

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: _____

Lab Code: CHEM Case No.: BN072924 SAS No.: BN072924 SDG No.: BN072924

Instrument ID: BNA_N Calibration Date/Time: 7/29/2024 1:10:15

Lab File ID: BN033062.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	0.612	0.545		-10.948	20.0
Fluoranthene-d10	1.035	0.868		-16.135	20.0
n-Nitrosodimethylamine	0.419	0.454		8.353	20.0
2-Fluorophenol	1.012	0.914		-9.684	20.0
Phenol-d6	1.256	1.276		1.592	20.0
bis(2-Chloroethyl)ether	1.050	1.008		-4.0	20.0
Nitrobenzene-d5	0.301	0.280		-6.977	20.0
Naphthalene	1.108	1.017		-8.213	20.0
Hexachlorobutadiene	0.212	0.188		-11.321	20.0
2-Methylnaphthalene	0.724	0.602		-16.851	20.0
2-Fluorobiphenyl	1.489	1.329		-10.745	20.0
Acenaphthylene	1.627	1.462		-10.141	20.0
Acenaphthene	1.153	1.092		-5.291	20.0
Fluorene	1.541	1.445		-6.23	20.0
4,6-Dinitro-2-methylphenol	0.056	0.013		-76.786	20.0
2,4,6-Tribromophenol	0.171	0.119		-30.409	20.0
4-Bromophenyl-phenylether	0.235	0.189		-19.574	20.0
Hexachlorobenzene	0.263	0.212		-19.392	20.0
Atrazine	0.173	0.147		-15.029	20.0
Pentachlorophenol	0.098	0.051		-47.959	20.0
Phenanthrene	1.093	0.941		-13.907	20.0
Anthracene	0.900	0.622		-30.889	20.0
Fluoranthene	1.323	1.040		-21.391	20.0
Pyrene	1.634	1.499		-8.262	20.0
Terphenyl-d14	0.820	0.721		-12.073	20.0
Benzo(a)anthracene	1.265	0.921		-27.194	20.0
Chrysene	1.504	1.587		5.519	20.0
Bis(2-ethylhexyl)phthalate	0.700	1.043		49.0	20.0
Benzo(b)fluoranthene	1.393	1.104		-20.747	20.0
Benzo(k)fluoranthene	1.592	1.465		-7.977	20.0
Benzo(a)pyrene	1.256	1.080		-14.013	20.0
Indeno(1,2,3-cd)pyrene	1.577	1.367		-13.316	20.0
Dibenzo(a,h)anthracene	1.245	1.062		-14.699	20.0
Benzo(g,h,i)perylene	1.379	1.280		-7.179	20.0
1,4-Dioxane	0.496	0.552		11.29	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.: BN072924 SAS No.: BN072924 SDG No.: BN072924

Instrument ID: BNA_N Calibration Date/Time: 7/29/2024 1:13:16

Lab File ID: BN033067.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	0.612	0.597		-2.451	50.0
Fluoranthene-d10	1.035	1.051		1.546	50.0
n-Nitrosodimethylamine	0.419	0.372		-11.217	50.0
2-Fluorophenol	1.012	0.728		-28.063	50.0
Phenol-d6	1.256	1.002		-20.223	50.0
bis(2-Chloroethyl)ether	1.050	0.625		-40.476	50.0
Nitrobenzene-d5	0.301	0.247		-17.94	50.0
Naphthalene	1.108	0.968		-12.635	50.0
Hexachlorobutadiene	0.212	0.184		-13.208	50.0
2-Methylnaphthalene	0.724	0.550		-24.033	50.0
2-Fluorobiphenyl	1.489	1.206		-19.006	50.0
Acenaphthylene	1.627	1.341		-17.578	50.0
Acenaphthene	1.153	1.008		-12.576	50.0
Fluorene	1.541	1.349		-12.459	50.0
4,6-Dinitro-2-methylphenol	0.056	0.017		-69.643	50.0
2,4,6-Tribromophenol	0.171	0.118		-30.994	50.0
4-Bromophenyl-phenylether	0.235	0.208		-11.489	50.0
Hexachlorobenzene	0.263	0.235		-10.646	50.0
Atrazine	0.173	0.161		-6.936	50.0
Pentachlorophenol	0.098	0.055		-43.878	50.0
Phenanthrene	1.093	0.872		-20.22	50.0
Anthracene	0.900	0.607		-32.556	50.0
Fluoranthene	1.323	1.336		0.983	50.0
Pyrene	1.634	1.353		-17.197	50.0
Terphenyl-d14	0.820	0.653		-20.366	50.0
Benzo(a)anthracene	1.265	0.828		-34.545	50.0
Chrysene	1.504	1.535		2.061	50.0
Bis(2-ethylhexyl)phthalate	0.700	1.039		48.429	50.0
Benzo(b)fluoranthene	1.393	1.052		-24.48	50.0
Benzo(k)fluoranthene	1.592	1.349		-15.264	50.0
Benzo(a)pyrene	1.256	1.065		-15.207	50.0
Indeno(1,2,3-cd)pyrene	1.577	1.296		-17.819	50.0
Dibenzo(a,h)anthracene	1.245	1.006		-19.197	50.0
Benzo(g,h,i)perylene	1.379	1.031		-25.236	50.0
1,4-Dioxane	0.496	0.484		-2.419	50.0

