CHEMTECH

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract:

Lab Code: CHEM Case No.: BN122623 SAS No.: BN122623 SDG No.: BN122623

Instrument ID: BNA_N Calibration Date/Time: 12/26/2023 1 11:58

Lab File ID: BN029188.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	0.655	0.566		-13.588	20.0
Fluoranthene-d10	0.835	0.616		-26.228	20.0
n-Nitrosodimethylamine	0.265	0.253		-4.528	20.0
2-Fluorophenol	0.913	0.771		-15.553	20.0
Phenol-d6	1.024	0.840		-17.969	20.0
bis(2-Chloroethyl)ether	0.719	0.595		-17.246	20.0
Nitrobenzene-d5	0.498	0.453		-9.036	20.0
Naphthalene	1.236	0.992		-19.741	20.0
Hexachlorobutadiene	0.380	0.292		-23.158	20.0
2-Methylnaphthalene	0.876	0.748		-14.612	20.0
2-Fluorobiphenyl	2.262	2.068		-8.576	20.0
Acenaphthylene	2.647	2.030		-23.309	20.0
Acenaphthene	1.622	1.259		-22.38	20.0
Fluorene	2.280	1.729		-24.167	20.0
4,6-Dinitro-2-methylphenol	0.133	0.104		-21.805	20.0
2,4,6-Tribromophenol	0.293	0.213		-27.304	20.0
4-Bromophenyl-phenylether	0.376	0.287		-23.67	20.0
Hexachlorobenzene	0.444	0.366		-17.568	20.0
Atrazine	0.342	0.282		-17.544	20.0
Pentachlorophenol	0.258	0.202		-21.705	20.0
Phenanthrene	1.752	1.454		-17.009	20.0
Anthracene	1.683	1.412		-16.102	20.0
Fluoranthene	1.569	1.204		-23.263	20.0
Pyrene	3.766	3.113		-17.339	20.0
Terphenyl-d14	1.165	1.221		4.807	20.0
Benzo(a)anthracene	2.271	1.864		-17.922	20.0
Chrysene	2.212	1.817		-17.857	20.0
Bis(2-ethylhexyl)phthalate	2.893	2.408		-16.765	20.0
Benzo(b)fluoranthene	2.103	1.634		-22.301	20.0
Benzo(k)fluoranthene	2.176	1.782		-18.107	20.0
Benzo(a)pyrene	1.918	1.589		-17.153	20.0
Indeno(1,2,3-cd)pyrene	2.698	2.354		-12.75	20.0
Dibenzo(a,h)anthracene	2.044	1.753		-14.237	20.0
Benzo(g,h,i)perylene	2.293	2.009		-12.386	20.0
1,4-Dioxane	0.353	0.366		3.683	20.0

All other compounds must meet a minimum RRF of 0.010.

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Report of Analysis

Client:				Date Collected:	12/22/2023 12:00:00 AM
Project:				Date Received:	12/22/2023 12:00:00 AM
Client Sample ID:	PB158020BL			SDG No.:	BN122623
Lab Sample ID:	PB158020BL			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
BN029189.D	1	12/22/2023 12:00:00 AM	12/26/2023 12:00:00 AM	PB158020

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	0.02	U	0.02	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	0.02	U	0.02	0.1	0.1	ug/L
91-57-6	2-Methylnaphthalene	0.02	U	0.02	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	0.41	U	0.41	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	0.07	U	0.07	0.2	0.2	ug/L
101-55-3	4-Bromophenyl-phenylether	0.02	U	0.02	0.1	0.1	ug/L
118-74-1	Hexachlorobenzene	0.02	U	0.02	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	0.06	U	0.06	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	0.03	U	0.03	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	0.02	U	0.02	0.1	0.1	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.08	U	0.08	0.2	0.2	ug/L
205-99-2	Benzo(b)fluoranthene	0.02	U	0.02	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	0.04	U	0.04	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	0.03	U	0.03	0.1	0.1	ug/L
123-91-1	1,4-Dioxane	0.06	U	0.06	0.2	0.2	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.31		30-150		77	SPK: -0.4
93951-69-0	Fluoranthene-d10	0.291		30-150		73	SPK: -0.4

