284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Cover Page

Order ID : P4892

Project ID : Amtrak Sawtooth Bridges 2024

Client : Portal Partners Tri-Venture

Lab Sample Number	Client Sample Number
P4892-01	WB-310-TOP
P4892-02	WB-310-BOT
P4892-03	WB-310-BOT
P4892-04	WB-310-SW

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 11/29/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

284 Sheffield Street, Mountainside NJ 07092 Tel. 908-789-8900 Fax: 908-789-8922

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value**.** This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: **P4892**

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

QA Review Signature: **PATEL VAISHALI** **Date:** **11/29/2024**

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LAB CHRONICLE

OrderID:	P4892	**OrderDate:**	11/18/2024 8:10:00 AM
Client:	Portal Partners Tri-Venture	**Project:**	Amtrak Sawtooth Bridges 2024
Contact:	Joseph Krupansky	**Location:**	M11,VOA Ref. #2 Soil,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4892-01	**WB-310-TOP**	**SOIL**			**11/15/24**			**11/15/24**
			SVOC-TCL BNA -20	8270E		11/19/24	11/20/24	
P4892-02	**WB-310-BOT**	**SOIL**			**11/15/24**			**11/15/24**
			SVOC-TCL BNA -20	8270E		11/19/24	11/20/24	
P4892-04	**WB-310-SW**	**Water**			**11/15/24**			**11/15/24**
			SVOC-TCL BNA -20	8270E		11/20/24	11/25/24	

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Hit Summary Sheet
SW-846

SDG No.: P4892

Client: Portal Partners Tri-Venture

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Client ID :	**WB-310-TOP**								
P4892-01	WB-310-TOP	SOIL	Acenaphthylene		200.000	J	140	280	ug/Kg
P4892-01	WB-310-TOP	SOIL	Phenanthrene		720.000		140	280	ug/Kg
P4892-01	WB-310-TOP	SOIL	Anthracene		330.000		140	280	ug/Kg
P4892-01	WB-310-TOP	SOIL	Fluoranthene		1,400.000		140	280	ug/Kg
P4892-01	WB-310-TOP	SOIL	Pyrene		1,100.000		140	280	ug/Kg
P4892-01	WB-310-TOP	SOIL	Benzo(a)anthracene		1,100.000		130	280	ug/Kg
P4892-01	WB-310-TOP	SOIL	Chrysene		980.000		130	280	ug/Kg
P4892-01	WB-310-TOP	SOIL	Benzo(b)fluoranthene		840.000		140	280	ug/Kg
P4892-01	WB-310-TOP	SOIL	Benzo(k)fluoranthene		350.000		140	280	ug/Kg
P4892-01	WB-310-TOP	SOIL	Benzo(a)pyrene		910.000		160	280	ug/Kg
P4892-01	WB-310-TOP	SOIL	Indeno(1,2,3-cd)pyrene		300.000		130	280	ug/Kg
P4892-01	WB-310-TOP	SOIL	Benzo(g,h,i)perylene		320.000		130	280	ug/Kg
			Total Svoc :		**8,550.00**				
P4892-01	WB-310-TOP	SOIL	11H-Benzo[a]fluorene	*	190.000	J	0	0	ug/Kg
P4892-01	WB-310-TOP	SOIL	11H-Benzo[b]fluorene	*	360.000	J	0	0	ug/Kg
P4892-01	WB-310-TOP	SOIL	4-Bromothiophene-2-aldehyde	*	840.000	J	0	0	ug/Kg
P4892-01	WB-310-TOP	SOIL	9,10-Dimethylanthracene	*	430.000	J	0	0	ug/Kg
P4892-01	WB-310-TOP	SOIL	Anthracene, 1-methyl-	*	280.000	J	0	0	ug/Kg
P4892-01	WB-310-TOP	SOIL	Anthracene, 2-methyl-	*	470.000	J	0	0	ug/Kg
P4892-01	WB-310-TOP	SOIL	Benzene, 1,1-(1,3-butadiyne-1,4-d	*	270.000	J	0	0	ug/Kg
P4892-01	WB-310-TOP	SOIL	Benzo[e]pyrene	*	400.000	J	0	0	ug/Kg
P4892-01	WB-310-TOP	SOIL	Benzophenone	*	320.000	J	0	0	ug/Kg
P4892-01	WB-310-TOP	SOIL	Butane, 2-methoxy-2-methyl-	*	2,100.000	J	0	0	ug/Kg
P4892-01	WB-310-TOP	SOIL	Decane, 2-methyl-	*	320.000	J	0	0	ug/Kg
P4892-01	WB-310-TOP	SOIL	Naphthalene, 2,3,6-trimethyl-	*	180.000	J	0	0	ug/Kg
P4892-01	WB-310-TOP	SOIL	Naphthalene, 2-phenyl-	*	160.000	J	0	0	ug/Kg
P4892-01	WB-310-TOP	SOIL	Naphtho[2,1-b]thiophene	*	210.000	J	0	0	ug/Kg
P4892-01	WB-310-TOP	SOIL	Fluoranthene, 2-methyl-	*	180.000	J	0	0	ug/Kg
P4892-01	WB-310-TOP	SOIL	Hexadecane, 2,6,10,14-tetramethy	*	150.000	J	0	0	ug/Kg
P4892-01	WB-310-TOP	SOIL	Phenanthrene, 2-methyl-	*	290.000	J	0	0	ug/Kg
P4892-01	WB-310-TOP	SOIL	Pyrene, 1-methyl-	*	180.000	J	0	0	ug/Kg
P4892-01	WB-310-TOP	SOIL	Pyrene, 4-methyl-	*	160.000	J	0	0	ug/Kg
P4892-01	WB-310-TOP	SOIL	unknown9.616	*	270.000	J	0	0	ug/Kg
			Total Tics :		**7,760.00**				
			Total Concentration:		**16,310.00**				
Client ID :	**WB-310-BOT**								
P4892-02	WB-310-BOT	SOIL	Benzophenone	*	250.000	J	0	0	ug/Kg

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Hit Summary Sheet
SW-846

SDG No.: P4892

Client: Portal Partners Tri-Venture

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
P4892-02	WB-310-BOT	SOIL	Butane, 2-methoxy-2-methyl-	*	1,800.000	J	0	0	ug/Kg
P4892-02	WB-310-BOT	SOIL	n-Hexadecanoic acid	*	330.000	J	0	0	ug/Kg
P4892-02	WB-310-BOT	SOIL	Pentanedioic acid, dimethyl ester	*	97.300	J	0	0	ug/Kg
			Total Tics :		**2,477.30**				
			Total Concentration:		**2,477.30**				
Client ID : WB-310-SW									
P4892-04	WB-310-SW	WATER	Supraene	*	2.800	J	0	0	ug/L
P4892-04	WB-310-SW	WATER	unknown14.239	*	2.100	J	0	0	ug/L
			Total Tics :		**4.90**				
			Total Concentration:		**4.90**				



QC SUMMARY

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Surrogate Summary

SW-846

SDG No.: P4892

Client: Portal Partners Tri-Venture

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
P4892-01	WB-310-TOP	2-Fluorophenol	150	96.6	64		30 (18)	130 (112)
		Phenol-d6	150	90.3	60		30 (15)	130 (107)
		Nitrobenzene-d5	100	68.0	68		30 (18)	130 (107)
		2-Fluorobiphenyl	100	77.0	77		30 (20)	130 (109)
		2,4,6-Tribromophenol	150	87.1	58		30 (10)	130 (116)
		Terphenyl-d14	100	58.6	59		30 (10)	130 (105)
P4892-02	WB-310-BOT	2-Fluorophenol	150	121	81		30 (18)	130 (112)
		Phenol-d6	150	117	78		30 (15)	130 (107)
		Nitrobenzene-d5	100	81.8	82		30 (18)	130 (107)
		2-Fluorobiphenyl	100	85.4	85		30 (20)	130 (109)
		2,4,6-Tribromophenol	150	126	84		30 (10)	130 (116)
		Terphenyl-d14	100	87.8	88		30 (10)	130 (105)
P4892-02MS	WB-310-BOTMS	2-Fluorophenol	150	90.7	60		30 (18)	130 (112)
		Phenol-d6	150	86.7	58		30 (15)	130 (107)
		Nitrobenzene-d5	100	62.4	62		30 (18)	130 (107)
		2-Fluorobiphenyl	100	66.1	66		30 (20)	130 (109)
		2,4,6-Tribromophenol	150	96.6	64		30 (10)	130 (116)
		Terphenyl-d14	100	73.3	73		30 (10)	130 (105)
P4892-02MSD	WB-310-BOTMSD	2-Fluorophenol	150	106	70		30 (18)	130 (112)
		Phenol-d6	150	101	67		30 (15)	130 (107)
		Nitrobenzene-d5	100	72.2	72		30 (18)	130 (107)
		2-Fluorobiphenyl	100	75.4	75		30 (20)	130 (109)
		2,4,6-Tribromophenol	150	112	75		30 (10)	130 (116)
		Terphenyl-d14	100	85.7	86		30 (10)	130 (105)
PB165086BL	PB165086BL	2-Fluorophenol	150	124	83		30 (18)	130 (112)
		Phenol-d6	150	120	80		30 (15)	130 (107)
		Nitrobenzene-d5	100	86.1	86		30 (18)	130 (107)
		2-Fluorobiphenyl	100	86.8	87		30 (20)	130 (109)
		2,4,6-Tribromophenol	150	128	86		30 (10)	130 (116)
		Terphenyl-d14	100	85.6	86		30 (10)	130 (105)
PB165086BS	PB165086BS	2-Fluorophenol	150	141	94		30 (18)	130 (112)
		Phenol-d6	150	139	93		30 (15)	130 (107)
		Nitrobenzene-d5	100	95.8	96		30 (18)	130 (107)
		2-Fluorobiphenyl	100	93.3	93		30 (20)	130 (109)
		2,4,6-Tribromophenol	150	143	95		30 (10)	130 (116)
		Terphenyl-d14	100	96.5	96		30 (10)	130 (105)

( ) = LABORATORY INHOUSE LIMIT

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Surrogate Summary

SW-846

SDG No.: P4892

Client: Portal Partners Tri-Venture

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
P4892-04	WB-310-SW	2-Fluorophenol	75	39.5	53		15 (10)	110 (139)
		Phenol-d6	75	35.6	47		15 (10)	110 (134)
		Nitrobenzene-d5	50	38.7	77		30 (49)	130 (133)
		2-Fluorobiphenyl	50	40.1	80		30 (52)	130 (132)
		2,4,6-Tribromophenol	75	66.4	89		15 (44)	110 (137)
		Terphenyl-d14	50	42.1	84		30 (48)	130 (125)
PB165152BL	PB165152BL	2-Fluorophenol	150	136	91		15 (10)	110 (139)
		Phenol-d6	150	131	87		15 (10)	110 (134)
		Nitrobenzene-d5	100	92.2	92		30 (49)	130 (133)
		2-Fluorobiphenyl	100	93.6	94		30 (52)	130 (132)
		2,4,6-Tribromophenol	150	133	89		15 (44)	110 (137)
		Terphenyl-d14	100	98.2	98		30 (48)	130 (125)
PB165152BS	PB165152BS	2-Fluorophenol	150	145	97		15 (10)	110 (139)
		Phenol-d6	150	143	95		15 (10)	110 (134)
		Nitrobenzene-d5	100	96.5	97		30 (49)	130 (133)
		2-Fluorobiphenyl	100	96.3	96		30 (52)	130 (132)
		2,4,6-Tribromophenol	150	149	99		15 (44)	110 (137)
		Terphenyl-d14	100	101	101		30 (48)	130 (125)
PB165152BSD	PB165152BSD	2-Fluorophenol	150	124	83		15 (10)	110 (139)
		Phenol-d6	150	121	81		15 (10)	110 (134)
		Nitrobenzene-d5	100	83.1	83		30 (49)	130 (133)
		2-Fluorobiphenyl	100	84.1	84		30 (52)	130 (132)
		2,4,6-Tribromophenol	150	128	86		15 (44)	110 (137)
		Terphenyl-d14	100	86.5	87		30 (48)	130 (125)

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Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4892

Client: Portal Partners Tri-Venture

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: P4892-02MS		**Client Sample ID: WB-310-BOTMS**						**DataFile: BF140496.D**			
Benzaldehyde	1900	0	0	ug/Kg	0	*			20 (10)	160 (86)	
Phenol	1900	0	1700	ug/Kg	89				20 (67)	160 (126)	
bis(2-Chloroethyl)ether	1900	0	1700	ug/Kg	89				70 (54)	130 (125)	
2-Chlorophenol	1900	0	1700	ug/Kg	89				70 (79)	130 (107)	
2-Methylphenol	1900	0	1600	ug/Kg	84				70 (66)	130 (122)	
2,2-oxybis(1-Chloropropane)	1900	0	1600	ug/Kg	84				70 (65)	130 (110)	
Acetophenone	1900	0	1600	ug/Kg	84				70 (75)	130 (111)	
3+4-Methylphenols	1900	0	1600	ug/Kg	84				20 (66)	160 (104)	
N-Nitroso-di-n-propylamine	1900	0	1600	ug/Kg	84				70 (59)	130 (119)	
Hexachloroethane	1900	0	1700	ug/Kg	89				20 (65)	160 (117)	
Nitrobenzene	1900	0	1600	ug/Kg	84				70 (70)	130 (119)	
Isophorone	1900	0	1700	ug/Kg	89				70 (76)	130 (122)	
2-Nitrophenol	1900	0	1700	ug/Kg	89				70 (54)	130 (145)	
2,4-Dimethylphenol	1900	0	2000	ug/Kg	105				70 (44)	130 (135)	
bis(2-Chloroethoxy)methane	1900	0	1700	ug/Kg	89				70 (68)	130 (112)	
2,4-Dichlorophenol	1900	0	1700	ug/Kg	89				70 (72)	130 (118)	
Naphthalene	1900	0	1600	ug/Kg	84				70 (72)	130 (110)	
4-Chloroaniline	1900	0	650	ug/Kg	34	*			70 (10)	130 (91)	
Hexachlorobutadiene	1900	0	1600	ug/Kg	84				70 (66)	130 (114)	
Caprolactam	1900	0	1600	ug/Kg	84				20 (51)	160 (134)	
4-Chloro-3-methylphenol	1900	0	1700	ug/Kg	89				70 (57)	130 (132)	
2-Methylnaphthalene	1900	0	1700	ug/Kg	89				70 (59)	130 (123)	
Hexachlorocyclopentadiene	3900	0	6600	ug/Kg	169	*			20 (10)	160 (175)	
2,4,6-Trichlorophenol	1900	0	1700	ug/Kg	89				70 (72)	130 (117)	
2,4,5-Trichlorophenol	1900	0	1700	ug/Kg	89				70 (72)	130 (117)	
1,1-Biphenyl	1900	0	1700	ug/Kg	89				70 (75)	130 (113)	
2-Chloronaphthalene	1900	0	1700	ug/Kg	89				70 (67)	130 (118)	
2-Nitroaniline	1900	0	1700	ug/Kg	89				70 (69)	130 (127)	
Dimethylphthalate	1900	0	1800	ug/Kg	95				70 (70)	130 (113)	
Acenaphthylene	1900	0	1800	ug/Kg	95				70 (79)	130 (118)	
2,6-Dinitrotoluene	1900	0	1700	ug/Kg	89				70 (70)	130 (125)	
3-Nitroaniline	1900	0	1100	ug/Kg	58	*			70 (30)	130 (99)	
Acenaphthene	1900	0	1900	ug/Kg	100				70 (70)	130 (121)	
2,4-Dinitrophenol	3900	0	3300	ug/Kg	85				20 (10)	160 (155)	
4-Nitrophenol	3900	0	3100	ug/Kg	79				20 (45)	160 (133)	
Dibenzofuran	1900	0	1700	ug/Kg	89				70 (72)	130 (110)	
2,4-Dinitrotoluene	1900	0	1700	ug/Kg	89				70 (55)	130 (128)	
Diethylphthalate	1900	0	1700	ug/Kg	89				70 (70)	130 (112)	
4-Chlorophenyl-phenylether	1900	0	1700	ug/Kg	89				70 (71)	130 (108)	
Fluorene	1900	0	1700	ug/Kg	89				70 (68)	130 (116)	
4-Nitroaniline	1900	0	1600	ug/Kg	84				70 (55)	130 (120)	
4,6-Dinitro-2-methylphenol	1900	0	1800	ug/Kg	95				70 (10)	130 (160)	
N-Nitrosodiphenylamine	1900	0	1800	ug/Kg	95				70 (73)	130 (118)	
4-Bromophenyl-phenylether	1900	0	1800	ug/Kg	95				70 (65)	130 (121)	
Hexachlorobenzene	1900	0	1700	ug/Kg	89				70 (67)	130 (118)	
Atrazine	1900	0	1900	ug/Kg	100				70 (79)	130 (127)	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4892

Client: Portal Partners Tri-Venture

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Pentachlorophenol	3900	0	3100	ug/Kg	79				20 (47)	160 (128)	
Phenanthrene	1900	0	1700	ug/Kg	89				70 (52)	130 (128)	
Anthracene	1900	0	1800	ug/Kg	95				70 (62)	130 (124)	
Carbazole	1900	0	1600	ug/Kg	84				70 (59)	130 (119)	
Di-n-butylphthalate	1900	0	1700	ug/Kg	89				70 (69)	130 (118)	
Fluoranthene	1900	0	1500	ug/Kg	79				70 (44)	130 (125)	
Pyrene	1900	0	1900	ug/Kg	100				70 (26)	130 (142)	
Butylbenzylphthalate	1900	0	1900	ug/Kg	100				70 (64)	130 (126)	
3,3-Dichlorobenzidine	1900	0	1300	ug/Kg	68	*			70 (33)	130 (116)	
Benzo(a)anthracene	1900	0	1800	ug/Kg	95				70 (71)	130 (114)	
Chrysene	1900	0	1800	ug/Kg	95				70 (57)	130 (121)	
bis(2-Ethylhexyl)phthalate	1900	0	1900	ug/Kg	100				70 (42)	130 (169)	
Di-n-octyl phthalate	1900	0	1900	ug/Kg	100				70 (23)	130 (175)	
Benzo(b)fluoranthene	1900	0	1600	ug/Kg	84				70 (67)	130 (121)	
Benzo(k)fluoranthene	1900	0	1700	ug/Kg	89				70 (57)	130 (134)	
Benzo(a)pyrene	1900	0	1900	ug/Kg	100				70 (70)	130 (142)	
Indeno(1,2,3-cd)pyrene	1900	0	2100	ug/Kg	111				70 (40)	130 (129)	
Dibenz(a,h)anthracene	1900	0	2100	ug/Kg	111				70 (43)	130 (123)	
Benzo(g,h,i)perylene	1900	0	1900	ug/Kg	100				70 (24)	130 (125)	
1,2,4,5-Tetrachlorobenzene	1900	0	1700	ug/Kg	89				70 (69)	130 (124)	
1,4-Dioxane	1900	0	1400	ug/Kg	74				20 (46)	160 (112)	
2,3,4,6-Tetrachlorophenol	1900	0	1800	ug/Kg	95				70 (69)	130 (112)	

( ) = LABORATORY INHOUSE LIMIT

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4892

Client: Portal Partners Tri-Venture

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: P4892-02MSD		**Client Sample ID: WB-310-BOTMSD**						**DataFile:**	**BF140497.D**		
Benzaldehyde	1900	0	210	ug/Kg	11	*	200	*	20 (10)	160 (86)	30 (20)
Phenol	1900	0	1900	ug/Kg	100		12		20 (67)	160 (126)	30 (20)
bis(2-Chloroethyl)ether	1900	0	2000	ug/Kg	105		16		70 (54)	130 (125)	30 (20)
2-Chlorophenol	1900	0	2000	ug/Kg	105		16		70 (79)	130 (107)	30 (20)
2-Methylphenol	1900	0	1900	ug/Kg	100		17		70 (66)	130 (122)	30 (20)
2,2-oxybis(1-Chloropropane)	1900	0	1900	ug/Kg	100		17		70 (65)	130 (110)	30 (20)
Acetophenone	1900	0	1900	ug/Kg	100		17		70 (75)	130 (111)	30 (20)
3+4-Methylphenols	1900	0	1900	ug/Kg	100		17		20 (66)	160 (104)	30 (20)
N-Nitroso-di-n-propylamine	1900	0	1800	ug/Kg	95		12		70 (59)	130 (119)	30 (20)
Hexachloroethane	1900	0	1900	ug/Kg	100		12		20 (65)	160 (117)	30 (20)
Nitrobenzene	1900	0	1900	ug/Kg	100		17		70 (70)	130 (119)	30 (20)
Isophorone	1900	0	2000	ug/Kg	105		16		70 (76)	130 (122)	30 (20)
2-Nitrophenol	1900	0	2100	ug/Kg	111		22		70 (54)	130 (145)	30 (20)
2,4-Dimethylphenol	1900	0	2400	ug/Kg	126		18		70 (44)	130 (135)	30 (20)
bis(2-Chloroethoxy)methane	1900	0	1900	ug/Kg	100		12		70 (68)	130 (112)	30 (20)
2,4-Dichlorophenol	1900	0	2000	ug/Kg	105		16		70 (72)	130 (118)	30 (20)
Naphthalene	1900	0	1900	ug/Kg	100		17		70 (72)	130 (110)	30 (20)
4-Chloroaniline	1900	0	770	ug/Kg	41	*	19		70 (10)	130 (91)	30 (20)
Hexachlorobutadiene	1900	0	1900	ug/Kg	100		17		70 (66)	130 (114)	30 (20)
Caprolactam	1900	0	1900	ug/Kg	100		17		20 (51)	160 (134)	30 (20)
4-Chloro-3-methylphenol	1900	0	1900	ug/Kg	100		12		70 (57)	130 (132)	30 (20)
2-Methylnaphthalene	1900	0	1900	ug/Kg	100		12		70 (59)	130 (123)	30 (20)
Hexachlorocyclopentadiene	3900	0	7800	ug/Kg	200	*	17		20 (10)	160 (175)	30 (20)
2,4,6-Trichlorophenol	1900	0	2000	ug/Kg	105		16		70 (72)	130 (117)	30 (20)
2,4,5-Trichlorophenol	1900	0	1900	ug/Kg	100		12		70 (72)	130 (117)	30 (20)
1,1-Biphenyl	1900	0	1900	ug/Kg	100		12		70 (75)	130 (113)	30 (20)
2-Chloronaphthalene	1900	0	1900	ug/Kg	100		12		70 (67)	130 (118)	30 (20)
2-Nitroaniline	1900	0	2000	ug/Kg	105		16		70 (69)	130 (127)	30 (20)
Dimethylphthalate	1900	0	2000	ug/Kg	105		10		70 (70)	130 (113)	30 (20)
Acenaphthylene	1900	0	2100	ug/Kg	111		16		70 (79)	130 (118)	30 (20)
2,6-Dinitrotoluene	1900	0	1900	ug/Kg	100		12		70 (70)	130 (125)	30 (20)
3-Nitroaniline	1900	0	1300	ug/Kg	68	*	16		70 (30)	130 (99)	30 (20)
Acenaphthene	1900	0	2200	ug/Kg	116		15		70 (70)	130 (121)	30 (20)
2,4-Dinitrophenol	3900	0	3900	ug/Kg	100		16		20 (10)	160 (155)	30 (20)
4-Nitrophenol	3900	0	3500	ug/Kg	90		13		20 (45)	160 (133)	30 (20)
Dibenzofuran	1900	0	2000	ug/Kg	105		16		70 (72)	130 (110)	30 (20)
2,4-Dinitrotoluene	1900	0	1900	ug/Kg	100		12		70 (55)	130 (128)	30 (20)
Diethylphthalate	1900	0	2000	ug/Kg	105		16		70 (70)	130 (112)	30 (20)
4-Chlorophenyl-phenylether	1900	0	2000	ug/Kg	105		16		70 (71)	130 (108)	30 (20)
Fluorene	1900	0	1900	ug/Kg	100		12		70 (68)	130 (116)	30 (20)
4-Nitroaniline	1900	0	1800	ug/Kg	95		12		70 (55)	130 (120)	30 (20)
4,6-Dinitro-2-methylphenol	1900	0	2200	ug/Kg	116		20		70 (10)	130 (160)	30 (20)
N-Nitrosodiphenylamine	1900	0	2100	ug/Kg	111		16		70 (73)	130 (118)	30 (20)
4-Bromophenyl-phenylether	1900	0	2100	ug/Kg	111		16		70 (65)	130 (121)	30 (20)
Hexachlorobenzene	1900	0	2100	ug/Kg	111		22		70 (67)	130 (118)	30 (20)
Atrazine	1900	0	2200	ug/Kg	116		15		70 (79)	130 (127)	30 (20)

( ) = LABORATORY INHOUSE LIMIT

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4892

Client: Portal Partners Tri-Venture

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Pentachlorophenol	3900	0	3800	ug/Kg	97		20		20 (47)	160 (128)	30 (20)
Phenanthrene	1900	0	2000	ug/Kg	105		16		70 (52)	130 (128)	30 (20)
Anthracene	1900	0	2100	ug/Kg	111		16		70 (62)	130 (124)	30 (20)
Carbazole	1900	0	1900	ug/Kg	100		17		70 (59)	130 (119)	30 (20)
Di-n-butylphthalate	1900	0	2000	ug/Kg	105		16		70 (69)	130 (118)	30 (20)
Fluoranthene	1900	0	1800	ug/Kg	95		18		70 (44)	130 (125)	30 (20)
Pyrene	1900	0	2200	ug/Kg	116		15		70 (26)	130 (142)	30 (20)
Butylbenzylphthalate	1900	0	2200	ug/Kg	116		15		70 (64)	130 (126)	30 (20)
3,3-Dichlorobenzidine	1900	0	1500	ug/Kg	79		15		70 (33)	130 (116)	30 (20)
Benzo(a)anthracene	1900	0	2100	ug/Kg	111		16		70 (71)	130 (114)	30 (20)
Chrysene	1900	0	2000	ug/Kg	105		10		70 (57)	130 (121)	30 (20)
bis(2-Ethylhexyl)phthalate	1900	0	2100	ug/Kg	111		10		70 (42)	130 (169)	30 (20)
Di-n-octyl phthalate	1900	0	2300	ug/Kg	121		19		70 (23)	130 (175)	30 (20)
Benzo(b)fluoranthene	1900	0	1900	ug/Kg	100		17		70 (67)	130 (121)	30 (20)
Benzo(k)fluoranthene	1900	0	1800	ug/Kg	95		7		70 (57)	130 (134)	30 (20)
Benzo(a)pyrene	1900	0	2200	ug/Kg	116		15		70 (70)	130 (142)	30 (20)
Indeno(1,2,3-cd)pyrene	1900	0	2400	ug/Kg	126		13		70 (40)	130 (129)	30 (20)
Dibenz(a,h)anthracene	1900	0	2400	ug/Kg	126		13		70 (43)	130 (123)	30 (20)
Benzo(g,h,i)perylene	1900	0	2200	ug/Kg	116		15		70 (24)	130 (125)	30 (20)
1,2,4,5-Tetrachlorobenzene	1900	0	2000	ug/Kg	105		16		70 (69)	130 (124)	30 (20)
1,4-Dioxane	1900	0	1700	ug/Kg	89		18		20 (46)	160 (112)	30 (20)
2,3,4,6-Tetrachlorophenol	1900	0	2100	ug/Kg	111		16		70 (69)	130 (112)	30 (20)

( ) = LABORATORY INHOUSE LIMIT

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4892

Client: Portal Partners Tri-Venture

Analytical Method: 8270E **DataFile:** BF140594.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	Limits RPD
PB165086BS	Benzaldehyde	1700	210	ug/Kg	12		*		20 (10)	160 (133)	
	Phenol	1700	1700	ug/Kg	100				20 (62)	160 (112)	
	bis(2-Chloroethyl)ether	1700	1700	ug/Kg	100				70 (60)	130 (101)	
	2-Chlorophenol	1700	1700	ug/Kg	100				70 (65)	130 (112)	
	2-Methylphenol	1700	1700	ug/Kg	100				70 (61)	130 (108)	
	2,2-oxybis(1-Chloropropane)	1700	1800	ug/Kg	106				70 (51)	130 (100)	
	Acetophenone	1700	1600	ug/Kg	94				70 (66)	130 (98)	
	3+4-Methylphenols	1700	1700	ug/Kg	100				20 (58)	160 (111)	
	N-Nitroso-di-n-propylamine	1700	1700	ug/Kg	100				70 (63)	130 (95)	
	Hexachloroethane	1700	1600	ug/Kg	94				20 (72)	160 (108)	
	Nitrobenzene	1700	1600	ug/Kg	94				70 (57)	130 (101)	
	Isophorone	1700	1700	ug/Kg	100				70 (59)	130 (99)	
	2-Nitrophenol	1700	1700	ug/Kg	100				70 (61)	130 (111)	
	2,4-Dimethylphenol	1700	2200	ug/Kg	129				70 (46)	130 (141)	
	bis(2-Chloroethoxy)methane	1700	1700	ug/Kg	100				70 (66)	130 (97)	
	2,4-Dichlorophenol	1700	1700	ug/Kg	100				70 (62)	130 (107)	
	Naphthalene	1700	1600	ug/Kg	94				70 (62)	130 (100)	
	4-Chloroaniline	1700	840	ug/Kg	49		*		70 (16)	130 (100)	
	Hexachlorobutadiene	1700	1600	ug/Kg	94				70 (53)	130 (98)	
	Caprolactam	1700	1600	ug/Kg	94				20 (67)	160 (110)	
	4-Chloro-3-methylphenol	1700	1700	ug/Kg	100				70 (58)	130 (112)	
	2-Methylnaphthalene	1700	1700	ug/Kg	100				70 (60)	130 (104)	
	Hexachlorocyclopentadiene	3300	6200	ug/Kg	188		*		20 (45)	160 (165)	
	2,4,6-Trichlorophenol	1700	1700	ug/Kg	100				70 (59)	130 (102)	
	2,4,5-Trichlorophenol	1700	1600	ug/Kg	94				70 (61)	130 (98)	
	1,1-Biphenyl	1700	1600	ug/Kg	94				70 (57)	130 (103)	
	2-Chloronaphthalene	1700	1600	ug/Kg	94				70 (58)	130 (99)	
	2-Nitroaniline	1700	1600	ug/Kg	94				70 (66)	130 (101)	
	Dimethylphthalate	1700	1700	ug/Kg	100				70 (61)	130 (99)	
	Acenaphthylene	1700	1700	ug/Kg	100				70 (63)	130 (101)	
	2,6-Dinitrotoluene	1700	1600	ug/Kg	94				70 (61)	130 (104)	
	3-Nitroaniline	1700	1100	ug/Kg	65		*		70 (28)	130 (100)	
	Acenaphthene	1700	1700	ug/Kg	100				70 (57)	130 (104)	
	2,4-Dinitrophenol	3300	2900	ug/Kg	88				20 (37)	160 (128)	
	4-Nitrophenol	3300	3300	ug/Kg	100				20 (48)	160 (119)	
	Dibenzofuran	1700	1600	ug/Kg	94				70 (63)	130 (99)	
	2,4-Dinitrotoluene	1700	1700	ug/Kg	100				70 (60)	130 (106)	
	Diethylphthalate	1700	1700	ug/Kg	100				70 (60)	130 (101)	
	4-Chlorophenyl-phenylether	1700	1700	ug/Kg	100				70 (58)	130 (98)	
	Fluorene	1700	1600	ug/Kg	94				70 (61)	130 (101)	
	4-Nitroaniline	1700	1600	ug/Kg	94				70 (64)	130 (103)	
	4,6-Dinitro-2-methylphenol	1700	1800	ug/Kg	106				70 (76)	130 (113)	
	N-Nitrosodiphenylamine	1700	1700	ug/Kg	100				70 (71)	130 (99)	
	4-Bromophenyl-phenylether	1700	1600	ug/Kg	94				70 (66)	130 (102)	

( ) = LABORATORY INHOUSE LIMIT

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4892

Client: Portal Partners Tri-Venture

Analytical Method: 8270E **DataFile:** BF140594.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	Limits RPD
PB165086BS	Hexachlorobenzene	1700	1600	ug/Kg	94				70 (64)	130 (98)	
	Atrazine	1700	1900	ug/Kg	112				70 (47)	130 (152)	
	Pentachlorophenol	3300	3400	ug/Kg	103				20 (67)	160 (105)	
	Phenanthrene	1700	1700	ug/Kg	100				70 (59)	130 (103)	
	Anthracene	1700	1800	ug/Kg	106				70 (61)	130 (105)	
	Carbazole	1700	1700	ug/Kg	100				70 (61)	130 (99)	
	Di-n-butylphthalate	1700	1700	ug/Kg	100				70 (58)	130 (104)	
	Fluoranthene	1700	1700	ug/Kg	100				70 (57)	130 (107)	
	Pyrene	1700	1600	ug/Kg	94				70 (59)	130 (103)	
	Butylbenzylphthalate	1700	1700	ug/Kg	100				70 (55)	130 (103)	
	3,3-Dichlorobenzidine	1700	1100	ug/Kg	65		*		70 (42)	130 (91)	
	Benzo(a)anthracene	1700	1700	ug/Kg	100				70 (60)	130 (102)	
	Chrysene	1700	1700	ug/Kg	100				70 (59)	130 (101)	
	bis(2-Ethylhexyl)phthalate	1700	1800	ug/Kg	106				70 (54)	130 (135)	
	Di-n-octyl phthalate	1700	1900	ug/Kg	112				70 (52)	130 (137)	
	Benzo(b)fluoranthene	1700	1700	ug/Kg	100				70 (62)	130 (109)	
	Benzo(k)fluoranthene	1700	1700	ug/Kg	100				70 (62)	130 (109)	
	Benzo(a)pyrene	1700	1800	ug/Kg	106				70 (63)	130 (103)	
	Indeno(1,2,3-cd)pyrene	1700	1700	ug/Kg	100				70 (63)	130 (101)	
	Dibenz(a,h)anthracene	1700	1700	ug/Kg	100				70 (61)	130 (112)	
	Benzo(g,h,i)perylene	1700	1500	ug/Kg	88				70 (70)	130 (108)	
	1,2,4,5-Tetrachlorobenzene	1700	1600	ug/Kg	94				70 (53)	130 (101)	
	1,4-Dioxane	1700	1500	ug/Kg	88				20 (50)	160 (96)	
	2,3,4,6-Tetrachlorophenol	1700	1800	ug/Kg	106				70 (59)	130 (108)	

( ) = LABORATORY INHOUSE LIMIT

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4892

Client: Portal Partners Tri-Venture

Analytical Method: 8270E **DataFile:** BF140598.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	Limits RPD
PB165152BS	Benzaldehyde	50	38.8	ug/L	78				20 (10)	160 (162)	
	Phenol	50	52.3	ug/L	105				20 (66)	160 (118)	
	bis(2-Chloroethyl)ether	50	52.0	ug/L	104				70 (62)	130 (103)	
	2-Chlorophenol	50	52.9	ug/L	106				70 (70)	130 (117)	
	2-Methylphenol	50	52.0	ug/L	104				70 (69)	130 (109)	
	2,2-oxybis(1-Chloropropane)	50	54.2	ug/L	108				70 (65)	130 (100)	
	Acetophenone	50	48.2	ug/L	96				70 (60)	130 (104)	
	3+4-Methylphenols	50	52.1	ug/L	104				20 (67)	160 (106)	
	N-Nitroso-di-n-propylamine	50	52.0	ug/L	104				70 (57)	130 (107)	
	Hexachloroethane	50	49.8	ug/L	100				20 (76)	160 (118)	
	Nitrobenzene	50	46.7	ug/L	93				70 (58)	130 (106)	
	Isophorone	50	51.3	ug/L	103				70 (61)	130 (102)	
	2-Nitrophenol	50	52.1	ug/L	104				70 (70)	130 (115)	
	2,4-Dimethylphenol	50	64.7	ug/L	129				70 (42)	130 (142)	
	bis(2-Chloroethoxy)methane	50	50.9	ug/L	102				70 (58)	130 (109)	
	2,4-Dichlorophenol	50	51.4	ug/L	103				70 (66)	130 (115)	
	Naphthalene	50	48.8	ug/L	98				70 (64)	130 (107)	
	4-Chloroaniline	50	22.3	ug/L	45		*		70 (10)	130 (85)	
	Hexachlorobutadiene	50	48.2	ug/L	96				70 (69)	130 (101)	
	Caprolactam	50	51.5	ug/L	103				20 (58)	160 (128)	
	4-Chloro-3-methylphenol	50	51.3	ug/L	103				70 (65)	130 (114)	
	2-Methylnaphthalene	50	50.8	ug/L	102				70 (64)	130 (107)	
	Hexachlorocyclopentadiene	100	190	ug/L	190		*		20 (36)	160 (160)	
	2,4,6-Trichlorophenol	50	50.9	ug/L	102				70 (61)	130 (110)	
	2,4,5-Trichlorophenol	50	50.0	ug/L	100				70 (70)	130 (106)	
	1,1-Biphenyl	50	49.4	ug/L	99				70 (72)	130 (98)	
	2-Chloronaphthalene	50	48.8	ug/L	98				70 (59)	130 (106)	
	2-Nitroaniline	50	51.1	ug/L	102				70 (73)	130 (114)	
	Dimethylphthalate	50	51.3	ug/L	103				70 (64)	130 (103)	
	Acenaphthylene	50	53.3	ug/L	107				70 (79)	130 (103)	
	2,6-Dinitrotoluene	50	49.3	ug/L	99				70 (64)	130 (110)	
	3-Nitroaniline	50	32.1	ug/L	64		*		70 (28)	130 (100)	
	Acenaphthene	50	51.2	ug/L	102				70 (59)	130 (113)	
	2,4-Dinitrophenol	100	90.8	ug/L	91				20 (36)	160 (166)	
	4-Nitrophenol	100	100	ug/L	100				20 (45)	160 (147)	
	Dibenzofuran	50	50.3	ug/L	101				70 (65)	130 (106)	
	2,4-Dinitrotoluene	50	49.7	ug/L	99				70 (60)	130 (115)	
	Diethylphthalate	50	50.9	ug/L	102				70 (63)	130 (105)	
	4-Chlorophenyl-phenylether	50	49.5	ug/L	99				70 (61)	130 (104)	
	Fluorene	50	49.6	ug/L	99				70 (64)	130 (107)	
	4-Nitroaniline	50	49.3	ug/L	99				70 (55)	130 (125)	
	4,6-Dinitro-2-methylphenol	50	55.9	ug/L	112				70 (62)	130 (132)	
	N-Nitrosodiphenylamine	50	51.0	ug/L	102				70 (61)	130 (109)	
	4-Bromophenyl-phenylether	50	50.7	ug/L	101				70 (73)	130 (103)	

( ) = LABORATORY INHOUSE LIMIT

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4892

Client: Portal Partners Tri-Venture

Analytical Method: 8270E **DataFile:** BF140598.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	Limits RPD
PB165152BS	Hexachlorobenzene	50	50.6	ug/L	101				70 (73)	130 (106)	
	Atrazine	50	61.4	ug/L	123				70 (76)	130 (120)	
	Pentachlorophenol	100	100	ug/L	100				20 (47)	160 (114)	
	Phenanthrene	50	51.7	ug/L	103				70 (62)	130 (109)	
	Anthracene	50	54.0	ug/L	108				70 (65)	130 (110)	
	Carbazole	50	50.6	ug/L	101				70 (62)	130 (106)	
	Di-n-butylphthalate	50	51.5	ug/L	103				70 (64)	130 (106)	
	Fluoranthene	50	50.8	ug/L	102				70 (64)	130 (110)	
	Pyrene	50	50.7	ug/L	101				70 (71)	130 (103)	
	Butylbenzylphthalate	50	53.9	ug/L	108				70 (61)	130 (105)	
	3,3-Dichlorobenzidine	50	33.1	ug/L	66		*		70 (43)	130 (108)	
	Benzo(a)anthracene	50	53.6	ug/L	107				70 (62)	130 (107)	
	Chrysene	50	51.9	ug/L	104				70 (61)	130 (108)	
	bis(2-Ethylhexyl)phthalate	50	54.9	ug/L	110				70 (59)	130 (110)	
	Di-n-octyl phthalate	50	57.4	ug/L	115				70 (52)	130 (139)	
	Benzo(b)fluoranthene	50	50.6	ug/L	101				70 (77)	130 (113)	
	Benzo(k)fluoranthene	50	54.3	ug/L	109				70 (77)	130 (105)	
	Benzo(a)pyrene	50	56.3	ug/L	113				70 (72)	130 (131)	
	Indeno(1,2,3-cd)pyrene	50	50.9	ug/L	102				70 (72)	130 (105)	
	Dibenz(a,h)anthracene	50	50.8	ug/L	102				70 (78)	130 (115)	
	Benzo(g,h,i)perylene	50	46.1	ug/L	92				70 (75)	130 (118)	
	1,2,4,5-Tetrachlorobenzene	50	49.0	ug/L	98				70 (72)	130 (101)	
	1,4-Dioxane	50	46.3	ug/L	93				20 (38)	160 (125)	
	2,3,4,6-Tetrachlorophenol	50	55.9	ug/L	112				70 (63)	130 (116)	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4892

Client: Portal Partners Tri-Venture

Analytical Method: 8270E **DataFile:** BF140600.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	Limits RPD
PB165152BSD	Benzaldehyde	50	34.3	ug/L	69	12			20 (10)	160 (162)	20 (20)
	Phenol	50	44.9	ug/L	90	15			20 (66)	160 (118)	20 (20)
	bis(2-Chloroethyl)ether	50	44.2	ug/L	88	16			70 (62)	130 (103)	20 (20)
	2-Chlorophenol	50	45.0	ug/L	90	16			70 (70)	130 (117)	20 (20)
	2-Methylphenol	50	44.5	ug/L	89	16			70 (69)	130 (109)	20 (20)
	2,2-oxybis(1-Chloropropane)	50	46.7	ug/L	93	15			70 (65)	130 (100)	20 (20)
	Acetophenone	50	41.4	ug/L	83	15			70 (60)	130 (104)	20 (20)
	3+4-Methylphenols	50	44.4	ug/L	89	16			20 (67)	160 (106)	20 (20)
	N-Nitroso-di-n-propylamine	50	44.3	ug/L	89	16			70 (57)	130 (107)	20 (20)
	Hexachloroethane	50	42.6	ug/L	85	16			20 (76)	160 (118)	20 (20)
	Nitrobenzene	50	40.9	ug/L	82	13			70 (58)	130 (106)	20 (20)
	Isophorone	50	44.5	ug/L	89	14			70 (61)	130 (102)	20 (20)
	2-Nitrophenol	50	45.1	ug/L	90	14			70 (70)	130 (115)	20 (20)
	2,4-Dimethylphenol	50	55.3	ug/L	111	16			70 (42)	130 (142)	20 (20)
	bis(2-Chloroethoxy)methane	50	44.5	ug/L	89	13			70 (58)	130 (109)	20 (20)
	2,4-Dichlorophenol	50	45.0	ug/L	90	13			70 (66)	130 (115)	20 (20)
	Naphthalene	50	42.5	ug/L	85	14			70 (64)	130 (107)	20 (20)
	4-Chloroaniline	50	21.5	ug/L	43	4	*		70 (10)	130 (85)	20 (20)
	Hexachlorobutadiene	50	41.5	ug/L	83	15			70 (69)	130 (101)	20 (20)
	Caprolactam	50	44.0	ug/L	88	16			20 (58)	160 (128)	20 (20)
	4-Chloro-3-methylphenol	50	44.0	ug/L	88	15			70 (65)	130 (114)	20 (20)
	2-Methylnaphthalene	50	43.9	ug/L	88	15			70 (64)	130 (107)	20 (20)
	Hexachlorocyclopentadiene	100	160	ug/L	160	17			20 (36)	160 (160)	20 (20)
	2,4,6-Trichlorophenol	50	44.5	ug/L	89	13			70 (61)	130 (110)	20 (20)
	2,4,5-Trichlorophenol	50	43.2	ug/L	86	15			70 (70)	130 (106)	20 (20)
	1,1-Biphenyl	50	43.6	ug/L	87	12			70 (72)	130 (98)	20 (20)
	2-Chloronaphthalene	50	42.6	ug/L	85	14			70 (59)	130 (106)	20 (20)
	2-Nitroaniline	50	44.6	ug/L	89	14			70 (73)	130 (114)	20 (20)
	Dimethylphthalate	50	45.3	ug/L	91	12			70 (64)	130 (103)	20 (20)
	Acenaphthylene	50	46.5	ug/L	93	14			70 (79)	130 (103)	20 (20)
	2,6-Dinitrotoluene	50	43.1	ug/L	86	13			70 (64)	130 (110)	20 (20)
	3-Nitroaniline	50	28.8	ug/L	58	11	*		70 (28)	130 (100)	20 (20)
	Acenaphthene	50	44.7	ug/L	89	14			70 (59)	130 (113)	20 (20)
	2,4-Dinitrophenol	100	77.0	ug/L	77	16			20 (36)	160 (166)	20 (20)
	4-Nitrophenol	100	87.1	ug/L	87	14			20 (45)	160 (147)	20 (20)
	Dibenzofuran	50	43.9	ug/L	88	14			70 (65)	130 (106)	20 (20)
	2,4-Dinitrotoluene	50	43.3	ug/L	87	14			70 (60)	130 (115)	20 (20)
	Diethylphthalate	50	44.3	ug/L	89	14			70 (63)	130 (105)	20 (20)
	4-Chlorophenyl-phenylether	50	43.3	ug/L	87	13			70 (61)	130 (104)	20 (20)
	Fluorene	50	43.5	ug/L	87	13			70 (64)	130 (107)	20 (20)
	4-Nitroaniline	50	43.1	ug/L	86	13			70 (55)	130 (125)	20 (20)
	4,6-Dinitro-2-methylphenol	50	47.5	ug/L	95	16			70 (62)	130 (132)	20 (20)
	N-Nitrosodiphenylamine	50	44.6	ug/L	89	13			70 (61)	130 (109)	20 (20)
	4-Bromophenyl-phenylether	50	43.8	ug/L	88	15			70 (73)	130 (103)	20 (20)

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4892

Client: Portal Partners Tri-Venture

Analytical Method: 8270E **DataFile:** BF140600.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	Limits RPD
PB165152BSD	Hexachlorobenzene	50	43.1	ug/L	86	16			70 (73)	130 (106)	20 (20)
	Atrazine	50	52.5	ug/L	105	16			70 (76)	130 (120)	20 (20)
	Pentachlorophenol	100	87.2	ug/L	87	14			20 (47)	160 (114)	20 (20)
	Phenanthrene	50	44.9	ug/L	90	14			70 (62)	130 (109)	20 (20)
	Anthracene	50	46.7	ug/L	93	14			70 (65)	130 (110)	20 (20)
	Carbazole	50	44.2	ug/L	88	14			70 (62)	130 (106)	20 (20)
	Di-n-butylphthalate	50	45.0	ug/L	90	13			70 (64)	130 (106)	20 (20)
	Fluoranthene	50	44.5	ug/L	89	13			70 (64)	130 (110)	20 (20)
	Pyrene	50	43.9	ug/L	88	14			70 (71)	130 (103)	20 (20)
	Butylbenzylphthalate	50	46.8	ug/L	94	14			70 (61)	130 (105)	20 (20)
	3,3-Dichlorobenzidine	50	29.2	ug/L	58	13	*		70 (43)	130 (108)	20 (20)
	Benzo(a)anthracene	50	46.9	ug/L	94	13			70 (62)	130 (107)	20 (20)
	Chrysene	50	44.7	ug/L	89	15			70 (61)	130 (108)	20 (20)
	bis(2-Ethylhexyl)phthalate	50	47.7	ug/L	95	14			70 (59)	130 (110)	20 (20)
	Di-n-octyl phthalate	50	50.0	ug/L	100	14			70 (52)	130 (139)	20 (20)
	Benzo(b)fluoranthene	50	42.4	ug/L	85	18			70 (77)	130 (113)	20 (20)
	Benzo(k)fluoranthene	50	48.3	ug/L	97	12			70 (77)	130 (105)	20 (20)
	Benzo(a)pyrene	50	49.0	ug/L	98	14			70 (72)	130 (131)	20 (20)
	Indeno(1,2,3-cd)pyrene	50	43.2	ug/L	86	16			70 (72)	130 (105)	20 (20)
	Dibenz(a,h)anthracene	50	43.3	ug/L	87	16			70 (78)	130 (115)	20 (20)
	Benzo(g,h,i)perylene	50	38.6	ug/L	77	18			70 (75)	130 (118)	20 (20)
	1,2,4,5-Tetrachlorobenzene	50	43.2	ug/L	86	13			70 (72)	130 (101)	20 (20)
	1,4-Dioxane	50	38.8	ug/L	78	18			20 (38)	160 (125)	20 (20)
	2,3,4,6-Tetrachlorophenol	50	48.3	ug/L	97	15			70 (63)	130 (116)	20 (20)

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB165086BL

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG NO.: P4892

Lab File ID: BF140502.D Lab Sample ID: PB165086BL

Instrument ID: BNA_F Date Extracted: 11/19/2024

Matrix: (soil/water) SOIL Date Analyzed: 11/20/2024

Level: (low/med) LOW Time Analyzed: 16:25

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB165086BS	PB165086BS	BF140594.D	11/25/2024
WB-310-TOP	P4892-01	BF140510.D	11/20/2024
WB-310-BOT	P4892-02	BF140495.D	11/20/2024
WB-310-BOTMS	P4892-02MS	BF140496.D	11/20/2024
WB-310-BOTMSD	P4892-02MSD	BF140497.D	11/20/2024

COMMENTS:

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB165152BL

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG NO.: P4892

Lab File ID: BF140601.D Lab Sample ID: PB165152BL

Instrument ID: BNA_F Date Extracted: 11/20/2024

Matrix: (soil/water) Water Date Analyzed: 11/25/2024

Level: (low/med) LOW Time Analyzed: 14:28

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB165152BS	PB165152BS	BF140598.D	11/25/2024
PB165152BSD	PB165152BSD	BF140600.D	11/25/2024
WB-310-SW	P4892-04	BF140607.D	11/25/2024

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM SAS No.: P4892 SDG NO.: P4892

Lab File ID: BF140331.D DFTPP Injection Date: 11/13/2024

Instrument ID: BNA_F DFTPP Injection Time: 08:35

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	36.9
68	Less than 2.0% of mass 69	0.7 (1.8) 1
69	Mass 69 relative abundance	38
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	48.6
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	6.4
275	10.0 - 60.0% of mass 198	28.3
365	Greater than 1% of mass 198	3.5
441	Present, but less than mass 443	14
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	16.7 (18.8) 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
SSTDICC2.5	SSTDICC2.5	BF140332.D	11/13/2024	09:01
SSTDICC005	SSTDICC005	BF140333.D	11/13/2024	09:27
SSTDICC010	SSTDICC010	BF140334.D	11/13/2024	09:53
SSTDICC020	SSTDICC020	BF140335.D	11/13/2024	10:29
SSTDICC050	SSTDICC050	BF140337.D	11/13/2024	11:21
SSTDICC060	SSTDICC060	BF140338.D	11/13/2024	11:47
SSTDICC080	SSTDICC080	BF140339.D	11/13/2024	12:13
SSTDICCC040	SSTDICCC040	BF140340.D	11/13/2024	12:48

Raw Data: **BF140487.D**

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SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM SAS No.: P4892 SDG NO.: P4892

Lab File ID: BF140487.D DFTPP Injection Date: 11/20/2024

Instrument ID: BNA_F DFTPP Injection Time: 09:04

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	34.1
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	35.9
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	48.2
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	6.8
275	10.0 - 60.0% of mass 198	29
365	Greater than 1% of mass 198	3.8
441	Present, but less than mass 443	15.2
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	18.3 (18.3) 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
SSTDCCC040	SSTDCCC040	BF140488.D	11/20/2024	09:31
WB-310-BOT	P4892-02	BF140495.D	11/20/2024	12:42
WB-310-BOTMS	P4892-02MS	BF140496.D	11/20/2024	13:08
WB-310-BOTMSD	P4892-02MSD	BF140497.D	11/20/2024	13:35

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM SAS No.: P4892 SDG NO.: P4892

Lab File ID: BF140500.D DFTPP Injection Date: 11/20/2024

Instrument ID: BNA_F DFTPP Injection Time: 15:33

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	37.7
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	38.4
70	Less than 2.0% of mass 69	0.3 (0.7) 1
127	10.0 - 80.0% of mass 198	50
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	6.8
275	10.0 - 60.0% of mass 198	28.1
365	Greater than 1% of mass 198	3.5
441	Present, but less than mass 443	14.2
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	16.9 (18.3) 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
SSTDCCC040	SSTDCCC040	BF140501.D	11/20/2024	15:59
PB165086BL	PB165086BL	BF140502.D	11/20/2024	16:25
WB-310-TOP	P4892-01	BF140510.D	11/20/2024	20:02

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM SAS No.: P4892 SDG NO.: P4892

Lab File ID: BF140526.D DFTPP Injection Date: 11/21/2024

Instrument ID: BNA_F DFTPP Injection Time: 10:17

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	33.3
68	Less than 2.0% of mass 69	0.6 (1.8) 1
69	Mass 69 relative abundance	35.5
70	Less than 2.0% of mass 69	0.3 (0.7) 1
127	10.0 - 80.0% of mass 198	48
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	6.8
275	10.0 - 60.0% of mass 198	29.2
365	Greater than 1% of mass 198	3.8
441	Present, but less than mass 443	15.7
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	18.1 (18.1) 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
SSTDICC2.5	SSTDICC2.5	BF140528.D	11/21/2024	11:13
SSTDICC005	SSTDICC005	BF140529.D	11/21/2024	11:39
SSTDICC010	SSTDICC010	BF140530.D	11/21/2024	12:05
SSTDICC020	SSTDICC020	BF140531.D	11/21/2024	12:32
SSTDICCC040	SSTDICCC040	BF140532.D	11/21/2024	12:58
SSTDICC050	SSTDICC050	BF140533.D	11/21/2024	13:25
SSTDICC060	SSTDICC060	BF140534.D	11/21/2024	13:51
SSTDICC080	SSTDICC080	BF140535.D	11/21/2024	14:18

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM SAS No.: P4892 SDG NO.: P4892

Lab File ID: BF140589.D DFTPP Injection Date: 11/25/2024

Instrument ID: BNA_F DFTPP Injection Time: 09:07

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	34.8
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	36.7
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	48.2
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	6.4
275	10.0 - 60.0% of mass 198	28.6
365	Greater than 1% of mass 198	3.7
441	Present, but less than mass 443	15.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	18.5 (18.9) 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
SSTDCCC040	SSTDCCC040	BF140590.D	11/25/2024	09:33
PB165086BS	PB165086BS	BF140594.D	11/25/2024	11:17
PB165152BS	PB165152BS	BF140598.D	11/25/2024	13:02
PB165152BSD	PB165152BSD	BF140600.D	11/25/2024	13:54
PB165152BL	PB165152BL	BF140601.D	11/25/2024	14:28

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SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM SAS No.: P4892 SDG NO.: P4892

Lab File ID: BF140603.D DFTPP Injection Date: 11/25/2024

Instrument ID: BNA_F DFTPP Injection Time: 15:23

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	32.9
68	Less than 2.0% of mass 69	0.6 (1.8) 1
69	Mass 69 relative abundance	34.8
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	46.5
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	6.9
275	10.0 - 60.0% of mass 198	28
365	Greater than 1% of mass 198	3.8
441	Present, but less than mass 443	15.3
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	18.4 (18.4) 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
SSTDCCC040	SSTDCCC040	BF140604.D	11/25/2024	15:49
WB-310-SW	P4892-04	BF140607.D	11/25/2024	17:15

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG NO.: P4892

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/20/2024

Lab File ID: BF140488.D Time Analyzed: 09:31

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	132364	6.875	490485	8.16	273054	9.92
	UPPER LIMIT	264728	7.375	980970	8.657	546108	10.416
	LOWER LIMIT	66182	6.375	245243	7.657	136527	9.416
	EPA SAMPLE NO.						
01	WB-310-BOT	111857	6.88	425828	8.15	234373	9.91
02	WB-310-BOTMS	124435	6.88	465260	8.16	249636	9.91
03	WB-310-BOTMSD	115233	6.88	427479	8.16	231375	9.91

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.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG NO.: P4892

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/20/2024

Lab File ID: BF140488.D Time Analyzed: 09:31

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	510213	11.404	268548	14.051	246006	15.539
	UPPER LIMIT	1020430	11.904	537096	14.551	492012	16.039
	LOWER LIMIT	255107	10.904	134274	13.551	123003	15.039
	EPA SAMPLE NO.						
01	WB-310-BOT	439035	11.40	271644	14.05	222745	15.55
02	WB-310-BOTMS	454496	11.40	229017	14.06	239777	15.57
03	WB-310-BOTMSD	409075	11.40	206876	14.05	225913	15.54

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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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG NO.: P4892

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/20/2024

Lab File ID: BF140501.D Time Analyzed: 15:59

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	136554	6.875	508396	8.16	278192	9.91
	UPPER LIMIT	273108	7.375	1016790	8.657	556384	10.41
	LOWER LIMIT	68277	6.375	254198	7.657	139096	9.41
	EPA SAMPLE NO.						
01	WB-310-TOP	109793	6.88	377655	8.15	180123	9.90
02	PB165086BL	127581	6.87	485914	8.15	273616	9.90

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

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* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG NO.: P4892

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/20/2024

Lab File ID: BF140501.D Time Analyzed: 15:59

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	526085	11.398	294226	14.045	277583	15.533
	UPPER LIMIT	1052170	11.898	588452	14.545	555166	16.033
	LOWER LIMIT	263043	10.898	147113	13.545	138792	15.033
	EPA SAMPLE NO.						
01	WB-310-TOP	278778	11.40	208770	14.05	217412	15.53
02	PB165086BL	524410	11.40	336229	14.05	269895	15.54

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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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG NO.: P4892

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/25/2024

Lab File ID: BF140590.D Time Analyzed: 09:33

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	105131	6.869	390145	8.15	212616	9.91
	UPPER LIMIT	210262	7.369	780290	8.651	425232	10.41
	LOWER LIMIT	52565.5	6.369	195073	7.651	106308	9.41
	EPA SAMPLE NO.						
01	PB165086BS	95461	6.87	360433	8.15	204239	9.91
02	PB165152BL	105039	6.87	390263	8.15	219360	9.90
03	PB165152BS	99301	6.87	382645	8.15	214473	9.91
04	PB165152BSD	109034	6.87	414003	8.15	229665	9.91

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

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* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG NO.: P4892

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/25/2024

Lab File ID: BF140590.D Time Analyzed: 09:33

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	399326	11.398	244297	14.051	211888	15.545
	UPPER LIMIT	798652	11.898	488594	14.551	423776	16.045
	LOWER LIMIT	199663	10.898	122149	13.551	105944	15.045
	EPA SAMPLE NO.						
01	PB165086BS	384268	11.40	226332	14.05	183684	15.55
02	PB165152BL	422337	11.40	238471	14.06	201118	15.58
03	PB165152BS	401581	11.40	233962	14.05	195258	15.56
04	PB165152BSD	432290	11.40	254104	14.05	215389	15.56

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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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG NO.: P4892

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/25/2024

Lab File ID: BF140604.D Time Analyzed: 15:49

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	106607	6.869	393427	8.15	218835	9.91
	UPPER LIMIT	213214	7.369	786854	8.651	437670	10.41
	LOWER LIMIT	53303.5	6.369	196714	7.651	109418	9.41
	EPA SAMPLE NO.						
01	WB-310-SW	64480	6.87	239780	8.15	131138	9.90

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.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG NO.: P4892

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/25/2024

Lab File ID: BF140604.D Time Analyzed: 15:49

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	396344	11.398	217927	14.051	192376	15.551
	UPPER LIMIT	792688	11.898	435854	14.551	384752	16.051
	LOWER LIMIT	198172	10.898	108964	13.551	96188	15.051
	EPA SAMPLE NO.						
01	WB-310-SW	245059	11.39	178129	14.05	139529	15.55

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.
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SAMPLE DATA

Raw Data: **BF140510.D**

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-TOP	SDG No.:	P4892
Lab Sample ID:	P4892-01	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	59.8
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140510.D	1	11/19/24 09:00	11/20/24 20:02	PB165086

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	300	UQ	300	550	ug/Kg
108-95-2	Phenol	140	U	140	280	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	140	U	140	280	ug/Kg
95-57-8	2-Chlorophenol	140	U	140	280	ug/Kg
95-48-7	2-Methylphenol	130	U	130	280	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	150	U	150	280	ug/Kg
98-86-2	Acetophenone	150	U	150	280	ug/Kg
65794-96-9	3+4-Methylphenols	130	U	130	550	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	67.3	U	67.3	130	ug/Kg
67-72-1	Hexachloroethane	140	U	140	280	ug/Kg
98-95-3	Nitrobenzene	150	U	150	280	ug/Kg
78-59-1	Isophorone	140	U	140	280	ug/Kg
88-75-5	2-Nitrophenol	160	U	160	280	ug/Kg
105-67-9	2,4-Dimethylphenol	160	U	160	280	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	140	U	140	280	ug/Kg
120-83-2	2,4-Dichlorophenol	130	U	130	280	ug/Kg
91-20-3	Naphthalene	140	U	140	280	ug/Kg
106-47-8	4-Chloroaniline	140	UQ	140	280	ug/Kg
87-68-3	Hexachlorobutadiene	140	U	140	280	ug/Kg
105-60-2	Caprolactam	140	U	140	550	ug/Kg
59-50-7	4-Chloro-3-methylphenol	130	U	130	280	ug/Kg
91-57-6	2-Methylnaphthalene	140	U	140	280	ug/Kg
77-47-4	Hexachlorocyclopentadiene	260	UQ	260	550	ug/Kg
88-06-2	2,4,6-Trichlorophenol	120	U	120	280	ug/Kg
95-95-4	2,4,5-Trichlorophenol	120	U	120	280	ug/Kg
92-52-4	1,1-Biphenyl	150	U	150	280	ug/Kg
91-58-7	2-Chloronaphthalene	140	U	140	280	ug/Kg
88-74-4	2-Nitroaniline	160	U	160	280	ug/Kg
131-11-3	Dimethylphthalate	140	U	140	280	ug/Kg

Raw Data: **BF140510.D**

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Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-TOP	SDG No.:	P4892
Lab Sample ID:	P4892-01	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	59.8
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140510.D	1	11/19/24 09:00	11/20/24 20:02	PB165086

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	200	J	140	280	ug/Kg
606-20-2	2,6-Dinitrotoluene	140	U	140	280	ug/Kg
99-09-2	3-Nitroaniline	150	UQ	150	280	ug/Kg
83-32-9	Acenaphthene	140	U	140	280	ug/Kg
51-28-5	2,4-Dinitrophenol	410	U	410	550	ug/Kg
100-02-7	4-Nitrophenol	190	U	190	550	ug/Kg
132-64-9	Dibenzofuran	140	U	140	280	ug/Kg
121-14-2	2,4-Dinitrotoluene	140	U	140	280	ug/Kg
84-66-2	Diethylphthalate	130	U	130	280	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	140	U	140	280	ug/Kg
86-73-7	Fluorene	140	U	140	280	ug/Kg
100-01-6	4-Nitroaniline	180	U	180	280	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	200	U	200	550	ug/Kg
86-30-6	n-Nitrosodiphenylamine	140	U	140	280	ug/Kg
101-55-3	4-Bromophenyl-phenylether	130	U	130	280	ug/Kg
118-74-1	Hexachlorobenzene	140	U	140	280	ug/Kg
1912-24-9	Atrazine	150	U	150	280	ug/Kg
87-86-5	Pentachlorophenol	130	U	130	550	ug/Kg
85-01-8	Phenanthrene	720		140	280	ug/Kg
120-12-7	Anthracene	330		140	280	ug/Kg
86-74-8	Carbazole	130	U	130	280	ug/Kg
84-74-2	Di-n-butylphthalate	140	U	140	280	ug/Kg
206-44-0	Fluoranthene	1400		140	280	ug/Kg
129-00-0	Pyrene	1100		140	280	ug/Kg
85-68-7	Butylbenzylphthalate	160	U	160	280	ug/Kg
91-94-1	3,3-Dichlorobenzidine	160	UQ	160	550	ug/Kg
56-55-3	Benzo(a)anthracene	1100		130	280	ug/Kg
218-01-9	Chrysene	980		130	280	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	150	U	150	280	ug/Kg
117-84-0	Di-n-octyl phthalate	180	U	180	550	ug/Kg
205-99-2	Benzo(b)fluoranthene	840		140	280	ug/Kg

Raw Data: **BF140510.D**

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Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-TOP	SDG No.:	P4892
Lab Sample ID:	P4892-01	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	59.8
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140510.D	1	11/19/24 09:00	11/20/24 20:02	PB165086

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	350		140	280	ug/Kg
50-32-8	Benzo(a)pyrene	910		160	280	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	300		130	280	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	140	U	140	280	ug/Kg
191-24-2	Benzo(g,h,i)perylene	320		130	280	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	140	U	140	280	ug/Kg
123-91-1	1,4-Dioxane	180	U	180	280	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	120	U	120	280	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	96.6		30 (18) - 130 (112)	64%	SPK: 150
13127-88-3	Phenol-d6	90.3		30 (15) - 130 (107)	60%	SPK: 150
4165-60-0	Nitrobenzene-d5	68.0		30 (18) - 130 (107)	68%	SPK: 100
321-60-8	2-Fluorobiphenyl	77.0		30 (20) - 130 (109)	77%	SPK: 100
118-79-6	2,4,6-Tribromophenol	87.1		30 (10) - 130 (116)	58%	SPK: 150
1718-51-0	Terphenyl-d14	58.6		30 (10) - 130 (105)	59%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	110000	6.875			
1146-65-2	Naphthalene-d8	378000	8.151			
15067-26-2	Acenaphthene-d10	180000	9.904			
1517-22-2	Phenanthrene-d10	279000	11.398			
1719-03-5	Chrysene-d12	209000	14.045			
1520-96-3	Perylene-d12	217000	15.533			
TENTATIVE IDENTIFIED COMPOUNDS						
000994-05-8	Butane, 2-methoxy-2-methyl-	2100	J		2.15	ug/Kg
	unknown9.616	270	J		9.62	ug/Kg
000829-26-5	Naphthalene, 2,3,6-trimethyl-	180	J		10.3	ug/Kg
000638-36-8	Hexadecane, 2,6,10,14-tetramethyl-	150	J		10.6	ug/Kg
000119-61-9	Benzophenone	320	J		10.6	ug/Kg
006975-98-0	Decane, 2-methyl-	320	J		10.8	ug/Kg
000233-02-3	Naphtho[2,1-b]thiophene	210	J		11.3	ug/Kg

Raw Data: **BF140510.D**

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Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-TOP	SDG No.:	P4892
Lab Sample ID:	P4892-01	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	59.8
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140510.D	1	11/19/24 09:00	11/20/24 20:02	PB165086