All other compounds must meet a minimum RRF of 0.010.

Report of Analysis

Client:		Date Collected:	7/23/2024 12:00:00 AM
Project:		Date Received:	7/23/2024 12:00:00 AM
Client Sample ID:	PB162236BL	SDG No.:	BN072924
Lab Sample ID:	PB162236BL	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
BN033063.D	1	7/23/2024 12:00:00 AM	7/29/2024 12:00:00 AM	PB162236

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:	7/23/2024 12:00:00 AM
Project:		Date Received:	7/23/2024 12:00:00 AM
Client Sample ID:	PB162236BL	SDG No.:	BN072924
Lab Sample ID:	PB162236BL	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
BN033063.D	1	7/23/2024 12:00:00 AM	7/29/2024 12:00:00 AM	PB162236

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.331		30-150		83	SPK: -0.4
93951-69-0	Fluoranthene-d10	0.391		30-150		98	SPK: -0.4
367-12-4	2-Fluorophenol	0.367		10-92		92	SPK: -0.4
13127-88-3	Phenol-d6	0.411	*	10-100		103	SPK: -0.4
4165-60-0	Nitrobenzene-d5	0.344		11-175		86	SPK: -0.4
321-60-8	2-Fluorobiphenyl	0.328		10-175		82	SPK: -0.4
118-79-6	2,4,6-Tribromophenol	0.183		24-148		46	SPK: -0.4
1718-51-0	Terphenyl-d14	0.376		54-171		94	SPK: -0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2248	7.611				
1146-65-2	Naphthalene-d8	7922	10.522				
15067-26-2	Acenaphthene-d10	4941	14.244				
1517-22-2	Phenanthrene-d10	11397	17.032				
1719-03-5	Chrysene-d12	9263	21.196				
1520-96-3	Perylene-d12	9302	23.382				

Report of Analysis

Client:		Date Collected:	7/17/2024 12:00:00 AM
Project:		Date Received:	7/17/2024 12:00:00 AM
Client Sample ID:	SP-100-20240717DL	SDG No.:	BN072924
Lab Sample ID:	P3299-01DL	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
BN033064.D	2	7/19/2024 12:00:00 AM	7/29/2024 12:00:00 AM	PB162161