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Report of Analysis

Client:				Date Collected:	12/22/2023 12:00:00 AM
Project:				Date Received:	12/22/2023 12:00:00 AM
Client Sample ID:	PB158020BL			SDG No.:	BN122623
Lab Sample ID:	PB158020BL			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
BN029189.D	1	12/22/2023 12:00:00 AM	12/26/2023 12:00:00 AM	PB158020

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
367-12-4	2-Fluorophenol	0.31		10-92		77	SPK: -0.4
13127-88-3	Phenol-d6	0.244		10-100		61	SPK: -0.4
4165-60-0	Nitrobenzene-d5	0.302		11-175		75	SPK: -0.4
321-60-8	2-Fluorobiphenyl	0.282		10-175		70	SPK: -0.4
118-79-6	2,4,6-Tribromophenol	0.192		24-148		48	SPK: -0.4
1718-51-0	Terphenyl-d14	0.341		54-171		85	SPK: -0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	999	7.797				
1146-65-2	Naphthalene-d8	1938	10.605				
15067-26-2	Acenaphthene-d10	1139	14.458				
1517-22-2	Phenanthrene-d10	1753	17.231				
1719-03-5	Chrysene-d12	677	21.42				
1520-96-3	Perylene-d12	796	23.78				

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Report of Analysis

Client:				Date Collected:	12/22/2023 12:00:00 AM
Project:				Date Received:	12/22/2023 12:00:00 AM
Client Sample ID:	PB158020BS			SDG No.:	BN122623
Lab Sample ID:	PB158020BS			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
BN029190.D	1	12/22/2023 12:00:00 AM	12/26/2023 12:00:00 AM	PB158020

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	0.3		0.03	0.2	0.2	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.24		0.02	0.1	0.1	ug/L
91-20-3	Naphthalene	0.27		0.02	0.1	0.1	ug/L
87-68-3	Hexachlorobutadiene	0.25		0.02	0.1	0.1	ug/L
91-57-6	2-Methylnaphthalene	0.26		0.02	0.1	0.1	ug/L
208-96-8	Acenaphthylene	0.29		0.02	0.1	0.1	ug/L
83-32-9	Acenaphthene	0.26		0.02	0.1	0.1	ug/L
Total PAH	Total PAH	4.42		0.41	0.1	1.6	ug/L
86-73-7	Fluorene	0.23		0.02	0.1	0.1	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	0.35		0.07	0.2	0.2	ug/L
101-55-3	4-Bromophenyl-phenylether	0.24		0.02	0.1	0.1	ug/L
118-74-1	Hexachlorobenzene	0.25		0.02	0.1	0.1	ug/L
1912-24-9	Atrazine	0.26		0.02	0.1	0.1	ug/L
87-86-5	Pentachlorophenol	0.44		0.06	0.2	0.2	ug/L
85-01-8	Phenanthrene	0.27		0.02	0.1	0.1	ug/L
120-12-7	Anthracene	0.27		0.02	0.1	0.1	ug/L
206-44-0	Fluoranthene	0.23		0.02	0.1	0.1	ug/L
129-00-0	Pyrene	0.28		0.03	0.1	0.1	ug/L
56-55-3	Benzo(a)anthracene	0.29		0.02	0.1	0.1	ug/L
218-01-9	Chrysene	0.31		0.02	0.1	0.1	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.31		0.08	0.2	0.2	ug/L
205-99-2	Benzo(b)fluoranthene	0.28		0.02	0.1	0.1	ug/L
207-08-9	Benzo(k)fluoranthene	0.25		0.03	0.1	0.1	ug/L
50-32-8	Benzo(a)pyrene	0.29		0.04	0.1	0.1	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.3		0.04	0.1	0.1	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.3		0.04	0.1	0.1	ug/L
191-24-2	Benzo(g,h,i)perylene	0.3		0.03	0.1	0.1	ug/L
123-91-1	1,4-Dioxane	0.22		0.06	0.2	0.2	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.409		30-150		102	SPK: -0.4
93951-69-0	Fluoranthene-d10	0.244		30-150		61	SPK: -0.4

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Report of Analysis

Client:				Date Collected:	12/22/2023 12:00:00 AM
Project:				Date Received:	12/22/2023 12:00:00 AM
Client Sample ID:	PB158020BS			SDG No.:	BN122623
Lab Sample ID:	PB158020BS			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
BN029190.D	1	12/22/2023 12:00:00 AM	12/26/2023 12:00:00 AM	PB158020

