.00
Q1206-03	JPP-20.1-012725	SAM	SOLID	01/29/2025	0.60	35.0	85.50
Q1206-07	JPP-16.3-012725	SAM	SOLID	01/29/2025	0.59	35.0	84.50
Q1207-15DUP	JPP-16.2-012725DUP	DUP	SOLID	01/29/2025	0.53	35.0	88.80
Q1207-15MS	JPP-16.2-012725MS	MS	SOLID	01/29/2025	0.56	35.0	88.80
Q1207-15MSD	JPP-16.2-012725MSD	MSD	SOLID	01/29/2025	0.58	35.0	88.80

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metals
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ANALYSIS RUN LOG

Client: RU2 Engineering, LLC **Contract:** RUTW01

Lab code: CHEM **Case no.:** Q1206 **Sas no.:** Q1206 **Sdg no.:** Q1206

Instrument id number: **Method:** **Run number:** LB134478

Start date: 01/30/2025 **End date:** 01/30/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	0706	HG
S0.2	S0.2	1	0708	HG
S2.5	S2.5	1	0710	HG
S5	S5	1	0713	HG
S7.5	S7.5	1	0715	HG
S10	S10	1	0723	HG
ICV74	ICV74	1	0726	HG
ICB74	ICB74	1	0728	HG
CCV84	CCV84	1	0730	HG
CCB84	CCB84	1	0732	HG
CRA	CRA	1	0735	HG
PB166349BL	PB166349BL	1	0742	HG
PB166349BS	PB166349BS	1	0744	HG
Q1206-03	JPP-20.1-012725	1	0749	HG
Q1206-07	JPP-16.3-012725	1	0751	HG
CCV85	CCV85	1	0758	HG
CCB85	CCB85	1	0800	HG
Q1207-15DUP	JPP-16.2-012725DUP	1	0813	HG
Q1207-15MS	JPP-16.2-012725MS	1	0815	HG
Q1207-15MSD	JPP-16.2-012725MSD	1	0821	HG
Q1207-15L	JPP-16.2-012725L	5	0830	HG
CCV86	CCV86	1	0834	HG
CCB86	CCB86	1	0837	HG

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metals
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ANALYSIS RUN LOG

Client: RU2 Engineering, LLC **Contract:** RUTW01

Lab code: CHEM **Case no.:** Q1206 **Sas no.:** Q1206 **Sdg no.:** Q1206

Instrument id number: **Method:** **Run number:** LB134493

Start date: 01/30/2025 **End date:** 01/30/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1107	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S1	S1	1	1112	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S2	S2	1	1116	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S3	S3	1	1120	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S4	S4	1	1125	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S5	S5	1	1129	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICV01	ICV01	1	1149	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLICV01	LLICV01	1	1156	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICB01	ICB01	1	1200	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CRI01	CRI01	1	1205	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSA01	ICSA01	1	1210	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSAB01	ICSAB01	1	1228	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV01	CCV01	1	1241	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB01	CCB01	1	1247	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV02	CCV02	1	1333	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB02	CCB02	1	1337	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV03	CCV03	1	1434	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB03	CCB03	1	1438	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1206-03	JPP-20.1-012725	1	1508	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1206-07	JPP-16.3-012725	1	1512	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1207-03DUP	JPP-2.1-012725DUP	1	1521	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV04	CCV04	1	1525	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB04	CCB04	1	1529	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1207-03L	JPP-2.1-012725L	5	1533	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1207-03MS	JPP-2.1-012725MS	1	1538	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1207-03MSD	JPP-2.1-012725MSD	1	1542	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1207-03A	JPP-2.1-012725A	1	1546	Cu,K,Pb,Sb,V
PB166330BL	PB166330BL	1	1607	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB166330BS	PB166330BS	1	1611	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV05	CCV05	1	1624	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB05	CCB05	1	1628	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV06	CCV06	1	1719	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB06	CCB06	1	1724	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV07	CCV07	1	1811	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB07	CCB07	1	1815	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV08	CCV08	1	1845	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB08	CCB08	1	1851	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

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LAB CHRONICLE

OrderID:	Q1206	**OrderDate:**	1/28/2025 11:18:51 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1206-03	**JPP-20.1-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Mercury	7471B		01/29/25	01/30/25	
			Metals ICP-TAL	6010D		01/29/25	01/30/25	
Q1206-04	**JPP-20.1-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP ICP Metals	6010D		01/29/25	01/30/25	
			TCLP Mercury	7470A		01/29/25	01/30/25	
Q1206-07	**JPP-16.3-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Mercury	7471B		01/29/25	01/30/25	
			Metals ICP-TAL	6010D		01/29/25	01/30/25	
Q1206-08	**JPP-16.3-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP ICP Metals	6010D		01/29/25	01/30/25	
			TCLP Mercury	7470A		01/29/25	01/30/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1206 **Order ID:** Q1206