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	0.06	U	0.06	0.4	0.4	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.06	U	0.06	0.2	0.2	ug/L
91-20-3	Naphthalene	0.05	U	0.05	0.2	0.2	ug/L
87-68-3	Hexachlorobutadiene	0.05	U	0.05	0.2	0.2	ug/L
91-57-6	2-Methylnaphthalene	0.06	U	0.06	0.2	0.2	ug/L
208-96-8	Acenaphthylene	0.04	U	0.04	0.2	0.2	ug/L
83-32-9	Acenaphthene	0.04	U	0.04	0.2	0.2	ug/L
Total PAH	Total PAH	0.91	U	0.91	0.2	3.2	ug/L
86-73-7	Fluorene	0.04	U	0.04	0.2	0.2	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	0.28	U	0.28	0.4	0.4	ug/L
101-55-3	4-Bromophenyl-phenylether	0.05	U	0.05	0.2	0.2	ug/L
118-74-1	Hexachlorobenzene	0.06	U	0.06	0.2	0.2	ug/L
1912-24-9	Atrazine	0.05	U	0.05	0.2	0.2	ug/L
87-86-5	Pentachlorophenol	0.18	U	0.18	0.4	0.4	ug/L
85-01-8	Phenanthrene	0.04	U	0.04	0.2	0.2	ug/L
120-12-7	Anthracene	0.05	U	0.05	0.2	0.2	ug/L
206-44-0	Fluoranthene	0.05	U	0.05	0.2	0.2	ug/L
129-00-0	Pyrene	0.04	U	0.04	0.2	0.2	ug/L
56-55-3	Benzo(a)anthracene	0.04	U	0.04	0.2	0.2	ug/L
218-01-9	Chrysene	0.05	U	0.05	0.2	0.2	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.28	U	0.28	0.4	0.4	ug/L
205-99-2	Benzo(b)fluoranthene	0.06	U	0.06	0.2	0.2	ug/L
207-08-9	Benzo(k)fluoranthene	0.07	U	0.07	0.2	0.2	ug/L
50-32-8	Benzo(a)pyrene	0.11	U	0.11	0.2	0.2	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.08	U	0.08	0.2	0.2	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.08	U	0.08	0.2	0.2	ug/L
191-24-2	Benzo(g,h,i)perylene	0.07	U	0.07	0.2	0.2	ug/L
123-91-1	1,4-Dioxane	6.2	D	0.14	0.4	0.4	ug/L

Report of Analysis

Client:		Date Collected:	7/17/2024 12:00:00 AM
Project:		Date Received:	7/17/2024 12:00:00 AM
Client Sample ID:	SP-100-20240717DL	SDG No.:	BN072924
Lab Sample ID:	P3299-01DL	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
BN033064.D	2	7/19/2024 12:00:00 AM	7/29/2024 12:00:00 AM	PB162161

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.308		30-150		77	SPK: -0.4
93951-69-0	Fluoranthene-d10	0.468		30-150		117	SPK: -0.4
367-12-4	2-Fluorophenol	0.158		10-92		40	SPK: -0.4
13127-88-3	Phenol-d6	0.028	*	10-100		7	SPK: -0.4
4165-60-0	Nitrobenzene-d5	0.134		11-175		34	SPK: -0.4
321-60-8	2-Fluorobiphenyl	0.31		10-175		77	SPK: -0.4
118-79-6	2,4,6-Tribromophenol	0.28		24-148		70	SPK: -0.4
1718-51-0	Terphenyl-d14	0.528		54-171		132	SPK: -0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3240	7.561				
1146-65-2	Naphthalene-d8	12288	10.415				
15067-26-2	Acenaphthene-d10	7923	14.197				
1517-22-2	Phenanthrene-d10	17200	16.964				
1719-03-5	Chrysene-d12	15486	21.167				
1520-96-3	Perylene-d12	15940	23.356				

Report of Analysis

Client:		Date Collected:	7/18/2024 12:00:00 AM
Project:		Date Received:	7/18/2024 12:00:00 AM
Client Sample ID:	VPB196-HYD-20240718RE	SDG No.:	BN072924
Lab Sample ID:	P3338-03RE	Matrix:	Water
Analytical Method:	8270-Modified	% Moisture:	100
Sample Wt/Vol:	930 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
BN033065.D	1	7/23/2024 12:00:00 AM	7/29/2024 12:00:00 AM	PB162236

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	0.03	U	0.03	0.22	0.22	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	0.48	U	0.48	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	0.15	U	0.15	0.22	0.22	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	0.02	U	0.02	0.11	0.11	ug/L
87-86-5	Pentachlorophenol	0.1	U	0.1	0.22	0.22	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	0.02	U	0.02	0.11	0.11	ug/L
129-00-0	Pyrene	0.02	U	0.02	0.11	0.11	ug/L
56-55-3	Benzo(a)anthracene	0.02	U	0.02	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	0.15	U	0.15	0.22	0.22	ug/L
205-99-2	Benzo(b)fluoranthene	0.03	U	0.03	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	0.1	J	0.07	0.22	0.22	ug/L

