

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: _____

Lab Code: CHEM Case No.: BN071024 SAS No.: BN071024 SDG No.: BN071024

Instrument ID: BNA_N Calibration Date/Time: 7/10/2024 1:09:24

Lab File ID: BN032609.D Init. Calib. Date(s): _____

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): _____

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.632	0.594		-6.013	20.0
Fluoranthene-d10	1.042	0.891		-14.491	20.0
n-Nitrosodimethylamine	0.382	0.366		-4.188	20.0
2-Fluorophenol	1.011	0.899		-11.078	20.0
Phenol-d6	1.292	1.072		-17.028	20.0
bis(2-Chloroethyl) ether	0.887	0.907		2.255	20.0
Nitrobenzene-d5	0.299	0.253		-15.385	20.0
Naphthalene	1.093	1.055		-3.477	20.0
Hexachlorobutadiene	0.218	0.207		-5.046	20.0
2-Methylnaphthalene	0.731	0.688		-5.882	20.0
2-Fluorobiphenyl	1.474	1.364		-7.463	20.0
Acenaphthylene	1.723	1.435		-16.715	20.0
Acenaphthene	1.197	1.110		-7.268	20.0
Fluorene	1.569	1.417		-9.688	20.0
4,6-Dinitro-2-methylphenol	0.053	0.026		-50.943	20.0
2,4,6-Tribromophenol	0.181	0.129		-28.729	20.0
4-Bromophenyl-phenylether	0.238	0.230		-3.361	20.0
Hexachlorobenzene	0.261	0.257		-1.533	20.0
Atrazine	0.185	0.144		-22.162	20.0
Pentachlorophenol	0.088	0.066		-25.0	20.0
Phenanthrene	1.087	1.006		-7.452	20.0
Anthracene	0.874	0.737		-15.675	20.0
Fluoranthene	1.313	1.116		-15.004	20.0
Pyrene	1.627	1.562		-3.995	20.0
Terphenyl-d14	0.977	0.907		-7.165	20.0
Benzo(a)anthracene	1.323	1.028		-22.298	20.0
Chrysene	1.571	1.670		6.302	20.0
Bis(2-ethylhexyl)phthalate	0.899	0.665		-26.029	20.0
Benzo(b)fluoranthene	1.333	1.211		-9.152	20.0
Benzo(k)fluoranthene	1.536	1.548		0.781	20.0
Benzo(a)pyrene	1.262	1.161		-8.003	20.0
Indeno(1,2,3-cd)pyrene	1.528	1.552		1.571	20.0
Dibenzo(a,h)anthracene	1.213	1.231		1.484	20.0
Benzo(g,h,i)perylene	1.321	1.424		7.797	20.0
1,4-Dioxane	0.527	0.515		-2.277	20.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: _____

Lab Code: CHEM Case No.: BN071024 SAS No.: BN071024 SDG No.: BN071024

Instrument ID: BNA_N Calibration Date/Time: 7/10/2024 1:12:43

Lab File ID: BN032614.D Init. Calib. Date(s): _____

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): _____

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.632	0.576		-8.861	50.0
Fluoranthene-d10	1.042	0.887		-14.875	50.0
n-Nitrosodimethylamine	0.382	0.375		-1.832	50.0
2-Fluorophenol	1.011	0.953		-5.737	50.0
Phenol-d6	1.292	1.084		-16.099	50.0
bis(2-Chloroethyl) ether	0.887	1.104		24.464	50.0
Nitrobenzene-d5	0.299	0.246		-17.726	50.0
Naphthalene	1.093	1.038		-5.032	50.0
Hexachlorobutadiene	0.218	0.212		-2.752	50.0
2-Methylnaphthalene	0.731	0.667		-8.755	50.0
2-Fluorobiphenyl	1.474	1.373		-6.852	50.0
Acenaphthylene	1.723	1.450		-15.844	50.0
Acenaphthene	1.197	1.113		-7.018	50.0
Fluorene	1.569	1.411		-10.07	50.0
4,6-Dinitro-2-methylphenol	0.053	0.026		-50.943	50.0
2,4,6-Tribromophenol	0.181	0.127		-29.834	50.0
4-Bromophenyl-phenylether	0.238	0.235		-1.261	50.0
Hexachlorobenzene	0.261	0.259		-0.766	50.0
Atrazine	0.185	0.130		-29.73	50.0
Pentachlorophenol	0.088	0.068		-22.727	50.0
Phenanthrene	1.087	1.007		-7.36	50.0
Anthracene	0.874	0.666		-23.799	50.0
Fluoranthene	1.313	1.103		-15.994	50.0
Pyrene	1.627	1.573		-3.319	50.0
Terphenyl-d14	0.977	0.897		-8.188	50.0
Benzo(a)anthracene	1.323	1.027		-22.373	50.0
Chrysene	1.571	1.634		4.01	50.0
Bis(2-ethylhexyl)phthalate	0.899	0.671		-25.362	50.0
Benzo(b)fluoranthene	1.333	1.200		-9.977	50.0
Benzo(k)fluoranthene	1.536	1.512		-1.563	50.0
Benzo(a)pyrene	1.262	1.154		-8.558	50.0
Indeno(1,2,3-cd)pyrene	1.528	1.548		1.309	50.0
Dibenzo(a,h)anthracene	1.213	1.225		0.989	50.0
Benzo(g,h,i)perylene	1.321	1.427		8.024	50.0
1,4-Dioxane	0.527	0.533		1.139	50.0

All other compounds must meet a minimum RRF of 0.010.

