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

LAB CHRONICLE

OrderID:	Q1235	**OrderDate:**	1/30/2025 12:15:00 PM
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
Q1235-03	**JPP-51.2-012925**	**SOIL**			**01/29/25**			**01/30/25**
			SVOC-TCL BNA -20	8270E		01/31/25	02/08/25	
Q1235-04	**JPP-51.2-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP BNA	8270E		01/31/25	02/03/25	
Q1235-07	**JPP-16.1-012925**	**SOIL**			**01/29/25**			**01/30/25**
			SVOC-TCL BNA -20	8270E		01/31/25	02/07/25	
Q1235-08	**JPP-16.1-012925**	**TCLP**			**01/29/25**			**01/30/25**
			TCLP BNA	8270E		01/31/25	02/03/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1235

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Client ID : JPP-51.2-012925									
Q1235-03	JPP-51.2-012925	SOIL	Naphthalene		230.000	J	180	370	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Phenanthrene		800.000		180	370	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Anthracene		220.000	J	180	370	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Fluoranthene		760.000		180	370	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Pyrene		850.000		180	370	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Benzo(a)anthracene		440.000		180	370	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Chrysene		400.000		170	370	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Benzo(b)fluoranthene		450.000		180	370	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Benzo(k)fluoranthene		190.000	J	180	370	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Benzo(a)pyrene		410.000		200	370	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Indeno(1,2,3-cd)pyrene		180.000	J	170	370	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Benzo(g,h,i)perylene		250.000	J	170	370	ug/Kg
			Total Svoc :		**5,180.00**				
Q1235-03	JPP-51.2-012925	SOIL	(E)-Hexadec-9-enoic acid	*	480.000	J	0	0	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	2-Pentanone, 4-hydroxy-4-methyl	*	810.000	AB	0	0	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	4-Bromothiophene-2-aldehyde	*	310.000	J	0	0	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Benzophenone	*	270.000	J	0	0	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Dibenzothiophene	*	180.000	J	0	0	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Hexadecane	*	290.000	J	0	0	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Naphthalene, 2,3-dimethyl-	*	160.000	J	0	0	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Nonadecane	*	220.000	J	0	0	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Pentadecane	*	240.000	J	0	0	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Phenanthrene, 1-methyl-	*	170.000	J	0	0	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Tetradecane	*	160.000	J	0	0	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Tridecane	*	430.000	J	0	0	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Tridecane, 6-methyl-	*	260.000	J	0	0	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Tridecane, 7-hexyl-	*	150.000	J	0	0	ug/Kg
Q1235-03	JPP-51.2-012925	SOIL	Undecane, 2-methyl-	*	240.000	J	0	0	ug/Kg
			Total Tics :		**4,370.00**				
			Total Concentration:		**9,550.00**				
Client ID : JPP-16.1-012925									
Q1235-07	JPP-16.1-012925	SOIL	Phenanthrene		1,700.000		190	380	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Anthracene		480.000		190	380	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Fluoranthene		3,700.000		180	380	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Pyrene		4,200.000		190	380	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Benzo(a)anthracene		2,300.000		180	380	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Chrysene		1,800.000		180	380	ug/Kg

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Hit Summary Sheet
SW-846

SDG No.: Q1235

Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Q1235-07	JPP-16.1-012925	SOIL	Benzo(b)fluoranthene		2,200.000		180	380	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Benzo(k)fluoranthene		1,100.000		180	380	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Benzo(a)pyrene		2,200.000		210	380	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Indeno(1,2,3-cd)pyrene		940.000		170	380	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Dibenzo(a,h)anthracene		290.000	J	180	380	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Benzo(g,h,i)perylene		1,100.000		180	380	ug/Kg
			Total Svoc :		**22,010.00**				
Q1235-07	JPP-16.1-012925	SOIL	11H-Benzo[b]fluorene	*	300.000	J	0	0	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	5H-Indeno[1,2-b]pyridine	*	150.000	J	0	0	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Anthracene, 2-methyl-	*	260.000	J	0	0	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Benzaldehyde, 3,5-dichloro-2-hyd	*	740.000	J	0	0	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Benzophenone	*	250.000	J	0	0	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Naphthalene, 2-phenyl-	*	270.000	J	0	0	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Pyrene, 1-methyl-	*	240.000	J	0	0	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Pyrene, 4-methyl-	*	220.000	J	0	0	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	unknown12.404	*	210.000	J	0	0	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Cyclopenta(def)phenanthrenone	*	220.000	J	0	0	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Dehydrochamazulene	*	170.000	J	0	0	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Phenanthrene, 1-methyl-	*	210.000	J	0	0	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Phenanthrene, 2,5-dimethyl-	*	240.000	J	0	0	ug/Kg
Q1235-07	JPP-16.1-012925	SOIL	Phenanthrene, 2-methyl-	*	520.000	J	0	0	ug/Kg
			Total Tics :		**4,000.00**				
			Total Concentration:		**26,010.00**				

