CHEMTECH
AN ALLIANCE TECHNICAL GROUP COMPANY
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract:

Lab Code: CHEM Case No.: BM060624 SAS No.: BM060624 SDG No.: BM060624

Instrument ID: BNA_M Calibration Date/Time: 6/6/2024 12: 17:50

Lab File ID: BM045871.D Init. Calib. Date(s):

EPA Sample No.: SICV014 Init. Calib. Time(s):

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

COMPOUND	RRF	RRFICV	MIN RRF	%D	MAX%D
1,4-Dioxane	0.521	0.491	0.010	-5.8696	40.0
1,4-Dioxane-d8	0.456	0.422	0.010	-7.4224	40.0
Naphthalene	1.045	0.954	0.600	-8.7513	30.0
1-Methylnaphthalene	0.725	0.587	0.300	-18.9799	30.0
2-Methylnaphthalene	0.666	0.609	0.300	-8.5956	30.0
Acenaphthylene	1.819	1.624	0.900	-10.7102	30.0
Acenaphthene	1.337	1.161	0.500	-13.1556	30.0
Fluorene	1.494	1.340	0.700	-10.3488	30.0
Pentachlorophenol	0.075	0.056	0.010	-24.5025	50.0
Phenanthrene	1.123	0.990	0.300	-11.8049	30.0
Anthracene	0.958	0.873	0.400	-8.8999	30.0
Fluoranthene	1.595	1.364	0.400	-14.477	30.0
Pyrene	1.664	1.450	0.500	-12.8413	30.0
Benzo(a)anthracene	1.468	1.225	0.400	-16.5393	30.0
Chrysene	1.598	1.438	0.400	-10.0403	30.0
Benzo(b)fluoranthene	1.327	1.196	0.200	-9.839	30.0
Benzo(k)fluoranthene	1.458	1.277	0.200	-12.3986	30.0
Benzo(a)pyrene	1.319	1.170	0.200	-11.3014	30.0
Indeno(1,2,3-cd)pyrene	1.706	1.570	0.200	-7.9926	30.0
Dibenzo(a,h)anthracene	1.364	1.231	0.200	-9.7312	30.0
Benzo(g,h,i)perylene	1.471	1.312	0.200	-10.8507	30.0
Fluoranthene-d10	1.198	1.037	0.400	-13.4158	30.0
2-Methylnaphthalene-d10	0.575	0.510	0.300	-11.3026	30.0

All other compounds must meet a minimum RRF of 0.010.

CHEMTECH
AN ALLIANCE TECHNICAL GROUP COMPANY

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

Report of Analysis

Client:				Date Collected:	
Project:				Date Received:	
Client Sample ID:	SSTD0.4116			SDG No.:	BM060624
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
BM045864.D	1		6/6/2024 12:00:00 AM	

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	300		29	0	200	ug/L
91-20-3	Naphthalene	390		4.3	50	100	ug/L
90-12-0	1-Methylnaphthalene	370		15	50	100	ug/L
91-57-6	2-Methylnaphthalene	380		5.3	50	100	ug/L
208-96-8	Acenaphthylene	390		12	50	100	ug/L
83-32-9	Acenaphthene	380		7.4	50	100	ug/L
86-73-7	Fluorene	380		6.7	50	100	ug/L
87-86-5	Pentachlorophenol	430		63	100	200	ug/L
85-01-8	Phenanthrene	370		6.8	50	100	ug/L
120-12-7	Anthracene	390		8	50	100	ug/L
206-44-0	Fluoranthene	360		7.9	50	100	ug/L
129-00-0	Pyrene	360		6	50	100	ug/L
56-55-3	Benzo(a)anthracene	370		3.6	50	100	ug/L
218-01-9	Chrysene	380		7.7	50	100	ug/L
205-99-2	Benzo(b)fluoranthene	390		13	50	100	ug/L
207-08-9	Benzo(k)fluoranthene	390		9.8	50	100	ug/L
50-32-8	Benzo(a)pyrene	380		17	50	100	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	380		17	50	100	ug/L
53-70-3	Dibenzo(a,h)anthracene	370		14	50	100	ug/L
191-24-2	Benzo(g,h,i)perylene	380		22	50	100	ug/L
SURROGATES							
17647-74-4	1,4-Dioxane-d8	311	*	15-120		3888	SPK: -8
93951-69-0	Fluoranthene-d10	364	*	30-130		91000	SPK: -0.4
7297-45-2	2-Methylnaphthalene-d10	376	*	30-130		94000	SPK: -0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	4753	7.472				
1146-65-2	Naphthalene-d8	14418	10.242				
15067-26-2	Acenaphthene-d10	7924	14.112				