Report of Analysis

Client:		Date Collected:	7/18/2024 12:00:00 AM
Project:		Date Received:	7/18/2024 12:00:00 AM
Client Sample ID:	VPB196-HYD-20240718RE	SDG No.:	BN072924
Lab Sample ID:	P3338-03RE	Matrix:	Water
Analytical Method:	8270-Modified	% Moisture:	100
Sample Wt/Vol:	930 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
BN033065.D	1	7/23/2024 12:00:00 AM	7/29/2024 12:00:00 AM	PB162236

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.001	*	30-150		0	SPK: -0.4
93951-69-0	Fluoranthene-d10	0.22		30-150		55	SPK: -0.4
367-12-4	2-Fluorophenol	0.062		10-92		16	SPK: -0.4
13127-88-3	Phenol-d6	0.007	*	10-100		2	SPK: -0.4
4165-60-0	Nitrobenzene-d5	0.4		11-175		100	SPK: -0.4
321-60-8	2-Fluorobiphenyl	0.366		10-175		91	SPK: -0.4
118-79-6	2,4,6-Tribromophenol	0.283		24-148		71	SPK: -0.4
1718-51-0	Terphenyl-d14	0.48		54-171		120	SPK: -0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3358	7.517				
1146-65-2	Naphthalene-d8	12141	10.34				
15067-26-2	Acenaphthene-d10	7621	14.169				
1517-22-2	Phenanthrene-d10	17378	16.945				
1719-03-5	Chrysene-d12	14614	21.161				
1520-96-3	Perylene-d12	12550	23.356				

Report of Analysis

Client:		Date Collected:	7/17/2024 12:00:00 AM
Project:		Date Received:	7/17/2024 12:00:00 AM
Client Sample ID:	VPB189-HYD-20240717RE	SDG No.:	BN072924
Lab Sample ID:	P3307-02RE	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
BN033066.D	1	7/19/2024 12:00:00 AM	7/29/2024 12:00:00 AM	PB162161

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	0.74		0.08	0.23	0.23	ug/L

Report of Analysis

Client:		Date Collected:	7/17/2024 12:00:00 AM
Project:		Date Received:	7/17/2024 12:00:00 AM
Client Sample ID:	VPB189-HYD-20240717RE	SDG No.:	BN072924
Lab Sample ID:	P3307-02RE	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
BN033066.D	1	7/19/2024 12:00:00 AM	7/29/2024 12:00:00 AM	PB162161

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.009	*	30-150		2	SPK: -0.4
93951-69-0	Fluoranthene-d10	0.148		30-150		37	SPK: -0.4
367-12-4	2-Fluorophenol	0.006	*	10-92		1	SPK: -0.4
13127-88-3	Phenol-d6	0.004	*	10-100		1	SPK: -0.4
4165-60-0	Nitrobenzene-d5	0.163		11-175		41	SPK: -0.4
321-60-8	2-Fluorobiphenyl	0.198		10-175		50	SPK: -0.4
118-79-6	2,4,6-Tribromophenol	0.016	*	24-148		4	SPK: -0.4
1718-51-0	Terphenyl-d14	0.252		54-171		63	SPK: -0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	4405	7.532				
1146-65-2	Naphthalene-d8	15847	10.34				
15067-26-2	Acenaphthene-d10	11289	14.176				
1517-22-2	Phenanthrene-d10	25863	16.952				
1719-03-5	Chrysene-d12	22776	21.158				
1520-96-3	Perylene-d12	19732	23.353				



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

Hit Summary Sheet SW-846

SDG No.: BN072924

Client:

Sample ID	Client ID	Parameter	Concentration	C	MDL	RDL	Units
Client ID :	SP-100-20240717DL						
P3299-01DL	SP-100-20240717DL	Water	1,4-Dioxane	6.200	D 0.14	0.4	ug/L
			Total Svoc :		6.20		
			Total Concentration:		6.20		
Client ID :	VPB189-HYD-20240717RE						
P3307-02RE	VPB189-HYD-20240717	Water	1,4-Dioxane	0.740	0.08	0.23	ug/L
			Total Svoc :		0.74		
			Total Concentration:		0.74		
Client ID :	VPB196-HYD-20240718RE						
P3338-03RE	VPB196-HYD-20240718	Water	1,4-Dioxane	0.100	J 0.07	0.22	ug/L
			Total Svoc :		0.10		
			Total Concentration:		0.10		