Report of Analysis

Client:		Date Collected:	7/9/2024 12:00:00 AM
Project:		Date Received:	7/9/2024 12:00:00 AM
Client Sample ID:	PB161970BL	SDG No.:	BN071024
Lab Sample ID:	PB161970BL	Matrix:	Water
Analytical Method:	8270-Modified	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	
Extraction Type :	Decanted :	Level :	LOW
Injection Volume :	GPC Factor :	GPC Cleanup :	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN032610.D	1	7/9/2024 12:00:00 AM	7/10/2024 12:00:00 AM	PB161970

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	0.03	U	0.03	0.2	0.2	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.03	U	0.03	0.1	0.1	ug/L
91-20-3	Naphthalene	0.02	U	0.02	0.1	0.1	ug/L
87-68-3	Hexachlorobutadiene	0.03	U	0.03	0.1	0.1	ug/L
91-57-6	2-Methylnaphthalene	0.03	U	0.03	0.1	0.1	ug/L
208-96-8	Acenaphthylene	0.02	U	0.02	0.1	0.1	ug/L
83-32-9	Acenaphthene	0.02	U	0.02	0.1	0.1	ug/L
Total PAH	Total PAH	0.45	U	0.45	0.1	1.6	ug/L
86-73-7	Fluorene	0.02	U	0.02	0.1	0.1	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	0.14	U	0.14	0.2	0.2	ug/L
101-55-3	4-Bromophenyl-phenylether	0.03	U	0.03	0.1	0.1	ug/L
118-74-1	Hexachlorobenzene	0.03	U	0.03	0.1	0.1	ug/L
1912-24-9	Atrazine	0.02	U	0.02	0.1	0.1	ug/L
87-86-5	Pentachlorophenol	0.09	U	0.09	0.2	0.2	ug/L
85-01-8	Phenanthrene	0.02	U	0.02	0.1	0.1	ug/L
120-12-7	Anthracene	0.02	U	0.02	0.1	0.1	ug/L
206-44-0	Fluoranthene	0.02	U	0.02	0.1	0.1	ug/L
129-00-0	Pyrene	0.02	U	0.02	0.1	0.1	ug/L
56-55-3	Benzo(a)anthracene	0.02	U	0.02	0.1	0.1	ug/L
218-01-9	Chrysene	0.03	U	0.03	0.1	0.1	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.14	U	0.14	0.2	0.2	ug/L
205-99-2	Benzo(b)fluoranthene	0.03	U	0.03	0.1	0.1	ug/L
207-08-9	Benzo(k)fluoranthene	0.03	U	0.03	0.1	0.1	ug/L
50-32-8	Benzo(a)pyrene	0.06	U	0.06	0.1	0.1	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.04	U	0.04	0.1	0.1	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.04	U	0.04	0.1	0.1	ug/L
191-24-2	Benzo(g,h,i)perylene	0.04	U	0.04	0.1	0.1	ug/L
123-91-1	1,4-Dioxane	0.07	U	0.07	0.2	0.2	ug/L

Report of Analysis

Client:		Date Collected:	7/9/2024 12:00:00 AM
Project:		Date Received:	7/9/2024 12:00:00 AM
Client Sample ID:	PB161970BL	SDG No.:	BN071024
Lab Sample ID:	PB161970BL	Matrix:	Water
Analytical Method:	8270-Modified	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	
Extraction Type :	Decanted :	Level :	LOW
Injection Volume :	GPC Factor :	GPC Cleanup :	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN032610.D	1	7/9/2024 12:00:00 AM	7/10/2024 12:00:00 AM	PB161970

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.353		30-150		88	SPK: -0.4
93951-69-0	Fluoranthene-d10	0.349		30-150		87	SPK: -0.4
367-12-4	2-Fluorophenol	0.365		10-92		91	SPK: -0.4
13127-88-3	Phenol-d6	0.395		10-100		99	SPK: -0.4
4165-60-0	Nitrobenzene-d5	0.387		11-175		97	SPK: -0.4
321-60-8	2-Fluorobiphenyl	0.386		10-175		97	SPK: -0.4
118-79-6	2,4,6-Tribromophenol	0.208		24-148		52	SPK: -0.4
1718-51-0	Terphenyl-d14	0.378		54-171		94	SPK: -0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	4471	7.61				
1146-65-2	Naphthalene-d8	14502	10.453				
15067-26-2	Acenaphthene-d10	8386	14.263				
1517-22-2	Phenanthrene-d10	15791	17.041				
1719-03-5	Chrysene-d12	11470	21.238				
1520-96-3	Perylene-d12	11598	23.449				