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
367-12-4	2-Fluorophenol	0.321		10-92		80	SPK: -0.4
13127-88-3	Phenol-d6	0.311		10-100		78	SPK: -0.4
4165-60-0	Nitrobenzene-d5	0.272		11-175		68	SPK: -0.4
321-60-8	2-Fluorobiphenyl	0.29		10-175		72	SPK: -0.4
118-79-6	2,4,6-Tribromophenol	0.303		24-148		76	SPK: -0.4
1718-51-0	Terphenyl-d14	0.293		54-171		73	SPK: -0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1032	7.804				
1146-65-2	Naphthalene-d8	1856	10.605				
15067-26-2	Acenaphthene-d10	1003	14.458				
1517-22-2	Phenanthrene-d10	1515	17.231				
1719-03-5	Chrysene-d12	515	21.429				
1520-96-3	Perylene-d12	653	23.783				

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Report of Analysis

Client:		Date Collected:	12/21/2023 12:00:00 AM
Project:		Date Received:	12/21/2023 12:00:00 AM
Client Sample ID:	GWOW-BR-04A-440-460-122123	SDG No.:	BN122623
Lab Sample ID:	O5996-01	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
BN029191.D	1	12/22/2023 12:00:00 AM	12/26/2023 12:00:00 AM	PB158020

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	0.02	U	0.02	0.1	0.1	ug/L
91-20-3	Naphthalene	0.17		0.02	0.1	0.1	ug/L
87-68-3	Hexachlorobutadiene	0.02	U	0.02	0.1	0.1	ug/L
91-57-6	2-Methylnaphthalene	0.05	J	0.02	0.1	0.1	ug/L
208-96-8	Acenaphthylene	0.04	J	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	0.41	U	0.41	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	0.07	U	0.07	0.2	0.2	ug/L
101-55-3	4-Bromophenyl-phenylether	0.02	U	0.02	0.1	0.1	ug/L
118-74-1	Hexachlorobenzene	0.02	U	0.02	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	0.06	U	0.06	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	0.03	U	0.03	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	0.02	U	0.02	0.1	0.1	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.14	J	0.08	0.2	0.2	ug/L
205-99-2	Benzo(b)fluoranthene	0.02	U	0.02	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	0.04	U	0.04	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	0.03	U	0.03	0.1	0.1	ug/L
123-91-1	1,4-Dioxane	2.1		0.06	0.2	0.2	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.264		30-150		66	SPK: -0.4
93951-69-0	Fluoranthene-d10	0.264		30-150		66	SPK: -0.4

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Report of Analysis

Client:		Date Collected:	12/21/2023 12:00:00 AM
Project:		Date Received:	12/21/2023 12:00:00 AM
Client Sample ID:	GWOW-BR-04A-440-460-122123	SDG No.:	BN122623
Lab Sample ID:	O5996-01	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
BN029191.D	1	12/22/2023 12:00:00 AM	12/26/2023 12:00:00 AM	PB158020

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
367-12-4	2-Fluorophenol	0.108		10-92		27	SPK: -0.4
13127-88-3	Phenol-d6	0.05		10-100		13	SPK: -0.4
4165-60-0	Nitrobenzene-d5	0.226		11-175		56	SPK: -0.4
321-60-8	2-Fluorobiphenyl	0.273		10-175		68	SPK: -0.4
118-79-6	2,4,6-Tribromophenol	0.272		24-148		68	SPK: -0.4
1718-51-0	Terphenyl-d14	0.296		54-171		74	SPK: -0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1027	7.797				
1146-65-2	Naphthalene-d8	1893	10.605				
15067-26-2	Acenaphthene-d10	1132	14.458				
1517-22-2	Phenanthrene-d10	1807	17.218				
1719-03-5	Chrysene-d12	731	21.42				
1520-96-3	Perylene-d12	928	23.78				

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Report of Analysis

Client:				Date Collected:	12/22/2023 12:00:00 AM
Project:				Date Received:	12/22/2023 12:00:00 AM
Client Sample ID:	PB158020BS			SDG No.:	BN122623
Lab Sample ID:	PB158020BS			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
BN029192.D	1	12/22/2023 12:00:00 AM	12/26/2023 12:00:00 AM	PB158020