Client: RU2 Engineering, LLC **Project ID:** NYCDDC SANTWOBR Brooklyn Bridge

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : JPP-20.1-012725								
Q1206-04	JPP-20.1-012725	TCLP	Barium	567		62.8	500	ug/L
Q1206-04	JPP-20.1-012725	TCLP	Lead	89.8		35.1	60.0	ug/L
Client ID : JPP-16.3-012725								
Q1206-08	JPP-16.3-012725	TCLP	Barium	332	J	62.8	500	ug/L

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-04	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-38-2	Arsenic	100	U	1	34.8	100	ug/L	01/29/25 12:30	01/30/25 13:29	SW6010	SW3050
7440-39-3	Barium	567		1	62.8	500	ug/L	01/29/25 12:30	01/30/25 13:29	SW6010	SW3050
7440-43-9	Cadmium	30.0	U	1	0.94	30.0	ug/L	01/29/25 12:30	01/30/25 13:29	SW6010	SW3050
7440-47-3	Chromium	50.0	U	1	6.60	50.0	ug/L	01/29/25 12:30	01/30/25 13:29	SW6010	SW3050
7439-92-1	Lead	89.8		1	35.1	60.0	ug/L	01/29/25 12:30	01/30/25 13:29	SW6010	SW3050
7439-97-6	Mercury	2.00	U	1	0.81	2.00	ug/L	01/29/25 14:40	01/30/25 10:18	SW7470A	
7782-49-2	Selenium	100	U	1	58.8	100	ug/L	01/29/25 12:30	01/30/25 13:29	SW6010	SW3050
7440-22-4	Silver	50.0	U	1	5.80	50.0	ug/L	01/29/25 12:30	01/30/25 13:29	SW6010	SW3050

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	TCLP-FULL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-08	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-38-2	Arsenic	100	U	1	34.8	100	ug/L	01/29/25 12:30	01/30/25 13:41	SW6010	SW3050
7440-39-3	Barium	332	J	1	62.8	500	ug/L	01/29/25 12:30	01/30/25 13:41	SW6010	SW3050
7440-43-9	Cadmium	30.0	U	1	0.94	30.0	ug/L	01/29/25 12:30	01/30/25 13:41	SW6010	SW3050
7440-47-3	Chromium	50.0	U	1	6.60	50.0	ug/L	01/29/25 12:30	01/30/25 13:41	SW6010	SW3050
7439-92-1	Lead	60.0	U	1	35.1	60.0	ug/L	01/29/25 12:30	01/30/25 13:41	SW6010	SW3050
7439-97-6	Mercury	2.00	U	1	0.81	2.00	ug/L	01/29/25 14:40	01/30/25 10:21	SW7470A	
7782-49-2	Selenium	100	U	1	58.8	100	ug/L	01/29/25 12:30	01/30/25 13:41	SW6010	SW3050
7440-22-4	Silver	50.0	U	1	5.80	50.0	ug/L	01/29/25 12:30	01/30/25 13:41	SW6010	SW3050

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	TCLP-FULL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

METAL CALIBRATION DATA

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV75	Mercury	4.12	4.0	103	90 - 110	CV	01/30/2025	09:48	LB134479

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV87	Mercury	5.27	5.0	105	90 - 110	CV	01/30/2025	09:52	LB134479
CCV88	Mercury	5.35	5.0	107	90 - 110	CV	01/30/2025	10:27	LB134479
CCV89	Mercury	5.04	5.0	101	90 - 110	CV	01/30/2025	10:53	LB134479
CCV90	Mercury	5.07	5.0	101	90 - 110	CV	01/30/2025	11:15	LB134479

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Arsenic	1040	1000	104	90 - 110	P	01/30/2025	11:49	LB134493
	Barium	470	520	90	90 - 110	P	01/30/2025	11:49	LB134493
	Cadmium	502	510	98	90 - 110	P	01/30/2025	11:49	LB134493
	Chromium	522	520	100	90 - 110	P	01/30/2025	11:49	LB134493
	Lead	1000	1000	100	90 - 110	P	01/30/2025	11:49	LB134493
	Selenium	1040	1000	104	90 - 110	P	01/30/2025	11:49	LB134493
	Silver	252	250	101	90 - 110	P	01/30/2025	11:49	LB134493

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Arsenic	21.3	20.0	107	80 - 120	P	01/30/2025	11:56	LB134493
	Barium	83.9	100	84	80 - 120	P	01/30/2025	11:56	LB134493
	Cadmium	5.60	6.0	93	80 - 120	P	01/30/2025	11:56	LB134493
	Chromium	9.80	10.0	98	80 - 120	P	01/30/2025	11:56	LB134493
	Lead	12.2	12.0	102	80 - 120	P	01/30/2025	11:56	LB134493
	Selenium	19.1	20.0	96	80 - 120	P	01/30/2025	11:56	LB134493
	Silver	10.4	10.0	104	80 - 120	P	01/30/2025	11:56	LB134493