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: _____

Lab Code: CHEM Case No.: BN071124 SAS No.: BN071124 SDG No.: BN071124

Instrument ID: _____ Calibration Date(s): 7/10/2024 : _____

Calibration Time(s): 15:54 _____

LAB FILE ID:	RRF0.1 = BN032616.D			RRF0.2 = BN032617.D			RRF0.4 = BN032618.D	
	RRF0.8 = BN032619.D			RRF1.6 = BN032620.D			RRF3.2 = BN032621.D	
COMPOUND	RRF0.1	RRF0.2	RRF0.4	RRF0.8	RRF1.6	RRF3.2	RRF	% RSD
2-Methylnaphthalene-d10	0.594	0.576	0.597	0.657	0.650	0.596	0.612	5.0
Fluoranthene-d10	1.009	0.987	0.986	1.101	1.097	1.018	1.035	4.7
n-Nitrosodimethylamine	0.451	0.408	0.421	0.441	0.428	0.400	0.419	5.7
2-Fluorophenol	1.089	0.979	1.038	1.043	1.009	0.974	1.012	4.8
Phenol-d6	1.214	1.102	1.258	1.297	1.331	1.282	1.256	6.2
bis(2-Chloroethyl)ether	0.977	0.841	1.059	1.258	1.054	1.062	1.050	12.0
Nitrobenzene-d5	0.268	0.271	0.291	0.331	0.328	0.310	0.301	8.5
Naphthalene	1.116	1.074	1.103	1.173	1.147	1.071	1.108	3.7
Hexachlorobutadiene	0.228	0.216	0.214	0.222	0.212	0.197	0.212	5.9
2-Methylnaphthalene	0.677	0.665	0.697	0.784	0.785	0.720	0.724	6.6
2-Fluorobiphenyl	1.471	1.388	1.485	1.608	1.547	1.475	1.489	4.7
Acenaphthylene	1.493	1.457	1.495	1.715	1.765	1.718	1.627	8.5
Acenaphthene	1.117	1.088	1.142	1.251	1.212	1.134	1.153	5.0
Fluorene	1.504	1.473	1.523	1.674	1.635	1.470	1.541	5.2
4,6-Dinitro-2-methylphenol		0.028	0.034	0.053	0.065	0.071	0.056	39.5
2,4,6-Tribromophenol	0.168	0.150	0.153	0.174	0.183	0.173	0.171	9.4
4-Bromophenyl-phenylether	0.235	0.219	0.231	0.245	0.244	0.237	0.235	3.8
Hexachlorobenzene	0.270	0.254	0.258	0.277	0.272	0.262	0.263	3.9
Atrazine	0.164	0.156	0.155	0.182	0.188	0.177	0.173	8.6
Pentachlorophenol	0.113	0.080	0.081	0.093	0.100	0.103	0.098	14.1
Phenanthrene	1.036	0.986	1.058	1.197	1.172	1.108	1.093	6.8
Anthracene	0.760	0.742	0.789	0.963	1.024	1.001	0.900	14.4
Fluoranthene	1.263	1.235	1.250	1.418	1.430	1.316	1.323	6.0
Pyrene	1.719	1.569	1.692	1.772	1.676	1.506	1.634	6.6
Terphenyl-d14	0.861	0.794	0.846	0.886	0.841	0.744	0.820	6.4
Benzo (a) anthracene	1.224	1.077	1.198	1.352	1.336	1.313	1.265	8.2
Chrysene	1.490	1.507	1.549	1.597	1.576	1.397	1.504	5.2
Bis(2-ethylhexyl)phthalate	0.701	0.684	0.604	0.695	0.711	0.703	0.700	8.3
Benzo (b) fluoranthene	1.190	1.195	1.313	1.544	1.566	1.434	1.393	11.5
Benzo (k) fluoranthene	1.502	1.528	1.587	1.770	1.684	1.561	1.592	6.3
Benzo (a) pyrene	1.200	1.142	1.203	1.362	1.344	1.272	1.256	6.4
Indeno (1,2,3-cd) pyrene	1.547	1.410	1.534	1.674	1.629	1.704	1.577	6.4
Dibenzo (a,h) anthracene	1.180	1.116	1.215	1.323	1.294	1.362	1.245	6.9
Benzo (g,h,i) perylene	1.374	1.288	1.378	1.459	1.394	1.470	1.379	5.2
1,4-Dioxane	0.613	0.525	0.495	0.515	0.476	0.434	0.496	13.4