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
000610-48-0	Anthracene, 1-methyl-	280	J		11.9	ug/Kg
000613-12-7	Anthracene, 2-methyl-	470	J		11.9	ug/Kg
002531-84-2	Phenanthrene, 2-methyl-	290	J		12.0	ug/Kg
018791-75-8	4-Bromothiophene-2-aldehyde	840	J		12.0	ug/Kg
000612-94-2	Naphthalene, 2-phenyl-	160	J		12.2	ug/Kg
000781-43-1	9,10-Dimethylanthracene	430	J		12.5	ug/Kg
000886-66-8	Benzene, 1,1-(1,3-butadiyne-1,4-d	270	J		12.7	ug/Kg
033543-31-6	Fluoranthene, 2-methyl-	180	J		13.1	ug/Kg
000243-17-4	11H-Benzo[b]fluorene	360	J		13.2	ug/Kg
000238-84-6	11H-Benzo[a]fluorene	190	J		13.2	ug/Kg
002381-21-7	Pyrene, 1-methyl-	180	J		13.3	ug/Kg
003353-12-6	Pyrene, 4-methyl-	160	J		13.4	ug/Kg
000192-97-2	Benzo[e]pyrene	400	J		15.4	ug/Kg

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (LSC Reviewed)

Sample Results: **BF140510.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140510.D
Acq On : 20 Nov 2024 20:02
Operator : RC/JU
Sample : P4892-01
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 21 00:08:11 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
WB-310-TOP

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.875	152	109793	20.000	ng		0.00
21) Naphthalene-d8	8.151	136	377655	20.000	ng		0.00
39) Acenaphthene-d10	9.904	164	180123	20.000	ng		-0.01
64) Phenanthrene-d10	11.398	188	278778	20.000	ng		0.00
76) Chrysene-d12	14.045	240	208770	20.000	ng		0.00
86) Perylene-d12	15.533	264	217412	20.000	ng		-0.02
System Monitoring Compounds							
5) 2-Fluorophenol	5.504	112	621437	96.639	ng		0.01
7) Phenol-d6	6.510	99	786740	90.303	ng		0.00
23) Nitrobenzene-d5	7.434	82	492636	67.966	ng		0.00
42) 2,4,6-Tribromophenol	10.698	330	155928	87.053	ng		0.00
45) 2-Fluorobiphenyl	9.228	172	862994	77.020	ng		0.00
79) Terphenyl-d14	12.980	244	704237	58.553	ng		0.00
Target Compounds							Qvalue
49) Acenaphthylene	9.769	152	54144	3.585	ng		98
52) Acenaphthene	9.939	154	22021	2.159	ng		96
71) Phenanthrene	11.422	178	170137	12.992	ng		99
72) Anthracene	11.474	178	76439	5.956	ng		99
75) Fluoranthene	12.616	202	360462	24.534	ng		99
78) Pyrene	12.845	202	363983	20.383	ng		99
81) Benzo(a)anthracene	14.033	228	266516	19.424	ng	#	82
83) Chrysene	14.068	228	221479	17.691	ng	#	95
87) Indeno(1,2,3-cd)pyrene	17.033	276	73495	5.472	ng		96
88) Benzo(b)fluoranthene	15.098	252	215937m	15.183	ng		
89) Benzo(k)fluoranthene	15.115	252	73990m	6.368	ng		
90) Benzo(a)pyrene	15.468	252	180490	16.342	ng	#	96
91) Dibenzo(a,h)anthracene	17.039	278	22934	2.066	ng	#	82
92) Benzo(g,h,i)perylene	17.486	276	64491	5.682	ng		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

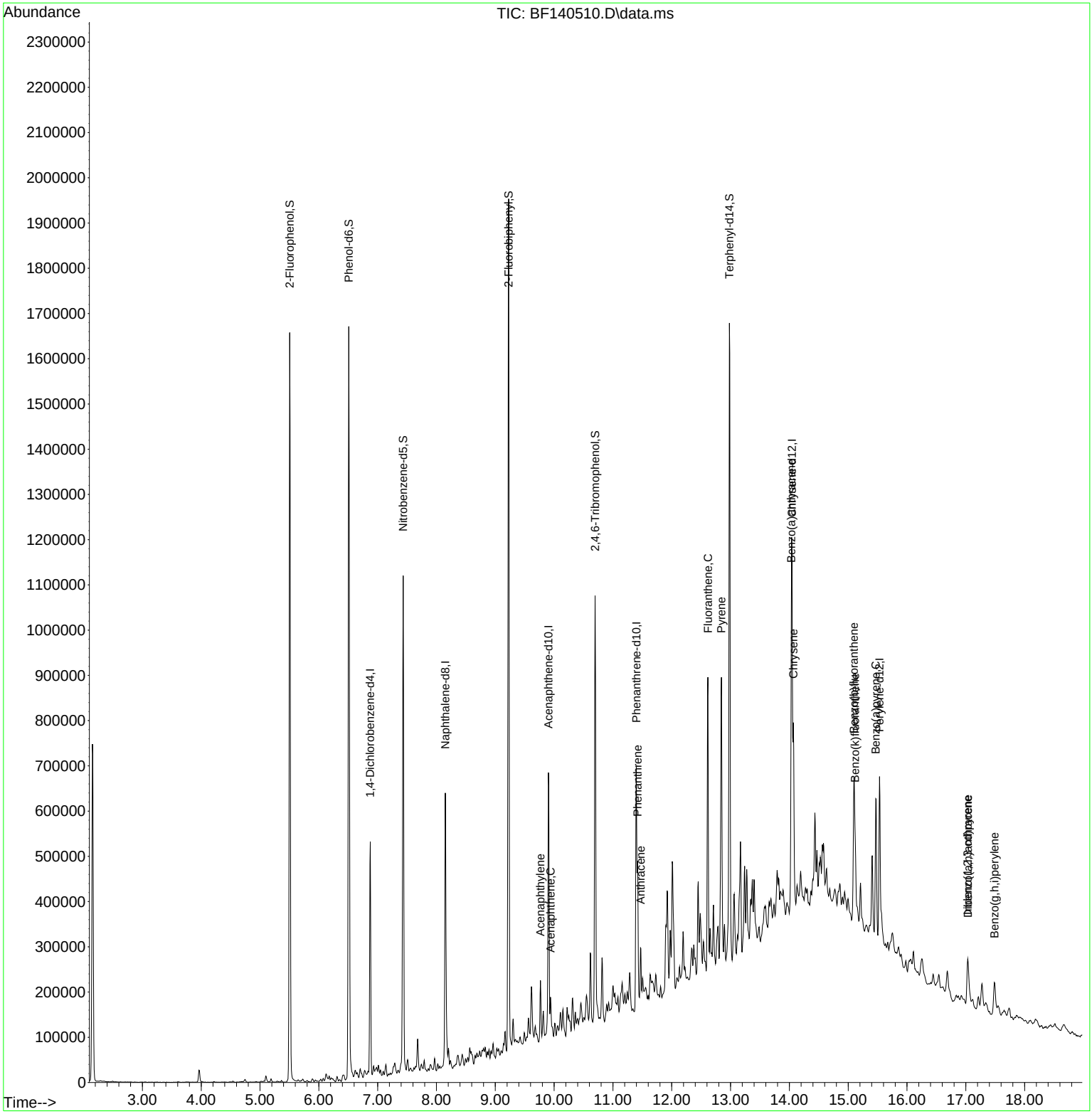
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Data File : BF140510.D
Acq On : 20 Nov 2024 20:02
Operator : RC/JU
Sample : P4892-01
Misc :
ALS Vial : 11 Sample Multiplier: 1

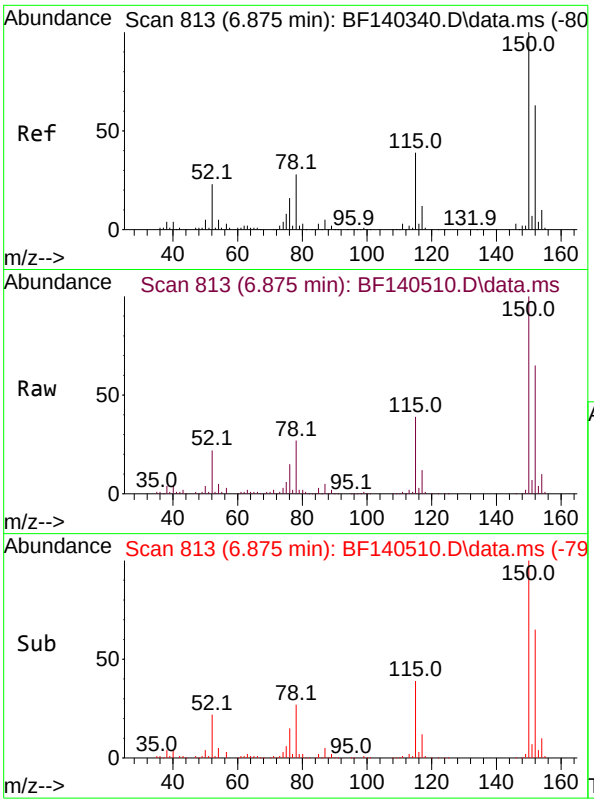
Quant Time: Nov 21 00:08:11 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
WB-310-TOP

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024

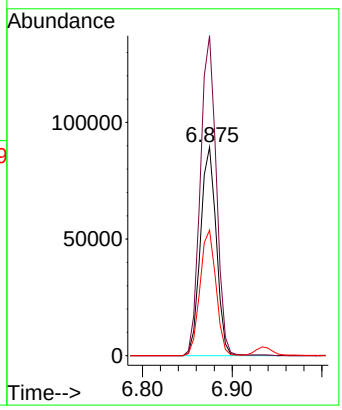




#1
1,4-Dichlorobenzene-d4
Concen: 20.000 ng
RT: 6.875 min Scan# 8
Delta R.T. -0.006 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:152 Resp: 10979

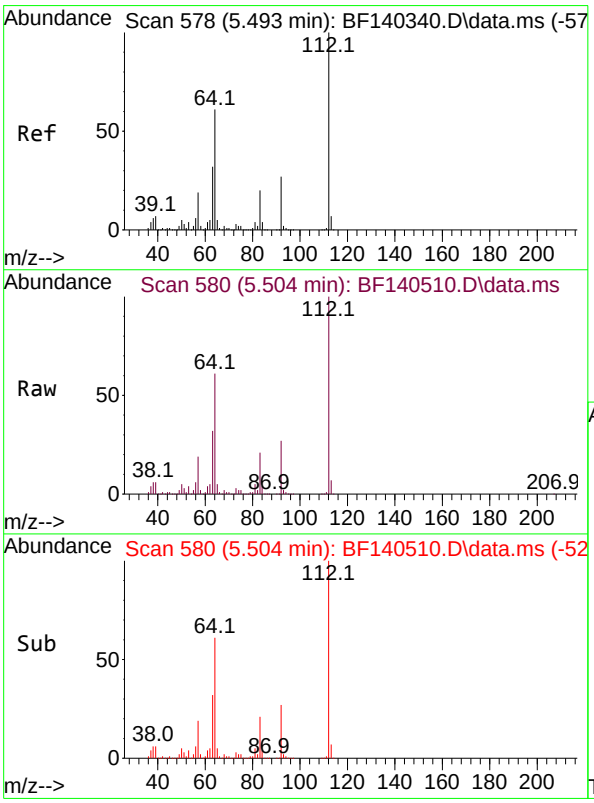
Ion	Ratio	Lower	Upper
152	100		
150	153.4	127.4	191.0
115	60.2	47.4	71.2



Instrument :
BNA_F
ClientSampleId :
WB-310-TOP

Manual Integrations
APPROVED

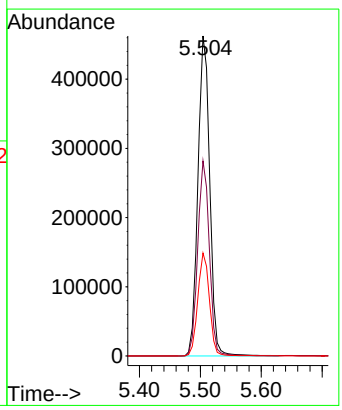
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024

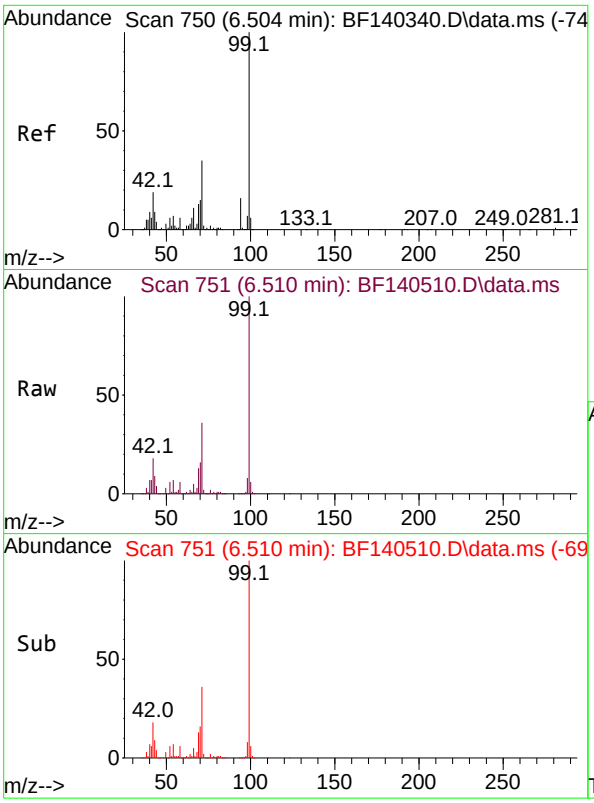


#5
2-Fluorophenol
Concen: 96.639 ng
RT: 5.504 min Scan# 580
Delta R.T. 0.012 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:112 Resp: 621437

Ion	Ratio	Lower	Upper
112	100		
64	60.9	49.2	73.8
63	32.2	25.6	38.4

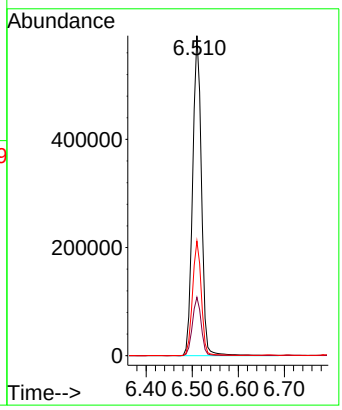




#7
Phenol-d6
Concen: 90.303 ng
RT: 6.510 min Scan# 7
Delta R.T. 0.006 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion: 99 Resp: 78674

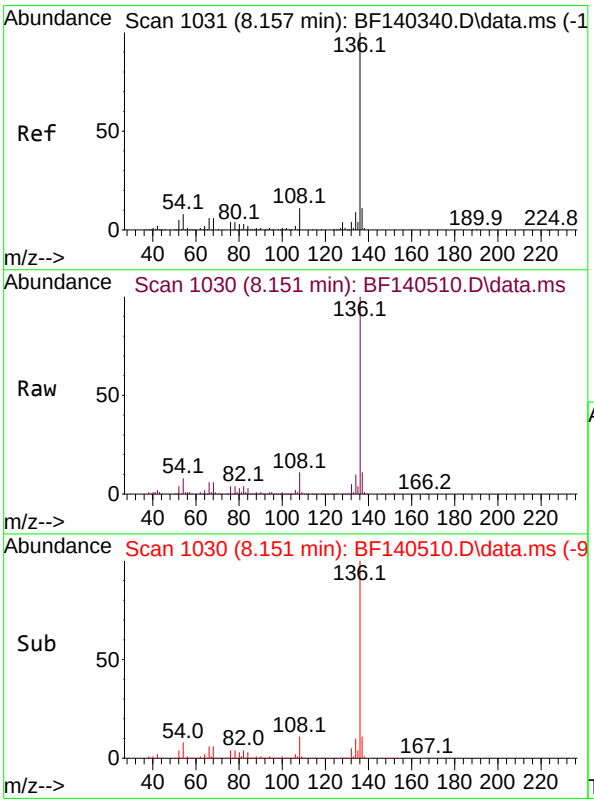
Ion	Ratio	Lower	Upper
99	100		
42	18.2	15.1	22.7
71	35.8	27.9	41.9



Instrument :
BNA_F
ClientSampleId :
WB-310-TOP

Manual Integrations
APPROVED

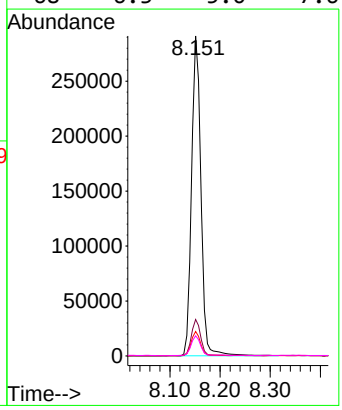
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024

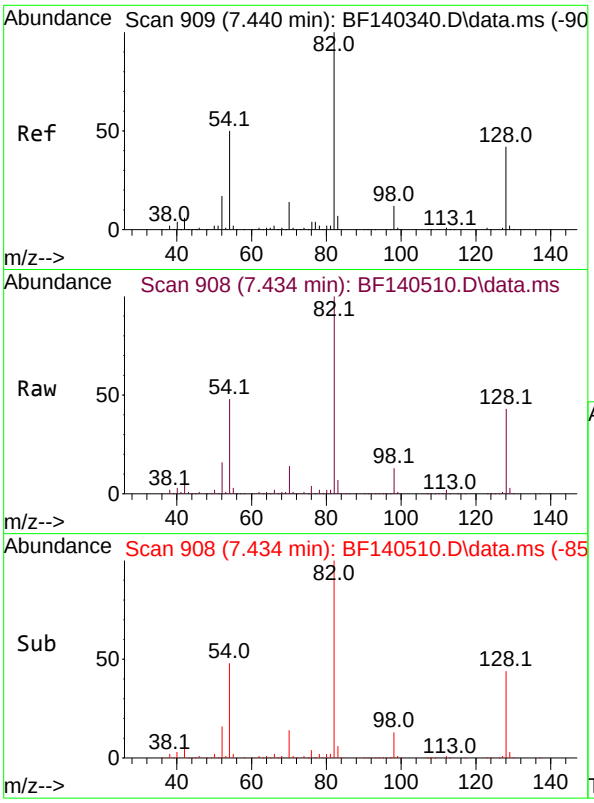


#21
Naphthalene-d8
Concen: 20.000 ng
RT: 8.151 min Scan# 1030
Delta R.T. -0.006 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:136 Resp: 377655

Ion	Ratio	Lower	Upper
136	100		
137	11.4	8.7	13.1
54	7.7	6.5	9.7
68	6.3	5.0	7.6

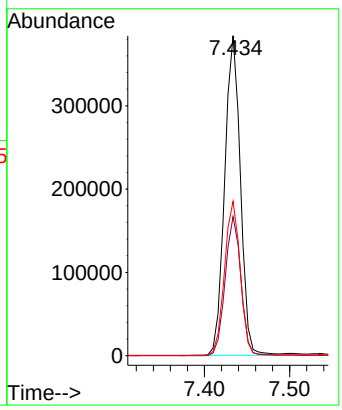




#23
Nitrobenzene-d5
Concen: 67.966 ng
RT: 7.434 min Scan# 9
Delta R.T. -0.006 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion: 82 Resp: 49263

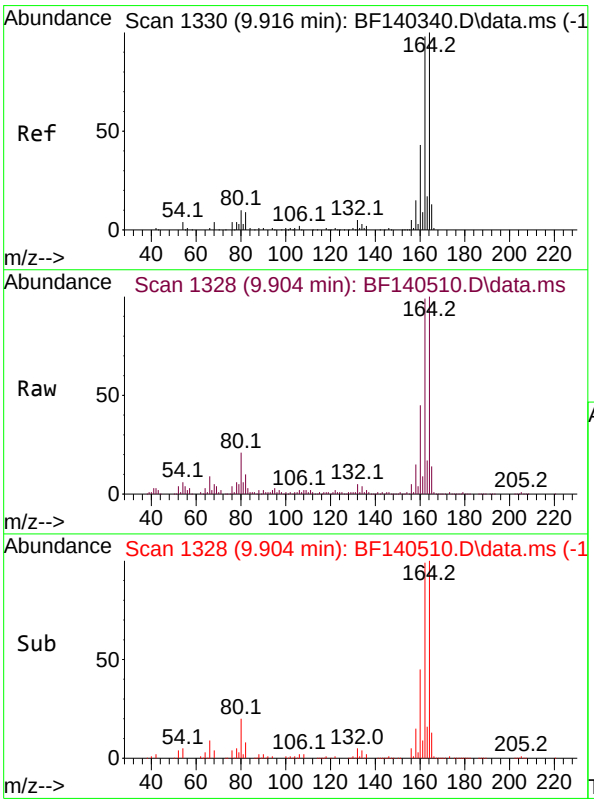
Ion	Ratio	Lower	Upper
82	100		
128	43.5	33.3	49.9
54	48.2	39.8	59.8



Instrument :
BNA_F
ClientSampleId :
WB-310-TOP

Manual Integrations
APPROVED

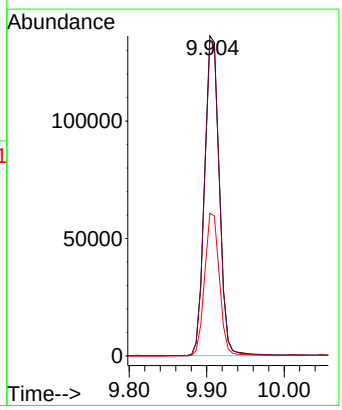
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024

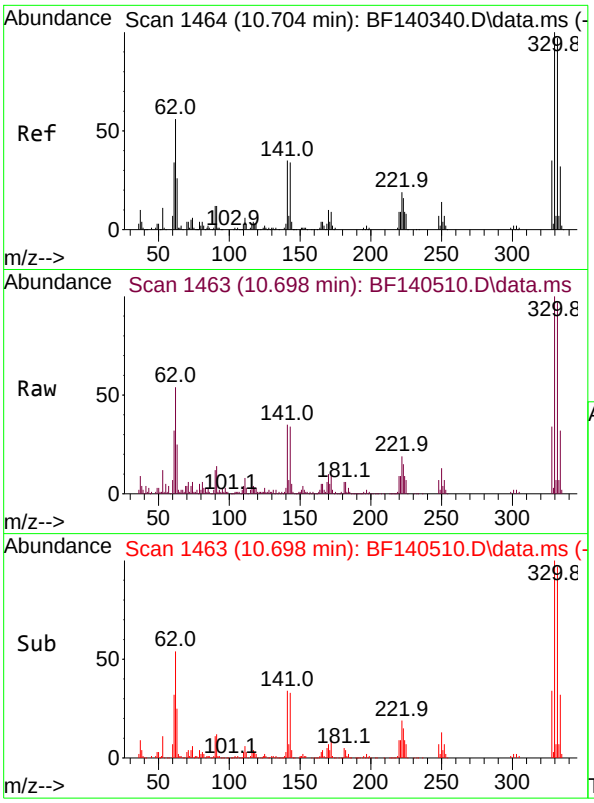


#39
Acenaphthene-d10
Concen: 20.000 ng
RT: 9.904 min Scan# 1328
Delta R.T. -0.012 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:164 Resp: 180123

Ion	Ratio	Lower	Upper
164	100		
162	98.6	79.8	119.8
160	44.6	35.4	53.0

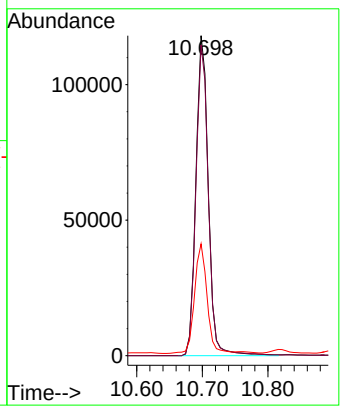




#42
2,4,6-Tribromophenol
Concen: 87.053 ng
RT: 10.698 min Scan# 14
Delta R.T. -0.006 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:330 Resp: 15592

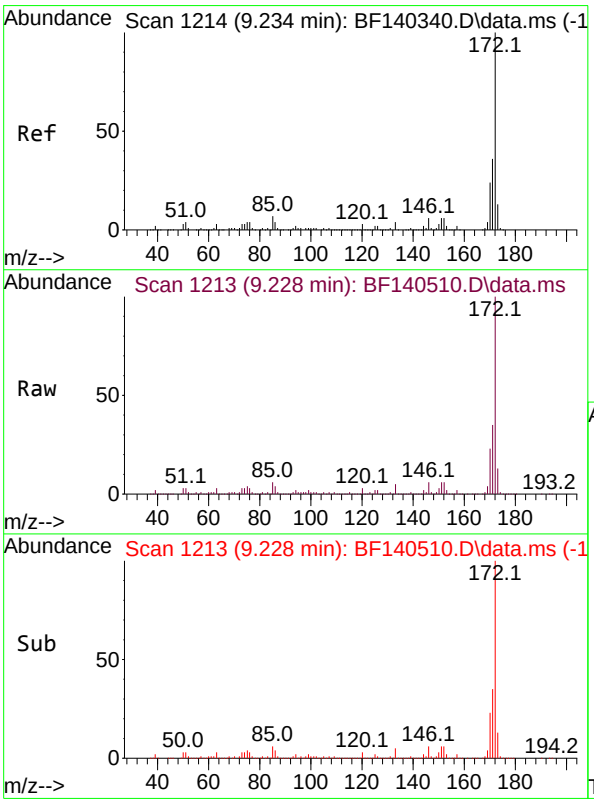
Ion	Ratio	Lower	Upper
330	100		
332	97.2	75.9	113.9
141	34.2	26.9	40.3



Instrument :
BNA_F
ClientSampleId :
WB-310-TOP

Manual Integrations
APPROVED

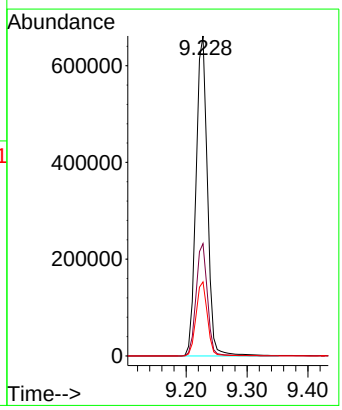
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024

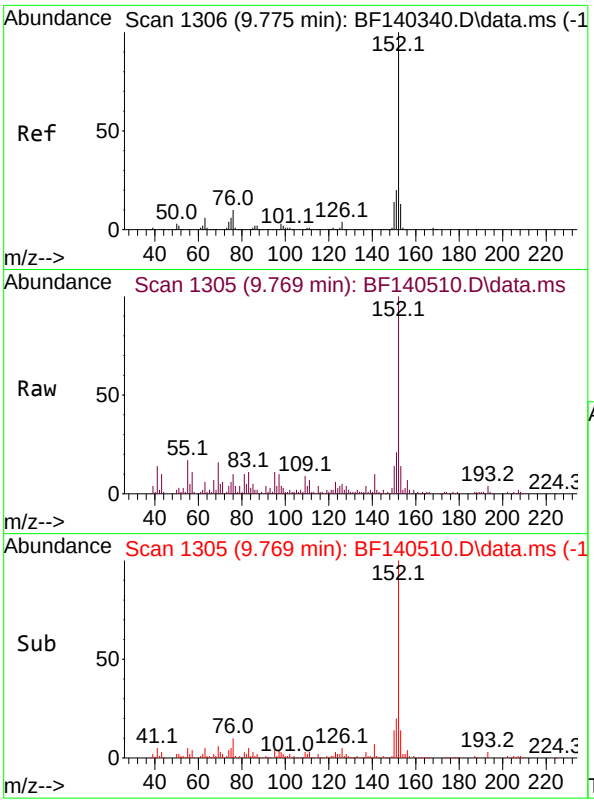


#45
2-Fluorobiphenyl
Concen: 77.020 ng
RT: 9.228 min Scan# 1213
Delta R.T. -0.006 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:172 Resp: 862994

Ion	Ratio	Lower	Upper
172	100		
171	35.1	28.5	42.7
170	23.2	19.1	28.7

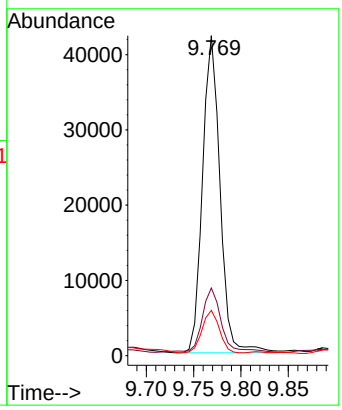




#49
Acenaphthylene
Concen: 3.585 ng
RT: 9.769 min Scan# 1
Delta R.T. -0.006 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:152 Resp: 5414

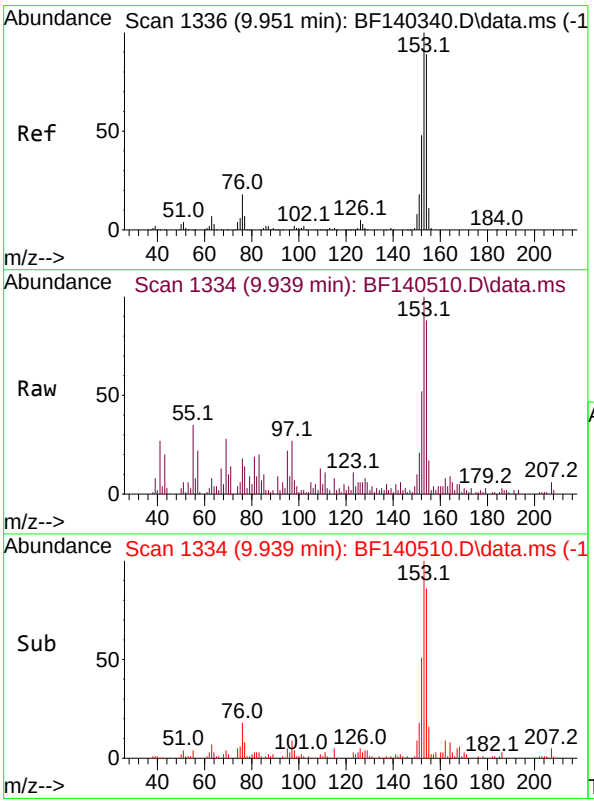
Ion	Ratio	Lower	Upper
152	100		
151	21.2	16.1	24.1
153	14.2	10.7	16.1



Instrument :
BNA_F
ClientSampleId :
WB-310-TOP

Manual Integrations
APPROVED

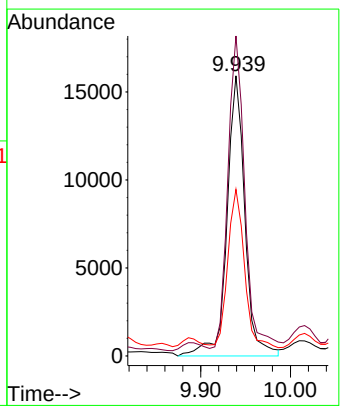
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024

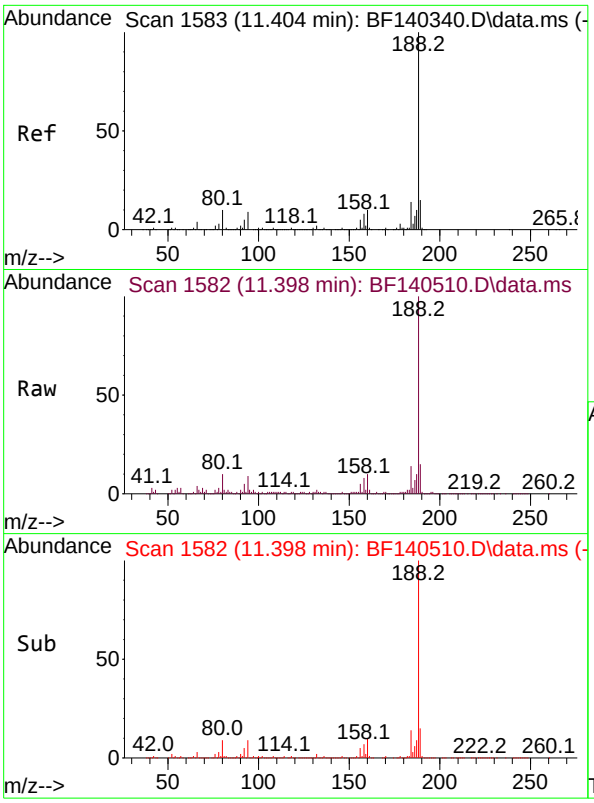


#52
Acenaphthene
Concen: 2.159 ng
RT: 9.939 min Scan# 1334
Delta R.T. -0.012 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:154 Resp: 22021

Ion	Ratio	Lower	Upper
154	100		
153	114.2	89.8	134.8
152	59.4	42.6	64.0

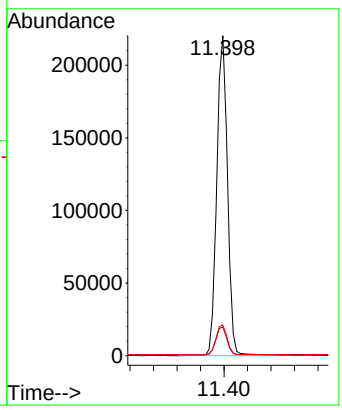




#64
Phenanthrene-d10
Concen: 20.000 ng
RT: 11.398 min Scan# 1
Delta R.T. -0.006 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:188 Resp: 27877

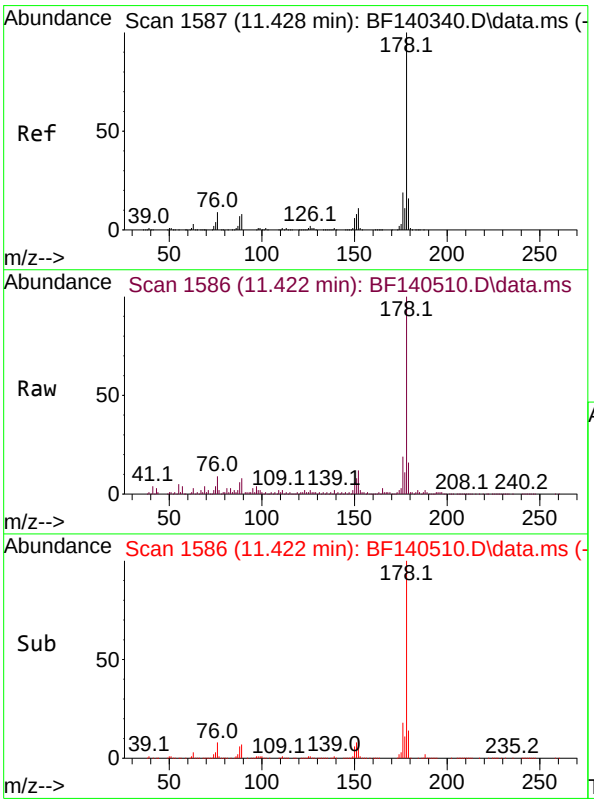
Ion	Ratio	Lower	Upper
188	100		
94	8.9	7.6	11.4
80	9.6	8.0	12.0



Instrument :
BNA_F
ClientSampleId :
WB-310-TOP

Manual Integrations
APPROVED

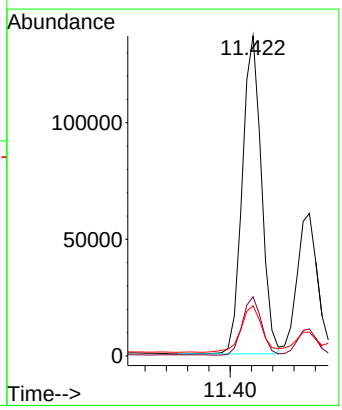
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024

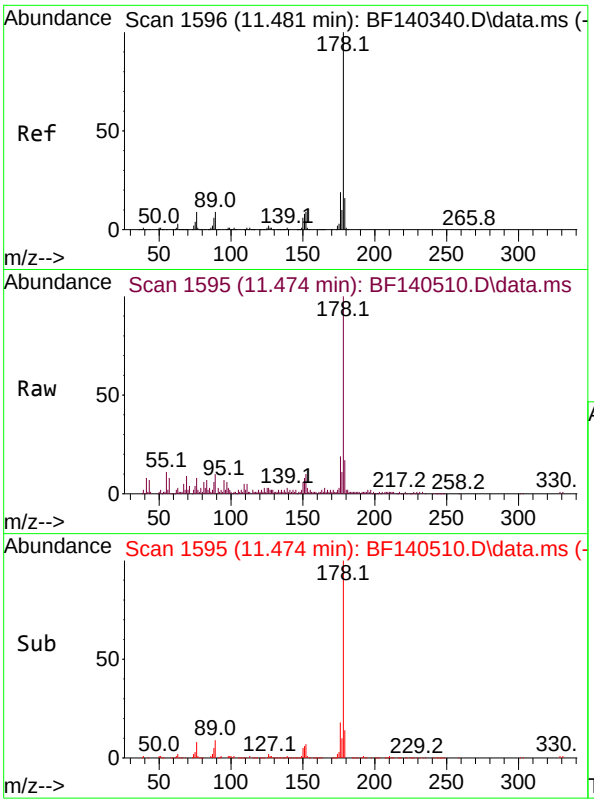


#71
Phenanthrene
Concen: 12.992 ng
RT: 11.422 min Scan# 1586
Delta R.T. -0.006 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:178 Resp: 170137

Ion	Ratio	Lower	Upper
178	100		
176	18.5	15.5	23.3
179	15.7	12.4	18.6

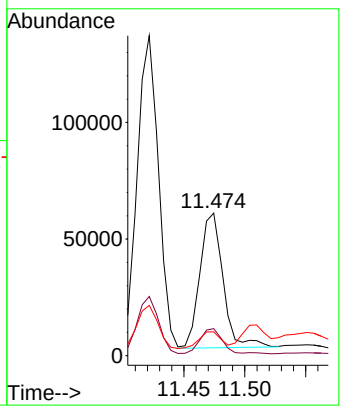




#72
Anthracene
Concen: 5.956 ng
RT: 11.474 min Scan# 1
Delta R.T. -0.006 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:178 Resp: 7643

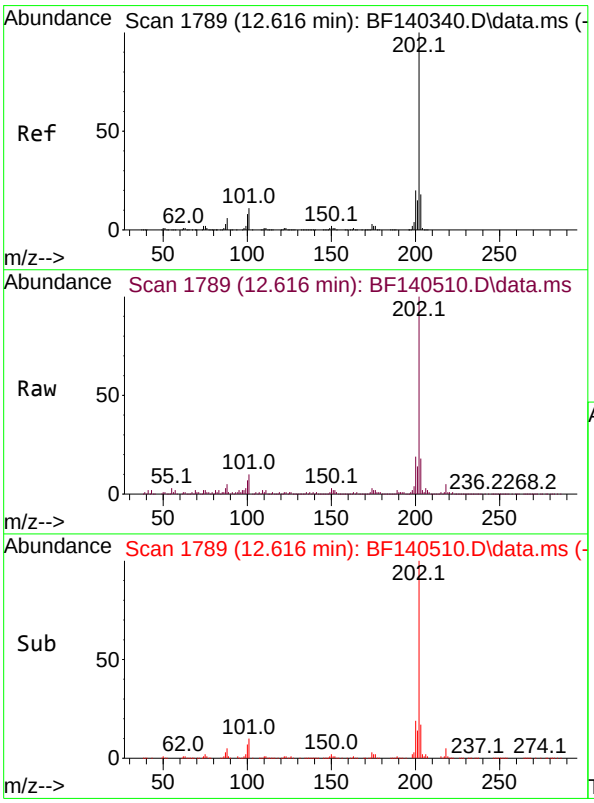
Ion	Ratio	Lower	Upper
178	100		
176	18.9	15.4	23.0
179	16.8	12.6	18.8



Instrument :
BNA_F
ClientSampleId :
WB-310-TOP

Manual Integrations
APPROVED

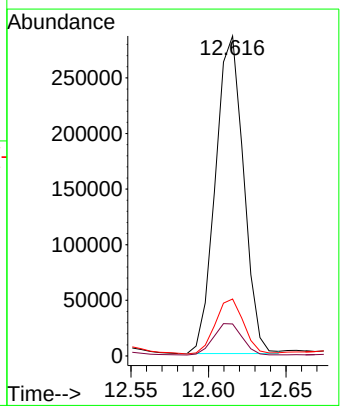
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024

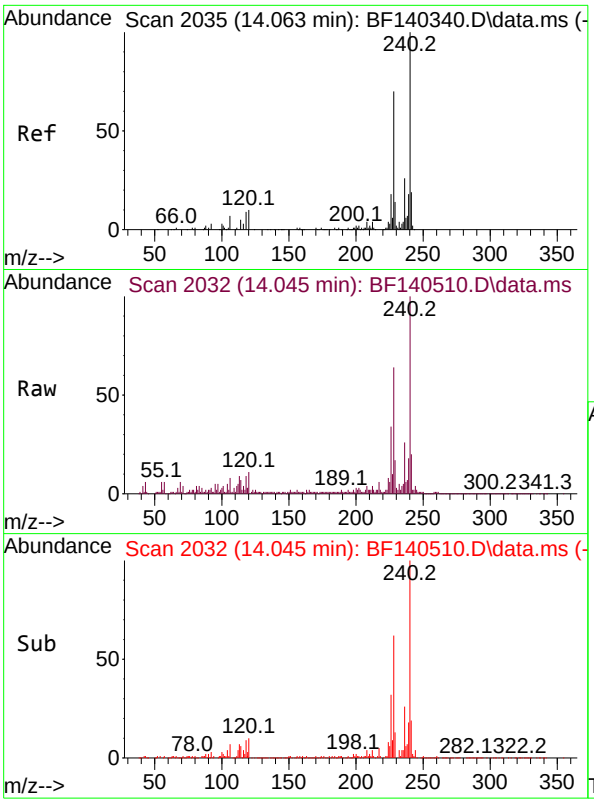


#75
Fluoranthene
Concen: 24.534 ng
RT: 12.616 min Scan# 1789
Delta R.T. -0.000 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:202 Resp: 360462

Ion	Ratio	Lower	Upper
202	100		
101	10.0	0.0	30.7
203	17.8	0.0	37.7

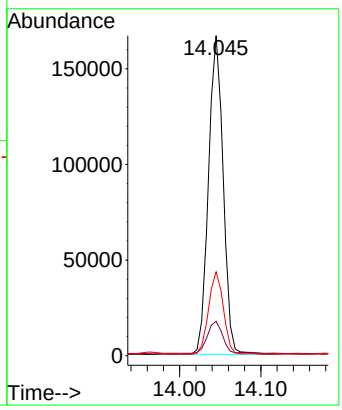




#76
Chrysene-d12
Concen: 20.000 ng
RT: 14.045 min Scan# 2
Delta R.T. -0.006 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:240 Resp: 20877

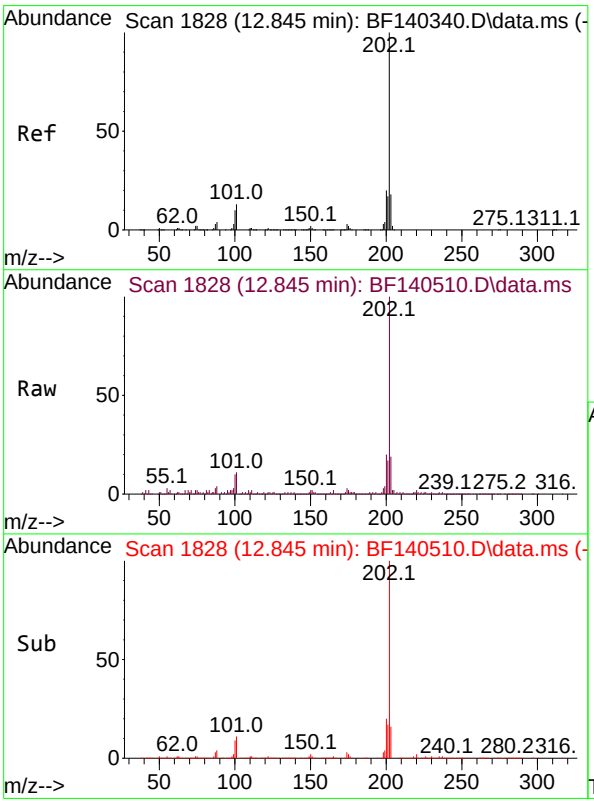
Ion	Ratio	Lower	Upper
240	100		
120	10.8	8.8	13.2
236	26.2	20.9	31.3



Instrument :
BNA_F
ClientSampleId :
WB-310-TOP

Manual Integrations
APPROVED

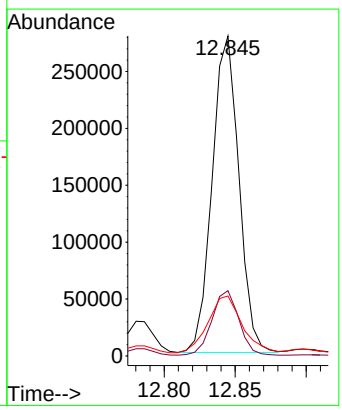
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024

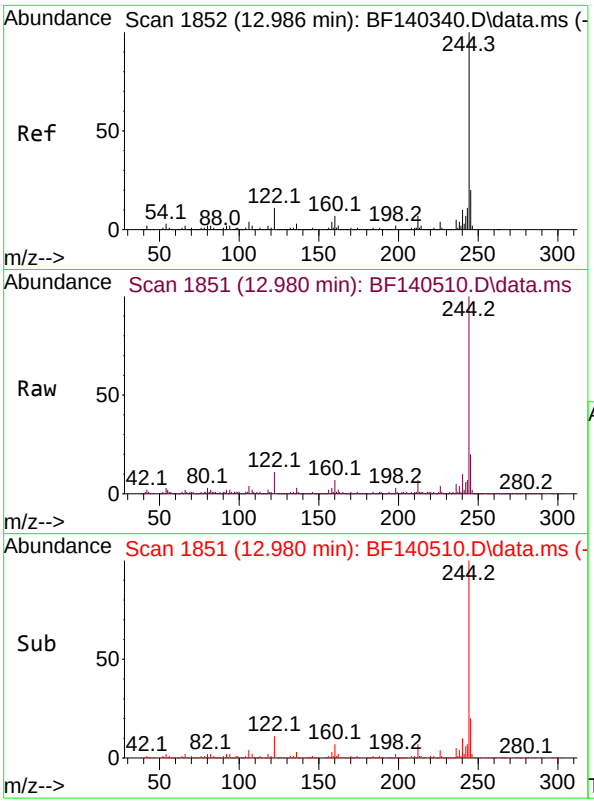


#78
Pyrene
Concen: 20.383 ng
RT: 12.845 min Scan# 1828
Delta R.T. -0.000 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:202 Resp: 363983

Ion	Ratio	Lower	Upper
202	100		
200	20.4	16.2	24.2
203	18.7	14.2	21.4

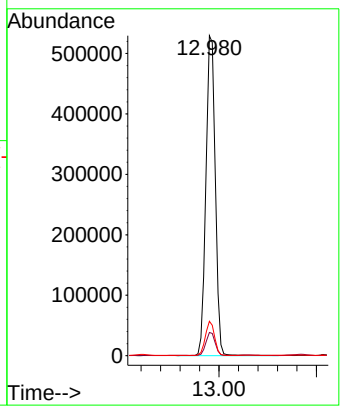




#79
Terphenyl-d14
Concen: 58.553 ng
RT: 12.980 min Scan# 1
Delta R.T. -0.006 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:244 Resp: 70423

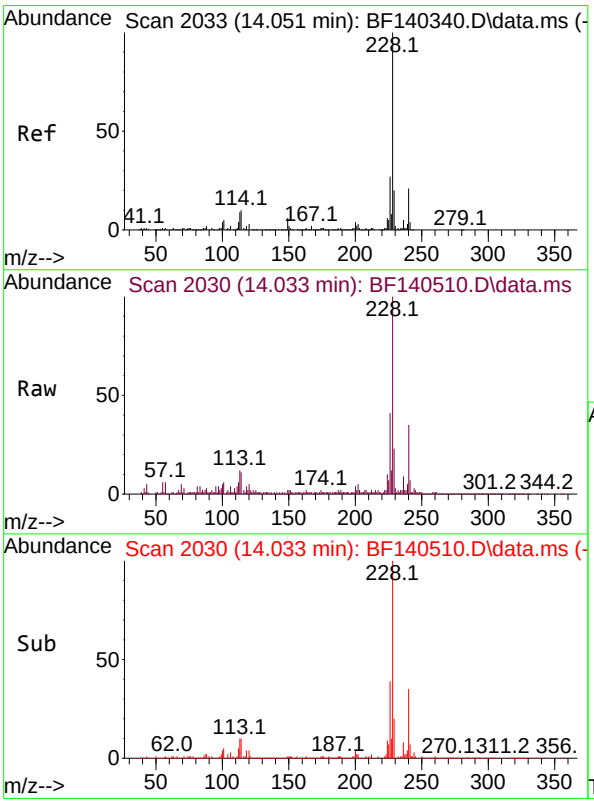
Ion	Ratio	Lower	Upper
244	100		
212	7.3	5.8	8.8
122	10.8	8.8	13.2



Instrument :
BNA_F
ClientSampleId :
WB-310-TOP

Manual Integrations
APPROVED

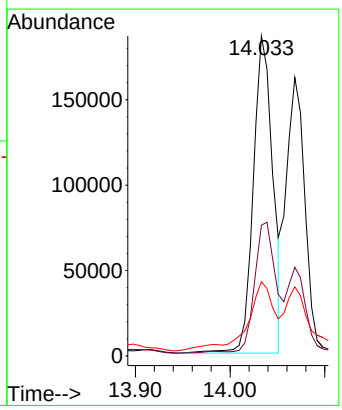
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024

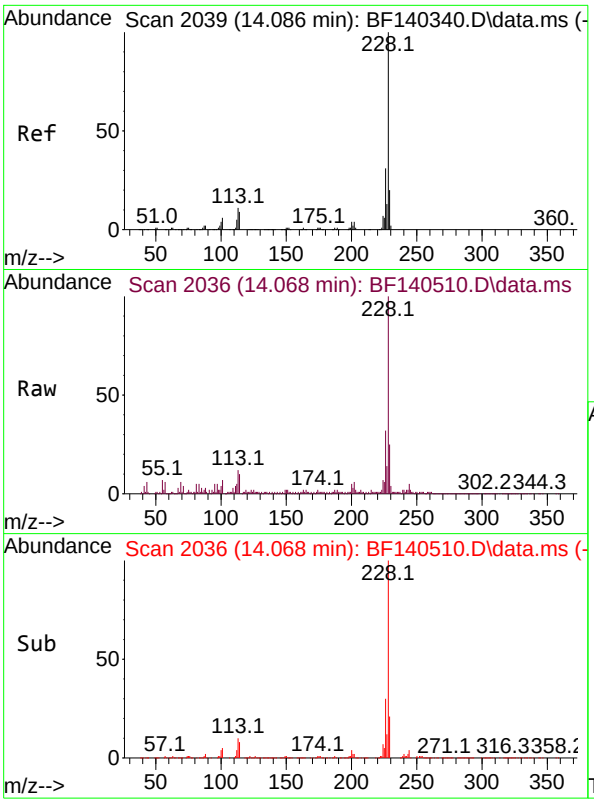


#81
Benzo(a)anthracene
Concen: 19.424 ng
RT: 14.033 min Scan# 2030
Delta R.T. -0.006 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:228 Resp: 266516

Ion	Ratio	Lower	Upper
228	100		
226	40.8	22.2	33.4#
229	23.2	15.8	23.6

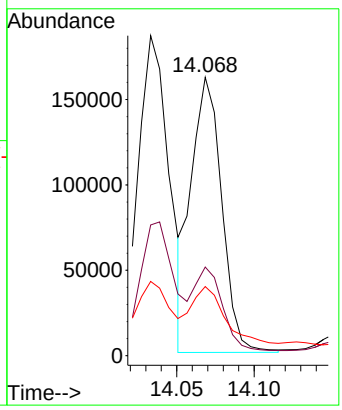




#83
Chrysene
Concen: 17.691 ng
RT: 14.068 min Scan# 2
Delta R.T. -0.012 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:228 Resp: 22147

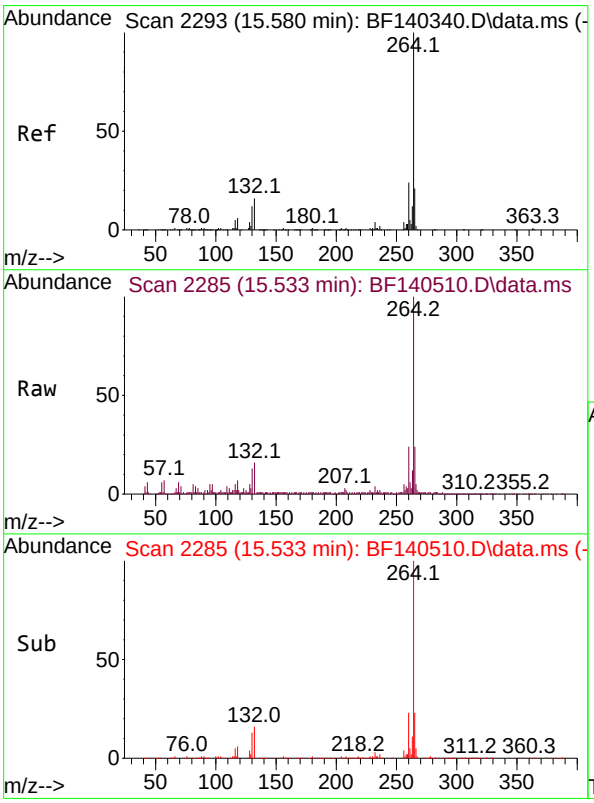
Ion	Ratio	Lower	Upper
228	100		
226	31.8	24.5	36.7
229	24.8	16.0	24.0



Instrument :
BNA_F
ClientSampleId :
WB-310-TOP

Manual Integrations
APPROVED

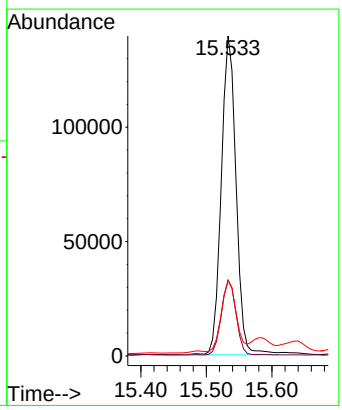
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024

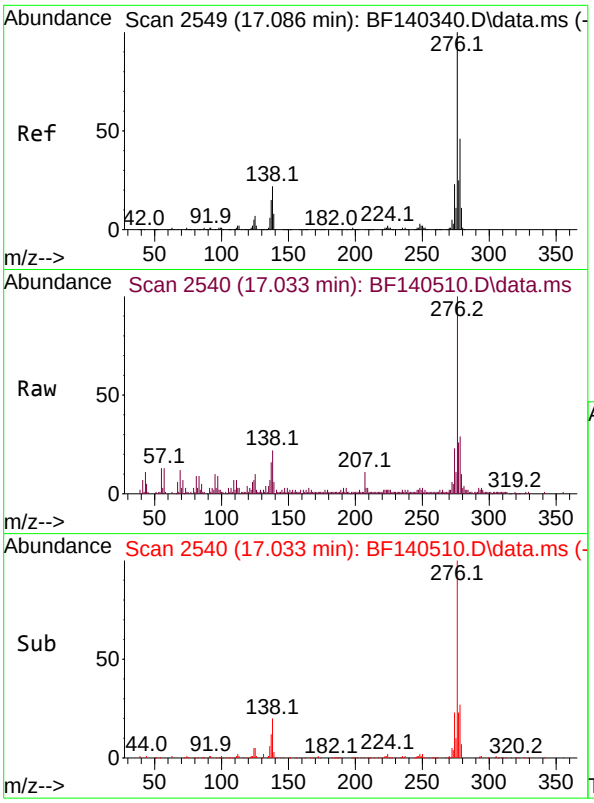


#86
Perylene-d12
Concen: 20.000 ng
RT: 15.533 min Scan# 2285
Delta R.T. -0.024 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:264 Resp: 217412

Ion	Ratio	Lower	Upper
264	100		
260	23.7	19.2	28.8
265	23.7	17.1	25.7

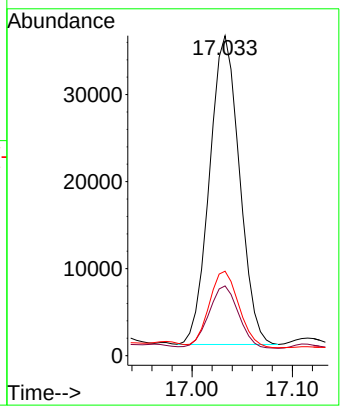




#87
Indeno(1,2,3-cd)pyrene
Concen: 5.472 ng
RT: 17.033 min Scan# 2
Delta R.T. -0.024 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:276 Resp: 7349

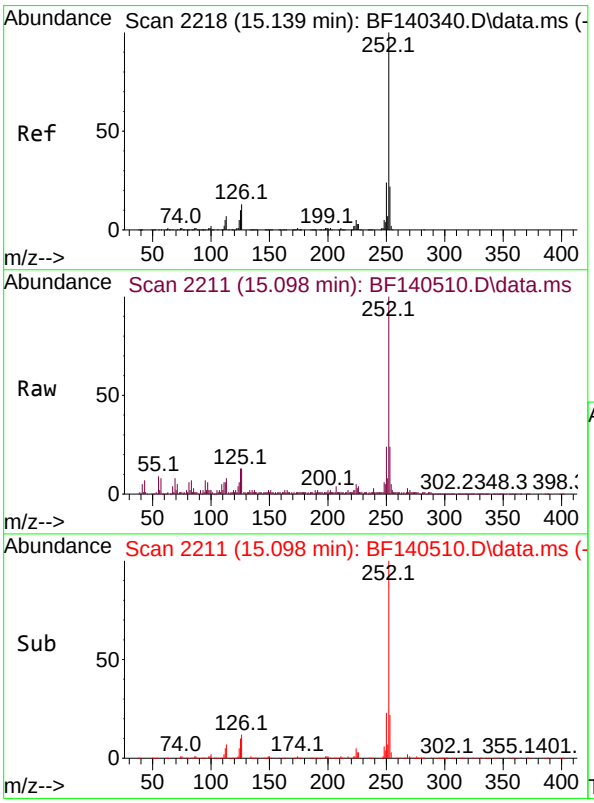
Ion	Ratio	Lower	Upper
276	100		
138	20.2	18.8	28.2
277	24.9	20.2	30.2



Instrument :
BNA_F
ClientSampleId :
WB-310-TOP

Manual Integrations
APPROVED

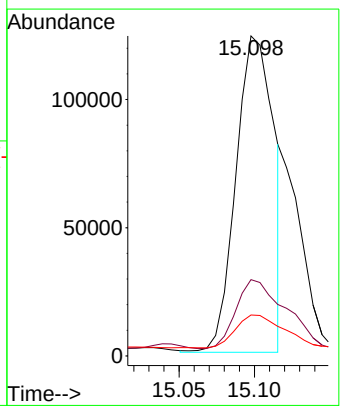
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024

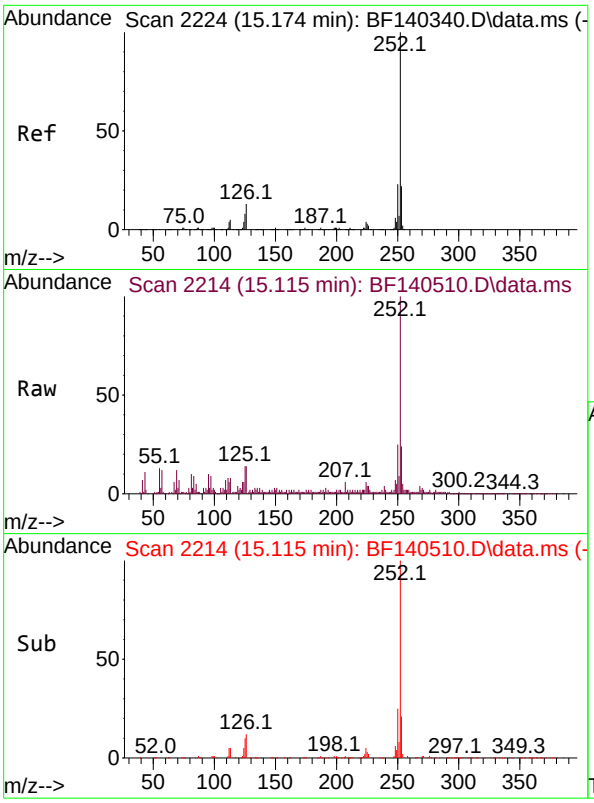


#88
Benzo(b)fluoranthene
Concen: 15.183 ng m
RT: 15.098 min Scan# 2211
Delta R.T. -0.018 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:252 Resp: 215937

Ion	Ratio	Lower	Upper
252	100		
253	23.9	17.5	26.3
125	12.8	8.0	12.0#

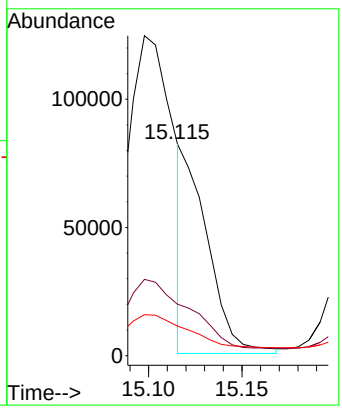




#89
Benzo(k)fluoranthene
Concen: 6.368 ng m
RT: 15.115 min Scan# 2
Delta R.T. -0.035 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:252 Resp: 7399

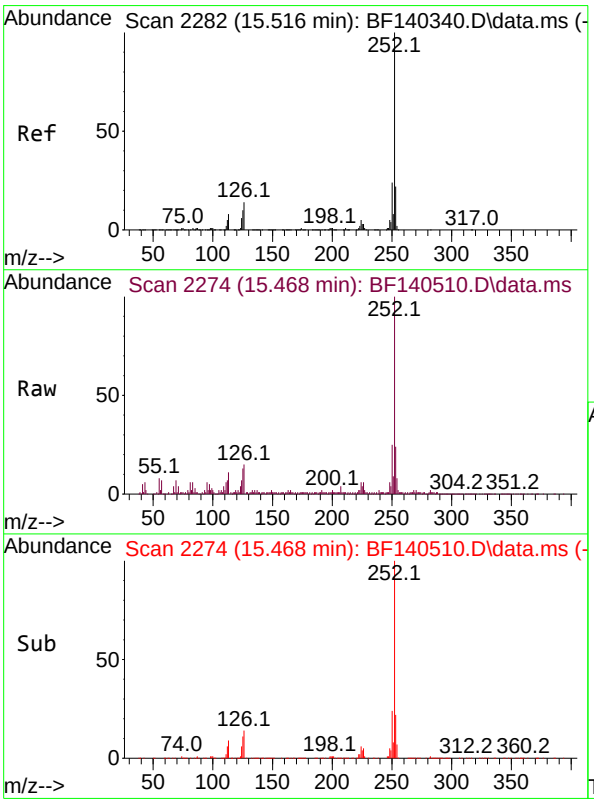
Ion	Ratio	Lower	Upper
252	100		
253	24.3	17.3	25.9
125	14.0	7.4	11.2#



Instrument :
BNA_F
ClientSampleId :
WB-310-TOP

Manual Integrations
APPROVED

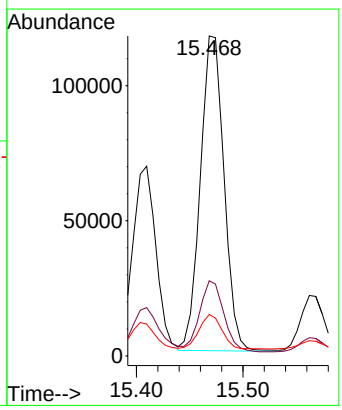
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024

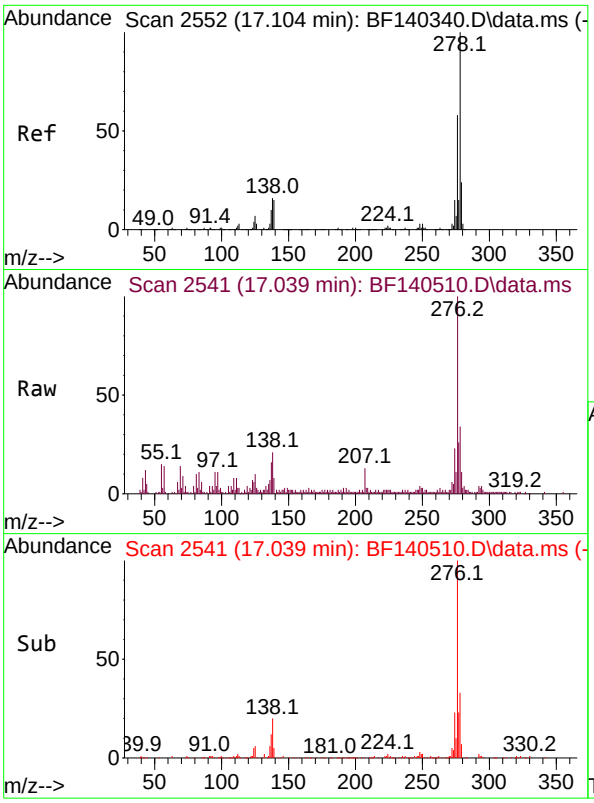


#90
Benzo(a)pyrene
Concen: 16.342 ng
RT: 15.468 min Scan# 2274
Delta R.T. -0.024 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:252 Resp: 180490

Ion	Ratio	Lower	Upper
252	100		
253	23.5	17.8	26.6
125	13.0	8.4	12.6#

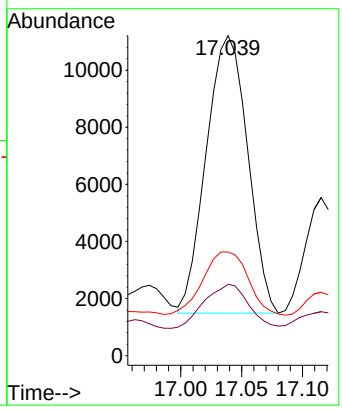




#91
Dibenzo(a,h)anthracene
Concen: 2.066 ng
RT: 17.039 min Scan# 2
Delta R.T. -0.035 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:278 Resp: 2293

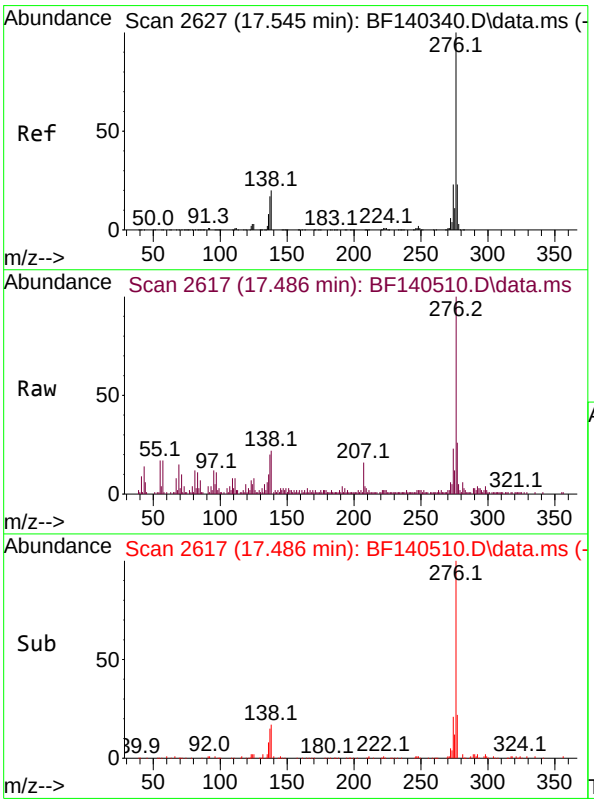
Ion	Ratio	Lower	Upper
278	100		
139	22.3	11.8	17.8
279	32.4	18.9	28.3