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Arsenic	4950	5000	99	90 - 110	P	01/30/2025	12:41	LB134493
	Barium	9130	10000	91	90 - 110	P	01/30/2025	12:41	LB134493
	Cadmium	2420	2500	97	90 - 110	P	01/30/2025	12:41	LB134493
	Chromium	988	1000	99	90 - 110	P	01/30/2025	12:41	LB134493
	Lead	4840	5000	97	90 - 110	P	01/30/2025	12:41	LB134493
	Selenium	5010	5000	100	90 - 110	P	01/30/2025	12:41	LB134493
	Silver	1210	1250	97	90 - 110	P	01/30/2025	12:41	LB134493
CCV02	Arsenic	5000	5000	100	90 - 110	P	01/30/2025	13:33	LB134493
	Barium	9200	10000	92	90 - 110	P	01/30/2025	13:33	LB134493
	Cadmium	2420	2500	97	90 - 110	P	01/30/2025	13:33	LB134493
	Chromium	988	1000	99	90 - 110	P	01/30/2025	13:33	LB134493
	Lead	4830	5000	97	90 - 110	P	01/30/2025	13:33	LB134493
	Selenium	5050	5000	101	90 - 110	P	01/30/2025	13:33	LB134493
	Silver	1200	1250	96	90 - 110	P	01/30/2025	13:33	LB134493
CCV03	Arsenic	4880	5000	98	90 - 110	P	01/30/2025	14:34	LB134493
	Barium	9430	10000	94	90 - 110	P	01/30/2025	14:34	LB134493
	Cadmium	2490	2500	100	90 - 110	P	01/30/2025	14:34	LB134493
	Chromium	985	1000	98	90 - 110	P	01/30/2025	14:34	LB134493
	Lead	4910	5000	98	90 - 110	P	01/30/2025	14:34	LB134493
	Selenium	5010	5000	100	90 - 110	P	01/30/2025	14:34	LB134493
	Silver	1210	1250	97	90 - 110	P	01/30/2025	14:34	LB134493
CCV04	Arsenic	4890	5000	98	90 - 110	P	01/30/2025	15:25	LB134493
	Barium	9350	10000	94	90 - 110	P	01/30/2025	15:25	LB134493
	Cadmium	2370	2500	95	90 - 110	P	01/30/2025	15:25	LB134493
	Chromium	1000	1000	100	90 - 110	P	01/30/2025	15:25	LB134493
	Lead	4750	5000	95	90 - 110	P	01/30/2025	15:25	LB134493
	Selenium	4950	5000	99	90 - 110	P	01/30/2025	15:25	LB134493
	Silver	1220	1250	98	90 - 110	P	01/30/2025	15:25	LB134493
CCV05	Arsenic	4830	5000	97	90 - 110	P	01/30/2025	16:24	LB134493
	Barium	9330	10000	93	90 - 110	P	01/30/2025	16:24	LB134493
	Cadmium	2370	2500	95	90 - 110	P	01/30/2025	16:24	LB134493
	Chromium	991	1000	99	90 - 110	P	01/30/2025	16:24	LB134493
	Lead	4740	5000	95	90 - 110	P	01/30/2025	16:24	LB134493
	Selenium	4860	5000	97	90 - 110	P	01/30/2025	16:24	LB134493

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Silver	1210	1250	97	90 - 110	P	01/30/2025	16:24	LB134493
CCV06	Arsenic	4970	5000	99	90 - 110	P	01/30/2025	17:19	LB134493
	Barium	9260	10000	93	90 - 110	P	01/30/2025	17:19	LB134493
	Cadmium	2440	2500	98	90 - 110	P	01/30/2025	17:19	LB134493
	Chromium	1010	1000	101	90 - 110	P	01/30/2025	17:19	LB134493
	Lead	4880	5000	98	90 - 110	P	01/30/2025	17:19	LB134493
	Selenium	4970	5000	100	90 - 110	P	01/30/2025	17:19	LB134493
	Silver	1230	1250	99	90 - 110	P	01/30/2025	17:19	LB134493
CCV07	Arsenic	4970	5000	99	90 - 110	P	01/30/2025	18:11	LB134493
	Barium	9620	10000	96	90 - 110	P	01/30/2025	18:11	LB134493
	Cadmium	2440	2500	98	90 - 110	P	01/30/2025	18:11	LB134493
	Chromium	1020	1000	102	90 - 110	P	01/30/2025	18:11	LB134493
	Lead	4880	5000	98	90 - 110	P	01/30/2025	18:11	LB134493
	Selenium	5000	5000	100	90 - 110	P	01/30/2025	18:11	LB134493
	Silver	1270	1250	101	90 - 110	P	01/30/2025	18:11	LB134493
CCV08	Arsenic	5000	5000	100	90 - 110	P	01/30/2025	18:45	LB134493
	Barium	9470	10000	95	90 - 110	P	01/30/2025	18:45	LB134493
	Cadmium	2430	2500	97	90 - 110	P	01/30/2025	18:45	LB134493
	Chromium	1010	1000	101	90 - 110	P	01/30/2025	18:45	LB134493
	Lead	4860	5000	97	90 - 110	P	01/30/2025	18:45	LB134493
	Selenium	5030	5000	101	90 - 110	P	01/30/2025	18:45	LB134493
	Silver	1250	1250	100	90 - 110	P	01/30/2025	18:45	LB134493