CHEMTECH
AN ALLIANCE TECHNICAL GROUP COMPANY

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

Report of Analysis

Client:			Date Collected:		
Project:			Date Received:		
Client Sample ID:	SSTD0.4116		SDG No.:	BM060624	
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
BM045864.D	1		6/6/2024 12:00:00 AM	

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
1517-22-2	Phenanthrene-d10	16872	16.857				
1719-03-5	Chrysene-d12	14514	21.044				
1520-96-3	Perylene-d12	16872	23.151				
TENTATIVE IDENTIFIED COMPOUNDS							
E966796	Total Alkanes	29	U			99	ug/L

CHEMTECH
AN ALLIANCE TECHNICAL GROUP COMPANY

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

Hit Summary Sheet
SW-846

SDG No.: BM060624

Client:

Sample ID	Client ID		Parameter		Concentration	C	MDL	RDL	Units
Client ID :	**SSTD0.4116**								
SSTDCCC0.4	SSTD0.4116	Water	Total Alkanes	*	0.000		29	200	ug/L
			Total Tics :				**0.00**		
SSTDCCC0.4	SSTD0.4116	Water	1,4-Dioxane		300.000		29	200	ug/L
SSTDCCC0.4	SSTD0.4116	Water	1-Methylnaphthalene		370.000		15	100	ug/L
SSTDCCC0.4	SSTD0.4116	Water	2-Methylnaphthalene		380.000		5.3	100	ug/L
SSTDCCC0.4	SSTD0.4116	Water	Acenaphthene		380.000		7.4	100	ug/L
SSTDCCC0.4	SSTD0.4116	Water	Acenaphthylene		390.000		12	100	ug/L
SSTDCCC0.4	SSTD0.4116	Water	Anthracene		390.000		8	100	ug/L
SSTDCCC0.4	SSTD0.4116	Water	Benzo(a)anthracene		370.000		3.6	100	ug/L
SSTDCCC0.4	SSTD0.4116	Water	Benzo(a)pyrene		380.000		17	100	ug/L
SSTDCCC0.4	SSTD0.4116	Water	Benzo(b)fluoranthene		390.000		13	100	ug/L
SSTDCCC0.4	SSTD0.4116	Water	Benzo(g,h,i)perylene		380.000		22	100	ug/L
SSTDCCC0.4	SSTD0.4116	Water	Benzo(k)fluoranthene		390.000		9.8	100	ug/L
SSTDCCC0.4	SSTD0.4116	Water	Chrysene		380.000		7.7	100	ug/L
SSTDCCC0.4	SSTD0.4116	Water	Dibenzo(a,h)anthracene		370.000		14	100	ug/L
SSTDCCC0.4	SSTD0.4116	Water	Fluoranthene		360.000		7.9	100	ug/L
SSTDCCC0.4	SSTD0.4116	Water	Fluorene		380.000		6.7	100	ug/L
SSTDCCC0.4	SSTD0.4116	Water	Indeno(1,2,3-cd)pyrene		380.000		17	100	ug/L
SSTDCCC0.4	SSTD0.4116	Water	Naphthalene		390.000		4.3	100	ug/L
SSTDCCC0.4	SSTD0.4116	Water	Pentachlorophenol		430.000		63	200	ug/L
SSTDCCC0.4	SSTD0.4116	Water	Phenanthrene		370.000		6.8	100	ug/L
SSTDCCC0.4	SSTD0.4116	Water	Pyrene		360.000		6	100	ug/L
			Total Svoc :		**7,540.00**				
			Total Concentration:		**7,540.00**				