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	0.29		0.03	0.2	0.2	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.27		0.02	0.1	0.1	ug/L
91-20-3	Naphthalene	0.26		0.02	0.1	0.1	ug/L
87-68-3	Hexachlorobutadiene	0.24		0.02	0.1	0.1	ug/L
91-57-6	2-Methylnaphthalene	0.26		0.02	0.1	0.1	ug/L
208-96-8	Acenaphthylene	0.28		0.02	0.1	0.1	ug/L
83-32-9	Acenaphthene	0.25		0.02	0.1	0.1	ug/L
Total PAH	Total PAH	4.25		0.41	0.1	1.6	ug/L
86-73-7	Fluorene	0.23		0.02	0.1	0.1	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	0.36		0.07	0.2	0.2	ug/L
101-55-3	4-Bromophenyl-phenylether	0.25		0.02	0.1	0.1	ug/L
118-74-1	Hexachlorobenzene	0.25		0.02	0.1	0.1	ug/L
1912-24-9	Atrazine	0.26		0.02	0.1	0.1	ug/L
87-86-5	Pentachlorophenol	0.44		0.06	0.2	0.2	ug/L
85-01-8	Phenanthrene	0.27		0.02	0.1	0.1	ug/L
120-12-7	Anthracene	0.26		0.02	0.1	0.1	ug/L
206-44-0	Fluoranthene	0.22		0.02	0.1	0.1	ug/L
129-00-0	Pyrene	0.26		0.03	0.1	0.1	ug/L
56-55-3	Benzo(a)anthracene	0.29		0.02	0.1	0.1	ug/L
218-01-9	Chrysene	0.3		0.02	0.1	0.1	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.28		0.08	0.2	0.2	ug/L
205-99-2	Benzo(b)fluoranthene	0.28		0.02	0.1	0.1	ug/L
207-08-9	Benzo(k)fluoranthene	0.26		0.03	0.1	0.1	ug/L
50-32-8	Benzo(a)pyrene	0.27		0.04	0.1	0.1	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.28		0.04	0.1	0.1	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.27		0.04	0.1	0.1	ug/L
191-24-2	Benzo(g,h,i)perylene	0.27		0.03	0.1	0.1	ug/L
123-91-1	1,4-Dioxane	0.37		0.06	0.2	0.2	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.395		30-150		99	SPK: -0.4
93951-69-0	Fluoranthene-d10	0.236		30-150		59	SPK: -0.4

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:				Date Collected:	12/22/2023 12:00:00 AM
Project:				Date Received:	12/22/2023 12:00:00 AM
Client Sample ID:	PB158020BS			SDG No.:	BN122623
Lab Sample ID:	PB158020BS			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
BN029192.D	1	12/22/2023 12:00:00 AM	12/26/2023 12:00:00 AM	PB158020

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
367-12-4	2-Fluorophenol	0.333		10-92		83	SPK: -0.4
13127-88-3	Phenol-d6	0.325		10-100		81	SPK: -0.4
4165-60-0	Nitrobenzene-d5	0.277		11-175		69	SPK: -0.4
321-60-8	2-Fluorobiphenyl	0.287		10-175		72	SPK: -0.4
118-79-6	2,4,6-Tribromophenol	0.278		24-148		69	SPK: -0.4
1718-51-0	Terphenyl-d14	0.293		54-171		73	SPK: -0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1095	7.804				
1146-65-2	Naphthalene-d8	2037	10.605				
15067-26-2	Acenaphthene-d10	1108	14.468				
1517-22-2	Phenanthrene-d10	1675	17.231				
1719-03-5	Chrysene-d12	592	21.434				
1520-96-3	Perylene-d12	777	23.796				

CHEMTECH

Hit Summary Sheet
SW-846

SDG No.: BN122623

Client:

Sample ID	Client ID		Parameter	Concentration	C	MDL	RDL	Units
Client ID :	**GWOW-BR-04A-440-460-122123**							
O5996-01	GWOW-BR-04A-440-46	Water	1,4-Dioxane	2.100		0.06	0.2	ug/L
O5996-01	GWOW-BR-04A-440-46	Water	2-Methylnaphthalene	0.050	J	0.02	0.1	ug/L
O5996-01	GWOW-BR-04A-440-46	Water	Acenaphthylene	0.040	J	0.02	0.1	ug/L
O5996-01	GWOW-BR-04A-440-46	Water	Bis(2-ethylhexyl)phthalate	0.140	J	0.08	0.2	ug/L
O5996-01	GWOW-BR-04A-440-46	Water	Naphthalene	0.170		0.02	0.1	ug/L
			Total Svoc :		**2.50**			
			Total Concentration:		**2.50**			