Report of Analysis

Client:		Date Collected:	6/27/2024 12:00:00 AM
Project:		Date Received:	6/27/2024 12:00:00 AM
Client Sample ID:	BP-VPB-189-GW-638-640DL	SDG No.:	BN071024
Lab Sample ID:	P3128-06DL	Matrix:	Water
Analytical Method:	8270-Modified	% Moisture:	100
Sample Wt/Vol:	880 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	
Extraction Type :	Decanted :	Level :	LOW
Injection Volume :	GPC Factor :	GPC Cleanup :	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN032611.D	2	6/28/2024 12:00:00 AM	7/10/2024 12:00:00 AM	PB161831

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	0.07	U	0.07	0.45	0.45	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.06	U	0.06	0.23	0.23	ug/L
91-20-3	Naphthalene	0.05	U	0.05	0.23	0.23	ug/L
87-68-3	Hexachlorobutadiene	0.06	U	0.06	0.23	0.23	ug/L
91-57-6	2-Methylnaphthalene	0.07	U	0.07	0.23	0.23	ug/L
208-96-8	Acenaphthylene	0.05	U	0.05	0.23	0.23	ug/L
83-32-9	Acenaphthene	0.05	U	0.05	0.23	0.23	ug/L
Total PAH	Total PAH	1.04	U	1.04	0.23	3.68	ug/L
86-73-7	Fluorene	0.04	U	0.04	0.23	0.23	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	0.32	U	0.32	0.45	0.45	ug/L
101-55-3	4-Bromophenyl-phenylether	0.06	U	0.06	0.23	0.23	ug/L
118-74-1	Hexachlorobenzene	0.07	U	0.07	0.23	0.23	ug/L
1912-24-9	Atrazine	0.05	U	0.05	0.23	0.23	ug/L
87-86-5	Pentachlorophenol	0.2	U	0.2	0.45	0.45	ug/L
85-01-8	Phenanthrene	0.05	U	0.05	0.23	0.23	ug/L
120-12-7	Anthracene	0.05	U	0.05	0.23	0.23	ug/L
206-44-0	Fluoranthene	0.05	U	0.05	0.23	0.23	ug/L
129-00-0	Pyrene	0.05	U	0.05	0.23	0.23	ug/L
56-55-3	Benzo(a)anthracene	0.05	U	0.05	0.23	0.23	ug/L
218-01-9	Chrysene	0.06	U	0.06	0.23	0.23	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.32	U	0.32	0.45	0.45	ug/L
205-99-2	Benzo(b)fluoranthene	0.07	U	0.07	0.23	0.23	ug/L
207-08-9	Benzo(k)fluoranthene	0.08	U	0.08	0.23	0.23	ug/L
50-32-8	Benzo(a)pyrene	0.13	U	0.13	0.23	0.23	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.09	U	0.09	0.23	0.23	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.09	U	0.09	0.23	0.23	ug/L
191-24-2	Benzo(g,h,i)perylene	0.08	U	0.08	0.23	0.23	ug/L
123-91-1	1,4-Dioxane	6.5	D	0.15	0.45	0.45	ug/L

Report of Analysis

Client:		Date Collected:	6/27/2024 12:00:00 AM
Project:		Date Received:	6/27/2024 12:00:00 AM
Client Sample ID:	BP-VPB-189-GW-638-640DL	SDG No.:	BN071024
Lab Sample ID:	P3128-06DL	Matrix:	Water
Analytical Method:	8270-Modified	% Moisture:	100
Sample Wt/Vol:	880 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	
Extraction Type :	Decanted :	Level :	LOW
Injection Volume :	GPC Factor :	GPC Cleanup :	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN032611.D	2	6/28/2024 12:00:00 AM	7/10/2024 12:00:00 AM	PB161831

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.326		30-150		81	SPK: -0.4
93951-69-0	Fluoranthene-d10	0.382		30-150		95	SPK: -0.4
367-12-4	2-Fluorophenol	0.168		10-92		42	SPK: -0.4
13127-88-3	Phenol-d6	0.102		10-100		25	SPK: -0.4
4165-60-0	Nitrobenzene-d5	0.124		11-175		31	SPK: -0.4
321-60-8	2-Fluorobiphenyl	0.282		10-175		70	SPK: -0.4
118-79-6	2,4,6-Tribromophenol	0.28		24-148		70	SPK: -0.4
1718-51-0	Terphenyl-d14	0.396		54-171		99	SPK: -0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	4258	7.588				
1146-65-2	Naphthalene-d8	15181	10.357				
15067-26-2	Acenaphthene-d10	10602	14.231				
1517-22-2	Phenanthrene-d10	23552	17.003				
1719-03-5	Chrysene-d12	19542	21.211				
1520-96-3	Perylene-d12	17690	23.425				