SAMPLE DATA

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.2-012925	SDG No.:	Q1235
Lab Sample ID:	Q1235-03	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	91.8
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
BF141529.D	2	01/31/25 10:20	02/08/25 00:47	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	720	U	400	720	ug/Kg
108-95-2	Phenol	370	U	180	370	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	370	U	180	370	ug/Kg
95-57-8	2-Chlorophenol	370	U	180	370	ug/Kg
95-48-7	2-Methylphenol	370	U	180	370	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	370	U	200	370	ug/Kg
98-86-2	Acetophenone	370	UQ	190	370	ug/Kg
65794-96-9	3+4-Methylphenols	720	U	170	720	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	170	U	87.7	170	ug/Kg
67-72-1	Hexachloroethane	370	U	180	370	ug/Kg
98-95-3	Nitrobenzene	370	U	200	370	ug/Kg
78-59-1	Isophorone	370	U	180	370	ug/Kg
88-75-5	2-Nitrophenol	370	U	210	370	ug/Kg
105-67-9	2,4-Dimethylphenol	370	U	200	370	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	370	U	190	370	ug/Kg
120-83-2	2,4-Dichlorophenol	370	U	160	370	ug/Kg
91-20-3	Naphthalene	230	J	180	370	ug/Kg
106-47-8	4-Chloroaniline	370	U	180	370	ug/Kg
87-68-3	Hexachlorobutadiene	370	U	180	370	ug/Kg
105-60-2	Caprolactam	720	U	190	720	ug/Kg
59-50-7	4-Chloro-3-methylphenol	370	U	170	370	ug/Kg
91-57-6	2-Methylnaphthalene	370	U	180	370	ug/Kg
77-47-4	Hexachlorocyclopentadiene	720	UQ	340	720	ug/Kg
88-06-2	2,4,6-Trichlorophenol	370	U	160	370	ug/Kg
95-95-4	2,4,5-Trichlorophenol	370	U	160	370	ug/Kg
92-52-4	1,1-Biphenyl	370	U	190	370	ug/Kg
91-58-7	2-Chloronaphthalene	370	U	180	370	ug/Kg
88-74-4	2-Nitroaniline	370	U	210	370	ug/Kg
131-11-3	Dimethylphthalate	370	U	180	370	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.2-012925	SDG No.:	Q1235
Lab Sample ID:	Q1235-03	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	91.8
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
BF141529.D	2	01/31/25 10:20	02/08/25 00:47	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	370	U	190	370	ug/Kg
606-20-2	2,6-Dinitrotoluene	370	U	180	370	ug/Kg
99-09-2	3-Nitroaniline	370	U	190	370	ug/Kg
83-32-9	Acenaphthene	370	U	180	370	ug/Kg
51-28-5	2,4-Dinitrophenol	720	U	530	720	ug/Kg
100-02-7	4-Nitrophenol	720	U	250	720	ug/Kg
132-64-9	Dibenzofuran	370	U	180	370	ug/Kg
121-14-2	2,4-Dinitrotoluene	370	U	190	370	ug/Kg
84-66-2	Diethylphthalate	370	U	170	370	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	370	U	190	370	ug/Kg
86-73-7	Fluorene	370	U	190	370	ug/Kg
100-01-6	4-Nitroaniline	370	U	230	370	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	720	U	250	720	ug/Kg
86-30-6	n-Nitrosodiphenylamine	370	U	180	370	ug/Kg
101-55-3	4-Bromophenyl-phenylether	370	U	170	370	ug/Kg
118-74-1	Hexachlorobenzene	370	U	190	370	ug/Kg
1912-24-9	Atrazine	370	U	200	370	ug/Kg
87-86-5	Pentachlorophenol	720	U	170	720	ug/Kg
85-01-8	Phenanthrene	800		180	370	ug/Kg
120-12-7	Anthracene	220	J	180	370	ug/Kg
86-74-8	Carbazole	370	U	170	370	ug/Kg
84-74-2	Di-n-butylphthalate	370	U	180	370	ug/Kg
206-44-0	Fluoranthene	760		180	370	ug/Kg
129-00-0	Pyrene	850		180	370	ug/Kg
85-68-7	Butylbenzylphthalate	370	U	210	370	ug/Kg
91-94-1	3,3-Dichlorobenzidine	720	U	210	720	ug/Kg
56-55-3	Benzo(a)anthracene	440		180	370	ug/Kg
218-01-9	Chrysene	400		170	370	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	370	U	200	370	ug/Kg
117-84-0	Di-n-octyl phthalate	720	U	240	720	ug/Kg
205-99-2	Benzo(b)fluoranthene	450		180	370	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.2-012925	SDG No.:	Q1235
Lab Sample ID:	Q1235-03	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	91.8
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
BF141529.D	2	01/31/25 10:20	02/08/25 00:47	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	190	J	180	370	ug/Kg
50-32-8	Benzo(a)pyrene	410		200	370	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	180	J	170	370	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	370	U	180	370	ug/Kg
191-24-2	Benzo(g,h,i)perylene	250	J	170	370	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	370	U	190	370	ug/Kg
123-91-1	1,4-Dioxane	370	U	240	370	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	370	U	160	370	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	19.7	*	18 - 112	13%	SPK: 150
13127-88-3	Phenol-d6	79.9		15 - 107	53%	SPK: 150
4165-60-0	Nitrobenzene-d5	60.3		18 - 107	60%	SPK: 100
321-60-8	2-Fluorobiphenyl	68.7		20 - 109	69%	SPK: 100
118-79-6	2,4,6-Tribromophenol	5.00	*	10 - 116	3%	SPK: 150
1718-51-0	Terphenyl-d14	76.3		10 - 105	76%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	74000	6.792			
1146-65-2	Naphthalene-d8	282000	8.075			
15067-26-2	Acenaphthene-d10	139000	9.828			
1517-22-2	Phenanthrene-d10	214000	11.316			
1719-03-5	Chrysene-d12	125000	13.963			
1520-96-3	Perylene-d12	97400	15.421			
TENTATIVE IDENTIFIED COMPOUNDS						
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	810	AB		4.98	ug/Kg
013287-21-3	Tridecane, 6-methyl-	260	J		9.23	ug/Kg
000581-40-8	Naphthalene, 2,3-dimethyl-	160	J		9.49	ug/Kg
000629-92-5	Nonadecane	220	J		9.54	ug/Kg
000629-62-9	Pentadecane	240	J		9.76	ug/Kg
000544-76-3	Hexadecane	290	J		10.3	ug/Kg
000119-61-9	Benzophenone	270	J		10.5	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.2-012925	SDG No.:	Q1235
Lab Sample ID:	Q1235-03	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	91.8
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
BF141529.D	2	01/31/25 10:20	02/08/25 00:47	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
000629-50-5	Tridecane	430	J		10.7	ug/Kg
007045-71-8	Undecane, 2-methyl-	240	J		11.2	ug/Kg
000132-65-0	Dibenzothiophene	180	J		11.2	ug/Kg
007225-66-3	Tridecane, 7-hexyl-	150	J		11.6	ug/Kg
000832-69-9	Phenanthrene, 1-methyl-	170	J		11.8	ug/Kg
018791-75-8	4-Bromothiophene-2-aldehyde	310	J		11.9	ug/Kg
000629-59-4	Tetradecane	160	J		12.0	ug/Kg
010030-73-6	(E)-Hexadec-9-enoic acid	480	J		12.4	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:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-16.1-012925	SDG No.:	Q1235
Lab Sample ID:	Q1235-07	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	89.2
Sample Wt/Vol:	30.07 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
BF141522.D	2	01/31/25 10:20	02/07/25 21:40	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	740	U	410	740	ug/Kg
108-95-2	Phenol	380	U	190	380	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	380	U	190	380	ug/Kg
95-57-8	2-Chlorophenol	380	U	190	380	ug/Kg
95-48-7	2-Methylphenol	380	U	180	380	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	380	U	200	380	ug/Kg
98-86-2	Acetophenone	380	UQ	190	380	ug/Kg
65794-96-9	3+4-Methylphenols	740	U	180	740	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	180	U	90.1	180	ug/Kg
67-72-1	Hexachloroethane	380	U	190	380	ug/Kg
98-95-3	Nitrobenzene	380	U	200	380	ug/Kg
78-59-1	Isophorone	380	U	190	380	ug/Kg
88-75-5	2-Nitrophenol	380	U	210	380	ug/Kg
105-67-9	2,4-Dimethylphenol	380	U	210	380	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	380	U	190	380	ug/Kg
120-83-2	2,4-Dichlorophenol	380	U	170	380	ug/Kg
91-20-3	Naphthalene	380	U	180	380	ug/Kg
106-47-8	4-Chloroaniline	380	U	180	380	ug/Kg
87-68-3	Hexachlorobutadiene	380	U	190	380	ug/Kg
105-60-2	Caprolactam	740	U	190	740	ug/Kg
59-50-7	4-Chloro-3-methylphenol	380	U	170	380	ug/Kg
91-57-6	2-Methylnaphthalene	380	U	180	380	ug/Kg
77-47-4	Hexachlorocyclopentadiene	740	UQ	350	740	ug/Kg
88-06-2	2,4,6-Trichlorophenol	380	U	160	380	ug/Kg
95-95-4	2,4,5-Trichlorophenol	380	U	170	380	ug/Kg
92-52-4	1,1-Biphenyl	380	U	200	380	ug/Kg
91-58-7	2-Chloronaphthalene	380	U	190	380	ug/Kg
88-74-4	2-Nitroaniline	380	U	210	380	ug/Kg
131-11-3	Dimethylphthalate	380	U	180	380	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-16.1-012925	SDG No.:	Q1235
Lab Sample ID:	Q1235-07	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	89.2
Sample Wt/Vol:	30.07 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
BF141522.D	2	01/31/25 10:20	02/07/25 21:40	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	380	U	190	380	ug/Kg
606-20-2	2,6-Dinitrotoluene	380	U	190	380	ug/Kg
99-09-2	3-Nitroaniline	380	U	200	380	ug/Kg
83-32-9	Acenaphthene	380	U	180	380	ug/Kg
51-28-5	2,4-Dinitrophenol	740	U	540	740	ug/Kg
100-02-7	4-Nitrophenol	740	U	260	740	ug/Kg
132-64-9	Dibenzofuran	380	U	190	380	ug/Kg
121-14-2	2,4-Dinitrotoluene	380	U	190	380	ug/Kg
84-66-2	Diethylphthalate	380	U	180	380	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	380	U	190	380	ug/Kg
86-73-7	Fluorene	380	U	190	380	ug/Kg
100-01-6	4-Nitroaniline	380	U	240	380	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	740	U	260	740	ug/Kg
86-30-6	n-Nitrosodiphenylamine	380	U	180	380	ug/Kg
101-55-3	4-Bromophenyl-phenylether	380	U	180	380	ug/Kg
118-74-1	Hexachlorobenzene	380	U	190	380	ug/Kg
1912-24-9	Atrazine	380	U	200	380	ug/Kg
87-86-5	Pentachlorophenol	740	U	170	740	ug/Kg
85-01-8	Phenanthrene	1700		190	380	ug/Kg
120-12-7	Anthracene	480		190	380	ug/Kg
86-74-8	Carbazole	380	U	180	380	ug/Kg
84-74-2	Di-n-butylphthalate	380	U	190	380	ug/Kg
206-44-0	Fluoranthene	3700		180	380	ug/Kg
129-00-0	Pyrene	4200		190	380	ug/Kg
85-68-7	Butylbenzylphthalate	380	U	220	380	ug/Kg
91-94-1	3,3-Dichlorobenzidine	740	U	220	740	ug/Kg
56-55-3	Benzo(a)anthracene	2300		180	380	ug/Kg
218-01-9	Chrysene	1800		180	380	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	380	U	200	380	ug/Kg
117-84-0	Di-n-octyl phthalate	740	U	250	740	ug/Kg
205-99-2	Benzo(b)fluoranthene	2200		180	380	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-16.1-012925	SDG No.:	Q1235
Lab Sample ID:	Q1235-07	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	89.2
Sample Wt/Vol:	30.07 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
BF141522.D	2	01/31/25 10:20	02/07/25 21:40	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1100		180	380	ug/Kg
50-32-8	Benzo(a)pyrene	2200		210	380	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	940		170	380	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	290	J	180	380	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1100		180	380	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	380	U	190	380	ug/Kg
123-91-1	1,4-Dioxane	380	U	250	380	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	380	U	170	380	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	68.5		18 - 112	46%	SPK: 150
13127-88-3	Phenol-d6	69.6		15 - 107	46%	SPK: 150
4165-60-0	Nitrobenzene-d5	48.6		18 - 107	49%	SPK: 100
321-60-8	2-Fluorobiphenyl	55.1		20 - 109	55%	SPK: 100
118-79-6	2,4,6-Tribromophenol	52.2		10 - 116	35%	SPK: 150
1718-51-0	Terphenyl-d14	55.0		10 - 105	55%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	91600	6.793			
1146-65-2	Naphthalene-d8	347000	8.075			
15067-26-2	Acenaphthene-d10	170000	9.828			
1517-22-2	Phenanthrene-d10	256000	11.316			
1719-03-5	Chrysene-d12	155000	13.963			
1520-96-3	Perylene-d12	121000	15.439			
TENTATIVE IDENTIFIED COMPOUNDS						
000119-61-9	Benzophenone	250	J		10.5	ug/Kg
321732-25-6	Dehydrochamazulene	170	J		11.2	ug/Kg
000244-99-5	5H-Indeno[1,2-b]pyridine	150	J		11.6	ug/Kg
000613-12-7	Anthracene, 2-methyl-	260	J		11.8	ug/Kg
002531-84-2	Phenanthrene, 2-methyl-	520	J		11.8	ug/Kg
000832-69-9	Phenanthrene, 1-methyl-	210	J		11.9	ug/Kg
000090-60-8	Benzaldehyde, 3,5-dichloro-2-hydro	740	J		11.9	ug/Kg