CHEMTECH

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract:

Lab Code: CHEM Case No.: BN122223 SAS No.: BN122223 SDG No.: BN122223

Instrument ID: Calibration Date(s): 12/22/2023

Calibration Time(s): 15:07

LAB FILE ID: RRF0.1 = BN029177.D RRF0.2 = BN029178.D RRF0.4 = BN029179.D
RRF0.8 = BN029180.D RRF1.6 = BN029181.D RRF3.2 = BN029182.D

COMPOUND	RRF0.1	RRF0.2	RRF0.4	RRF0.8	RRF1.6	RRF3.2	RRF	% RSD
2-Methylnaphthalene-d10	0.617	0.629	0.541	0.692	0.734	0.700	0.655	9.9
Fluoranthene-d10	0.923	0.864	0.658	0.806	0.901	0.841	0.835	10.4
n-Nitrosodimethylamine		0.228	0.210	0.275	0.301	0.295	0.265	14.0
2-Fluorophenol	1.061	0.950	0.793	0.930	0.949	0.909	0.913	10.2
Phenol-d6	1.089	1.028	0.849	1.071	1.105	1.049	1.024	8.6
bis(2-Chloroethyl)ether	0.735	0.631	0.587	0.758	0.818	0.779	0.719	11.4
Nitrobenzene-d5	0.513	0.503	0.384	0.511	0.539	0.530	0.498	10.4
Naphthalene	1.317	1.275	1.011	1.289	1.327	1.252	1.236	8.9
Hexachlorobutadiene	0.422	0.409	0.306	0.396	0.398	0.378	0.380	10.3
2-Methylnaphthalene	0.909	0.844	0.706	0.917	0.959	0.918	0.876	9.5
2-Fluorobiphenyl	2.385	2.280	1.831	2.296	2.443	2.360	2.262	8.9
Acenaphthylene	2.672	2.745	2.211	2.659	2.816	2.751	2.647	7.6
Acenaphthene	1.752	1.664	1.321	1.639	1.736	1.654	1.622	8.9
Fluorene	2.401	2.322	1.874	2.333	2.415	2.355	2.280	8.2
4,6-Dinitro-2-methylphenol		0.095	0.070	0.126	0.160	0.174	0.133	32.7
2,4,6-Tribromophenol	0.379	0.302	0.226	0.281	0.296	0.292	0.293	15.4
4-Bromophenyl-phenylether	0.404	0.372	0.291	0.389	0.409	0.393	0.376	10.6
Hexachlorobenzene	0.481	0.485	0.352	0.439	0.477	0.450	0.444	10.5
Atrazine	0.365	0.336	0.281	0.356	0.376	0.342	0.342	8.9
Pentachlorophenol	0.280	0.234	0.188	0.256	0.289	0.280	0.258	14.0
Phenanthrene	1.914	1.862	1.399	1.751	1.872	1.766	1.752	9.9
Anthracene	1.772	1.716	1.332	1.702	1.863	1.735	1.683	9.9
Fluoranthene	1.741	1.589	1.281	1.531	1.709	1.566	1.569	9.5
Pyrene	3.957	3.985	3.092	4.004	3.966	3.649	3.766	8.8
Terphenyl-d14	1.236	1.238	0.923	1.219	1.221	1.143	1.165	9.7
Benzo(a)anthracene	2.318	2.288	1.813	2.312	2.450	2.436	2.271	9.4
Chrysene	2.258	2.404	1.828	2.250	2.331	2.265	2.212	8.4
Bis(2-ethylhexyl)phthalate		3.423	2.451	3.120	2.994	2.615	2.893	12.3
Benzo(b)fluoranthene	2.015	2.104	1.716	2.160	2.333	2.234	2.103	9.4
Benzo(k)fluoranthene	2.328	2.270	1.687	2.194	2.334	2.263	2.176	10.4
Benzo(a)pyrene	1.919	1.902	1.581	1.981	2.064	2.036	1.918	8.4
Indeno(1,2,3-cd)pyrene	2.723	2.531	2.170	2.825	2.980	2.925	2.698	10.2
Dibenzo(a,h)anthracene	1.923	1.948	1.654	2.111	2.272	2.275	2.044	10.8
Benzo(g,h,i)perylene	2.232	2.279	1.888	2.415	2.536	2.442	2.293	9.2
1,4-Dioxane	0.272	0.371	0.367	0.393	0.390	0.359	0.353	12.2

All other compounds must meet a minimum RRF of 0.010.