CHEMTECH

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract:

Lab Code: CHEM Case No.: BM060624 SAS No.: BM060624 SDG No.: BM060624

Instrument ID: Calibration Date(s): 6/6/2024 1:

Calibration Time(s): 14:09

LAB FILE ID: RRFAL1 = BM045865.D RRFAL2 = BM045866.D RRFAL3 = BM045867.D
RRFAL4 = BM045868.D RRFAL5 = BM045869.D RRFAL6 = BM045870.D

COMPOUND	RRFAL1	RRFAL2	RRFAL3	RRFAL4	RRFAL5	RRFAL6	RRF	% RSD
1,4-Dioxane		0.609	0.462	0.526	0.501	0.509	0.521	10.4
1,4-Dioxane-d8		0.461	0.396	0.484	0.459	0.479	0.456	7.7
Naphthalene	1.068	1.074	1.007	1.058	1.019		1.045	2.9
1-Methylnaphthalene	0.740	0.738	0.704	0.728	0.715		0.725	2.1
2-Methylnaphthalene	0.682	0.666	0.643	0.678	0.665		0.666	2.3
Acenaphthylene	1.849	1.818	1.739	1.861	1.829		1.819	2.6
Acenaphthene	1.377	1.348	1.274	1.365	1.319		1.337	3.1
Fluorene	1.532	1.447	1.444	1.547	1.502		1.494	3.2
Pentachlorophenol		0.069	0.063	0.077	0.078	0.087	0.075	12.0
Phenanthrene	1.242	1.124	1.044	1.119	1.087		1.123	6.6
Anthracene	0.949	0.932	0.905	0.999	1.004		0.958	4.5
Fluoranthene	1.653	1.580	1.538	1.574	1.631		1.595	2.9
Pyrene	1.742	1.666	1.594	1.637	1.680		1.664	3.3
Benzo(a)anthracene	1.524	1.461	1.348	1.507	1.501		1.468	4.8
Chrysene	1.680	1.653	1.513	1.610	1.536		1.598	4.5
Benzo(b)fluoranthene	1.380	1.297	1.246	1.331	1.380		1.327	4.3
Benzo(k)fluoranthene	1.523	1.519	1.354	1.491	1.403		1.458	5.2
Benzo(a)pyrene	1.393	1.364	1.216	1.329	1.296		1.319	5.2
Indeno(1,2,3-cd)pyrene	1.812	1.743	1.554	1.754	1.667		1.706	5.8
Dibenzo(a,h)anthracene	1.444	1.409	1.235	1.399	1.333		1.364	6.1
Benzo(g,h,i)perylene	1.550	1.517	1.350	1.513	1.427		1.471	5.6
Fluoranthene-d10	1.204	1.188	1.170	1.187	1.240		1.198	2.2
2-Methylnaphthalene-d10	0.577	0.580	0.558	0.586	0.576		0.575	1.8

All other compounds must meet a minimum RRF of 0.010.

CHEMTECH
AN ALLIANCE TECHNICAL GROUP COMPANY

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

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: BM060624 SAS No.: BM060624 SDG NO.: BM060624

EPA Sample No.: SSTD0.4010 Date Analyzed: Jun 6 2024 12:00AM

Lab File ID: BM045867.D Time Analyzed: 12:57

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	5098	7.485	16286	10.25	9715	14.12
	UPPER LIMIT	10196	7.985	32572	10.753	19430	14.621
	LOWER LIMIT	2549	6.985	8143	9.753	4857.5	13.621
	EPA SAMPLE NO.						
01	SSTD0.4116	4753	7.47	14418	10.24	7924	14.11
02	SICV014	5989	7.48	19243	10.26	11466	14.12

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
AN ALLIANCE TECHNICAL GROUP COMPANY

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

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: BM060624 SAS No.: BM060624 SDG NO.: BM060624

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.