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/29/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-16.1-012925	SDG No.:	Q1235
Lab Sample ID:	Q1235-07	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	89.2
Sample Wt/Vol:	30.07 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
BF141522.D	2	01/31/25 10:20	02/07/25 21:40	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
000612-94-2	Naphthalene, 2-phenyl-	270	J		12.1	ug/Kg
003674-66-6	Phenanthrene, 2,5-dimethyl-	240	J		12.4	ug/Kg
	unknown12.404	210	J		12.4	ug/Kg
005737-13-3	Cyclopenta(def)phenanthrenone	220	J		12.5	ug/Kg
002381-21-7	Pyrene, 1-methyl-	240	J		13.0	ug/Kg
000243-17-4	11H-Benzo[b]fluorene	300	J		13.1	ug/Kg
003353-12-6	Pyrene, 4-methyl-	220	J		13.2	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

QC SUMMARY

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

SW-846

SDG No.: Q1235

Client: RU2 Engineering, LLC

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
PB166418BL	PB166418BL	2-Fluorophenol	150	134	89		18	112
		Phenol-d6	150	129	86		15	107
		Nitrobenzene-d5	100	96.1	96		18	107
		2-Fluorobiphenyl	100	96.5	97		20	109
		2,4,6-Tribromophenol	150	147	98		10	116
		Terphenyl-d14	100	94.3	94		10	105
PB166418BS	PB166418BS	2-Fluorophenol	150	139	92		18	112
		Phenol-d6	150	133	89		15	107
		Nitrobenzene-d5	100	97.1	97		18	107
		2-Fluorobiphenyl	100	98.9	99		20	109
		2,4,6-Tribromophenol	150	160	106		10	116
		Terphenyl-d14	100	96.1	96		10	105
Q1235-03	JPP-51.2-012925	2-Fluorophenol	150	19.7	13	*	18	112
		Phenol-d6	150	79.9	53		15	107
		Nitrobenzene-d5	100	60.3	60		18	107
		2-Fluorobiphenyl	100	68.7	69		20	109
		2,4,6-Tribromophenol	150	5.00	3	*	10	116
		Terphenyl-d14	100	76.3	76		10	105
Q1235-07	JPP-16.1-012925	2-Fluorophenol	150	68.5	46		18	112
		Phenol-d6	150	69.6	46		15	107
		Nitrobenzene-d5	100	48.6	49		18	107
		2-Fluorobiphenyl	100	55.1	55		20	109
		2,4,6-Tribromophenol	150	52.2	35		10	116
		Terphenyl-d14	100	55.0	55		10	105
Q1239-10MS	357MS	2-Fluorophenol	150	80.0	53		18	112
		Phenol-d6	150	78.3	52		15	107
		Nitrobenzene-d5	100	54.3	54		18	107
		2-Fluorobiphenyl	100	53.2	53		20	109
		2,4,6-Tribromophenol	150	80.6	54		10	116
		Terphenyl-d14	100	46.0	46		10	105
Q1239-10MSD	357MSD	2-Fluorophenol	150	84.0	56		18	112
		Phenol-d6	150	82.0	55		15	107
		Nitrobenzene-d5	100	57.9	58		18	107
		2-Fluorobiphenyl	100	55.5	55		20	109
		2,4,6-Tribromophenol	150	84.1	56		10	116
		Terphenyl-d14	100	49.7	50		10	105

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1235

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: Q1239-10MS		**Client Sample ID: 357MS**						**DataFile: BF141345.D**			
Benzaldehyde	1200	0	1000	ug/Kg	83				10	86	
Phenol	1200	0	880	ug/Kg	73				67	126	
bis(2-Chloroethyl)ether	1200	0	900	ug/Kg	75				54	125	
2-Chlorophenol	1200	0	900	ug/Kg	75	*			79	107	
2-Methylphenol	1200	0	860	ug/Kg	72				66	122	
2,2-oxybis(1-Chloropropane)	1200	0	880	ug/Kg	73				65	110	
Acetophenone	1200	0	990	ug/Kg	83				75	111	
3+4-Methylphenols	1200	0	920	ug/Kg	77				66	104	
N-Nitroso-di-n-propylamine	1200	0	900	ug/Kg	75				59	119	
Hexachloroethane	1200	0	860	ug/Kg	72				65	117	
Nitrobenzene	1200	0	840	ug/Kg	70				70	119	
Isophorone	1200	0	900	ug/Kg	75	*			76	122	
2-Nitrophenol	1200	0	900	ug/Kg	75				54	145	
2,4-Dimethylphenol	1200	0	1100	ug/Kg	92				44	135	
bis(2-Chloroethoxy)methane	1200	0	880	ug/Kg	73				68	112	
2,4-Dichlorophenol	1200	0	900	ug/Kg	75				72	118	
Naphthalene	1200	0	850	ug/Kg	71	*			72	110	
4-Chloroaniline	1200	0	210	ug/Kg	18				10	91	
Hexachlorobutadiene	1200	0	840	ug/Kg	70				66	114	
Caprolactam	1200	0	990	ug/Kg	83				51	134	
4-Chloro-3-methylphenol	1200	0	870	ug/Kg	73				57	132	
2-Methylnaphthalene	1200	0	840	ug/Kg	70				59	123	
Hexachlorocyclopentadiene	2400	0	3200	ug/Kg	133				10	175	
2,4,6-Trichlorophenol	1200	0	920	ug/Kg	77				72	117	
2,4,5-Trichlorophenol	1200	0	890	ug/Kg	74				72	117	
1,1-Biphenyl	1200	0	990	ug/Kg	83				75	113	
2-Chloronaphthalene	1200	0	850	ug/Kg	71				67	118	
2-Nitroaniline	1200	0	900	ug/Kg	75				69	127	
Dimethylphthalate	1200	0	910	ug/Kg	76				70	113	
Acenaphthylene	1200	0	940	ug/Kg	78	*			79	118	
2,6-Dinitrotoluene	1200	0	860	ug/Kg	72				70	125	
3-Nitroaniline	1200	0	530	ug/Kg	44				30	99	
Acenaphthene	1200	0	980	ug/Kg	82				70	121	
2,4-Dinitrophenol	2400	0	2200	ug/Kg	92				10	155	
4-Nitrophenol	2400	0	1600	ug/Kg	67				45	133	
Dibenzofuran	1200	0	870	ug/Kg	73				72	110	
2,4-Dinitrotoluene	1200	0	880	ug/Kg	73				55	128	
Diethylphthalate	1200	0	900	ug/Kg	75				70	112	
4-Chlorophenyl-phenylether	1200	0	850	ug/Kg	71				71	108	
Fluorene	1200	0	850	ug/Kg	71				68	116	
4-Nitroaniline	1200	0	800	ug/Kg	67				55	120	
4,6-Dinitro-2-methylphenol	1200	0	1100	ug/Kg	92				10	160	
N-Nitrosodiphenylamine	1200	0	990	ug/Kg	83				73	118	
4-Bromophenyl-phenylether	1200	0	970	ug/Kg	81				65	121	
Hexachlorobenzene	1200	0	940	ug/Kg	78				67	118	
Atrazine	1200	0	1000	ug/Kg	83				79	127	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1235

Client: RU2 Engineering, LLC

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Pentachlorophenol	2400	0	1800	ug/Kg	75				47	128	
Phenanthrene	1200	0	940	ug/Kg	78				52	128	
Anthracene	1200	0	950	ug/Kg	79				62	124	
Carbazole	1200	0	850	ug/Kg	71				59	119	
Di-n-butylphthalate	1200	0	960	ug/Kg	80				69	118	
Fluoranthene	1200	0	840	ug/Kg	70				44	125	
Pyrene	1200	0	740	ug/Kg	62				26	142	
Butylbenzylphthalate	1200	0	860	ug/Kg	72				64	126	
3,3-Dichlorobenzidine	1200	0	670	ug/Kg	56				33	116	
Benzo(a)anthracene	1200	0	860	ug/Kg	72				71	114	
Chrysene	1200	0	910	ug/Kg	76				57	121	
bis(2-Ethylhexyl)phthalate	1200	0	890	ug/Kg	74				42	169	
Di-n-octyl phthalate	1200	0	1000	ug/Kg	83				23	175	
Benzo(b)fluoranthene	1200	0	1000	ug/Kg	83				67	121	
Benzo(k)fluoranthene	1200	0	890	ug/Kg	74				57	134	
Benzo(a)pyrene	1200	0	990	ug/Kg	83				70	142	
Indeno(1,2,3-cd)pyrene	1200	0	720	ug/Kg	60				40	129	
Dibenz(a,h)anthracene	1200	0	730	ug/Kg	61				43	123	
Benzo(g,h,i)perylene	1200	0	640	ug/Kg	53				24	125	
1,2,4,5-Tetrachlorobenzene	1200	0	960	ug/Kg	80				69	124	
1,4-Dioxane	1200	0	900	ug/Kg	75				46	112	
2,3,4,6-Tetrachlorophenol	1200	0	930	ug/Kg	78				69	112	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1235