Instrument :
BNA_F
ClientSampleId :
WB-310-TOP

Manual Integrations
APPROVED

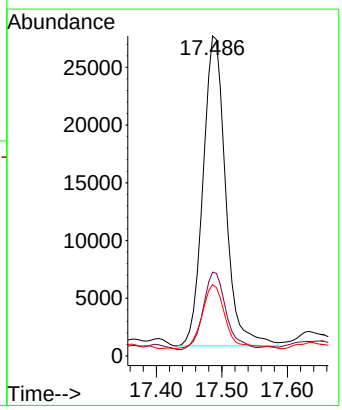
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024



#92
Benzo(g,h,i)perylene
Concen: 5.682 ng
RT: 17.486 min Scan# 2617
Delta R.T. -0.030 min
Lab File: BF140510.D
Acq: 20 Nov 2024 20:02

Tgt Ion:276 Resp: 64491

Ion	Ratio	Lower	Upper
276	100		
277	26.2	18.6	28.0
138	22.3	16.0	24.0



Sample Results: **BF140510.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140510.D
Acq On : 20 Nov 2024 20:02
Operator : RC/JU
Sample : P4892-01
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WB-310-TOP

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

Signal : TIC: BF140510.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.152	3	10	22	rVB	745044	1211511	49.17%	4.404%
2	3.963	309	318	325	rBV	26837	45115	1.83%	0.164%
3	5.504	569	580	596	rBV	1657052	2216761	89.97%	8.059%
4	6.122	680	685	691	rBV3	14881	30246	1.23%	0.110%
5	6.422	729	736	741	rBV5	14458	40012	1.62%	0.145%
6	6.510	741	751	764	rBV	1665845	2295549	93.16%	8.345%
7	6.704	780	784	792	rBV4	19351	39289	1.59%	0.143%
8	6.781	792	797	802	rBV3	15628	33723	1.37%	0.123%
9	6.875	808	813	819	rVB	514534	646557	26.24%	2.351%
10	6.934	819	823	826	rBV3	19368	28403	1.15%	0.103%
11	7.139	853	858	862	rVB3	25838	41195	1.67%	0.150%
12	7.292	881	884	890	rVB5	22758	37206	1.51%	0.135%
13	7.434	897	908	917	rBV	1098691	1465885	59.49%	5.329%
14	7.510	917	921	925	rVB4	24666	39379	1.60%	0.143%
15	7.681	946	950	956	rVB3	69776	102396	4.16%	0.372%
16	7.898	983	987	995	rBV7	13104	28474	1.16%	0.104%
17	7.969	995	999	1004	rVB2	27312	37639	1.53%	0.137%
18	8.151	1023	1030	1037	rBV	604207	857290	34.79%	3.117%
19	8.204	1037	1039	1042	rVV	42952	48473	1.97%	0.176%
20	8.239	1042	1045	1051	rVB8	17616	28576	1.16%	0.104%
21	8.363	1061	1066	1072	rVB6	23170	48604	1.97%	0.177%
22	8.439	1075	1079	1084	rVB5	24302	42296	1.72%	0.154%
23	8.569	1097	1101	1103	rBV	29646	40049	1.63%	0.146%
24	8.657	1112	1116	1118	rBV4	19082	26776	1.09%	0.097%
25	8.963	1165	1168	1175	rVB	32292	47586	1.93%	0.173%
26	9.028	1175	1179	1181	rBV4	21967	32004	1.30%	0.116%
27	9.169	1200	1203	1207	rVB	42449	51936	2.11%	0.189%
28	9.228	1207	1213	1222	rBV	1883475	2464013	100.00%	8.958%
29	9.304	1222	1226	1230	rBV2	57206	79891	3.24%	0.290%
30	9.563	1267	1270	1275	rBV	42969	60418	2.45%	0.220%
31	9.616	1275	1279	1286	rVB3	111655	180741	7.34%	0.657%
32	9.769	1301	1305	1309	rBV	134279	171296	6.95%	0.623%
33	9.816	1309	1313	1317	rVV2	56833	77315	3.14%	0.281%
34	9.904	1323	1328	1332	rBV	565808	749131	30.40%	2.723%
35	9.939	1332	1334	1343	rVB2	86800	127166	5.16%	0.462%
36	10.010	1343	1346	1350	rBV2	29163	42191	1.71%	0.153%

Sample Results: **BF140510.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140510.D
Acq On : 20 Nov 2024 20:02
Operator : RC/JU
Sample : P4892-01
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WB-310-TOP

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

37	10.104	1360	1362	1366	rVB2	36883	46029	1.87%	0.167%
38	10.151	1367	1370	1378	rVB4	59569	100752	4.09%	0.366%
39	10.222	1378	1382	1385	rBV2	64025	98662	4.00%	0.359%
40	10.316	1394	1398	1403	rBV5	72005	120901	4.91%	0.440%
41	10.363	1403	1406	1409	rBV2	35774	44334	1.80%	0.161%
42	10.551	1434	1438	1444	rVB2	54385	103081	4.18%	0.375%
43	10.616	1445	1449	1456	rVB2	153223	216944	8.80%	0.789%
44	10.698	1458	1463	1474	rVB	934956	1240435	50.34%	4.510%
45	10.816	1479	1483	1490	rVB	141440	211936	8.60%	0.770%
46	11.286	1560	1563	1569	rVB3	83931	134224	5.45%	0.488%
47	11.398	1577	1582	1584	rBV	540303	728136	29.55%	2.647%
48	11.469	1591	1594	1598	rBV	109766	136843	5.55%	0.497%
49	11.633	1619	1622	1626	rBV3	49502	88957	3.61%	0.323%
50	11.904	1664	1668	1669	rBV	136730	184255	7.48%	0.670%
51	11.921	1669	1671	1676	rVV2	213321	307174	12.47%	1.117%
52	11.974	1677	1680	1683	rVV	126999	189625	7.70%	0.689%
53	12.010	1683	1686	1695	rVB	280839	551709	22.39%	2.006%
54	12.192	1714	1717	1721	rBV	87082	101572	4.12%	0.369%
55	12.451	1757	1761	1764	rBV	196818	280083	11.37%	1.018%
56	12.616	1784	1789	1793	rBV	649994	839150	34.06%	3.051%
57	12.651	1793	1795	1798	rVV2	88215	111353	4.52%	0.405%
58	12.710	1802	1805	1811	rVB	131278	177513	7.20%	0.645%
59	12.845	1822	1828	1834	rBV	616327	955641	38.78%	3.474%
60	12.980	1847	1851	1859	rVB	1408297	1949517	79.12%	7.087%
61	13.063	1861	1865	1871	rVB3	132775	229936	9.33%	0.836%
62	13.168	1877	1883	1888	rVB	244471	457078	18.55%	1.662%
63	13.239	1891	1895	1898	rVV2	172729	245419	9.96%	0.892%
64	13.274	1898	1901	1908	rVB2	155617	236592	9.60%	0.860%
65	13.398	1920	1922	1931	rVB3	129036	204877	8.31%	0.745%
66	14.039	2026	2031	2035	rBV2	807300	1430342	58.05%	5.200%
67	15.098	2207	2211	2220	rBV	285313	598543	24.29%	2.176%
68	15.409	2260	2264	2270	rVB	168880	259882	10.55%	0.945%
69	15.468	2270	2274	2280	rVV	305169	472884	19.19%	1.719%
70	15.533	2281	2285	2300	rVB2	373749	714526	29.00%	2.598%
71	17.033	2535	2540	2550	rBV2	94022	222775	9.04%	0.810%

Sum of corrected areas: 27506772

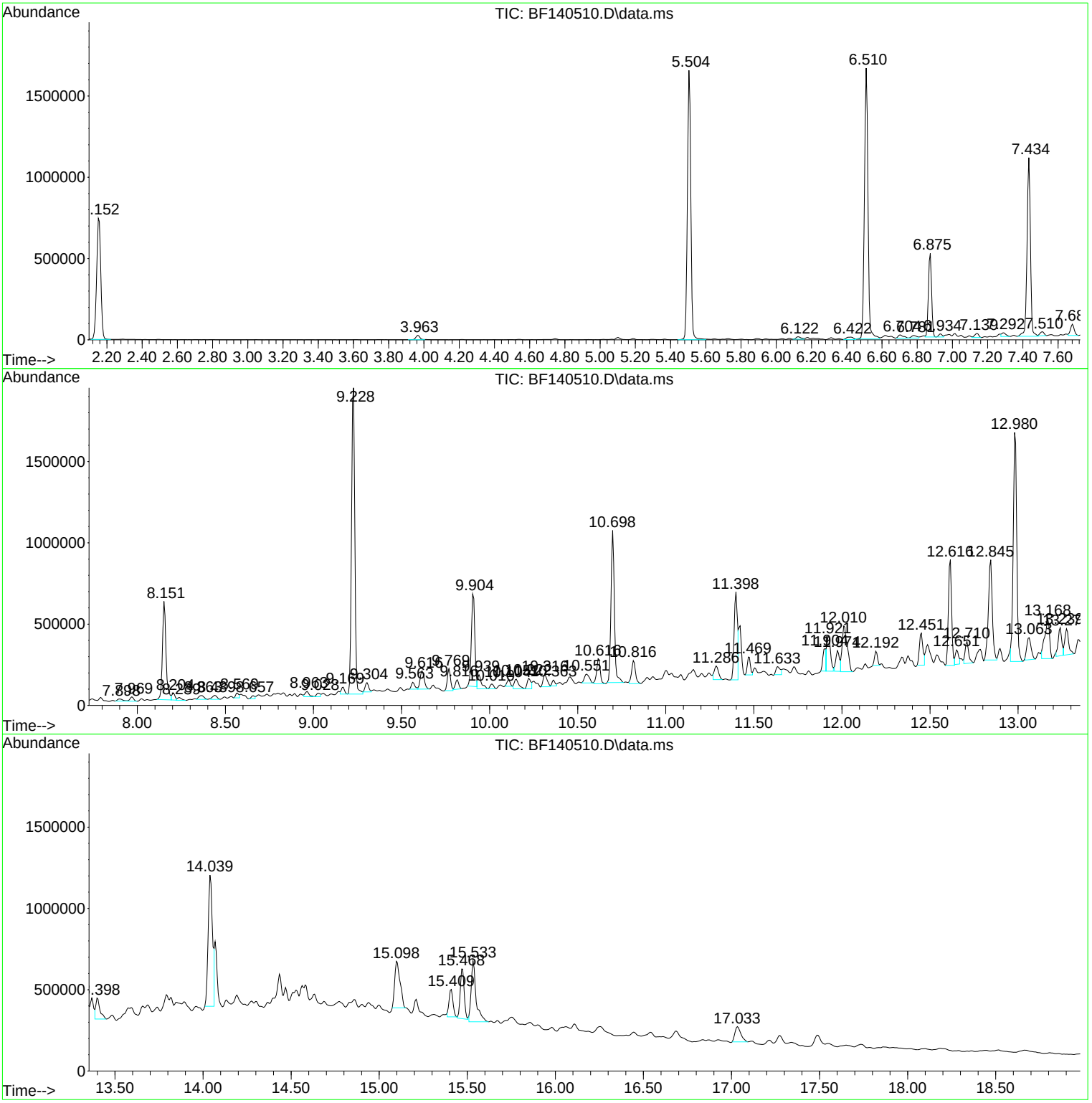
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Operator : RC/JU
Sample : P4892-01
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WB-310-TOP

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P



Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
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Sample : P4892-01
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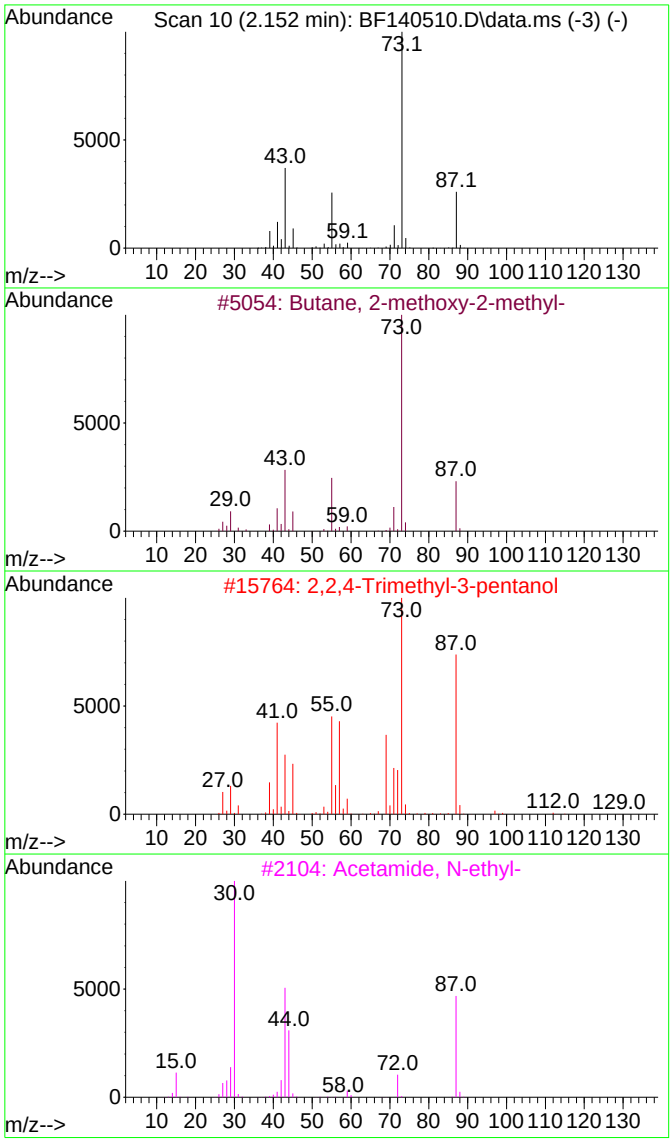
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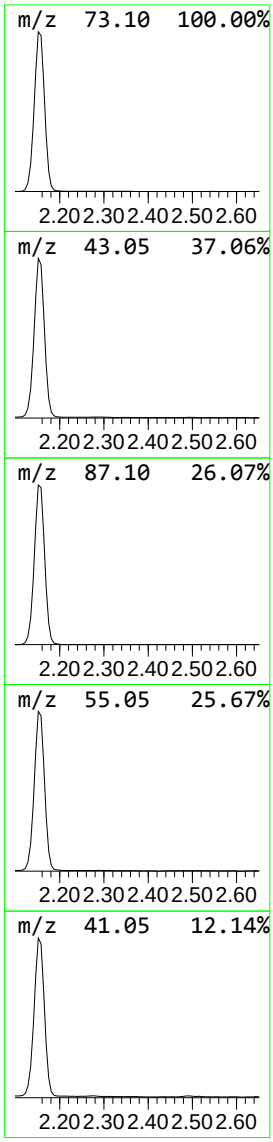
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Peak Number 1 Butane, 2-methoxy-2-methyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.152	37.48 ng	1211510	1,4-Dichlorobenzene-d4	6.875

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methoxy-2-methyl-	102	C6H14O	000994-05-8	83
2	2,2,4-Trimethyl-3-pentanol	130	C8H18O	005162-48-1	40
3	Acetamide, N-ethyl-	87	C4H9NO	000625-50-3	22
4	1,3-Dioxolane, 2-propyl-	116	C6H12O2	003390-13-4	17
5	Pentane, 3-methoxy-	102	C6H14O	036839-67-5	12





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140510.D
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Sample : P4892-01
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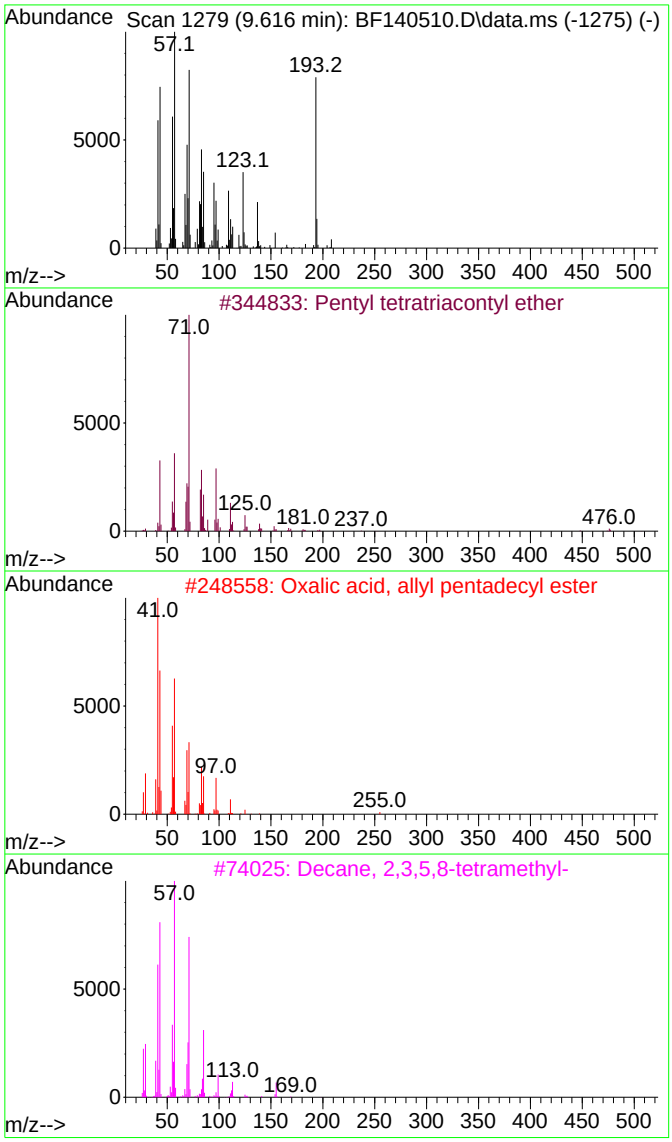
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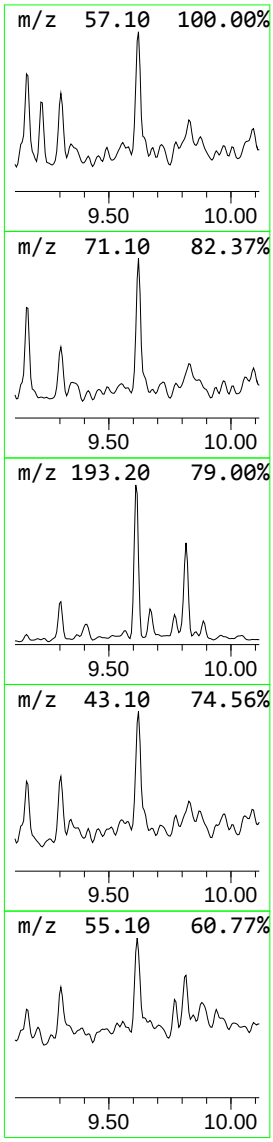
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Peak Number 2 unknown9.616 Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.616	4.83 ng	180741	Acenaphthene-d10	9.904

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentyl tetratriacontyl ether	565	C39H80O	1010406-42-7	27
2	Oxalic acid, allyl pentadecyl ester	340	C20H36O4	1000309-24-3	22
3	Decane, 2,3,5,8-tetramethyl-	198	C14H30	192823-15-7	18
4	4-Amino-N-hydroxypyrazolo[3,2-c]...	193	C6H7N7O	1000443-50-2	18
5	2,6,10-Trimethylundeca-1,3-diene	194	C14H26	1000222-09-1	15





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140510.D
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Sample : P4892-01
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ClientSampleId :
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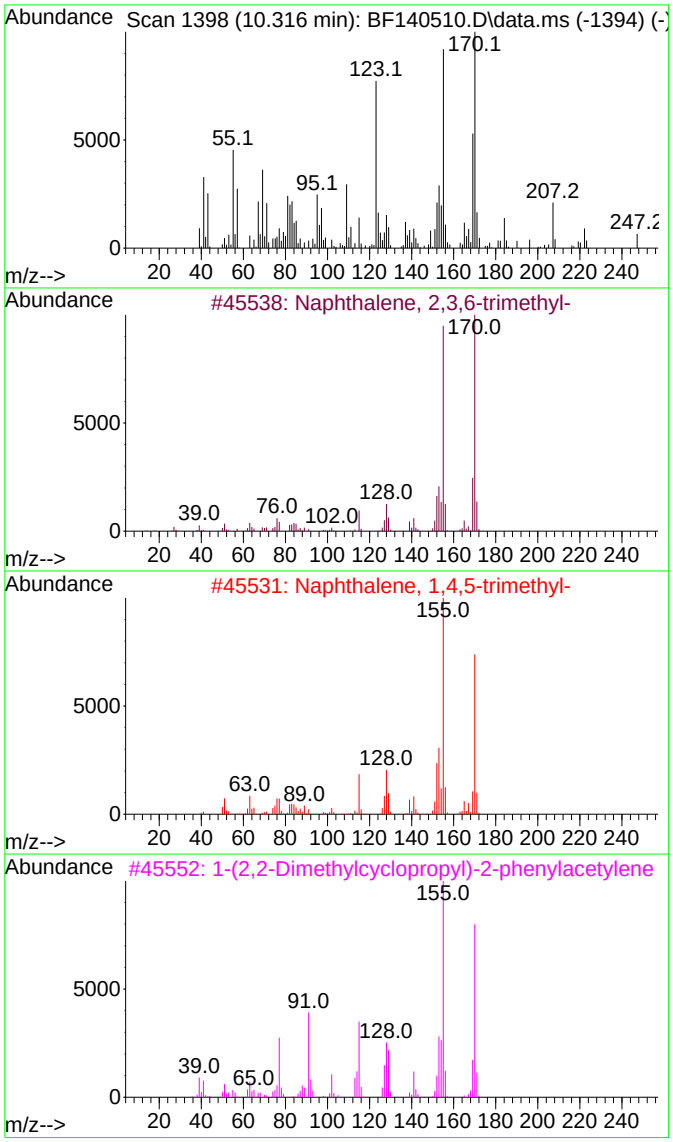
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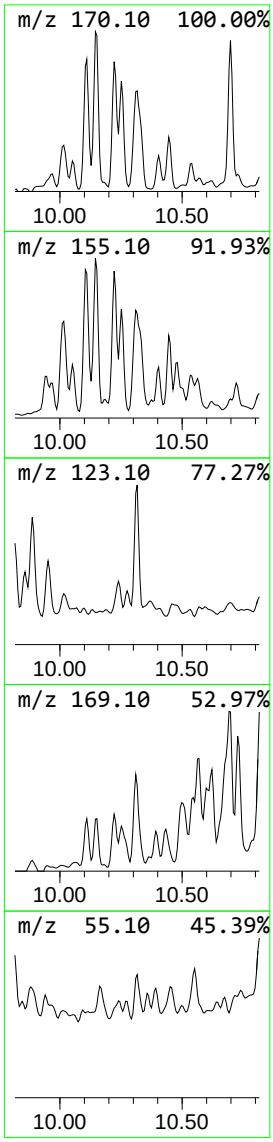
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Peak Number 3 Naphthalene, 2,3,6-trimethyl- Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.316	3.23 ng	120901	Acenaphthene-d10	9.904

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,3,6-trimethyl-	170	C13H14	000829-26-5	91
2	Naphthalene, 1,4,5-trimethyl-	170	C13H14	002131-41-1	90
3	1-(2,2-Dimethylcyclopropyl)-2-ph...	170	C13H14	1000294-91-1	90
4	Naphthalene, 1,6,7-trimethyl-	170	C13H14	002245-38-7	90
5	4,6,8-Trimethylazulene	170	C13H14	000941-81-1	78





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140510.D
Acq On : 20 Nov 2024 20:02
Operator : RC/JU
Sample : P4892-01
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
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ClientSampleId :
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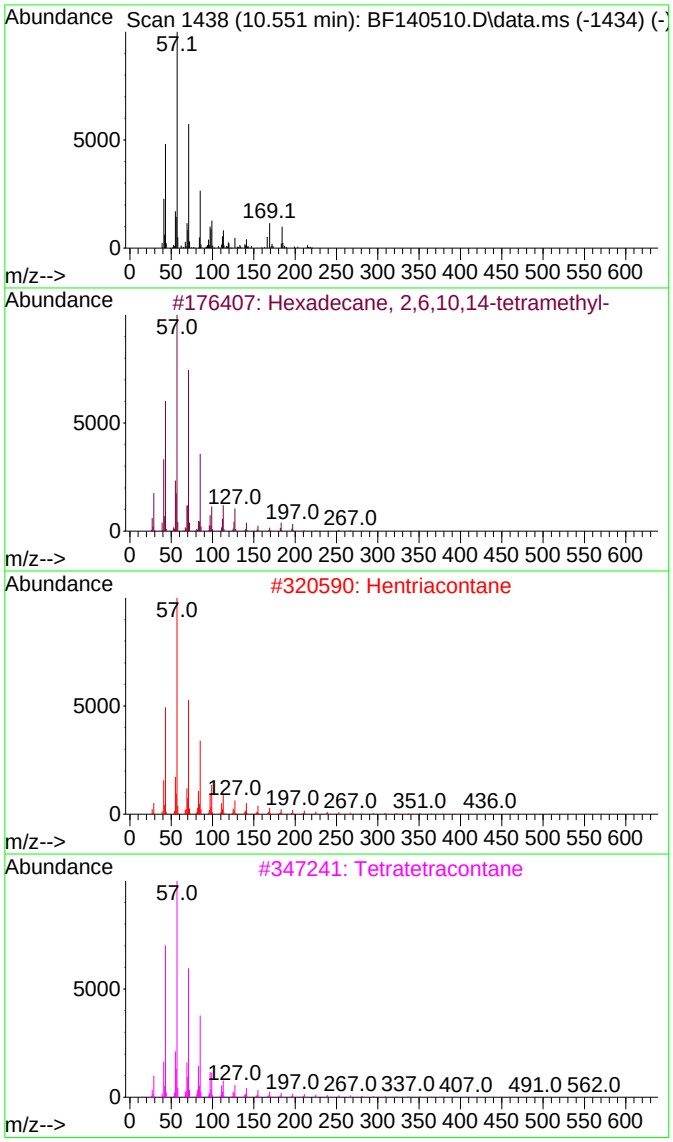
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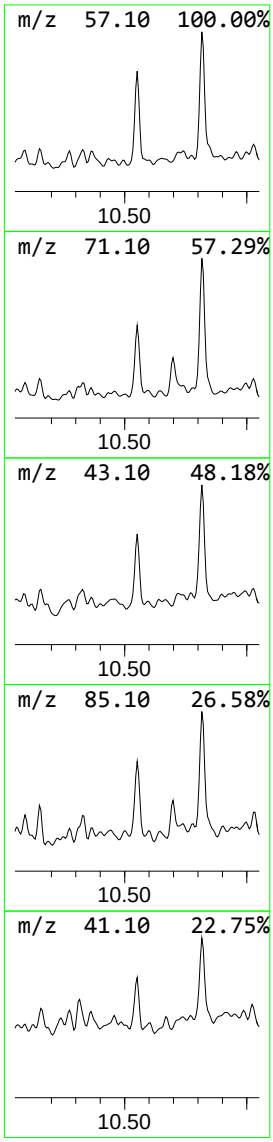
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Peak Number 4 Hexadecane, 2,6,10,14-tetra... Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.551	2.75 ng	103081	Acenaphthene-d10	9.904

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	72
2	Hentriacontane	437	C31H64	000630-04-6	72
3	Tetratetracontane	619	C44H90	007098-22-8	72
4	Octacosane	394	C28H58	000630-02-4	58
5	Tetracosane	338	C24H50	000646-31-1	52





Sample Results: **BF140510.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
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Misc :
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ClientSampleId :
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

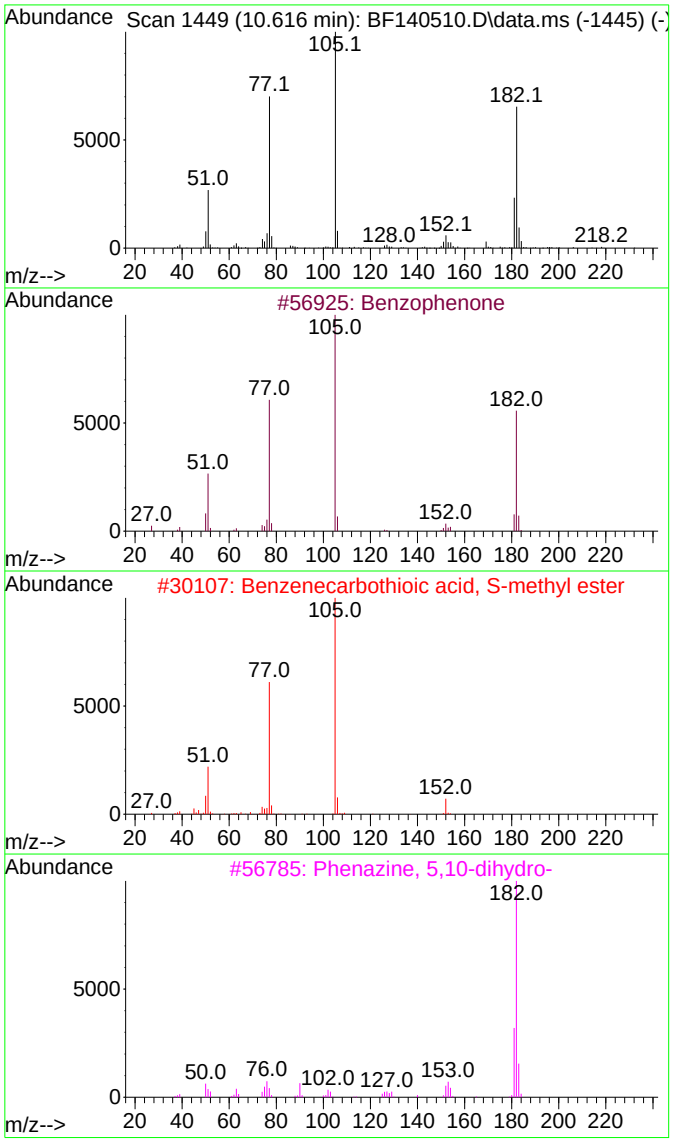
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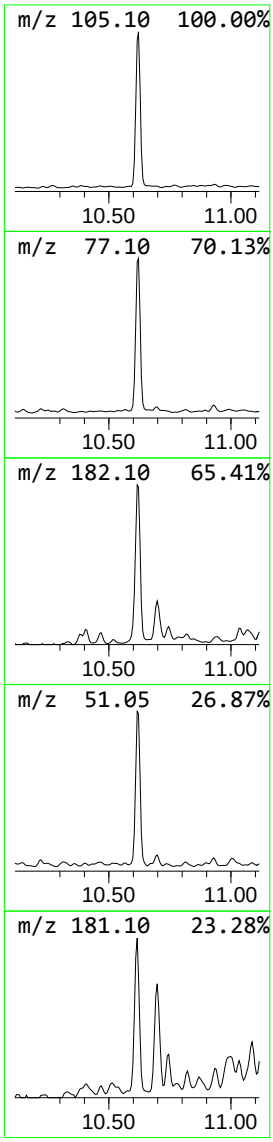
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Peak Number 5 Benzophenone Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.616	5.79 ng	216944	Acenaphthene-d10	9.904

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzophenone	182	C13H10O	000119-61-9	95
2	Benzenecarbothioic acid, S-methy...	152	C8H8OS	005925-68-8	49
3	Phenazine, 5,10-dihydro-	182	C12H10N2	000613-32-1	43
4	Ethanedione, diphenyl-	210	C14H10O2	000134-81-6	38
5	1-Propanone, 3-chloro-1-phenyl-	168	C9H9ClO	000936-59-4	38





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140510.D
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Operator : RC/JU
Sample : P4892-01
Misc :
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Instrument :
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ClientSampleId :
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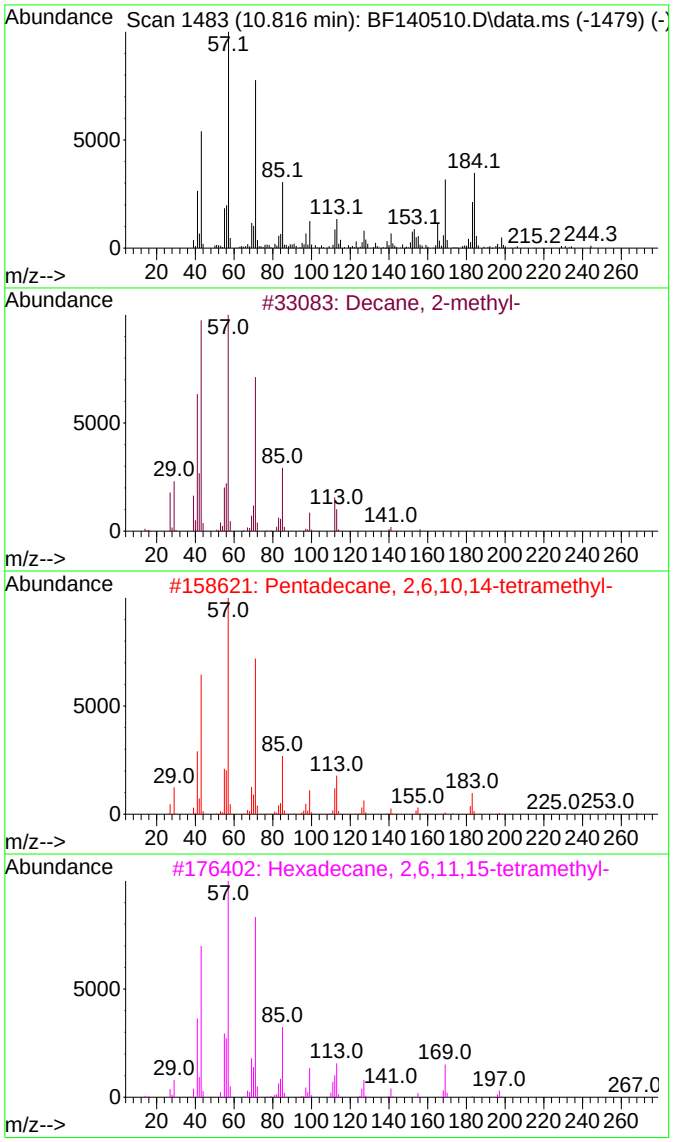
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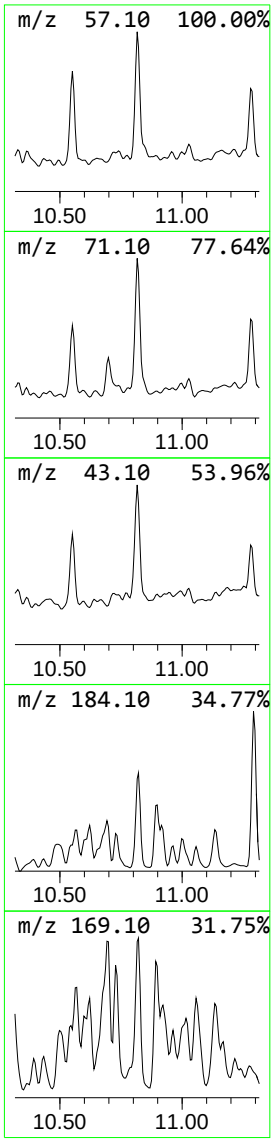
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Peak Number 6 Decane, 2-methyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.816	5.82 ng	211936	Phenanthrene-d10	11.398

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decane, 2-methyl-	156	C11H24	006975-98-0	60
2	Pentadecane, 2,6,10,14-tetramethyl-	268	C19H40	001921-70-6	53
3	Hexadecane, 2,6,11,15-tetramethyl-	282	C20H42	000504-44-9	52
4	Hexadecane, 2,6,10-trimethyl-	268	C19H40	055000-52-7	50
5	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	49





Sample Results: **BF140510.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
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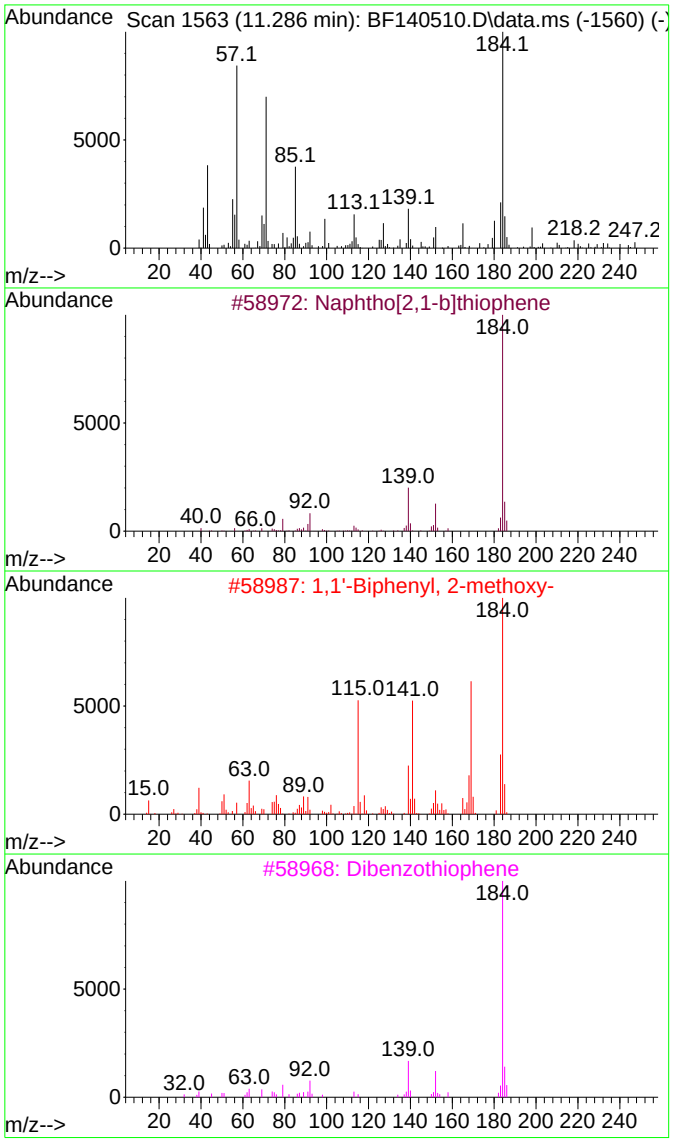
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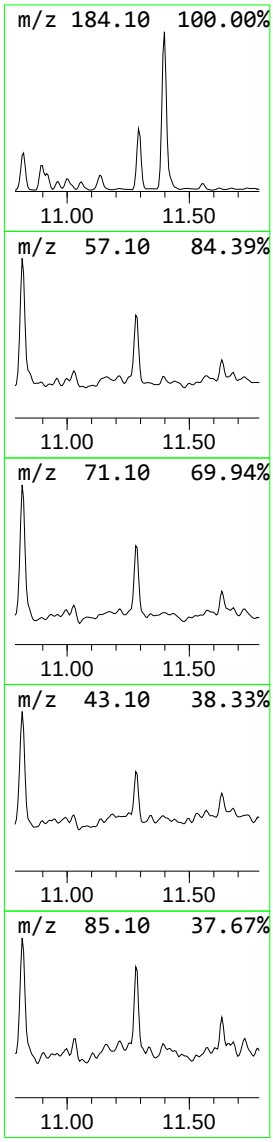
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Peak Number 7 Naphtho[2,1-b]thiophene Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.286	3.69 ng	134224	Phenanthrene-d10	11.398

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphtho[2,1-b]thiophene	184	C12H8S	000233-02-3	50
2	1,1'-Biphenyl, 2-methoxy-	184	C13H12O	000086-26-0	49
3	Dibenzothiophene	184	C12H8S	000132-65-0	45
4	5-Amino-4-cyano-1-phenylpyrazole	184	C10H8N4	005334-43-0	43
5	Naphtho[1,2-b]thiophene	184	C12H8S	000234-41-3	38





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140510.D
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Sample : P4892-01
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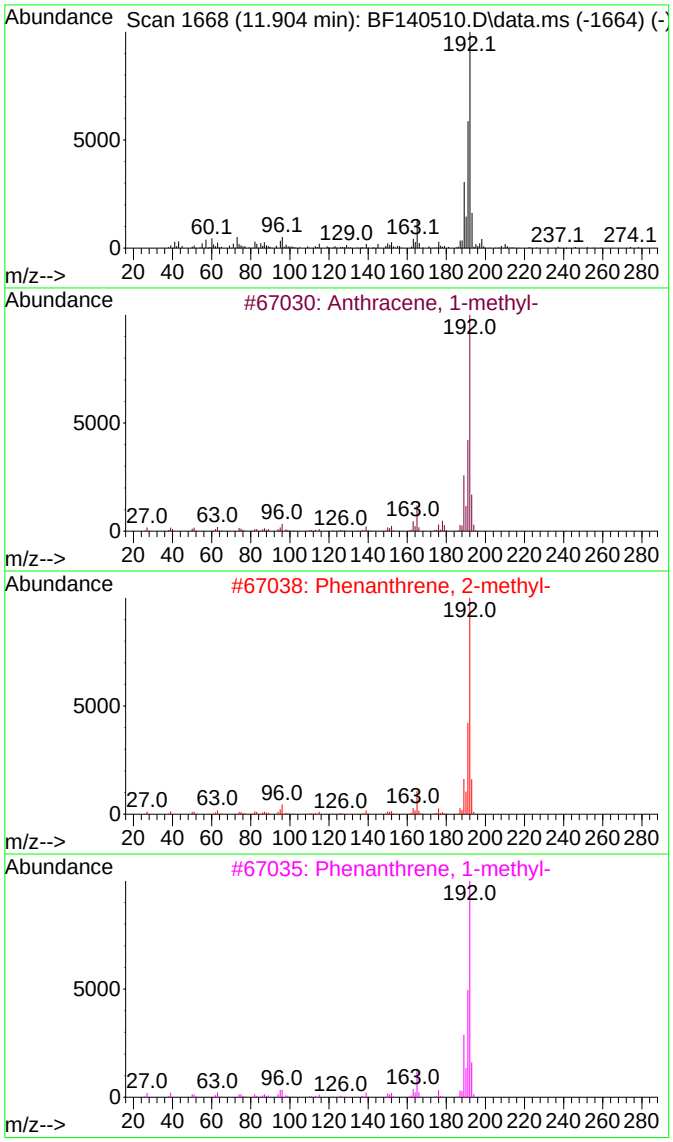
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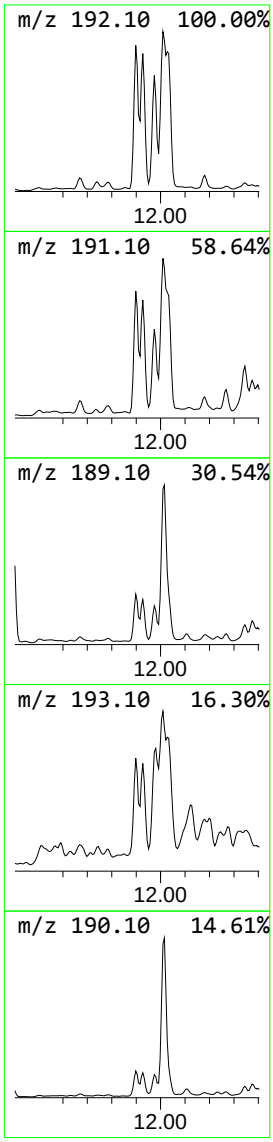
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Peak Number 8 Anthracene, 1-methyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.904	5.06 ng	184255	Phenanthrene-d10	11.398

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Anthracene, 1-methyl-	192	C15H12	000610-48-0	93
2	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	93
3	Phenanthrene, 1-methyl-	192	C15H12	000832-69-9	93
4	Anthracene, 2-methyl-	192	C15H12	000613-12-7	93
5	1H-Indene, 2-phenyl-	192	C15H12	004505-48-0	90





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140510.D
Acq On : 20 Nov 2024 20:02
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Sample : P4892-01
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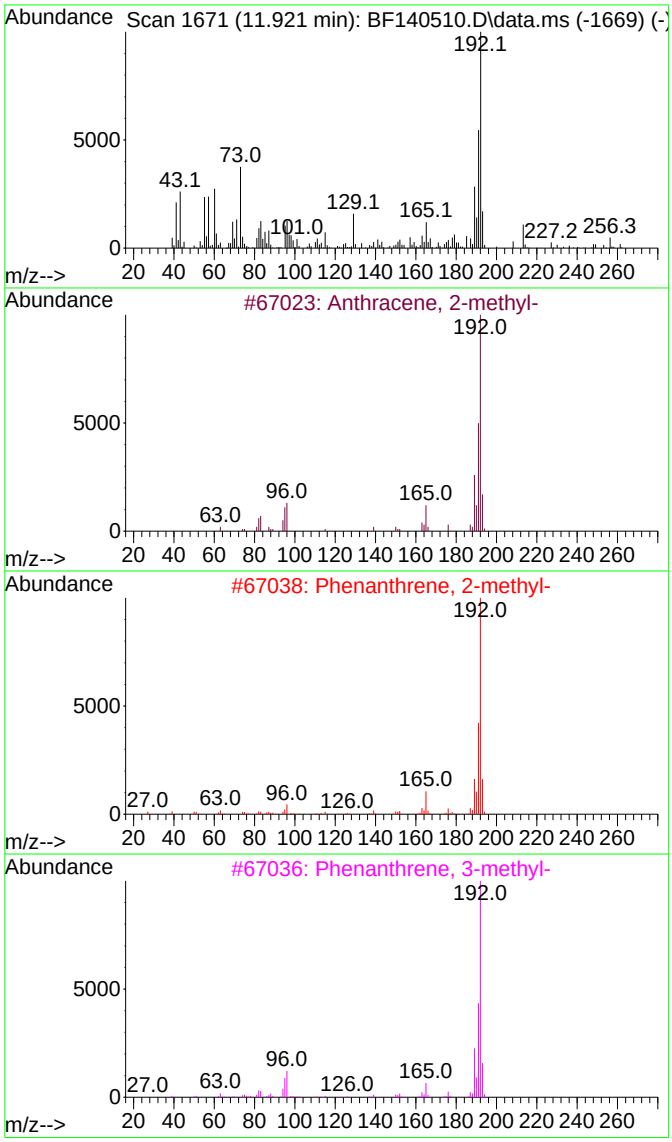
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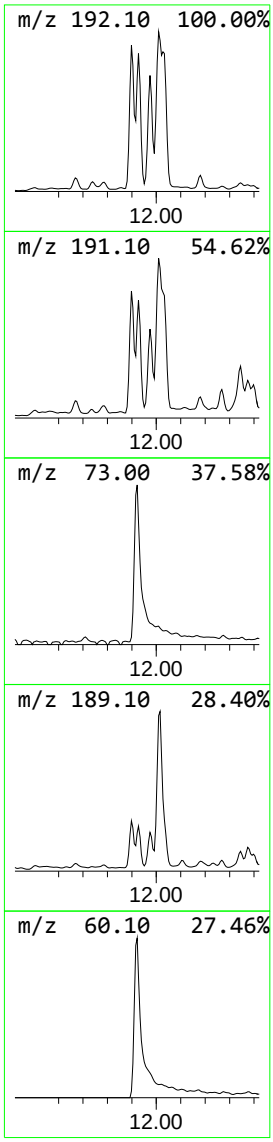
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Peak Number 9 Anthracene, 2-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.922	8.44 ng	307174	Phenanthrene-d10	11.398

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Anthracene, 2-methyl-	192	C15H12	000613-12-7	96
2	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	93
3	Phenanthrene, 3-methyl-	192	C15H12	000832-71-3	92
4	Anthracene, 9-methyl-	192	C15H12	000779-02-2	91
5	Phenanthrene, 9-methyl-	192	C15H12	000883-20-5	90





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140510.D
Acq On : 20 Nov 2024 20:02
Operator : RC/JU
Sample : P4892-01
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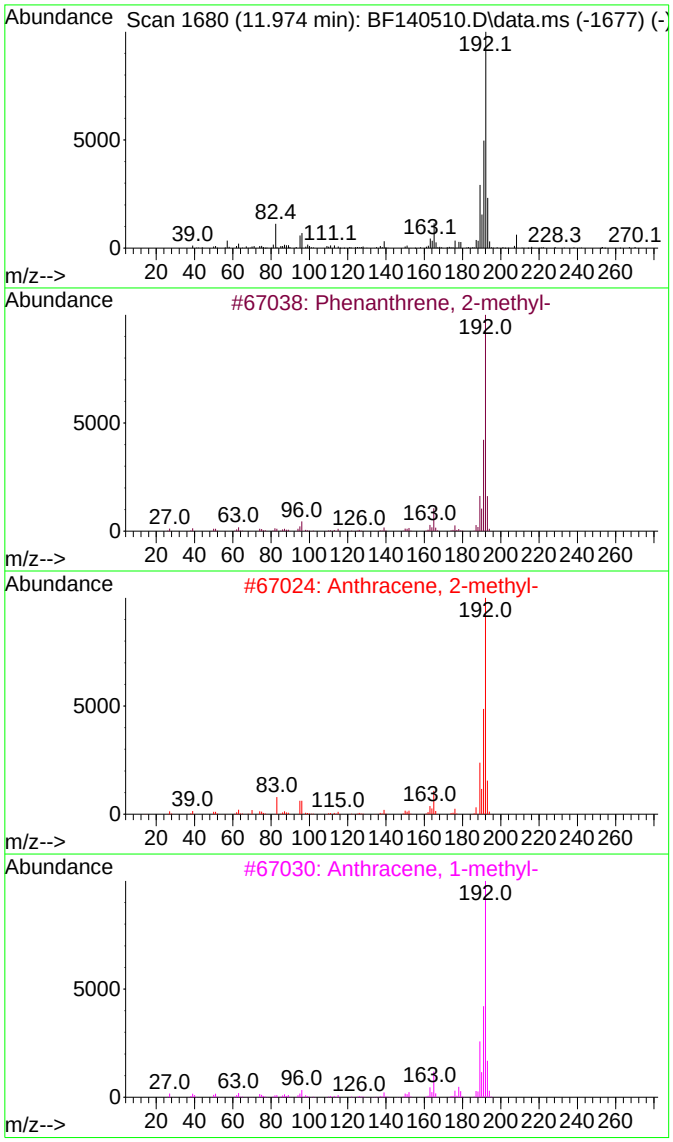
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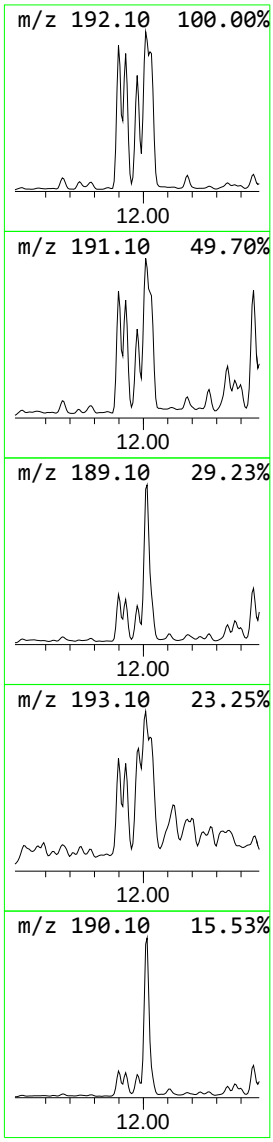
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Peak Number 10 Phenanthrene, 2-methyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.974	5.21 ng	189625	Phenanthrene-d10	11.398

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	95
2	Anthracene, 2-methyl-	192	C15H12	000613-12-7	94
3	Anthracene, 1-methyl-	192	C15H12	000610-48-0	93
4	Phenanthrene, 1-methyl-	192	C15H12	000832-69-9	91
5	1H-Cyclopropa[l]phenanthrene,1a,...	192	C15H12	000949-41-7	90





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140510.D
Acq On : 20 Nov 2024 20:02
Operator : RC/JU
Sample : P4892-01
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
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ClientSampleId :
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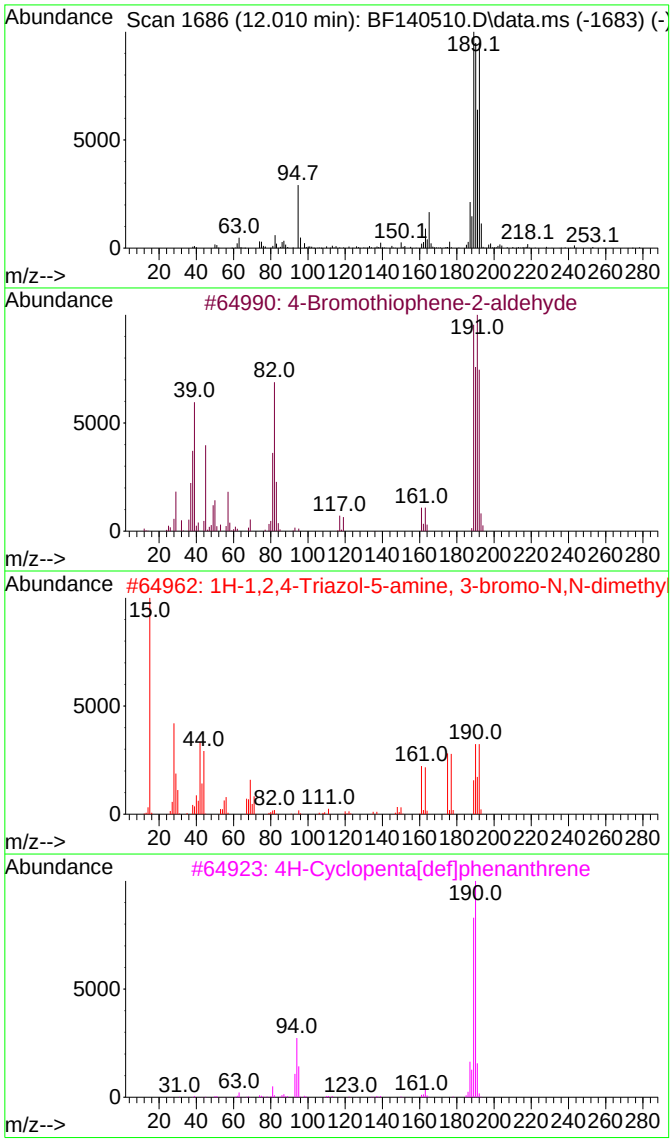
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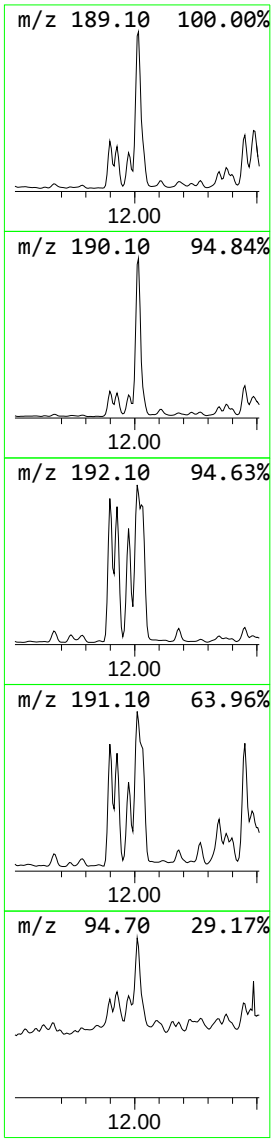
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Peak Number 11 4-Bromothiophene-2-aldehyde Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.010	15.15 ng	551709	Phenanthrene-d10	11.398

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Bromothiophene-2-aldehyde	190	C5H3BrOS	018791-75-8	58
2	1H-1,2,4-Triazol-5-amine, 3-brom...	190	C4H7BrN4	1000460-85-7	53
3	4H-Cyclopenta[def]phenanthrene	190	C15H10	000203-64-5	49
4	6H-Cyclobuta[jk]phenanthrene	190	C15H10	083469-43-6	46
5	5-Amino-3-bromo-2-fluoropyridine	190	C5H4BrFN2	209328-99-4	43





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
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Sample : P4892-01
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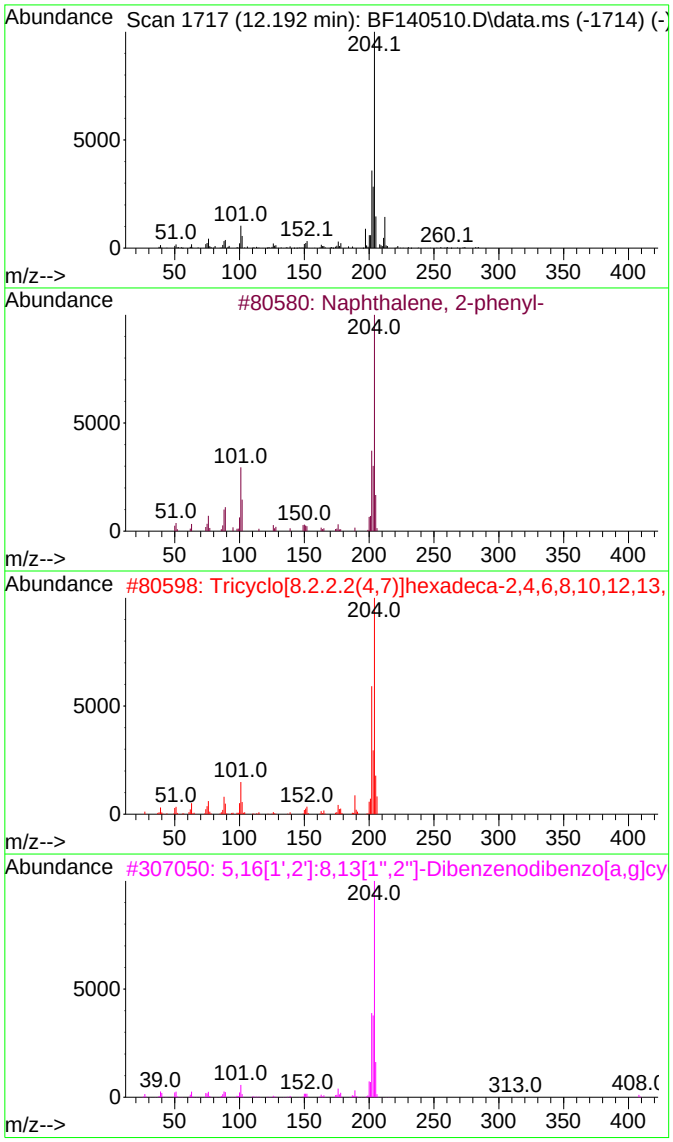
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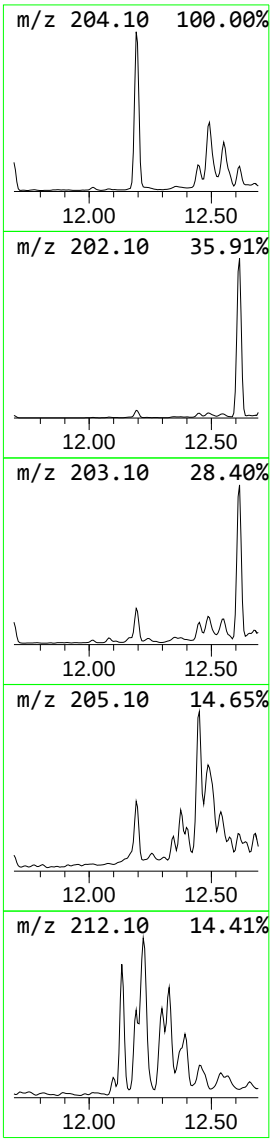
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Peak Number 12 Naphthalene, 2-phenyl- Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.192	2.79 ng	101572	Phenanthrene-d10	11.398

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-phenyl-	204	C16H12	000612-94-2	89
2	Tricyclo[8.2.2.2(4,7)]hexadeca-2...	204	C16H12	006572-60-7	89
3	5,16[1',2']:8,13[1'',2'']-Dibenz...	408	C32H24	005672-97-9	83
4	9,10-Bis(bromomethyl)anthracene	362	C16H12Br2	034373-96-1	52
5	Naphthalene, 1-phenyl-	204	C16H12	000605-02-7	49





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140510.D
Acq On : 20 Nov 2024 20:02
Operator : RC/JU
Sample : P4892-01
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
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ClientSampleId :
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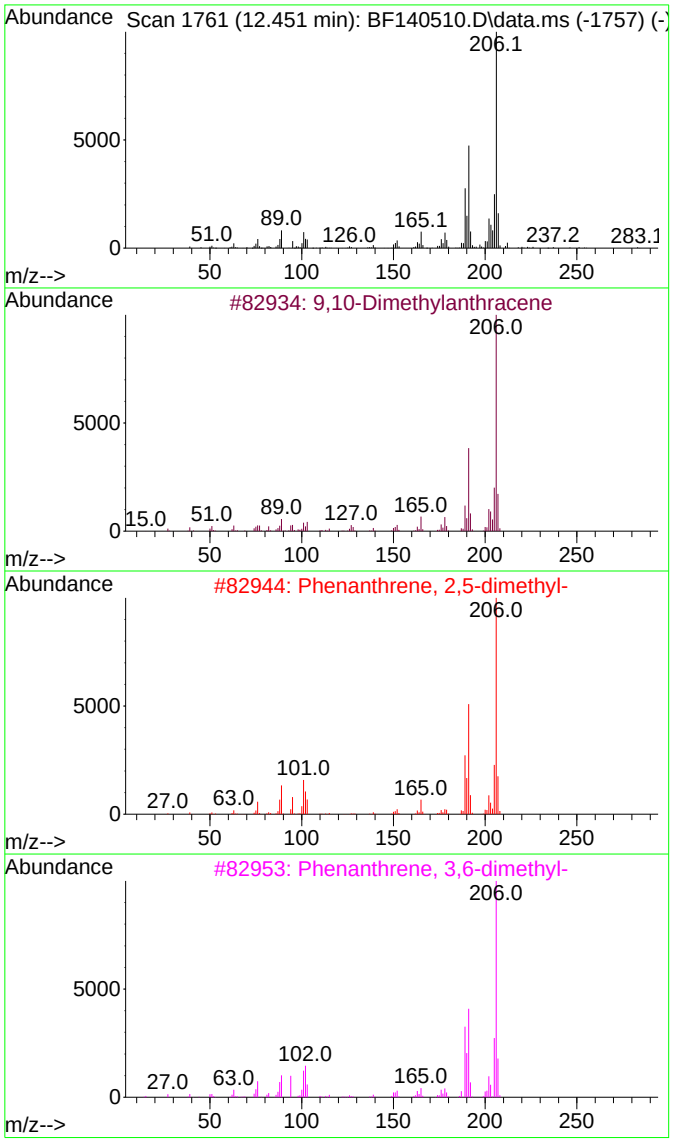
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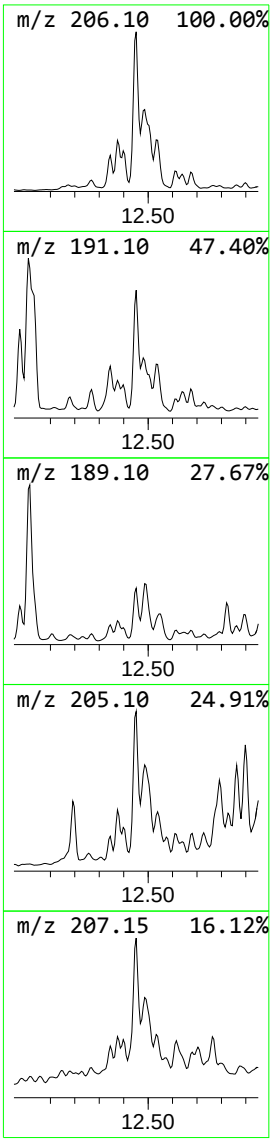
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Peak Number 13 9,10-Dimethylanthracene Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.451	7.69 ng	280083	Phenanthrene-d10	11.398

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	9,10-Dimethylanthracene	206	C16H14	000781-43-1	96
2	Phenanthrene, 2,5-dimethyl-	206	C16H14	003674-66-6	95
3	Phenanthrene, 3,6-dimethyl-	206	C16H14	001576-67-6	93
4	di-p-Tolylacetylene	206	C16H14	002789-88-0	90
5	Phenanthrene, 2,7-dimethyl-	206	C16H14	001576-69-8	87





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140510.D
Acq On : 20 Nov 2024 20:02
Operator : RC/JU
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ClientSampleId :
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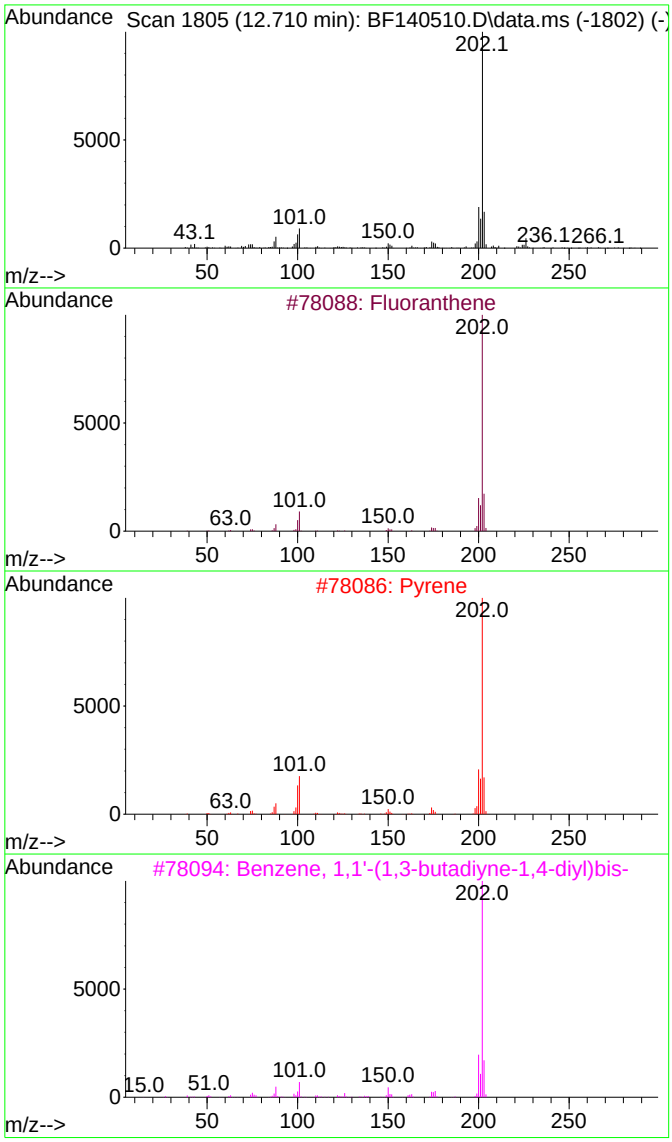
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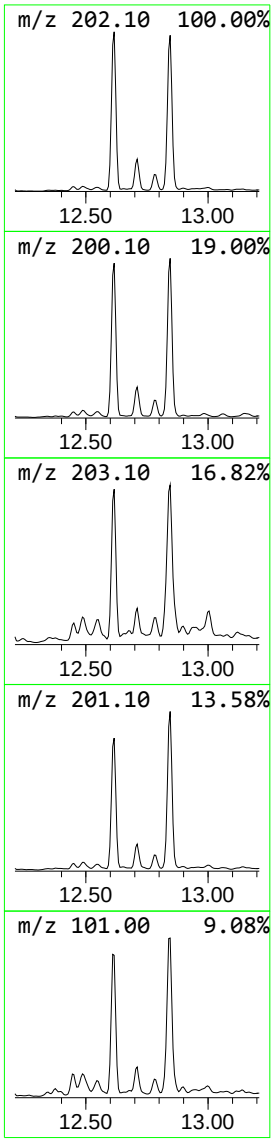
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TIC Integration Parameters: LSCINT.P