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Metals

- 2b -
CRDL STANDARD FOR AA & ICP

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRA	Mercury	0.19	0.2	97	40 - 160	CV	01/30/2025	09:59	LB134479
CRI01	Arsenic	21.5	20.0	107	40 - 160	P	01/30/2025	12:05	LB134493
	Barium	90.1	100	90	40 - 160	P	01/30/2025	12:05	LB134493
	Cadmium	5.56	6.0	93	40 - 160	P	01/30/2025	12:05	LB134493
	Chromium	9.97	10.0	100	40 - 160	P	01/30/2025	12:05	LB134493
	Lead	10.9	12.0	91	40 - 160	P	01/30/2025	12:05	LB134493
	Selenium	18.4	20.0	92	40 - 160	P	01/30/2025	12:05	LB134493
	Silver	11.1	10.0	111	40 - 160	P	01/30/2025	12:05	LB134493

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB75	Mercury	0.20	+/-0.20	U	0.20	CV	01/30/2025	09:50	LB134479

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB87	Mercury	0.20	+/-0.20	U	0.20	CV	01/30/2025	09:54	LB134479
CCB88	Mercury	0.20	+/-0.20	U	0.20	CV	01/30/2025	10:30	LB134479
CCB89	Mercury	0.20	+/-0.20	U	0.20	CV	01/30/2025	10:58	LB134479
CCB90	Mercury	0.20	+/-0.20	U	0.20	CV	01/30/2025	11:17	LB134479

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	12:00	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	12:00	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	12:00	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	12:00	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	12:00	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	12:00	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	12:00	LB134493

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	12:47	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	12:47	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	12:47	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	12:47	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	12:47	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	12:47	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	12:47	LB134493
CCB02	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	13:37	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	13:37	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	13:37	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	13:37	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	13:37	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	13:37	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	13:37	LB134493
CCB03	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	14:38	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	14:38	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	14:38	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	14:38	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	14:38	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	14:38	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	14:38	LB134493
CCB04	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	15:29	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	15:29	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	15:29	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	15:29	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	15:29	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	15:29	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	15:29	LB134493
CCB05	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	16:28	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	16:28	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	16:28	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	16:28	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	16:28	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	16:28	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	16:28	LB134493
CCB06	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	17:24	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	17:24	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	17:24	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	17:24	LB134493

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	17:24	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	17:24	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	17:24	LB134493
CCB07	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	18:15	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	18:15	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	18:15	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	18:15	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	18:15	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	18:15	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	18:15	LB134493
CCB08	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	18:51	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	18:51	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	18:51	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	18:51	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	18:51	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	18:51	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	18:51	LB134493

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Metals
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PREPARATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166318TB		**WATER**		**Batch Number:**	**PB166355**		**Prep Date:**	**01/29/2025**	
	Mercury	2.00	<2.00	U	2.00	CV	01/30/2025	11:03	LB134479

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166355BL		**WATER**		**Batch Number:**	**PB166355**		**Prep Date:**	**01/29/2025**	
	Mercury	0.20	<0.20	U	0.20	CV	01/30/2025	10:11	LB134479

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Metals
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PREPARATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166318TB		**WATER**		**Batch Number:**	**PB166342**		**Prep Date:**	**01/29/2025**	
	Arsenic	100	<100	U	100	P	01/30/2025	14:55	LB134493
	Barium	500	<500	U	500	P	01/30/2025	14:55	LB134493
	Cadmium	30.0	<30.0	U	30.0	P	01/30/2025	14:55	LB134493
	Chromium	50.0	<50.0	U	50.0	P	01/30/2025	14:55	LB134493
	Lead	60.0	<60.0	U	60.0	P	01/30/2025	14:55	LB134493
	Selenium	100	<100	U	100	P	01/30/2025	14:55	LB134493
	Silver	50.0	<50.0	U	50.0	P	01/30/2025	14:55	LB134493

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166342BL		**WATER**		**Batch Number:**	**PB166342**		**Prep Date:**	**01/29/2025**	
	Arsenic	100	<100	U	100	P	01/30/2025	15:00	LB134493
	Barium	500	<500	U	500	P	01/30/2025	15:00	LB134493
	Cadmium	30.0	<30.0	U	30.0	P	01/30/2025	15:00	LB134493
	Chromium	50.0	<50.0	U	50.0	P	01/30/2025	15:00	LB134493
	Lead	60.0	<60.0	U	60.0	P	01/30/2025	15:00	LB134493
	Selenium	100	<100	U	100	P	01/30/2025	15:00	LB134493
	Silver	50.0	<50.0	U	50.0	P	01/30/2025	15:00	LB134493