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: Q1239-10MSD		**Client Sample ID: 357MSD**						**DataFile: BF141346.D**			
Benzaldehyde	1200	0	1100	ug/Kg	92	*	10		10	86	20
Phenol	1200	0	920	ug/Kg	77		5		67	126	20
bis(2-Chloroethyl)ether	1200	0	940	ug/Kg	78		4		54	125	20
2-Chlorophenol	1200	0	950	ug/Kg	79		5		79	107	20
2-Methylphenol	1200	0	900	ug/Kg	75		4		66	122	20
2,2-oxybis(1-Chloropropane)	1200	0	920	ug/Kg	77		5		65	110	20
Acetophenone	1200	0	1100	ug/Kg	92		10		75	111	20
3+4-Methylphenols	1200	0	970	ug/Kg	81		5		66	104	20
N-Nitroso-di-n-propylamine	1200	0	940	ug/Kg	78		4		59	119	20
Hexachloroethane	1200	0	910	ug/Kg	76		5		65	117	20
Nitrobenzene	1200	0	910	ug/Kg	76		8		70	119	20
Isophorone	1200	0	960	ug/Kg	80		6		76	122	20
2-Nitrophenol	1200	0	970	ug/Kg	81		8		54	145	20
2,4-Dimethylphenol	1200	0	1200	ug/Kg	100		8		44	135	20
bis(2-Chloroethoxy)methane	1200	0	950	ug/Kg	79		8		68	112	20
2,4-Dichlorophenol	1200	0	950	ug/Kg	79		5		72	118	20
Naphthalene	1200	0	900	ug/Kg	75		5		72	110	20
4-Chloroaniline	1200	0	240	ug/Kg	20		11		10	91	20
Hexachlorobutadiene	1200	0	890	ug/Kg	74		6		66	114	20
Caprolactam	1200	0	1100	ug/Kg	92		10		51	134	20
4-Chloro-3-methylphenol	1200	0	930	ug/Kg	78		7		57	132	20
2-Methylnaphthalene	1200	0	890	ug/Kg	74		6		59	123	20
Hexachlorocyclopentadiene	2400	0	3400	ug/Kg	142		7		10	175	20
2,4,6-Trichlorophenol	1200	0	970	ug/Kg	81		5		72	117	20
2,4,5-Trichlorophenol	1200	0	950	ug/Kg	79		7		72	117	20
1,1-Biphenyl	1200	0	1000	ug/Kg	83		0		75	113	20
2-Chloronaphthalene	1200	0	900	ug/Kg	75		5		67	118	20
2-Nitroaniline	1200	0	950	ug/Kg	79		5		69	127	20
Dimethylphthalate	1200	0	970	ug/Kg	81		6		70	113	20
Acenaphthylene	1200	0	990	ug/Kg	83		6		79	118	20
2,6-Dinitrotoluene	1200	0	910	ug/Kg	76		5		70	125	20
3-Nitroaniline	1200	0	550	ug/Kg	46		4		30	99	20
Acenaphthene	1200	0	1000	ug/Kg	83		1		70	121	20
2,4-Dinitrophenol	2400	0	2300	ug/Kg	96		4		10	155	20
4-Nitrophenol	2400	0	1700	ug/Kg	71		6		45	133	20
Dibenzofuran	1200	0	920	ug/Kg	77		5		72	110	20
2,4-Dinitrotoluene	1200	0	930	ug/Kg	78		7		55	128	20
Diethylphthalate	1200	0	950	ug/Kg	79		5		70	112	20
4-Chlorophenyl-phenylether	1200	0	900	ug/Kg	75		5		71	108	20
Fluorene	1200	0	900	ug/Kg	75		5		68	116	20
4-Nitroaniline	1200	0	870	ug/Kg	73		9		55	120	20
4,6-Dinitro-2-methylphenol	1200	0	1200	ug/Kg	100		8		10	160	20
N-Nitrosodiphenylamine	1200	0	1100	ug/Kg	92		10		73	118	20
4-Bromophenyl-phenylether	1200	0	1000	ug/Kg	83		2		65	121	20
Hexachlorobenzene	1200	0	990	ug/Kg	83		6		67	118	20
Atrazine	1200	0	1100	ug/Kg	92		10		79	127	20

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1235

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	2400	0	2000	ug/Kg	83		10		47	128	20
Phenanthrene	1200	0	1000	ug/Kg	83		6		52	128	20
Anthracene	1200	0	1000	ug/Kg	83		5		62	124	20
Carbazole	1200	0	920	ug/Kg	77		8		59	119	20
Di-n-butylphthalate	1200	0	1000	ug/Kg	83		4		69	118	20
Fluoranthene	1200	0	920	ug/Kg	77		10		44	125	20
Pyrene	1200	0	810	ug/Kg	68		9		26	142	20
Butylbenzylphthalate	1200	0	930	ug/Kg	78		8		64	126	20
3,3-Dichlorobenzidine	1200	0	750	ug/Kg	63		12		33	116	20
Benzo(a)anthracene	1200	0	930	ug/Kg	78		8		71	114	20
Chrysene	1200	0	980	ug/Kg	82		8		57	121	20
bis(2-Ethylhexyl)phthalate	1200	0	970	ug/Kg	81		9		42	169	20
Di-n-octyl phthalate	1200	0	1100	ug/Kg	92		10		23	175	20
Benzo(b)fluoranthene	1200	0	990	ug/Kg	83		0		67	121	20
Benzo(k)fluoranthene	1200	0	1100	ug/Kg	92		22	*	57	134	20
Benzo(a)pyrene	1200	0	1100	ug/Kg	92		10		70	142	20
Indeno(1,2,3-cd)pyrene	1200	0	770	ug/Kg	64		6		40	129	20
Dibenz(a,h)anthracene	1200	0	780	ug/Kg	65		6		43	123	20
Benzo(g,h,i)perylene	1200	0	690	ug/Kg	58		9		24	125	20
1,2,4,5-Tetrachlorobenzene	1200	0	1000	ug/Kg	83		4		69	124	20
1,4-Dioxane	1200	0	950	ug/Kg	79		5		46	112	20
2,3,4,6-Tetrachlorophenol	1200	0	1000	ug/Kg	83		6		69	112	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1235

Client: RU2 Engineering, LLC

Analytical Method: 8270E **DataFile:** BF141441.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166418BS	Benzaldehyde	1700	1700	ug/Kg	100				10	133	
	Phenol	1700	1400	ug/Kg	82				62	112	
	bis(2-Chloroethyl)ether	1700	1400	ug/Kg	82				60	101	
	2-Chlorophenol	1700	1500	ug/Kg	88				65	112	
	2-Methylphenol	1700	1400	ug/Kg	82				61	108	
	2,2-oxybis(1-Chloropropane)	1700	1300	ug/Kg	76				51	100	
	Acetophenone	1700	1700	ug/Kg	100		*		66	98	
	3+4-Methylphenols	1700	1500	ug/Kg	88				58	111	
	N-Nitroso-di-n-propylamine	1700	1400	ug/Kg	82				63	95	
	Hexachloroethane	1700	1500	ug/Kg	88				72	108	
	Nitrobenzene	1700	1400	ug/Kg	82				57	101	
	Isophorone	1700	1500	ug/Kg	88				59	99	
	2-Nitrophenol	1700	1500	ug/Kg	88				61	111	
	2,4-Dimethylphenol	1700	1800	ug/Kg	106				46	141	
	bis(2-Chloroethoxy)methane	1700	1300	ug/Kg	76				66	97	
	2,4-Dichlorophenol	1700	1500	ug/Kg	88				62	107	
	Naphthalene	1700	1400	ug/Kg	82				62	100	
	4-Chloroaniline	1700	580	ug/Kg	34				16	100	
	Hexachlorobutadiene	1700	1500	ug/Kg	88				53	98	
	Caprolactam	1700	1600	ug/Kg	94				67	110	
	4-Chloro-3-methylphenol	1700	1500	ug/Kg	88				58	112	
	2-Methylnaphthalene	1700	1400	ug/Kg	82				60	104	
	Hexachlorocyclopentadiene	3300	6300	ug/Kg	191		*		45	165	
	2,4,6-Trichlorophenol	1700	1500	ug/Kg	88				59	102	
	2,4,5-Trichlorophenol	1700	1400	ug/Kg	82				61	98	
	1,1-Biphenyl	1700	1600	ug/Kg	94				57	103	
	2-Chloronaphthalene	1700	1400	ug/Kg	82				58	99	
	2-Nitroaniline	1700	1500	ug/Kg	88				66	101	
	Dimethylphthalate	1700	1500	ug/Kg	88				61	99	
	Acenaphthylene	1700	1600	ug/Kg	94				63	101	
	2,6-Dinitrotoluene	1700	1400	ug/Kg	82				61	104	
	3-Nitroaniline	1700	750	ug/Kg	44				28	100	
	Acenaphthene	1700	1700	ug/Kg	100				57	104	
	2,4-Dinitrophenol	3300	3700	ug/Kg	112				37	128	
	4-Nitrophenol	3300	3200	ug/Kg	97				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	1500	ug/Kg	88				58	98	
	Fluorene	1700	1500	ug/Kg	88				61	101	
	4-Nitroaniline	1700	1500	ug/Kg	88				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.: Q1235

Client: RU2 Engineering, LLC

Analytical Method: 8270E **DataFile:** BF141441.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB166418BS	Hexachlorobenzene	1700	1500	ug/Kg	88				64	98	
	Atrazine	1700	1700	ug/Kg	100				47	152	
	Pentachlorophenol	3300	3100	ug/Kg	94				67	105	
	Phenanthrene	1700	1500	ug/Kg	88				59	103	
	Anthracene	1700	1600	ug/Kg	94				61	105	
	Carbazole	1700	1600	ug/Kg	94				61	99	
	Di-n-butylphthalate	1700	1500	ug/Kg	88				58	104	
	Fluoranthene	1700	1600	ug/Kg	94				57	107	
	Pyrene	1700	1400	ug/Kg	82				59	103	
	Butylbenzylphthalate	1700	1500	ug/Kg	88				55	103	
	3,3-Dichlorobenzidine	1700	710	ug/Kg	42				42	91	
	Benzo(a)anthracene	1700	1500	ug/Kg	88				60	102	
	Chrysene	1700	1400	ug/Kg	82				59	101	
	bis(2-Ethylhexyl)phthalate	1700	1500	ug/Kg	88				54	135	
	Di-n-octyl phthalate	1700	1400	ug/Kg	82				52	137	
	Benzo(b)fluoranthene	1700	1400	ug/Kg	82				62	109	
	Benzo(k)fluoranthene	1700	1600	ug/Kg	94				62	109	
	Benzo(a)pyrene	1700	1600	ug/Kg	94				63	103	
	Indeno(1,2,3-cd)pyrene	1700	1500	ug/Kg	88				63	101	
	Dibenz(a,h)anthracene	1700	1500	ug/Kg	88				61	112	
	Benzo(g,h,i)perylene	1700	1400	ug/Kg	82				70	108	
	1,2,4,5-Tetrachlorobenzene	1700	1600	ug/Kg	94				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.