Report of Analysis

Client:		Date Collected:	6/25/2024 12:00:00 AM
Project:		Date Received:	6/25/2024 12:00:00 AM
Client Sample ID:	BP-VPB-196-GW-745-747RE	SDG No.:	BN071024
Lab Sample ID:	P3127-03RE	Matrix:	Water
Analytical Method:	8270-Modified	% Moisture:	100
Sample Wt/Vol:	740 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	
Extraction Type :	Decanted :	Level :	LOW
Injection Volume :	GPC Factor :	GPC Cleanup :	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN032612.D	1	6/28/2024 12:00:00 AM	7/10/2024 12:00:00 AM	PB161831

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	0.04	U	0.04	0.27	0.27	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.04	U	0.04	0.14	0.14	ug/L
91-20-3	Naphthalene	0.03	U	0.03	0.14	0.14	ug/L
87-68-3	Hexachlorobutadiene	0.04	U	0.04	0.14	0.14	ug/L
91-57-6	2-Methylnaphthalene	0.04	U	0.04	0.14	0.14	ug/L
208-96-8	Acenaphthylene	0.03	U	0.03	0.14	0.14	ug/L
83-32-9	Acenaphthene	0.03	U	0.03	0.14	0.14	ug/L
Total PAH	Total PAH	0.62	U	0.62	0.14	2.24	ug/L
86-73-7	Fluorene	0.02	U	0.02	0.14	0.14	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	0.19	U	0.19	0.27	0.27	ug/L
101-55-3	4-Bromophenyl-phenylether	0.04	U	0.04	0.14	0.14	ug/L
118-74-1	Hexachlorobenzene	0.04	U	0.04	0.14	0.14	ug/L
1912-24-9	Atrazine	0.03	U	0.03	0.14	0.14	ug/L
87-86-5	Pentachlorophenol	0.12	U	0.12	0.27	0.27	ug/L
85-01-8	Phenanthrene	0.03	U	0.03	0.14	0.14	ug/L
120-12-7	Anthracene	0.03	U	0.03	0.14	0.14	ug/L
206-44-0	Fluoranthene	0.03	U	0.03	0.14	0.14	ug/L
129-00-0	Pyrene	0.03	U	0.03	0.14	0.14	ug/L
56-55-3	Benzo(a)anthracene	0.03	U	0.03	0.14	0.14	ug/L
218-01-9	Chrysene	0.04	U	0.04	0.14	0.14	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	3.8		0.19	0.27	0.27	ug/L
205-99-2	Benzo(b)fluoranthene	0.04	U	0.04	0.14	0.14	ug/L
207-08-9	Benzo(k)fluoranthene	0.05	U	0.05	0.14	0.14	ug/L
50-32-8	Benzo(a)pyrene	0.08	U	0.08	0.14	0.14	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.05	U	0.05	0.14	0.14	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.05	U	0.05	0.14	0.14	ug/L
191-24-2	Benzo(g,h,i)perylene	0.05	U	0.05	0.14	0.14	ug/L
123-91-1	1,4-Dioxane	0.74		0.09	0.27	0.27	ug/L

Report of Analysis

Client:		Date Collected:	6/25/2024 12:00:00 AM
Project:		Date Received:	6/25/2024 12:00:00 AM
Client Sample ID:	BP-VPB-196-GW-745-747RE	SDG No.:	BN071024
Lab Sample ID:	P3127-03RE	Matrix:	Water
Analytical Method:	8270-Modified	% Moisture:	100
Sample Wt/Vol:	740 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	
Extraction Type :	Decanted :	Level :	LOW
Injection Volume :	GPC Factor :	GPC Cleanup :	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN032612.D	1	6/28/2024 12:00:00 AM	7/10/2024 12:00:00 AM	PB161831

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.263		30-150		66	SPK: -0.4
93951-69-0	Fluoranthene-d10	0.22		30-150		55	SPK: -0.4
367-12-4	2-Fluorophenol	0.225		10-92		56	SPK: -0.4
13127-88-3	Phenol-d6	0.114		10-100		28	SPK: -0.4
4165-60-0	Nitrobenzene-d5	0.272		11-175		68	SPK: -0.4
321-60-8	2-Fluorobiphenyl	0.724	*	10-175		181	SPK: -0.4
118-79-6	2,4,6-Tribromophenol	0.665	*	24-148		166	SPK: -0.4
1718-51-0	Terphenyl-d14	39.307	*	54-171		9827	SPK: -0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	7028		7.581			
1146-65-2	Naphthalene-d8	21512		10.357			
15067-26-2	Acenaphthene-d10	6304		14.231			
1517-22-2	Phenanthrene-d10	26772		16.991			
1719-03-5	Chrysene-d12	224		21.211			
1520-96-3	Perylene-d12	15		23.431			

