

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: _____

Lab Code: CHEM Case No.: BM120924 SAS No.: BM120924 SDG No.: BM120924

Instrument ID: BNA_M Calibration Date/Time: 12/9/2024 1:17:55

Lab File ID: BM048913.D Init. Calib. Date(s): _____

EPA Sample No.: SICV012 Init. Calib. Time(s): _____

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

COMPOUND	RRF	RRFICV	MIN RRF	%D	MAX%D
1,4-Dioxane	0.541	0.611	0.010	12.9893	40.0
1,4-Dioxane-d8	0.467	0.487	0.010	4.0943	40.0
Naphthalene	1.025	1.003	0.600	-2.1878	30.0
1-Methylnaphthalene	0.638	0.588	0.300	-7.852	30.0
2-Methylnaphthalene	0.626	0.615	0.300	-1.7256	30.0
Acenaphthylene	1.689	1.711	0.900	1.2469	30.0
Acenaphthene	1.279	1.264	0.500	-1.1685	30.0
Fluorene	1.420	1.371	0.700	-3.4302	30.0
Pentachlorophenol	0.082	0.069	0.010	-16.078	50.0
Phenanthrene	1.096	1.042	0.300	-4.9464	30.0
Anthracene	0.978	0.927	0.400	-5.1537	30.0
Fluoranthene	1.659	1.570	0.400	-5.3793	30.0
Pyrene	1.788	1.664	0.500	-6.9588	30.0
Benzo (a) anthracene	1.408	1.288	0.400	-8.4904	30.0
Chrysene	1.593	1.605	0.400	0.7485	30.0
Benzo (b) fluoranthene	1.382	1.300	0.200	-5.9186	30.0
Benzo (k) fluoranthene	1.599	1.583	0.200	-0.9927	30.0
Benzo (a) pyrene	1.278	1.235	0.200	-3.3819	30.0
Indeno (1,2,3-cd) pyrene	1.796	1.744	0.200	-2.8942	30.0
Dibenzo (a,h) anthracene	1.397	1.369	0.200	-2.0221	30.0
Benzo (g,h,i) perylene	1.444	1.411	0.200	-2.3466	30.0
Fluoranthene-d10	1.195	1.125	0.400	-5.8459	30.0
2-Methylnaphthalene-d10	0.510	0.493	0.300	-3.4079	30.0

All other compounds must meet a minimum RRF of 0.010.

Report of Analysis

Client:				Date Collected:			
Project:				Date Received:			
Client Sample ID:	SSTD0.4103			SDG No.:	BM120924		
Lab Sample ID:	SSTDCCC0.4			Matrix:	Water		
Analytical Method:	SFAM_SVOASIM			% Moisture:	100		
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000000		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
BM048906.D	1		12/9/2024 12:00:00 AM	

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	460		29	0	200	ug/L
91-20-3	Naphthalene	440		4.3	50	100	ug/L
90-12-0	1-Methylnaphthalene	460		15	50	100	ug/L
91-57-6	2-Methylnaphthalene	470		5.3	50	100	ug/L
208-96-8	Acenaphthylene	440		12	50	100	ug/L
83-32-9	Acenaphthene	440		7.4	50	100	ug/L
86-73-7	Fluorene	470		6.7	50	100	ug/L
87-86-5	Pentachlorophenol	600		63	100	200	ug/L
85-01-8	Phenanthrene	450		6.8	50	100	ug/L
120-12-7	Anthracene	460		8	50	100	ug/L
206-44-0	Fluoranthene	430		7.9	50	100	ug/L
129-00-0	Pyrene	440		6	50	100	ug/L
56-55-3	Benzo(a)anthracene	490		3.6	50	100	ug/L
218-01-9	Chrysene	450		7.7	50	100	ug/L
205-99-2	Benzo(b)fluoranthene	450		13	50	100	ug/L
207-08-9	Benzo(k)fluoranthene	390		9.8	50	100	ug/L
50-32-8	Benzo(a)pyrene	450		17	50	100	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	470		17	50	100	ug/L
53-70-3	Dibenzo(a,h)anthracene	470		14	50	100	ug/L
191-24-2	Benzo(g,h,i)perylene	460		22	50	100	ug/L
SURROGATES							
17647-74-4	1,4-Dioxane-d8	445	*	15-120		5563	SPK: -8
93951-69-0	Fluoranthene-d10	425	*	30-130		106250	SPK: -0.4
7297-45-2	2-Methylnaphthalene-d10	468	*	30-130		117000	SPK: -0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3358		7.586			
1146-65-2	Naphthalene-d8	8878		10.348			
15067-26-2	Acenaphthene-d10	4975		14.22			