PB166418BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1235 SAS No.: Q1235 SDG NO.: Q1235

Lab File ID: BF141440.D Lab Sample ID: PB166418BL

Instrument ID: BNA_F Date Extracted: 01/31/2025

Matrix: (soil/water) SOIL Date Analyzed: 02/05/2025

Level: (low/med) LOW Time Analyzed: 12:13

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB166418BS	PB166418BS	BF141441.D	02/05/2025
JPP-16.1-012925	Q1235-07	BF141522.D	02/07/2025
JPP-51.2-012925	Q1235-03	BF141529.D	02/08/2025
357MS	Q1239-10MS	BF141345.D	01/31/2025
357MSD	Q1239-10MSD	BF141346.D	01/31/2025

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1235 SDG NO.: Q1235

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.: Q1235 SDG NO.: Q1235

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
357MS	Q1239-10MS	BF141345.D	01/31/2025	21:23
357MSD	Q1239-10MSD	BF141346.D	01/31/2025	21:50

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1235 SDG NO.: Q1235

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
PB166418BL	PB166418BL	BF141440.D	02/05/2025	12:13
PB166418BS	PB166418BS	BF141441.D	02/05/2025	12:39

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM SAS No.: Q1235 SDG NO.: Q1235

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.: Q1235 SDG NO.: Q1235

Lab File ID: BF141505.D DFTPP Injection Date: 02/07/2025

Instrument ID: BNA_F DFTPP Injection Time: 14:07

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	40.6
68	Less than 2.0% of mass 69	0.6 (1.7) 1
69	Mass 69 relative abundance	35.7
70	Less than 2.0% of mass 69	0.2 (0.7) 1
127	10.0 - 80.0% of mass 198	47.6
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	27.1
365	Greater than 1% of mass 198	3.3
441	Present, but less than mass 443	13.6
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	15.3 (18.1) 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	BF141506.D	02/07/2025	14:33
JPP-16.1-012925	Q1235-07	BF141522.D	02/07/2025	21:40
JPP-51.2-012925	Q1235-03	BF141529.D	02/08/2025	00:47

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1235 SAS No.: Q1235 SDG NO.: Q1235

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	357MS	151192	6.80	601644	8.08	313664	9.84
02	357MSD	149445	6.80	587795	8.08	309142	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.: Q1235 SAS No.: Q1235 SDG NO.: Q1235

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	357MS	473142	11.32	293043	13.97	307605	15.43
02	357MSD	457150	11.32	288493	13.97	294341	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.: Q1235 SAS No.: Q1235 SDG NO.: Q1235

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	PB166418BL	76450	6.79	302478	8.07	163001	9.83
02	PB166418BS	69377	6.79	275008	8.08	148846	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.: Q1235 SAS No.: Q1235 SDG NO.: Q1235

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	PB166418BL	280778	11.32	198135	13.96	160441	15.43
02	PB166418BS	260150	11.32	177509	13.96	152303	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.: Q1235 SAS No.: Q1235 SDG NO.: Q1235

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/07/2025

Lab File ID: BF141506.D Time Analyzed: 14:33

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	91880	6.787	360290	8.08	198348	9.83
	UPPER LIMIT	183760	7.287	720580	8.575	396696	10.328
	LOWER LIMIT	45940	6.287	180145	7.575	99174	9.328
	EPA SAMPLE NO.						
01	JPP-51.2-012925	74004	6.79	282155	8.08	139032	9.83
02	JPP-16.1-012925	91628	6.79	347094	8.08	170343	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.: Q1235 SAS No.: Q1235 SDG NO.: Q1235

EPA Sample No.: SSTDCCC040 Date Analyzed: 02/07/2025

Lab File ID: BF141506.D Time Analyzed: 14:33

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	340922	11.316	238177	13.957	192868	15.416
	UPPER LIMIT	681844	11.816	476354	14.457	385736	15.916
	LOWER LIMIT	170461	10.816	119089	13.457	96434	14.916
	EPA SAMPLE NO.						
01	JPP-51.2-012925	214327	11.32	125100	13.96	97428	15.42
02	JPP-16.1-012925	255902	11.32	155441	13.96	120766	15.44

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:	PB166418BL	SDG No.:	Q1235
Lab Sample ID:	PB166418BL	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
BF141440.D	1	01/31/25 10:20	02/05/25 12:13	PB166418

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:	PB166418BL	SDG No.:	Q1235
Lab Sample ID:	PB166418BL	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
BF141440.D	1	01/31/25 10:20	02/05/25 12:13	PB166418

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:	PB166418BL	SDG No.:	Q1235
Lab Sample ID:	PB166418BL	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
BF141440.D	1	01/31/25 10:20	02/05/25 12:13	PB166418

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	134		18 - 112	89%	SPK: 150
13127-88-3	Phenol-d6	129		15 - 107	86%	SPK: 150
4165-60-0	Nitrobenzene-d5	96.1		18 - 107	96%	SPK: 100
321-60-8	2-Fluorobiphenyl	96.5		20 - 109	97%	SPK: 100
118-79-6	2,4,6-Tribromophenol	147		10 - 116	98%	SPK: 150
1718-51-0	Terphenyl-d14	94.3		10 - 105	94%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	76500	6.786			
1146-65-2	Naphthalene-d8	302000	8.069			
15067-26-2	Acenaphthene-d10	163000	9.827			
1517-22-2	Phenanthrene-d10	281000	11.316			
1719-03-5	Chrysene-d12	198000	13.957			
1520-96-3	Perylene-d12	160000	15.433			
TENTATIVE IDENTIFIED COMPOUNDS						
004744-10-9	Propane, 1,1-dimethoxy-	120	J		2.17	ug/Kg
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	71.0	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:	PB166418BL			SDG No.:	Q1235
Lab Sample ID:	PB166418BL			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
BF141440.D	1	01/31/25 10:20	02/05/25 12:13	PB166418

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:	PB166418BS	SDG No.:	Q1235
Lab Sample ID:	PB166418BS	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
BF141441.D	1	01/31/25 10:20	02/05/25 12:39	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	1700		180	330	ug/Kg
108-95-2	Phenol	1400		82.9	170	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1400		83.7	170	ug/Kg
95-57-8	2-Chlorophenol	1500		83.5	170	ug/Kg
95-48-7	2-Methylphenol	1400		80.6	170	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1300		90.9	170	ug/Kg
98-86-2	Acetophenone	1700		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	1400		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	1500		84.6	170	ug/Kg
88-75-5	2-Nitrophenol	1500		94.5	170	ug/Kg
105-67-9	2,4-Dimethylphenol	1800		93.2	170	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1300		85.8	170	ug/Kg
120-83-2	2,4-Dichlorophenol	1500		75.5	170	ug/Kg
91-20-3	Naphthalene	1400		82.6	170	ug/Kg
106-47-8	4-Chloroaniline	580		82.6	170	ug/Kg
87-68-3	Hexachlorobutadiene	1500		83.3	170	ug/Kg
105-60-2	Caprolactam	1600		86.8	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1500		77.5	170	ug/Kg
91-57-6	2-Methylnaphthalene	1400		82.5	170	ug/Kg
77-47-4	Hexachlorocyclopentadiene	6300	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	1400		74.0	170	ug/Kg
92-52-4	1,1-Biphenyl	1600		87.4	170	ug/Kg
91-58-7	2-Chloronaphthalene	1400		83.3	170	ug/Kg
88-74-4	2-Nitroaniline	1500		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:	PB166418BS	SDG No.:	Q1235
Lab Sample ID:	PB166418BS	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
BF141441.D	1	01/31/25 10:20	02/05/25 12:39	PB166418