Report of Analysis

Client:		Date Collected:	6/26/2024 12:00:00 AM
Project:		Date Received:	6/26/2024 12:00:00 AM
Client Sample ID:	VPB189-HYD-20240626RE	SDG No.:	BN071024
Lab Sample ID:	P3128-03RE	Matrix:	Water
Analytical Method:	8270-Modified	% Moisture:	100
Sample Wt/Vol:	880 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	
Extraction Type :	Decanted :	Level :	LOW
Injection Volume :	GPC Factor :	GPC Cleanup :	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN032613.D	1	6/28/2024 12:00:00 AM	7/10/2024 12:00:00 AM	PB161831

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	0.03	U	0.03	0.23	0.23	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.03	U	0.03	0.11	0.11	ug/L
91-20-3	Naphthalene	0.03	U	0.03	0.11	0.11	ug/L
87-68-3	Hexachlorobutadiene	0.03	U	0.03	0.11	0.11	ug/L
91-57-6	2-Methylnaphthalene	0.03	U	0.03	0.11	0.11	ug/L
208-96-8	Acenaphthylene	0.02	U	0.02	0.11	0.11	ug/L
83-32-9	Acenaphthene	0.02	U	0.02	0.11	0.11	ug/L
Total PAH	Total PAH	0.52	U	0.52	0.11	1.76	ug/L
86-73-7	Fluorene	0.02	U	0.02	0.11	0.11	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	0.16	U	0.16	0.23	0.23	ug/L
101-55-3	4-Bromophenyl-phenylether	0.03	U	0.03	0.11	0.11	ug/L
118-74-1	Hexachlorobenzene	0.03	U	0.03	0.11	0.11	ug/L
1912-24-9	Atrazine	0.03	U	0.03	0.11	0.11	ug/L
87-86-5	Pentachlorophenol	0.1	U	0.1	0.23	0.23	ug/L
85-01-8	Phenanthrene	0.02	U	0.02	0.11	0.11	ug/L
120-12-7	Anthracene	0.03	U	0.03	0.11	0.11	ug/L
206-44-0	Fluoranthene	0.03	U	0.03	0.11	0.11	ug/L
129-00-0	Pyrene	0.03	U	0.03	0.11	0.11	ug/L
56-55-3	Benzo(a)anthracene	0.03	U	0.03	0.11	0.11	ug/L
218-01-9	Chrysene	0.03	U	0.03	0.11	0.11	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.16	U	0.16	0.23	0.23	ug/L
205-99-2	Benzo(b)fluoranthene	0.04	U	0.04	0.11	0.11	ug/L
207-08-9	Benzo(k)fluoranthene	0.04	U	0.04	0.11	0.11	ug/L
50-32-8	Benzo(a)pyrene	0.06	U	0.06	0.11	0.11	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.04	U	0.04	0.11	0.11	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.04	U	0.04	0.11	0.11	ug/L
191-24-2	Benzo(g,h,i)perylene	0.04	U	0.04	0.11	0.11	ug/L
123-91-1	1,4-Dioxane	0.96		0.08	0.23	0.23	ug/L

Report of Analysis

Client:		Date Collected:	6/26/2024 12:00:00 AM
Project:		Date Received:	6/26/2024 12:00:00 AM
Client Sample ID:	VPB189-HYD-20240626RE	SDG No.:	BN071024
Lab Sample ID:	P3128-03RE	Matrix:	Water
Analytical Method:	8270-Modified	% Moisture:	100
Sample Wt/Vol:	880 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	
Extraction Type :	Decanted :	Level :	LOW
Injection Volume :	GPC Factor :	GPC Cleanup :	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN032613.D	1	6/28/2024 12:00:00 AM	7/10/2024 12:00:00 AM	PB161831

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.012	*	30-150		3	SPK: -0.4
93951-69-0	Fluoranthene-d10	0.162		30-150		41	SPK: -0.4
367-12-4	2-Fluorophenol	0.014	*	10-92		4	SPK: -0.4
13127-88-3	Phenol-d6	0	U	10-100		0	SPK: -0.4
4165-60-0	Nitrobenzene-d5	0.319		11-175		80	SPK: -0.4
321-60-8	2-Fluorobiphenyl	0.271		10-175		68	SPK: -0.4
118-79-6	2,4,6-Tribromophenol	0.168		24-148		42	SPK: -0.4
1718-51-0	Terphenyl-d14	0.435		54-171		109	SPK: -0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3925		7.588			
1146-65-2	Naphthalene-d8	11829		10.389			
15067-26-2	Acenaphthene-d10	9306		14.242			
1517-22-2	Phenanthrene-d10	20782		17.004			
1719-03-5	Chrysene-d12	15062		21.22			
1520-96-3	Perylene-d12	10394		23.434			