CHEMTECH

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: BN122623 SAS No.: BN122623 SDG NO.: BN122623

EPA Sample No.: SSTDICCC0.4 Date Analyzed: Dec 26 2023 12:00AM

Lab File ID: BN029179.D Time Analyzed: 12:34

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	980	7.782	1925	10.57	1029	14.43
	UPPER LIMIT	1960	8.282	3850	11.073	2058	14.926
	LOWER LIMIT	490	7.282	962.5	10.073	514.5	13.926
	EPA SAMPLE NO.						
01	PB158020BL	999	7.80	1938	10.61	1139	14.46
02	PB158020BS	1032	7.80	1856	10.61	1003	14.46
03	GWOW-BR-04A-440-460-122123	1027	7.80	1893	10.61	1132	14.46
04	PB158020BS	1095	7.80	2037	10.61	1108	14.47

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.

CHEMTECH

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: BN122623 SAS No.: BN122623 SDG NO.: BN122623

EPA Sample No.: SSTDCCC0.4 Date Analyzed: Dec 26 2023 12:00AM

Lab File ID: BN029188.D Time Analyzed: 12:34

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	869	7.753	1780	10.53	1074	14.37
	UPPER LIMIT	1738	8.253	3560	11.03	2148	14.872
	LOWER LIMIT	434.5	7.253	890	10.03	537	13.872
	EPA SAMPLE NO.						
01	PB158020BL	999	7.80	1938	10.61	1139	14.46
02	PB158020BS	1032	7.80	1856	10.61	1003	14.46
03	GWOW-BR-04A-440-460-122123	1027	7.80	1893	10.61	1132	14.46
04	PB158020BS	1095	7.80	2037	10.61	1108	14.47

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.

CHEMTECH

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: BN122623 SAS No.: BN122623 SDG NO.: BN122623

EPA Sample No.: SSTDICCC0.4 Date Analyzed: Dec 26 2023 12:00AM

Lab File ID: BN029179.D Time Analyzed: 12:34

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	1727	17.181	699	21.385	811	23.709
	UPPER LIMIT	3454	17.681	1398	21.885	1622	24.209
	LOWER LIMIT	863.5	16.681	349.5	20.885	405.5	23.209
	EPA SAMPLE NO.						
01	PB158020BL	1753	17.23	677	21.42	796	23.78
02	PB158020BS	1515	17.23	515	21.43	653	23.78
03	GWOW-BR-04A-440-460-122123	1807	17.22	731	21.42	928	23.78
04	PB158020BS	1675	17.23	592	21.43	777	23.80

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.

CHEMTECH

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: BN122623 SAS No.: BN122623 SDG NO.: BN122623

EPA Sample No.: SSTDCCC0.4 Date Analyzed: Dec 26 2023 12:00AM

Lab File ID: BN029188.D Time Analyzed: 12:34

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	1621	17.119	612	21.277	752	23.534
	UPPER LIMIT	3242	17.619	1224	21.777	1504	24.034
	LOWER LIMIT	810.5	16.619	306	20.777	376	23.034
	EPA SAMPLE NO.						
01	PB158020BL	1753	17.23	677	21.42	796	23.78
02	PB158020BS	1515	17.23	515	21.43	653	23.78
03	GWOW-BR-04A-440-460-122123	1807	17.22	731	21.42	928	23.78
04	PB158020BS	1675	17.23	592	21.43	777	23.80

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.