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.: BN072924 SAS No.: BN072924 SDG NO.: BN072924

EPA Sample No.: SSTDICCC0.4 Date Analyzed: Jul 29 2024 12:00AM

Lab File ID: BN032618.D Time Analyzed: 10:51

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	4288	7.567	13064	10.36	8572	14.21
UPPER LIMIT	8576	8.067	26128	10.857	17144	14.71
LOWER LIMIT	2144	7.067	6532	9.857	4286	13.71
EPA SAMPLE NO.						
01 PB162236BL	2248	7.61	7922	10.52	4941	14.24
02 SP-100-20240717DL	3240	7.56	12288	10.42	7923	14.20
03 VPB196-HYD-20240718RE	3358	7.52	12141	10.34	7621	14.17
04 VPB189-HYD-20240717RE	4405	7.53	15847	10.34	11289	14.18

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.: BN072924 SAS No.: BN072924 SDG NO.: BN072924

EPA Sample No.: SSTDCCC0.4 Date Analyzed: Jul 29 2024 12:00AM

Lab File ID: BN033062.D Time Analyzed: 10:51

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	2716	7.517	9375	10.33	6207	14.17
UPPER LIMIT	5432	8.017	18750	10.829	12414	14.668
LOWER LIMIT	1358	7.017	4687.5	9.829	3103.5	13.668
EPA SAMPLE NO.						
01 PB162236BL	2248	7.61	7922	10.52	4941	14.24
02 SP-100-20240717DL	3240	7.56	12288	10.42	7923	14.20
03 VPB196-HYD-20240718RE	3358	7.52	12141	10.34	7621	14.17
04 VPB189-HYD-20240717RE	4405	7.53	15847	10.34	11289	14.18

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.: BN072924 SAS No.: BN072924 SDG NO.: BN072924

EPA Sample No.: SSTDICCC0.4 Date Analyzed: Jul 29 2024 12:00AM

Lab File ID: BN032618.D Time Analyzed: 10:51

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	18433	16.979	13897	21.193	13224	23.402
UPPER LIMIT	36866	17.479	27794	21.693	26448	23.902
LOWER LIMIT	9216.5	16.479	6948.5	20.693	6612	22.902
EPA SAMPLE NO.						
01 PB162236BL	11397	17.03	9263	21.20	9302	23.38
02 SP-100-20240717DL	17200	16.96	15486	21.17	15940	23.36
03 VPB196-HYD-20240718RE	17378	16.95	14614	21.16	12550	23.36
04 VPB189-HYD-20240717RE	25863	16.95	22776	21.16	19732	23.35

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.: BN072924 SAS No.: BN072924 SDG NO.: BN072924

EPA Sample No.: SSTDCCC0.4 Date Analyzed: Jul 29 2024 12:00AM

Lab File ID: BN033062.D Time Analyzed: 10:51

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	14002	16.957	11503	21.169	11640	23.355
UPPER LIMIT	28004	17.457	23006	21.669	23280	23.855
LOWER LIMIT	7001	16.457	5751.5	20.669	5820	22.855
EPA SAMPLE NO.						
01 PB162236BL	11397	17.03	9263	21.20	9302	23.38
02 SP-100-20240717DL	17200	16.96	15486	21.17	15940	23.36
03 VPB196-HYD-20240718RE	17378	16.95	14614	21.16	12550	23.36
04 VPB189-HYD-20240717RE	25863	16.95	22776	21.16	19732	23.35

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.