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Hit Summary Sheet SW-846

SDG No.: BN071024

Client:

Sample ID	Client ID	Parameter	Concentration	C	MDL	RDL	Units
Client ID : BP-VPB-196-GW-745-747RE							
P3127-03RE	BP-VPB-196-GW-745-74 Water	1,4-Dioxane	0.740		0.09	0.27	ug/L
P3127-03RE	BP-VPB-196-GW-745-74 Water	Bis(2-ethylhexyl)phthalate	3.800		0.19	0.27	ug/L
		Total Svoc :			4.54		
		Total Concentration:			4.54		
Client ID : VPB189-HYD-20240626RE							
P3128-03RE	VPB189-HYD-20240626 Water	1,4-Dioxane	0.960		0.08	0.23	ug/L
		Total Svoc :			0.96		
		Total Concentration:			0.96		
Client ID : BP-VPB-189-GW-638-640DL							
P3128-06DL	BP-VPB-189-GW-638-64 Water	1,4-Dioxane	6.500	D	0.15	0.45	ug/L
		Total Svoc :			6.50		
		Total Concentration:			6.50		

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: _____

Lab Code: CHEM Case No.: BN070924 SAS No.: BN070924 SDG No.: BN070924

Instrument ID: _____ Calibration Date(s): 7/8/2024 1: _____

Calibration Time(s): 19:15 _____

LAB FILE ID:	RRF0.1 = BN032557.D			RRF0.2 = BN032558.D			RRF0.4 = BN032559.D	
	RRF0.8 = BN032560.D			RRF1.6 = BN032561.D			RRF3.2 = BN032562.D	
COMPOUND	RRF0.1	RRF0.2	RRF0.4	RRF0.8	RRF1.6	RRF3.2	RRF	% RSD
2-Methylnaphthalene-d10	0.605	0.635	0.617	0.628	0.673	0.636	0.632	3.3
Fluoranthene-d10	0.995	1.020	0.984	0.994	1.089	1.113	1.042	5.4
n-Nitrosodimethylamine	0.394	0.369	0.362	0.373	0.391	0.398	0.382	3.7
2-Fluorophenol	0.994	1.022	0.940	0.983	1.031	1.065	1.011	4.1
Phenol-d6	1.136	1.282	1.202	1.289	1.406	1.372	1.292	7.5
bis(2-Chloroethyl)ether	0.486	0.630	0.814	1.004	1.064	1.105	0.887	28.1
Nitrobenzene-d5	0.325	0.284	0.253	0.272	0.316	0.321	0.299	9.5
Naphthalene	1.066	1.090	1.052	1.065	1.149	1.124	1.093	3.2
Hexachlorobutadiene	0.240	0.231	0.214	0.207	0.215	0.211	0.218	5.9
2-Methylnaphthalene	0.698	0.727	0.709	0.721	0.788	0.742	0.731	4.0
2-Fluorobiphenyl	1.246	1.374	1.333	1.480	1.632	1.636	1.474	10.8
Acenaphthylene	1.502	1.607	1.507	1.673	1.914	1.926	1.723	11.4
Acenaphthene	1.125	1.181	1.114	1.188	1.293	1.252	1.197	5.4
Fluorene	1.445	1.559	1.473	1.565	1.704	1.631	1.569	5.7
4,6-Dinitro-2-methylphenol		0.021	0.026	0.044	0.063	0.075	0.053	50.6
2,4,6-Tribromophenol	0.150	0.162	0.157	0.176	0.205	0.206	0.181	14.5
4-Bromophenyl-phenylether	0.232	0.236	0.227	0.226	0.249	0.244	0.238	4.2
Hexachlorobenzene	0.259	0.260	0.248	0.254	0.274	0.267	0.261	3.3
Atrazine	0.177	0.183	0.171	0.173	0.199	0.202	0.185	6.7
Pentachlorophenol		0.067	0.071	0.081	0.105	0.114	0.088	24.1
Phenanthrene	1.030	1.037	1.011	1.073	1.168	1.154	1.087	5.9
Anthracene	0.647	0.711	0.800	0.861	1.020	1.028	0.874	18.6
Fluoranthene	1.277	1.310	1.225	1.232	1.376	1.397	1.313	5.4
Pyrene	1.617	1.646	1.556	1.639	1.791	1.572	1.627	4.9
Terphenyl-d14	0.989	0.981	0.906	0.973	1.068	0.961	0.977	5.0
Benzo (a) anthracene	1.117	1.265	1.249	1.286	1.424	1.449	1.323	9.8
Chrysene	1.733	1.663	1.486	1.545	1.605	1.508	1.571	6.4
Bis(2-ethylhexyl)phthalate	1.005	0.920	0.776	0.821	0.852	0.960	0.899	9.4
Benzo (b) fluoranthene	1.228	1.277	1.215	1.277	1.446	1.469	1.333	8.1
Benzo (k) fluoranthene	1.482	1.639	1.509	1.521	1.593	1.506	1.536	3.8
Benzo (a) pyrene	1.275	1.259	1.188	1.217	1.316	1.301	1.262	3.6
Indeno (1,2,3-cd) pyrene	1.418	1.427	1.352	1.501	1.611	1.719	1.528	9.2
Dibenzo (a,h) anthracene	1.127	1.122	1.058	1.190	1.281	1.373	1.213	9.9
Benzo (g,h,i) perylene	1.259	1.254	1.177	1.296	1.372	1.465	1.321	7.8
1,4-Dioxane	0.678	0.602	0.512	0.490	0.494	0.470	0.527	15.8