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: BN122623

Client:

Analytical Method: 8270-Modified **DataFile:**

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB158020BS	n-Nitrosodimethylamine	0.4	0.3	ug/L	75				33	130	
	n-Nitrosodimethylamine	0.4	0.29	ug/L	73				33	130	
	bis(2-Chloroethyl)ether	0.4	0.27	ug/L	68				55	118	
	bis(2-Chloroethyl)ether	0.4	0.24	ug/L	60				55	118	
	Naphthalene	0.4	0.27	ug/L	68				67	120	
	Naphthalene	0.4	0.26	ug/L	65		*		67	120	
	Hexachlorobutadiene	0.4	0.24	ug/L	60				33	114	
	Hexachlorobutadiene	0.4	0.25	ug/L	63				33	114	
	2-Methylnaphthalene	0.4	0.26	ug/L	65				50	122	
	2-Methylnaphthalene	0.4	0.26	ug/L	65				50	122	
	Acenaphthylene	0.4	0.29	ug/L	73				60	119	
	Acenaphthylene	0.4	0.28	ug/L	70				60	119	
	Total PAH	6.4	4.42	ug/L	69				65	119	
	Acenaphthene	0.4	0.26	ug/L	65				65	119	
	Acenaphthene	0.4	0.25	ug/L	63		*		65	119	
	Total PAH	6.4	4.25	ug/L	66				65	119	
	Fluorene	0.4	0.23	ug/L	58				58	122	
	Fluorene	0.4	0.23	ug/L	58				58	122	
	4,6-Dinitro-2-methylphenol	0.4	0.36	ug/L	90				20	150	
	4,6-Dinitro-2-methylphenol	0.4	0.35	ug/L	88				20	150	
	4-Bromophenyl-phenylether	0.4	0.24	ug/L	60				20	150	
	4-Bromophenyl-phenylether	0.4	0.25	ug/L	63				20	150	
	Hexachlorobenzene	0.4	0.25	ug/L	63				62	127	
	Hexachlorobenzene	0.4	0.25	ug/L	63				62	127	
	Atrazine	0.4	0.26	ug/L	65				20	150	
	Atrazine	0.4	0.26	ug/L	65				20	150	
	Pentachlorophenol	0.8	0.44	ug/L	55				10	137	
	Pentachlorophenol	0.8	0.44	ug/L	55				10	137	
	Phenanthrene	0.4	0.27	ug/L	68				65	117	
	Phenanthrene	0.4	0.27	ug/L	68				65	117	
	Anthracene	0.4	0.26	ug/L	65				57	118	
	Anthracene	0.4	0.27	ug/L	68				57	118	
	Fluoranthene	0.4	0.23	ug/L	58				53	126	
	Fluoranthene	0.4	0.22	ug/L	55				53	126	
	Pyrene	0.4	0.26	ug/L	65				54	124	
	Pyrene	0.4	0.28	ug/L	70				54	124	
	Benzo(a)anthracene	0.4	0.29	ug/L	73				54	130	
	Benzo(a)anthracene	0.4	0.29	ug/L	73				54	130	
	Chrysene	0.4	0.31	ug/L	78				64	126	
	Chrysene	0.4	0.3	ug/L	75				64	126	
	bis(2-Ethylhexyl)phthalate	0.4	0.28	ug/L	70				40	137	
	bis(2-Ethylhexyl)phthalate	0.4	0.31	ug/L	78				40	137	
	Benzo(b)fluoranthene	0.4	0.28	ug/L	70				65	121	
	Benzo(b)fluoranthene	0.4	0.28	ug/L	70				65	121	
	Benzo(k)fluoranthene	0.4	0.26	ug/L	65		*		72	119	
	Benzo(k)fluoranthene	0.4	0.25	ug/L	63		*		72	119	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: BN122623

Client:

Analytical Method: 8270-Modified **DataFile:**

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB158020BS	Benzo(a)pyrene	0.4	0.29	ug/L	73				68	120	
	Benzo(a)pyrene	0.4	0.27	ug/L	68				68	120	
	Indeno(1,2,3-cd)pyrene	0.4	0.3	ug/L	75				70	127	
	Indeno(1,2,3-cd)pyrene	0.4	0.28	ug/L	70				70	127	
	Dibenz(a,h)anthracene	0.4	0.27	ug/L	68				65	121	
	Dibenz(a,h)anthracene	0.4	0.3	ug/L	75				65	121	
	Benzo(g,h,i)perylene	0.4	0.3	ug/L	75		*		76	117	
	Benzo(g,h,i)perylene	0.4	0.27	ug/L	68		*		76	117	
	1,4-Dioxane	0.4	0.22	ug/L	55		*		60	132	
	1,4-Dioxane	0.4	0.37	ug/L	93				60	132	

CHEMTECH

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB158020BL

Lab Name: CHEMTECH Contract:

Lab Code: CHEM Case No.: BN122623 SAS No.: BN122623 SDG NO.: BN122623

Lab File ID: BN029189.D Lab Sample ID: PB158020BL

Instrument ID: BNA_N Date Extracted: 12/22/2023

Matrix: (soil/water) Water Date Analyzed: 12/26/2023

Level: (low/med) LOW Time Analyzed: 12:34

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB158020BS	PB158020BS	BN029190.D	12/26/2023
GWOW-BR-04A-440-460-122123	O5996-01	BN029191.D	12/26/2023
PB158020BS	PB158020BS	BN029192.D	12/26/2023

COMMENTS:

CHEMTECH

Surrogate Summary

SW-846

SDG No.: BN122623

Client:

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Datafile	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	High
O5996-01	GWOW-BR-04A-4	BN029191.D	2-Methylnaphthalene-d10	0.4	0.26	66		30	150
			Fluoranthene-d10	0.4	0.26	66		30	150
			2-Fluorophenol	0.4	0.11	27		10	92
			Phenol-d6	0.4	0.05	13		10	100
			Nitrobenzene-d5	0.4	0.23	56		11	175
			2-Fluorobiphenyl	0.4	0.27	68		10	175
			2,4,6-Tribromophenol	0.4	0.27	68		24	148
			Terphenyl-d14	0.4	0.30	74		54	171
PB158020BL	PB158020BL	BN029189.D	2-Methylnaphthalene-d10	0.4	0.31	77		30	150
			Fluoranthene-d10	0.4	0.29	73		30	150
			2-Fluorophenol	0.4	0.31	77		10	92
			Phenol-d6	0.4	0.24	61		10	100
			Nitrobenzene-d5	0.4	0.30	75		11	175
			2-Fluorobiphenyl	0.4	0.28	70		10	175
			2,4,6-Tribromophenol	0.4	0.19	48		24	148
			Terphenyl-d14	0.4	0.34	85		54	171
PB158020BS	PB158020BS	BN029190.D	2-Methylnaphthalene-d10	0.4	0.41	102		30	150
		BN029192.D	2-Methylnaphthalene-d10	0.4	0.40	99		30	150
			Fluoranthene-d10	0.4	0.24	59		30	150
		BN029190.D	Fluoranthene-d10	0.4	0.24	61		30	150
			2-Fluorophenol	0.4	0.32	80		10	92
		BN029192.D	2-Fluorophenol	0.4	0.33	83		10	92
			Phenol-d6	0.4	0.33	81		10	100
		BN029190.D	Phenol-d6	0.4	0.31	78		10	100
			Nitrobenzene-d5	0.4	0.27	68		11	175
		BN029192.D	Nitrobenzene-d5	0.4	0.28	69		11	175
			2-Fluorobiphenyl	0.4	0.29	72		10	175
		BN029190.D	2-Fluorobiphenyl	0.4	0.29	72		10	175
			2,4,6-Tribromophenol	0.4	0.30	76		24	148
		BN029192.D	2,4,6-Tribromophenol	0.4	0.28	69		24	148
			Terphenyl-d14	0.4	0.29	73		54	171
		BN029190.D	Terphenyl-d14	0.4	0.29	73		54	171

CHEMTECH

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: BN122623

Lab Code: CHEM SAS No.: BN122623 SDG NO.: BN122623

Lab File ID: BN029187.D DFTPP Injection Date: 12/26/2023

Instrument ID: BNA_N DFTPP Injection Time: 10:30

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	38.1
68	Less than 2.0% of mass 69	1.4 (2) 1
69	Mass 69 relative abundance	72.7
70	Less than 2.0% of mass 69	0.5 (0.7) 1
127	10.0 - 80.0% of mass 198	56.9
197	Less than 2.0% of mass 198	1
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	23.7
365	Greater than 1% of mass 198	5.8
441	Present, but less than mass 443	7.3
442	Greater than 50% of mass 198	44.6
443	15.0 - 24.0% of mass 442	8.8 (19.8) 2

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

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC0.4	SSTDCCC0.4	BN029188.D	12/26/2023	11:58
PB158020BL	PB158020BL	BN029189.D	12/26/2023	12:34
PB158020BS	PB158020BS	BN029190.D	12/26/2023	13:10
GWOW-BR-04A-440-460-122123	O5996-01	BN029191.D	12/26/2023	13:46
PB158020BS	PB158020BS	BN029192.D	12/26/2023	14:47