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INTERFERENCE CHECK SAMPLE

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Arsenic	-3.20			-20	20	01/30/2025	12:10	LB134493
	Barium	1.95	6.0	32	-94	106	01/30/2025	12:10	LB134493
	Cadmium	-0.88	1.0	88	-5	7	01/30/2025	12:10	LB134493
	Chromium	56.0	52.0	108	42	62	01/30/2025	12:10	LB134493
	Lead	6.67			-12	12	01/30/2025	12:10	LB134493
	Selenium	-14.4			-20	20	01/30/2025	12:10	LB134493
	Silver	-0.54			-10	10	01/30/2025	12:10	LB134493
ICSAB01	Arsenic	118	104	114	88.4	120	01/30/2025	12:28	LB134493
	Barium	456	537	85	437	637	01/30/2025	12:28	LB134493
	Cadmium	1020	972	105	826	1120	01/30/2025	12:28	LB134493
	Chromium	583	542	108	460	624	01/30/2025	12:28	LB134493
	Lead	57.1	49.0	116	37	61	01/30/2025	12:28	LB134493
	Selenium	36.8	46.0	80	26	66	01/30/2025	12:28	LB134493
	Silver	222	201	110	170	232	01/30/2025	12:28	LB134493

METAL QC DATA

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metals
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MATRIX SPIKE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1206

contract: RUTW01 **lab code:** CHEM **case no.:** Q1206 **sas no.:** Q1206

matrix: Water **sample id:** Q1209-08 **client id:** WC-5MS

Percent Solids for Sample: NA **Spiked ID:** Q1209-08MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	75 - 125	4090		100	U	4000	102		P
Barium	ug/L	75 - 125	1840		1020		1000	82		P
Cadmium	ug/L	75 - 125	970		30.0	U	1000	97		P
Chromium	ug/L	75 - 125	2050		50.0	U	2000	102		P
Lead	ug/L	75 - 125	4760		60.0	U	5000	95		P
Mercury	ug/L	75 - 125	43.2		2.00	U	40.0	108		CV
Selenium	ug/L	75 - 125	9800		100	U	10000	98		P
Silver	ug/L	75 - 125	363		50.0	U	380	96		P

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MATRIX SPIKE DUPLICATE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1206

contract: RUTW01 **lab code:** CHEM **case no.:** Q1206 **sas no.:** Q1206

matrix: Water **sample id:** Q1209-08 **client id:** WC-5MSD

Percent Solids for Sample: NA **Spiked ID:** Q1209-08MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	75 - 125	4110		100	U	4000	103		P
Barium	ug/L	75 - 125	1860		1020		1000	84		P
Cadmium	ug/L	75 - 125	972		30.0	U	1000	97		P
Chromium	ug/L	75 - 125	2050		50.0	U	2000	102		P
Lead	ug/L	75 - 125	4770		60.0	U	5000	95		P
Mercury	ug/L	75 - 125	41.6		2.00	U	40.0	104		CV
Selenium	ug/L	75 - 125	9850		100	U	10000	98		P
Silver	ug/L	75 - 125	367		50.0	U	380	97		P

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Metals
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Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Matrix: **Level:** LOW **Client ID:**

Sample ID: **Spiked ID:**

Analyte	Units	Acceptance Limit %R	C	Sample Result	C	Spike Added	% Recovery	Qual	M

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Matrix: Water **Sample ID:** Q1209-08 **Client ID:** WC-5DUP

Percent Solids for Sample: NA **Duplicate ID** Q1209-08DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	100	U	100	U			P
Barium	ug/L	20	1020		1000		2		P
Cadmium	ug/L	20	30.0	U	30.0	U			P
Chromium	ug/L	20	50.0	U	50.0	U			P
Lead	ug/L	20	60.0	U	60.0	U			P
Mercury	ug/L	20	2.00	U	2.00	U			CV
Selenium	ug/L	20	100	U	100	U			P
Silver	ug/L	20	50.0	U	50.0	U			P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Matrix: Water **Sample ID:** Q1209-08MS **Client ID:** WC-5MSD

Percent Solids for Sample: NA **Duplicate ID** Q1209-08MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	4090		4110		0		P
Barium	ug/L	20	1840		1860		1		P
Cadmium	ug/L	20	970		972		0		P
Chromium	ug/L	20	2050		2050		0		P
Lead	ug/L	20	4760		4770		0		P
Mercury	ug/L	20	43.2		41.6		4		CV
Selenium	ug/L	20	9800		9850		1		P
Silver	ug/L	20	363		367		1		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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LABORATORY CONTROL SAMPLE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166342BS							
Arsenic	ug/L	4000	4010		100	80 - 120	P
Barium	ug/L	1000	889		89	80 - 120	P
Cadmium	ug/L	1000	955		96	80 - 120	P
Chromium	ug/L	2000	2050		102	80 - 120	P
Lead	ug/L	5000	4820		96	80 - 120	P
Selenium	ug/L	10000	9890		99	80 - 120	P
Silver	ug/L	380	372		98	80 - 120	P

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Metals

LABORATORY CONTROL SAMPLE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166355BS							
Mercury	ug/L	4.0	4.51		113	80 - 120	CV

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ICP SERIAL DILUTIONS

SAMPLE NO.