All other compounds must meet a minimum RRF of 0.010.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: BN071024 SAS No.: BN071024 SDG NO.: BN071024

EPA Sample No.: SSTDICCC0.4 Date Analyzed: Jul 10 2024 12:00AM

Lab File ID: BN032559.D Time Analyzed: 10:00

Instrument ID: BNA_N GC Column: ZB-GR ID: 0.25 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	4159	7.588	13301	10.38	9550	14.23
UPPER LIMIT	8318	8.088	26602	10.878	19100	14.731
LOWER LIMIT	2079.5	7.088	6650.5	9.878	4775	13.731
EPA SAMPLE NO.						
01 PB161970BL	4471	7.61	14502	10.45	8386	14.26
02 BP-VPB-189-GW-638-640DL	4258	7.59	15181	10.36	10602	14.23
03 BP-VPB-196-GW-745-747RE	7028	7.58	21512	10.36	6304	14.23
04 VPB189-HYD-20240626RE	3925	7.59	11829	10.39	9306	14.24

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.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: BN071024 SAS No.: BN071024 SDG NO.: BN071024

EPA Sample No.: SSTDCCC0.4 Date Analyzed: Jul 10 2024 12:00AM

Lab File ID: BN032609.D Time Analyzed: 10:00

Instrument ID: BNA_N GC Column: ZB-GR ID: 0.25 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	4851	7.581	14810	10.37	9946	14.23
UPPER LIMIT	9702	8.081	29620	10.868	19892	14.731
LOWER LIMIT	2425.5	7.081	7405	9.868	4973	13.731
EPA SAMPLE NO.						
01 PB161970BL	4471	7.61	14502	10.45	8386	14.26
02 BP-VPB-189-GW-638-640DL	4258	7.59	15181	10.36	10602	14.23
03 BP-VPB-196-GW-745-747RE	7028	7.58	21512	10.36	6304	14.23
04 VPB189-HYD-20240626RE	3925	7.59	11829	10.39	9306	14.24

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.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: BN071024 SAS No.: BN071024 SDG NO.: BN071024

EPA Sample No.: SSTDICCC0.4 Date Analyzed: Jul 10 2024 12:00AM

Lab File ID: BN032559.D Time Analyzed: 10:00

Instrument ID: BNA_N GC Column: ZB-GR ID: 0.25 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	21098	17.004	17466	21.211	17306	23.426
UPPER LIMIT	42196	17.504	34932	21.711	34612	23.926
LOWER LIMIT	10549	16.504	8733	20.711	8653	22.926
EPA SAMPLE NO.						
01 PB161970BL	15791	17.04	11470	21.24	11598	23.45
02 BP-VPB-189-GW-638-640DL	23552	17.00	19542	21.21	17690	23.43
03 BP-VPB-196-GW-745-747RE	26772	16.99	224 *	21.21	15 *	23.43
04 VPB189-HYD-20240626RE	20782	17.00	15062	21.22	10394	23.43

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.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: BN071024 SAS No.: BN071024 SDG NO.: BN071024

EPA Sample No.: SSTDCCC0.4 Date Analyzed: Jul 10 2024 12:00AM

Lab File ID: BN032609.D Time Analyzed: 10:00

Instrument ID: BNA_N GC Column: ZB-GR ID: 0.25 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	19848	17.004	14661	21.211	15141	23.426
UPPER LIMIT	39696	17.504	29322	21.711	30282	23.926
LOWER LIMIT	9924	16.504	7330.5	20.711	7570.5	22.926
EPA SAMPLE NO.						
01 PB161970BL	15791	17.04	11470	21.24	11598	23.45
02 BP-VPB-189-GW-638-640DL	23552	17.00	19542	21.21	17690	23.43
03 BP-VPB-196-GW-745-747RE	26772	16.99	224 *	21.21	15 *	23.43
04 VPB189-HYD-20240626RE	20782	17.00	15062	21.22	10394	23.43