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	1400		83.2	170	ug/Kg
99-09-2	3-Nitroaniline	750		89.2	170	ug/Kg
83-32-9	Acenaphthene	1700		81.1	170	ug/Kg
51-28-5	2,4-Dinitrophenol	3700	E	240	330	ug/Kg
100-02-7	4-Nitrophenol	3200	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	1500		85.6	170	ug/Kg
86-73-7	Fluorene	1500		85.5	170	ug/Kg
100-01-6	4-Nitroaniline	1500		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	1700		91.4	170	ug/Kg
87-86-5	Pentachlorophenol	3100	E	77.3	330	ug/Kg
85-01-8	Phenanthrene	1500		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	1500		84.3	170	ug/Kg
206-44-0	Fluoranthene	1600		81.7	170	ug/Kg
129-00-0	Pyrene	1400		83.0	170	ug/Kg
85-68-7	Butylbenzylphthalate	1500		96.8	170	ug/Kg
91-94-1	3,3-Dichlorobenzidine	710		98.6	330	ug/Kg
56-55-3	Benzo(a)anthracene	1500		80.7	170	ug/Kg
218-01-9	Chrysene	1400		79.5	170	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	1500		91.0	170	ug/Kg
117-84-0	Di-n-octyl phthalate	1400		110	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	1400		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:	PB166418BS	SDG No.:	Q1235
Lab Sample ID:	PB166418BS	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
BF141441.D	1	01/31/25 10:20	02/05/25 12:39	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1600		82.6	170	ug/Kg
50-32-8	Benzo(a)pyrene	1600		93.0	170	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1500		78.1	170	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1500		81.2	170	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1400		80.1	170	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1600		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	139		18 - 112	92%	SPK: 150
13127-88-3	Phenol-d6	133		15 - 107	89%	SPK: 150
4165-60-0	Nitrobenzene-d5	97.1		18 - 107	97%	SPK: 100
321-60-8	2-Fluorobiphenyl	98.9		20 - 109	99%	SPK: 100
118-79-6	2,4,6-Tribromophenol	160		10 - 116	106%	SPK: 150
1718-51-0	Terphenyl-d14	96.1		10 - 105	96%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	69400	6.793			
1146-65-2	Naphthalene-d8	275000	8.075			
15067-26-2	Acenaphthene-d10	149000	9.828			
1517-22-2	Phenanthrene-d10	260000	11.316			
1719-03-5	Chrysene-d12	178000	13.963			
1520-96-3	Perylene-d12	152000	15.427			

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:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	357MS	SDG No.:	Q1235
Lab Sample ID:	Q1239-10MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.8
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
BF141345.D	1	01/31/25 10:20	01/31/25 21:23	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	1000		130	230	ug/Kg
108-95-2	Phenol	880		58.6	120	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	900		59.2	120	ug/Kg
95-57-8	2-Chlorophenol	900		59.0	120	ug/Kg
95-48-7	2-Methylphenol	860		57.0	120	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	880		64.2	120	ug/Kg
98-86-2	Acetophenone	990		61.4	120	ug/Kg
65794-96-9	3+4-Methylphenols	920		56.4	230	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	900		28.5	56.5	ug/Kg
67-72-1	Hexachloroethane	860		58.7	120	ug/Kg
98-95-3	Nitrobenzene	840		64.2	120	ug/Kg
78-59-1	Isophorone	900		59.8	120	ug/Kg
88-75-5	2-Nitrophenol	900		66.8	120	ug/Kg
105-67-9	2,4-Dimethylphenol	1100		65.9	120	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	880		60.6	120	ug/Kg
120-83-2	2,4-Dichlorophenol	900		53.4	120	ug/Kg
91-20-3	Naphthalene	850		58.4	120	ug/Kg
106-47-8	4-Chloroaniline	210		58.4	120	ug/Kg
87-68-3	Hexachlorobutadiene	840		58.9	120	ug/Kg
105-60-2	Caprolactam	990		61.3	230	ug/Kg
59-50-7	4-Chloro-3-methylphenol	870		54.8	120	ug/Kg
91-57-6	2-Methylnaphthalene	840		58.3	120	ug/Kg
77-47-4	Hexachlorocyclopentadiene	3200	E	110	230	ug/Kg
88-06-2	2,4,6-Trichlorophenol	920		50.5	120	ug/Kg
95-95-4	2,4,5-Trichlorophenol	890		52.3	120	ug/Kg
92-52-4	1,1-Biphenyl	990		61.8	120	ug/Kg
91-58-7	2-Chloronaphthalene	850		58.9	120	ug/Kg
88-74-4	2-Nitroaniline	900		67.1	120	ug/Kg
131-11-3	Dimethylphthalate	910		57.7	120	ug/Kg

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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:	357MS	SDG No.:	Q1235
Lab Sample ID:	Q1239-10MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.8
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
BF141345.D	1	01/31/25 10:20	01/31/25 21:23	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	940		61.1	120	ug/Kg
606-20-2	2,6-Dinitrotoluene	860		58.8	120	ug/Kg
99-09-2	3-Nitroaniline	530		63.0	120	ug/Kg
83-32-9	Acenaphthene	980		57.3	120	ug/Kg
51-28-5	2,4-Dinitrophenol	2200	E	170	230	ug/Kg
100-02-7	4-Nitrophenol	1600		82.0	230	ug/Kg
132-64-9	Dibenzofuran	870		59.6	120	ug/Kg
121-14-2	2,4-Dinitrotoluene	880		60.9	120	ug/Kg
84-66-2	Diethylphthalate	900		56.6	120	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	850		60.5	120	ug/Kg
86-73-7	Fluorene	850		60.4	120	ug/Kg
100-01-6	4-Nitroaniline	800		75.6	120	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1100		82.7	230	ug/Kg
86-30-6	n-Nitrosodiphenylamine	990		57.7	120	ug/Kg
101-55-3	4-Bromophenyl-phenylether	970		55.8	120	ug/Kg
118-74-1	Hexachlorobenzene	940		60.1	120	ug/Kg
1912-24-9	Atrazine	1000		64.6	120	ug/Kg
87-86-5	Pentachlorophenol	1800		54.6	230	ug/Kg
85-01-8	Phenanthrene	940		59.4	120	ug/Kg
120-12-7	Anthracene	950		59.6	120	ug/Kg
86-74-8	Carbazole	850		56.7	120	ug/Kg
84-74-2	Di-n-butylphthalate	960		59.6	120	ug/Kg
206-44-0	Fluoranthene	840		57.7	120	ug/Kg
129-00-0	Pyrene	740		58.7	120	ug/Kg
85-68-7	Butylbenzylphthalate	860		68.4	120	ug/Kg
91-94-1	3,3-Dichlorobenzidine	670		69.7	230	ug/Kg
56-55-3	Benzo(a)anthracene	860		57.0	120	ug/Kg
218-01-9	Chrysene	910		56.2	120	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	890		64.3	120	ug/Kg
117-84-0	Di-n-octyl phthalate	1000		77.7	230	ug/Kg
205-99-2	Benzo(b)fluoranthene	1000		57.3	120	ug/Kg

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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:	357MS	SDG No.:	Q1235
Lab Sample ID:	Q1239-10MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.8
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
BF141345.D	1	01/31/25 10:20	01/31/25 21:23	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	890		58.4	120	ug/Kg
50-32-8	Benzo(a)pyrene	990		65.7	120	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	720		55.2	120	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	730		57.4	120	ug/Kg
191-24-2	Benzo(g,h,i)perylene	640		56.6	120	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	960		61.3	120	ug/Kg
123-91-1	1,4-Dioxane	900		77.7	120	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	930		52.8	120	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	80.0		18 - 112	53%	SPK: 150
13127-88-3	Phenol-d6	78.3		15 - 107	52%	SPK: 150
4165-60-0	Nitrobenzene-d5	54.3		18 - 107	54%	SPK: 100
321-60-8	2-Fluorobiphenyl	53.2		20 - 109	53%	SPK: 100
118-79-6	2,4,6-Tribromophenol	80.6		10 - 116	54%	SPK: 150
1718-51-0	Terphenyl-d14	46.0		10 - 105	46%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	151000	6.798			
1146-65-2	Naphthalene-d8	602000	8.08			
15067-26-2	Acenaphthene-d10	314000	9.839			
1517-22-2	Phenanthrene-d10	473000	11.321			
1719-03-5	Chrysene-d12	293000	13.968			
1520-96-3	Perylene-d12	308000	15.427			

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:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	357MSD	SDG No.:	Q1235
Lab Sample ID:	Q1239-10MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.8
Sample Wt/Vol:	50.03 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
BF141346.D	1	01/31/25 10:20	01/31/25 21:50	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	1100		130	230	ug/Kg
108-95-2	Phenol	920		58.6	120	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	940		59.2	120	ug/Kg
95-57-8	2-Chlorophenol	950		59.0	120	ug/Kg
95-48-7	2-Methylphenol	900		57.0	120	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	920		64.3	120	ug/Kg
98-86-2	Acetophenone	1100		61.4	120	ug/Kg
65794-96-9	3+4-Methylphenols	970		56.4	230	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	940		28.5	56.6	ug/Kg
67-72-1	Hexachloroethane	910		58.7	120	ug/Kg
98-95-3	Nitrobenzene	910		64.2	120	ug/Kg
78-59-1	Isophorone	960		59.8	120	ug/Kg
88-75-5	2-Nitrophenol	970		66.8	120	ug/Kg
105-67-9	2,4-Dimethylphenol	1200		65.9	120	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	950		60.7	120	ug/Kg
120-83-2	2,4-Dichlorophenol	950		53.4	120	ug/Kg
91-20-3	Naphthalene	900		58.4	120	ug/Kg
106-47-8	4-Chloroaniline	240		58.4	120	ug/Kg
87-68-3	Hexachlorobutadiene	890		58.9	120	ug/Kg
105-60-2	Caprolactam	1100		61.4	230	ug/Kg
59-50-7	4-Chloro-3-methylphenol	930		54.8	120	ug/Kg
91-57-6	2-Methylnaphthalene	890		58.3	120	ug/Kg
77-47-4	Hexachlorocyclopentadiene	3400	E	110	230	ug/Kg
88-06-2	2,4,6-Trichlorophenol	970		50.5	120	ug/Kg
95-95-4	2,4,5-Trichlorophenol	950		52.3	120	ug/Kg
92-52-4	1,1-Biphenyl	1000		61.8	120	ug/Kg
91-58-7	2-Chloronaphthalene	900		58.9	120	ug/Kg
88-74-4	2-Nitroaniline	950		67.2	120	ug/Kg
131-11-3	Dimethylphthalate	970		57.8	120	ug/Kg