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Peak Number 14 Benzene, 1,1'-(1,3-butadiyn... Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.710	4.88 ng	177513	Phenanthrene-d10	11.398

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Fluoranthene	202	C16H10	000206-44-0	95
2	Pyrene	202	C16H10	000129-00-0	89
3	Benzene, 1,1'-(1,3-butadiyne-1,4...	202	C16H10	000886-66-8	81
4	l-Leucine, N-methyl-N-(2-methoxy...	443	C25H49NO5	1000328-54-8	53
5	1,4-Pentadiyn-3-one, 1,5-diphenyl-	230	C17H10O	015814-30-9	50





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140510.D
Acq On : 20 Nov 2024 20:02
Operator : RC/JU
Sample : P4892-01
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
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ClientSampleId :
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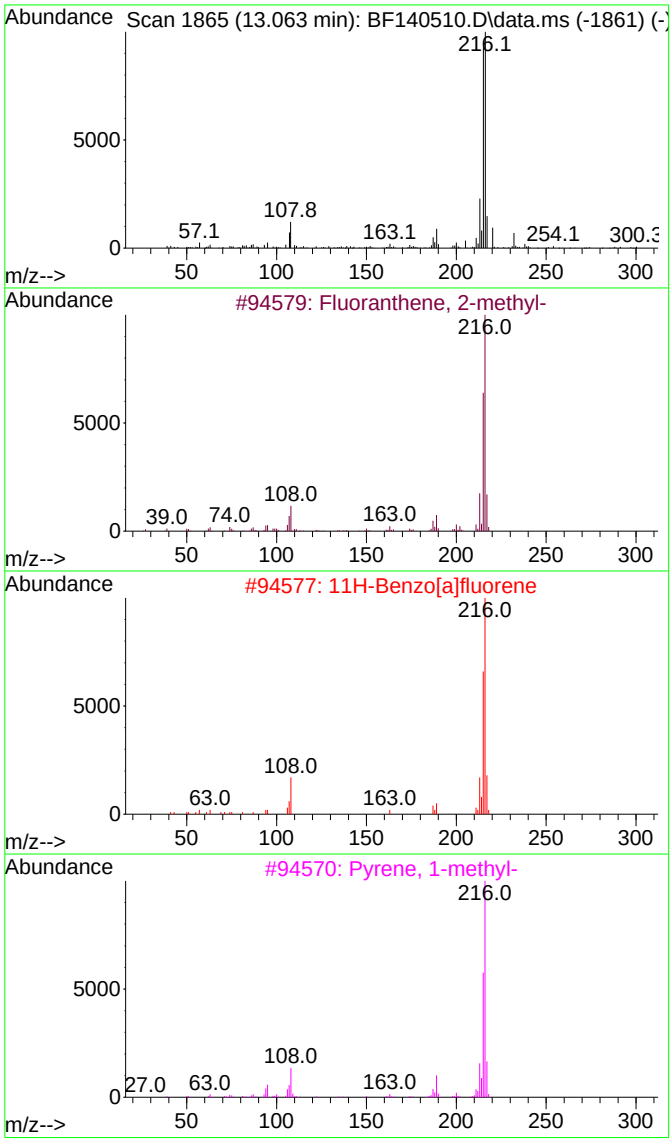
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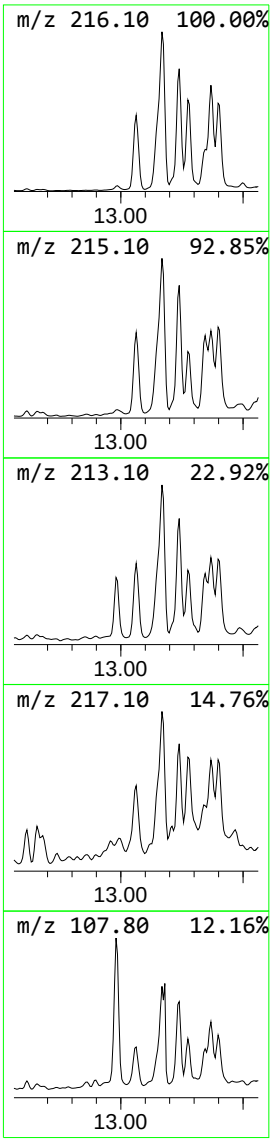
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Peak Number 15 Fluoranthene, 2-methyl- Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.063	3.22 ng	229936	Chrysene-d12	14.045

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Fluoranthene, 2-methyl-	216	C17H12	033543-31-6	89
2	11H-Benzo[a]fluorene	216	C17H12	000238-84-6	86
3	Pyrene, 1-methyl-	216	C17H12	002381-21-7	83
4	11H-Benzo[b]fluorene	216	C17H12	000243-17-4	81
5	Pyridin-3-ol, 2-(4-nitrophenyl)-	216	C11H8N2O3	030820-89-4	64





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Data File : BF140510.D
Acq On : 20 Nov 2024 20:02
Operator : RC/JU
Sample : P4892-01
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
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ClientSampleId :
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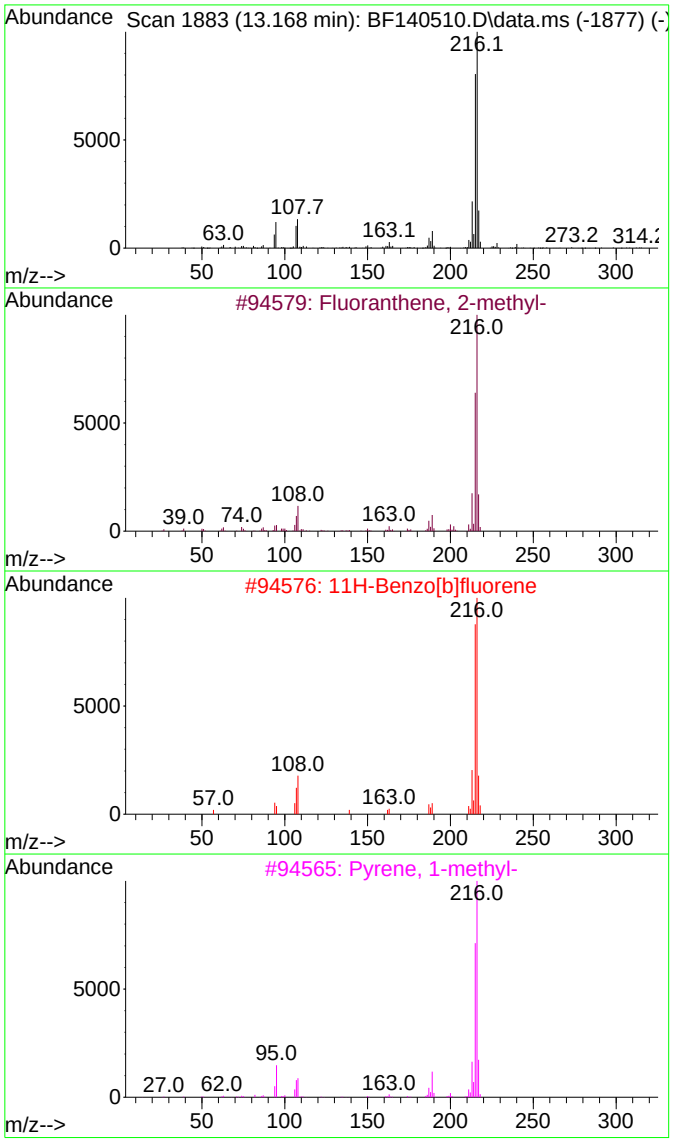
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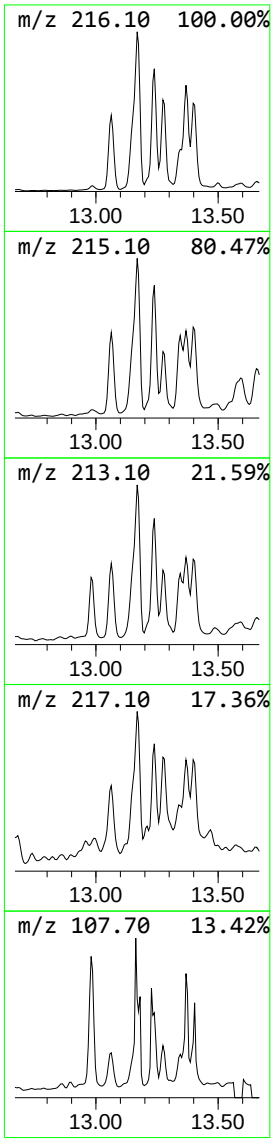
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Peak Number 16 11H-Benzo[b]fluorene Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.169	6.39 ng	457078	Chrysene-d12	14.045

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Fluoranthene, 2-methyl-	216	C17H12	033543-31-6	95
2	11H-Benzo[b]fluorene	216	C17H12	000243-17-4	95
3	Pyrene, 1-methyl-	216	C17H12	002381-21-7	94
4	Pyrene, 2-methyl-	216	C17H12	003442-78-2	91
5	11H-Benzo[a]fluorene	216	C17H12	000238-84-6	91





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140510.D
Acq On : 20 Nov 2024 20:02
Operator : RC/JU
Sample : P4892-01
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
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ClientSampleId :
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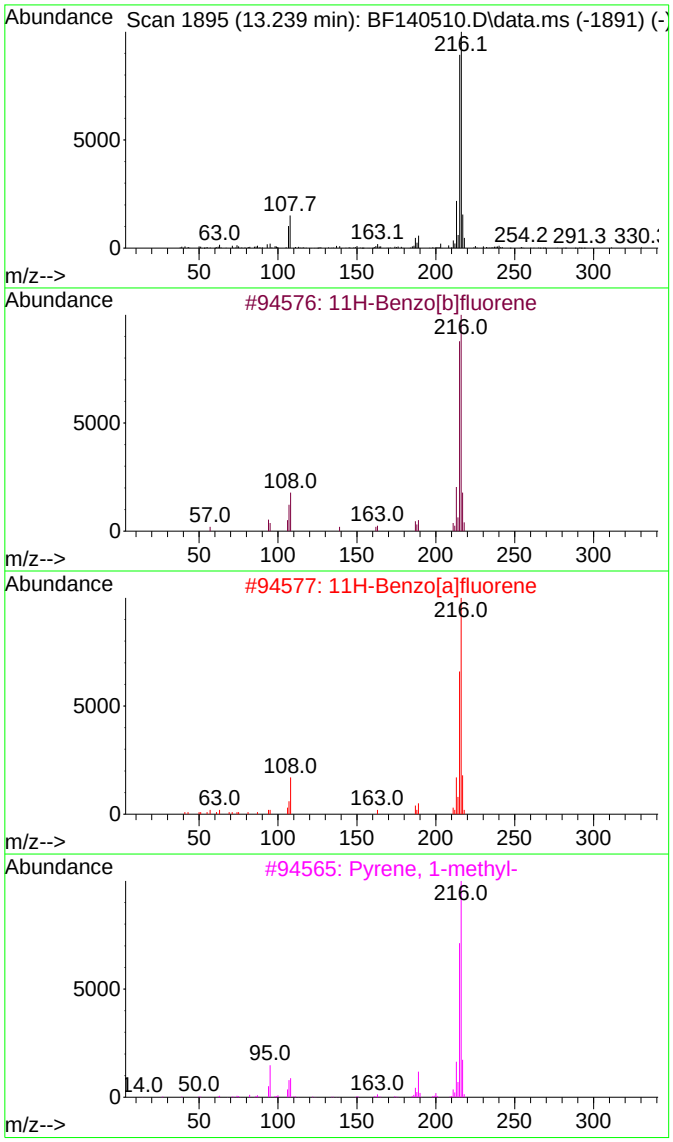
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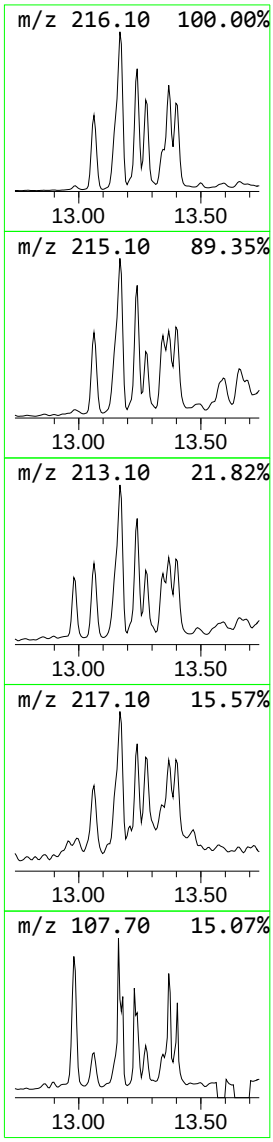
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Peak Number 17 11H-Benzo[a]fluorene Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.239	3.43 ng	245419	Chrysene-d12	14.045

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	11H-Benzo[b]fluorene	216	C17H12	000243-17-4	93
2	11H-Benzo[a]fluorene	216	C17H12	000238-84-6	91
3	Pyrene, 1-methyl-	216	C17H12	002381-21-7	90
4	Fluoranthene, 2-methyl-	216	C17H12	033543-31-6	87
5	Pyrene, 2-methyl-	216	C17H12	003442-78-2	68





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140510.D
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Operator : RC/JU
Sample : P4892-01
Misc :
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Instrument :
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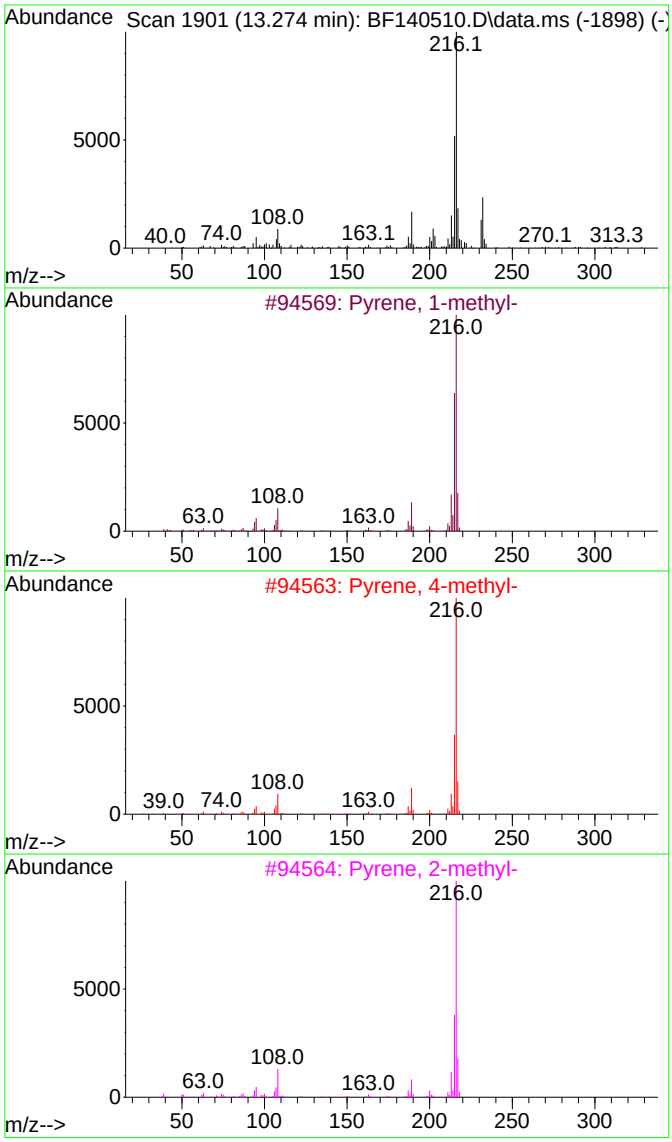
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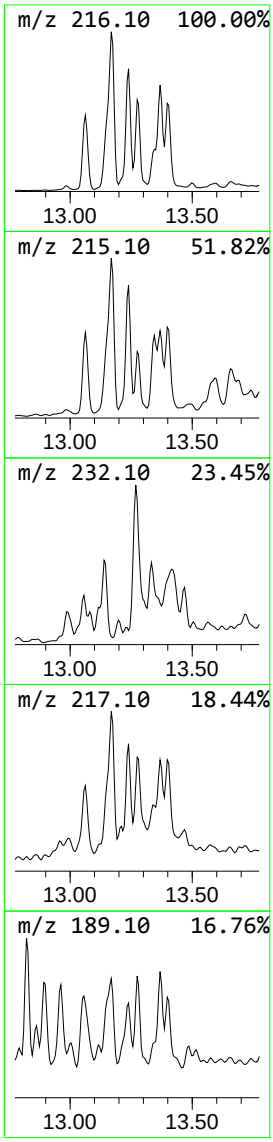
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Peak Number 18 Pyrene, 1-methyl- Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.274	3.31 ng	236592	Chrysene-d12	14.045

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pyrene, 1-methyl-	216	C17H12	002381-21-7	95
2	Pyrene, 4-methyl-	216	C17H12	003353-12-6	93
3	Pyrene, 2-methyl-	216	C17H12	003442-78-2	93
4	11H-Benzo[a]fluorene	216	C17H12	000238-84-6	76
5	4,6-Dimethoxy-1-naphthaldehyde	216	C13H12O3	065565-33-5	58





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140510.D
Acq On : 20 Nov 2024 20:02
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Sample : P4892-01
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ALS Vial : 11 Sample Multiplier: 1

Instrument :
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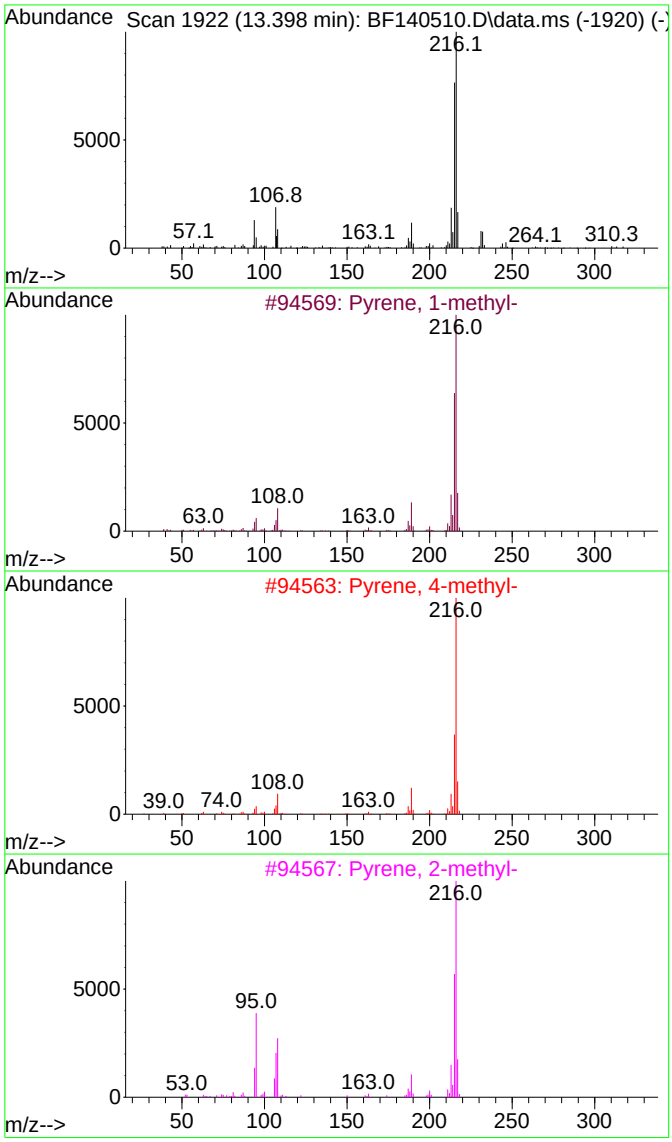
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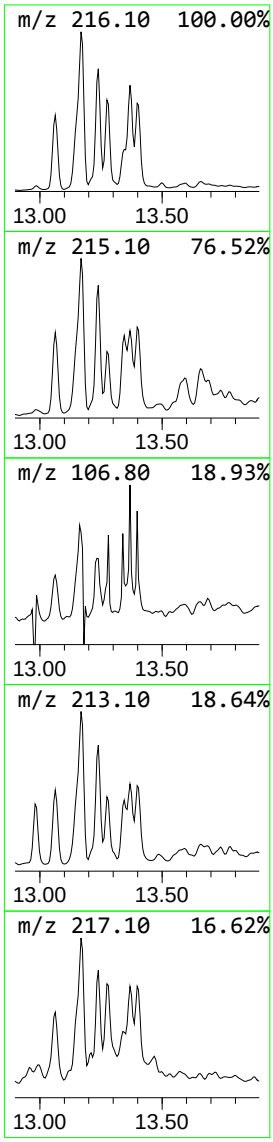
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Peak Number 19 Pyrene, 4-methyl- Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.398	2.86 ng	204877	Chrysene-d12	14.045

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pyrene, 1-methyl-	216	C17H12	002381-21-7	96
2	Pyrene, 4-methyl-	216	C17H12	003353-12-6	95
3	Pyrene, 2-methyl-	216	C17H12	003442-78-2	94
4	Fluoranthene, 2-methyl-	216	C17H12	033543-31-6	91
5	11H-Benzo[a]fluorene	216	C17H12	000238-84-6	90





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140510.D
Acq On : 20 Nov 2024 20:02
Operator : RC/JU
Sample : P4892-01
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
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ClientSampleId :
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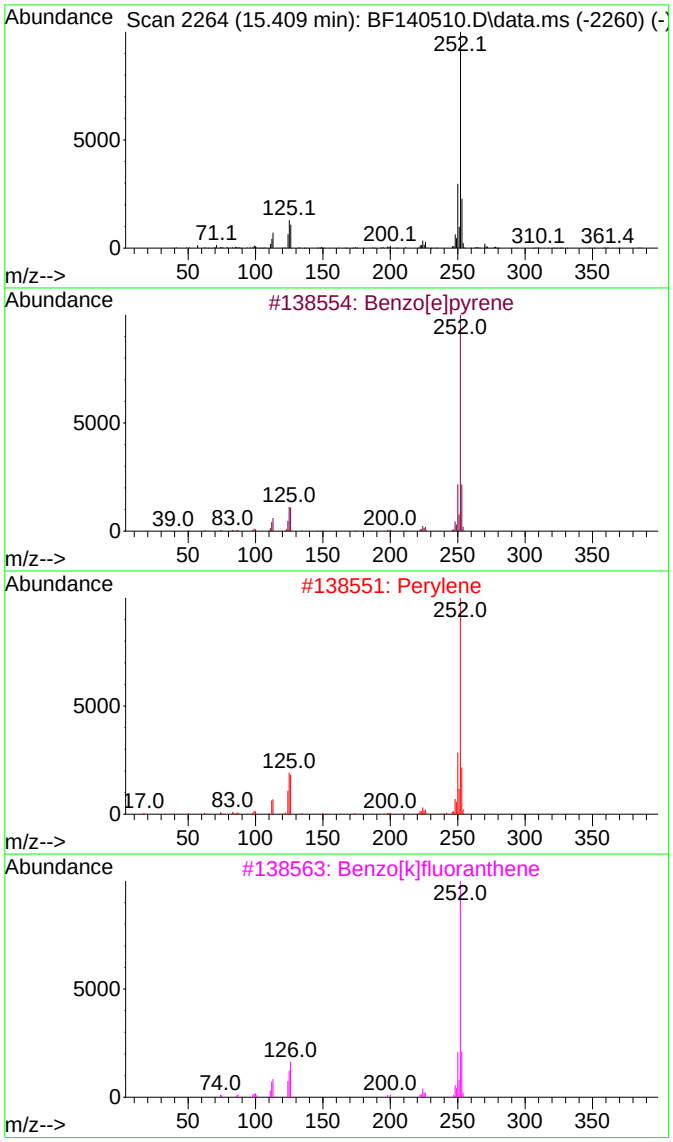
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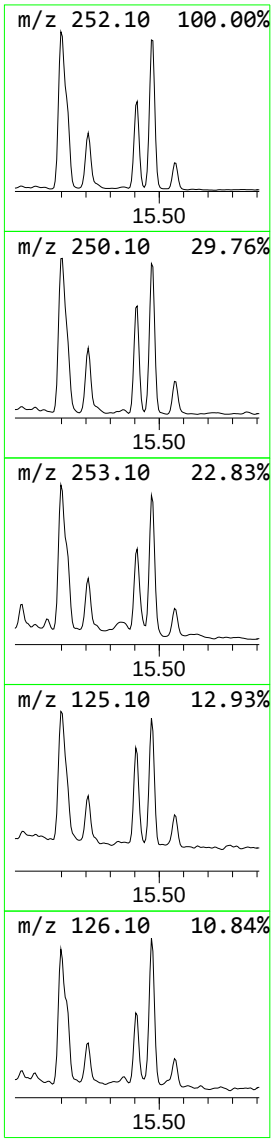
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Peak Number 20 Benzo[e]pyrene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.410	7.27 ng	259882	Perylene-d12	15.533

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzo[e]pyrene	252	C20H12	000192-97-2	99
2	Perylene	252	C20H12	000198-55-0	96
3	Benzo[k]fluoranthene	252	C20H12	000207-08-9	96
4	Benzo[b]fluoranthene	252	C20H12	000205-99-2	93
5	Benzo[a]pyrene	252	C20H12	000050-32-8	93





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140510.D
Acq On : 20 Nov 2024 20:02
Operator : RC/JU
Sample : P4892-01
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
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ClientSampleId :
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
Butane, 2-metho...	2.152	37.5	ng	1211510	1	6.875	646557	20.0
unknown9.616	9.616	4.8	ng	180741	3	9.904	749131	20.0
Naphthalene, 2,...	10.316	3.2	ng	120901	3	9.904	749131	20.0
Hexadecane, 2,6...	10.551	2.8	ng	103081	3	9.904	749131	20.0
Benzophenone	10.616	5.8	ng	216944	3	9.904	749131	20.0
Decane, 2-methyl-	10.816	5.8	ng	211936	4	11.398	728136	20.0
Naphtho[2,1-b]t...	11.286	3.7	ng	134224	4	11.398	728136	20.0
Anthracene, 1-m...	11.904	5.1	ng	184255	4	11.398	728136	20.0
Anthracene, 2-m...	11.922	8.4	ng	307174	4	11.398	728136	20.0
Phenanthrene, 2...	11.974	5.2	ng	189625	4	11.398	728136	20.0
4-Bromothiophen...	12.010	15.2	ng	551709	4	11.398	728136	20.0
Naphthalene, 2-...	12.192	2.8	ng	101572	4	11.398	728136	20.0
9,10-Dimethylan...	12.451	7.7	ng	280083	4	11.398	728136	20.0
Benzene, 1,1'-(...	12.710	4.9	ng	177513	4	11.398	728136	20.0
Fluoranthene, 2...	13.063	3.2	ng	229936	5	14.045	1430340	20.0
11H-Benzo[b]flu...	13.169	6.4	ng	457078	5	14.045	1430340	20.0
11H-Benzo[a]flu...	13.239	3.4	ng	245419	5	14.045	1430340	20.0
Pyrene, 1-methyl-	13.274	3.3	ng	236592	5	14.045	1430340	20.0
Pyrene, 4-methyl-	13.398	2.9	ng	204877	5	14.045	1430340	20.0
Benzo[e]pyrene	15.410	7.3	ng	259882	6	15.533	714526	20.0

Raw Data: **BF140495.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-BOT	SDG No.:	P4892
Lab Sample ID:	P4892-02	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	86.1
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140495.D	1	11/19/24 09:00	11/20/24 12:42	PB165086

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	210	UQ	210	380	ug/Kg
108-95-2	Phenol	96.0	U	96.0	200	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	96.9	U	96.9	200	ug/Kg
95-57-8	2-Chlorophenol	96.7	U	96.7	200	ug/Kg
95-48-7	2-Methylphenol	93.3	U	93.3	200	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	110	U	110	200	ug/Kg
98-86-2	Acetophenone	100	U	100	200	ug/Kg
65794-96-9	3+4-Methylphenols	92.4	U	92.4	380	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	46.7	U	46.7	92.6	ug/Kg
67-72-1	Hexachloroethane	96.1	U	96.1	200	ug/Kg
98-95-3	Nitrobenzene	110	U	110	200	ug/Kg
78-59-1	Isophorone	98.0	U	98.0	200	ug/Kg
88-75-5	2-Nitrophenol	110	U	110	200	ug/Kg
105-67-9	2,4-Dimethylphenol	110	U	110	200	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	99.4	U	99.4	200	ug/Kg
120-83-2	2,4-Dichlorophenol	87.4	U	87.4	200	ug/Kg
91-20-3	Naphthalene	95.6	U	95.6	200	ug/Kg
106-47-8	4-Chloroaniline	95.6	UQ	95.6	200	ug/Kg
87-68-3	Hexachlorobutadiene	96.5	U	96.5	200	ug/Kg
105-60-2	Caprolactam	100	U	100	380	ug/Kg
59-50-7	4-Chloro-3-methylphenol	89.7	U	89.7	200	ug/Kg
91-57-6	2-Methylnaphthalene	95.5	U	95.5	200	ug/Kg
77-47-4	Hexachlorocyclopentadiene	180	UQ	180	380	ug/Kg
88-06-2	2,4,6-Trichlorophenol	82.7	U	82.7	200	ug/Kg
95-95-4	2,4,5-Trichlorophenol	85.7	U	85.7	200	ug/Kg
92-52-4	1,1-Biphenyl	100	U	100	200	ug/Kg
91-58-7	2-Chloronaphthalene	96.5	U	96.5	200	ug/Kg
88-74-4	2-Nitroaniline	110	U	110	200	ug/Kg
131-11-3	Dimethylphthalate	94.6	U	94.6	200	ug/Kg

Raw Data: **BF140495.D**

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Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-BOT	SDG No.:	P4892
Lab Sample ID:	P4892-02	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	86.1
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140495.D	1	11/19/24 09:00	11/20/24 12:42	PB165086

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	100	U	100	200	ug/Kg
606-20-2	2,6-Dinitrotoluene	96.3	U	96.3	200	ug/Kg
99-09-2	3-Nitroaniline	100	UQ	100	200	ug/Kg
83-32-9	Acenaphthene	93.9	U	93.9	200	ug/Kg
51-28-5	2,4-Dinitrophenol	280	U	280	380	ug/Kg
100-02-7	4-Nitrophenol	130	U	130	380	ug/Kg
132-64-9	Dibenzofuran	97.7	U	97.7	200	ug/Kg
121-14-2	2,4-Dinitrotoluene	99.8	U	99.8	200	ug/Kg
84-66-2	Diethylphthalate	92.8	U	92.8	200	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	99.1	U	99.1	200	ug/Kg
86-73-7	Fluorene	99.0	U	99.0	200	ug/Kg
100-01-6	4-Nitroaniline	120	U	120	200	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	140	U	140	380	ug/Kg
86-30-6	n-Nitrosodiphenylamine	94.5	U	94.5	200	ug/Kg
101-55-3	4-Bromophenyl-phenylether	91.4	U	91.4	200	ug/Kg
118-74-1	Hexachlorobenzene	98.4	U	98.4	200	ug/Kg
1912-24-9	Atrazine	110	U	110	200	ug/Kg
87-86-5	Pentachlorophenol	89.5	U	89.5	380	ug/Kg
85-01-8	Phenanthrene	97.3	U	97.3	200	ug/Kg
120-12-7	Anthracene	97.7	U	97.7	200	ug/Kg
86-74-8	Carbazole	93.0	U	93.0	200	ug/Kg
84-74-2	Di-n-butylphthalate	97.6	U	97.6	200	ug/Kg
206-44-0	Fluoranthene	94.6	U	94.6	200	ug/Kg
129-00-0	Pyrene	96.1	U	96.1	200	ug/Kg
85-68-7	Butylbenzylphthalate	110	U	110	200	ug/Kg
91-94-1	3,3-Dichlorobenzidine	110	UQ	110	380	ug/Kg
56-55-3	Benzo(a)anthracene	93.4	U	93.4	200	ug/Kg
218-01-9	Chrysene	92.1	U	92.1	200	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	110	U	110	200	ug/Kg
117-84-0	Di-n-octyl phthalate	130	U	130	380	ug/Kg
205-99-2	Benzo(b)fluoranthene	93.9	U	93.9	200	ug/Kg

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Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-BOT	SDG No.:	P4892
Lab Sample ID:	P4892-02	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	86.1
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140495.D	1	11/19/24 09:00	11/20/24 12:42	PB165086

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	95.6	U	95.6	200	ug/Kg
50-32-8	Benzo(a)pyrene	110	U	110	200	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	90.4	U	90.4	200	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	94.0	U	94.0	200	ug/Kg
191-24-2	Benzo(g,h,i)perylene	92.8	U	92.8	200	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	100	U	100	200	ug/Kg
123-91-1	1,4-Dioxane	130	U	130	200	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	86.5	U	86.5	200	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	121		30 (18) - 130 (112)	81%	SPK: 150
13127-88-3	Phenol-d6	117		30 (15) - 130 (107)	78%	SPK: 150
4165-60-0	Nitrobenzene-d5	81.8		30 (18) - 130 (107)	82%	SPK: 100
321-60-8	2-Fluorobiphenyl	85.4		30 (20) - 130 (109)	85%	SPK: 100
118-79-6	2,4,6-Tribromophenol	126		30 (10) - 130 (116)	84%	SPK: 150
1718-51-0	Terphenyl-d14	87.8		30 (10) - 130 (105)	88%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	112000	6.875			
1146-65-2	Naphthalene-d8	426000	8.151			
15067-26-2	Acenaphthene-d10	234000	9.91			
1517-22-2	Phenanthrene-d10	439000	11.398			
1719-03-5	Chrysene-d12	272000	14.045			
1520-96-3	Perylene-d12	223000	15.551			
TENTATIVE IDENTIFIED COMPOUNDS						
000994-05-8	Butane, 2-methoxy-2-methyl-	1800	J		2.16	ug/Kg
001119-40-0	Pentanedioic acid, dimethyl ester	97.3	J		7.68	ug/Kg
000119-61-9	Benzophenone	250	J		10.6	ug/Kg
000057-10-3	n-Hexadecanoic acid	330	J		11.9	ug/Kg

Raw Data: **BF140495.D**

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Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-BOT	SDG No.:	P4892
Lab Sample ID:	P4892-02	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	86.1
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140495.D	1	11/19/24 09:00	11/20/24 12:42	PB165086

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140495.D
Acq On : 20 Nov 2024 12:42
Operator : RC/JU
Sample : P4892-02
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WB-310-BOT

Quant Time: Nov 20 13:09:02 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

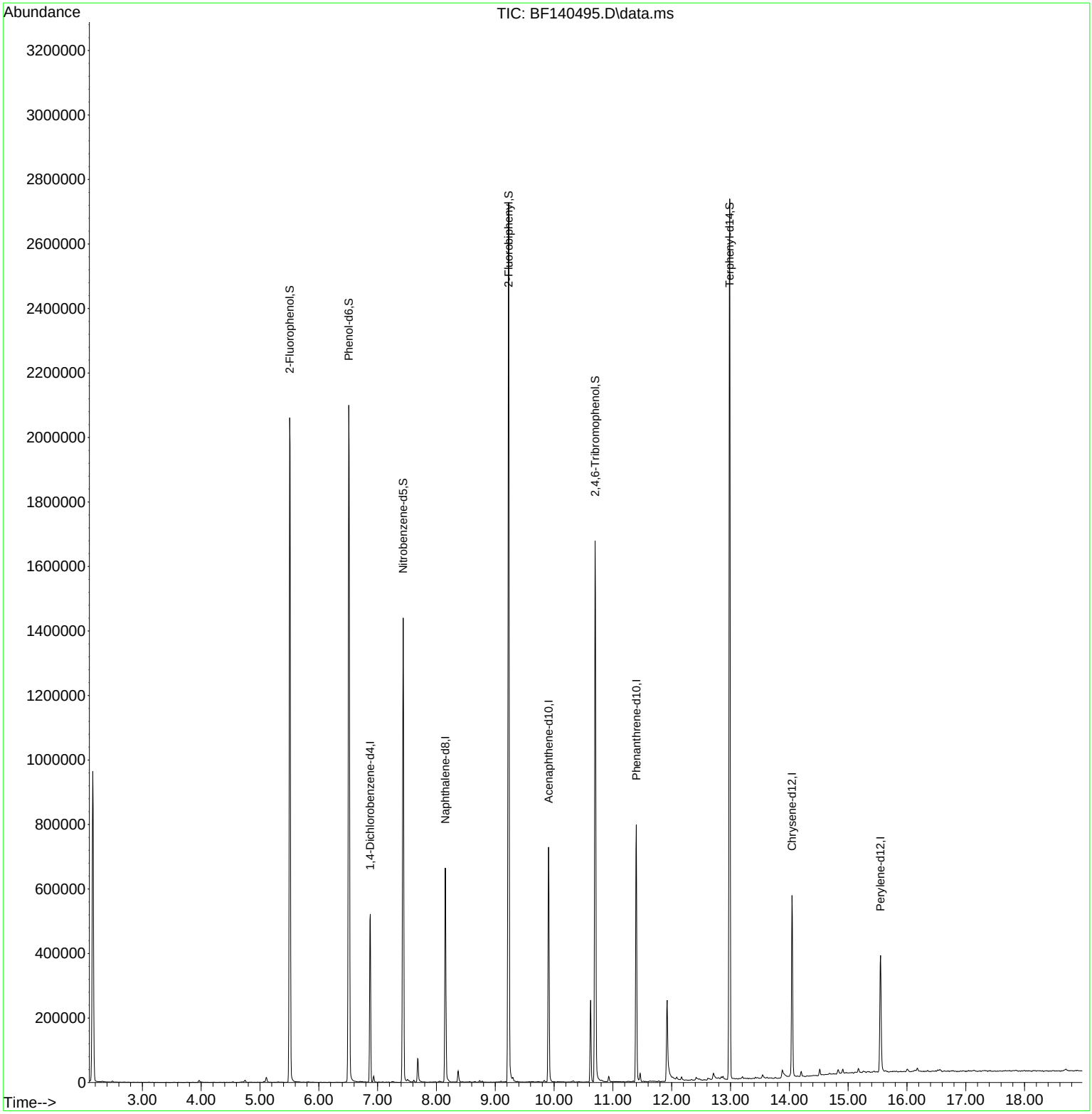
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.875	152	111857	20.000	ng	0.00
21) Naphthalene-d8	8.151	136	425828	20.000	ng	0.00
39) Acenaphthene-d10	9.910	164	234373	20.000	ng	0.00
64) Phenanthrene-d10	11.398	188	439035	20.000	ng	0.00
76) Chrysene-d12	14.045	240	271644	20.000	ng	0.00
86) Perylene-d12	15.551	264	222745	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.504	112	795934	121.491	ng	0.01
7) Phenol-d6	6.510	99	1040588	117.236	ng	0.00
23) Nitrobenzene-d5	7.434	82	668507	81.796	ng	0.00
42) 2,4,6-Tribromophenol	10.698	330	294494	126.357	ng	0.00
45) 2-Fluorobiphenyl	9.228	172	1244669	85.371	ng	0.00
79) Terphenyl-d14	12.986	244	1374393	87.823	ng	0.00
Target Compounds						Qvalue

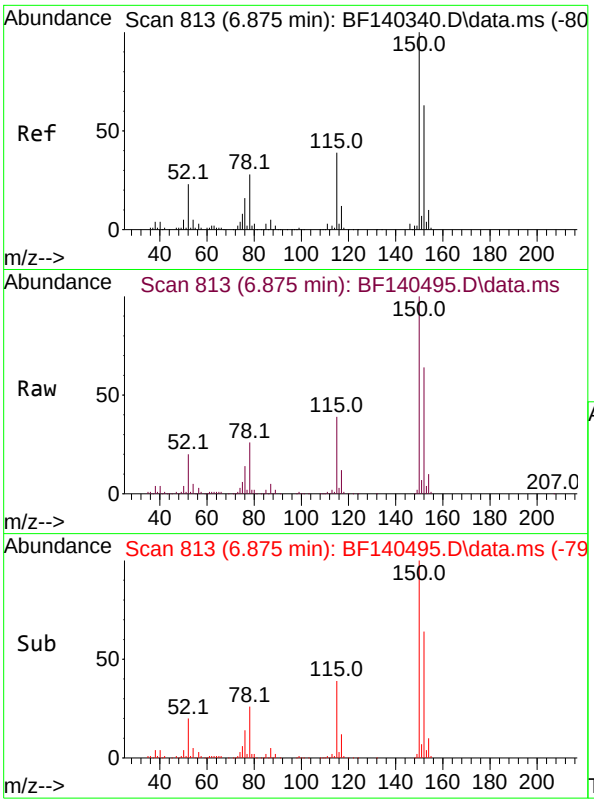
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Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140495.D
Acq On : 20 Nov 2024 12:42
Operator : RC/JU
Sample : P4892-02
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WB-310-BOT

Quant Time: Nov 20 13:09:02 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration



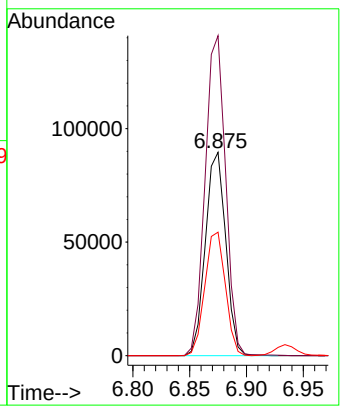


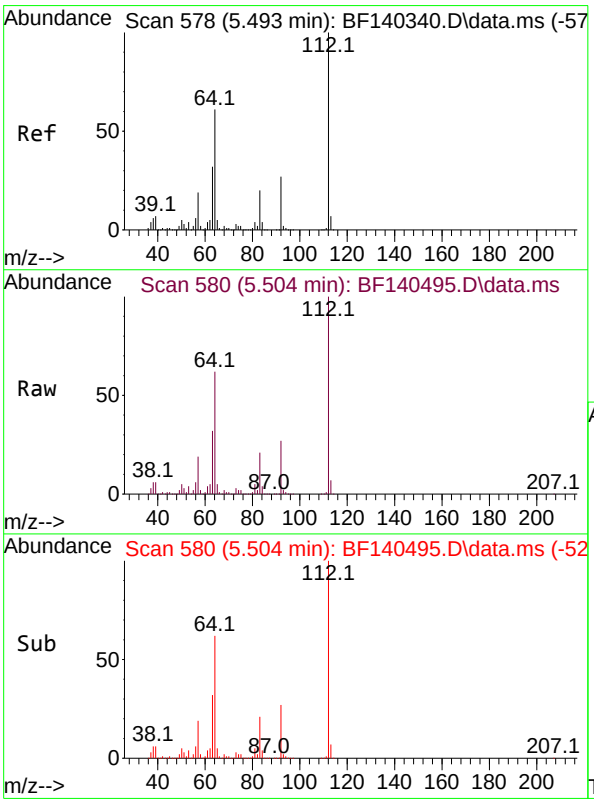
#1
1,4-Dichlorobenzene-d4
Concen: 20.000 ng
RT: 6.875 min Scan# 8
Delta R.T. -0.006 min
Lab File: BF140495.D
Acq: 20 Nov 2024 12:42

Instrument :
BNA_F
ClientSampleId :
WB-310-BOT

Tgt Ion:152 Resp: 111857

Ion	Ratio	Lower	Upper
152	100		
150	157.4	127.4	191.0
115	60.7	47.4	71.2

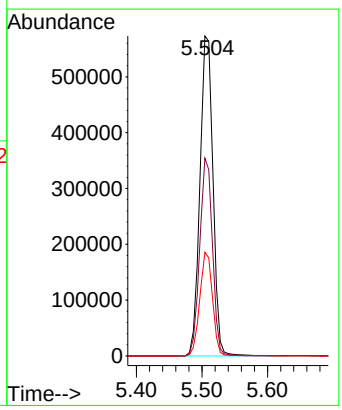


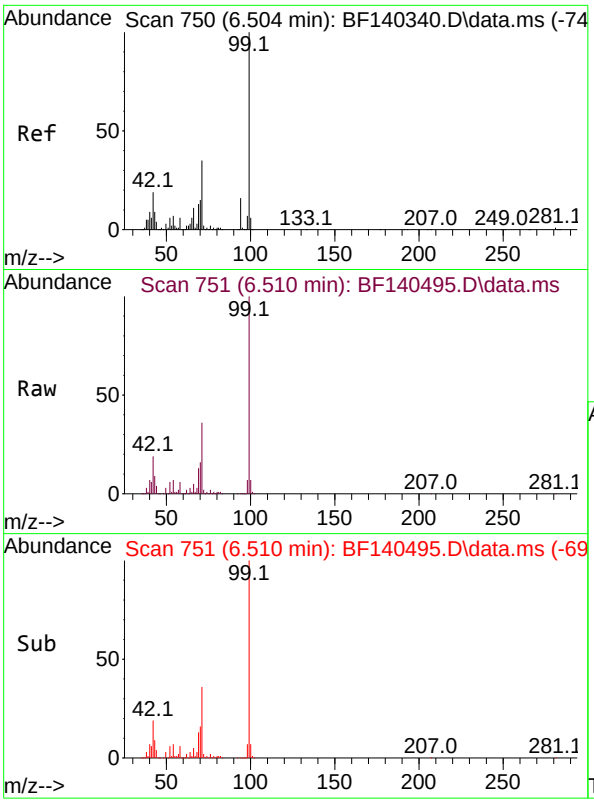


#5
2-Fluorophenol
Concen: 121.491 ng
RT: 5.504 min Scan# 580
Delta R.T. 0.012 min
Lab File: BF140495.D
Acq: 20 Nov 2024 12:42

Tgt Ion:112 Resp: 795934

Ion	Ratio	Lower	Upper
112	100		
64	61.8	49.2	73.8
63	32.4	25.6	38.4



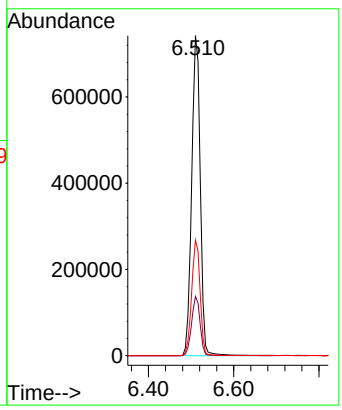


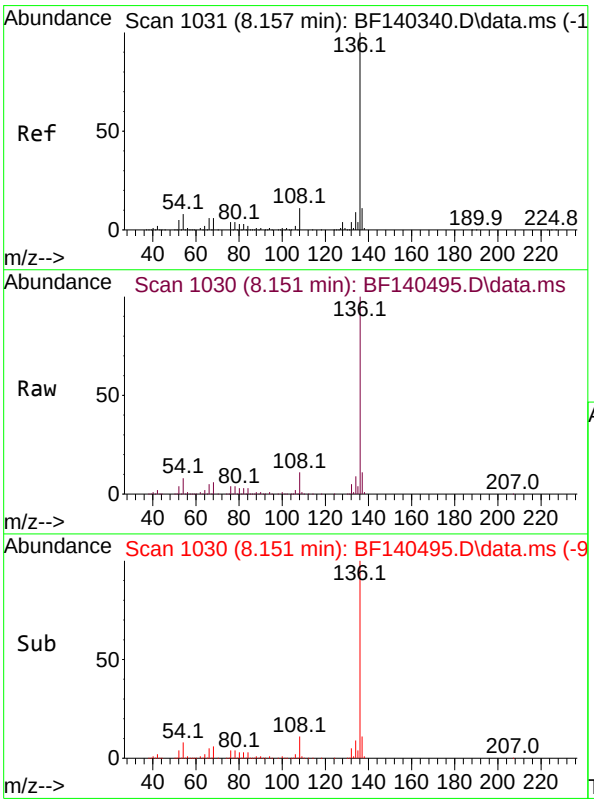
#7
Phenol-d6
Concen: 117.236 ng
RT: 6.510 min Scan# 7
Delta R.T. 0.006 min
Lab File: BF140495.D
Acq: 20 Nov 2024 12:42

Instrument :
BNA_F
ClientSampleId :
WB-310-BOT

Tgt Ion: 99 Resp: 1040588

Ion	Ratio	Lower	Upper
99	100		
42	18.5	15.1	22.7
71	36.1	27.9	41.9

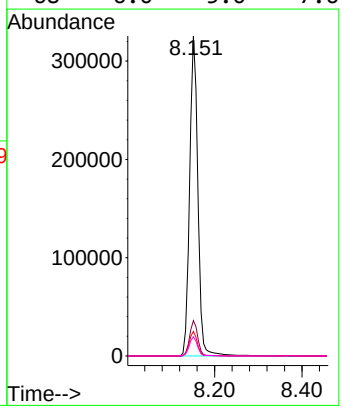


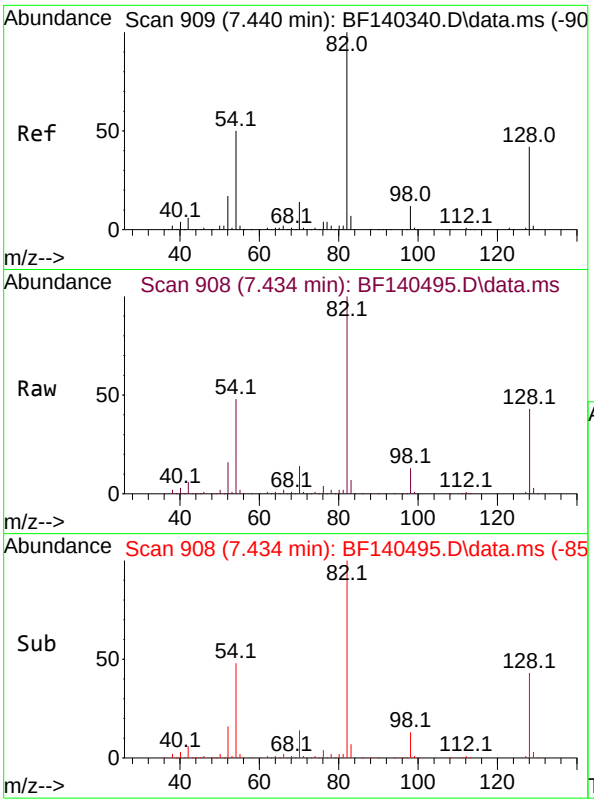


#21
Naphthalene-d8
Concen: 20.000 ng
RT: 8.151 min Scan# 1030
Delta R.T. -0.006 min
Lab File: BF140495.D
Acq: 20 Nov 2024 12:42

Tgt Ion:136 Resp: 425828

Ion	Ratio	Lower	Upper
136	100		
137	11.1	8.7	13.1
54	7.6	6.5	9.7
68	6.0	5.0	7.6



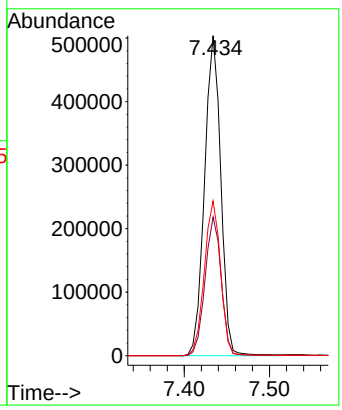


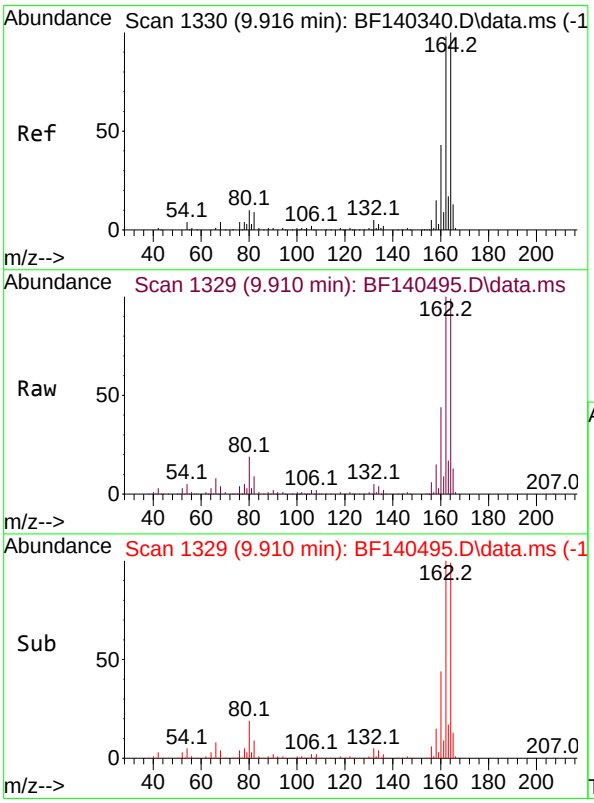
#23
Nitrobenzene-d5
Concen: 81.796 ng
RT: 7.434 min Scan# 9
Delta R.T. -0.006 min
Lab File: BF140495.D
Acq: 20 Nov 2024 12:42

Instrument :
BNA_F
ClientSampleId :
WB-310-BOT

Tgt Ion: 82 Resp: 668507

Ion	Ratio	Lower	Upper
82	100		
128	43.3	33.3	49.9
54	48.4	39.8	59.8

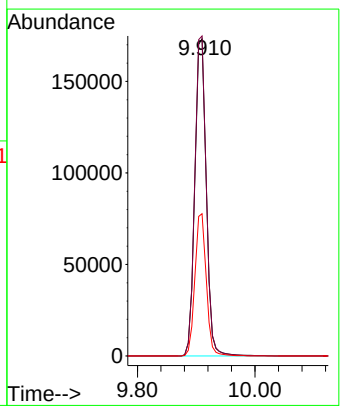


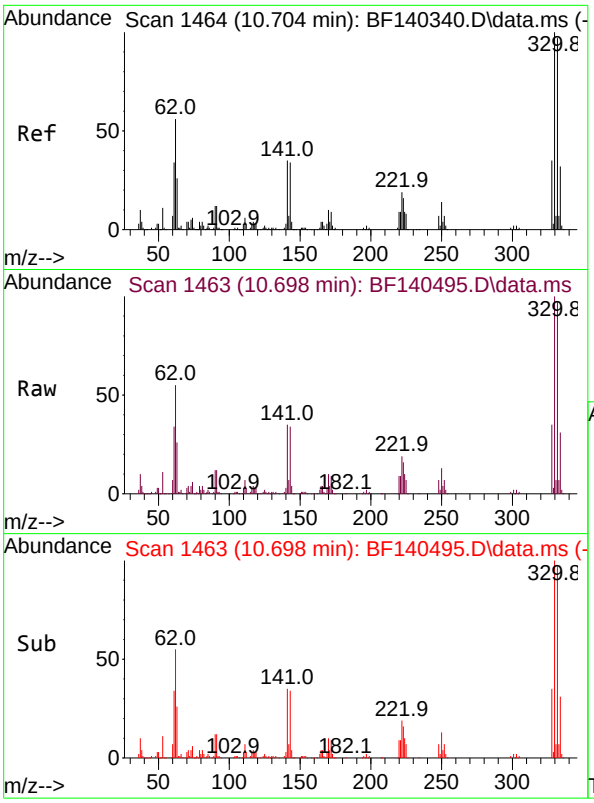


#39
Acenaphthene-d10
Concen: 20.000 ng
RT: 9.910 min Scan# 1329
Delta R.T. -0.006 min
Lab File: BF140495.D
Acq: 20 Nov 2024 12:42

Tgt Ion:164 Resp: 234373

Ion	Ratio	Lower	Upper
164	100		
162	100.9	79.8	119.8
160	44.9	35.4	53.0



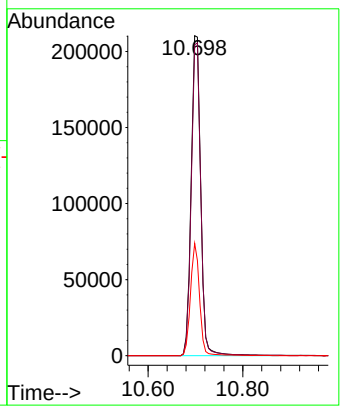


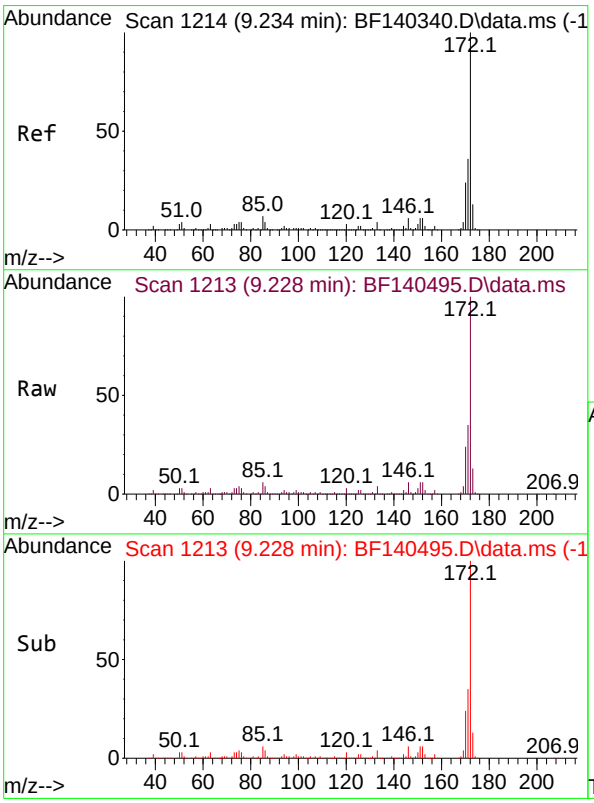
#42
2,4,6-Tribromophenol
Concen: 126.357 ng
RT: 10.698 min Scan# 14
Delta R.T. -0.006 min
Lab File: BF140495.D
Acq: 20 Nov 2024 12:42

Instrument :
BNA_F
ClientSampleId :
WB-310-BOT

Tgt Ion:330 Resp: 294494

Ion	Ratio	Lower	Upper
330	100		
332	97.1	75.9	113.9
141	33.4	26.9	40.3

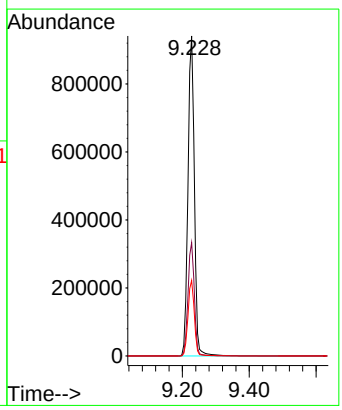


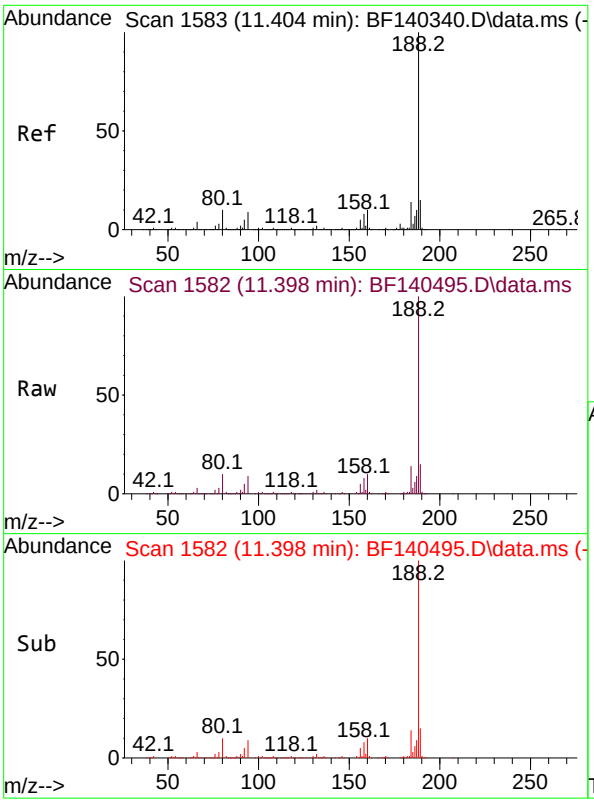


#45
2-Fluorobiphenyl
Concen: 85.371 ng
RT: 9.228 min Scan# 1213
Delta R.T. -0.006 min
Lab File: BF140495.D
Acq: 20 Nov 2024 12:42

Tgt Ion:172 Resp: 1244669

Ion	Ratio	Lower	Upper
172	100		
171	35.4	28.5	42.7
170	23.6	19.1	28.7



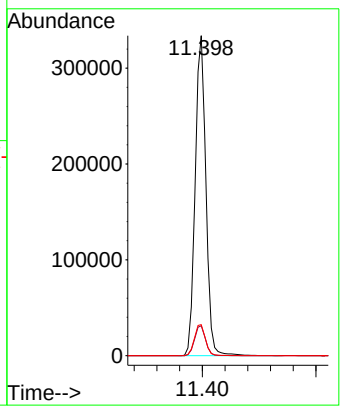


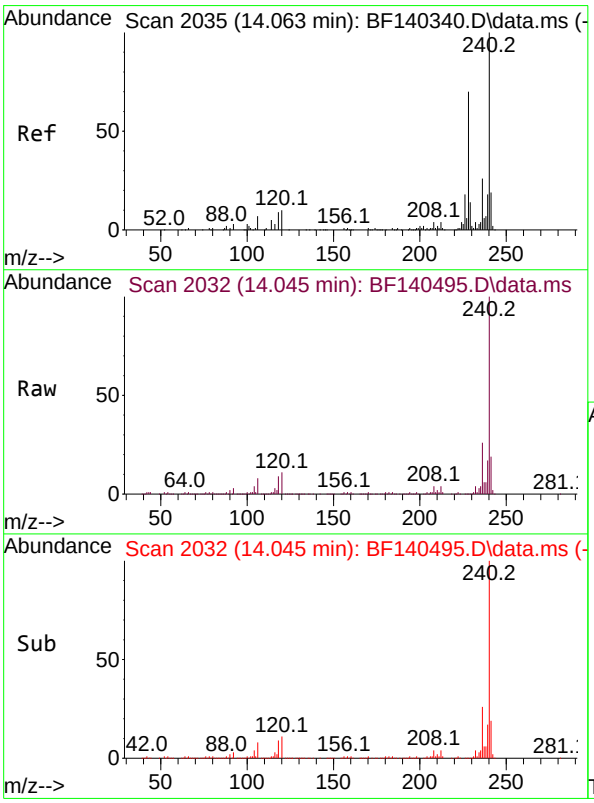
#64
Phenanthrene-d10
Concen: 20.000 ng
RT: 11.398 min Scan# 1
Delta R.T. -0.006 min
Lab File: BF140495.D
Acq: 20 Nov 2024 12:42

Instrument :
BNA_F
ClientSampleId :
WB-310-BOT

Tgt Ion:188 Resp: 439035

Ion	Ratio	Lower	Upper
188	100		
94	9.3	7.6	11.4
80	9.7	8.0	12.0

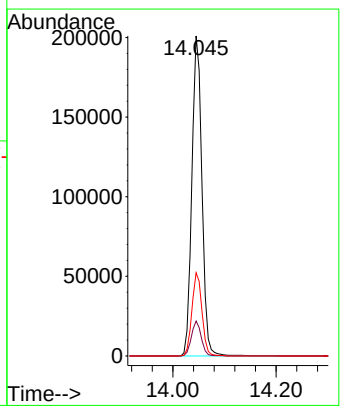


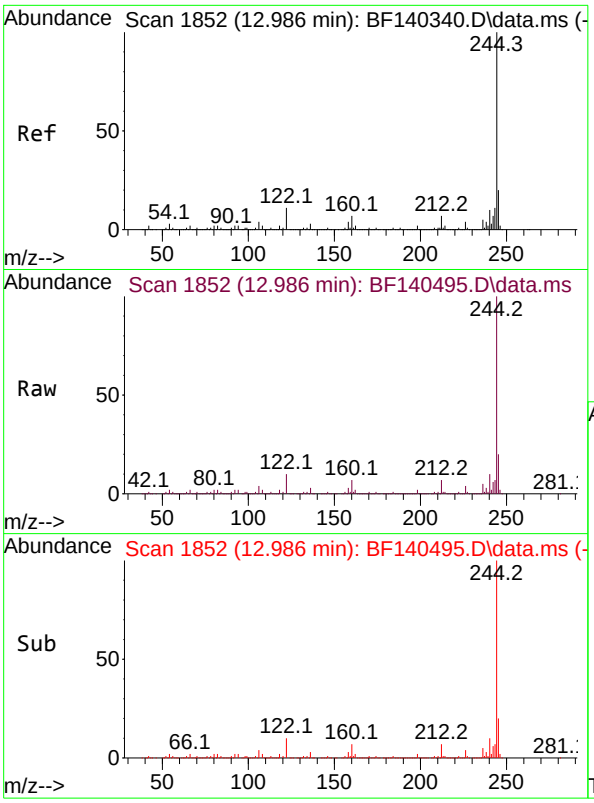


#76
Chrysene-d12
Concen: 20.000 ng
RT: 14.045 min Scan# 2032
Delta R.T. -0.006 min
Lab File: BF140495.D
Acq: 20 Nov 2024 12:42

Tgt Ion:240 Resp: 271644

Ion	Ratio	Lower	Upper
240	100		
120	10.9	8.8	13.2
236	26.0	20.9	31.3



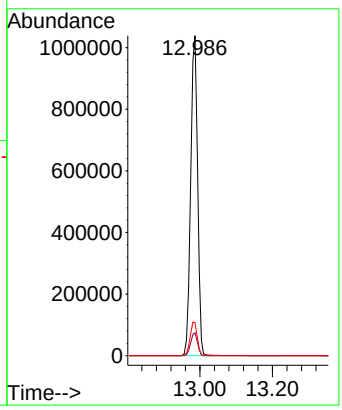


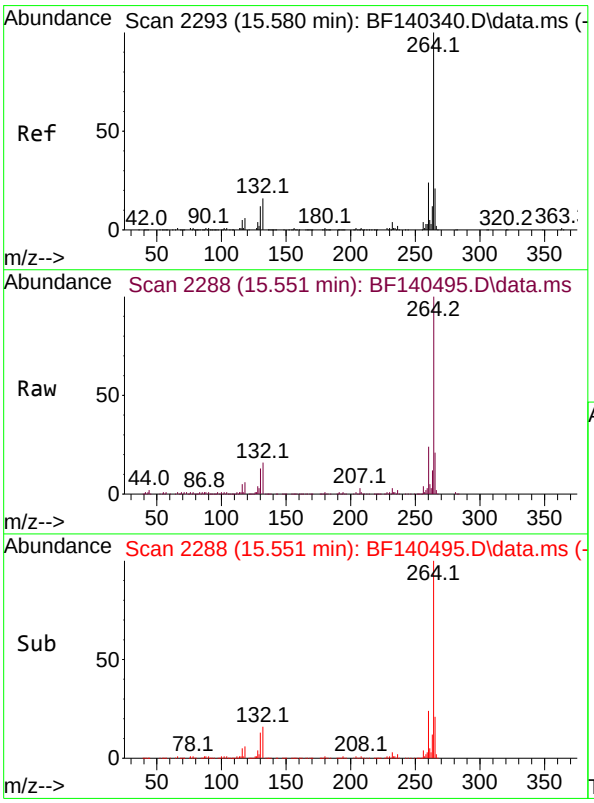
#79
Terphenyl-d14
Concen: 87.823 ng
RT: 12.986 min Scan# 1
Delta R.T. 0.000 min
Lab File: BF140495.D
Acq: 20 Nov 2024 12:42