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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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB161970BL

Lab Name: CHEMTECH

Contract: _____

Lab Code: CHEM Case No.: BN071024

SAS No.: BN071024 SDG NO.: BN071024

Lab File ID: BN032610.D

Lab Sample ID: PB161970BL

Instrument ID: BNA_N

Date Extracted: 07/09/2024

Matrix: (soil/water) Water

Date Analyzed: 07/10/2024

Level: (low/med) LOW

Time Analyzed: 10:00

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED

COMMENTS:

Surrogate Summary

SW-846

SDG No.: **BN071024**

Client: _____

Analytical Method: **8270-Modified**

Lab Sample ID	Client ID	Datafile	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
								Low	High
P3127-03RE	BP-VPB-196-GW-7BN032612.D		2-Methylnaphthalene-d10	0.4	0.26	66		30	150
			Fluoranthene-d10	0.4	0.22	55		30	150
			2-Fluorophenol	0.4	0.23	56		10	92
			Phenol-d6	0.4	0.11	28		10	100
			Nitrobenzene-d5	0.4	0.27	68		11	175
			2-Fluorobiphenyl	0.4	0.72	181	*	10	175
			2,4,6-Tribromophenol	0.4	0.67	166	*	24	148
			Terphenyl-d14	0.4	39.31	9827	*	54	171
P3128-03RE	VPB189-HYD-202-BN032613.D		2-Methylnaphthalene-d10	0.4	0.01	3	*	30	150
			Fluoranthene-d10	0.4	0.16	41		30	150
			2-Fluorophenol	0.4	0.01	4	*	10	92
			Phenol-d6	0.4	0.00	0	*	10	100
			Nitrobenzene-d5	0.4	0.32	80		11	175
			2-Fluorobiphenyl	0.4	0.27	68		10	175
			2,4,6-Tribromophenol	0.4	0.17	42		24	148
			Terphenyl-d14	0.4	0.44	109		54	171
P3128-06DL	BP-VPB-189-GW-6BN032611.D		2-Methylnaphthalene-d10	0.4	0.33	81		30	150
			Fluoranthene-d10	0.4	0.38	95		30	150
			2-Fluorophenol	0.4	0.17	42		10	92
			Phenol-d6	0.4	0.10	25		10	100
			Nitrobenzene-d5	0.4	0.12	31		11	175
			2-Fluorobiphenyl	0.4	0.28	70		10	175
			2,4,6-Tribromophenol	0.4	0.28	70		24	148
			Terphenyl-d14	0.4	0.40	99		54	171



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Surrogate Summary

SW-846

SDG No.: BN071024

Client: _____

Analytical Method: **8270-Modified**

Lab Sample ID	Client ID	Datafile	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
								Low	High
PB161970BL	PB161970BL	BN032610.D	2-Methylnaphthalene-d10	0.4	0.35	88		30	150
			Fluoranthene-d10	0.4	0.35	87		30	150
			2-Fluorophenol	0.4	0.37	91		10	92
			Phenol-d6	0.4	0.40	99		10	100
			Nitrobenzene-d5	0.4	0.39	97		11	175
			2-Fluorobiphenyl	0.4	0.39	97		10	175
			2,4,6-Tribromophenol	0.4	0.21	52		24	148
			Terphenyl-d14	0.4	0.38	94		54	171

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: BN071024

Lab Code: CHEM

SAS No.: BN071024

SDG NO.: BN071024

Lab File ID: BN032608.D

DFTPP Injection Date: 07/10/2024

Instrument ID: BNA_N

DFTPP Injection Time: 08:45

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	26.9
68	Less than 2.0% of mass 69	0.5 (1.7) 1
69	Mass 69 relative abundance	31.3
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	44.7
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	6.7
275	10.0 - 60.0% of mass 198	28.4
365	Greater than 1% of mass 198	3.6
441	Present, but less than mass 443	11.8
442	Greater than 50% of mass 198	72.6
443	15.0 - 24.0% of mass 442	13.5 (18.5) 2

1-Value is % mass 69

2-Value is % mass 442

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC0.4	SSTDCCC0.4	BN032609.D	07/10/2024	09:24
PB161970BL	PB161970BL	BN032610.D	07/10/2024	10:00
BP-VPB-189-GW-638-640DL	P3128-06DL	BN032611.D	07/10/2024	10:37
BP-VPB-196-GW-745-747RE	P3127-03RE	BN032612.D	07/10/2024	11:13
VPB189-HYD-20240626RE	P3128-03RE	BN032613.D	07/10/2024	11:49
SSTDCCC0.4EC	SSTDCCC0.4	BN032614.D	07/10/2024	12:43