Report of Analysis

Client:		Date Collected:	
Project:		Date Received:	
Client Sample ID:	SSTD0.4103	SDG No.:	BM120924
Lab Sample ID:	SSTDCCC0.4	Matrix:	Water
Analytical Method:	SFAM_SVOASIM	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000000 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
BM048906.D	1		12/9/2024 12:00:00 AM	

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
1517-22-2	Phenanthrene-d10	10618	16.968				
1719-03-5	Chrysene-d12	9012	21.166				
1520-96-3	Perylene-d12	10517	23.335				
TENTATIVE IDENTIFIED COMPOUNDS							
E966796	Total Alkanes	29	U			99	ug/L

Hit Summary Sheet SW-846

SDG No.: BM120924

Client:

Sample ID	Client ID		Parameter	Concentration	C	MDL	RDL	Units
Client ID : SSTD0.4103								
SSTDCCC0.4	SSTD0.4103	Water	Total Alkanes	*	0.000	29	200	ug/L
			Total Tics :			0.00		
SSTDCCC0.4	SSTD0.4103	Water	1,4-Dioxane		460.000	29	200	ug/L
SSTDCCC0.4	SSTD0.4103	Water	1-Methylnaphthalene		460.000	15	100	ug/L
SSTDCCC0.4	SSTD0.4103	Water	2-Methylnaphthalene		470.000	5.3	100	ug/L
SSTDCCC0.4	SSTD0.4103	Water	Acenaphthene		440.000	7.4	100	ug/L
SSTDCCC0.4	SSTD0.4103	Water	Acenaphthylene		440.000	12	100	ug/L
SSTDCCC0.4	SSTD0.4103	Water	Anthracene		460.000	8	100	ug/L
SSTDCCC0.4	SSTD0.4103	Water	Benzo(a)anthracene		490.000	3.6	100	ug/L
SSTDCCC0.4	SSTD0.4103	Water	Benzo(a)pyrene		450.000	17	100	ug/L
SSTDCCC0.4	SSTD0.4103	Water	Benzo(b)fluoranthene		450.000	13	100	ug/L
SSTDCCC0.4	SSTD0.4103	Water	Benzo(g,h,i)perylene		460.000	22	100	ug/L
SSTDCCC0.4	SSTD0.4103	Water	Benzo(k)fluoranthene		390.000	9.8	100	ug/L
SSTDCCC0.4	SSTD0.4103	Water	Chrysene		450.000	7.7	100	ug/L
SSTDCCC0.4	SSTD0.4103	Water	Dibenzo(a,h)anthracene		470.000	14	100	ug/L
SSTDCCC0.4	SSTD0.4103	Water	Fluoranthene		430.000	7.9	100	ug/L
SSTDCCC0.4	SSTD0.4103	Water	Fluorene		470.000	6.7	100	ug/L
SSTDCCC0.4	SSTD0.4103	Water	Indeno(1,2,3-cd)pyrene		470.000	17	100	ug/L
SSTDCCC0.4	SSTD0.4103	Water	Naphthalene		440.000	4.3	100	ug/L
SSTDCCC0.4	SSTD0.4103	Water	Pentachlorophenol		600.000	63	200	ug/L
SSTDCCC0.4	SSTD0.4103	Water	Phenanthrene		450.000	6.8	100	ug/L
SSTDCCC0.4	SSTD0.4103	Water	Pyrene		440.000	6	100	ug/L
			Total Svoc :			9,190.00		
			Total Concentration:			9,190.00		



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SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: _____
Lab Code: CHEM Case No.: BM120924 SAS No.: BM120924 SDG No.: BM120924
Instrument ID: _____ Calibration Date(s): 12/9/2024 : _____
Calibration Time(s): 14:18 _____