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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:	357MSD	SDG No.:	Q1235
Lab Sample ID:	Q1239-10MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.8
Sample Wt/Vol:	50.03 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
BF141346.D	1	01/31/25 10:20	01/31/25 21:50	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	990		61.2	120	ug/Kg
606-20-2	2,6-Dinitrotoluene	910		58.8	120	ug/Kg
99-09-2	3-Nitroaniline	550		63.1	120	ug/Kg
83-32-9	Acenaphthene	1000		57.3	120	ug/Kg
51-28-5	2,4-Dinitrophenol	2300	E	170	230	ug/Kg
100-02-7	4-Nitrophenol	1700		82.0	230	ug/Kg
132-64-9	Dibenzofuran	920		59.7	120	ug/Kg
121-14-2	2,4-Dinitrotoluene	930		61.0	120	ug/Kg
84-66-2	Diethylphthalate	950		56.6	120	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	900		60.5	120	ug/Kg
86-73-7	Fluorene	900		60.5	120	ug/Kg
100-01-6	4-Nitroaniline	870		75.7	120	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1200		82.7	230	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1100		57.7	120	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1000		55.8	120	ug/Kg
118-74-1	Hexachlorobenzene	990		60.1	120	ug/Kg
1912-24-9	Atrazine	1100		64.6	120	ug/Kg
87-86-5	Pentachlorophenol	2000	E	54.7	230	ug/Kg
85-01-8	Phenanthrene	1000		59.4	120	ug/Kg
120-12-7	Anthracene	1000		59.7	120	ug/Kg
86-74-8	Carbazole	920		56.8	120	ug/Kg
84-74-2	Di-n-butylphthalate	1000		59.6	120	ug/Kg
206-44-0	Fluoranthene	920		57.8	120	ug/Kg
129-00-0	Pyrene	810		58.7	120	ug/Kg
85-68-7	Butylbenzylphthalate	930		68.4	120	ug/Kg
91-94-1	3,3-Dichlorobenzidine	750		69.7	230	ug/Kg
56-55-3	Benzo(a)anthracene	930		57.1	120	ug/Kg
218-01-9	Chrysene	980		56.2	120	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	970		64.3	120	ug/Kg
117-84-0	Di-n-octyl phthalate	1100		77.8	230	ug/Kg
205-99-2	Benzo(b)fluoranthene	990		57.3	120	ug/Kg

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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:	357MSD	SDG No.:	Q1235
Lab Sample ID:	Q1239-10MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	84.8
Sample Wt/Vol:	50.03 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
BF141346.D	1	01/31/25 10:20	01/31/25 21:50	PB166418

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1100		58.4	120	ug/Kg
50-32-8	Benzo(a)pyrene	1100		65.8	120	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	770		55.2	120	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	780		57.4	120	ug/Kg
191-24-2	Benzo(g,h,i)perylene	690		56.6	120	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1000		61.4	120	ug/Kg
123-91-1	1,4-Dioxane	950		77.8	120	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1000		52.8	120	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	84.0		18 - 112	56%	SPK: 150
13127-88-3	Phenol-d6	82.0		15 - 107	55%	SPK: 150
4165-60-0	Nitrobenzene-d5	57.9		18 - 107	58%	SPK: 100
321-60-8	2-Fluorobiphenyl	55.5		20 - 109	55%	SPK: 100
118-79-6	2,4,6-Tribromophenol	84.1		10 - 116	56%	SPK: 150
1718-51-0	Terphenyl-d14	49.7		10 - 105	50%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	149000	6.798			
1146-65-2	Naphthalene-d8	588000	8.081			
15067-26-2	Acenaphthene-d10	309000	9.839			
1517-22-2	Phenanthrene-d10	457000	11.322			
1719-03-5	Chrysene-d12	288000	13.968			
1520-96-3	Perylene-d12	294000	15.421			

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

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1235 SAS No.: Q1235 SDG No.: Q1235

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
2-Fluorophenol	1.303	1.218		-6.5	
Benzaldehyde	0.960	0.972		1.3	
Phenol-d6	1.657	1.534		-7.4	
Phenol	1.757	1.652		-6.0	20.0
bis(2-Chloroethyl)ether	1.347	1.267		-5.9	
2-Chlorophenol	1.396	1.307		-6.4	
2-Methylphenol	1.135	1.062		-6.4	
2,2-oxybis(1-Chloropropane)	2.342	2.199		-6.1	
Acetophenone	0.475	0.424		-10.7	
3+4-Methylphenols	1.393	1.318		-5.4	
n-Nitroso-di-n-propylamine	0.985	0.946	0.050	-4.0	
Nitrobenzene-d5	0.379	0.348		-8.2	
Hexachloroethane	0.571	0.536		-6.1	
Nitrobenzene	0.393	0.365		-7.1	
Isophorone	0.656	0.622		-5.2	
2-Nitrophenol	0.185	0.175		-5.4	20.0
2,4-Dimethylphenol	0.236	0.224		-5.1	
bis(2-Chloroethoxy)methane	0.418	0.386		-7.7	
2,4-Dichlorophenol	0.289	0.272		-5.9	20.0
Naphthalene	1.057	0.966		-8.6	
4-Chloroaniline	0.358	0.329		-8.1	
Hexachlorobutadiene	0.194	0.179		-7.7	20.0
Caprolactam	0.094	0.091		-3.2	
4-Chloro-3-methylphenol	0.310	0.341		10.0	20.0
2-Methylnaphthalene	0.672	0.618		-8.0	
Hexachlorocyclopentadiene	0.168	0.159	0.050	-5.4	
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	
1,1-Biphenyl	1.560	1.427		-8.5	
2-Chloronaphthalene	1.216	1.102		-9.4	
2-Nitroaniline	0.382	0.366		-4.2	
Dimethylphthalate	1.351	1.290		-4.5	
Acenaphthylene	1.702	1.577		-7.3	
2,6-Dinitrotoluene	0.314	0.300		-4.5	
3-Nitroaniline	0.307	0.292		-4.9	
Acenaphthene	1.216	1.127		-7.3	20.0
2,4-Dinitrophenol	0.146	0.150	0.050	2.7	
4-Nitrophenol	0.225	0.300	0.050	33.3	

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1235 SAS No.: Q1235 SDG No.: Q1235

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
Dibenzofuran	1.627	1.481		-9.0	
2,4-Dinitrotoluene	0.406	0.427		5.2	
Diethylphthalate	1.310	1.249		-4.7	
4-Chlorophenyl-phenylether	0.617	0.562		-8.9	
Fluorene	1.262	1.151		-8.8	
4-Nitroaniline	0.302	0.288		-4.6	
4,6-Dinitro-2-methylphenol	0.118	0.131		11.0	
n-Nitrosodiphenylamine	0.647	0.627		-3.1	20.0
2,4,6-Tribromophenol	0.183	0.177		-3.3	
4-Bromophenyl-phenylether	0.224	0.220		-1.8	
Hexachlorobenzene	0.238	0.232		-2.5	
Atrazine	0.216	0.184		-14.8	
Pentachlorophenol	0.139	0.186		33.8	20.0
Phenanthrene	1.075	1.016		-5.5	
Anthracene	1.053	0.999		-5.1	
Carbazole	0.934	0.892		-4.5	
Di-n-butylphthalate	1.132	1.116		-1.4	
Fluoranthene	1.062	1.011		-4.8	20.0
Pyrene	1.920	1.949		1.5	
Terphenyl-d14	1.297	1.177		-9.3	
Butylbenzylphthalate	0.671	0.656		-2.2	
3,3-Dichlorobenzidine	0.439	0.397		-9.6	
Benzo(a)anthracene	1.380	1.181		-14.4	
Chrysene	1.265	1.179		-6.8	
Bis(2-ethylhexyl)phthalate	0.851	0.815		-4.2	
Di-n-octyl phthalate	1.321	1.285		-2.7	20.0
Benzo(b)fluoranthene	1.258	1.168		-7.2	
Benzo(k)fluoranthene	1.114	1.042		-6.5	
Benzo(a)pyrene	1.063	0.991		-6.8	20.0
Indeno(1,2,3-cd)pyrene	1.291	1.238		-4.1	
Dibenzo(a,h)anthracene	1.039	0.999		-3.8	
Benzo(g,h,i)perylene	1.080	1.050		-2.8	
1,2,4,5-Tetrachlorobenzene	0.569	0.515		-9.5	
1,4-Dioxane	0.573	0.545		-4.9	20.0
2,3,4,6-Tetrachlorophenol	0.319	0.310		-2.8	

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.: Q1235 SAS No.: Q1235 SDG No.: Q1235