Instrument :
BNA_F
ClientSampleId :
WB-310-BOT

Tgt Ion:244 Resp: 1374393

Ion	Ratio	Lower	Upper
244	100		
212	7.1	5.8	8.8
122	10.3	8.8	13.2

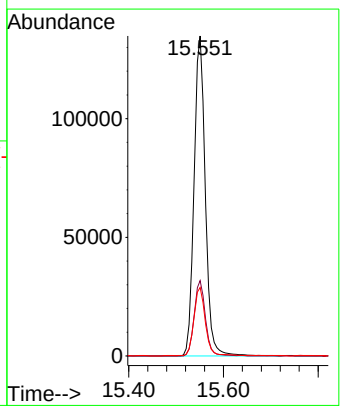




#86
Perylene-d12
Concen: 20.000 ng
RT: 15.551 min Scan# 2288
Delta R.T. -0.006 min
Lab File: BF140495.D
Acq: 20 Nov 2024 12:42

Tgt Ion:264 Resp: 222745

Ion	Ratio	Lower	Upper
264	100		
260	23.5	19.2	28.8
265	21.4	17.1	25.7



Sample Results: **BF140495.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140495.D
Acq On : 20 Nov 2024 12:42
Operator : RC/JU
Sample : P4892-02
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WB-310-BOT

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

Signal : TIC: BF140495.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.158	3	11	25	rVB	961839	1514958	41.71%	6.144%
2	5.504	574	580	602	rBV	2060043	2824414	77.77%	11.455%
3	6.510	742	751	778	rBV	2098646	2973216	81.86%	12.058%
4	6.875	807	813	818	rBV	521108	657131	18.09%	2.665%
5	7.434	902	908	913	rBV	1439295	1894397	52.16%	7.683%
6	7.681	945	950	965	rBV	72806	109333	3.01%	0.443%
7	8.151	1025	1030	1047	rVB	664045	866527	23.86%	3.514%
8	8.369	1063	1067	1076	rVB	33606	49083	1.35%	0.199%
9	9.228	1207	1213	1223	rBV	2727335	3582705	98.65%	14.530%
10	9.910	1323	1329	1342	rBV	727184	987254	27.18%	4.004%
11	10.622	1445	1450	1458	rBV	253937	316813	8.72%	1.285%
12	10.698	1458	1463	1479	rBV	1676982	2267667	62.44%	9.197%
13	11.398	1576	1582	1589	rBV	796495	1044536	28.76%	4.236%
14	11.922	1665	1671	1685	rBV	251454	452219	12.45%	1.834%
15	12.710	1800	1805	1815	rBV6	18827	45413	1.25%	0.184%
16	12.986	1846	1852	1857	rBV	2729981	3631883	100.00%	14.729%
17	13.880	1999	2004	2019	rBV3	23856	73627	2.03%	0.299%
18	14.045	2024	2032	2044	rVV	561882	769095	21.18%	3.119%
19	15.551	2282	2288	2299	rBV	360431	597367	16.45%	2.423%

Sum of corrected areas: 24657638

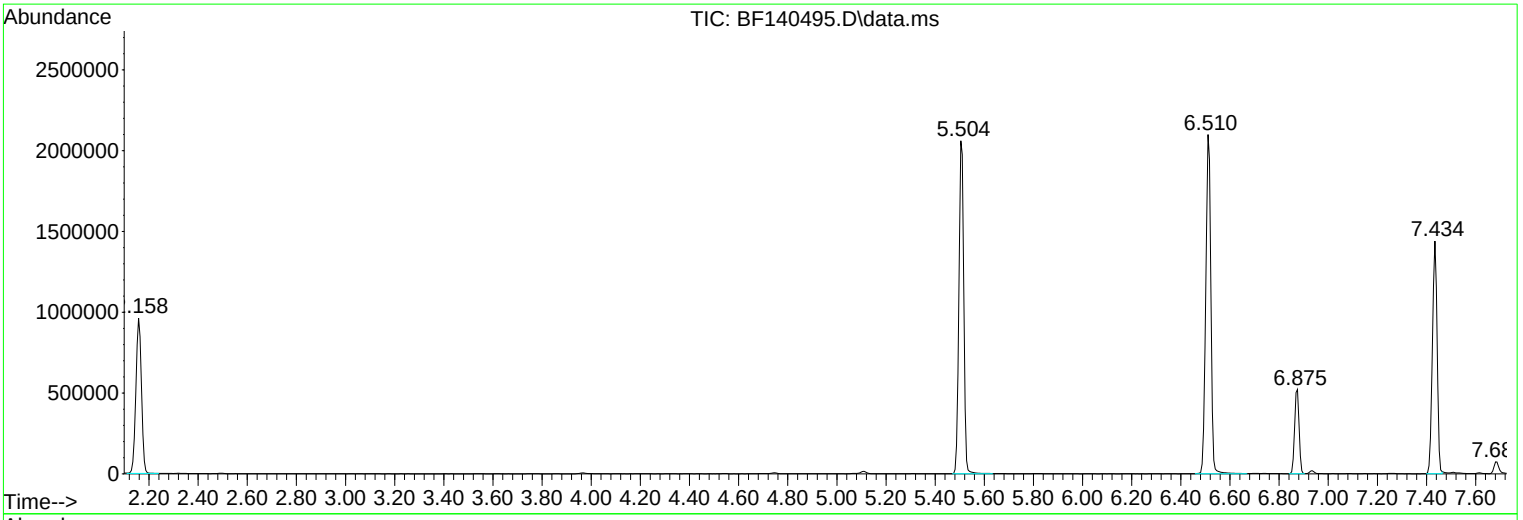
Sample Results: **BF140495.D**

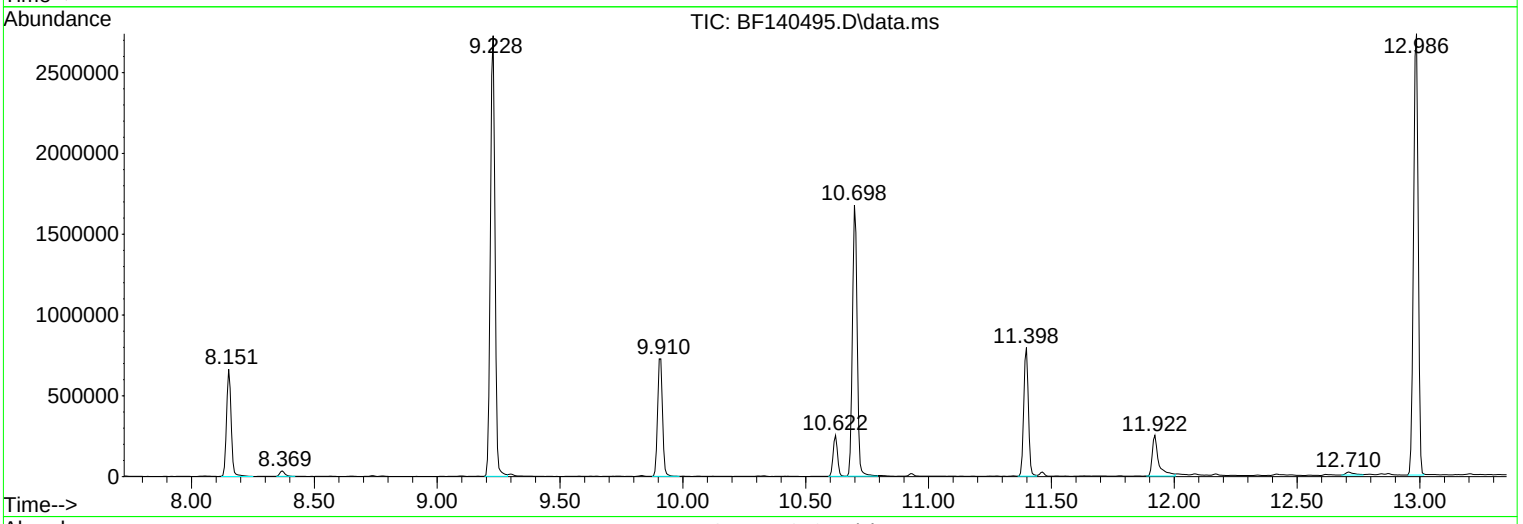
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140495.D
Acq On : 20 Nov 2024 12:42
Operator : RC/JU
Sample : P4892-02
Misc :
ALS Vial : 9 Sample Multiplier: 1

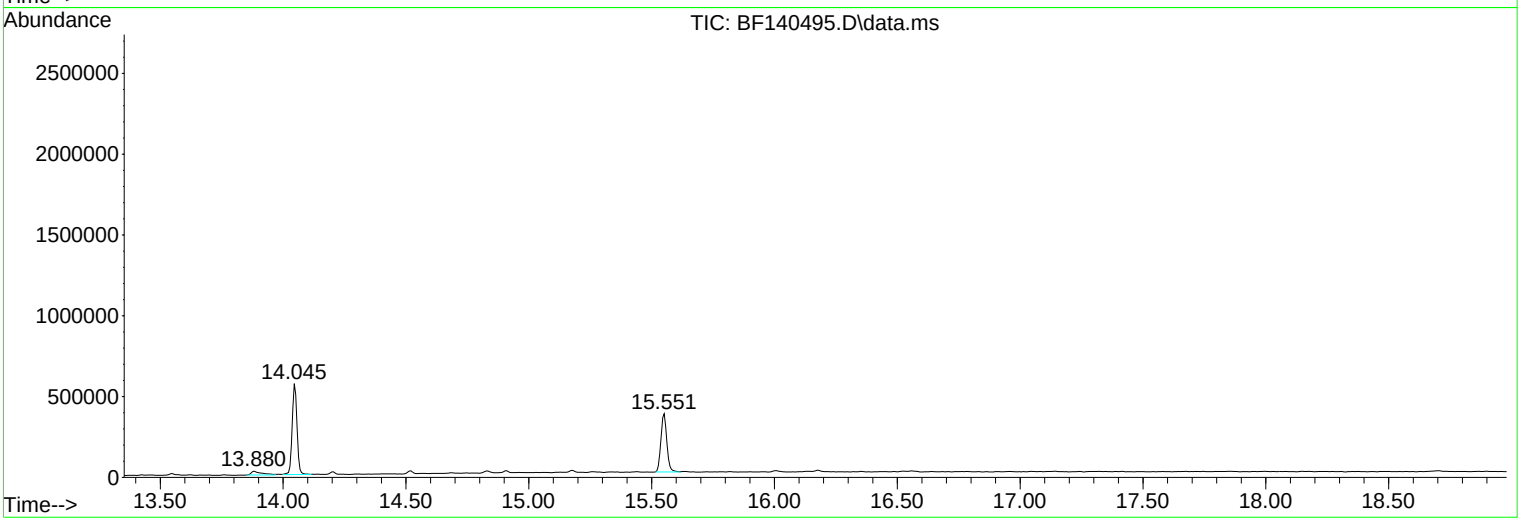
Instrument :
BNA_F
ClientSampleId :
WB-310-BOT

Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P







Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140495.D
Acq On : 20 Nov 2024 12:42
Operator : RC/JU
Sample : P4892-02
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WB-310-BOT

Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

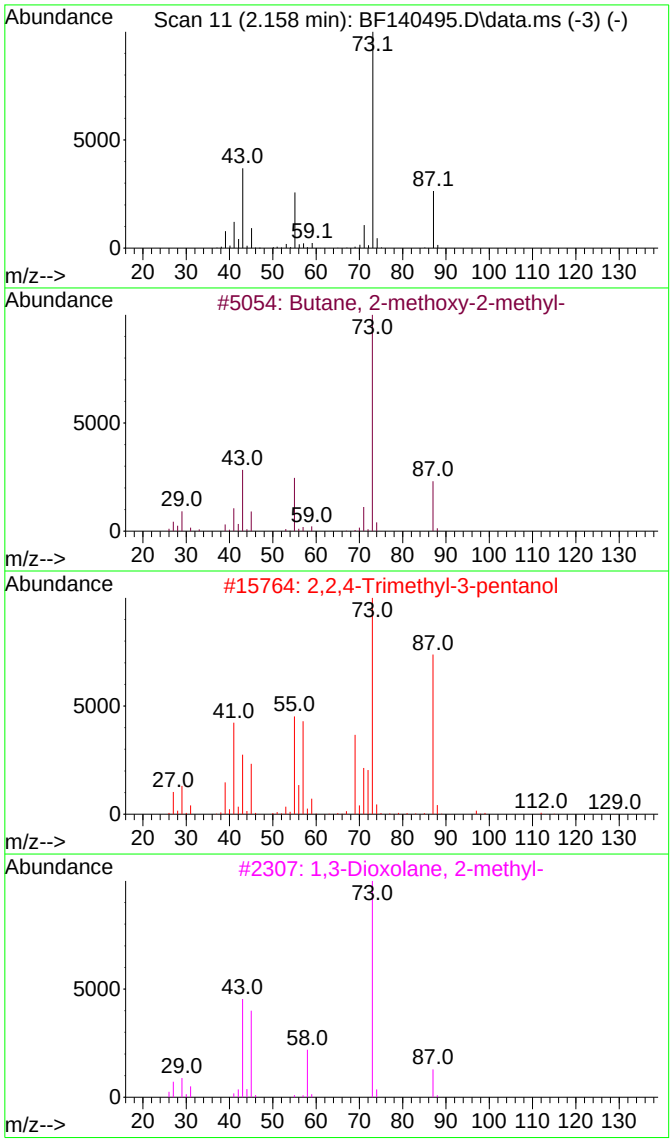
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

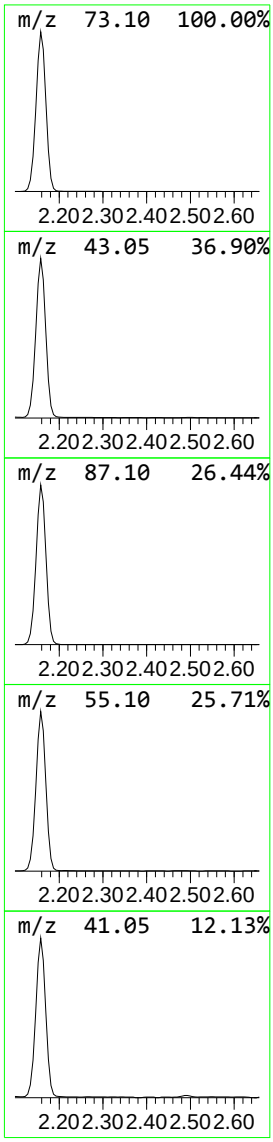
****

Peak Number 1 Butane, 2-methoxy-2-methyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.158	46.11 ng	1514960	1,4-Dichlorobenzene-d4	6.875

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methoxy-2-methyl-	102	C6H14O	000994-05-8	78
2	2,2,4-Trimethyl-3-pentanol	130	C8H18O	005162-48-1	40
3	1,3-Dioxolane, 2-methyl-	88	C4H8O2	000497-26-7	25
4	Pentane, 3-methoxy-	102	C6H14O	036839-67-5	17
5	Silane, tetramethyl-	88	C4H12Si	000075-76-3	12





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140495.D
Acq On : 20 Nov 2024 12:42
Operator : RC/JU
Sample : P4892-02
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WB-310-BOT

Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

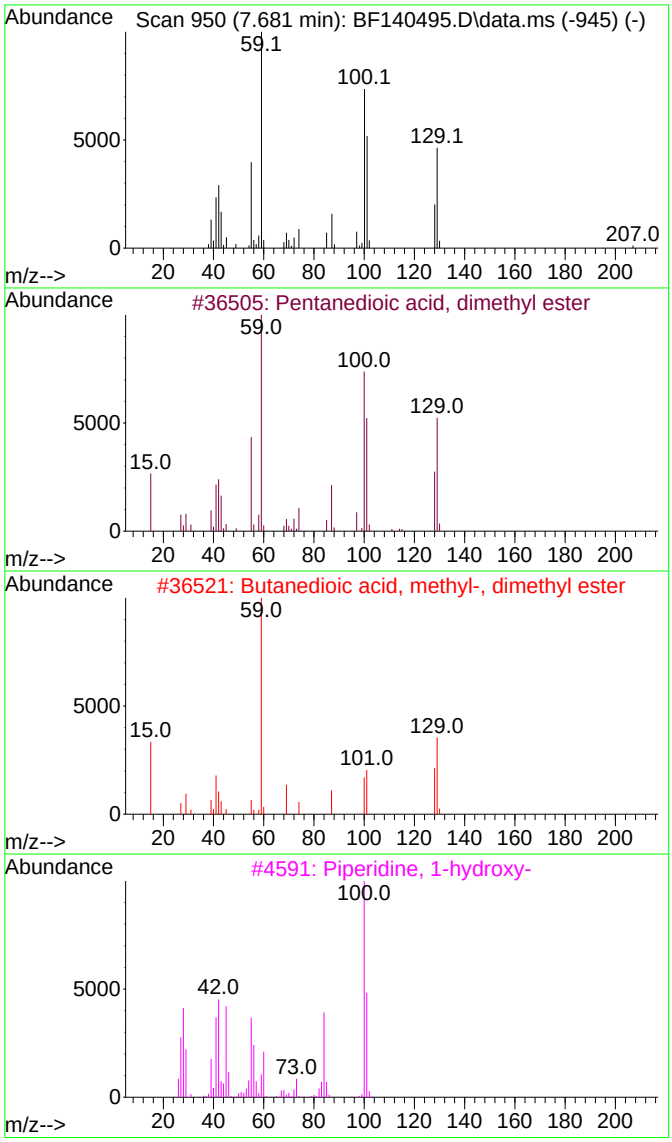
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

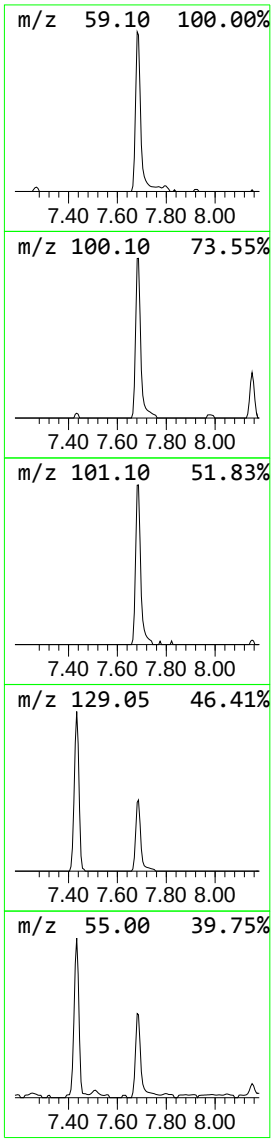
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Peak Number 2 Pentanedioic acid, dimethyl... Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.681	2.52 ng	109333	Naphthalene-d8	8.151

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanedioic acid, dimethyl ester	160	C7H12O4	001119-40-0	91
2	Butanedioic acid, methyl-, dimet...	160	C7H12O4	001604-11-1	47
3	Piperidine, 1-hydroxy-	101	C5H11NO	004801-58-5	35
4	Butanoic acid, 4-(2-methoxy-1-me...	204	C9H16O5	054966-46-0	25
5	1,4-Di-O-acetyl-2,5-di-O-methyl-...	262	C12H22O6	1000101-82-1	25





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140495.D
Acq On : 20 Nov 2024 12:42
Operator : RC/JU
Sample : P4892-02
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WB-310-BOT

Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

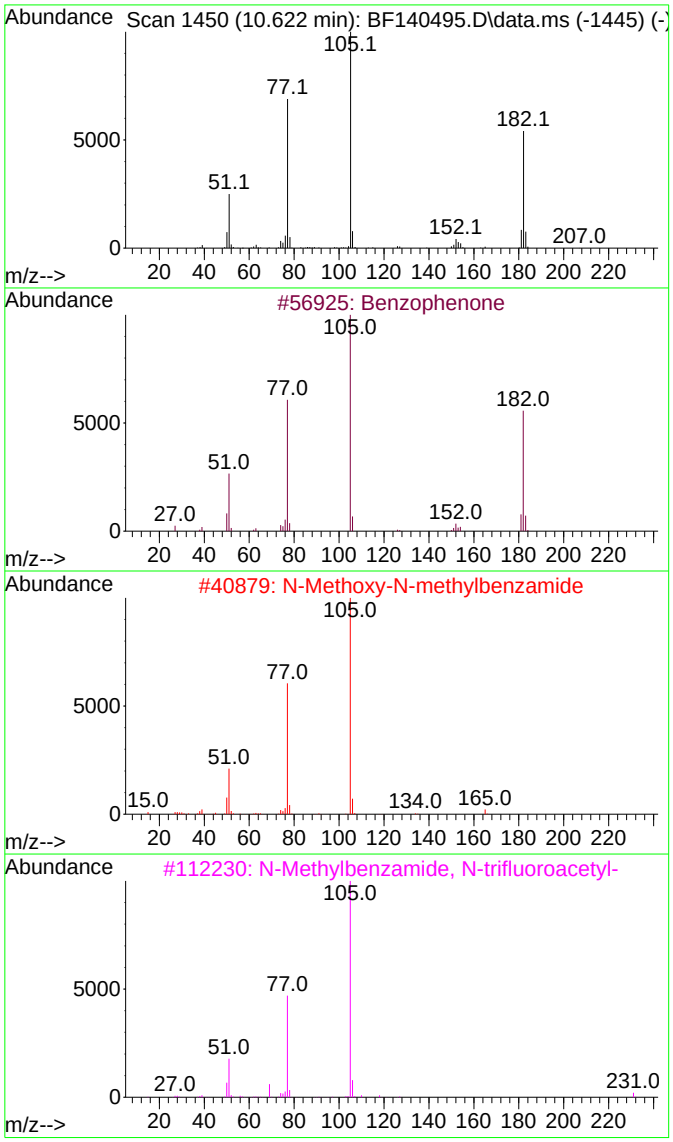
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

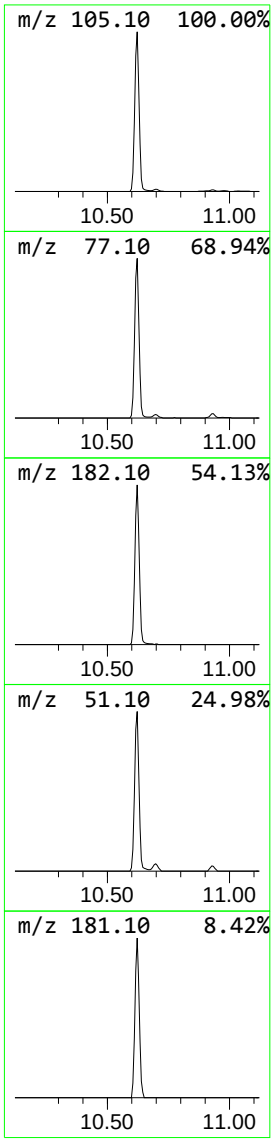
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Peak Number 3 Benzophenone Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.622	6.42 ng	316813	Acenaphthene-d10	9.910

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzophenone	182	C13H10O	000119-61-9	96
2	N-Methoxy-N-methylbenzamide	165	C9H11NO2	006919-61-5	49
3	N-Methylbenzamide, N-trifluoroac...	231	C10H8F3NO2	1000446-91-5	47
4	Benzenecarbothioic acid, S-methy...	152	C8H8OS	005925-68-8	47
5	Vinyl benzoate	148	C9H8O2	000769-78-8	47





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140495.D
Acq On : 20 Nov 2024 12:42
Operator : RC/JU
Sample : P4892-02
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WB-310-BOT

Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

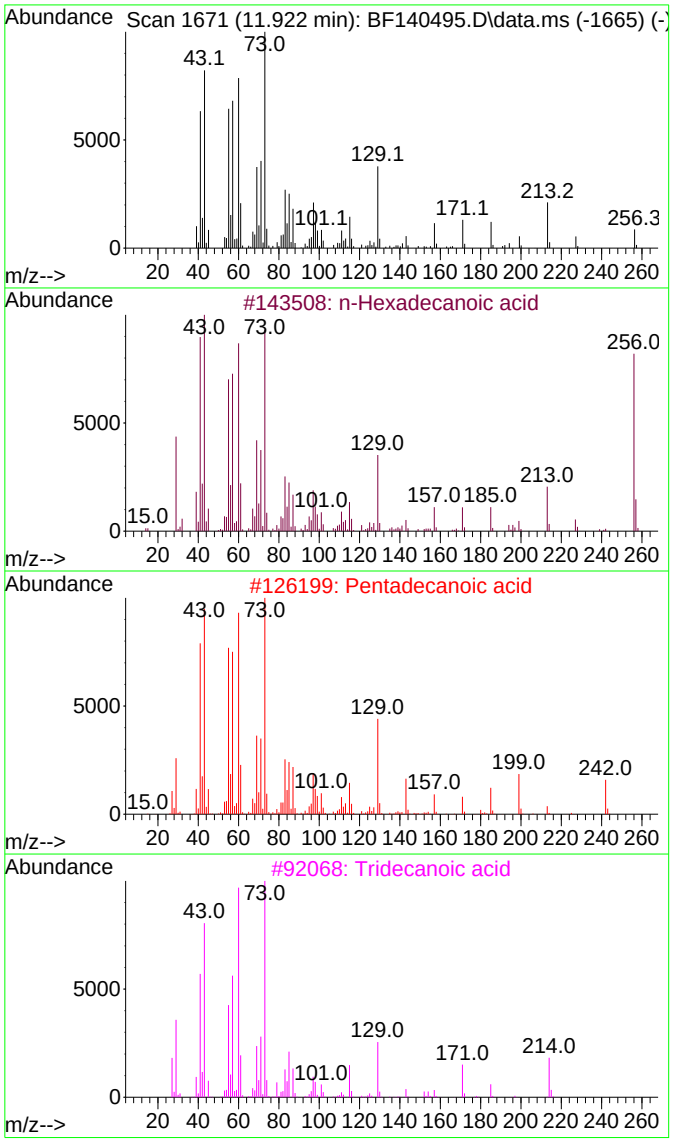
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

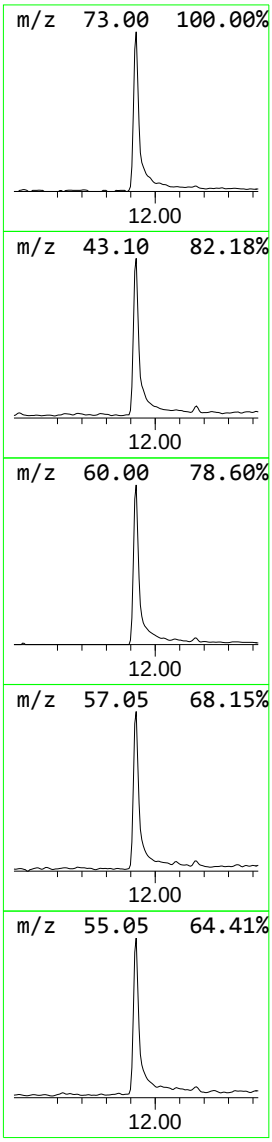
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Peak Number 4 n-Hexadecanoic acid Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.922	8.66 ng	452219	Phenanthrene-d10	11.398

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	n-Hexadecanoic acid	256	C16H32O2	000057-10-3	99
2	Pentadecanoic acid	242	C15H30O2	001002-84-2	91
3	Tridecanoic acid	214	C13H26O2	000638-53-9	90
4	Tetradecanoic acid	228	C14H28O2	000544-63-8	80
5	n-Decanoic acid	172	C10H20O2	000334-48-5	70





Sample Results: **BF140495.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140495.D
Acq On : 20 Nov 2024 12:42
Operator : RC/JU
Sample : P4892-02
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WB-310-BOT

Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
Butane, 2-metho...	2.158	46.1	ng	1514960	1	6.875	657131	20.0
Pentanedioic ac...	7.681	2.5	ng	109333	2	8.151	866527	20.0
Benzophenone	10.622	6.4	ng	316813	3	9.910	987254	20.0
n-Hexadecanoic ...	11.922	8.7	ng	452219	4	11.398	1044540	20.0

Raw Data: **BF140607.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-SW	SDG No.:	P4892
Lab Sample ID:	P4892-04	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	485 Units: mL	Final Vol:	500 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140607.D	1	11/20/24 08:29	11/25/24 17:15	PB165152

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
100-52-7	Benzaldehyde	4.10	U	4.10	10.3	ug/L
108-95-2	Phenol	0.96	U	0.96	5.20	ug/L
111-44-4	bis(2-Chloroethyl)ether	1.20	U	1.20	5.20	ug/L
95-57-8	2-Chlorophenol	0.73	U	0.73	5.20	ug/L
95-48-7	2-Methylphenol	1.20	U	1.20	5.20	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.40	U	1.40	5.20	ug/L
98-86-2	Acetophenone	1.10	U	1.10	5.20	ug/L
65794-96-9	3+4-Methylphenols	1.20	U	1.20	10.3	ug/L
621-64-7	n-Nitroso-di-n-propylamine	1.50	U	1.50	2.60	ug/L
67-72-1	Hexachloroethane	1.00	U	1.00	5.20	ug/L
98-95-3	Nitrobenzene	1.30	U	1.30	5.20	ug/L
78-59-1	Isophorone	1.20	U	1.20	5.20	ug/L
88-75-5	2-Nitrophenol	2.00	U	2.00	5.20	ug/L
105-67-9	2,4-Dimethylphenol	1.60	U	1.60	5.20	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.10	U	1.10	5.20	ug/L
120-83-2	2,4-Dichlorophenol	0.91	U	0.91	5.20	ug/L
91-20-3	Naphthalene	1.10	U	1.10	5.20	ug/L
106-47-8	4-Chloroaniline	1.30	UQ	1.30	5.20	ug/L
87-68-3	Hexachlorobutadiene	1.30	U	1.30	5.20	ug/L
105-60-2	Caprolactam	1.70	U	1.70	10.3	ug/L
59-50-7	4-Chloro-3-methylphenol	0.87	U	0.87	5.20	ug/L
91-57-6	2-Methylnaphthalene	1.20	U	1.20	5.20	ug/L
77-47-4	Hexachlorocyclopentadiene	5.20	UQ	5.20	10.3	ug/L
88-06-2	2,4,6-Trichlorophenol	0.92	U	0.92	5.20	ug/L
95-95-4	2,4,5-Trichlorophenol	1.00	U	1.00	5.20	ug/L
92-52-4	1,1-Biphenyl	0.94	U	0.94	5.20	ug/L
91-58-7	2-Chloronaphthalene	1.00	U	1.00	5.20	ug/L
88-74-4	2-Nitroaniline	1.50	U	1.50	5.20	ug/L
131-11-3	Dimethylphthalate	0.96	U	0.96	5.20	ug/L

Raw Data: **BF140607.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-SW	SDG No.:	P4892
Lab Sample ID:	P4892-04	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	485 Units: mL	Final Vol:	500 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140607.D	1	11/20/24 08:29	11/25/24 17:15	PB165152

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
208-96-8	Acenaphthylene	1.10	U	1.10	5.20	ug/L
606-20-2	2,6-Dinitrotoluene	1.30	U	1.30	5.20	ug/L
99-09-2	3-Nitroaniline	1.40	UQ	1.40	5.20	ug/L
83-32-9	Acenaphthene	0.84	U	0.84	5.20	ug/L
51-28-5	2,4-Dinitrophenol	6.60	U	6.60	10.3	ug/L
100-02-7	4-Nitrophenol	2.10	U	2.10	10.3	ug/L
132-64-9	Dibenzofuran	0.96	U	0.96	5.20	ug/L
121-14-2	2,4-Dinitrotoluene	1.60	U	1.60	5.20	ug/L
84-66-2	Diethylphthalate	1.10	U	1.10	5.20	ug/L
7005-72-3	4-Chlorophenyl-phenylether	1.00	U	1.00	5.20	ug/L
86-73-7	Fluorene	0.99	U	0.99	5.20	ug/L
100-01-6	4-Nitroaniline	2.10	U	2.10	5.20	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	3.20	U	3.20	10.3	ug/L
86-30-6	n-Nitrosodiphenylamine	0.92	U	0.92	5.20	ug/L
101-55-3	4-Bromophenyl-phenylether	0.98	U	0.98	5.20	ug/L
118-74-1	Hexachlorobenzene	1.20	U	1.20	5.20	ug/L
1912-24-9	Atrazine	1.30	U	1.30	5.20	ug/L
87-86-5	Pentachlorophenol	1.90	U	1.90	10.3	ug/L
85-01-8	Phenanthrene	0.92	U	0.92	5.20	ug/L
120-12-7	Anthracene	1.10	U	1.10	5.20	ug/L
86-74-8	Carbazole	1.20	U	1.20	5.20	ug/L
84-74-2	Di-n-butylphthalate	1.50	U	1.50	5.20	ug/L
206-44-0	Fluoranthene	1.30	U	1.30	5.20	ug/L
129-00-0	Pyrene	1.10	U	1.10	5.20	ug/L
85-68-7	Butylbenzylphthalate	2.20	U	2.20	5.20	ug/L
91-94-1	3,3-Dichlorobenzidine	1.30	UQ	1.30	10.3	ug/L
56-55-3	Benzo(a)anthracene	0.97	U	0.97	5.20	ug/L
218-01-9	Chrysene	0.89	U	0.89	5.20	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	1.90	U	1.90	5.20	ug/L
117-84-0	Di-n-octyl phthalate	2.60	U	2.60	10.3	ug/L
205-99-2	Benzo(b)fluoranthene	1.20	U	1.20	5.20	ug/L

Raw Data: **BF140607.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-SW	SDG No.:	P4892
Lab Sample ID:	P4892-04	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	485 Units: mL	Final Vol:	500 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140607.D	1	11/20/24 08:29	11/25/24 17:15	PB165152

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
207-08-9	Benzo(k)fluoranthene	1.20	U	1.20	5.20	ug/L
50-32-8	Benzo(a)pyrene	1.70	U	1.70	5.20	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	1.10	U	1.10	5.20	ug/L
53-70-3	Dibenzo(a,h)anthracene	1.20	U	1.20	5.20	ug/L
191-24-2	Benzo(g,h,i)perylene	1.20	U	1.20	5.20	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	1.10	U	1.10	5.20	ug/L
123-91-1	1,4-Dioxane	1.30	U	1.30	5.20	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	0.81	U	0.81	5.20	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	39.5		15 (10) - 110 (139)	53%	SPK: 75
13127-88-3	Phenol-d6	35.6		15 (10) - 110 (134)	47%	SPK: 75
4165-60-0	Nitrobenzene-d5	38.7		30 (49) - 130 (133)	77%	SPK: 50
321-60-8	2-Fluorobiphenyl	40.1		30 (52) - 130 (132)	80%	SPK: 50
118-79-6	2,4,6-Tribromophenol	66.4		15 (44) - 110 (137)	89%	SPK: 75
1718-51-0	Terphenyl-d14	42.1		30 (48) - 130 (125)	84%	SPK: 50
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	64500	6.869			
1146-65-2	Naphthalene-d8	240000	8.151			
15067-26-2	Acenaphthene-d10	131000	9.904			
1517-22-2	Phenanthrene-d10	245000	11.392			
1719-03-5	Chrysene-d12	178000	14.045			
1520-96-3	Perylene-d12	140000	15.551			
TENTATIVE IDENTIFIED COMPOUNDS						
	unknown14.239	2.10	J		14.2	ug/L
007683-64-9	Supraene	2.80	J		14.9	ug/L

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Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-SW	SDG No.:	P4892
Lab Sample ID:	P4892-04	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	485 Units: mL	Final Vol:	500 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140607.D	1	11/20/24 08:29	11/25/24 17:15	PB165152

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140607.D
Acq On : 25 Nov 2024 17:15
Operator : RC/JU
Sample : P4892-04
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WB-310-SW

Quant Time: Nov 26 00:08:04 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

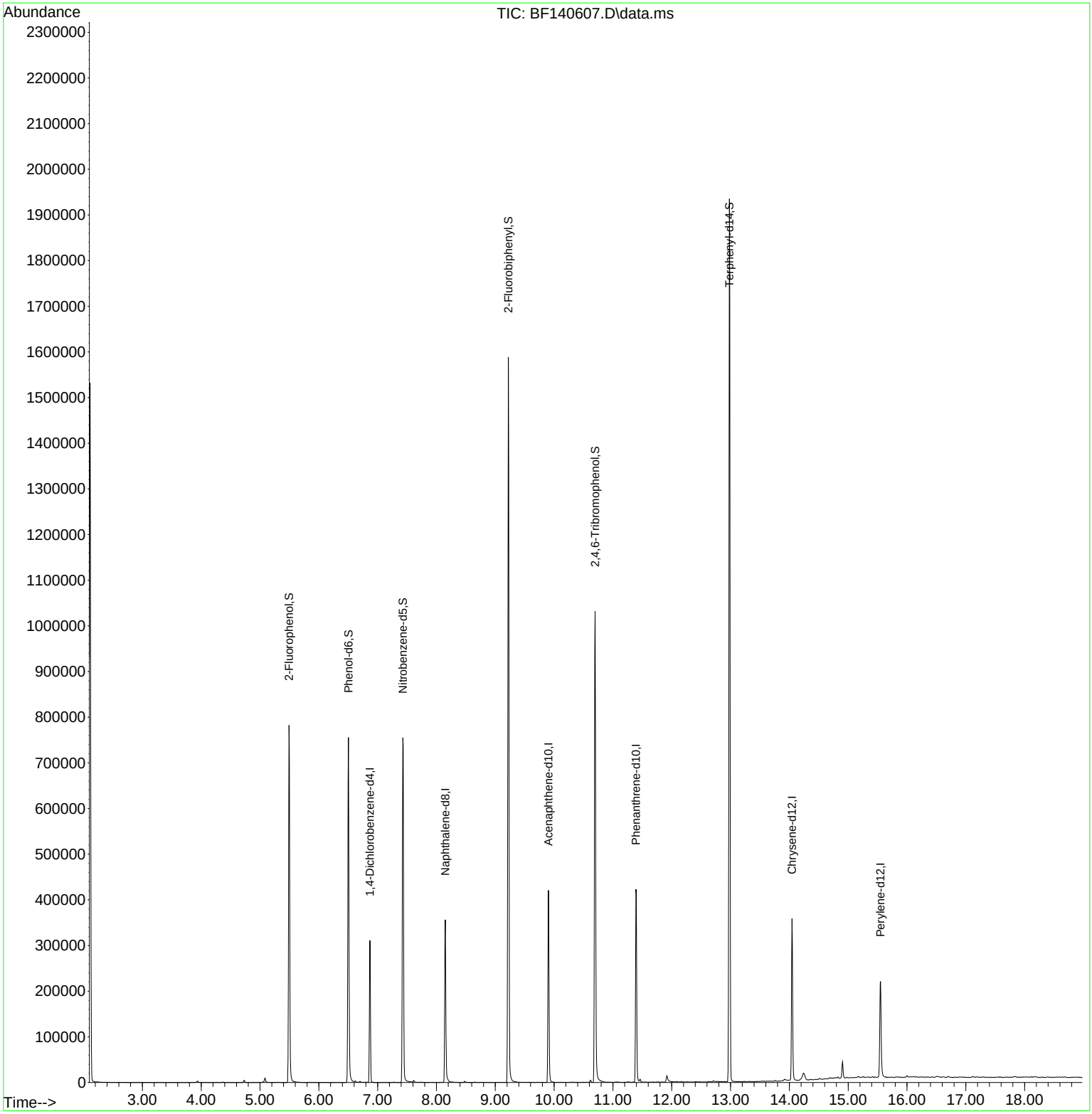
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.869	152	64480	20.000	ng	0.00
21) Naphthalene-d8	8.151	136	239780	20.000	ng	0.00
39) Acenaphthene-d10	9.904	164	131138	20.000	ng	-0.01
64) Phenanthrene-d10	11.392	188	245059	20.000	ng	-0.01
76) Chrysene-d12	14.045	240	178129	20.000	ng	0.00
86) Perylene-d12	15.551	264	139529	20.000	ng	0.01
System Monitoring Compounds						
5) 2-Fluorophenol	5.492	112	298834	79.075	ng	0.00
7) Phenol-d6	6.504	99	355856	71.227	ng	-0.01
23) Nitrobenzene-d5	7.428	82	362946	77.424	ng	-0.01
42) 2,4,6-Tribromophenol	10.698	330	186214	132.770	ng	0.00
45) 2-Fluorobiphenyl	9.222	172	706233	80.240	ng	-0.01
79) Terphenyl-d14	12.980	244	962141	84.106	ng	-0.01
Target Compounds						Qvalue

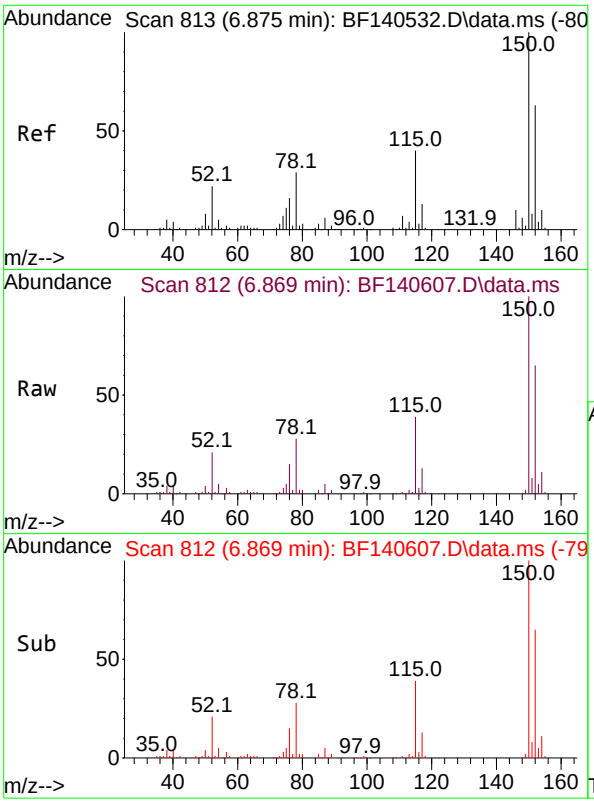
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140607.D
Acq On : 25 Nov 2024 17:15
Operator : RC/JU
Sample : P4892-04
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WB-310-SW

Quant Time: Nov 26 00:08:04 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration



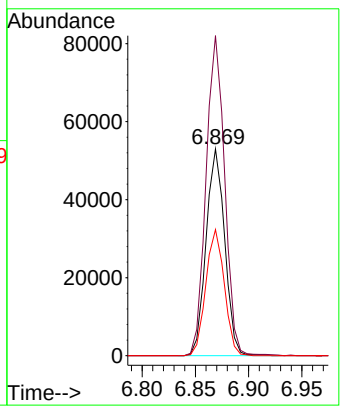


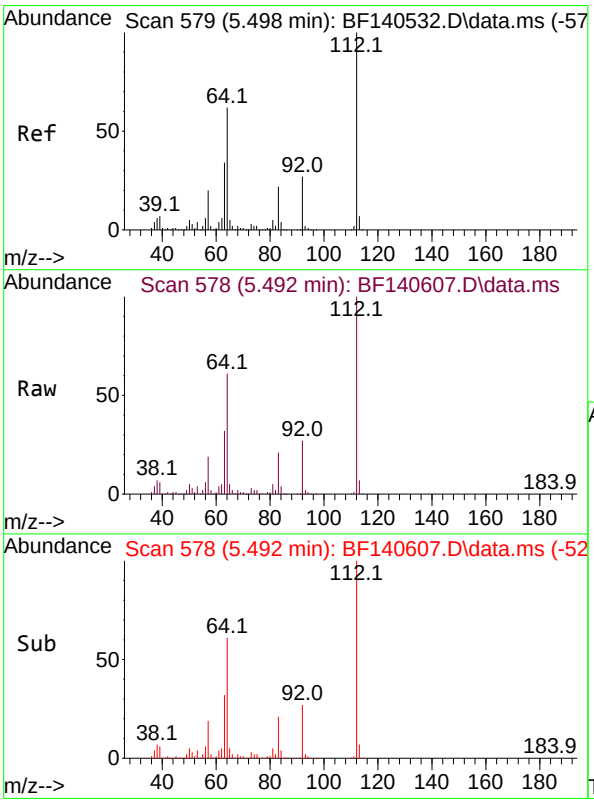
#1
1,4-Dichlorobenzene-d4
Concen: 20.000 ng
RT: 6.869 min Scan# 8
Delta R.T. -0.006 min
Lab File: BF140607.D
Acq: 25 Nov 2024 17:15

Instrument :
BNA_F
ClientSampleId :
WB-310-SW

Tgt Ion:152 Resp: 64480

Ion	Ratio	Lower	Upper
152	100		
150	154.7	128.5	192.7
115	61.0	50.2	75.4

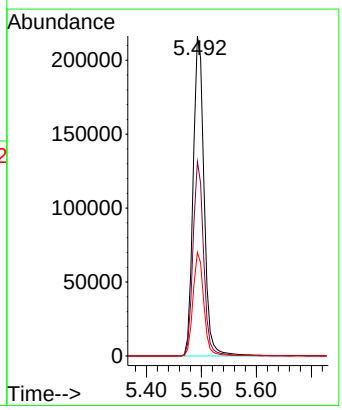


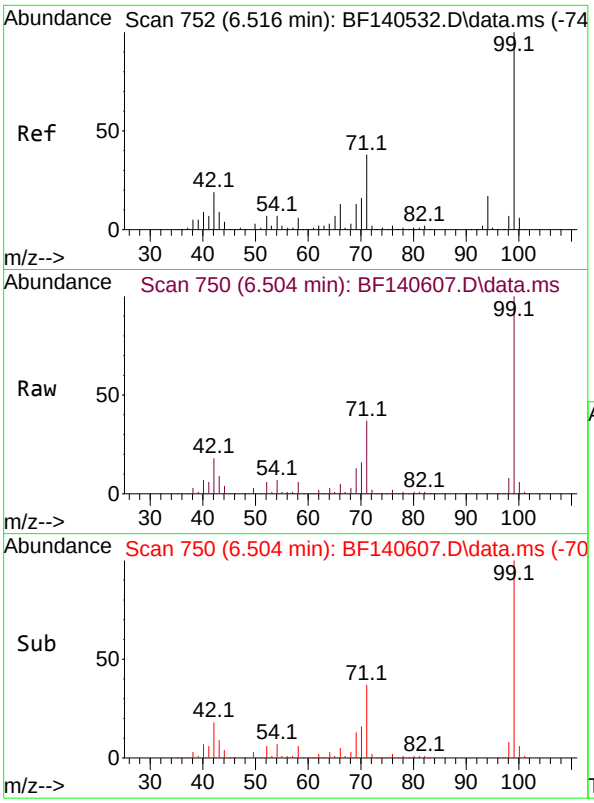


#5
2-Fluorophenol
Concen: 79.075 ng
RT: 5.492 min Scan# 578
Delta R.T. -0.006 min
Lab File: BF140607.D
Acq: 25 Nov 2024 17:15

Tgt Ion:112 Resp: 298834

Ion	Ratio	Lower	Upper
112	100		
64	60.8	49.2	73.8
63	32.4	27.0	40.4



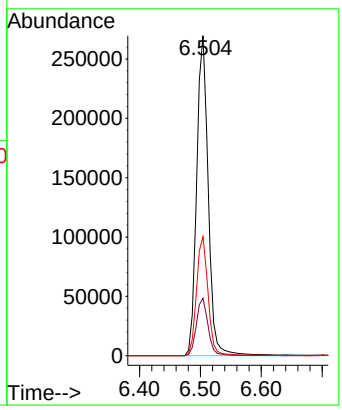


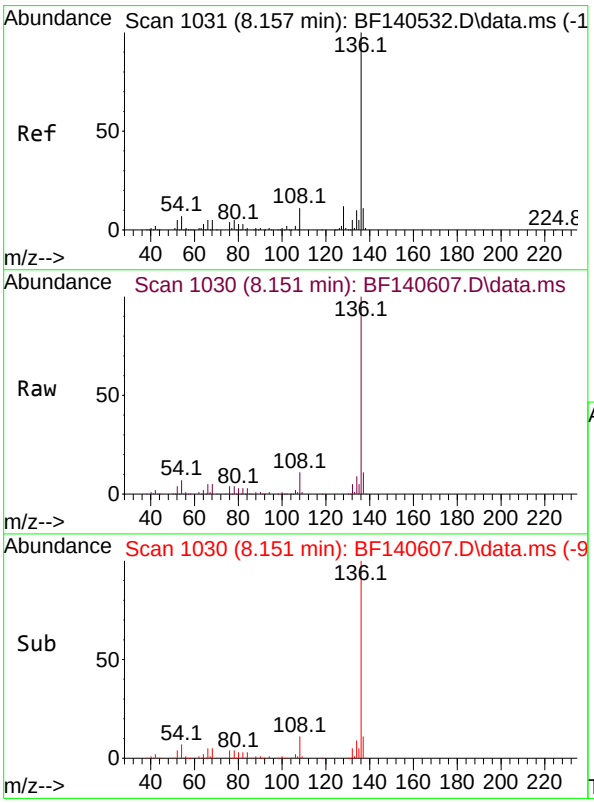
#7
Phenol-d6
Concen: 71.227 ng
RT: 6.504 min Scan# 7
Delta R.T. -0.012 min
Lab File: BF140607.D
Acq: 25 Nov 2024 17:15

Instrument :
BNA_F
ClientSampleId :
WB-310-SW

Tgt Ion: 99 Resp: 355856

Ion	Ratio	Lower	Upper
99	100		
42	18.0	15.4	23.0
71	37.2	30.6	46.0

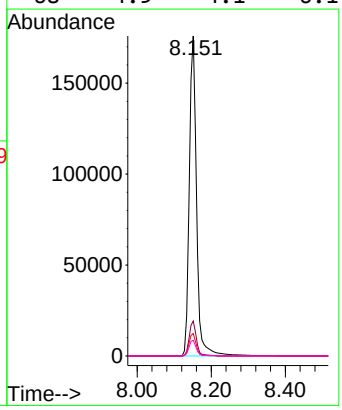


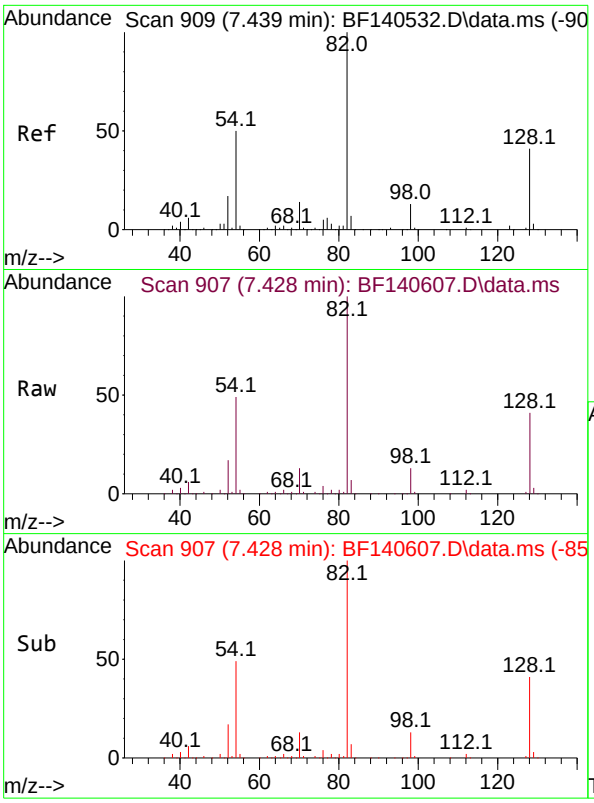


#21
Naphthalene-d8
Concen: 20.000 ng
RT: 8.151 min Scan# 1030
Delta R.T. -0.006 min
Lab File: BF140607.D
Acq: 25 Nov 2024 17:15

Tgt Ion:136 Resp: 239780

Ion	Ratio	Lower	Upper
136	100		
137	10.9	8.6	13.0
54	7.0	5.8	8.8
68	4.9	4.1	6.1



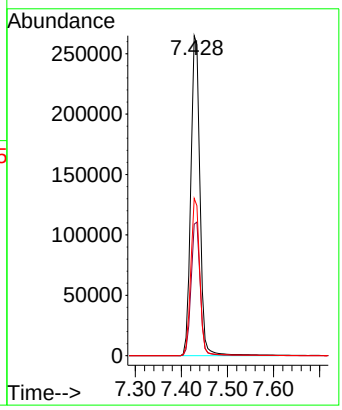


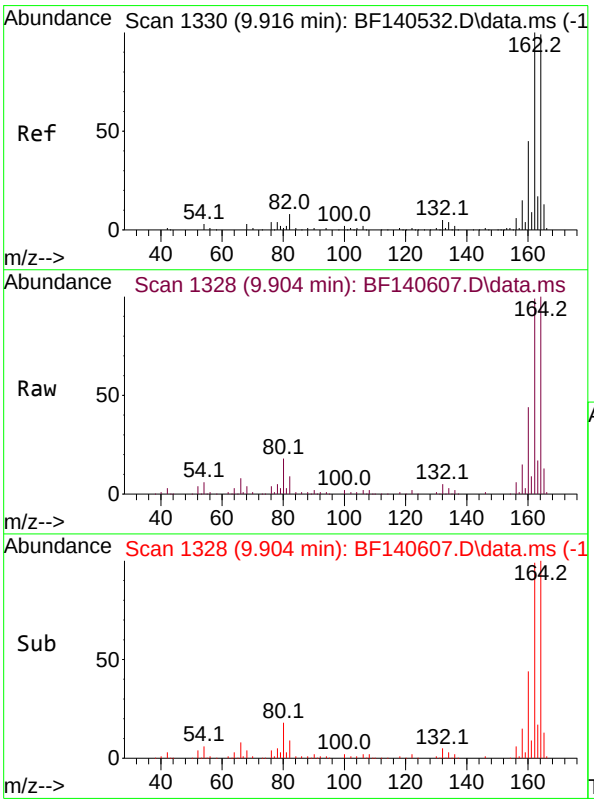
#23
Nitrobenzene-d5
Concen: 77.424 ng
RT: 7.428 min Scan# 9
Delta R.T. -0.012 min
Lab File: BF140607.D
Acq: 25 Nov 2024 17:15

Instrument :
BNA_F
ClientSampleId :
WB-310-SW

Tgt Ion: 82 Resp: 362946

Ion	Ratio	Lower	Upper
82	100		
128	41.1	33.0	49.4
54	49.1	39.5	59.3

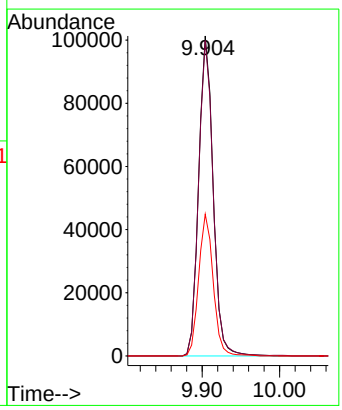


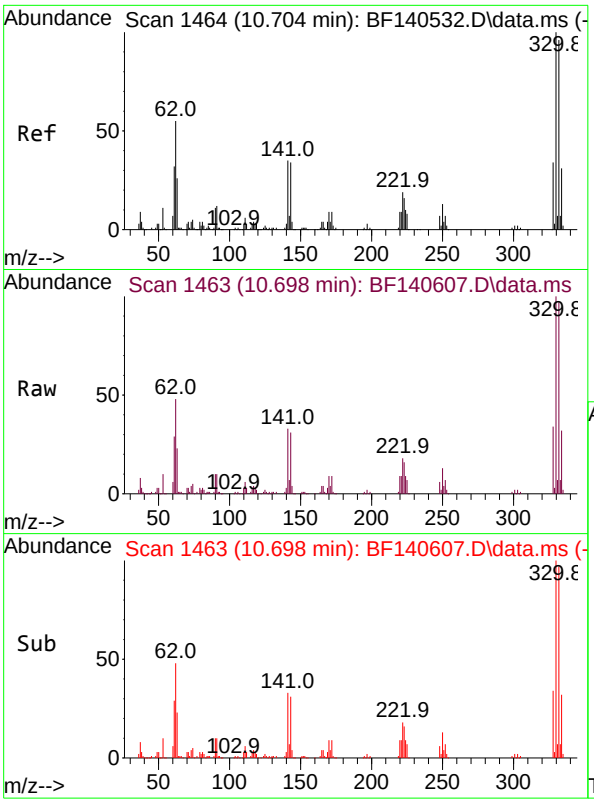


#39
Acenaphthene-d10
Concen: 20.000 ng
RT: 9.904 min Scan# 1328
Delta R.T. -0.012 min
Lab File: BF140607.D
Acq: 25 Nov 2024 17:15

Tgt Ion:164 Resp: 131138

Ion	Ratio	Lower	Upper
164	100		
162	98.5	80.6	120.8
160	44.3	36.2	54.4



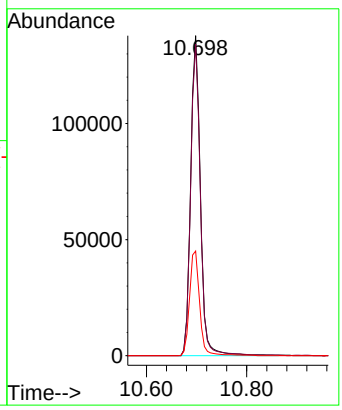


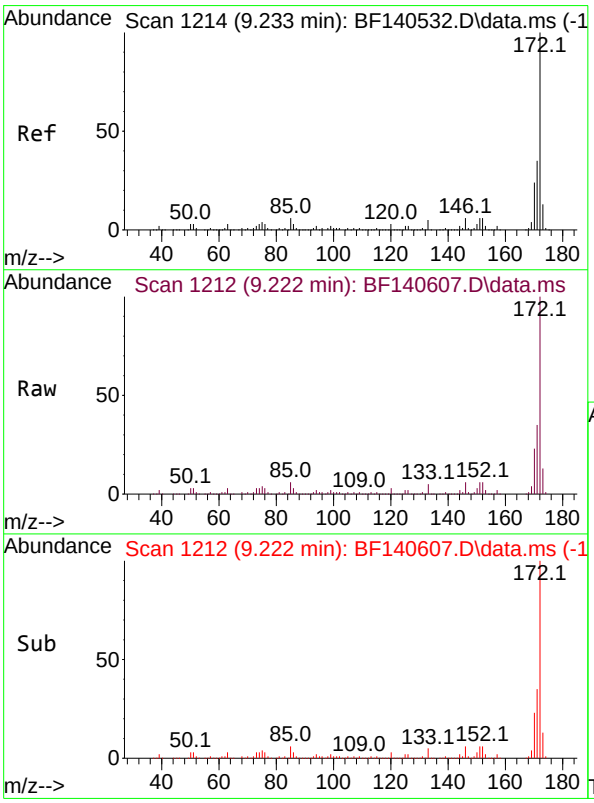
#42
2,4,6-Tribromophenol
Concen: 132.770 ng
RT: 10.698 min Scan# 14
Delta R.T. -0.006 min
Lab File: BF140607.D
Acq: 25 Nov 2024 17:15

Instrument :
BNA_F
ClientSampleId :
WB-310-SW

Tgt Ion:330 Resp: 186214

Ion	Ratio	Lower	Upper
330	100		
332	97.1	76.9	115.3
141	34.0	26.7	40.1

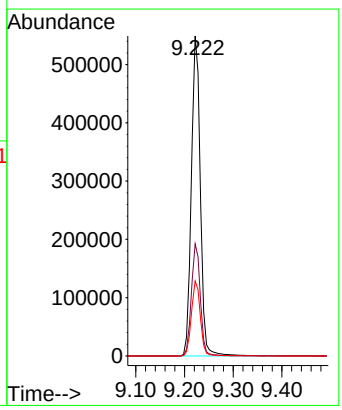


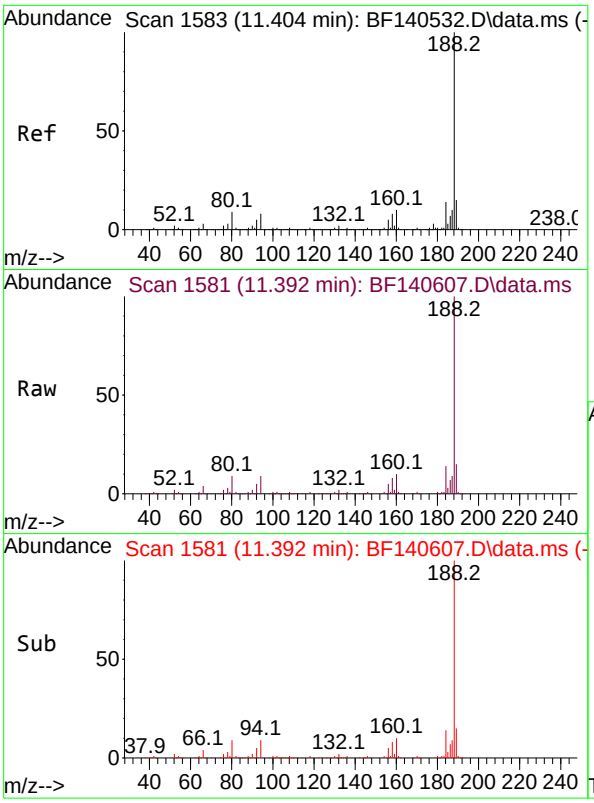


#45
2-Fluorobiphenyl
Concen: 80.240 ng
RT: 9.222 min Scan# 1212
Delta R.T. -0.012 min
Lab File: BF140607.D
Acq: 25 Nov 2024 17:15

Tgt Ion:172 Resp: 706233

Ion	Ratio	Lower	Upper
172	100		
171	35.1	28.4	42.6
170	23.4	19.0	28.6



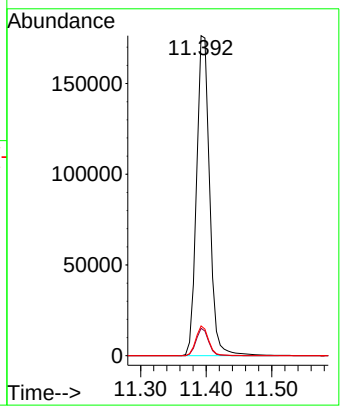


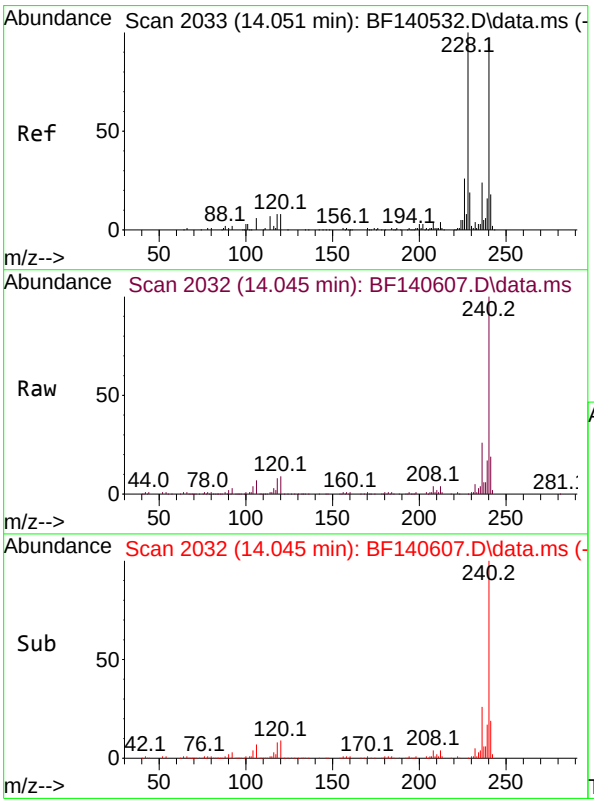
#64
Phenanthrene-d10
Concen: 20.000 ng
RT: 11.392 min Scan# 1
Delta R.T. -0.012 min
Lab File: BF140607.D
Acq: 25 Nov 2024 17:15

Instrument :
BNA_F
ClientSampleId :
WB-310-SW

Tgt Ion:188 Resp: 245059

Ion	Ratio	Lower	Upper
188	100		
94	8.6	6.4	9.6
80	9.3	6.9	10.3

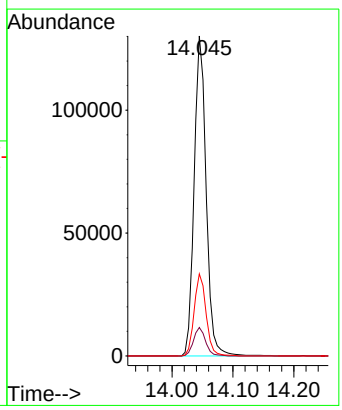


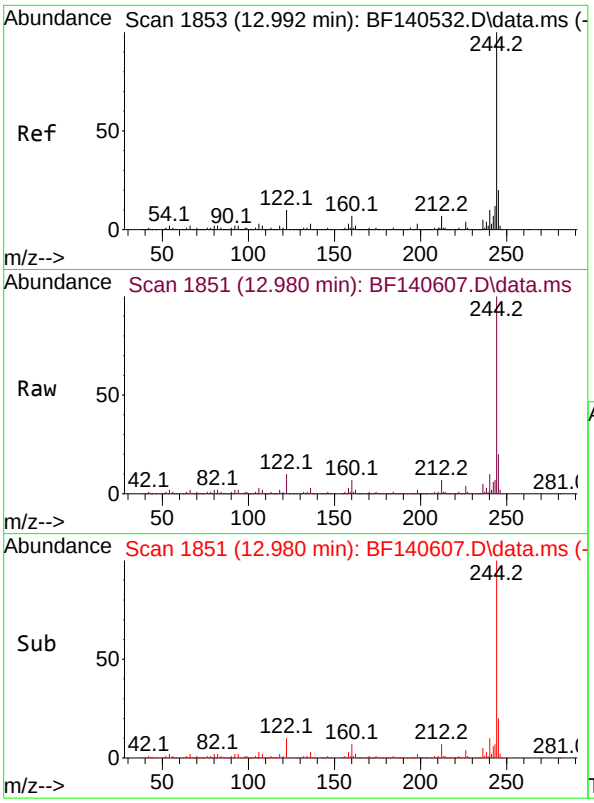


#76
Chrysene-d12
Concen: 20.000 ng
RT: 14.045 min Scan# 2032
Delta R.T. -0.006 min
Lab File: BF140607.D
Acq: 25 Nov 2024 17:15