WC-5L

Lab Name: Chemtech Consulting Group **Contract:** RUTW01

Lab Code: CHEM **Lb No.:** lb134493 **Lab Sample ID :** Q1209-08L **SDG No.:** Q1206

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	100	U	500	U			P
Barium	1020		976	J	4		P
Cadmium	30.0	U	150	U			P
Chromium	50.0	U	250	U			P
Lead	60.0	U	300	U			P
Mercury	2.00	U	10.0	U			CV
Selenium	100	U	500	U			P
Silver	50.0	U	250	U			P

METAL PREPARATION & INSTRUMENT DATA

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Ag
Arsenic	193.759	0.0000000	0.0000000	-0.0000440	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000930	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000920	0.0000000	0.0000380	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	-0.0001440	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	-0.0001490	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: As	Ba	Be	Cd	Co
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0002870
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0003170	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	-0.0003570
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Cr	Cu	K	Mn	Mo
Arsenic	193.759	-0.0029000	0.0000000	0.0000000	0.0000000	0.0004900
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000070	0.0002200	0.0000000
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0001400	-0.0008600
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0007460	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000120

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Na	Ni	Pb	Sb	Se
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0006580	0.0000000	0.0000000	0.0001290
Selenium	196.090	0.0000000	0.0000000	0.0003330	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Sn	Ti	Tl	V	Zn
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000630	0.0001280	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0001110	0.0000000
Lead	220.353	0.0000000	-0.0003610	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	-0.0007420	0.0000000	0.0000000	0.0000000

METAL PREPARATION & ANALYICAL SUMMARY

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SAMPLE PREPARATION SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Method:**

Case No.: Q1206 **SAS No.:** Q1206

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB166342**						
PB166318TB	PB166318TB	MB	WATER	01/29/2025	5.0	25.0	
PB166342BL	PB166342BL	MB	WATER	01/29/2025	5.0	25.0	
PB166342BS	PB166342BS	LCS	WATER	01/29/2025	5.0	25.0	
Q1206-04	JPP-20.1-012725	SAM	WATER	01/29/2025	5.0	25.0	
Q1206-08	JPP-16.3-012725	SAM	WATER	01/29/2025	5.0	25.0	
Q1209-08DUP	WC-5DUP	DUP	WATER	01/29/2025	5.0	25.0	
Q1209-08MS	WC-5MS	MS	WATER	01/29/2025	5.0	25.0	
Q1209-08MSD	WC-5MSD	MSD	WATER	01/29/2025	5.0	25.0	

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SAMPLE PREPARATION SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Method:**

Case No.: Q1206 **SAS No.:** Q1206

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB166355**						
PB166318TB	PB166318TB	MB	WATER	01/29/2025	3.0	30.0	
PB166355BL	PB166355BL	MB	WATER	01/29/2025	30.0	30.0	
PB166355BS	PB166355BS	LCS	WATER	01/29/2025	30.0	30.0	
Q1206-04	JPP-20.1-012725	SAM	WATER	01/29/2025	3.0	30.0	
Q1206-08	JPP-16.3-012725	SAM	WATER	01/29/2025	3.0	30.0	
Q1209-08DUP	WC-5DUP	DUP	WATER	01/29/2025	3.0	30.0	
Q1209-08MS	WC-5MS	MS	WATER	01/29/2025	3.0	30.0	
Q1209-08MSD	WC-5MSD	MSD	WATER	01/29/2025	3.0	30.0	

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metals
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ANALYSIS RUN LOG

Client: RU2 Engineering, LLC **Contract:** RUTW01

Lab code: CHEM **Case no.:** Q1206 **Sas no.:** Q1206 **Sdg no.:** Q1206

Instrument id number: **Method:** **Run number:** LB134479

Start date: 01/30/2025 **End date:** 01/30/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	0928	HG
S0.2	S0.2	1	0930	HG
S2.5	S2.5	1	0933	HG
S5	S5	1	0938	HG
S7.5	S7.5	1	0942	HG
S10	S10	1	0945	HG
ICV75	ICV75	1	0948	HG
ICB75	ICB75	1	0950	HG
CCV87	CCV87	1	0952	HG
CCB87	CCB87	1	0954	HG
CRA	CRA	1	0959	HG
PB166355BL	PB166355BL	1	1011	HG
PB166355BS	PB166355BS	1	1014	HG
Q1206-04	JPP-20.1-012725	1	1018	HG
Q1206-08	JPP-16.3-012725	1	1021	HG
CCV88	CCV88	1	1027	HG
CCB88	CCB88	1	1030	HG
Q1209-08DUP	WC-5DUP	1	1043	HG
Q1209-08MS	WC-5MS	1	1045	HG
Q1209-08MSD	WC-5MSD	1	1048	HG
CCV89	CCV89	1	1053	HG
CCB89	CCB89	1	1058	HG
PB166318TB	PB166318TB	1	1103	HG
Q1209-08L	WC-5L	5	1105	HG
CCV90	CCV90	1	1115	HG
CCB90	CCB90	1	1117	HG