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

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: BM060624 SAS No.: BM060624 SDG NO.: BM060624

EPA Sample No.: SSTD0.4010 Date Analyzed: Jun 6 2024 12:00AM

Lab File ID: BM045867.D Time Analyzed: 12:57

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	20314	16.866	15505	21.053	18210	23.166
	UPPER LIMIT	40628	17.366	31010	21.553	36420	23.666
	LOWER LIMIT	10157	16.366	7752.5	20.553	9105	22.666
	EPA SAMPLE NO.						
01	SSTD0.4116	16872	16.86	14514	21.04	16872	23.15
02	SICV014	23855	16.86	19826	21.05	24059	23.17

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
AN ALLIANCE TECHNICAL GROUP COMPANY

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

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: BM060624 SAS No.: BM060624 SDG NO.: BM060624

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.

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

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: BM060624

Client:

Analytical Method: SFAM_SVOASIM **DataFile:**

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
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	

CHEMTECH
AN ALLIANCE TECHNICAL GROUP COMPANY

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

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SSTD0.4116

Lab Name: CHEMTECH Contract:

Lab Code: CHEM Case No.: BM060624 SAS No.: BM060624 SDG NO.: BM060624

Lab File ID: BM045864.D Lab Sample ID: SSTDCCC0.4

Instrument ID: BNA_M Date Extracted:

Matrix: (soil/water) Water Date Analyzed: 06/06/2024

Level: (low/med) LOW Time Analyzed: 12:57

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
SSTD0.4116	SSTDCCC0.4	BM045864.D	06/06/2024

COMMENTS:

CHEMTECH
AN ALLIANCE TECHNICAL GROUP COMPANY

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

Surrogate Summary

SW-846

SDG No.: BM060624

Client:

Analytical Method: SFAM_SVOASIM

Lab Sample ID	Client ID	Datafile	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
SSTDCCC0.4	SSTD0.4116	BM045864.D	1,4-Dioxane-d8	8	311.00	3888	*	15	120
			Fluoranthene-d10	0.4	364.00	91000	*	30	130
			2-Methylnaphthalene-d10	0.4	376.00	94000	*	30	130

CHEMTECH
AN ALLIANCE TECHNICAL GROUP COMPANY

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

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: BM060624

Lab Code: CHEM SAS No.: BM060624 SDG NO.: BM060624

Lab File ID: BM045863.D DFTPP Injection Date: 06/06/2024

Instrument ID: BNA_M DFTPP Injection Time: 12:17

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	61.2
68	Less than 2.0% of mass 69	0.8 (1.6) 1
69	Mass 69 relative abundance	51.7
70	Less than 2.0% of mass 69	0.2 (0.3) 1
127	10.0 - 80.0% of mass 198	53.5
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	23.9
365	Greater than 1% of mass 198	3.6
441	Present, but less than mass 443	8.7
442	Greater than 50% of mass 198	54.3
443	15.0 - 24.0% of mass 442	10.2 (18.7) 2

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

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTD0.4116	SSTDCCC0.4	BM045864.D	06/06/2024	12:57
SSTD0.1008	SSTD0.145	BM045865.D	06/06/2024	14:09
SSTD0.2009	SSTD0.246	BM045866.D	06/06/2024	14:45
SSTD0.4010	SSTD0.447	BM045867.D	06/06/2024	15:22
SSTD0.8011	SSTD0.848	BM045868.D	06/06/2024	15:59
SSTD1.6012	SSTD1.649	BM045869.D	06/06/2024	16:36
SSTD3.2013	SSTD3.250	BM045870.D	06/06/2024	17:13
SICV014	SSTDICV0.4	BM045871.D	06/06/2024	17:50