LAB FILE ID:		RRFAL1 = BM048907.D			RRFAL2 = BM048908.D		RRFAL3 = BM048909.D	
		RRFAL4 = BM048910.D			RRFAL5 = BM048911.D		RRFAL6 = BM048912.D	
COMPOUND	RRFAL1	RRFAL2	RRFAL3	RRFAL4	RRFAL5	RRFAL6	RRF	% RSD
1,4-Dioxane		0.554	0.612	0.519	0.513	0.507	0.541	8.0
1,4-Dioxane-d8		0.444	0.512	0.464	0.463	0.455	0.467	5.6
Naphthalene	1.053	1.010	1.126	0.975	0.964		1.025	6.4
1-Methylnaphthalene	0.649	0.626	0.709	0.607	0.599		0.638	6.9
2-Methylnaphthalene	0.646	0.604	0.691	0.598	0.592		0.626	6.7
Acenaphthylene	1.721	1.644	1.864	1.616	1.603		1.689	6.4
Acenaphthene	1.311	1.233	1.422	1.222	1.208		1.279	7.0
Fluorene	1.447	1.329	1.577	1.381	1.366		1.420	6.9
Pentachlorophenol		0.071	0.084	0.077	0.087	0.092	0.082	10.0
Phenanthrene	1.120	1.053	1.193	1.061	1.054		1.096	5.6
Anthracene	0.979	0.933	1.057	0.956	0.963		0.978	4.9
Fluoranthene	1.723	1.691	1.864	1.543	1.472		1.659	9.3
Pyrene	1.923	1.819	1.998	1.637	1.563		1.788	10.3
Benzo(a)anthracene	1.462	1.344	1.520	1.343	1.369		1.408	5.7
Chrysene	1.609	1.585	1.781	1.517	1.472		1.593	7.5
Benzo(b)fluoranthene	1.371	1.323	1.476	1.343	1.399		1.382	4.3
Benzo(k)fluoranthene	1.573	1.615	1.794	1.531	1.482		1.599	7.5
Benzo(a)pyrene	1.284	1.271	1.374	1.227	1.236		1.278	4.6
Indeno(1,2,3-cd)pyrene	1.695	1.689	2.060	1.748	1.785		1.796	8.5
Dibenzo(a,h)anthracene	1.339	1.308	1.585	1.363	1.392		1.397	7.8
Benzo(g,h,i)perylene	1.390	1.398	1.586	1.417	1.431		1.444	5.6
Fluoranthene-d10	1.240	1.231	1.351	1.106	1.046		1.195	10.1
2-Methylnaphthalene-d10	0.516	0.497	0.564	0.490	0.484		0.510	6.4

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: BM120924 SAS No.: BM120924 SDG NO.: BM120924

EPA Sample No.: SSTD0.4008 Date Analyzed: Dec 9 2024 12:00AM

Lab File ID: BM048909.D Time Analyzed: 12:45

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

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	3702	7.586	9933	10.35	5287	14.22
UPPER LIMIT	7404	8.086	19866	10.852	10574	14.723
LOWER LIMIT	1851	7.086	4966.5	9.852	2643.5	13.723
EPA SAMPLE NO.						
01 SSTD0.4103	3358	7.59	8878	10.35	4975	14.22
02 SICV012	3555	7.59	9131	10.35	4788	14.22

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.: BM120924 SAS No.: BM120924 SDG NO.: BM120924

EPA Sample No.: _____ Date Analyzed: _____

Lab File ID: _____ Time Analyzed: _____

Instrument ID: _____ GC Column: _____ ID: _____ (mm)

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD						
UPPER LIMIT						
LOWER LIMIT						
EPA SAMPLE NO.						

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.: BM120924 SAS No.: BM120924 SDG NO.: BM120924

EPA Sample No.: SSTD0.4008 Date Analyzed: Dec 9 2024 12:00AM

Lab File ID: BM048909.D Time Analyzed: 12:45

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

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	10936	16.967	8330	21.164	9341	23.335
UPPER LIMIT	21872	17.467	16660	21.664	18682	23.835
LOWER LIMIT	5468	16.467	4165	20.664	4670.5	22.835
EPA SAMPLE NO.						
01 SSTD0.4103	10618	16.97	9012	21.17	10517	23.34
02 SICV012	9764	16.97	7760	21.16	8466	23.34

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.: BM120924 SAS No.: BM120924 SDG NO.: BM120924

EPA Sample No.: _____ Date Analyzed: _____

Lab File ID: _____ Time Analyzed: _____

Instrument ID: _____ GC Column: _____ ID: _____ (mm)

	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
12 HOUR STD						
UPPER LIMIT						
LOWER LIMIT						
EPA SAMPLE NO.						