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metals
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ANALYSIS RUN LOG

Client: RU2 Engineering, LLC **Contract:** RUTW01

Lab code: CHEM **Case no.:** Q1206 **Sas no.:** Q1206 **Sdg no.:** Q1206

Instrument id number: **Method:** **Run number:** LB134493

Start date: 01/30/2025 **End date:** 01/30/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1107	Ag,As,Ba,Cd,Cr,Pb,Se
S1	S1	1	1112	Ag,As,Ba,Cd,Cr,Pb,Se
S2	S2	1	1116	Ag,As,Ba,Cd,Cr,Pb,Se
S3	S3	1	1120	Ag,As,Ba,Cd,Cr,Pb,Se
S4	S4	1	1125	Ag,As,Ba,Cd,Cr,Pb,Se
S5	S5	1	1129	Ag,As,Ba,Cd,Cr,Pb,Se
ICV01	ICV01	1	1149	Ag,As,Ba,Cd,Cr,Pb,Se
LLICV01	LLICV01	1	1156	Ag,As,Ba,Cd,Cr,Pb,Se
ICB01	ICB01	1	1200	Ag,As,Ba,Cd,Cr,Pb,Se
CRI01	CRI01	1	1205	Ag,As,Ba,Cd,Cr,Pb,Se
ICSA01	ICSA01	1	1210	Ag,As,Ba,Cd,Cr,Pb,Se
ICSAB01	ICSAB01	1	1228	Ag,As,Ba,Cd,Cr,Pb,Se
CCV01	CCV01	1	1241	Ag,As,Ba,Cd,Cr,Pb,Se
CCB01	CCB01	1	1247	Ag,As,Ba,Cd,Cr,Pb,Se
Q1206-04	JPP-20.1-012725	1	1329	Ag,As,Ba,Cd,Cr,Pb,Se
CCV02	CCV02	1	1333	Ag,As,Ba,Cd,Cr,Pb,Se
CCB02	CCB02	1	1337	Ag,As,Ba,Cd,Cr,Pb,Se
Q1206-08	JPP-16.3-012725	1	1341	Ag,As,Ba,Cd,Cr,Pb,Se
Q1209-08DUP	WC-5DUP	1	1417	Ag,As,Ba,Cd,Cr,Pb,Se
Q1209-08L	WC-5L	5	1421	Ag,As,Ba,Cd,Cr,Pb,Se
CCV03	CCV03	1	1434	Ag,As,Ba,Cd,Cr,Pb,Se
CCB03	CCB03	1	1438	Ag,As,Ba,Cd,Cr,Pb,Se
Q1209-08MS	WC-5MS	1	1443	Ag,As,Ba,Cd,Cr,Pb,Se
Q1209-08MSD	WC-5MSD	1	1447	Ag,As,Ba,Cd,Cr,Pb,Se
PB166318TB	PB166318TB	1	1455	Ag,As,Ba,Cd,Cr,Pb,Se
PB166342BL	PB166342BL	1	1500	Ag,As,Ba,Cd,Cr,Pb,Se
PB166342BS	PB166342BS	1	1504	Ag,As,Ba,Cd,Cr,Pb,Se
CCV04	CCV04	1	1525	Ag,As,Ba,Cd,Cr,Pb,Se
CCB04	CCB04	1	1529	Ag,As,Ba,Cd,Cr,Pb,Se
CCV05	CCV05	1	1624	Ag,As,Ba,Cd,Cr,Pb,Se
CCB05	CCB05	1	1628	Ag,As,Ba,Cd,Cr,Pb,Se
CCV06	CCV06	1	1719	Ag,As,Ba,Cd,Cr,Pb,Se
CCB06	CCB06	1	1724	Ag,As,Ba,Cd,Cr,Pb,Se
CCV07	CCV07	1	1811	Ag,As,Ba,Cd,Cr,Pb,Se
CCB07	CCB07	1	1815	Ag,As,Ba,Cd,Cr,Pb,Se
CCV08	CCV08	1	1845	Ag,As,Ba,Cd,Cr,Pb,Se
CCB08	CCB08	1	1851	Ag,As,Ba,Cd,Cr,Pb,Se