Tgt Ion:240 Resp: 178129

Ion	Ratio	Lower	Upper
240	100		
120	8.9	7.3	10.9
236	25.7	20.6	31.0



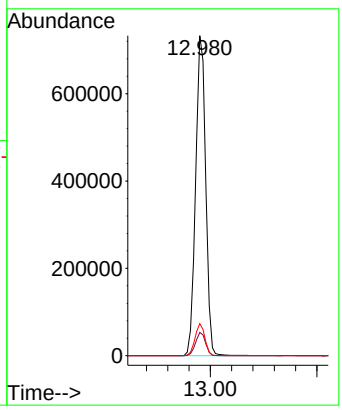


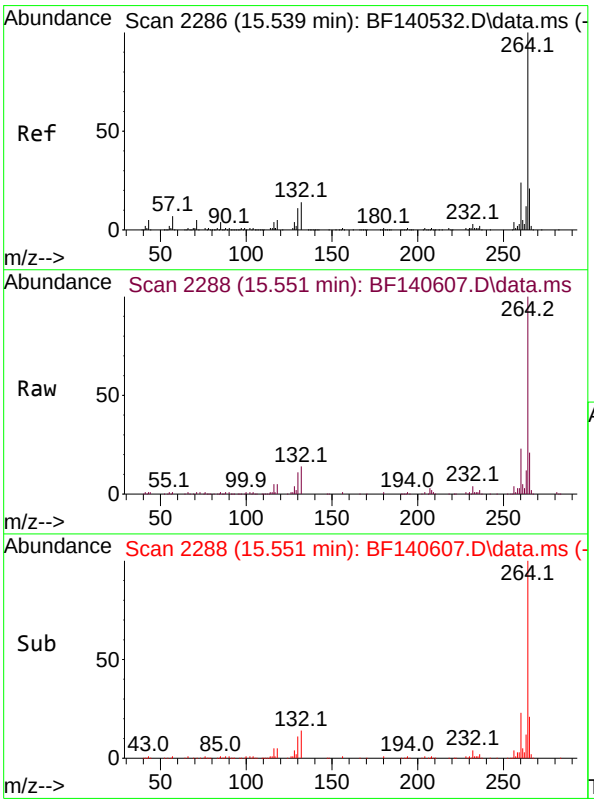
#79
Terphenyl-d14
Concen: 84.106 ng
RT: 12.980 min Scan# 1
Delta R.T. -0.012 min
Lab File: BF140607.D
Acq: 25 Nov 2024 17:15

Instrument :
BNA_F
ClientSampleId :
WB-310-SW

Tgt Ion:244 Resp: 962141

Ion	Ratio	Lower	Upper
244	100		
212	7.3	5.8	8.8
122	10.0	8.0	12.0

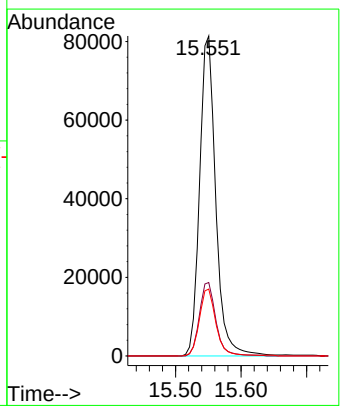




#86
Perylene-d12
Concen: 20.000 ng
RT: 15.551 min Scan# 2288
Delta R.T. 0.012 min
Lab File: BF140607.D
Acq: 25 Nov 2024 17:15

Tgt Ion:264 Resp: 139529

Ion	Ratio	Lower	Upper
264	100		
260	22.9	19.0	28.6
265	20.9	16.6	25.0



Sample Results: **BF140607.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140607.D
Acq On : 25 Nov 2024 17:15
Operator : RC/JU
Sample : P4892-04
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WB-310-SW

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

Signal : TIC: BF140607.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.492	573	578	595	rBV	782418	1060882	42.29%	8.881%
2	6.504	744	750	766	rBV	755356	998343	39.80%	8.357%
3	6.869	807	812	823	rBV	311064	375630	14.98%	3.144%
4	7.428	902	907	934	rBV	754911	1027172	40.95%	8.599%
5	8.151	1025	1030	1048	rBV	356101	474414	18.91%	3.971%
6	9.222	1207	1212	1243	rBV	1588272	2020226	80.54%	16.911%
7	9.904	1323	1328	1340	rBV	420737	542458	21.63%	4.541%
8	10.698	1457	1463	1478	rBV	1031783	1413271	56.34%	11.831%
9	11.392	1576	1581	1590	rBV	422554	572370	22.82%	4.791%
10	11.916	1665	1670	1683	rBV3	13986	29119	1.16%	0.244%
11	12.980	1845	1851	1862	rBV	1933619	2508357	100.00%	20.998%
12	14.045	2027	2032	2044	rVB	353712	471472	18.80%	3.947%
13	14.239	2054	2065	2076	rBV9	14781	47562	1.90%	0.398%
14	14.904	2173	2178	2186	rVB	35253	48801	1.95%	0.409%
15	15.551	2281	2288	2303	rVB	209409	355860	14.19%	2.979%

Sum of corrected areas: 11945937

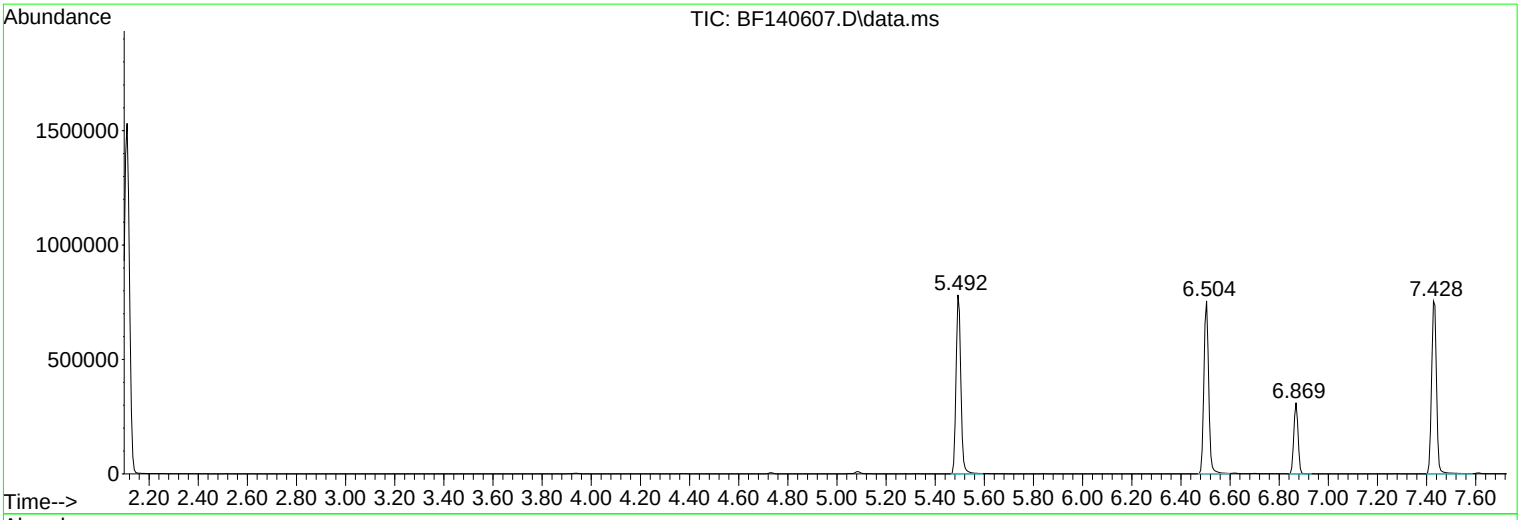
Sample Results: **BF140607.D**

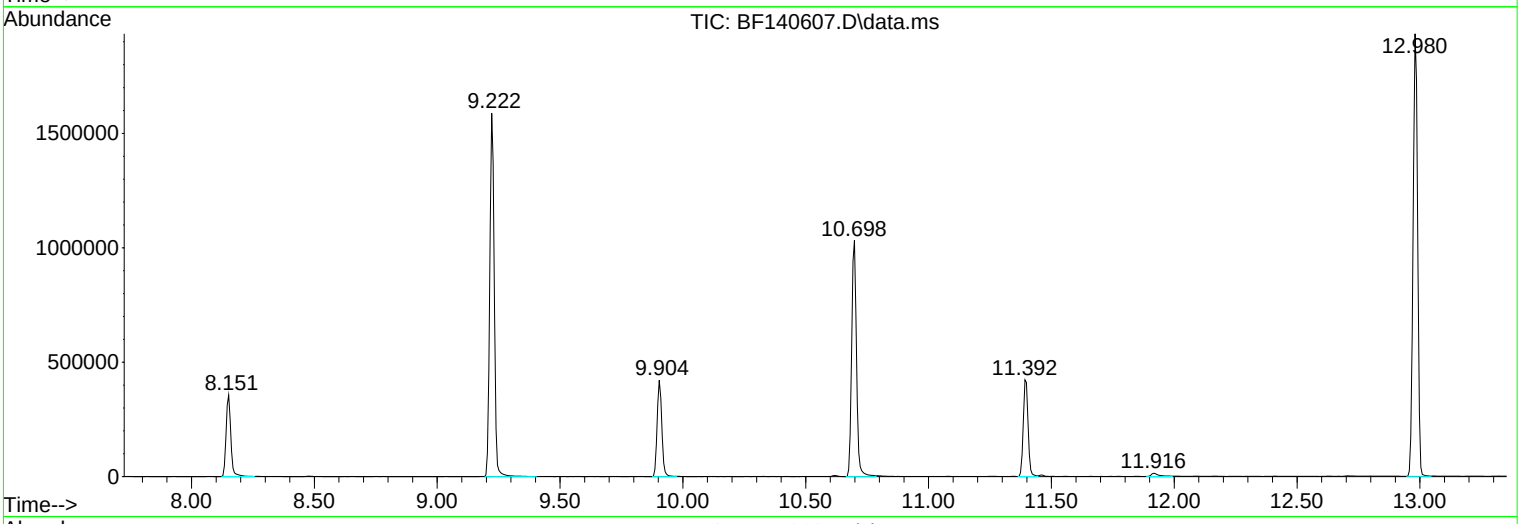
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140607.D
Acq On : 25 Nov 2024 17:15
Operator : RC/JU
Sample : P4892-04
Misc :
ALS Vial : 5 Sample Multiplier: 1

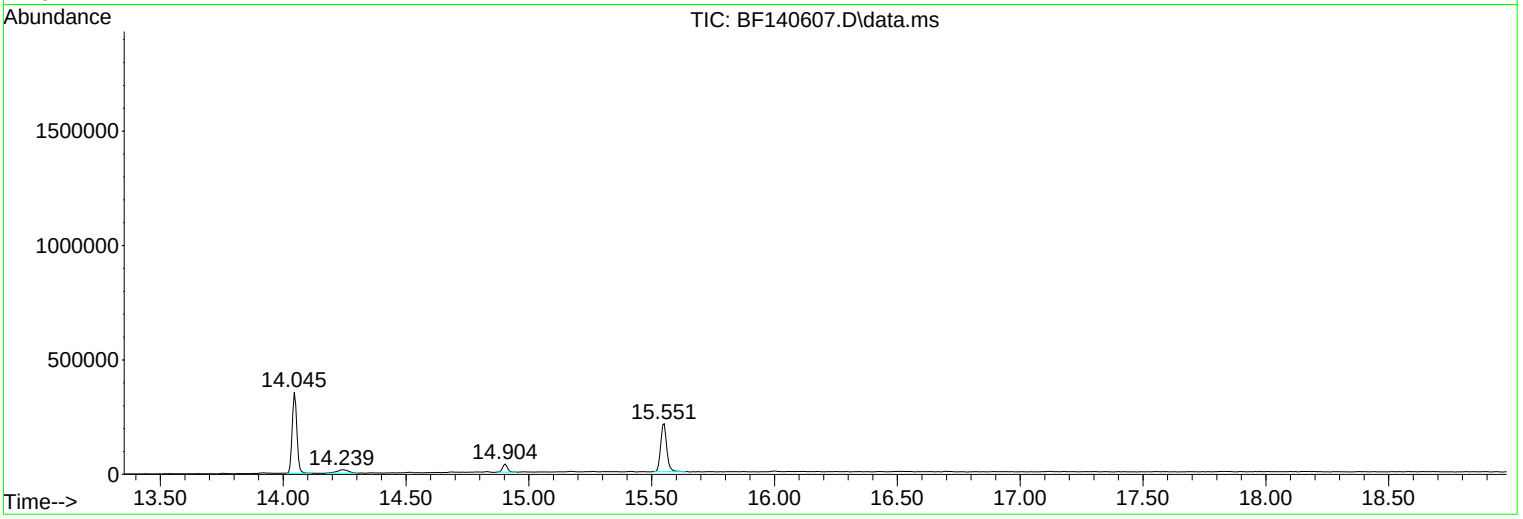
Instrument :
BNA_F
ClientSampleId :
WB-310-SW

Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P







Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140607.D
Acq On : 25 Nov 2024 17:15
Operator : RC/JU
Sample : P4892-04
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WB-310-SW

Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

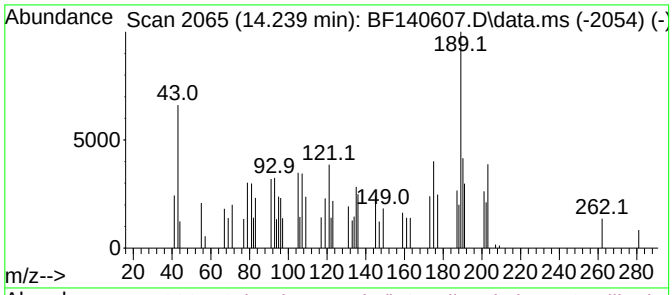
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

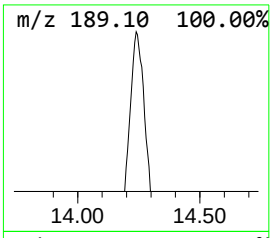
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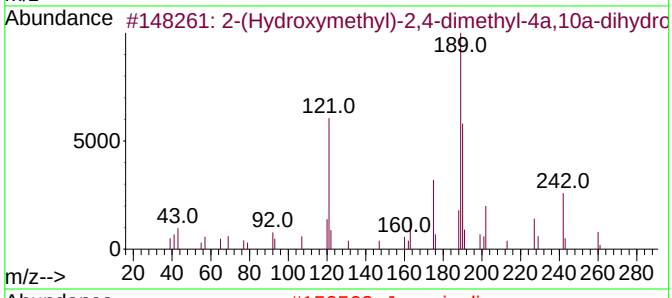
Peak Number 1 unknown14.239 Concentration Rank 2

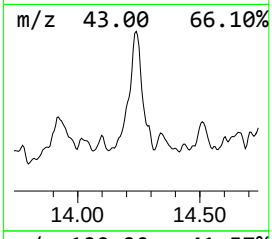
R.T.	EstConc	Area	Relative to ISTD	R.T.
14.239	2.02 ng	47562	Chrysene-d12	14.045

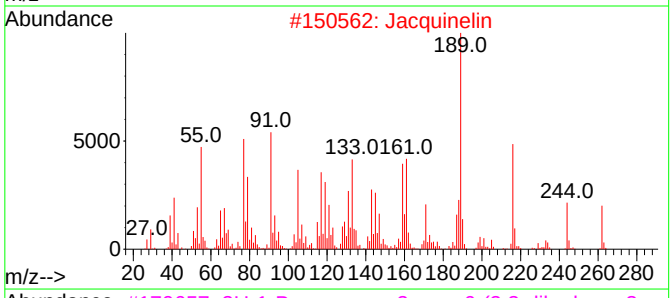
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-(Hydroxymethyl)-2,4-dimethyl-4...	260	C15H16O4	1005254-37-4	37
2	Jacquinelin	262	C15H18O4	007726-34-3	27
3	2H-1-Benzopyran-2-one, 6-(2,3-di...	278	C15H18O5	036149-96-9	16
4	.alpha.-Cyano-4-hydroxycinnamic ...	189	C10H7NO3	028166-41-8	14
5	2-Phenyl-1,3-thiazole-5-carbalde...	189	C10H7NOS	001011-40-1	12

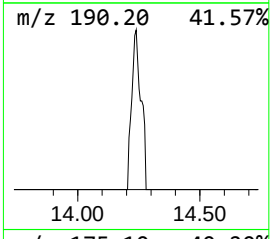


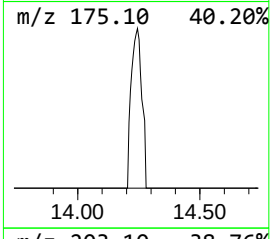


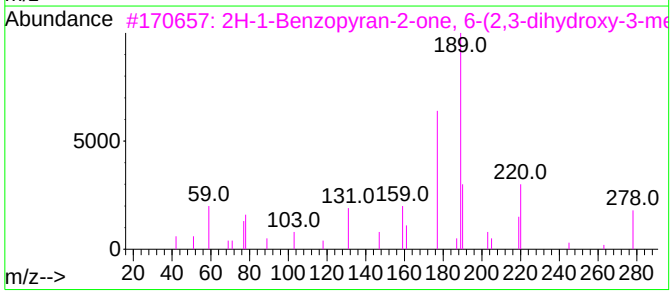


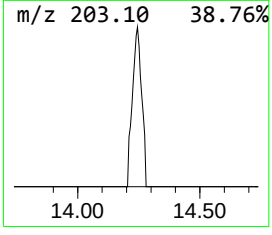












Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140607.D
Acq On : 25 Nov 2024 17:15
Operator : RC/JU
Sample : P4892-04
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WB-310-SW

Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

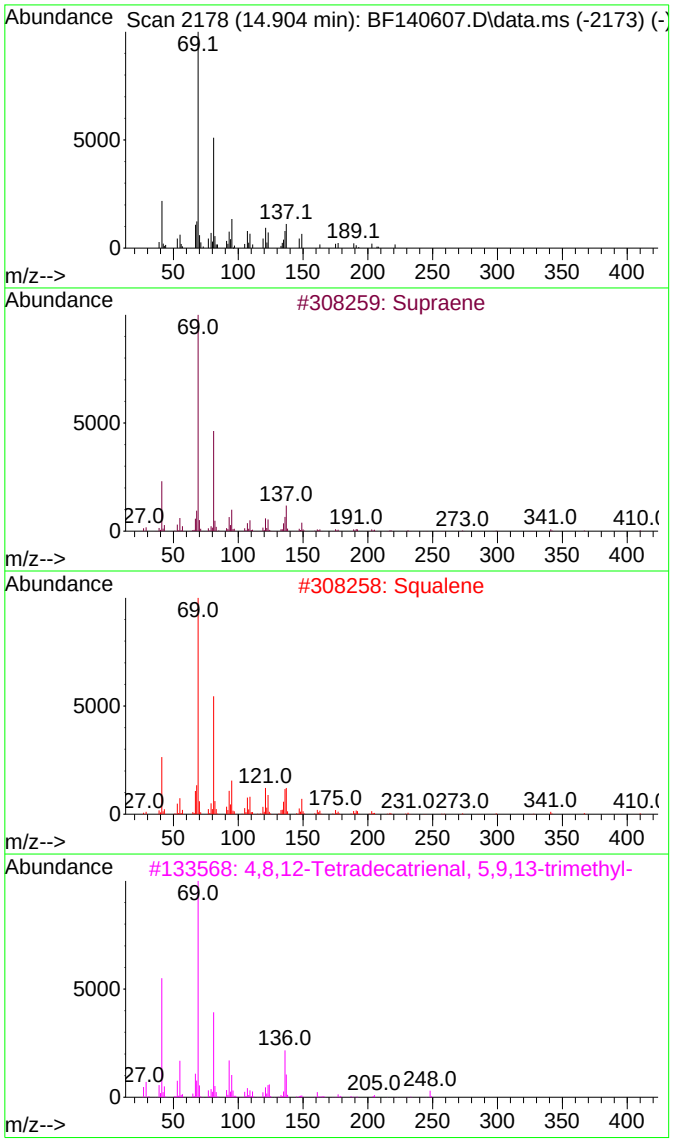
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

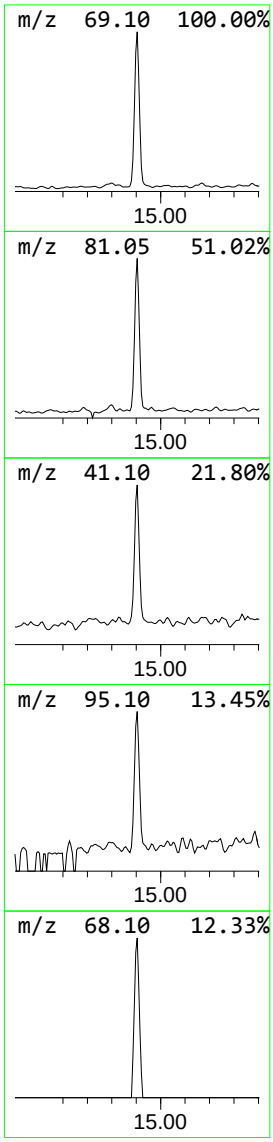
****

Peak Number 2 Supraene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.904	2.74 ng	48801	Perylene-d12	15.551

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Supraene	410	C30H50	007683-64-9	91
2	Squalene	410	C30H50	000111-02-4	87
3	4,8,12-Tetradecatrienal, 5,9,13-...	248	C17H28O	066408-55-7	86
4	trans-Farnesol	222	C15H26O	000106-28-5	72
5	(2E,6E)-3,7,11-Trimethyldodeca-2...	376	C25H44O2	078368-57-7	72





Sample Results: **BF140607.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140607.D
Acq On : 25 Nov 2024 17:15
Operator : RC/JU
Sample : P4892-04
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WB-310-SW

Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
unknown14.239	14.239	2.0	ng	47562	5	14.045	471472	20.0
Supraene	14.904	2.7	ng	48801	6	15.551	355860	20.0

CALIBRATION SUMMARY

Raw Data

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

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG No.: P4892

Instrument ID: BNA_F Calibration Date(s): 11/13/2024 11/13/2024

Calibration Time(s): 09:01 12:48

LAB FILE ID: RRF2.5 = BF140332.D RRF005 = BF140333.D RRF010 = BF140334.D
RRF020 = BF140335.D RRF050 = BF140337.D RRF060 = BF140338.D

COMPOUND	RRF2.5	RRF005	RRF010	RRF020	RRF050	RRF060	RRF	% RSD
2-Fluorophenol		1.329	1.257	1.223	1.090	1.118	1.171	8.8
Benzaldehyde		1.101	1.087	1.017	0.828	0.783	0.951	14.3
Phenol-d6		1.773	1.691	1.643	1.483	1.507	1.587	8.1
Phenol		1.799	1.793	1.743	1.582	1.597	1.674	7.3
bis(2-Chloroethyl)ether		1.359	1.294	1.306	1.227	1.249	1.268	4.6
2-Chlorophenol		1.397	1.349	1.332	1.176	1.184	1.258	8.5
2-Methylphenol		1.092	1.062	1.072	0.998	1.016	1.035	5.1
2,2-oxybis(1-Chloropropane)		1.906	1.826	1.815	1.666	1.684	1.752	7.0
Acetophenone		0.532	0.508	0.481	0.434	0.441	0.465	9.4
3+4-Methylphenols		1.436	1.427	1.359	1.200	1.198	1.295	10.2
n-Nitroso-di-n-propylamine	1.032	1.029	1.003	0.986	0.883	0.905	0.959	7.3
Nitrobenzene-d5		0.411	0.401	0.399	0.368	0.379	0.384	5.3
Hexachloroethane		0.562	0.543	0.550	0.500	0.506	0.520	6.3
Nitrobenzene		0.423	0.421	0.406	0.390	0.394	0.400	4.6
Isophorone		0.736	0.702	0.692	0.654	0.671	0.680	4.9
2-Nitrophenol		0.175	0.179	0.181	0.175	0.181	0.177	2.0
2,4-Dimethylphenol		0.238	0.236	0.232	0.221	0.227	0.227	3.9
bis(2-Chloroethoxy)methane		0.461	0.442	0.430	0.398	0.404	0.417	6.8
2,4-Dichlorophenol		0.307	0.296	0.287	0.272	0.272	0.281	6.2
Naphthalene		1.160	1.105	1.064	0.950	0.955	1.015	9.6
4-Chloroaniline		0.390	0.386	0.370	0.333	0.340	0.353	8.4
Hexachlorobutadiene		0.220	0.214	0.210	0.188	0.190	0.199	7.7
Caprolactam		0.098	0.093	0.094	0.091	0.095	0.093	3.3
4-Chloro-3-methylphenol		0.331	0.327	0.320	0.299	0.304	0.311	5.1
2-Methylnaphthalene		0.751	0.706	0.683	0.610	0.607	0.651	10.0
Hexachlorocyclopentadiene			0.111	0.143	0.156	0.159	0.142	12.0
2,4,6-Trichlorophenol		0.380	0.374	0.374	0.360	0.352	0.363	3.9
2-Fluorobiphenyl		1.524	1.396	1.351	1.125	1.110	1.244	14.5
2,4,5-Trichlorophenol		0.421	0.417	0.412	0.387	0.390	0.397	5.4
1,1-Biphenyl		1.690	1.571	1.565	1.368	1.343	1.455	10.8
2-Chloronaphthalene		1.279	1.182	1.149	1.064	1.049	1.108	9.2
2-Nitroaniline		0.378	0.365	0.384	0.365	0.366	0.368	2.9
Dimethylphthalate		1.464	1.358	1.371	1.246	1.244	1.304	7.5
Acenaphthylene		1.940	1.802	1.786	1.582	1.552	1.677	10.3

All other compounds must meet a minimum RRF of 0.010.

Raw Data

Alliance TECHNICAL GROUP

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

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG No.: P4892

Instrument ID: BNA_F Calibration Date(s): 11/13/2024 11/13/2024

Calibration Time(s): 09:01 12:48

LAB FILE ID: RRF2.5 = BF140332.D RRF005 = BF140333.D RRF010 = BF140334.D
RRF020 = BF140335.D RRF050 = BF140337.D RRF060 = BF140338.D

COMPOUND	RRF2.5	RRF005	RRF010	RRF020	RRF050	RRF060	RRF	% RSD
2,6-Dinitrotoluene		0.317	0.303	0.313	0.291	0.289	0.297	5.6
3-Nitroaniline		0.333	0.327	0.335	0.307	0.298	0.312	6.9
Acenaphthene		1.259	1.204	1.192	1.091	1.079	1.133	7.8
2,4-Dinitrophenol			0.109	0.148	0.178	0.170	0.153	16.3
4-Nitrophenol		0.199	0.217	0.239	0.240	0.237	0.228	6.7
Dibenzofuran		1.904	1.736	1.715	1.502	1.466	1.603	11.9
2,4-Dinitrotoluene		0.414	0.400	0.417	0.387	0.382	0.391	5.8
Diethylphthalate		1.525	1.417	1.398	1.272	1.246	1.333	8.8
4-Chlorophenyl-phenylether		0.739	0.688	0.669	0.583	0.567	0.625	12.0
Fluorene		1.525	1.403	1.365	1.168	1.137	1.267	13.1
4-Nitroaniline		0.335	0.325	0.328	0.316	0.313	0.319	3.9
4,6-Dinitro-2-methylphenol		0.080	0.098	0.113	0.117	0.120	0.108	13.0
n-Nitrosodiphenylamine		0.651	0.630	0.600	0.541	0.541	0.578	8.6
2,4,6-Tribromophenol		0.220	0.211	0.207	0.191	0.189	0.199	6.9
4-Bromophenyl-phenylether		0.227	0.210	0.209	0.191	0.188	0.200	8.1
Hexachlorobenzene		0.251	0.242	0.232	0.209	0.215	0.225	7.5
Atrazine		0.191	0.183	0.135	0.155	0.205	0.175	17.0
Pentachlorophenol		0.097	0.108	0.124	0.131	0.130	0.121	10.9
Phenanthrene		1.096	1.053	0.986	0.868	0.851	0.940	11.3
Anthracene		1.071	1.018	0.966	0.860	0.839	0.921	10.8
Carbazole		1.053	1.009	0.963	0.846	0.834	0.909	11.0
Di-n-butylphthalate		1.214	1.177	1.150	1.036	1.023	1.091	8.4
Fluoranthene		1.256	1.201	1.141	0.962	0.933	1.054	13.9
Pyrene		1.748	1.706	1.643	1.728	1.800	1.711	3.1
Terphenyl-d14		1.226	1.185	1.108	1.139	1.190	1.152	4.3
Butylbenzylphthalate		0.640	0.638	0.654	0.670	0.681	0.657	3.6
3,3-Dichlorobenzidine		0.438	0.431	0.433	0.406	0.416	0.418	3.8
Benzo(a)anthracene		1.451	1.418	1.351	1.229	1.294	1.314	7.3
Chrysene		1.394	1.241	1.235	1.137	1.123	1.199	8.4
Bis(2-ethylhexyl)phthalate		0.886	0.890	0.897	0.858	0.869	0.877	4.1
Di-n-octyl phthalate		1.231	1.217	1.270	1.187	1.241	1.235	2.9
Benzo(b)fluoranthene		1.405	1.352	1.471	1.235	1.233	1.308	7.8
Benzo(k)fluoranthene		1.286	1.241	1.120	0.952	0.935	1.069	14.5
Benzo(a)pyrene		1.100	1.053	1.054	0.970	0.980	1.016	5.4
Indeno(1,2,3-cd)pyrene		1.116	1.150	1.138	1.316	1.354	1.235	8.0

All other compounds must meet a minimum RRF of 0.010.

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

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG No.: P4892

Instrument ID: BNA_F Calibration Date(s): 11/13/2024 11/13/2024

Calibration Time(s): 09:01 12:48

LAB FILE ID: RRF2.5 = BF140332.D RRF005 = BF140333.D RRF010 = BF140334.D
RRF020 = BF140335.D RRF050 = BF140337.D RRF060 = BF140338.D

COMPOUND	RRF2.5	RRF005	RRF010	RRF020	RRF050	RRF060	RRF	% RSD
Dibenzo(a,h)anthracene		0.941	0.952	0.944	1.074	1.121	1.021	7.3
Benzo(g,h,i)perylene		0.941	0.963	0.954	1.122	1.146	1.044	8.5
1,2,4,5-Tetrachlorobenzene		0.646	0.585	0.583	0.524	0.517	0.553	9.8
1,4-Dioxane		0.582	0.546	0.530	0.495	0.506	0.522	6.5
2,3,4,6-Tetrachlorophenol		0.322	0.328	0.326	0.308	0.302	0.313	4.6

All other compounds must meet a minimum RRF of 0.010.

Response Factor Report BNA_F

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF111324.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Wed Nov 13 14:40:06 2024
Response Via : Initial Calibration

Calibration Files
2.5 =BF140332.D 5 =BF140333.D 10 =BF140334.D 20 =BF140335.D 40 =BF140340.D 50 =BF140337.D 60 =BF140338.D 80 =BF1403
39.D

		Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------	ISTD	----------							
2)		1,4-Dioxane		0.582	0.546	0.530	0.515	0.495	0.506	0.480	0.522	6.53
3)		Pyridine		1.430	1.343	1.323	1.316	1.189	1.237	1.147	1.283	7.61
4)		n-Nitrosodimet...		0.658	0.632	0.651	0.659	0.644	0.671	0.627	0.649	2.39
5)	S	2-Fluorophenol		1.329	1.257	1.223	1.150	1.090	1.118	1.032	1.171	8.84
6)		Aniline		1.587	1.527	1.495	1.451	1.267	1.270	1.066	1.381	13.42
7)	S	Phenol-d6		1.773	1.691	1.643	1.605	1.483	1.507	1.407	1.587	8.09
8)		2-Chlorophenol		1.397	1.349	1.332	1.263	1.176	1.184	1.106	1.258	8.49
9)		Benzaldehyde		1.101	1.087	1.017	0.891	0.828	0.783		0.951	14.32
10)	C	Phenol		1.799	1.793	1.743	1.724	1.582	1.597	1.478	1.674	7.31
11)		bis(2-Chloroet...		1.359	1.294	1.306	1.263	1.227	1.249	1.179	1.268	4.60
12)		1,3-Dichlorobe...		1.585	1.475	1.454	1.374	1.291	1.317	1.221	1.388	8.98
13)	C	1,4-Dichlorobe...		1.590	1.534	1.486	1.391	1.306	1.326	1.221	1.408	9.49
14)		1,2-Dichlorobe...		1.494	1.429	1.398	1.294	1.212	1.214	1.108	1.307	10.63
15)		Benzyl Alcohol		1.172	1.193	1.199	1.211	1.100	1.108	1.020	1.143	6.10
16)		2,2'-oxybis(1-...		1.906	1.826	1.815	1.816	1.666	1.684	1.549	1.752	7.01
17)		2-Methylphenol		1.092	1.062	1.072	1.064	0.998	1.016	0.942	1.035	5.07
18)		Hexachloroethane		0.562	0.543	0.550	0.514	0.500	0.506	0.468	0.520	6.30
19)	P	n-Nitroso-di-n...	1.032	1.029	1.003	0.986	0.982	0.883	0.905	0.848	0.959	7.30
20)		3+4-Methylphenols		1.436	1.427	1.359	1.351	1.200	1.198	1.091	1.294	10.21
21)	I	Naphthalene-d8	----------	ISTD	----------							
22)		Acetophenone		0.532	0.508	0.481	0.450	0.434	0.441	0.411	0.465	9.35
23)	S	Nitrobenzene-d5		0.411	0.401	0.399	0.375	0.368	0.379	0.354	0.384	5.28
24)		Nitrobenzene		0.423	0.421	0.406	0.393	0.390	0.394	0.371	0.400	4.61
25)		Isophorone		0.736	0.702	0.692	0.674	0.654	0.671	0.634	0.680	4.87
26)	C	2-Nitrophenol		0.175	0.179	0.181	0.179	0.175	0.181	0.171	0.177	1.99
27)		2,4-Dimethylph...		0.238	0.236	0.232	0.223	0.221	0.227	0.214	0.227	3.86
28)		bis(2-Chloroet...		0.461	0.442	0.430	0.407	0.398	0.404	0.379	0.417	6.80
29)	C	2,4-Dichloroph...		0.307	0.296	0.287	0.275	0.272	0.272	0.255	0.281	6.20
30)		1,2,4-Trichlor...		0.346	0.331	0.325	0.302	0.298	0.301	0.283	0.312	7.15
31)		Naphthalene		1.160	1.105	1.064	0.982	0.950	0.955	0.886	1.015	9.60
32)		Benzoic acid		0.162	0.178	0.180	0.212	0.215	0.226	0.226	0.200	13.01
33)		4-Chloroaniline		0.390	0.386	0.370	0.340	0.333	0.340	0.311	0.353	8.36
34)	C	Hexachlorobuta...		0.220	0.214	0.210	0.193	0.188	0.190	0.178	0.199	7.73
35)		Caprolactam		0.098	0.093	0.094	0.092	0.091	0.095	0.089	0.093	3.27
36)	C	4-Chloro-3-met...		0.331	0.327	0.320	0.309	0.299	0.304	0.287	0.311	5.14
37)		2-Methylnaphth...		0.751	0.706	0.683	0.632	0.610	0.607	0.565	0.651	10.01
38)		1-Methylnaphth...		0.734	0.696	0.673	0.625	0.589	0.592	0.550	0.637	10.39

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF111324.M

39)	I	Acenaphthene-d10	----------ISTD----------								
40)		1,2,4,5-Tetrac...	0.646	0.585	0.583	0.531	0.524	0.517	0.485	0.553	9.85
41)	P	Hexachlorocycl...		0.111	0.143	0.139	0.156	0.159	0.145	0.142	12.04
42)	S	2,4,6-Tribromo...	0.220	0.211	0.207	0.193	0.191	0.189	0.182	0.199	6.88
43)	C	2,4,6-Trichlor...	0.380	0.374	0.374	0.360	0.360	0.352	0.341	0.363	3.87
44)		2,4,5-Trichlor...	0.421	0.417	0.412	0.389	0.387	0.390	0.361	0.397	5.41
45)	S	2-Fluorobiphenyl	1.524	1.396	1.351	1.172	1.125	1.110	1.031	1.244	14.50
46)		1,1'-Biphenyl	1.690	1.571	1.565	1.404	1.368	1.343	1.244	1.455	10.80
47)		2-Chloronaphth...	1.279	1.182	1.149	1.065	1.064	1.049	0.971	1.108	9.20
48)		2-Nitroaniline	0.378	0.365	0.384	0.364	0.365	0.366	0.351	0.368	2.91
49)		Acenaphthylene	1.940	1.802	1.786	1.636	1.582	1.552	1.441	1.677	10.29
50)		Dimethylphthalate	1.464	1.358	1.371	1.261	1.246	1.244	1.181	1.304	7.47
51)		2,6-Dinitrotol...	0.317	0.303	0.313	0.297	0.291	0.289	0.268	0.297	5.57
52)	C	Acenaphthene	1.259	1.204	1.192	1.096	1.091	1.079	1.006	1.133	7.78
53)		3-Nitroaniline	0.333	0.327	0.335	0.310	0.307	0.298	0.275	0.312	6.92
54)	P	2,4-Dinitrophenol		0.109	0.148	0.147	0.178	0.170	0.168	0.153	16.27
55)		Dibenzofuran	1.904	1.736	1.715	1.558	1.502	1.466	1.344	1.603	11.92
56)	P	4-Nitrophenol	0.199	0.217	0.239	0.236	0.240	0.237	0.225	0.228	6.67
57)		2,4-Dinitrotol...	0.414	0.400	0.417	0.387	0.387	0.382	0.351	0.391	5.77
58)		Fluorene	1.525	1.403	1.365	1.202	1.168	1.137	1.066	1.267	13.14
59)		2,3,4,6-Tetrac...	0.322	0.328	0.326	0.318	0.308	0.302	0.288	0.313	4.61
60)		Diethylphthalate	1.525	1.417	1.398	1.287	1.272	1.246	1.185	1.333	8.85
61)		4-Chlorophenyl...	0.739	0.688	0.669	0.604	0.583	0.567	0.528	0.625	12.01
62)		4-Nitroaniline	0.335	0.325	0.328	0.319	0.316	0.313	0.297	0.319	3.86
63)		Azobenzene	1.498	1.391	1.380	1.293	1.251	1.244	1.163	1.317	8.55
64)	I	Phenanthrene-d10	----------ISTD----------								
65)		4,6-Dinitro-2-...	0.080	0.098	0.113	0.109	0.117	0.120	0.116	0.108	13.00
66)	c	n-Nitrosodiphe...	0.651	0.630	0.600	0.559	0.541	0.541	0.522	0.578	8.57
67)		4-Bromophenyl-...	0.227	0.210	0.209	0.194	0.191	0.188	0.180	0.200	8.14
68)		Hexachlorobenzene	0.251	0.242	0.232	0.218	0.209	0.215	0.208	0.225	7.54
69)		Atrazine	0.191	0.183	0.135	0.145	0.155	0.205	0.209	0.175	17.03
70)	C	Pentachlorophenol	0.097	0.108	0.124	0.127	0.131	0.130	0.130	0.121	10.87
71)		Phenanthrene	1.096	1.053	0.986	0.903	0.868	0.851	0.820	0.940	11.33
72)		Anthracene	1.071	1.018	0.966	0.889	0.860	0.839	0.803	0.921	10.81
73)		Carbazole	1.053	1.009	0.963	0.876	0.846	0.834	0.783	0.909	11.02
74)		Di-n-butylphth...	1.214	1.177	1.150	1.074	1.036	1.023	0.964	1.091	8.37
75)	C	Fluoranthene	1.256	1.201	1.141	1.018	0.962	0.933	0.867	1.054	13.92
76)	I	Chrysene-d12	----------ISTD----------								
77)		Benzidine		0.634	0.684	0.653	0.742	0.953	0.939	0.768	18.64
78)		Pyrene	1.748	1.706	1.643	1.679	1.728	1.800	1.672	1.711	3.08
79)	S	Terphenyl-d14	1.226	1.185	1.108	1.123	1.139	1.190	1.093	1.152	4.26
80)		Butylbenzylpht...	0.640	0.638	0.654	0.690	0.670	0.681	0.628	0.657	3.56
81)		Benzo(a)anthra...	1.451	1.418	1.351	1.263	1.229	1.294	1.195	1.314	7.31
82)		3,3'-Dichlorob...	0.438	0.431	0.433	0.402	0.406	0.416	0.399	0.418	3.79
83)		Chrysene	1.394	1.241	1.235	1.168	1.137	1.123	1.099	1.199	8.44
84)		Bis(2-ethylhex...	0.886	0.890	0.897	0.927	0.858	0.869	0.813	0.877	4.07
85)	c	Di-n-octyl pht...	1.231	1.217	1.270	1.290	1.187	1.241	1.212	1.235	2.86

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF111324.M

86)	I	Perylene-d12	----------ISTD----------								
87)		Indeno(1,2,3-c...	1.116	1.150	1.138	1.258	1.316	1.354	1.317	1.235	8.02
88)		Benzo(b)fluora...	1.405	1.352	1.471	1.263	1.235	1.233	1.199	1.308	7.82
89)		Benzo(k)fluora...	1.286	1.241	1.120	1.060	0.952	0.935	0.888	1.069	14.47
90)	C	Benzo(a)pyrene	1.100	1.053	1.054	1.005	0.970	0.980	0.948	1.016	5.40
91)		Dibenzo(a,h)an...	0.941	0.952	0.944	1.039	1.074	1.121	1.077	1.021	7.30
92)		Benzo(g,h,i)pe...	0.941	0.963	0.954	1.063	1.122	1.146	1.120	1.044	8.55

(#) = Out of Range

Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140332.D
Acq On : 13 Nov 2024 09:01
Operator : RC/JU
Sample : SSTDICC2.5
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC2.5

Quant Time: Nov 13 14:21:19 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.875	152	147206	20.000	ng	0.00
21) Naphthalene-d8	8.157	136	569357	20.000	ng	0.00
39) Acenaphthene-d10	9.910	164	324094	20.000	ng	0.00
64) Phenanthrene-d10	11.398	188	631650	20.000	ng	0.00
76) Chrysene-d12	14.057	240	473843	20.000	ng	0.00
86) Perylene-d12	15.574	264	387360	20.000	ng	0.02
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.000	ng	
7) Phenol-d6	0.000	99	0d	0.000	ng	
23) Nitrobenzene-d5	0.000	82	0d	0.000	ng	
42) 2,4,6-Tribromophenol	0.000	330	0d	0.000	ng	
45) 2-Fluorobiphenyl	0.000	172	0d	0.000	ng	
79) Terphenyl-d14	0.000	244	0d	0.000	ng	
Target Compounds						Qvalue
19) n-Nitroso-di-n-propyla...	7.275	70	18995	2.692	ng	97

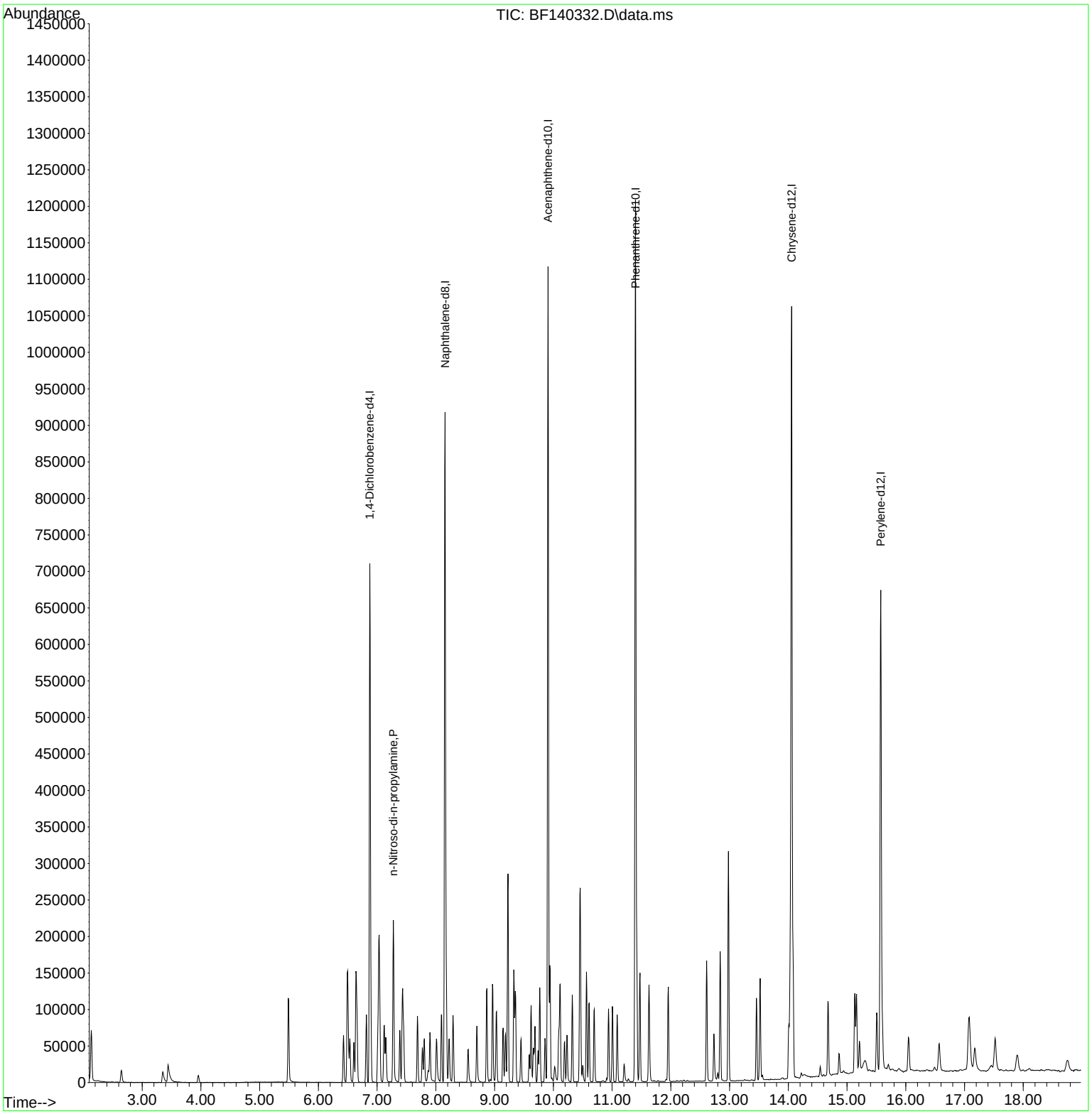
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140332.D
Acq On : 13 Nov 2024 09:01
Operator : RC/JU
Sample : SSTDICC2.5
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC2.5

Quant Time: Nov 13 14:21:19 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140333.D
Acq On : 13 Nov 2024 09:27
Operator : RC/JU
Sample : SSTDICC005
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 13 14:22:24 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDICC005

Manual Integrations APPROVED
Reviewed By :Yogesh Patel
11/14/2024
Supervised By :mohammad ahmed
11/14/2024

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.875	152	147440	20.000	ng		0.00
21) Naphthalene-d8	8.157	136	561082	20.000	ng		0.00
39) Acenaphthene-d10	9.910	164	317345	20.000	ng		0.00
64) Phenanthrene-d10	11.398	188	615904	20.000	ng		0.00
76) Chrysene-d12	14.051	240	462864	20.000	ng		0.00
86) Perylene-d12	15.563	264	372118	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.487	112	98004	11.349	ng		0.00
7) Phenol-d6	6.493	99	130723	11.173	ng		-0.01
23) Nitrobenzene-d5	7.434	82	115292	10.706	ng		0.00
42) 2,4,6-Tribromophenol	10.698	330	34890	11.056	ng		0.00
45) 2-Fluorobiphenyl	9.228	172	241751	12.246	ng		0.00
79) Terphenyl-d14	12.980	244	283824	10.644	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	2.640	88	21442	5.571	ng		95
3) Pyridine	3.422	79	52697	5.569	ng		98
4) n-Nitrosodimethylamine	3.346	42	24263	5.074	ng	#	97
6) Aniline	6.534	93	58498	5.748	ng		98
8) 2-Chlorophenol	6.657	128	51502	5.552	ng		99
9) Benzaldehyde	6.428	77	40600	5.790	ng		100
10) Phenol	6.504	94	66303	5.374	ng		99
11) bis(2-Chloroethyl)ether	6.604	93	50099	5.359	ng		97
12) 1,3-Dichlorobenzene	6.816	146	58435	5.709	ng		99
13) 1,4-Dichlorobenzene	6.893	146	58594	5.646	ng		99
14) 1,2-Dichlorobenzene	7.046	146	55054	5.714	ng		100
15) Benzyl Alcohol	7.010	79	43212	5.126	ng		97
16) 2,2'-oxybis(1-Chloropr...	7.146	45	70257	5.441	ng		100
17) 2-Methylphenol	7.116	107	40243	5.274	ng		97
18) Hexachloroethane	7.387	117	20701	5.396	ng		97
19) n-Nitroso-di-n-propyla...	7.275	70	37919	5.366	ng		97
20) 3+4-Methylphenols	7.275	107	52942	5.548	ng	#	82
22) Acetophenone	7.281	105	74642	5.720	ng		95
24) Nitrobenzene	7.451	77	59394	5.297	ng		99
25) Isophorone	7.687	82	103224	5.409	ng		99
26) 2-Nitrophenol	7.769	139	24576	4.939	ng		99
27) 2,4-Dimethylphenol	7.804	122	33358	5.237	ng		97
28) bis(2-Chloroethoxy)met...	7.898	93	64672	5.526	ng		100
29) 2,4-Dichlorophenol	8.010	162	43077	5.472	ng		98
30) 1,2,4-Trichlorobenzene	8.098	180	48599	5.545	ng		99
31) Naphthalene	8.175	128	162710	5.717	ng		99
32) Benzoic acid	7.869	122	22671m	4.051	ng		
33) 4-Chloroaniline	8.222	127	54728	5.529	ng		99
34) Hexachlorobutadiene	8.293	225	30821	5.519	ng		99
35) Caprolactam	8.551	113	13807	5.217	ng		98
36) 4-Chloro-3-methylphenol	8.698	107	46450	5.324	ng		97
37) 2-Methylnaphthalene	8.869	142	105353	5.773	ng		97
38) 1-Methylnaphthalene	8.963	142	102975	5.762	ng		100
40) 1,2,4,5-Tetrachloroben...	9.034	216	51260	5.841	ng		98
43) 2,4,6-Trichlorophenol	9.145	196	30173	5.239	ng		98
44) 2,4,5-Trichlorophenol	9.181	196	33434	5.310	ng		96

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140333.D
Acq On : 13 Nov 2024 09:27
Operator : RC/JU
Sample : SSTDICC005
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC005

Manual Integrations APPROVED
Reviewed By :Yogesh Patel
11/14/2024
Supervised By :mohammad ahmed
11/14/2024

Quant Time: Nov 13 14:22:24 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) 1,1'-Biphenyl	9.328	154	134098	5.808	ng	98
47) 2-Chloronaphthalene	9.351	162	101447	5.768	ng	100
48) 2-Nitroaniline	9.451	65	29995	5.143	ng	100
49) Acenaphthylene	9.769	152	153886	5.783	ng	99
50) Dimethylphthalate	9.622	163	116132	5.614	ng	99
51) 2,6-Dinitrotoluene	9.687	165	25188	5.341	ng	98
52) Acenaphthene	9.939	154	99899	5.559	ng	98
53) 3-Nitroaniline	9.857	138	26407	5.332	ng	94
55) Dibenzofuran	10.116	168	151058	5.937	ng	97
56) 4-Nitrophenol	10.016	139	15801	4.374	ng	98
57) 2,4-Dinitrotoluene	10.092	165	32877	5.297	ng	98
58) Fluorene	10.457	166	121014	6.021	ng	99
59) 2,3,4,6-Tetrachlorophenol	10.234	232	25576	5.149	ng	99
60) Diethylphthalate	10.322	149	120988	5.720	ng	99
61) 4-Chlorophenyl-phenyle...	10.451	204	58593	5.905	ng	97
62) 4-Nitroaniline	10.463	138	26578	5.249	ng	96
63) Azobenzene	10.610	77	118816	5.685	ng	99
65) 4,6-Dinitro-2-methylph...	10.504	198	12385	3.738	ng	96
66) n-Nitrosodiphenylamine	10.563	169	100287	5.636	ng	99
67) 4-Bromophenyl-phenylether	10.939	248	34999	5.685	ng	96
68) Hexachlorobenzene	11.004	284	38627	5.576	ng	98
69) Atrazine	11.086	200	29460	5.472	ng	97
70) Pentachlorophenol	11.204	266	14987	4.016	ng	97
71) Phenanthrene	11.422	178	168742	5.832	ng	99
72) Anthracene	11.475	178	164923	5.816	ng	98
73) Carbazole	11.628	167	162080	5.789	ng	99
74) Di-n-butylphthalate	11.957	149	186931	5.563	ng	100
75) Fluoranthene	12.610	202	193346	5.956	ng	99
78) Pyrene	12.839	202	202260	5.109	ng	99
80) Butylbenzylphthalate	13.457	149	74075	4.870	ng	96
81) Benzo(a)anthracene	14.039	228	167855	5.518	ng	98
82) 3,3'-Dichlorobenzidine	14.004	252	50636	5.237	ng	98
83) Chrysene	14.074	228	161255	5.810	ng	98
84) Bis(2-ethylhexyl)phtha...	14.027	149	102534	5.051	ng	99
85) Di-n-octyl phthalate	14.663	149	142493	4.984	ng	100
87) Indeno(1,2,3-cd)pyrene	17.057	276	103830	4.517	ng	98
88) Benzo(b)fluoranthene	15.121	252	130731	5.371	ng	99
89) Benzo(k)fluoranthene	15.145	252	119602	6.014	ng	99
90) Benzo(a)pyrene	15.492	252	102364	5.415	ng	99
91) Dibenzo(a,h)anthracene	17.068	278	87528	4.607	ng	99
92) Benzo(g,h,i)perylene	17.504	276	87547	4.507	ng	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140333.D
Acq On : 13 Nov 2024 09:27
Operator : RC/JU
Sample : SSTDICC005
Misc :
ALS Vial : 3 Sample Multiplier: 1

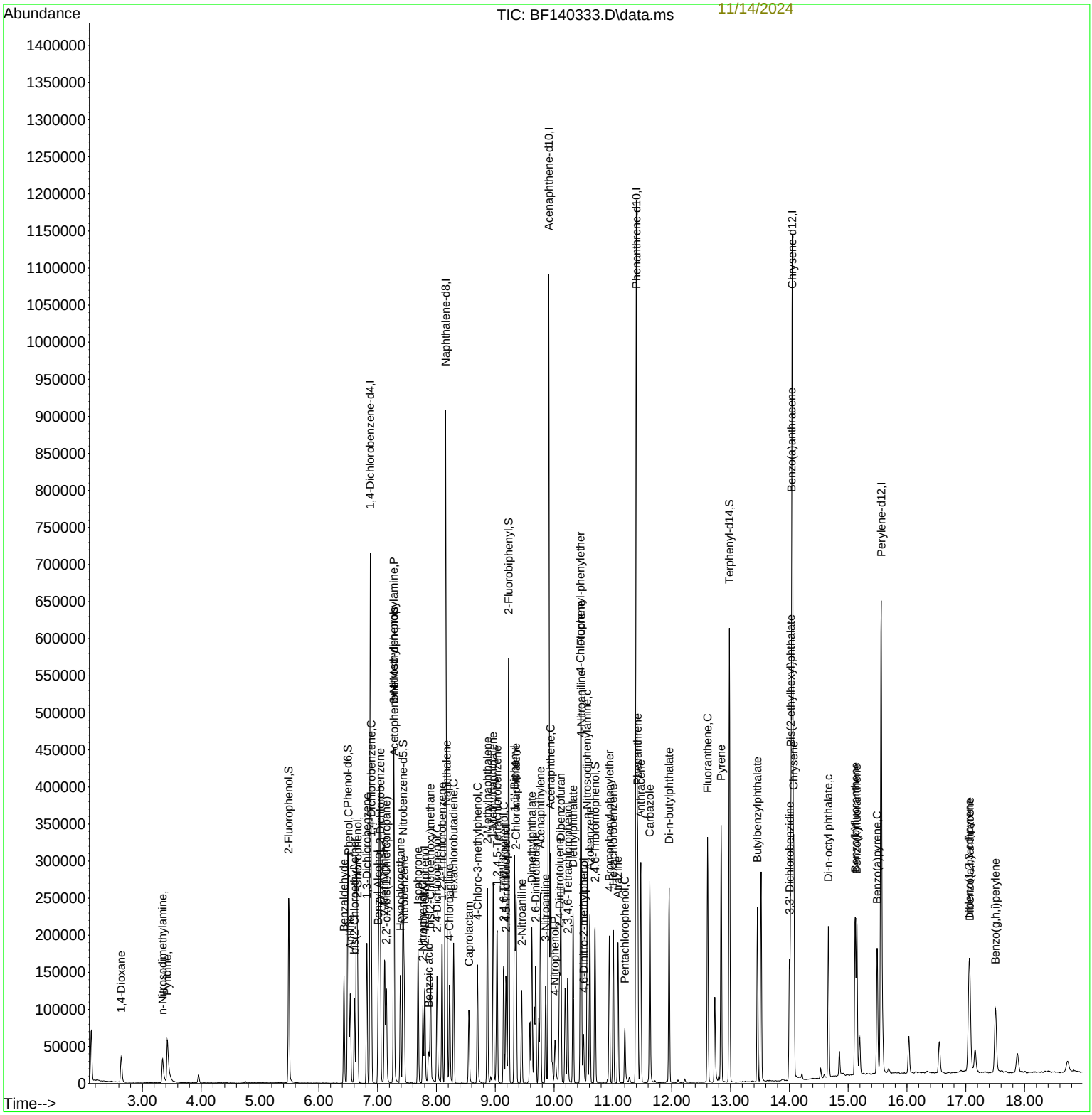
Quant Time: Nov 13 14:22:24 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDICC005

Manual Integrations APPROVED

Reviewed By :Yogesh Patel
11/14/2024

Supervised By :mohammad ahmed
11/14/2024



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140334.D
Acq On : 13 Nov 2024 09:53
Operator : RC/JU
Sample : SSTDICC010
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 13 14:23:21 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDICC010

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/14/2024
Supervised By :mohammad ahmed 11/14/2024

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.875	152	151757	20.000	ng		0.00
21) Naphthalene-d8	8.157	136	576727	20.000	ng		0.00
39) Acenaphthene-d10	9.910	164	332343	20.000	ng		0.00
64) Phenanthrene-d10	11.398	188	625922	20.000	ng		0.00
76) Chrysene-d12	14.051	240	456049	20.000	ng		0.00
86) Perylene-d12	15.562	264	358045	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.493	112	190834	21.470	ng		0.00
7) Phenol-d6	6.492	99	256677	21.315	ng		-0.01
23) Nitrobenzene-d5	7.434	82	231031	20.872	ng		0.00
42) 2,4,6-Tribromophenol	10.698	330	70040	21.193	ng		0.00
45) 2-Fluorobiphenyl	9.228	172	463950	22.441	ng		0.00
79) Terphenyl-d14	12.980	244	540367	20.567	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	2.640	88	41430	10.458	ng		98
3) Pyridine	3.416	79	101886	10.462	ng		100
4) n-Nitrosodimethylamine	3.346	42	47921	9.736	ng		96
6) Aniline	6.534	93	115851	11.059	ng		99
8) 2-Chlorophenol	6.657	128	102376	10.723	ng		100
9) Benzaldehyde	6.428	77	82498	11.431	ng		99
10) Phenol	6.510	94	136055	10.713	ng		96
11) bis(2-Chloroethyl)ether	6.604	93	98194	10.205	ng		97
12) 1,3-Dichlorobenzene	6.816	146	111939	10.626	ng		99
13) 1,4-Dichlorobenzene	6.892	146	116395	10.897	ng		99
14) 1,2-Dichlorobenzene	7.045	146	108453	10.937	ng		98
15) Benzyl Alcohol	7.010	79	90500	10.431	ng		99
16) 2,2'-oxybis(1-Chloropr...	7.151	45	138565	10.425	ng		99
17) 2-Methylphenol	7.122	107	80567	10.258	ng		99
18) Hexachloroethane	7.387	117	41189	10.431	ng		97
19) n-Nitroso-di-n-propyla...	7.275	70	76077	10.460	ng		96
20) 3+4-Methylphenols	7.275	107	108265	11.022	ng	#	89
22) Acetophenone	7.281	105	146536	10.925	ng		97
24) Nitrobenzene	7.451	77	121397	10.534	ng		99
25) Isophorone	7.686	82	202309	10.313	ng		98
26) 2-Nitrophenol	7.769	139	51547	10.079	ng		97
27) 2,4-Dimethylphenol	7.804	122	68066	10.396	ng		100
28) bis(2-Chloroethoxy)met...	7.898	93	127440	10.594	ng		99
29) 2,4-Dichlorophenol	8.010	162	85290	10.540	ng		98
30) 1,2,4-Trichlorobenzene	8.098	180	95485	10.599	ng		99
31) Naphthalene	8.181	128	318527	10.887	ng		99
32) Benzoic acid	7.875	122	51387m	8.934	ng		
33) 4-Chloroaniline	8.222	127	111264	10.936	ng		99
34) Hexachlorobutadiene	8.292	225	61596	10.731	ng		99
35) Caprolactam	8.563	113	26940	9.902	ng		97
36) 4-Chloro-3-methylphenol	8.698	107	94282	10.514	ng		99
37) 2-Methylnaphthalene	8.869	142	203533	10.850	ng		99
38) 1-Methylnaphthalene	8.969	142	200722	10.926	ng		99
40) 1,2,4,5-Tetrachloroben...	9.033	216	97174	10.573	ng		98
41) Hexachlorocyclopentadiene	9.022	237	18405	7.800	ng		98
43) 2,4,6-Trichlorophenol	9.145	196	62134	10.302	ng		99

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140334.D
Acq On : 13 Nov 2024 09:53
Operator : RC/JU
Sample : SSTDICC010
Misc :
ALS Vial : 4 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC010

Manual Integrations APPROVED
Reviewed By :Yogesh Patel 11/14/2024
Supervised By :mohammad ahmed 11/14/2024

Quant Time: Nov 13 14:23:21 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.181	196	69370	10.520	ng	98
46) 1,1'-Biphenyl	9.328	154	261030	10.796	ng	99
47) 2-Chloronaphthalene	9.357	162	196370	10.662	ng	99
48) 2-Nitroaniline	9.451	65	60634	9.927	ng	99
49) Acenaphthylene	9.769	152	299521	10.749	ng	100
50) Dimethylphthalate	9.628	163	225705	10.419	ng	99
51) 2,6-Dinitrotoluene	9.692	165	50400	10.206	ng	97
52) Acenaphthene	9.945	154	200055	10.629	ng	99
53) 3-Nitroaniline	9.857	138	54319	10.473	ng	99
54) 2,4-Dinitrophenol	9.969	184	18126	7.117	ng	98
55) Dibenzofuran	10.116	168	288411	10.825	ng	98
56) 4-Nitrophenol	10.016	139	36056	9.531	ng	98
57) 2,4-Dinitrotoluene	10.092	165	66496	10.231	ng	98
58) Fluorene	10.457	166	233209	11.080	ng	99
59) 2,3,4,6-Tetrachlorophenol	10.233	232	54566m	10.489	ng	
60) Diethylphthalate	10.328	149	235508	10.632	ng	100
61) 4-Chlorophenyl-phenyle...	10.451	204	114328	11.002	ng	98
62) 4-Nitroaniline	10.469	138	54026	10.188	ng	98
63) Azobenzene	10.610	77	231165	10.562	ng	99
65) 4,6-Dinitro-2-methylph...	10.504	198	30629	9.095	ng	97
66) n-Nitrosodiphenylamine	10.563	169	197047	10.896	ng	99
67) 4-Bromophenyl-phenylether	10.939	248	65844	10.524	ng	98
68) Hexachlorobenzene	11.010	284	75713	10.755	ng	95
69) Atrazine	11.092	200	57244	10.462	ng	99
70) Pentachlorophenol	11.204	266	33884	8.935	ng	98
71) Phenanthrene	11.422	178	329580	11.209	ng	99
72) Anthracene	11.475	178	318560	11.055	ng	98
73) Carbazole	11.627	167	315859	11.101	ng	99
74) Di-n-butylphthalate	11.957	149	368412	10.788	ng	99
75) Fluoranthene	12.610	202	375846	11.394	ng	99
77) Benzidine	12.733	184	144597	8.261	ng	99
78) Pyrene	12.839	202	388982	9.972	ng	98
80) Butylbenzylphthalate	13.457	149	145394	9.702	ng	98
81) Benzo(a)anthracene	14.039	228	323440	10.791	ng	99
82) 3,3'-Dichlorobenzidine	14.004	252	98211	10.309	ng	99
83) Chrysene	14.080	228	282868	10.343	ng	99
84) Bis(2-ethylhexyl)phtha...	14.027	149	202970	10.147	ng	99
85) Di-n-octyl phthalate	14.668	149	277399	9.847	ng	100
87) Indeno(1,2,3-cd)pyrene	17.062	276	205803	9.305	ng	99
88) Benzo(b)fluoranthene	15.127	252	241957	10.331	ng	99
89) Benzo(k)fluoranthene	15.151	252	222087	11.607	ng	99
90) Benzo(a)pyrene	15.498	252	188533	10.366	ng	98
91) Dibenzo(a,h)anthracene	17.080	278	170496	9.326	ng	100
92) Benzo(g,h,i)perylene	17.515	276	172345	9.221	ng	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

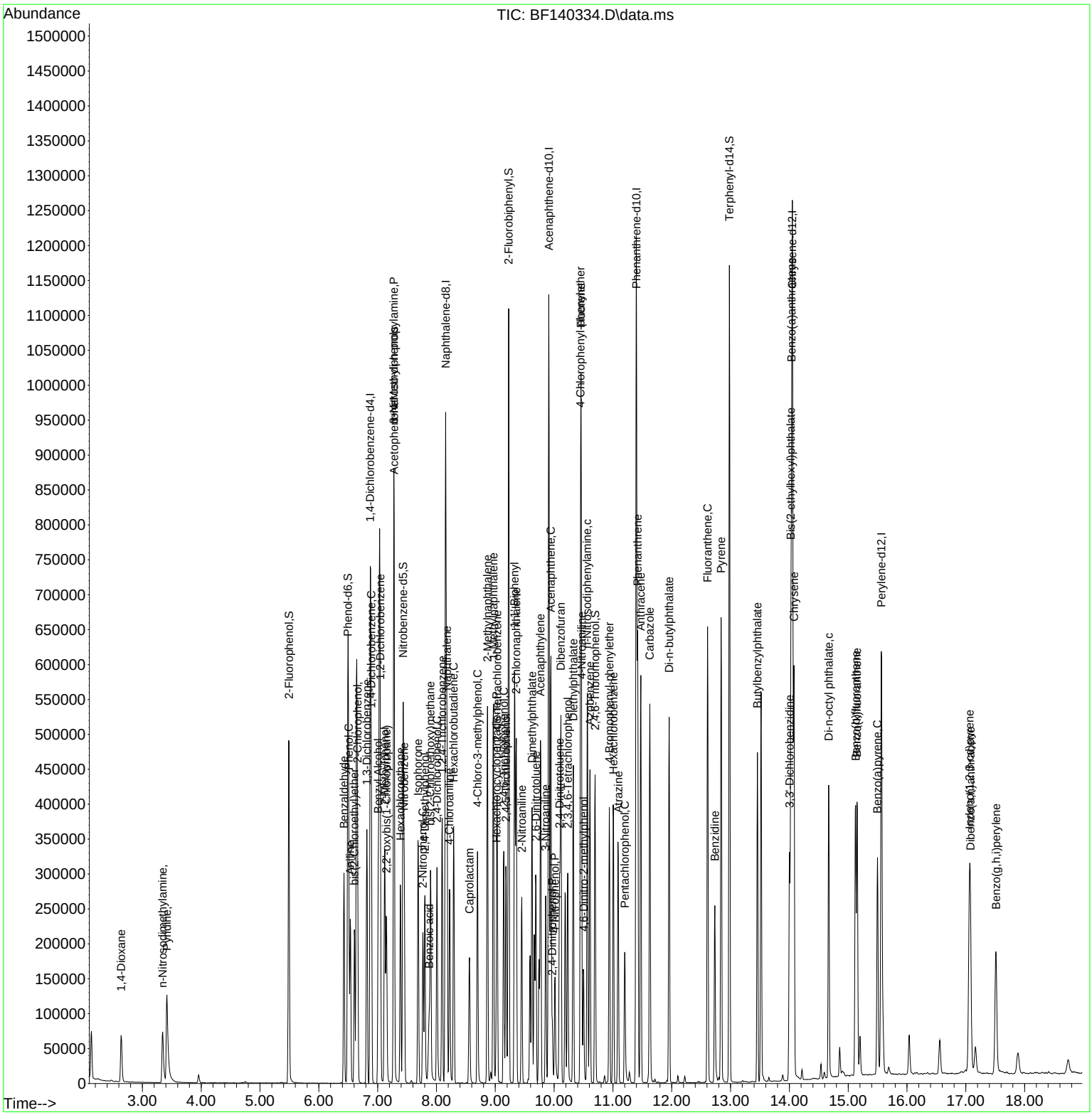
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140334.D
Acq On : 13 Nov 2024 09:53
Operator : RC/JU
Sample : SSTDICC010
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 13 14:23:21 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDICC010