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.

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: BM120924

Client: _____

Analytical Method: SFAM_SVOASIM DataFile: _____

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD		Limits		RPD
								Qual	Low	High		
SSTDICV0.4	1,4-Dioxane	0.4	0	ug/L	0				0	0		
	Naphthalene	0.4	0	ug/L	0				0	0		
	1-Methylnaphthalene	0.4	0	ug/L	0				0	0		
	2-Methylnaphthalene	0.4	0	ug/L	0				0	0		
	Acenaphthylene	0.4	0	ug/L	0				0	0		
	Acenaphthene	0.4	0	ug/L	0				0	0		
	Fluorene	0.4	0	ug/L	0				0	0		
	Pentachlorophenol	0.4	0	ug/L	0				0	0		
	Phenanthrene	0.4	0	ug/L	0				0	0		
	Anthracene	0.4	0	ug/L	0				0	0		
	Fluoranthene	0.4	0	ug/L	0				0	0		
	Pyrene	0.4	0	ug/L	0				0	0		
	Benzo(a)anthracene	0.4	0	ug/L	0				0	0		
	Chrysene	0.4	0	ug/L	0				0	0		
	Benzo(b)fluoranthene	0.4	0	ug/L	0				0	0		
	Benzo(k)fluoranthene	0.4	0	ug/L	0				0	0		
	Benzo(a)pyrene	0.4	0	ug/L	0				0	0		
	Indeno(1,2,3-cd)pyrene	0.4	0	ug/L	0				0	0		
	Dibenzo(a,h)anthracene	0.4	0	ug/L	0				0	0		
	Benzo(g,h,i)perylene	0.4	0	ug/L	0				0	0		

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SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SSTD0.4103

Lab Name: CHEMTECH

Contract: _____

Lab Code: CHEM Case No.: BM120924

SAS No.: BM120924 SDG NO.: BM120924

Lab File ID: BM048906.D

Lab Sample ID: SSTDCCC0.4

Instrument ID: BNA_M

Date Extracted: _____

Matrix: (soil/water) Water

Date Analyzed: 12/09/2024

Level: (low/med) LOW

Time Analyzed: 12:45

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
SSTD0.4103	SSTDCCC0.4	BM048906.D	12/09/2024

COMMENTS: _____

Surrogate Summary

SW-846

SDG No.: BM120924

Client: _____

Analytical Method: SFAM_SVOASIM

Lab Sample ID	Client ID	Datafile	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
								Low	High
SSTDCCC0.4	SSTD0.4103	BM048906.D	1,4-Dioxane-d8	8	445.00	5563	*	15	120
			Fluoranthene-d10	0.4	425.00	106250	*	30	130
			2-Methylnaphthalene-d10	0.4	468.00	117000	*	30	130

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: BM120924

Lab Code: CHEM

SAS No.: BM120924

SDG NO.: BM120924

Lab File ID: BM048905.D

DFTPP Injection Date: 12/09/2024

Instrument ID: BNA_M

DFTPP Injection Time: 10:15

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	47.2
68	Less than 2.0% of mass 69	0.7 (1.6) 1
69	Mass 69 relative abundance	46.2
70	Less than 2.0% of mass 69	0.3 (0.6) 1
127	10.0 - 80.0% of mass 198	49.2
197	Less than 2.0% of mass 198	0.5
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198	23.2
365	Greater than 1% of mass 198	3.2
441	Present, but less than mass 443	10.1
442	Greater than 50% of mass 198	64.2
443	15.0 - 24.0% of mass 442	12.3 (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
SSTD0.4103	SSTDCCC0.4	BM048906.D	12/09/2024	12:45
SSTD0.1006	SSTD0.124	BM048907.D	12/09/2024	14:18
SSTD0.2007	SSTD0.225	BM048908.D	12/09/2024	14:55
SSTD0.4008	SSTD0.426	BM048909.D	12/09/2024	15:31
SSTD0.8009	SSTD0.827	BM048910.D	12/09/2024	16:07
SSTD1.6010	SSTD1.628	BM048911.D	12/09/2024	16:43
SSTD3.2011	SSTD3.229	BM048912.D	12/09/2024	17:19
SICV012	SSTDICV0.4	BM048913.D	12/09/2024	17:55