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LAB CHRONICLE

OrderID:	Q1206	**OrderDate:**	1/28/2025 11:18:51 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1206-03	**JPP-20.1-012725**	**SOIL**			**01/27/25 14:18**			**01/28/25**
			Paint Filter	9095B			01/29/25 12:25	
Q1206-04	**JPP-20.1-012725**	**SOIL**			**01/27/25 14:18**			**01/28/25**
			Corrosivity	9045D			01/28/25 15:10	
			Ignitability	1030			01/29/25 09:47	
			Reactive Cyanide	9012B		01/30/25	01/30/25 13:06	
			Reactive Sulfide	9034		01/30/25	01/30/25 15:09	
Q1206-07	**JPP-16.3-012725**	**SOIL**			**01/27/25 15:17**			**01/28/25**
			Paint Filter	9095B			01/29/25 12:32	
Q1206-08	**JPP-16.3-012725**	**SOIL**			**01/27/25 15:17**			**01/28/25**
			Corrosivity	9045D			01/28/25 15:15	
			Ignitability	1030			01/29/25 09:55	
			Reactive Cyanide	9012B		01/30/25	01/30/25 13:06	
			Reactive Sulfide	9034		01/30/25	01/30/25 15:12	

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25 14:18
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-03	Matrix:	SOIL
		% Solid:	85.5

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		01/29/25 12:25	9095B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25 14:18
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-04	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	8.59	H	1	0	0	pH		01/28/25 15:10	9045D
Ignitability	NO		1	0	0	oC		01/29/25 09:47	1030
Reactive Cyanide	0.050	U	1	0.0088	0.050	mg/Kg	01/30/25 09:00	01/30/25 13:06	9012B
Reactive Sulfide	6.31	J	1	0.19	10.0	mg/Kg	01/30/25 11:00	01/30/25 15:09	9034

Comments: pH result reported at temperature 21.1 °C

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25 15:17
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-07	Matrix:	SOIL
		% Solid:	84.5

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		01/29/25 12:32	9095B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25 15:17
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-08	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	9.09	H	1	0	0	pH		01/28/25 15:15	9045D
Ignitability	NO		1	0	0	oC		01/29/25 09:55	1030
Reactive Cyanide	0.050	U	1	0.0087	0.050	mg/Kg	01/30/25 09:00	01/30/25 13:06	9012B
Reactive Sulfide	1.60	J	1	0.19	10.0	mg/Kg	01/30/25 11:00	01/30/25 15:12	9034

Comments: pH result reported at temperature 20.9 °C

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

QC RESULT SUMMARY

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Initial and Continuing Calibration Verification

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR **RunNo.:** LB134458

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	ICV						
Corrosivity		pH	7.01	7	100	90-110	01/28/2025
Sample ID:	CCV1						
Corrosivity		pH	2.01	2.00	101	90-110	01/28/2025
Sample ID:	CCV2						
Corrosivity		pH	12.02	12.00	100	90-110	01/28/2025
Sample ID:	CCV3						
Corrosivity		pH	2.01	2.00	101	90-110	01/28/2025

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Initial and Continuing Calibration Verification

Client:	RU2 Engineering, LLC	**SDG No.:**	Q1206
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	**RunNo.:**	LB134487

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1						
Reactive Cyanide	mg/L	0.098	0.099	99	85-115	01/30/2025
Sample ID: CCV1						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	01/30/2025
Sample ID: CCV2						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	01/30/2025
Sample ID: CCV3						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	01/30/2025
Sample ID: CCV4						
Reactive Cyanide	mg/L	0.25	0.25	100	90-110	01/30/2025

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Initial and Continuing Calibration Blank Summary

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR **RunNo.:** LB134487

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	01/30/2025
Sample ID: CCB1							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	01/30/2025
Sample ID: CCB2							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	01/30/2025
Sample ID: CCB3							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	01/30/2025
Sample ID: CCB4							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	01/30/2025

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Preparation Blank Summary

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: PB166323BL							
Reactive Sulfide	mg/Kg	< 5.0000	5.0000	U	0.186	10	01/30/2025
Sample ID: PB166380BL							
Reactive Cyanide	mg/Kg	< 0.0250	0.0250	U	0.0088	0.05	01/30/2025

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Duplicate Sample Summary

Client: RU2 Engineering, LLC
SDG No.: Q1206
Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Sample ID: Q1205-01
Client ID: VNJ-236DUP
Percent Solids for Spike Sample: 87.2

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Paint Filter	ml/100gm	+/-20	1.00	U	1.00	U	1	0		01/29/2025
Ignitability	oC	+/-20	NO		NO		1	0		01/29/2025

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Duplicate Sample Summary

Client: RU2 Engineering, LLC
SDG No.: Q1206
Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Sample ID: Q1205-02
Client ID: VNJ-236DUP
Percent Solids for Spike Sample: 100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Corrosivity	pH	+/-20	5.85		5.86		1	0.17		01/28/2025
Reactive Cyanide	mg/Kg	+/-20	0.0087	U	0.0088	U	1	0		01/30/2025
Reactive Sulfide	mg/Kg	+/-20	3.17	J	3.17	J	1	0		01/30/2025