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB162236BL

Lab Name: CHEMTECH

Contract: _____

Lab Code: CHEM Case No.: BN072924

SAS No.: BN072924 SDG NO.: BN072924

Lab File ID: BN033063.D

Lab Sample ID: PB162236BL

Instrument ID: BNA_N

Date Extracted: 07/23/2024

Matrix: (soil/water) Water

Date Analyzed: 07/29/2024

Level: (low/med) LOW

Time Analyzed: 10:51

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.: BN072924

Client: _____

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Datafile	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
								Low	High
P3299-01DL	SP-100-20240717DBN033064.D		2-Methylnaphthalene-d10	0.4	0.31	77		30	150
			Fluoranthene-d10	0.4	0.47	117		30	150
			2-Fluorophenol	0.4	0.16	40		10	92
			Phenol-d6	0.4	0.03	7	*	10	100
			Nitrobenzene-d5	0.4	0.13	34		11	175
			2-Fluorobiphenyl	0.4	0.31	77		10	175
			2,4,6-Tribromophenol	0.4	0.28	70		24	148
			Terphenyl-d14	0.4	0.53	132		54	171
P3307-02RE	VPB189-HYD-2024BN033066.D		2-Methylnaphthalene-d10	0.4	0.01	2	*	30	150
			Fluoranthene-d10	0.4	0.15	37		30	150
			2-Fluorophenol	0.4	0.01	1	*	10	92
			Phenol-d6	0.4	0.00	1	*	10	100
			Nitrobenzene-d5	0.4	0.16	41		11	175
			2-Fluorobiphenyl	0.4	0.20	50		10	175
			2,4,6-Tribromophenol	0.4	0.02	4	*	24	148
			Terphenyl-d14	0.4	0.25	63		54	171

Surrogate Summary

SW-846

SDG No.: BN072924

Client: _____

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Datafile	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
								Low	High
P3338-03RE	VPB196-HYD-2024BN033065.D		2-Methylnaphthalene-d10	0.4	0.00	0	*	30	150
			Fluoranthene-d10	0.4	0.22	55		30	150
			2-Fluorophenol	0.4	0.06	16		10	92
			Phenol-d6	0.4	0.01	2	*	10	100
			Nitrobenzene-d5	0.4	0.40	100		11	175
			2-Fluorobiphenyl	0.4	0.37	91		10	175
			2,4,6-Tribromophenol	0.4	0.28	71		24	148
			Terphenyl-d14	0.4	0.48	120		54	171
PB162236BL	PB162236BL	BN033063.D	2-Methylnaphthalene-d10	0.4	0.33	83		30	150
			Fluoranthene-d10	0.4	0.39	98		30	150
			2-Fluorophenol	0.4	0.37	92		10	92
			Phenol-d6	0.4	0.41	103	*	10	100
			Nitrobenzene-d5	0.4	0.34	86		11	175
			2-Fluorobiphenyl	0.4	0.33	82		10	175
			2,4,6-Tribromophenol	0.4	0.18	46		24	148
			Terphenyl-d14	0.4	0.38	94		54	171

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: BN072924

Lab Code: CHEM

SAS No.: BN072924

SDG NO.: BN072924

Lab File ID: BN033061.D

DFTPP Injection Date: 07/29/2024

Instrument ID: BNA_N

DFTPP Injection Time: 08:51

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	36
68	Less than 2.0% of mass 69	0.7 (1.7) 1
69	Mass 69 relative abundance	41.2
70	Less than 2.0% of mass 69	0.3 (0.7) 1
127	10.0 - 80.0% of mass 198	50.8
197	Less than 2.0% of mass 198	0.6
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	27.7
365	Greater than 1% of mass 198	4.2
441	Present, but less than mass 443	9.9
442	Greater than 50% of mass 198	66.1
443	15.0 - 24.0% of mass 442	12.6 (19.1) 2

1-Value is % mass 69

2-Value is % mass 442

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC0.4	SSTDCCC0.4	BN033062.D	07/29/2024	10:15
PB162236BL	PB162236BL	BN033063.D	07/29/2024	10:51
SP-100-20240717DL	P3299-01DL	BN033064.D	07/29/2024	11:27
VPB196-HYD-20240718RE	P3338-03RE	BN033065.D	07/29/2024	12:04
VPB189-HYD-20240717RE	P3307-02RE	BN033066.D	07/29/2024	12:40
SSTDCCC0.4EC	SSTDCCC0.4	BN033067.D	07/29/2024	13:16