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/14/2024
Supervised By :mohammad ahmed 11/14/2024



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140335.D
Acq On : 13 Nov 2024 10:29
Operator : RC/JU
Sample : SSTDICC020
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC020

Quant Time: Nov 13 14:24:16 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.875	152	149945	20.000	ng	0.00
21) Naphthalene-d8	8.157	136	574759	20.000	ng	0.00
39) Acenaphthene-d10	9.910	164	321015	20.000	ng	0.00
64) Phenanthrene-d10	11.398	188	615627	20.000	ng	0.00
76) Chrysene-d12	14.068	240	437725	20.000	ng	0.02
86) Perylene-d12	15.592	264	335998	20.000	ng	0.04
System Monitoring Compounds						
5) 2-Fluorophenol	5.487	112	366621	41.746	ng	0.00
7) Phenol-d6	6.498	99	492662	41.406	ng	0.00
23) Nitrobenzene-d5	7.434	82	458389	41.554	ng	0.00
42) 2,4,6-Tribromophenol	10.704	330	132693	41.567	ng	0.00
45) 2-Fluorobiphenyl	9.228	172	867449	43.439	ng	0.00
79) Terphenyl-d14	12.986	244	969963	38.464	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	2.634	88	79493	20.309	ng	99
3) Pyridine	3.399	79	198352	20.613	ng	98
4) n-Nitrosodimethylamine	3.340	42	97556	20.059	ng	100
6) Aniline	6.540	93	224200	21.661	ng	96
8) 2-Chlorophenol	6.657	128	199701	21.169	ng	100
9) Benzaldehyde	6.428	77	152483	21.383	ng	99
10) Phenol	6.510	94	261330	20.827	ng	98
11) bis(2-Chloroethyl)ether	6.610	93	195860	20.601	ng	100
12) 1,3-Dichlorobenzene	6.816	146	218012	20.945	ng	99
13) 1,4-Dichlorobenzene	6.892	146	222816	21.112	ng	100
14) 1,2-Dichlorobenzene	7.045	146	209619	21.394	ng	99
15) Benzyl Alcohol	7.010	79	179832	20.978	ng	99
16) 2,2'-oxybis(1-Chloropr...	7.145	45	272081	20.718	ng	99
17) 2-Methylphenol	7.122	107	160794	20.720	ng	99
18) Hexachloroethane	7.387	117	82445	21.130	ng	97
19) n-Nitroso-di-n-propyla...	7.281	70	147880	20.578	ng	99
20) 3+4-Methylphenols	7.275	107	203732	20.992	ng	97
22) Acetophenone	7.281	105	276331	20.672	ng	98
24) Nitrobenzene	7.457	77	233182	20.302	ng	99
25) Isophorone	7.692	82	397520	20.333	ng	100
26) 2-Nitrophenol	7.769	139	104117	20.428	ng	97
27) 2,4-Dimethylphenol	7.804	122	133218	20.416	ng	99
28) bis(2-Chloroethoxy)met...	7.904	93	246864	20.593	ng	100
29) 2,4-Dichlorophenol	8.010	162	165159	20.480	ng	99
30) 1,2,4-Trichlorobenzene	8.098	180	187022	20.831	ng	98
31) Naphthalene	8.181	128	611395	20.969	ng	100
32) Benzoic acid	7.898	122	103495	18.055	ng	98
33) 4-Chloroaniline	8.222	127	212489	20.956	ng	99
34) Hexachlorobutadiene	8.292	225	120624	21.087	ng	100
35) Caprolactam	8.575	113	54033	19.929	ng	100
36) 4-Chloro-3-methylphenol	8.698	107	183923	20.581	ng	99
37) 2-Methylnaphthalene	8.869	142	392634	21.001	ng	100
38) 1-Methylnaphthalene	8.969	142	386754	21.125	ng	98
40) 1,2,4,5-Tetrachloroben...	9.034	216	187279	21.097	ng	99
41) Hexachlorocyclopentadiene	9.022	237	45811	20.099	ng	98
43) 2,4,6-Trichlorophenol	9.145	196	120063	20.609	ng	100

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140335.D
Acq On : 13 Nov 2024 10:29
Operator : RC/JU
Sample : SSTDICC020
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC020

Quant Time: Nov 13 14:24:16 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.186	196	132413	20.789	ng	98
46) 1,1'-Biphenyl	9.333	154	502252	21.506	ng	99
47) 2-Chloronaphthalene	9.357	162	368985	20.741	ng	99
48) 2-Nitroaniline	9.451	65	123220	20.885	ng	98
49) Acenaphthylene	9.775	152	573335	21.301	ng	99
50) Dimethylphthalate	9.628	163	440050	21.031	ng	100
51) 2,6-Dinitrotoluene	9.692	165	100599	21.089	ng	99
52) Acenaphthene	9.945	154	382783	21.056	ng	100
53) 3-Nitroaniline	9.863	138	107540	21.467	ng	99
54) 2,4-Dinitrophenol	9.969	184	47413	19.274	ng	96
55) Dibenzofuran	10.116	168	550502	21.391	ng	99
56) 4-Nitrophenol	10.016	139	76711	20.993	ng	99
57) 2,4-Dinitrotoluene	10.098	165	133852	21.321	ng	96
58) Fluorene	10.463	166	438095	21.548	ng	100
59) 2,3,4,6-Tetrachlorophenol	10.233	232	104638	20.824	ng	98
60) Diethylphthalate	10.328	149	448855	20.979	ng	99
61) 4-Chlorophenyl-phenyle...	10.451	204	214868	21.407	ng	100
62) 4-Nitroaniline	10.475	138	105392	20.576	ng	99
63) Azobenzene	10.610	77	443044	20.957	ng	99
65) 4,6-Dinitro-2-methylph...	10.504	198	69851	21.089	ng	99
66) n-Nitrosodiphenylamine	10.569	169	369633	20.780	ng	99
67) 4-Bromophenyl-phenylether	10.945	248	128501	20.881	ng	97
68) Hexachlorobenzene	11.010	284	143099	20.667	ng	98
69) Atrazine	11.092	200	83124	15.446	ng	98
70) Pentachlorophenol	11.204	266	76218	20.435	ng	99
71) Phenanthrene	11.422	178	606738	20.980	ng	100
72) Anthracene	11.475	178	594950	20.991	ng	99
73) Carbazole	11.627	167	592904	21.186	ng	100
74) Di-n-butylphthalate	11.957	149	707973	21.077	ng	100
75) Fluoranthene	12.616	202	702671	21.657	ng	99
77) Benzidine	12.733	184	299422	17.823	ng	100
78) Pyrene	12.845	202	719319	19.212	ng	99
80) Butylbenzylphthalate	13.463	149	286162	19.895	ng	98
81) Benzo(a)anthracene	14.051	228	591480	20.560	ng	99
82) 3,3'-Dichlorobenzidine	14.016	252	189466	20.720	ng	99
83) Chrysene	14.092	228	540430	20.589	ng	99
84) Bis(2-ethylhexyl)phtha...	14.039	149	392830	20.462	ng	99
85) Di-n-octyl phthalate	14.692	149	556097	20.567	ng	99
87) Indeno(1,2,3-cd)pyrene	17.092	276	382218	18.415	ng	99
88) Benzo(b)fluoranthene	15.151	252	494335	22.491	ng	99
89) Benzo(k)fluoranthene	15.180	252	376428	20.964	ng	99
90) Benzo(a)pyrene	15.527	252	354286	20.757	ng	99
91) Dibenzo(a,h)anthracene	17.109	278	317133	18.485	ng	99
92) Benzo(g,h,i)perylene	17.545	276	320648	18.281	ng	99

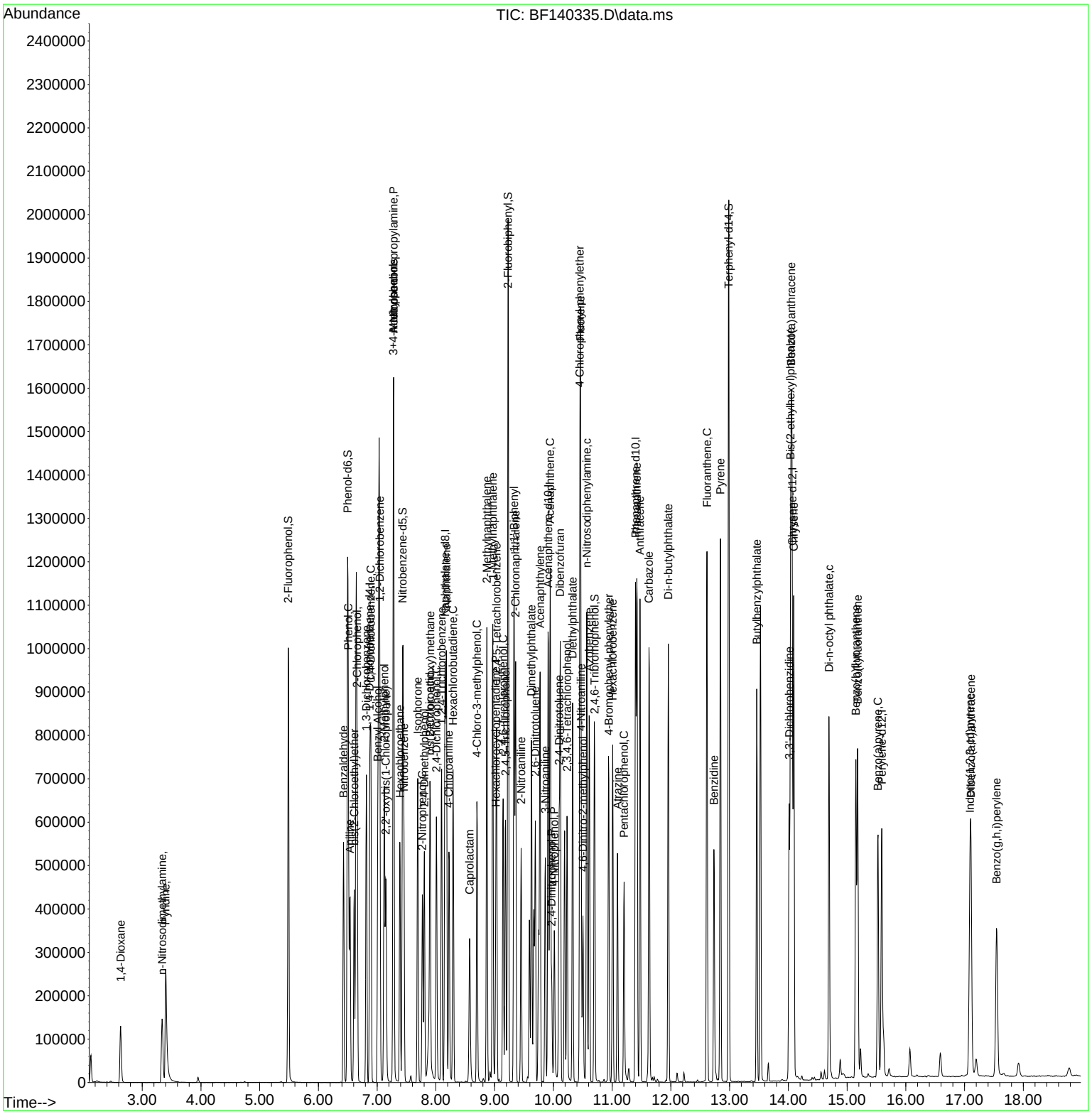
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140335.D
Acq On : 13 Nov 2024 10:29
Operator : RC/JU
Sample : SSTDICC020
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC020

Quant Time: Nov 13 14:24:16 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140337.D
Acq On : 13 Nov 2024 11:21
Operator : RC/JU
Sample : SSTDICC050
Misc :
ALS Vial : 7 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC050

Quant Time: Nov 13 14:26:04 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.881	152	173750	20.000	ng	0.00
21) Naphthalene-d8	8.157	136	645813	20.000	ng	0.00
39) Acenaphthene-d10	9.916	164	355715	20.000	ng	0.00
64) Phenanthrene-d10	11.404	188	673585	20.000	ng	0.00
76) Chrysene-d12	14.057	240	373903	20.000	ng	0.00
86) Perylene-d12	15.563	264	343764	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.493	112	946604	93.020	ng	0.00
7) Phenol-d6	6.510	99	1288691	93.469	ng	0.00
23) Nitrobenzene-d5	7.445	82	1188653	95.898	ng	0.00
42) 2,4,6-Tribromophenol	10.710	330	339834	96.071	ng	0.00
45) 2-Fluorobiphenyl	9.234	172	2000974	90.428	ng	0.00
79) Terphenyl-d14	12.992	244	2129859	98.876	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	2.646	88	215224	47.452	ng	99
3) Pyridine	3.410	79	516550	46.326	ng	99
4) n-Nitrosodimethylamine	3.375	42	279565	49.608	ng	97
6) Aniline	6.545	93	550294	45.882	ng	99
8) 2-Chlorophenol	6.669	128	510922	46.739	ng	98
9) Benzaldehyde	6.434	77	359475	43.503	ng	99
10) Phenol	6.528	94	687077	47.255	ng	95
11) bis(2-Chloroethyl)ether	6.616	93	533018	48.382	ng	98
12) 1,3-Dichlorobenzene	6.822	146	560974	46.511	ng	98
13) 1,4-Dichlorobenzene	6.898	146	567404	46.396	ng	99
14) 1,2-Dichlorobenzene	7.051	146	526417	46.367	ng	99
15) Benzyl Alcohol	7.022	79	477924	48.113	ng	99
16) 2,2'-oxybis(1-Chloropr...	7.151	45	723520	47.546	ng	98
17) 2-Methylphenol	7.128	107	433403	48.196	ng	99
18) Hexachloroethane	7.392	117	217240	48.050	ng	99
19) n-Nitroso-di-n-propyla...	7.298	70	383726	46.082	ng	99
20) 3+4-Methylphenols	7.287	107	521407	46.364	ng	92
22) Acetophenone	7.292	105	700174	46.615	ng	98
24) Nitrobenzene	7.463	77	629010	48.740	ng	99
25) Isophorone	7.698	82	1056536	48.095	ng	100
26) 2-Nitrophenol	7.775	139	282885	49.397	ng	96
27) 2,4-Dimethylphenol	7.810	122	356541	48.629	ng	98
28) bis(2-Chloroethoxy)met...	7.910	93	642458	47.695	ng	100
29) 2,4-Dichlorophenol	8.016	162	439530	48.507	ng	98
30) 1,2,4-Trichlorobenzene	8.098	180	481552	47.735	ng	99
31) Naphthalene	8.181	128	1534595	46.842	ng	99
32) Benzoic acid	7.945	122	347409	53.939	ng	98
33) 4-Chloroaniline	8.234	127	538110	47.230	ng	99
34) Hexachlorobutadiene	8.298	225	304280	47.340	ng	98
35) Caprolactam	8.610	113	147323	48.359	ng	99
36) 4-Chloro-3-methylphenol	8.710	107	482944	48.095	ng	99
37) 2-Methylnaphthalene	8.869	142	985640	46.920	ng	100
38) 1-Methylnaphthalene	8.969	142	951332	46.247	ng	100
40) 1,2,4,5-Tetrachloroben...	9.039	216	466149	47.389	ng	99
41) Hexachlorocyclopentadiene	9.022	237	138691	54.914	ng	100
43) 2,4,6-Trichlorophenol	9.145	196	320277	49.613	ng	99

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140337.D
Acq On : 13 Nov 2024 11:21
Operator : RC/JU
Sample : SSTDICC050
Misc :
ALS Vial : 7 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC050

Quant Time: Nov 13 14:26:04 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.192	196	344237	48.773	ng	98
46) 1,1'-Biphenyl	9.334	154	1216913	47.025	ng	99
47) 2-Chloronaphthalene	9.363	162	945855	47.981	ng	99
48) 2-Nitroaniline	9.457	65	324847	49.689	ng	98
49) Acenaphthylene	9.781	152	1406468	47.156	ng	100
50) Dimethylphthalate	9.639	163	1108191	47.796	ng	100
51) 2,6-Dinitrotoluene	9.704	165	258909	48.982	ng	99
52) Acenaphthene	9.951	154	970618	48.182	ng	99
53) 3-Nitroaniline	9.869	138	272892	49.160	ng	98
54) 2,4-Dinitrophenol	9.975	184	158026	57.974	ng	97
55) Dibenzofuran	10.122	168	1335552	46.833	ng	100
56) 4-Nitrophenol	10.028	139	213518	52.733	ng	99
57) 2,4-Dinitrotoluene	10.104	165	343847	49.427	ng	97
58) Fluorene	10.463	166	1038836	46.112	ng	99
59) 2,3,4,6-Tetrachlorophenol	10.239	232	274144	49.236	ng	99
60) Diethylphthalate	10.333	149	1130922	47.701	ng	99
61) 4-Chlorophenyl-phenyle...	10.457	204	518480	46.617	ng	98
62) 4-Nitroaniline	10.486	138	280913	49.492	ng	99
63) Azobenzene	10.616	77	1112412	47.487	ng	99
65) 4,6-Dinitro-2-methylph...	10.516	198	197492	54.495	ng	99
66) n-Nitrosodiphenylamine	10.575	169	910897	46.803	ng	100
67) 4-Bromophenyl-phenylether	10.945	248	321760	47.787	ng	99
68) Hexachlorobenzene	11.016	284	351412	46.386	ng	98
69) Atrazine	11.098	200	261515	44.413	ng	99
70) Pentachlorophenol	11.204	266	220904	54.132	ng	99
71) Phenanthrene	11.428	178	1461484	46.188	ng	100
72) Anthracene	11.480	178	1447653	46.682	ng	100
73) Carbazole	11.633	167	1425182	46.543	ng	100
74) Di-n-butylphthalate	11.963	149	1745220	47.487	ng	100
75) Fluoranthene	12.616	202	1620115	45.637	ng	99
77) Benzidine	12.739	184	693785	48.345	ng	99
78) Pyrene	12.851	202	1615345	50.507	ng	99
80) Butylbenzylphthalate	13.463	149	626234	50.971	ng	97
81) Benzo(a)anthracene	14.045	228	1148657	46.743	ng	100
82) 3,3'-Dichlorobenzidine	14.004	252	379732	48.617	ng	99
83) Chrysene	14.086	228	1062734	47.398	ng	100
84) Bis(2-ethylhexyl)phtha...	14.027	149	801820	48.894	ng	100
85) Di-n-octyl phthalate	14.668	149	1109314	48.030	ng	99
87) Indeno(1,2,3-cd)pyrene	17.074	276	1130711	53.247	ng	100
88) Benzo(b)fluoranthene	15.127	252	1061367	47.198	ng	100
89) Benzo(k)fluoranthene	15.157	252	818554	44.558	ng	99
90) Benzo(a)pyrene	15.504	252	833765	47.745	ng	99
91) Dibenzo(a,h)anthracene	17.092	278	923159	52.593	ng	99
92) Benzo(g,h,i)perylene	17.533	276	963891	53.714	ng	99

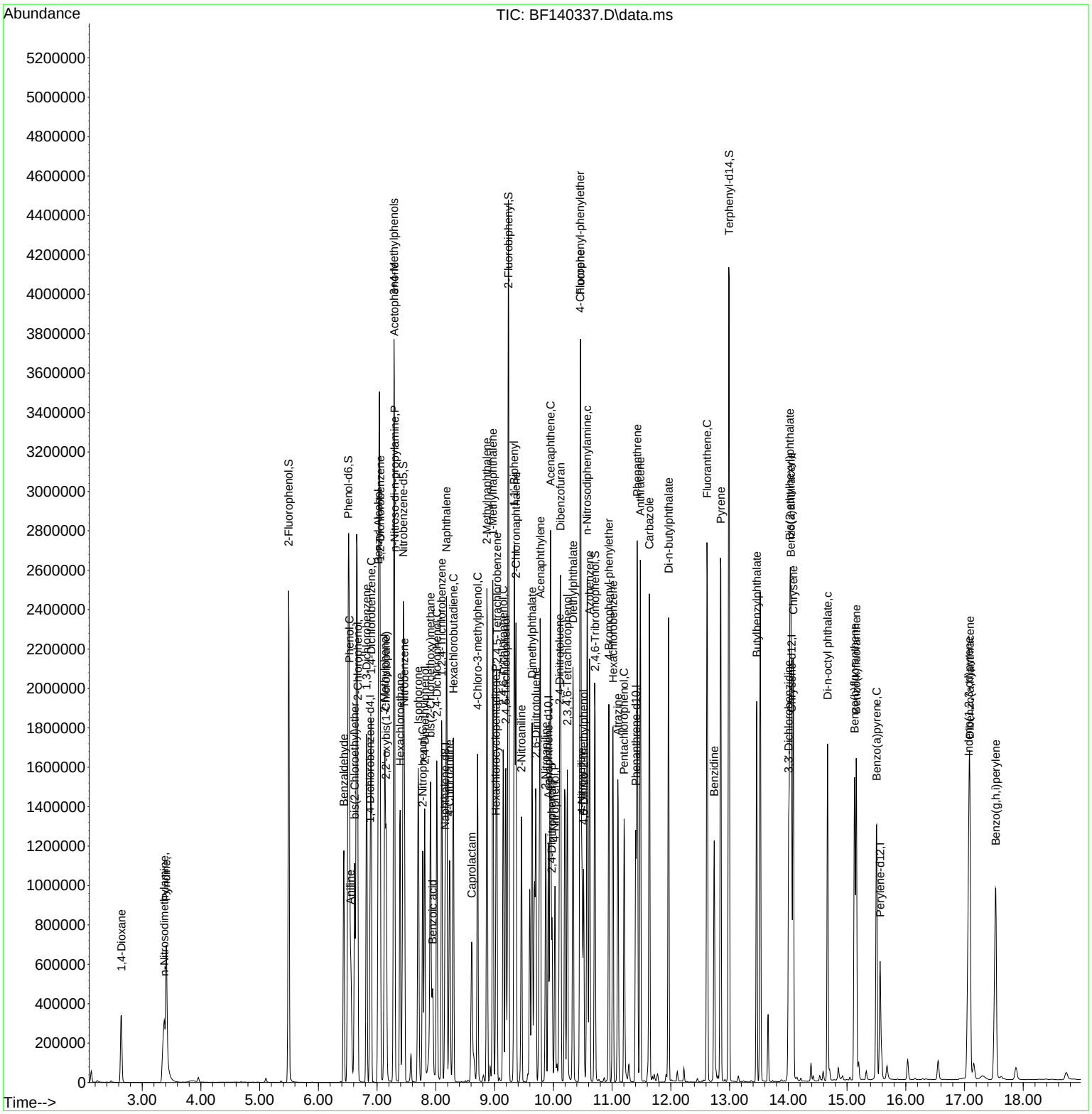
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140337.D
Acq On : 13 Nov 2024 11:21
Operator : RC/JU
Sample : SSTDICC050
Misc :
ALS Vial : 7 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC050

Quant Time: Nov 13 14:26:04 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140338.D
Acq On : 13 Nov 2024 11:47
Operator : RC/JU
Sample : SSTDICC060
Misc :
ALS Vial : 8 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC060

Quant Time: Nov 13 14:26:57 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.881	152	169226	20.000	ng		0.00
21) Naphthalene-d8	8.163	136	626974	20.000	ng		0.00
39) Acenaphthene-d10	9.916	164	349852	20.000	ng		0.00
64) Phenanthrene-d10	11.404	188	653888	20.000	ng		0.00
76) Chrysene-d12	14.057	240	336717	20.000	ng		0.00
86) Perylene-d12	15.568	264	334279	20.000	ng		0.01
System Monitoring Compounds							
5) 2-Fluorophenol	5.498	112	1135551	114.570	ng		0.00
7) Phenol-d6	6.516	99	1529819	113.924	ng		0.01
23) Nitrobenzene-d5	7.445	82	1426102	118.512	ng		0.00
42) 2,4,6-Tribromophenol	10.710	330	397743	114.327	ng		0.00
45) 2-Fluorobiphenyl	9.233	172	2330064	107.065	ng		0.00
79) Terphenyl-d14	12.992	244	2404917	123.975	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	2.646	88	257092	58.199	ng		99
3) Pyridine	3.416	79	627905	57.818	ng		100
4) n-Nitrosodimethylamine	3.387	42	340452	62.027	ng		97
6) Aniline	6.545	93	644899	55.207	ng	#	84
8) 2-Chlorophenol	6.669	128	601333	56.481	ng		99
9) Benzaldehyde	6.434	77	397310	49.367	ng		99
10) Phenol	6.528	94	810917	57.263	ng		94
11) bis(2-Chloroethyl)ether	6.622	93	633964	59.083	ng		98
12) 1,3-Dichlorobenzene	6.822	146	668862	56.939	ng		99
13) 1,4-Dichlorobenzene	6.898	146	673261	56.523	ng		99
14) 1,2-Dichlorobenzene	7.051	146	616097	55.716	ng		98
15) Benzyl Alcohol	7.022	79	562583	58.150	ng		99
16) 2,2'-oxybis(1-Chloropr...	7.151	45	855004	57.688	ng		93
17) 2-Methylphenol	7.134	107	515819	58.895	ng		98
18) Hexachloroethane	7.392	117	256957	58.354	ng		98
19) n-Nitroso-di-n-propyla...	7.298	70	459430	56.648	ng		99
20) 3+4-Methylphenols	7.286	107	608092	55.518	ng		99
22) Acetophenone	7.292	105	829586	56.891	ng	#	98
24) Nitrobenzene	7.469	77	740612	59.113	ng		99
25) Isophorone	7.704	82	1261423	59.147	ng		100
26) 2-Nitrophenol	7.781	139	339960	61.146	ng		99
27) 2,4-Dimethylphenol	7.810	122	426510	59.920	ng		98
28) bis(2-Chloroethoxy)met...	7.910	93	760029	58.119	ng		99
29) 2,4-Dichlorophenol	8.022	162	511715	58.170	ng		99
30) 1,2,4-Trichlorobenzene	8.104	180	566322	57.824	ng		100
31) Naphthalene	8.186	128	1796725	56.491	ng		99
32) Benzoic acid	7.957	122	425502	68.049	ng		97
33) 4-Chloroaniline	8.239	127	639243	57.793	ng		100
34) Hexachlorobutadiene	8.298	225	358172	57.398	ng		100
35) Caprolactam	8.622	113	178777	60.447	ng		95
36) 4-Chloro-3-methylphenol	8.716	107	571401	58.614	ng		100
37) 2-Methylnaphthalene	8.875	142	1141963	55.995	ng		100
38) 1-Methylnaphthalene	8.975	142	1113216	55.742	ng		100
40) 1,2,4,5-Tetrachloroben...	9.039	216	542595	56.085	ng		100
41) Hexachlorocyclopentadiene	9.022	237	166455	67.012	ng		99
43) 2,4,6-Trichlorophenol	9.151	196	369027	58.123	ng		100

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140338.D
Acq On : 13 Nov 2024 11:47
Operator : RC/JU
Sample : SSTDICC060
Misc :
ALS Vial : 8 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC060

Quant Time: Nov 13 14:26:57 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.192	196	408838	58.897	ng	99
46) 1,1'-Biphenyl	9.339	154	1409617	55.384	ng	100
47) 2-Chloronaphthalene	9.363	162	1100798	56.777	ng	99
48) 2-Nitroaniline	9.457	65	384307	59.769	ng	96
49) Acenaphthylene	9.780	152	1628948	55.531	ng	99
50) Dimethylphthalate	9.639	163	1305952	57.269	ng	100
51) 2,6-Dinitrotoluene	9.704	165	303778	58.434	ng	99
52) Acenaphthene	9.951	154	1132725	57.171	ng	100
53) 3-Nitroaniline	9.875	138	313217	57.370	ng	100
54) 2,4-Dinitrophenol	9.980	184	178562	66.606	ng	99
55) Dibenzofuran	10.122	168	1538256	54.845	ng	99
56) 4-Nitrophenol	10.033	139	249200	62.577	ng	99
57) 2,4-Dinitrotoluene	10.110	165	401261	58.647	ng	96
58) Fluorene	10.469	166	1193733	53.876	ng	99
59) 2,3,4,6-Tetrachlorophenol	10.239	232	317173	57.919	ng	99
60) Diethylphthalate	10.339	149	1308229	56.104	ng	99
61) 4-Chlorophenyl-phenyle...	10.457	204	594806	54.376	ng	99
62) 4-Nitroaniline	10.492	138	328847	58.909	ng	100
63) Azobenzene	10.616	77	1305799	56.677	ng	98
65) 4,6-Dinitro-2-methylph...	10.522	198	234662	66.702	ng	97
66) n-Nitrosodiphenylamine	10.580	169	1061092	56.163	ng	99
67) 4-Bromophenyl-phenylether	10.945	248	369051	56.461	ng	97
68) Hexachlorobenzene	11.016	284	422038	57.387	ng	98
69) Atrazine	11.104	200	402831	70.474	ng	99
70) Pentachlorophenol	11.210	266	255229	64.427	ng	99
71) Phenanthrene	11.427	178	1669857	54.363	ng	99
72) Anthracene	11.480	178	1644863	54.639	ng	99
73) Carbazole	11.633	167	1635888	55.034	ng	99
74) Di-n-butylphthalate	11.963	149	2005925	56.225	ng	100
75) Fluoranthene	12.621	202	1830547	53.118	ng	99
77) Benzidine	12.739	184	963069	74.521	ng	99
78) Pyrene	12.851	202	1817826	63.115	ng	99
80) Butylbenzylphthalate	13.463	149	687900	62.173	ng	98
81) Benzo(a)anthracene	14.045	228	1306865	59.054	ng	99
82) 3,3'-Dichlorobenzidine	14.010	252	419937	59.701	ng	100
83) Chrysene	14.086	228	1134734	56.198	ng	99
84) Bis(2-ethylhexyl)phtha...	14.027	149	877334	59.407	ng	99
85) Di-n-octyl phthalate	14.674	149	1253939	60.287	ng	99
87) Indeno(1,2,3-cd)pyrene	17.080	276	1357877	65.759	ng	100
88) Benzo(b)fluoranthene	15.133	252	1236880	56.564	ng	100
89) Benzo(k)fluoranthene	15.162	252	937366	52.473	ng	98
90) Benzo(a)pyrene	15.509	252	982982	57.887	ng	100
91) Dibenzo(a,h)anthracene	17.098	278	1124071	65.856	ng	99
92) Benzo(g,h,i)perylene	17.539	276	1149411	65.870	ng	98

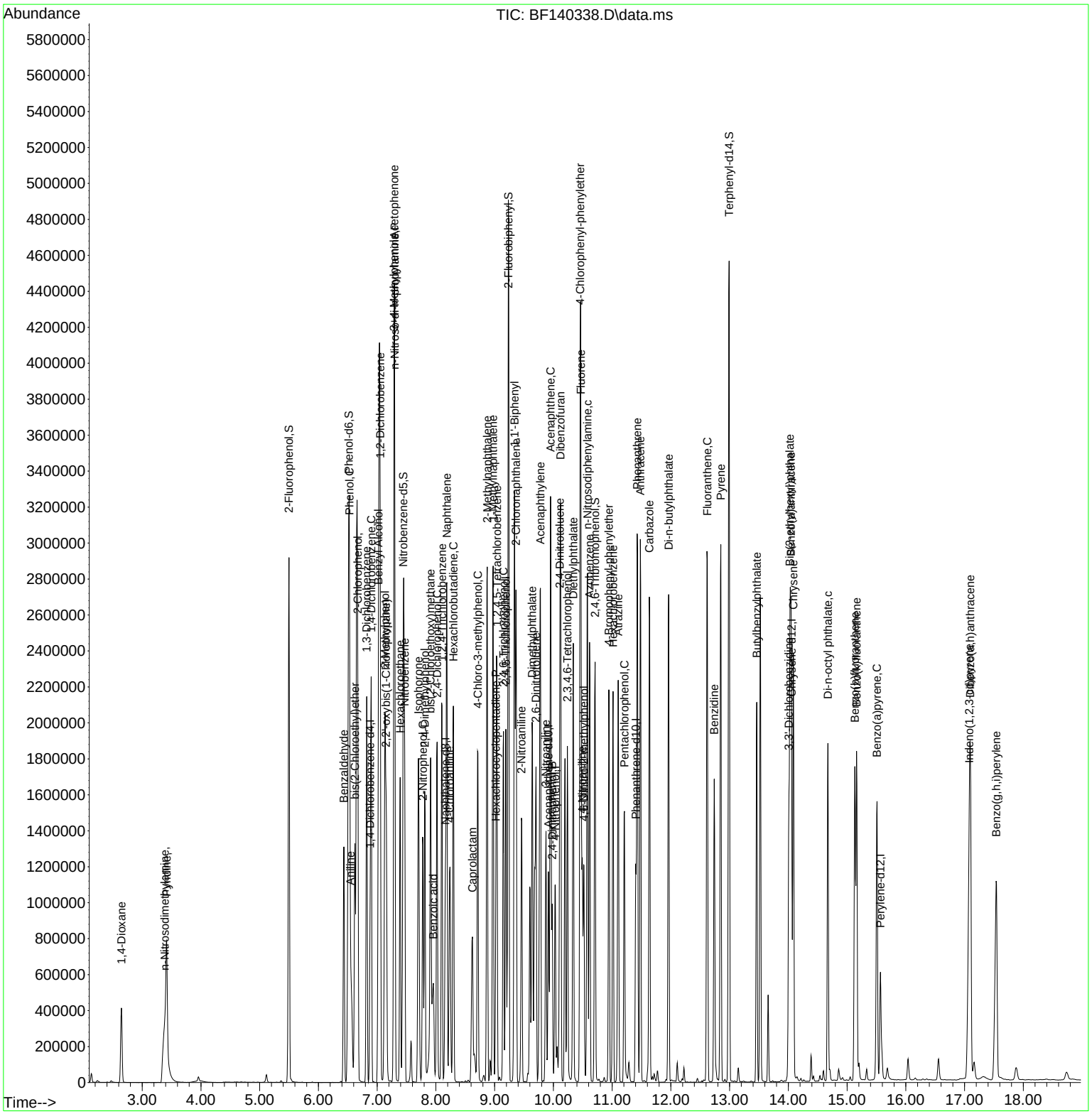
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140338.D
Acq On : 13 Nov 2024 11:47
Operator : RC/JU
Sample : SSTDICC060
Misc :
ALS Vial : 8 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC060

Quant Time: Nov 13 14:26:57 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140339.D
Acq On : 13 Nov 2024 12:13
Operator : RC/JU
Sample : SSTDICC080
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC080

Manual Integrations APPROVED
Reviewed By :Yogesh Patel 11/14/2024
Supervised By :mohammad ahmed 11/14/2024

Quant Time: Nov 13 14:36:37 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.881	152	160348	20.000	ng		0.00
21) Naphthalene-d8	8.163	136	586224	20.000	ng		0.00
39) Acenaphthene-d10	9.916	164	324351	20.000	ng		0.00
64) Phenanthrene-d10	11.404	188	591968	20.000	ng		0.00
76) Chrysene-d12	14.057	240	305715	20.000	ng		0.00
86) Perylene-d12	15.562	264	310894	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.498	112	1324090	140.989	ng		0.00
7) Phenol-d6	6.522	99	1804257	141.801	ng		0.02
23) Nitrobenzene-d5	7.451	82	1661144	147.640	ng		0.01
42) 2,4,6-Tribromophenol	10.710	330	471699	146.244	ng		0.00
45) 2-Fluorobiphenyl	9.239	172	2675376	132.597	ng		0.00
79) Terphenyl-d14	12.992	244	2674139	151.833	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	2.651	88	307882	73.555	ng		100
3) Pyridine	3.422	79	735683	71.493	ng		99
4) n-Nitrosodimethylamine	3.398	42	402441	77.381	ng		99
6) Aniline	6.551	93	684015	61.797	ng	#	84
8) 2-Chlorophenol	6.675	128	709152	70.295	ng		99
10) Phenol	6.534	94	947993	70.649	ng		92
11) bis(2-Chloroethyl)ether	6.622	93	756191	74.376	ng		99
12) 1,3-Dichlorobenzene	6.822	146	783204	70.364	ng		98
13) 1,4-Dichlorobenzene	6.898	146	783319	69.404	ng		99
14) 1,2-Dichlorobenzene	7.057	146	710399	67.802	ng		99
15) Benzyl Alcohol	7.028	79	654439	71.389	ng		99
16) 2,2'-oxybis(1-Chloropr...	7.157	45	993408	70.738	ng		96
17) 2-Methylphenol	7.133	107	604396	72.829	ng		98
18) Hexachloroethane	7.392	117	300328	71.979	ng		98
19) n-Nitroso-di-n-propyla...	7.304	70	543998	70.790	ng		100
20) 3+4-Methylphenols	7.292	107	699451	67.394	ng		96
22) Acetophenone	7.298	105	963095	70.637	ng		99
24) Nitrobenzene	7.469	77	870976	74.350	ng		99
25) Isophorone	7.704	82	1487295	74.586	ng		100
26) 2-Nitrophenol	7.781	139	401982	77.328	ng		99
27) 2,4-Dimethylphenol	7.816	122	500708	75.234	ng		99
28) bis(2-Chloroethoxy)met...	7.910	93	887655	72.597	ng		100
29) 2,4-Dichlorophenol	8.022	162	597530	72.647	ng		99
30) 1,2,4-Trichlorobenzene	8.104	180	663478	72.454	ng		99
31) Naphthalene	8.186	128	2076967	69.842	ng		99
32) Benzoic acid	7.969	122	529009	90.483	ng		96
33) 4-Chloroaniline	8.245	127	729859	70.572	ng		99
34) Hexachlorobutadiene	8.298	225	417242	71.513	ng		100
35) Caprolactam	8.627	113	208353m	75.344	ng		
36) 4-Chloro-3-methylphenol	8.716	107	672162	73.742	ng		100
37) 2-Methylnaphthalene	8.875	142	1323889	69.428	ng		100
38) 1-Methylnaphthalene	8.975	142	1289276	69.046	ng		99
40) 1,2,4,5-Tetrachloroben...	9.039	216	629856	70.223	ng		100
41) Hexachlorocyclopentadiene	9.022	237	187869	81.579	ng		99
43) 2,4,6-Trichlorophenol	9.151	196	442116	75.110	ng		99
44) 2,4,5-Trichlorophenol	9.198	196	468390	72.781	ng		98

Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140339.D
Acq On : 13 Nov 2024 12:13
Operator : RC/JU
Sample : SSTDICC080
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC080

Quant Time: Nov 13 14:36:37 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/14/2024
Supervised By :mohammad ahmed 11/14/2024

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) 1,1'-Biphenyl	9.339	154	1613420	68.375	ng	99
47) 2-Chloronaphthalene	9.363	162	1259442	70.067	ng	98
48) 2-Nitroaniline	9.463	65	454975	76.323	ng	98
49) Acenaphthylene	9.780	152	1869941	68.758	ng	99
50) Dimethylphthalate	9.645	163	1532197	72.473	ng	100
51) 2,6-Dinitrotoluene	9.704	165	348019	72.207	ng	93
52) Acenaphthene	9.951	154	1305360	71.065	ng	99
53) 3-Nitroaniline	9.874	138	356185	70.369	ng	98
54) 2,4-Dinitrophenol	9.980	184	217511	87.514	ng	98
55) Dibenzofuran	10.127	168	1743431	67.047	ng	100
56) 4-Nitrophenol	10.033	139	291787	79.032	ng	96
57) 2,4-Dinitrotoluene	10.110	165	454770	71.693	ng	94
58) Fluorene	10.469	166	1382804	67.316	ng	99
59) 2,3,4,6-Tetrachlorophenol	10.245	232	374293	73.723	ng	100
60) Diethylphthalate	10.339	149	1537607	71.126	ng	99
61) 4-Chlorophenyl-phenyle...	10.457	204	685111	67.555	ng	99
62) 4-Nitroaniline	10.498	138	385246	74.437	ng	100
63) Azobenzene	10.621	77	1508804	70.637	ng	99
65) 4,6-Dinitro-2-methylph...	10.522	198	274337	86.136	ng	99
66) n-Nitrosodiphenylamine	10.580	169	1237130	72.330	ng	100
67) 4-Bromophenyl-phenylether	10.951	248	426112	72.010	ng	99
68) Hexachlorobenzene	11.016	284	491825	73.871	ng	99
69) Atrazine	11.110	200	495230	95.702	ng	99
70) Pentachlorophenol	11.210	266	308099	85.908	ng	99
71) Phenanthrene	11.433	178	1941678	69.825	ng	99
72) Anthracene	11.486	178	1901483	69.770	ng	100
73) Carbazole	11.639	167	1853513	68.878	ng	99
74) Di-n-butylphthalate	11.963	149	2283744	70.708	ng	100
75) Fluoranthene	12.621	202	2053832	65.832	ng	99
77) Benzidine	12.739	184	1147944	97.835	ng	99
78) Pyrene	12.851	202	2044224	78.173	ng	99
80) Butylbenzylphthalate	13.462	149	768354	76.487	ng	98
81) Benzo(a)anthracene	14.045	228	1461193	72.724	ng	100
82) 3,3'-Dichlorobenzidine	14.004	252	488462	76.486	ng	99
83) Chrysene	14.086	228	1343316	73.275	ng	99
84) Bis(2-ethylhexyl)phtha...	14.027	149	994724	74.186	ng	99
85) Di-n-octyl phthalate	14.668	149	1481946	78.474	ng	99
87) Indeno(1,2,3-cd)pyrene	17.074	276	1638318	85.308	ng	99
88) Benzo(b)fluoranthene	15.127	252	1490709	73.300	ng	100
89) Benzo(k)fluoranthene	15.156	252	1103915	66.445	ng	98
90) Benzo(a)pyrene	15.504	252	1179142	74.662	ng	99
91) Dibenzo(a,h)anthracene	17.098	278	1339293	84.367	ng	99
92) Benzo(g,h,i)perylene	17.539	276	1392525	85.805	ng	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

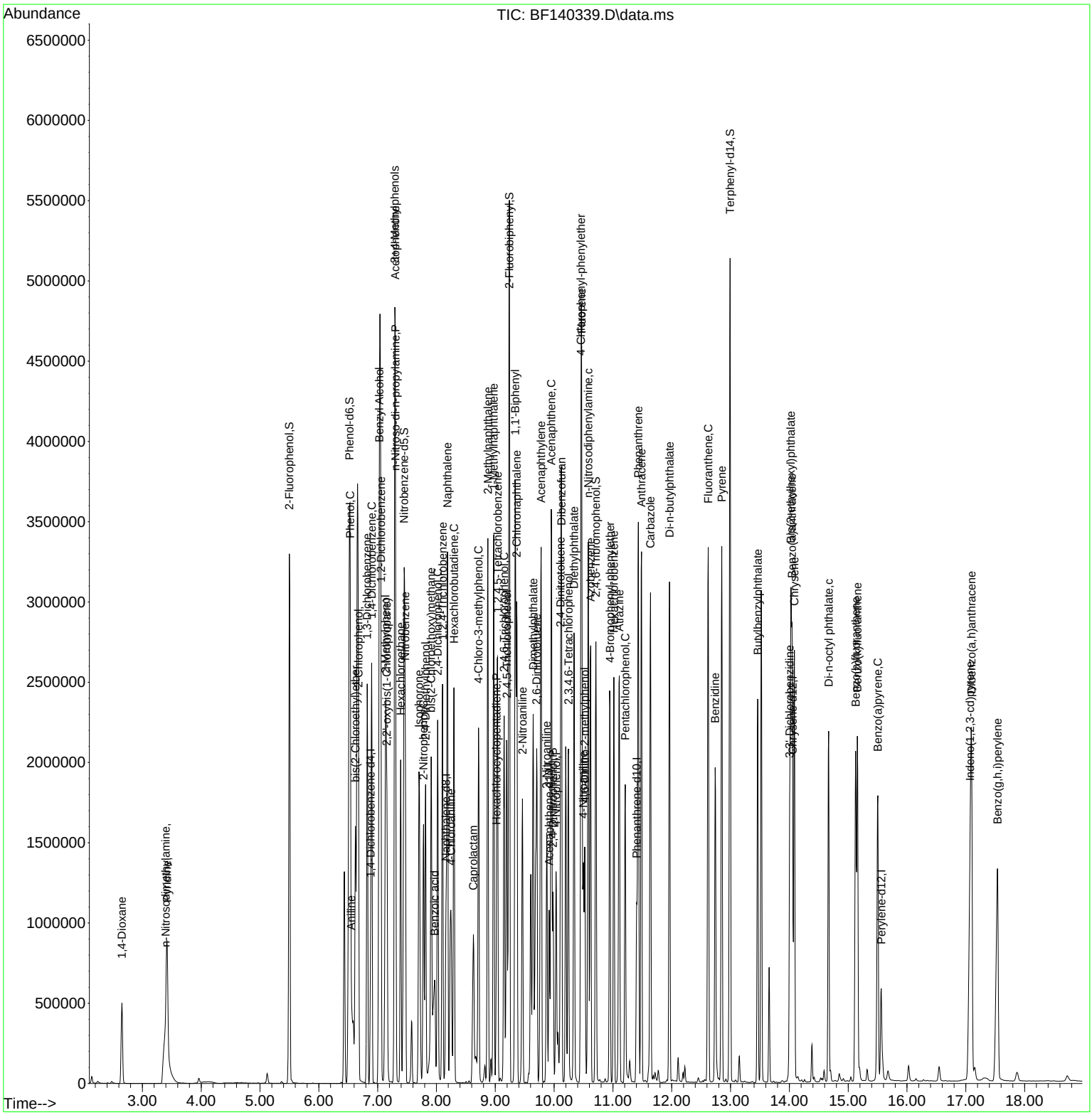
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140339.D
Acq On : 13 Nov 2024 12:13
Operator : RC/JU
Sample : SSTDICC080
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 13 14:36:37 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDICC080

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/14/2024
Supervised By :mohammad ahmed 11/14/2024



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140340.D
Acq On : 13 Nov 2024 12:48
Operator : RC/JU
Sample : SSTDICCC040
Misc :
ALS Vial : 10 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICCC040

Quant Time: Nov 13 14:28:55 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.875	152	147186	20.000	ng	0.00
21) Naphthalene-d8	8.157	136	589077	20.000	ng	0.00
39) Acenaphthene-d10	9.916	164	334544	20.000	ng	0.00
64) Phenanthrene-d10	11.404	188	628587	20.000	ng	0.00
76) Chrysene-d12	14.063	240	385940	20.000	ng	0.01
86) Perylene-d12	15.580	264	322417	20.000	ng	0.02
System Monitoring Compounds						
5) 2-Fluorophenol	5.493	112	677089	78.544	ng	0.00
7) Phenol-d6	6.504	99	945074	80.918	ng	0.00
23) Nitrobenzene-d5	7.440	82	884247	78.210	ng	0.00
42) 2,4,6-Tribromophenol	10.704	330	257655	77.449	ng	0.00
45) 2-Fluorobiphenyl	9.234	172	1568502	75.369	ng	0.00
79) Terphenyl-d14	12.986	244	1733989	77.987	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	2.634	88	151541	39.442	ng	99
3) Pyridine	3.399	79	387454	41.019	ng	99
4) n-Nitrosodimethylamine	3.352	42	193917	40.620	ng	97
6) Aniline	6.540	93	427252	42.052	ng	100
8) 2-Chlorophenol	6.663	128	371904	40.162	ng	100
9) Benzaldehyde	6.428	77	262348	37.479	ng	99
10) Phenol	6.516	94	507443	41.199	ng	99
11) bis(2-Chloroethyl)ether	6.616	93	371673	39.825	ng	99
12) 1,3-Dichlorobenzene	6.816	146	404387	39.579	ng	99
13) 1,4-Dichlorobenzene	6.893	146	409423	39.520	ng	99
14) 1,2-Dichlorobenzene	7.051	146	380948	39.610	ng	100
15) Benzyl Alcohol	7.016	79	356418	42.357	ng	99
16) 2,2'-oxybis(1-Chloropr...	7.151	45	534596	41.471	ng	99
17) 2-Methylphenol	7.128	107	313127	41.105	ng	99
18) Hexachloroethane	7.387	117	151355	39.519	ng	98
19) n-Nitroso-di-n-propyla...	7.287	70	288974	40.966	ng	98
20) 3+4-Methylphenols	7.281	107	397692	41.745	ng	96
22) Acetophenone	7.287	105	529699	38.662	ng	98
24) Nitrobenzene	7.457	77	462701	39.307	ng	99
25) Isophorone	7.698	82	793806	39.616	ng	99
26) 2-Nitrophenol	7.775	139	210859	40.366	ng	99
27) 2,4-Dimethylphenol	7.804	122	262308	39.222	ng	97
28) bis(2-Chloroethoxy)met...	7.904	93	479505	39.027	ng	100
29) 2,4-Dichlorophenol	8.016	162	323936	39.193	ng	99
30) 1,2,4-Trichlorobenzene	8.098	180	355366	38.619	ng	100
31) Naphthalene	8.181	128	1157149	38.723	ng	100
32) Benzoic acid	7.928	122	249383	42.449	ng	96
33) 4-Chloroaniline	8.228	127	400271	38.516	ng	100
34) Hexachlorobutadiene	8.292	225	227805	38.855	ng	99
35) Caprolactam	8.598	113	108216	38.943	ng	96
36) 4-Chloro-3-methylphenol	8.704	107	364230	39.766	ng	99
37) 2-Methylnaphthalene	8.869	142	744201	38.839	ng	99
38) 1-Methylnaphthalene	8.969	142	736798	39.267	ng	99
40) 1,2,4,5-Tetrachloroben...	9.034	216	354978	38.371	ng	99
41) Hexachlorocyclopentadiene	9.022	237	93127	39.207	ng	99
43) 2,4,6-Trichlorophenol	9.145	196	240824	39.666	ng	99

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140340.D
Acq On : 13 Nov 2024 12:48
Operator : RC/JU
Sample : SSTDICCC040
Misc :
ALS Vial : 10 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICCC040

Quant Time: Nov 13 14:28:55 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	2,4,5-Trichlorophenol	9.187	196	260135	39.190	ng	99
46)	1,1'-Biphenyl	9.334	154	939571	38.605	ng	99
47)	2-Chloronaphthalene	9.357	162	712904	38.453	ng	99
48)	2-Nitroaniline	9.457	65	243614	39.621	ng	99
49)	Acenaphthylene	9.775	152	1094318	39.012	ng	100
50)	Dimethylphthalate	9.634	163	843750	38.694	ng	100
51)	2,6-Dinitrotoluene	9.698	165	198967	40.024	ng	99
52)	Acenaphthene	9.951	154	733408	38.711	ng	100
53)	3-Nitroaniline	9.869	138	207550	39.755	ng	100
54)	2,4-Dinitrophenol	9.975	184	98545	38.441	ng	98
55)	Dibenzofuran	10.122	168	1042453	38.868	ng	100
56)	4-Nitrophenol	10.022	139	157938	41.475	ng	98
57)	2,4-Dinitrotoluene	10.104	165	258886	39.569	ng	98
58)	Fluorene	10.463	166	804084	37.951	ng	99
59)	2,3,4,6-Tetrachlorophenol	10.239	232	212533	40.586	ng	99
60)	Diethylphthalate	10.334	149	861287	38.627	ng	99
61)	4-Chlorophenyl-phenyle...	10.451	204	403914	38.614	ng	99
62)	4-Nitroaniline	10.481	138	213640	40.022	ng	100
63)	Azobenzene	10.616	77	865008	39.263	ng	99
65)	4,6-Dinitro-2-methylph...	10.510	198	136662	40.409	ng	98
66)	n-Nitrosodiphenylamine	10.575	169	703286	38.723	ng	100
67)	4-Bromophenyl-phenylether	10.945	248	243728	38.789	ng	100
68)	Hexachlorobenzene	11.010	284	273839	38.734	ng	98
69)	Atrazine	11.098	200	181993	33.121	ng	99
70)	Pentachlorophenol	11.204	266	160120	42.046	ng	98
71)	Phenanthrene	11.428	178	1135052	38.440	ng	100
72)	Anthracene	11.481	178	1117453	38.613	ng	100
73)	Carbazole	11.633	167	1101588	38.551	ng	100
74)	Di-n-butylphthalate	11.957	149	1350065	39.365	ng	100
75)	Fluoranthene	12.616	202	1279456	38.621	ng	100
77)	Benzidine	12.739	184	504166	34.036	ng	99
78)	Pyrene	12.845	202	1295809	39.252	ng	100
80)	Butylbenzylphthalate	13.463	149	532219	41.968	ng	97
81)	Benzo(a)anthracene	14.051	228	975194	38.447	ng	99
82)	3,3'-Dichlorobenzidine	14.010	252	310326	38.491	ng	99
83)	Chrysene	14.086	228	901424	38.950	ng	100
84)	Bis(2-ethylhexyl)phtha...	14.033	149	715490	42.269	ng	100
85)	Di-n-octyl phthalate	14.680	149	995484	41.757	ng	100
87)	Indeno(1,2,3-cd)pyrene	17.086	276	811059	40.723	ng	100
88)	Benzo(b)fluoranthene	15.139	252	814405	38.614	ng	100
89)	Benzo(k)fluoranthene	15.174	252	683609	39.676	ng	99
90)	Benzo(a)pyrene	15.516	252	648346	39.585	ng	99
91)	Dibenzo(a,h)anthracene	17.104	278	670243	40.712	ng	99
92)	Benzo(g,h,i)perylene	17.545	276	685184	40.711	ng	100

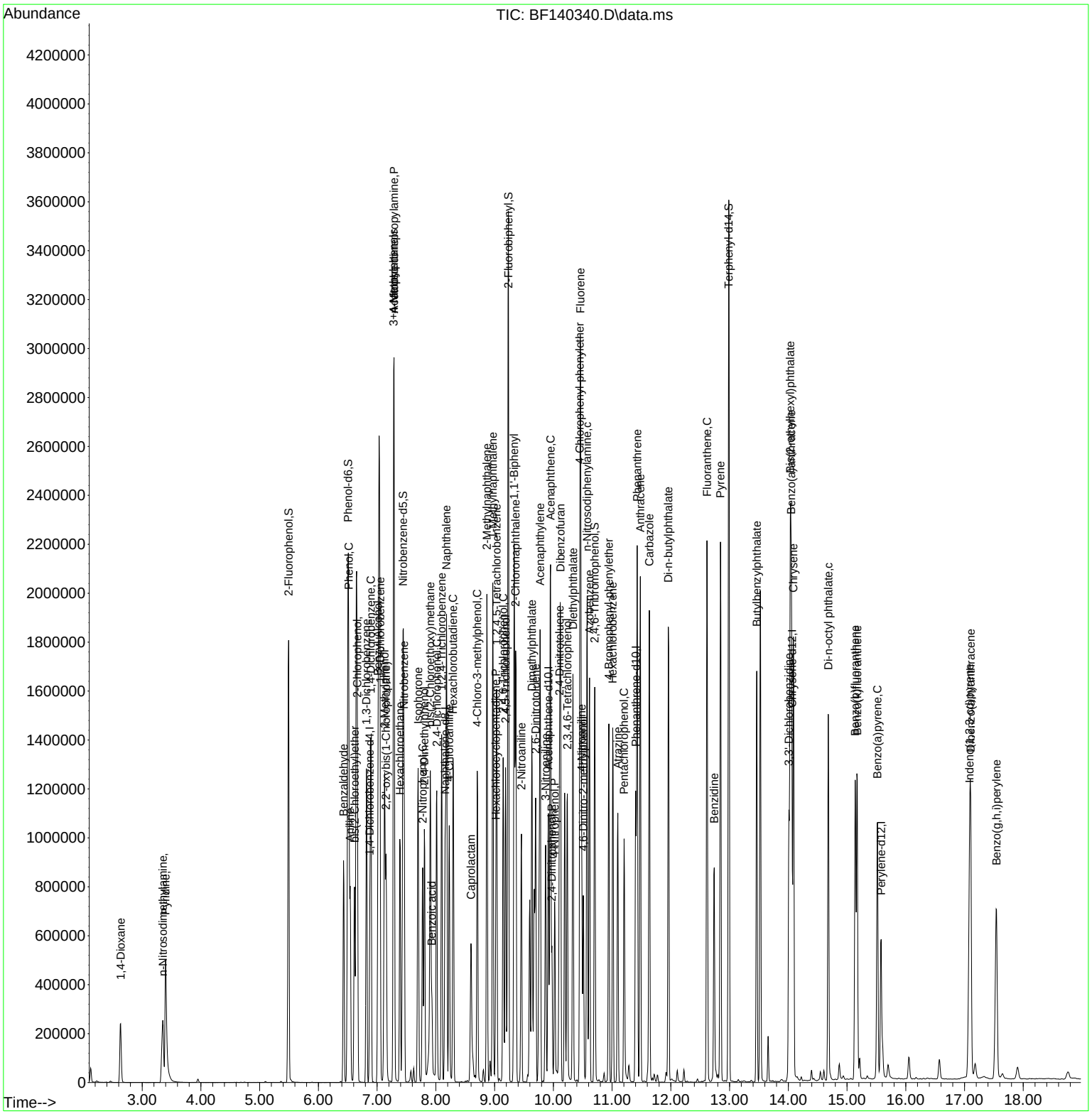
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140340.D
Acq On : 13 Nov 2024 12:48
Operator : RC/JU
Sample : SSTDICCC040
Misc :
ALS Vial : 10 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICCC040

Quant Time: Nov 13 14:28:55 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 13:11:08 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140341.D
Acq On : 13 Nov 2024 13:19
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
ICVBF111324

Quant Time: Nov 13 14:41:15 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.875	152	149980	20.000	ng	0.00
21) Naphthalene-d8	8.157	136	587913	20.000	ng	0.00
39) Acenaphthene-d10	9.916	164	333123	20.000	ng	0.00
64) Phenanthrene-d10	11.404	188	631059	20.000	ng	0.00
76) Chrysene-d12	14.063	240	366437	20.000	ng	0.01
86) Perylene-d12	15.574	264	319261	20.000	ng	0.02
System Monitoring Compounds						
5) 2-Fluorophenol	5.493	112	684092	77.878	ng	0.00
7) Phenol-d6	6.504	99	943149	79.248	ng	0.00
23) Nitrobenzene-d5	7.440	82	885901	78.511	ng	0.00
42) 2,4,6-Tribromophenol	10.704	330	260432	78.617	ng	0.00
45) 2-Fluorobiphenyl	9.234	172	1568824	75.707	ng	0.00
79) Terphenyl-d14	12.986	244	1705668	80.797	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	2.634	88	155026	39.597	ng	99
3) Pyridine	3.405	79	391304	40.655	ng	99
4) n-Nitrosodimethylamine	3.357	42	194133	39.908	ng	98
6) Aniline	6.540	93	429973	41.531	ng	99
8) 2-Chlorophenol	6.663	128	373546	39.588	ng	100
9) Benzaldehyde	6.428	77	266318	37.337	ng	99
10) Phenol	6.516	94	505284	40.259	ng	99
11) bis(2-Chloroethyl)ether	6.616	93	374368	39.367	ng	99
12) 1,3-Dichlorobenzene	6.816	146	407569	39.148	ng	99
13) 1,4-Dichlorobenzene	6.898	146	410968	38.930	ng	100
14) 1,2-Dichlorobenzene	7.051	146	381749	38.953	ng	100
15) Benzyl Alcohol	7.016	79	356665	41.596	ng	99
16) 2,2'-oxybis(1-Chloropr...	7.151	45	529417	40.304	ng	100
17) 2-Methylphenol	7.128	107	312261	40.228	ng	99
18) Hexachloroethane	7.387	117	152783	39.149	ng	98
19) n-Nitroso-di-n-propyla...	7.292	70	288082	40.079	ng	99
20) 3+4-Methylphenols	7.281	107	398279	41.028	ng	99
22) Acetophenone	7.287	105	530294	38.782	ng	99
24) Nitrobenzene	7.463	77	461518	39.284	ng	99
25) Isophorone	7.698	82	791096	39.558	ng	100
26) 2-Nitrophenol	7.775	139	212967	40.850	ng	100
27) 2,4-Dimethylphenol	7.804	122	270554	40.536	ng	100
28) bis(2-Chloroethoxy)met...	7.904	93	481393	39.258	ng	99
29) 2,4-Dichlorophenol	8.016	162	326198	39.545	ng	99
30) 1,2,4-Trichlorobenzene	8.098	180	356725	38.843	ng	99
31) Naphthalene	8.181	128	1159811	38.889	ng	100
32) Benzoic acid	7.928	122	250402	42.635	ng	97
33) 4-Chloroaniline	8.228	127	404464	38.996	ng	99
34) Hexachlorobutadiene	8.298	225	227054	38.804	ng	99
35) Caprolactam	8.598	113	110611	40.345	ng	99
36) 4-Chloro-3-methylphenol	8.704	107	368906	40.356	ng	100
37) 2-Methylnaphthalene	8.869	142	747189	39.072	ng	100
38) 1-Methylnaphthalene	8.969	142	729079	38.933	ng	100
40) 1,2,4,5-Tetrachloroben...	9.034	216	356102	38.657	ng	100
41) Hexachlorocyclopentadiene	9.022	237	90509	38.267	ng	98
43) 2,4,6-Trichlorophenol	9.145	196	240423	39.769	ng	100

ICAL Form

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Data File : BF140341.D
Acq On : 13 Nov 2024 13:19
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
ICVBF111324

Quant Time: Nov 13 14:41:15 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.186	196	254749	38.542	ng	100
46) 1,1'-Biphenyl	9.334	154	946801	39.068	ng	99
47) 2-Chloronaphthalene	9.363	162	711544	38.543	ng	100
48) 2-Nitroaniline	9.457	65	243803	39.821	ng	99
49) Acenaphthylene	9.775	152	1088251	38.962	ng	100
50) Dimethylphthalate	9.634	163	845361	38.933	ng	99
51) 2,6-Dinitrotoluene	9.698	165	197768	39.952	ng	100
52) Acenaphthene	9.951	154	738443	39.143	ng	100
53) 3-Nitroaniline	9.869	138	206946	39.809	ng	99
54) 2,4-Dinitrophenol	9.975	184	102497	40.153	ng	99
55) Dibenzofuran	10.122	168	1049030	39.280	ng	99
56) 4-Nitrophenol	10.022	139	158431	41.782	ng	99
57) 2,4-Dinitrotoluene	10.104	165	262271	40.258	ng	100
58) Fluorene	10.463	166	811348	38.457	ng	99
59) 2,3,4,6-Tetrachlorophenol	10.239	232	206672	39.601	ng	99
60) Diethylphthalate	10.333	149	864678	38.945	ng	100
61) 4-Chlorophenyl-phenyle...	10.451	204	400645	38.465	ng	99
62) 4-Nitroaniline	10.481	138	210281	39.561	ng	99
63) Azobenzene	10.616	77	869821	39.649	ng	99
65) 4,6-Dinitro-2-methylph...	10.510	198	139694	41.144	ng	100
66) n-Nitrosodiphenylamine	10.575	169	709758	38.926	ng	100
67) 4-Bromophenyl-phenylether	10.945	248	246390	39.059	ng	99
68) Hexachlorobenzene	11.010	284	277113	39.043	ng	99
69) Atrazine	11.098	200	180055	32.640	ng	98
70) Pentachlorophenol	11.204	266	159402	41.693	ng	99
71) Phenanthrene	11.428	178	1127194	38.024	ng	99
72) Anthracene	11.480	178	1114551	38.362	ng	100
73) Carbazole	11.633	167	1109519	38.676	ng	100
74) Di-n-butylphthalate	11.957	149	1356287	39.391	ng	100
75) Fluoranthene	12.616	202	1270353	38.196	ng	99
77) Benzidine	12.739	184	546613	38.866	ng	99
78) Pyrene	12.845	202	1274659	40.667	ng	100
80) Butylbenzylphthalate	13.463	149	512452	42.560	ng	98
81) Benzo(a)anthracene	14.051	228	947117	39.327	ng	99
82) 3,3'-Dichlorobenzidine	14.010	252	304604	39.793	ng	99
83) Chrysene	14.086	228	869491	39.569	ng	99
84) Bis(2-ethylhexyl)phtha...	14.033	149	678437	42.213	ng	100
85) Di-n-octyl phthalate	14.680	149	915547	40.448	ng	99
87) Indeno(1,2,3-cd)pyrene	17.080	276	815903	41.371	ng	100
88) Benzo(b)fluoranthene	15.139	252	775920	37.153	ng	99
89) Benzo(k)fluoranthene	15.168	252	693105	40.625	ng	99
90) Benzo(a)pyrene	15.510	252	637970	39.337	ng	100
91) Dibenzo(a,h)anthracene	17.098	278	682579	41.871	ng	100
92) Benzo(g,h,i)perylene	17.539	276	677222	40.635	ng	99