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
2-Fluorophenol	1.303	1.295		-0.6	
Benzaldehyde	0.960	0.988		2.9	
Phenol-d6	1.657	1.600		-3.4	
Phenol	1.757	1.663		-5.3	20.0
bis(2-Chloroethyl)ether	1.347	1.263		-6.2	
2-Chlorophenol	1.396	1.383		-0.9	
2-Methylphenol	1.135	1.083		-4.6	
2,2-oxybis(1-Chloropropane)	2.342	2.038		-13.0	
Acetophenone	0.475	0.493		3.8	
3+4-Methylphenols	1.393	1.395		0.1	
n-Nitroso-di-n-propylamine	0.985	0.951	0.050	-3.5	
Nitrobenzene-d5	0.379	0.397		4.5	
Hexachloroethane	0.571	0.582		1.9	
Nitrobenzene	0.393	0.403		2.5	
Isophorone	0.656	0.632		-3.7	
2-Nitrophenol	0.185	0.191		3.2	20.0
2,4-Dimethylphenol	0.236	0.229		-3.0	
bis(2-Chloroethoxy)methane	0.418	0.393		-6.0	
2,4-Dichlorophenol	0.289	0.297		2.8	20.0
Naphthalene	1.057	1.058		0.1	
4-Chloroaniline	0.358	0.335		-6.4	
Hexachlorobutadiene	0.194	0.212		9.3	20.0
Caprolactam	0.094	0.092		-2.1	
4-Chloro-3-methylphenol	0.310	0.323		4.2	20.0
2-Methylnaphthalene	0.672	0.670		-0.3	
Hexachlorocyclopentadiene	0.168	0.166	0.050	-1.2	
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	
1,1-Biphenyl	1.560	1.536		-1.5	
2-Chloronaphthalene	1.216	1.222		0.5	
2-Nitroaniline	0.382	0.396		3.7	
Dimethylphthalate	1.351	1.345		-0.4	
Acenaphthylene	1.702	1.696		-0.4	
2,6-Dinitrotoluene	0.314	0.319		1.6	
3-Nitroaniline	0.307	0.309		0.7	
Acenaphthene	1.216	1.232		1.3	20.0
2,4-Dinitrophenol	0.146	0.160	0.050	9.6	
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.: Q1235 SAS No.: Q1235 SDG No.: Q1235

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
Dibenzofuran	1.627	1.626		-0.1	
2,4-Dinitrotoluene	0.406	0.428		5.4	
Diethylphthalate	1.310	1.326		1.2	
4-Chlorophenyl-phenylether	0.617	0.644		4.4	
Fluorene	1.262	1.312		4.0	
4-Nitroaniline	0.302	0.314		4.0	
4,6-Dinitro-2-methylphenol	0.118	0.135		14.4	
n-Nitrosodiphenylamine	0.647	0.657		1.5	20.0
2,4,6-Tribromophenol	0.183	0.197		7.7	
4-Bromophenyl-phenylether	0.224	0.231		3.1	
Hexachlorobenzene	0.238	0.246		3.4	
Atrazine	0.216	0.200		-7.4	
Pentachlorophenol	0.139	0.151		8.6	20.0
Phenanthrene	1.075	1.115		3.7	
Anthracene	1.053	1.101		4.6	
Carbazole	0.934	1.005		7.6	
Di-n-butylphthalate	1.132	1.165		2.9	
Fluoranthene	1.062	1.154		8.7	20.0
Pyrene	1.920	1.874		-2.4	
Terphenyl-d14	1.297	1.290		-0.5	
Butylbenzylphthalate	0.671	0.667		-0.6	
3,3-Dichlorobenzidine	0.439	0.419		-4.6	
Benzo(a)anthracene	1.380	1.310		-5.1	
Chrysene	1.265	1.242		-1.8	
Bis(2-ethylhexyl)phthalate	0.851	0.821		-3.5	
Di-n-octyl phthalate	1.321	1.243		-5.9	20.0
Benzo(b)fluoranthene	1.258	1.327		5.5	
Benzo(k)fluoranthene	1.114	1.082		-2.9	
Benzo(a)pyrene	1.063	1.102		3.7	20.0
Indeno(1,2,3-cd)pyrene	1.291	1.411		9.3	
Dibenzo(a,h)anthracene	1.039	1.133		9.0	
Benzo(g,h,i)perylene	1.080	1.191		10.3	
1,2,4,5-Tetrachlorobenzene	0.569	0.579		1.8	
1,4-Dioxane	0.573	0.500		-12.7	20.0
2,3,4,6-Tetrachlorophenol	0.319	0.335		5.0	

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.: Q1235 SAS No.: Q1235 SDG No.: Q1235

Instrument ID: BNA_F Calibration Date/Time: 02/07/2025 14:33

Lab File ID: BF141506.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	1.294		1.4	
Benzaldehyde	0.857	0.844		-1.5	
Phenol-d6	1.612	1.599		-0.8	
Phenol	1.678	1.676		-0.1	20.0
bis(2-Chloroethyl)ether	1.261	1.237		-1.9	
2-Chlorophenol	1.378	1.383		0.4	
2-Methylphenol	1.079	1.064		-1.4	
2,2-oxybis(1-Chloropropane)	2.158	2.121		-1.7	
Acetophenone	0.498	0.489		-1.8	
3+4-Methylphenols	1.371	1.329		-3.1	
n-Nitroso-di-n-propylamine	0.964	0.978	0.050	1.5	
Nitrobenzene-d5	0.383	0.384		0.3	
Hexachloroethane	0.550	0.545		-0.9	
Nitrobenzene	0.374	0.372		-0.5	
Isophorone	0.611	0.607		-0.7	
2-Nitrophenol	0.186	0.191		2.7	20.0
2,4-Dimethylphenol	0.217	0.219		0.9	
bis(2-Chloroethoxy)methane	0.392	0.396		1.0	
2,4-Dichlorophenol	0.294	0.296		0.7	20.0
Naphthalene	1.041	1.040		-0.1	
4-Chloroaniline	0.363	0.327		-9.9	
Hexachlorobutadiene	0.192	0.191		-0.5	20.0
Caprolactam	0.089	0.093		4.5	
4-Chloro-3-methylphenol	0.325	0.326		0.3	20.0
2-Methylnaphthalene	0.677	0.668		-1.3	
Hexachlorocyclopentadiene	0.192	0.193	0.050	0.5	
2,4,6-Trichlorophenol	0.374	0.368		-1.6	20.0
2-Fluorobiphenyl	1.298	1.268		-2.3	
2,4,5-Trichlorophenol	0.405	0.399		-1.5	
1,1-Biphenyl	1.551	1.528		-1.5	
2-Chloronaphthalene	1.147	1.132		-1.3	
2-Nitroaniline	0.385	0.385		0.0	
Dimethylphthalate	1.358	1.338		-1.5	
Acenaphthylene	1.705	1.697		-0.5	
2,6-Dinitrotoluene	0.297	0.295		-0.7	
3-Nitroaniline	0.319	0.315		-1.3	
Acenaphthene	1.147	1.116		-2.7	20.0
2,4-Dinitrophenol	0.176	0.169	0.050	-4.0	
4-Nitrophenol	0.237	0.240	0.050	1.3	

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1235 SAS No.: Q1235 SDG No.: Q1235

Instrument ID: BNA_F Calibration Date/Time: 02/07/2025 14:33

Lab File ID: BF141506.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	1.655		-1.7	
2,4-Dinitrotoluene	0.395	0.400		1.3	
Diethylphthalate	1.336	1.313		-1.7	
4-Chlorophenyl-phenylether	0.626	0.616		-1.6	
Fluorene	1.301	1.278		-1.8	
4-Nitroaniline	0.324	0.326		0.6	
4,6-Dinitro-2-methylphenol	0.139	0.139		0.0	
n-Nitrosodiphenylamine	0.640	0.631		-1.4	20.0
2,4,6-Tribromophenol	0.201	0.200		-0.5	
4-Bromophenyl-phenylether	0.224	0.217		-3.1	
Hexachlorobenzene	0.230	0.229		-0.4	
Atrazine	0.192	0.182		-5.2	
Pentachlorophenol	0.147	0.147		0.0	20.0
Phenanthrene	1.101	1.082		-1.7	
Anthracene	1.107	1.095		-1.1	
Carbazole	0.996	1.004		0.8	
Di-n-butylphthalate	1.150	1.152		0.2	
Fluoranthene	1.167	1.168		0.1	20.0
Pyrene	1.703	1.702		-0.1	
Terphenyl-d14	1.185	1.171		-1.2	
Butylbenzylphthalate	0.590	0.640		8.5	
3,3-Dichlorobenzidine	0.381	0.385		1.0	
Benzo(a)anthracene	1.329	1.316		-1.0	
Chrysene	1.228	1.167		-5.0	
Bis(2-ethylhexyl)phthalate	0.665	0.759		14.1	
Di-n-octyl phthalate	0.949	1.017		7.2	20.0
Benzo(b)fluoranthene	1.343	1.426		6.2	
Benzo(k)fluoranthene	1.147	1.070		-6.7	
Benzo(a)pyrene	1.087	1.090		0.3	20.0
Indeno(1,2,3-cd)pyrene	1.236	1.245		0.7	
Dibenzo(a,h)anthracene	1.001	1.011		1.0	
Benzo(g,h,i)perylene	1.048	1.028		-1.9	
1,2,4,5-Tetrachlorobenzene	0.579	0.571		-1.4	
1,4-Dioxane	0.513	0.512		-0.2	20.0
2,3,4,6-Tetrachlorophenol	0.349	0.346		-0.9	

All other compounds must meet a minimum RRF of 0.010.