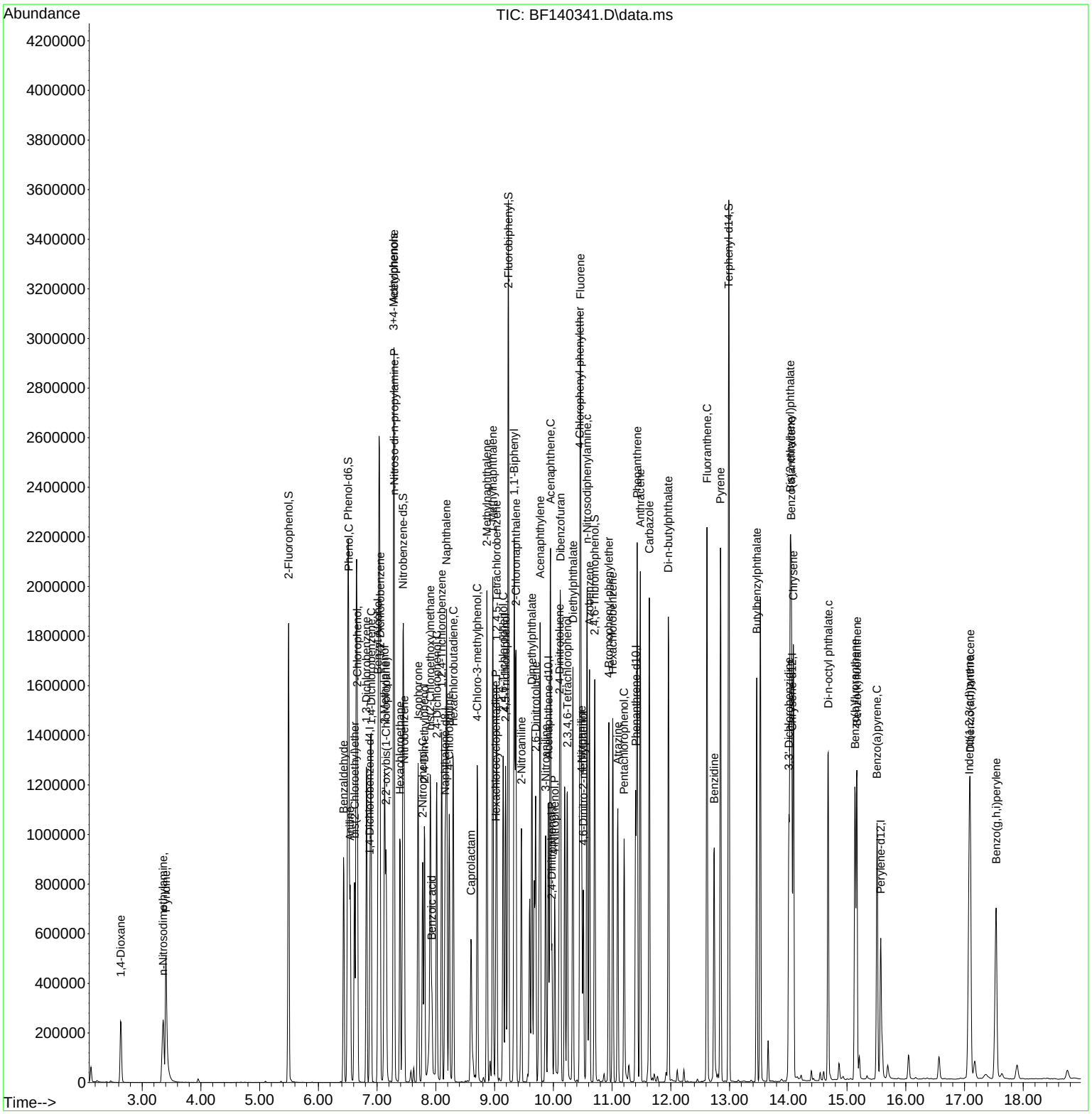
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140341.D
Acq On : 13 Nov 2024 13:19
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
ICVBF111324

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Evaluate Continuing Calibration Report

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Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	102	0.00
2		1,4-Dioxane	0.522	0.517	1.0	102	0.00
3		Pyridine	1.283	1.305	-1.7	101	0.00
4		n-Nitrosodimethylamine	0.649	0.647	0.3	100	0.00
5	S	2-Fluorophenol	1.171	1.140	2.6	101	0.00
6		Aniline	1.381	1.433	-3.8	101	0.00
7	S	Phenol-d6	1.587	1.572	0.9	100	0.00
8		2-Chlorophenol	1.258	1.245	1.0	100	0.00
9		Benzaldehyde	0.951	0.888	6.6	102	0.00
10	C	Phenol	1.674	1.685	-0.7	100	0.00
11		bis(2-Chloroethyl)ether	1.268	1.248	1.6	101	0.00
12		1,3-Dichlorobenzene	1.388	1.359	2.1	101	0.00
13	C	1,4-Dichlorobenzene	1.408	1.370	2.7	100	0.00
14		1,2-Dichlorobenzene	1.307	1.273	2.6	100	0.00
15		Benzyl Alcohol	1.143	1.189	-4.0	100	0.00
16		2,2'-oxybis(1-Chloropropane	1.752	1.765	-0.7	99	0.00
17		2-Methylphenol	1.035	1.041	-0.6	100	0.00
18		Hexachloroethane	0.520	0.509	2.1	101	0.00
19	P	n-Nitroso-di-n-propylamine	0.959	0.960	-0.1	100	0.00
20		3+4-Methylphenols	1.294	1.328	-2.6	100	0.00
21	I	Naphthalene-d8	1.000	1.000	0.0	100	0.00
22		Acetophenone	0.465	0.451	3.0	100	0.00
23	S	Nitrobenzene-d5	0.384	0.377	1.8	100	0.00
24		Nitrobenzene	0.400	0.393	1.8	100	0.00
25		Isophorone	0.680	0.673	1.0	100	0.00
26	C	2-Nitrophenol	0.177	0.181	-2.3	101	0.00
27		2,4-Dimethylphenol	0.227	0.230	-1.3	103	0.00
28		bis(2-Chloroethoxy)methane	0.417	0.409	1.9	100	0.00
29	C	2,4-Dichlorophenol	0.281	0.277	1.4	101	0.00
30		1,2,4-Trichlorobenzene	0.312	0.303	2.9	100	0.00
31		Naphthalene	1.015	0.986	2.9	100	0.00
32		Benzoic acid	0.200	0.213	-6.5	100	0.00
33		4-Chloroaniline	0.353	0.344	2.5	101	0.00
34	C	Hexachlorobutadiene	0.199	0.193	3.0	100	0.00
35		Caprolactam	0.093	0.094	-1.1	102	0.00
36	C	4-Chloro-3-methylphenol	0.311	0.314	-1.0	101	0.00
37		2-Methylnaphthalene	0.651	0.635	2.5	100	0.00
38		1-Methylnaphthalene	0.637	0.620	2.7	99	0.00
39	I	Acenaphthene-d10	1.000	1.000	0.0	100	0.00
40		1,2,4,5-Tetrachlorobenzene	0.553	0.534	3.4	100	0.00
41	P	Hexachlorocyclopentadiene	0.142	0.136	4.2	97	0.00
42	S	2,4,6-Tribromophenol	0.199	0.195	2.0	101	0.00
43	C	2,4,6-Trichlorophenol	0.363	0.361	0.6	100	0.00
44		2,4,5-Trichlorophenol	0.397	0.382	3.8	98	0.00
45	S	2-Fluorobiphenyl	1.244	1.177	5.4	100	0.00
46		1,1'-Biphenyl	1.455	1.421	2.3	101	0.00
47		2-Chloronaphthalene	1.108	1.068	3.6	100	0.00

ICAL Form

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Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
ICVBF111324

Quant Time: Nov 13 14:41:15 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
48		2-Nitroaniline	0.368	0.366	0.5	100	0.00
49		Acenaphthylene	1.677	1.633	2.6	99	0.00
50		Dimethylphthalate	1.304	1.269	2.7	100	0.00
51		2,6-Dinitrotoluene	0.297	0.297	0.0	99	0.00
52	C	Acenaphthene	1.133	1.108	2.2	101	0.00
53		3-Nitroaniline	0.312	0.311	0.3	100	0.00
54	P	2,4-Dinitrophenol	0.153	0.154	-0.7	104	0.00
55		Dibenzofuran	1.603	1.575	1.7	101	0.00
56	P	4-Nitrophenol	0.228	0.238	-4.4	100	0.00
57		2,4-Dinitrotoluene	0.391	0.394	-0.8	101	0.00
58		Fluorene	1.267	1.218	3.9	101	0.00
59		2,3,4,6-Tetrachlorophenol	0.313	0.310	1.0	97	0.00
60		Diethylphthalate	1.333	1.298	2.6	100	0.00
61		4-Chlorophenyl-phenylether	0.625	0.601	3.8	99	0.00
62		4-Nitroaniline	0.319	0.316	0.9	98	0.00
63		Azobenzene	1.317	1.306	0.8	101	0.00
64	I	Phenanthrene-d10	1.000	1.000	0.0	100	0.00
65		4,6-Dinitro-2-methylphenol	0.108	0.111	-2.8	102	0.00
66	c	n-Nitrosodiphenylamine	0.578	0.562	2.8	101	0.00
67		4-Bromophenyl-phenylether	0.200	0.195	2.5	101	0.00
68		Hexachlorobenzene	0.225	0.220	2.2	101	0.00
69		Atrazine	0.175	0.143	18.3	99	0.00
70	C	Pentachlorophenol	0.121	0.126	-4.1	100	0.00
71		Phenanthrene	0.940	0.893	5.0	99	0.00
72		Anthracene	0.921	0.883	4.1	100	0.00
73		Carbazole	0.909	0.879	3.3	101	0.00
74		Di-n-butylphthalate	1.091	1.075	1.5	100	0.00
75	C	Fluoranthene	1.054	1.007	4.5	99	0.00
76	I	Chrysene-d12	1.000	1.000	0.0	95	0.01
77		Benzidine	0.768	0.746	2.9	108	0.00
78		Pyrene	1.711	1.739	-1.6	98	0.00
79	S	Terphenyl-d14	1.152	1.164	-1.0	98	0.00
80		Butylbenzylphthalate	0.657	0.699	-6.4	96	0.00
81		Benzo(a)anthracene	1.314	1.292	1.7	97	0.01
82		3,3'-Dichlorobenzidine	0.418	0.416	0.5	98	0.01
83		Chrysene	1.199	1.186	1.1	96	0.00
84		Bis(2-ethylhexyl)phthalate	0.877	0.926	-5.6	95	0.01
85	c	Di-n-octyl phthalate	1.235	1.249	-1.1	92	0.02
86	I	Perylene-d12	1.000	1.000	0.0	99	0.02
87		Indeno(1,2,3-cd)pyrene	1.235	1.278	-3.5	101	0.02
88		Benzo(b)fluoranthene	1.308	1.215	7.1	95	0.02
89		Benzo(k)fluoranthene	1.069	1.085	-1.5	101	0.02
90	C	Benzo(a)pyrene	1.016	0.999	1.7	98	0.02
91		Dibenzo(a,h)anthracene	1.021	1.069	-4.7	102	0.02
92		Benzo(g,h,i)perylene	1.044	1.061	-1.6	99	0.02

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Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

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Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	20.000	20.000	0.0	102	0.00
2		1,4-Dioxane	40.000	39.597	1.0	102	0.00
3		Pyridine	40.000	40.655	-1.6	101	0.00
4		n-Nitrosodimethylamine	40.000	39.908	0.2	100	0.00
5	S	2-Fluorophenol	80.000	77.878	2.7	101	0.00
6		Aniline	40.000	41.531	-3.8	101	0.00
7	S	Phenol-d6	80.000	79.248	0.9	100	0.00
8		2-Chlorophenol	40.000	39.588	1.0	100	0.00
9		Benzaldehyde	40.000	37.337	6.7	102	0.00
10	C	Phenol	40.000	40.259	-0.6	100	0.00
11		bis(2-Chloroethyl)ether	40.000	39.367	1.6	101	0.00
12		1,3-Dichlorobenzene	40.000	39.148	2.1	101	0.00
13	C	1,4-Dichlorobenzene	40.000	38.930	2.7	100	0.00
14		1,2-Dichlorobenzene	40.000	38.953	2.6	100	0.00
15		Benzyl Alcohol	40.000	41.596	-4.0	100	0.00
16		2,2'-oxybis(1-Chloropropane	40.000	40.304	-0.8	99	0.00
17		2-Methylphenol	40.000	40.228	-0.6	100	0.00
18		Hexachloroethane	40.000	39.149	2.1	101	0.00
19	P	n-Nitroso-di-n-propylamine	40.000	40.079	-0.2	100	0.00
20		3+4-Methylphenols	40.000	41.028	-2.6	100	0.00
21	I	Naphthalene-d8	20.000	20.000	0.0	100	0.00
22		Acetophenone	40.000	38.782	3.0	100	0.00
23	S	Nitrobenzene-d5	80.000	78.511	1.9	100	0.00
24		Nitrobenzene	40.000	39.284	1.8	100	0.00
25		Isophorone	40.000	39.558	1.1	100	0.00
26	C	2-Nitrophenol	40.000	40.850	-2.1	101	0.00
27		2,4-Dimethylphenol	40.000	40.536	-1.3	103	0.00
28		bis(2-Chloroethoxy)methane	40.000	39.258	1.9	100	0.00
29	C	2,4-Dichlorophenol	40.000	39.545	1.1	101	0.00
30		1,2,4-Trichlorobenzene	40.000	38.843	2.9	100	0.00
31		Naphthalene	40.000	38.889	2.8	100	0.00
32		Benzoic acid	40.000	42.635	-6.6	100	0.00
33		4-Chloroaniline	40.000	38.996	2.5	101	0.00
34	C	Hexachlorobutadiene	40.000	38.804	3.0	100	0.00
35		Caprolactam	40.000	40.345	-0.9	102	0.00
36	C	4-Chloro-3-methylphenol	40.000	40.356	-0.9	101	0.00
37		2-Methylnaphthalene	40.000	39.072	2.3	100	0.00
38		1-Methylnaphthalene	40.000	38.933	2.7	99	0.00
39	I	Acenaphthene-d10	20.000	20.000	0.0	100	0.00
40		1,2,4,5-Tetrachlorobenzene	40.000	38.657	3.4	100	0.00
41	P	Hexachlorocyclopentadiene	40.000	38.267	4.3	97	0.00
42	S	2,4,6-Tribromophenol	80.000	78.617	1.7	101	0.00
43	C	2,4,6-Trichlorophenol	40.000	39.769	0.6	100	0.00
44		2,4,5-Trichlorophenol	40.000	38.542	3.6	98	0.00
45	S	2-Fluorobiphenyl	80.000	75.707	5.4	100	0.00
46		1,1'-Biphenyl	40.000	39.068	2.3	101	0.00
47		2-Chloronaphthalene	40.000	38.543	3.6	100	0.00

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140341.D
Acq On : 13 Nov 2024 13:19
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
ICVBF111324

Quant Time: Nov 13 14:41:15 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
48		2-Nitroaniline	40.000	39.821	0.4	100	0.00
49		Acenaphthylene	40.000	38.962	2.6	99	0.00
50		Dimethylphthalate	40.000	38.933	2.7	100	0.00
51		2,6-Dinitrotoluene	40.000	39.952	0.1	99	0.00
52	C	Acenaphthene	40.000	39.143	2.1	101	0.00
53		3-Nitroaniline	40.000	39.809	0.5	100	0.00
54	P	2,4-Dinitrophenol	40.000	40.153	-0.4	104	0.00
55		Dibenzofuran	40.000	39.280	1.8	101	0.00
56	P	4-Nitrophenol	40.000	41.782	-4.5	100	0.00
57		2,4-Dinitrotoluene	40.000	40.258	-0.6	101	0.00
58		Fluorene	40.000	38.457	3.9	101	0.00
59		2,3,4,6-Tetrachlorophenol	40.000	39.601	1.0	97	0.00
60		Diethylphthalate	40.000	38.945	2.6	100	0.00
61		4-Chlorophenyl-phenylether	40.000	38.465	3.8	99	0.00
62		4-Nitroaniline	40.000	39.561	1.1	98	0.00
63		Azobenzene	40.000	39.649	0.9	101	0.00
64	I	Phenanthrene-d10	20.000	20.000	0.0	100	0.00
65		4,6-Dinitro-2-methylphenol	40.000	41.144	-2.9	102	0.00
66	c	n-Nitrosodiphenylamine	40.000	38.926	2.7	101	0.00
67		4-Bromophenyl-phenylether	40.000	39.059	2.4	101	0.00
68		Hexachlorobenzene	40.000	39.043	2.4	101	0.00
69		Atrazine	40.000	32.640	18.4	99	0.00
70	C	Pentachlorophenol	40.000	41.693	-4.2	100	0.00
71		Phenanthrene	40.000	38.024	4.9	99	0.00
72		Anthracene	40.000	38.362	4.1	100	0.00
73		Carbazole	40.000	38.676	3.3	101	0.00
74		Di-n-butylphthalate	40.000	39.391	1.5	100	0.00
75	C	Fluoranthene	40.000	38.196	4.5	99	0.00
76	I	Chrysene-d12	20.000	20.000	0.0	95	0.01
77		Benzidine	40.000	38.866	2.8	108	0.00
78		Pyrene	40.000	40.667	-1.7	98	0.00
79	S	Terphenyl-d14	80.000	80.797	-1.0	98	0.00
80		Butylbenzylphthalate	40.000	42.560	-6.4	96	0.00
81		Benzo(a)anthracene	40.000	39.327	1.7	97	0.01
82		3,3'-Dichlorobenzidine	40.000	39.793	0.5	98	0.01
83		Chrysene	40.000	39.569	1.1	96	0.00
84		Bis(2-ethylhexyl)phthalate	40.000	42.213	-5.5	95	0.01
85	c	Di-n-octyl phthalate	40.000	40.448	-1.1	92	0.02
86	I	Perylene-d12	20.000	20.000	0.0	99	0.02
87		Indeno(1,2,3-cd)pyrene	40.000	41.371	-3.4	101	0.02
88		Benzo(b)fluoranthene	40.000	37.153	7.1	95	0.02
89		Benzo(k)fluoranthene	40.000	40.625	-1.6	101	0.02
90	C	Benzo(a)pyrene	40.000	39.337	1.7	98	0.02
91		Dibenzo(a,h)anthracene	40.000	41.871	-4.7	102	0.02
92		Benzo(g,h,i)perylene	40.000	40.635	-1.6	99	0.02

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140341.D
Acq On : 13 Nov 2024 13:19
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
ICVBF111324

Quant Time: Nov 13 14:41:15 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Raw Data

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

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG No.: P4892

Instrument ID: BNA_F Calibration Date(s): 11/21/2024 11/21/2024

Calibration Time(s): 11:13 14:18

LAB FILE ID: RRF2.5 = BF140528.D RRF005 = BF140529.D RRF010 = BF140530.D
RRF020 = BF140531.D RRF040 = BF140532.D RRF050 = BF140533.D

COMPOUND	RRF2.5	RRF005	RRF010	RRF020	RRF040	RRF050	RRF	% RSD
2-Fluorophenol		1.261	1.233	1.202	1.174	1.117	1.172	5.4
Benzaldehyde			1.007	0.970	0.738	0.752	0.820	19.6
Phenol-d6		1.729	1.617	1.559	1.602	1.465	1.550	7.1
Phenol		1.723	1.648	1.620	1.667	1.514	1.583	7.0
bis(2-Chloroethyl)ether		1.292	1.242	1.214	1.246	1.146	1.211	4.6
2-Chlorophenol		1.385	1.328	1.278	1.283	1.201	1.261	6.5
2-Methylphenol		1.121	1.034	1.033	1.042	0.956	1.010	6.7
2,2-oxybis(1-Chloropropane)		1.650	1.480	1.434	1.463	1.335	1.431	8.4
Acetophenone		0.536	0.511	0.494	0.481	0.463	0.488	5.7
3+4-Methylphenols		1.495	1.362	1.305	1.347	1.211	1.298	9.0
n-Nitroso-di-n-propylamine	0.972	1.002	0.949	0.916	0.946	0.856	0.916	6.8
Nitrobenzene-d5		0.409	0.403	0.395	0.392	0.377	0.391	3.2
Hexachloroethane		0.598	0.545	0.549	0.537	0.514	0.536	6.2
Nitrobenzene		0.439	0.409	0.409	0.401	0.388	0.404	4.3
Isophorone		0.694	0.654	0.657	0.662	0.629	0.652	3.4
2-Nitrophenol		0.178	0.172	0.185	0.180	0.178	0.179	2.2
2,4-Dimethylphenol		0.221	0.214	0.213	0.224	0.204	0.214	3.4
bis(2-Chloroethoxy)methane		0.428	0.408	0.403	0.397	0.378	0.397	4.4
2,4-Dichlorophenol		0.301	0.291	0.290	0.282	0.277	0.284	3.8
Naphthalene		1.116	1.075	1.062	1.013	0.993	1.030	5.3
4-Chloroaniline		0.308	0.318	0.309	0.325	0.303	0.308	3.7
Hexachlorobutadiene		0.227	0.225	0.219	0.212	0.209	0.215	4.2
Caprolactam		0.091	0.091	0.091	0.090	0.085	0.088	4.0
4-Chloro-3-methylphenol		0.348	0.318	0.317	0.327	0.307	0.318	5.0
2-Methylnaphthalene		0.724	0.680	0.669	0.650	0.623	0.654	6.1
Hexachlorocyclopentadiene			0.055	0.090	0.114	0.121	0.107	27.8
2,4,6-Trichlorophenol		0.384	0.358	0.375	0.366	0.364	0.367	2.5
2-Fluorobiphenyl		1.550	1.402	1.423	1.291	1.255	1.342	8.9
2,4,5-Trichlorophenol		0.402	0.396	0.410	0.404	0.390	0.399	1.8
1,1-Biphenyl		1.666	1.530	1.563	1.447	1.427	1.493	6.5
2-Chloronaphthalene		1.251	1.145	1.162	1.106	1.082	1.131	5.4
2-Nitroaniline		0.367	0.351	0.379	0.367	0.363	0.363	2.5
Dimethylphthalate		1.455	1.329	1.346	1.299	1.267	1.317	5.3
Acenaphthylene		1.890	1.765	1.808	1.662	1.628	1.710	6.6

All other compounds must meet a minimum RRF of 0.010.

Raw Data

Alliance TECHNICAL GROUP

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

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG No.: P4892

Instrument ID: BNA_F Calibration Date(s): 11/21/2024 11/21/2024

Calibration Time(s): 11:13 14:18

LAB FILE ID: RRF2.5 = BF140528.D RRF005 = BF140529.D RRF010 = BF140530.D
RRF020 = BF140531.D RRF040 = BF140532.D RRF050 = BF140533.D

COMPOUND	RRF2.5	RRF005	RRF010	RRF020	RRF040	RRF050	RRF	% RSD
2,6-Dinitrotoluene		0.314	0.299	0.307	0.301	0.291	0.299	3.2
3-Nitroaniline		0.307	0.297	0.309	0.300	0.289	0.292	5.7
Acenaphthene		1.182	1.110	1.134	1.063	1.052	1.086	5.3
2,4-Dinitrophenol			0.057	0.089	0.140	0.145	0.122	32.7
4-Nitrophenol			0.160	0.195	0.207	0.212	0.199	10.3
Dibenzofuran		1.898	1.739	1.739	1.622	1.559	1.657	8.5
2,4-Dinitrotoluene		0.403	0.403	0.416	0.404	0.386	0.397	3.2
Diethylphthalate		1.495	1.375	1.393	1.311	1.292	1.338	6.7
4-Chlorophenyl-phenylether		0.739	0.682	0.685	0.639	0.619	0.653	7.9
Fluorene		1.509	1.409	1.399	1.295	1.263	1.330	8.4
4-Nitroaniline		0.307	0.301	0.315	0.312	0.310	0.306	2.7
4,6-Dinitro-2-methylphenol			0.073	0.090	0.110	0.110	0.102	16.7
n-Nitrosodiphenylamine		0.632	0.618	0.597	0.578	0.577	0.591	4.4
2,4,6-Tribromophenol		0.222	0.209	0.220	0.216	0.210	0.214	2.5
4-Bromophenyl-phenylether		0.218	0.215	0.206	0.200	0.200	0.206	3.8
Hexachlorobenzene		0.257	0.240	0.239	0.233	0.232	0.238	3.7
Atrazine		0.181	0.171	0.131	0.140	0.147	0.166	16.4
Pentachlorophenol			0.071	0.090	0.116	0.115	0.105	19.2
Phenanthrene		1.074	1.020	0.970	0.944	0.925	0.961	6.9
Anthracene		1.038	0.994	0.958	0.925	0.905	0.940	6.5
Carbazole		1.004	0.949	0.930	0.889	0.876	0.905	6.7
Di-n-butylphthalate		1.144	1.075	1.074	1.023	1.021	1.044	5.6
Fluoranthene		1.186	1.111	1.114	1.014	0.999	1.044	9.1
Pyrene		1.905	1.801	1.897	1.853	1.791	1.849	2.8
Terphenyl-d14		1.351	1.254	1.308	1.283	1.228	1.284	3.3
Butylbenzylphthalate		0.676	0.644	0.694	0.679	0.655	0.666	3.0
3,3-Dichlorobenzidine		0.375	0.383	0.393	0.413	0.406	0.397	4.0
Benzo(a)anthracene		1.409	1.319	1.379	1.286	1.295	1.324	4.3
Chrysene		1.354	1.263	1.218	1.201	1.137	1.211	6.5
Bis(2-ethylhexyl)phthalate		0.904	0.828	0.862	0.833	0.824	0.841	4.0
Di-n-octyl phthalate		1.198	1.133	1.147	1.132	1.147	1.150	2.3
Benzo(b)fluoranthene		1.347	1.256	1.380	1.186	1.248	1.256	6.4
Benzo(k)fluoranthene		1.243	1.236	1.059	1.101	1.022	1.099	9.3
Benzo(a)pyrene		1.062	1.050	1.063	1.007	0.998	1.021	3.8
Indeno(1,2,3-cd)pyrene		1.209	1.283	1.299	1.304	1.306	1.303	4.5

All other compounds must meet a minimum RRF of 0.010.

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

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG No.: P4892

Instrument ID: BNA_F Calibration Date(s): 11/21/2024 11/21/2024

Calibration Time(s): 11:13 14:18

LAB FILE ID: RRF2.5 = BF140528.D RRF005 = BF140529.D RRF010 = BF140530.D
RRF020 = BF140531.D RRF040 = BF140532.D RRF050 = BF140533.D

COMPOUND	RRF2.5	RRF005	RRF010	RRF020	RRF040	RRF050	RRF	% RSD
Dibenzo(a,h)anthracene		1.015	1.038	1.063	1.068	1.075	1.067	3.9
Benzo(g,h,i)perylene		1.033	1.090	1.078	1.085	1.094	1.089	3.5
1,2,4,5-Tetrachlorobenzene		0.635	0.604	0.606	0.563	0.561	0.586	5.0
1,4-Dioxane		0.501	0.502	0.576	0.489	0.452	0.493	8.5
2,3,4,6-Tetrachlorophenol		0.307	0.296	0.308	0.312	0.305	0.306	1.7

All other compounds must meet a minimum RRF of 0.010.

Response Factor Report BNA_F

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF112124.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Thu Nov 21 15:23:48 2024
Response Via : Initial Calibration

Calibration Files
2.5 =BF140528.D 5 =BF140529.D 10 =BF140530.D 20 =BF140531.D 40 =BF140532.D 50 =BF140533.D 60 =BF140534.D 80 =BF1405
35.D

		Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------	ISTD	----------							
2)		1,4-Dioxane		0.501	0.502	0.576	0.489	0.452	0.454	0.477	0.493	8.46
3)		Pyridine		0.981	1.019	1.121	1.192	1.062	1.087	1.128	1.084	6.54
4)		n-Nitrosodimet...		0.616	0.611	0.661	0.648	0.632	0.632	0.660	0.637	3.15
5)	S	2-Fluorophenol		1.261	1.233	1.202	1.174	1.117	1.127	1.091	1.172	5.40
6)		Aniline		1.159	1.195	1.133	1.251	1.042	1.020	0.835	1.091	12.73
7)	S	Phenol-d6		1.729	1.617	1.559	1.602	1.465	1.470	1.407	1.550	7.14
8)		2-Chlorophenol		1.385	1.328	1.278	1.283	1.201	1.208	1.145	1.261	6.51
9)		Benzaldehyde			1.007	0.970	0.738	0.752	0.635		0.820	19.55
10)	C	Phenol		1.723	1.648	1.620	1.667	1.514	1.490	1.417	1.583	6.98
11)		bis(2-Chloroet...		1.292	1.242	1.214	1.246	1.146	1.200	1.138	1.211	4.56
12)		1,3-Dichlorobe...		1.600	1.493	1.433	1.399	1.345	1.361	1.288	1.417	7.31
13)	C	1,4-Dichlorobe...		1.613	1.501	1.456	1.428	1.358	1.372	1.314	1.435	7.04
14)		1,2-Dichlorobe...		1.503	1.434	1.375	1.355	1.268	1.266	1.210	1.344	7.71
15)		Benzyl Alcohol		1.234	1.174	1.161	1.224	1.113	1.090	1.048	1.149	5.98
16)		2,2'-oxybis(1-...		1.650	1.480	1.434	1.463	1.335	1.377	1.276	1.431	8.43
17)		2-Methylphenol		1.121	1.034	1.033	1.042	0.956	0.959	0.922	1.009	6.74
18)		Hexachloroethane		0.598	0.545	0.549	0.537	0.514	0.510	0.499	0.536	6.17
19)	P	n-Nitroso-di-n...	0.972	1.002	0.949	0.916	0.946	0.856	0.857	0.829	0.916	6.82
20)		3+4-Methylphenols		1.495	1.362	1.305	1.347	1.211	1.209	1.154	1.298	8.98
21)	I	Naphthalene-d8	----------	ISTD	----------							
22)		Acetophenone		0.536	0.511	0.494	0.481	0.463	0.460	0.468	0.488	5.75
23)	S	Nitrobenzene-d5		0.409	0.403	0.395	0.392	0.377	0.377	0.383	0.391	3.21
24)		Nitrobenzene		0.439	0.409	0.409	0.401	0.388	0.391	0.392	0.404	4.35
25)		Isophorone		0.694	0.654	0.657	0.662	0.629	0.634	0.635	0.652	3.44
26)	C	2-Nitrophenol		0.178	0.172	0.185	0.180	0.178	0.180	0.180	0.179	2.17
27)		2,4-Dimethylph...		0.221	0.214	0.213	0.224	0.204	0.207	0.218	0.214	3.40
28)		bis(2-Chloroet...		0.428	0.408	0.403	0.397	0.378	0.384	0.383	0.397	4.37
29)	C	2,4-Dichloroph...		0.301	0.291	0.290	0.282	0.277	0.274	0.271	0.284	3.82
30)		1,2,4-Trichlor...		0.342	0.338	0.332	0.317	0.317	0.312	0.312	0.324	3.91
31)		Naphthalene		1.116	1.075	1.062	1.013	0.993	0.983	0.970	1.030	5.32
32)		Benzoic acid			0.101	0.126	0.177	0.185	0.192	0.202	0.164	24.72
33)		4-Chloroaniline		0.308	0.318	0.309	0.325	0.303	0.308	0.289	0.308	3.71
34)	C	Hexachlorobuta...		0.227	0.225	0.219	0.212	0.209	0.207	0.204	0.215	4.15
35)		Caprolactam		0.091	0.091	0.091	0.090	0.085	0.085	0.083	0.088	3.99
36)	C	4-Chloro-3-met...		0.348	0.318	0.317	0.327	0.307	0.307	0.301	0.318	4.95
37)		2-Methylnaphth...		0.724	0.680	0.669	0.650	0.623	0.620	0.615	0.654	6.09
38)		1-Methylnaphth...		0.707	0.665	0.659	0.638	0.611	0.608	0.601	0.641	5.98

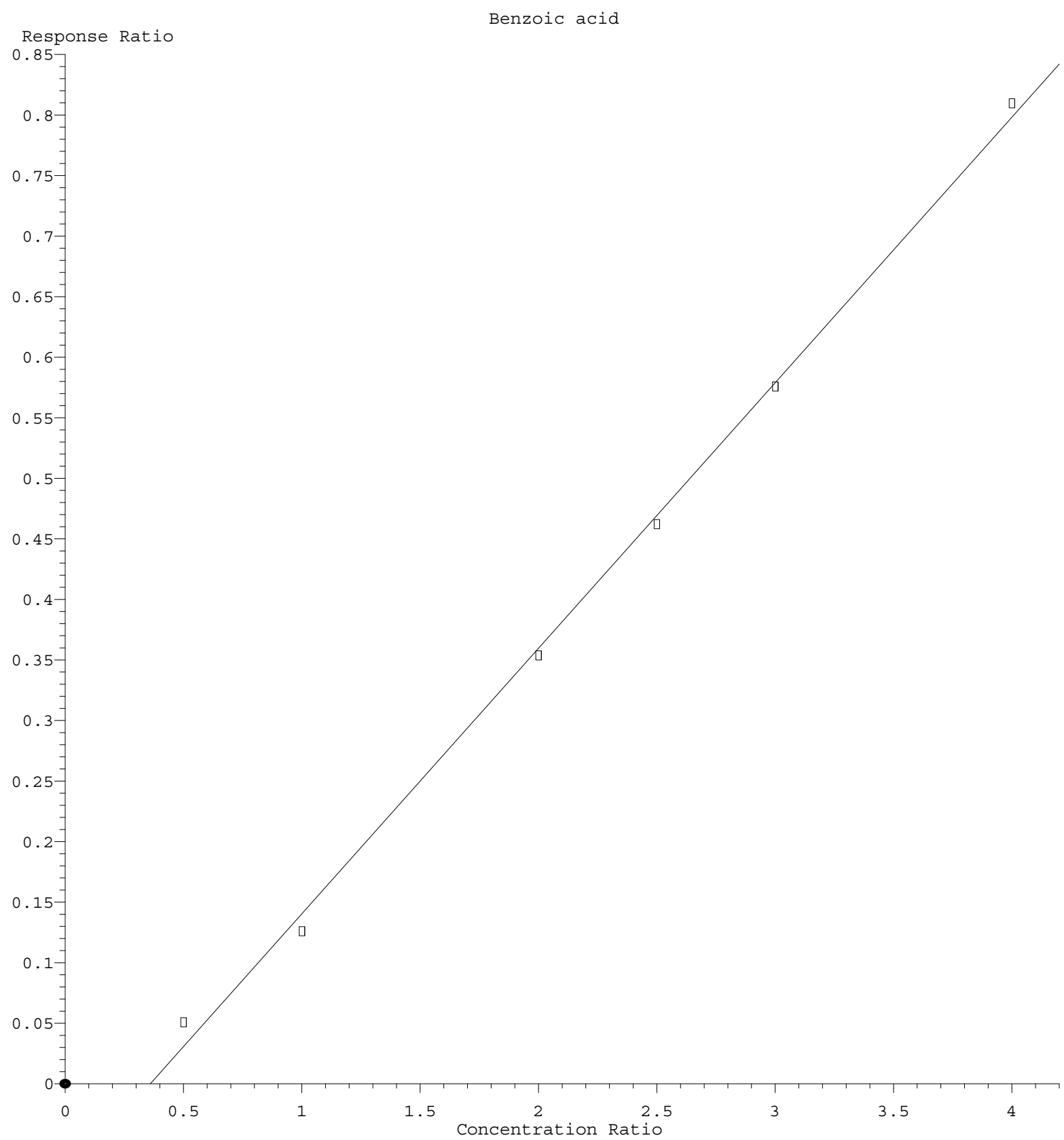
Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF112124.M

39)	I	Acenaphthene-d10	----------ISTD----------								
40)		1,2,4,5-Tetrac...	0.635	0.604	0.606	0.563	0.561	0.565	0.565	0.586	5.02
41)	P	Hexachlorocycl...		0.055	0.090	0.114	0.121	0.129	0.133	0.107	27.80
42)	S	2,4,6-Tribromo...	0.222	0.209	0.220	0.216	0.210	0.210	0.211	0.214	2.52
43)	C	2,4,6-Trichlor...	0.384	0.358	0.375	0.366	0.364	0.360	0.365	0.367	2.45
44)		2,4,5-Trichlor...	0.402	0.396	0.410	0.404	0.390	0.397	0.392	0.399	1.80
45)	S	2-Fluorobiphenyl	1.550	1.402	1.423	1.291	1.255	1.240	1.235	1.342	8.90
46)		1,1'-Biphenyl	1.666	1.530	1.563	1.447	1.427	1.418	1.403	1.493	6.50
47)		2-Chloronaphth...	1.251	1.145	1.162	1.106	1.082	1.084	1.091	1.131	5.39
48)		2-Nitroaniline	0.367	0.351	0.379	0.367	0.363	0.357	0.359	0.363	2.50
49)		Acenaphthylene	1.890	1.765	1.808	1.662	1.628	1.623	1.590	1.710	6.58
50)		Dimethylphthalate	1.455	1.329	1.346	1.299	1.267	1.270	1.254	1.317	5.28
51)		2,6-Dinitrotol...	0.314	0.299	0.307	0.301	0.291	0.293	0.286	0.299	3.24
52)	C	Acenaphthene	1.182	1.110	1.134	1.063	1.052	1.037	1.026	1.086	5.29
53)		3-Nitroaniline	0.307	0.297	0.309	0.300	0.289	0.281	0.262	0.292	5.71
54)	P	2,4-Dinitrophenol		0.057	0.089	0.140	0.145	0.150	0.154	0.122	32.70
55)		Dibenzofuran	1.898	1.739	1.739	1.622	1.559	1.531	1.509	1.657	8.53
56)	P	4-Nitrophenol		0.160	0.195	0.207	0.212	0.214	0.208	0.199	10.31
57)		2,4-Dinitrotol...	0.403	0.403	0.416	0.404	0.386	0.389	0.379	0.397	3.24
58)		Fluorene	1.509	1.409	1.399	1.295	1.263	1.224	1.210	1.330	8.37
59)		2,3,4,6-Tetrac...	0.307	0.296	0.308	0.312	0.305	0.305	0.312	0.306	1.72
60)		Diethylphthalate	1.495	1.375	1.393	1.311	1.292	1.268	1.234	1.338	6.66
61)		4-Chlorophenyl...	0.739	0.682	0.685	0.639	0.619	0.605	0.599	0.653	7.90
62)		4-Nitroaniline	0.307	0.301	0.315	0.312	0.310	0.309	0.291	0.306	2.67
63)		Azobenzene	1.406	1.320	1.320	1.235	1.205	1.206	1.179	1.267	6.55
64)	I	Phenanthrene-d10	----------ISTD----------								
65)		4,6-Dinitro-2-...		0.073	0.090	0.110	0.110	0.117	0.113	0.102	16.74
66)	c	n-Nitrosodiphe...	0.632	0.618	0.597	0.578	0.577	0.580	0.558	0.591	4.39
67)		4-Bromophenyl-...	0.218	0.215	0.206	0.200	0.200	0.205	0.198	0.206	3.79
68)		Hexachlorobenzene	0.257	0.240	0.239	0.233	0.232	0.236	0.232	0.238	3.65
69)		Atrazine	0.181	0.171	0.131	0.140	0.147	0.196	0.198	0.166	16.37
70)	C	Pentachlorophenol		0.071	0.090	0.116	0.115	0.121	0.118	0.105	19.24
71)		Phenanthrene	1.074	1.020	0.970	0.944	0.925	0.916	0.881	0.961	6.87
72)		Anthracene	1.038	0.994	0.958	0.925	0.905	0.904	0.859	0.940	6.47
73)		Carbazole	1.004	0.949	0.930	0.889	0.876	0.862	0.821	0.905	6.75
74)		Di-n-butylphth...	1.144	1.075	1.074	1.023	1.021	1.007	0.967	1.044	5.56
75)	C	Fluoranthene	1.186	1.111	1.114	1.014	0.999	0.962	0.921	1.044	9.11
76)	I	Chrysene-d12	----------ISTD----------								
77)		Benzidine	0.268	0.422	0.296	0.575	0.734	1.025	0.751	0.581	47.31
78)		Pyrene	1.905	1.801	1.897	1.853	1.791	1.898	1.799	1.849	2.79
79)	S	Terphenyl-d14	1.351	1.254	1.308	1.283	1.228	1.313	1.254	1.284	3.31
80)		Butylbenzylpht...	0.676	0.644	0.694	0.679	0.655	0.674	0.641	0.666	2.96
81)		Benzo(a)anthra...	1.409	1.319	1.379	1.286	1.295	1.338	1.242	1.324	4.30
82)		3,3'-Dichlorob...	0.375	0.383	0.393	0.413	0.406	0.419	0.394	0.397	4.03
83)		Chrysene	1.354	1.263	1.218	1.201	1.137	1.173	1.128	1.211	6.50
84)		Bis(2-ethylhex...	0.904	0.828	0.862	0.833	0.824	0.841	0.797	0.841	4.00
85)	c	Di-n-octyl pht...	1.198	1.133	1.147	1.132	1.147	1.169	1.121	1.150	2.29

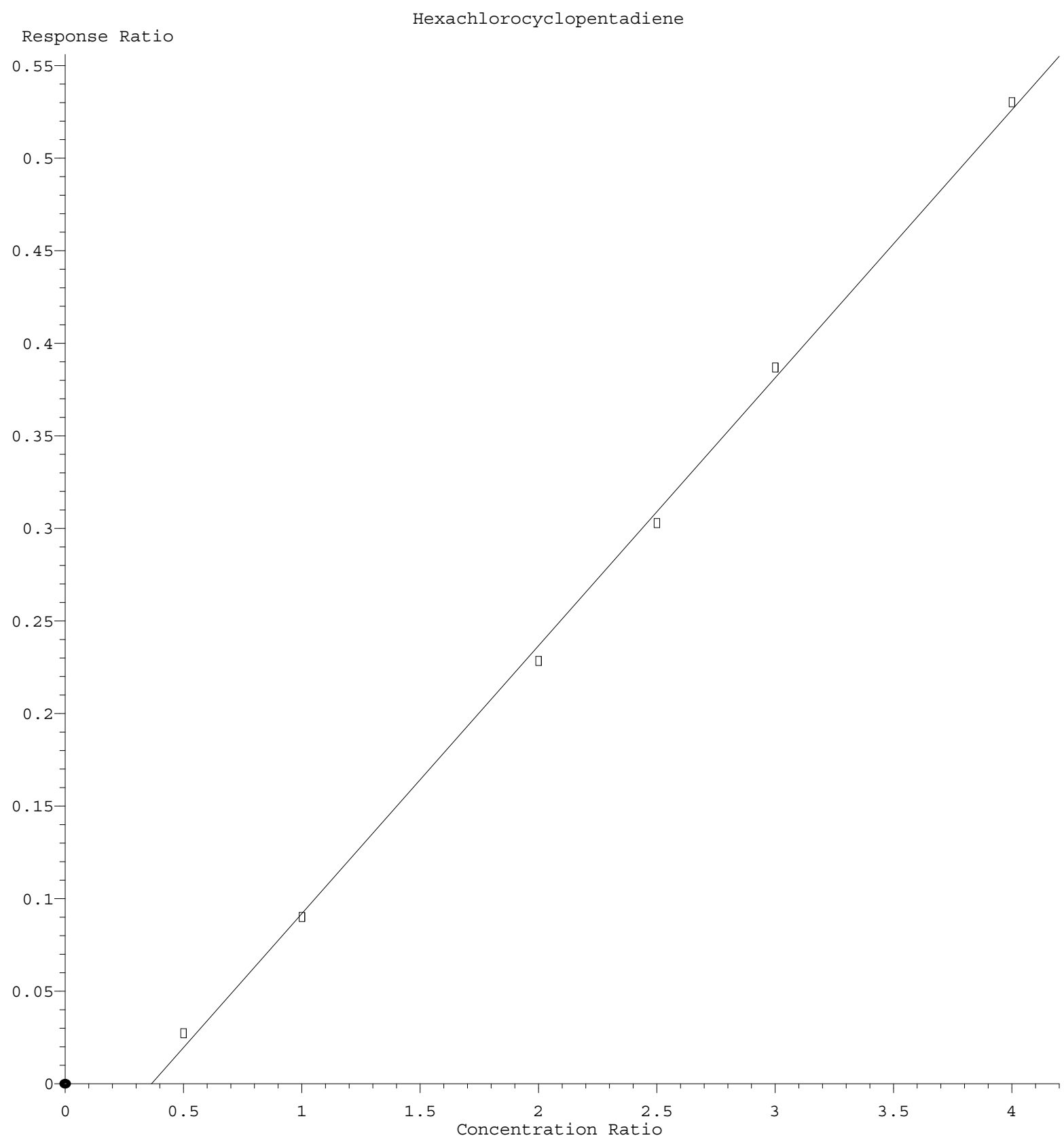
Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF112124.M

86)	I	Perylene-d12	----------ISTD----------							
87)		Indeno(1,2,3-c...	1.209	1.283	1.299	1.304	1.306	1.409	1.313	1.303	4.51
88)		Benzo(b)fluora...	1.347	1.256	1.380	1.186	1.248	1.207	1.168	1.256	6.41
89)		Benzo(k)fluora...	1.243	1.236	1.059	1.101	1.022	1.055	0.980	1.099	9.34
90)	C	Benzo(a)pyrene	1.062	1.050	1.063	1.007	0.998	1.014	0.957	1.021	3.81
91)		Dibenzo(a,h)an...	1.015	1.038	1.063	1.068	1.075	1.149	1.064	1.067	3.90
92)		Benzo(g,h,i)pe...	1.033	1.090	1.078	1.085	1.094	1.161	1.083	1.089	3.48

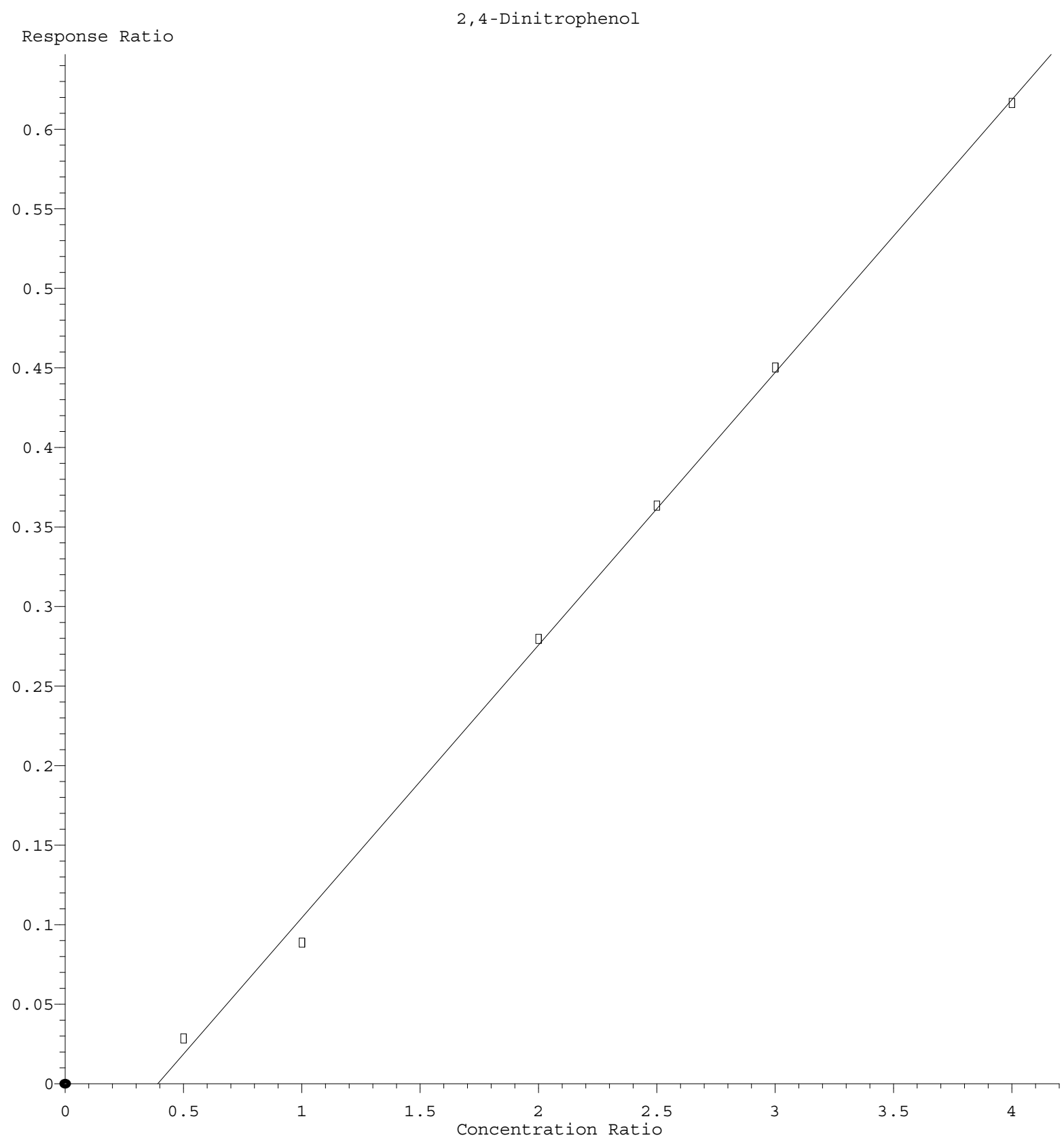
(#) = Out of Range



Response = 2.193e-001 * Amt - 7.887e-002
Coef of Det (r^2) = 0.997922 Curve Fit: Linear
Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF112124.M
Calibration Table Last Updated: Thu Nov 21 15:23:48 2024



Response = 1.448e-001 * Amt - 5.280e-002
Coef of Det (r^2) = 0.998763 Curve Fit: Linear
Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF112124.M
Calibration Table Last Updated: Thu Nov 21 15:23:48 2024



Response = 1.715e-001 * Amt - 6.708e-002
Coef of Det (r^2) = 0.998475 Curve Fit: Linear
Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF112124.M
Calibration Table Last Updated: Thu Nov 21 15:23:48 2024

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140528.D
Acq On : 21 Nov 2024 11:13
Operator : RC/JU
Sample : SSTDICC2.5
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC2.5

Quant Time: Nov 21 15:08:58 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.869	152	98970	20.000	ng	0.00
21) Naphthalene-d8	8.151	136	372671	20.000	ng	0.00
39) Acenaphthene-d10	9.910	164	211504	20.000	ng	0.00
64) Phenanthrene-d10	11.398	188	393771	20.000	ng	0.00
76) Chrysene-d12	14.045	240	232997	20.000	ng	0.00
86) Perylene-d12	15.539	264	178104	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.000	ng	
7) Phenol-d6	0.000	99	0d	0.000	ng	
23) Nitrobenzene-d5	0.000	82	0d	0.000	ng	
42) 2,4,6-Tribromophenol	0.000	330	0d	0.000	ng	
45) 2-Fluorobiphenyl	0.000	172	0d	0.000	ng	
79) Terphenyl-d14	0.000	244	0d	0.000	ng	
Target Compounds						Qvalue
19) n-Nitroso-di-n-propyla...	7.269	70	12029	2.654	ng	98

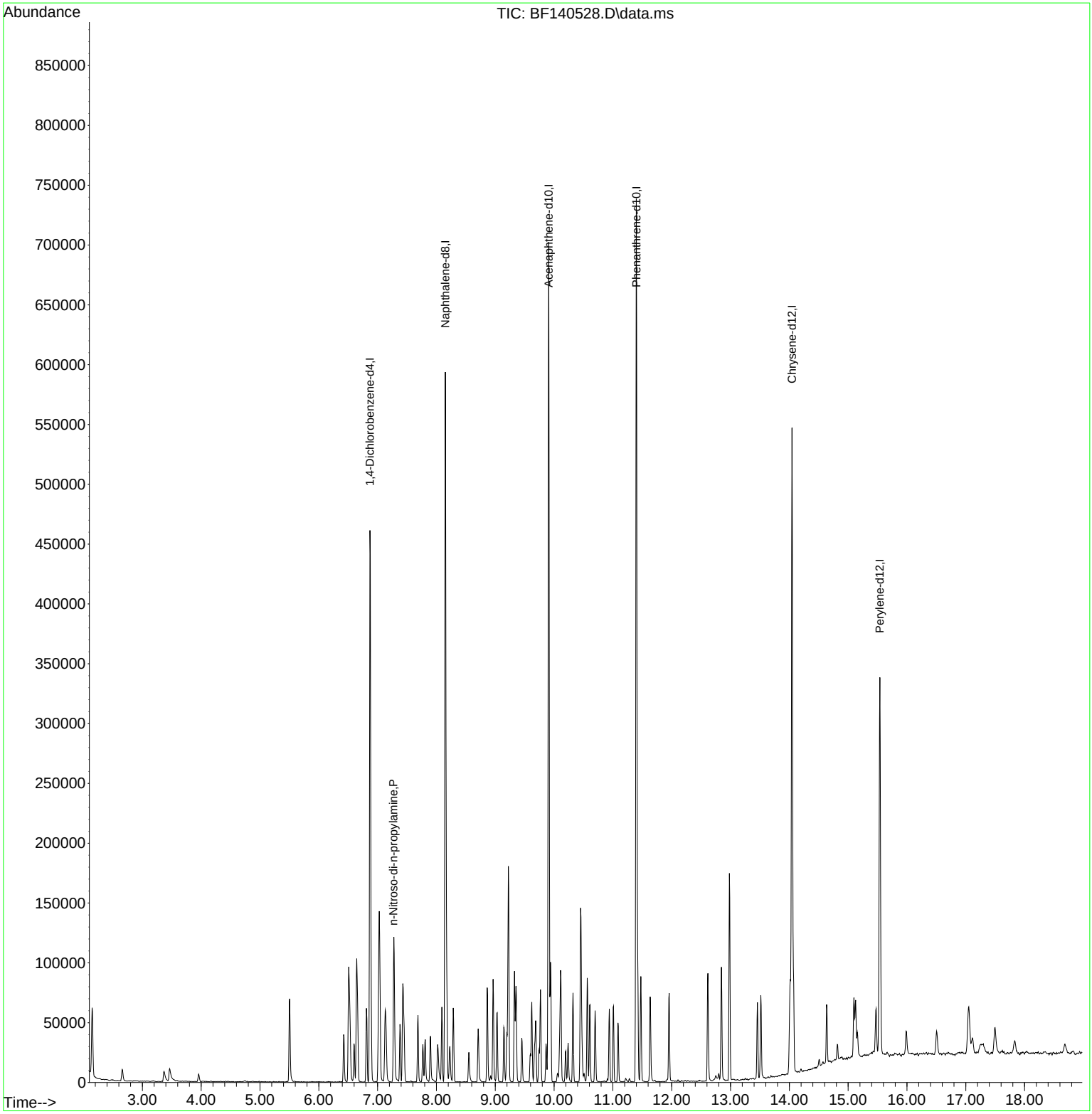
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140528.D
Acq On : 21 Nov 2024 11:13
Operator : RC/JU
Sample : SSTDICC2.5
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC2.5

Quant Time: Nov 21 15:08:58 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration



ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140529.D
Acq On : 21 Nov 2024 11:39
Operator : RC/JU
Sample : SSTDICC005
Misc :
ALS Vial : 4 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC005

Quant Time: Nov 21 15:09:49 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.875	152	104134	20.000	ng		0.00
21) Naphthalene-d8	8.151	136	395935	20.000	ng		0.00
39) Acenaphthene-d10	9.910	164	219293	20.000	ng		0.00
64) Phenanthrene-d10	11.398	188	428851	20.000	ng		0.00
76) Chrysene-d12	14.045	240	270381	20.000	ng		0.00
86) Perylene-d12	15.533	264	205006	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.499	112	65659	10.758	ng		0.00
7) Phenol-d6	6.504	99	90026	11.158	ng		-0.01
23) Nitrobenzene-d5	7.428	82	80941	10.457	ng		-0.01
42) 2,4,6-Tribromophenol	10.698	330	24342	10.379	ng		0.00
45) 2-Fluorobiphenyl	9.222	172	170000	11.550	ng		-0.01
79) Terphenyl-d14	12.980	244	182707	10.522	ng		-0.01
Target Compounds							Qvalue
2) 1,4-Dioxane	2.646	88	13033	5.079	ng		99
3) Pyridine	3.440	79	25544	4.524	ng		98
4) n-Nitrosodimethylamine	3.358	42	16043	4.835	ng	#	98
6) Aniline	6.534	93	30162	5.311	ng	#	85
8) 2-Chlorophenol	6.657	128	36046	5.490	ng		99
10) Phenol	6.522	94	44852	5.443	ng		94
11) bis(2-Chloroethyl)ether	6.604	93	33630	5.333	ng		99
12) 1,3-Dichlorobenzene	6.810	146	41643	5.644	ng		97
13) 1,4-Dichlorobenzene	6.887	146	42002	5.622	ng		98
14) 1,2-Dichlorobenzene	7.040	146	39138	5.591	ng		97
15) Benzyl Alcohol	7.010	79	32114	5.367	ng		98
16) 2,2'-oxybis(1-Chloropr...	7.146	45	42946	5.765	ng		79
17) 2-Methylphenol	7.128	107	29188	5.553	ng		96
18) Hexachloroethane	7.381	117	15560	5.577	ng		97
19) n-Nitroso-di-n-propyla...	7.275	70	26085	5.470	ng		99
20) 3+4-Methylphenols	7.281	107	38915	5.760	ng		97
22) Acetophenone	7.275	105	53017	5.492	ng		95
24) Nitrobenzene	7.451	77	43460	5.432	ng		99
25) Isophorone	7.687	82	68701	5.321	ng		100
26) 2-Nitrophenol	7.769	139	17600	4.964	ng		100
27) 2,4-Dimethylphenol	7.804	122	21843	5.149	ng		97
28) bis(2-Chloroethoxy)met...	7.898	93	42337	5.383	ng		99
29) 2,4-Dichlorophenol	8.022	162	29819	5.305	ng		95
30) 1,2,4-Trichlorobenzene	8.092	180	33886	5.280	ng		99
31) Naphthalene	8.175	128	110501	5.418	ng		99
33) 4-Chloroaniline	8.228	127	30440	4.985	ng		97
34) Hexachlorobutadiene	8.287	225	22446	5.280	ng		99
35) Caprolactam	8.557	113	8985	5.165	ng		99
36) 4-Chloro-3-methylphenol	8.710	107	34404	5.467	ng		99
37) 2-Methylnaphthalene	8.863	142	71706	5.536	ng		100
38) 1-Methylnaphthalene	8.963	142	69955	5.510	ng		99
40) 1,2,4,5-Tetrachloroben...	9.034	216	34836	5.426	ng		99
43) 2,4,6-Trichlorophenol	9.145	196	21046	5.224	ng		99
44) 2,4,5-Trichlorophenol	9.192	196	22061	5.046	ng		99
46) 1,1'-Biphenyl	9.328	154	91336	5.579	ng		99
47) 2-Chloronaphthalene	9.351	162	68559	5.526	ng		99

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140529.D
Acq On : 21 Nov 2024 11:39
Operator : RC/JU
Sample : SSTDICC005
Misc :
ALS Vial : 4 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC005

Quant Time: Nov 21 15:09:49 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration

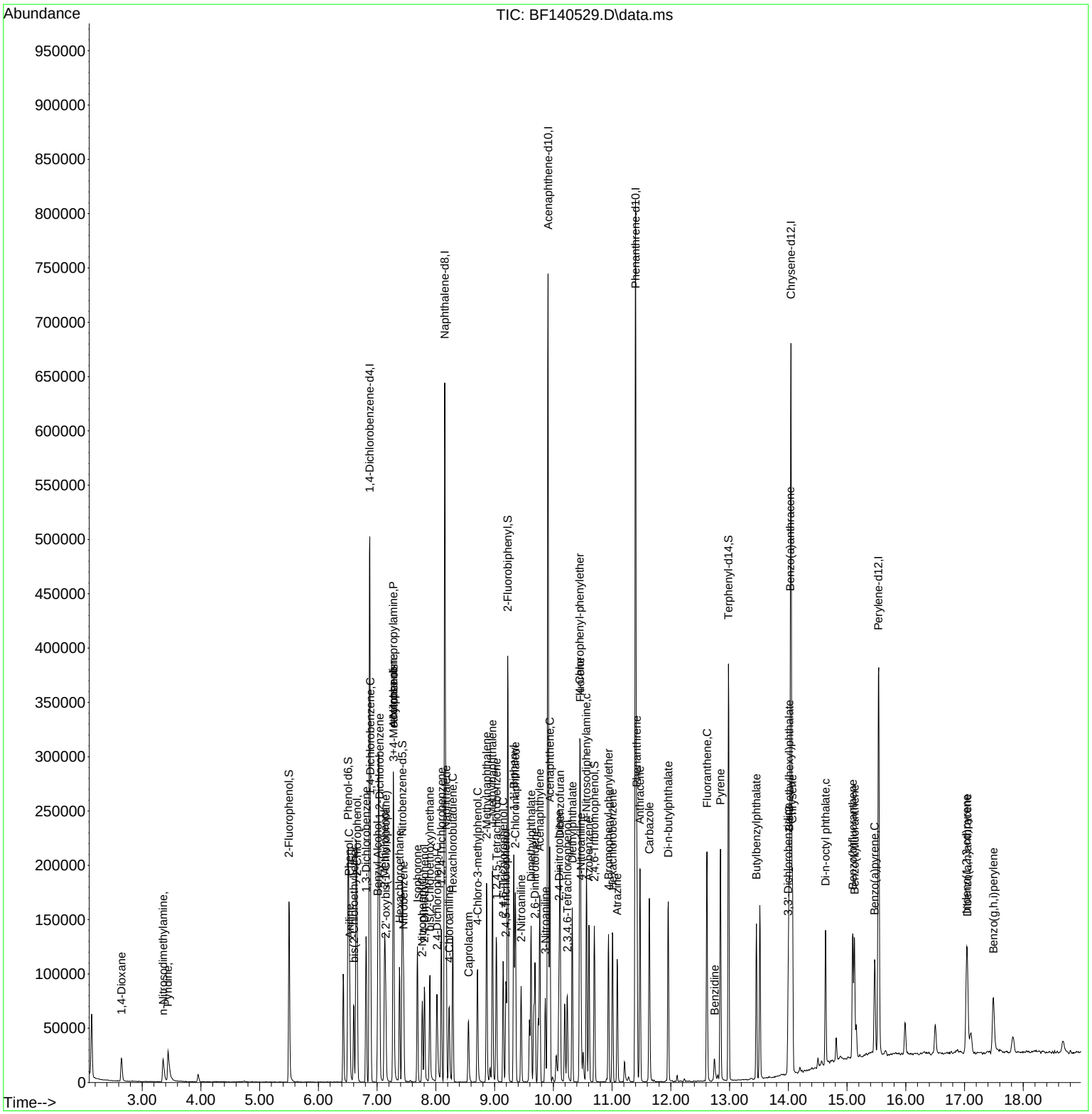
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
48) 2-Nitroaniline	9.451	65	20109	5.050	ng		99
49) Acenaphthylene	9.769	152	103605	5.527	ng		99
50) Dimethylphthalate	9.622	163	79770	5.523	ng		98
51) 2,6-Dinitrotoluene	9.687	165	17217	5.256	ng		99
52) Acenaphthene	9.939	154	64777	5.337	ng		97
53) 3-Nitroaniline	9.863	138	16842	5.257	ng		98
55) Dibenzofuran	10.116	168	104044	5.727	ng		96
57) 2,4-Dinitrotoluene	10.098	165	22110	5.079	ng		98
58) Fluorene	10.457	166	82732	5.674	ng		100
59) 2,3,4,6-Tetrachlorophenol	10.239	232	16825	5.007	ng	#	96
60) Diethylphthalate	10.322	149	81981	5.587	ng		100
61) 4-Chlorophenyl-phenyle...	10.451	204	40537	5.665	ng		95
62) 4-Nitroaniline	10.469	138	16848	5.014	ng		98
63) Azobenzene	10.604	77	77108	5.549	ng		96
66) n-Nitrosodiphenylamine	10.563	169	67794	5.346	ng		99
67) 4-Bromophenyl-phenylether	10.939	248	23355	5.288	ng		99
68) Hexachlorobenzene	11.010	284	27532	5.384	ng		99
69) Atrazine	11.086	200	19452	5.452	ng		99
71) Phenanthrene	11.422	178	115121	5.584	ng		98
72) Anthracene	11.475	178	111316	5.520	ng		100
73) Carbazole	11.633	167	107643	5.549	ng		98
74) Di-n-butylphthalate	11.957	149	122687	5.478	ng		99
75) Fluoranthene	12.616	202	127194	5.683	ng		100
77) Benzidine	12.745	184	18105	2.303	ng		99
78) Pyrene	12.845	202	128760	5.150	ng		98
80) Butylbenzylphthalate	13.457	149	45690	5.073	ng		99
81) Benzo(a)anthracene	14.033	228	95229	5.321	ng		99
82) 3,3'-Dichlorobenzidine	13.998	252	25321	4.712	ng		97
83) Chrysene	14.069	228	91528	5.593	ng		97
84) Bis(2-ethylhexyl)phtha...	14.016	149	61082	5.371	ng		100
85) Di-n-octyl phthalate	14.633	149	80990	5.211	ng		99
87) Indeno(1,2,3-cd)pyrene	17.033	276	61952	4.637	ng		97
88) Benzo(b)fluoranthene	15.098	252	69048	5.362	ng		98
89) Benzo(k)fluoranthene	15.127	252	63717	5.655	ng		96
90) Benzo(a)pyrene	15.469	252	54423	5.198	ng		97
91) Dibenzo(a,h)anthracene	17.051	278	52029	4.755	ng		99
92) Benzo(g,h,i)perylene	17.492	276	52919	4.740	ng		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140529.D
Acq On : 21 Nov 2024 11:39
Operator : RC/JU
Sample : SSTDICC005
Misc :
ALS Vial : 4 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC005

Quant Time: Nov 21 15:09:49 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140530.D
Acq On : 21 Nov 2024 12:05
Operator : RC/JU
Sample : SSTDICC010
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC010

Manual Integrations APPROVED
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/27/2024

Quant Time: Nov 21 15:10:46 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.875	152	101758	20.000	ng		0.00
21) Naphthalene-d8	8.151	136	377828	20.000	ng		0.00
39) Acenaphthene-d10	9.910	164	213774	20.000	ng		0.00
64) Phenanthrene-d10	11.398	188	399362	20.000	ng		0.00
76) Chrysene-d12	14.045	240	256196	20.000	ng		0.00
86) Perylene-d12	15.533	264	194024	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.498	112	125454	21.035	ng		0.00
7) Phenol-d6	6.504	99	164515	20.866	ng		-0.01
23) Nitrobenzene-d5	7.428	82	152410	20.633	ng		-0.01
42) 2,4,6-Tribromophenol	10.698	330	44626	19.519	ng		0.00
45) 2-Fluorobiphenyl	9.228	172	299817	20.896	ng		0.00
79) Terphenyl-d14	12.980	244	321362	19.532	ng		-0.01
Target Compounds							Qvalue
2) 1,4-Dioxane	2.646	88	25524	10.179	ng		99
3) Pyridine	3.428	79	51851	9.398	ng		96
4) n-Nitrosodimethylamine	3.357	42	31093	9.589	ng		99
6) Aniline	6.534	93	60808	10.957	ng	#	79
8) 2-Chlorophenol	6.657	128	67572	10.531	ng		98
9) Benzaldehyde	6.422	77	51225	12.273	ng		99
10) Phenol	6.522	94	83830	10.411	ng		94
11) bis(2-Chloroethyl)ether	6.604	93	63186	10.255	ng		99
12) 1,3-Dichlorobenzene	6.810	146	75941	10.533	ng		99
13) 1,4-Dichlorobenzene	6.887	146	76389	10.464	ng		99
14) 1,2-Dichlorobenzene	7.040	146	72962	10.666	ng		100
15) Benzyl Alcohol	7.010	79	59748	10.218	ng		98
16) 2,2'-oxybis(1-Chloropr...	7.145	45	75295	10.344	ng		79
17) 2-Methylphenol	7.128	107	52599	10.241	ng		94
18) Hexachloroethane	7.381	117	27715	10.165	ng		98
19) n-Nitroso-di-n-propyla...	7.275	70	48309	10.367	ng		98
20) 3+4-Methylphenols	7.281	107	69290	10.496	ng		98
22) Acetophenone	7.275	105	96618	10.489	ng		97
24) Nitrobenzene	7.451	77	77259	10.120	ng		99
25) Isophorone	7.687	82	123528	10.026	ng		99
26) 2-Nitrophenol	7.769	139	32564	9.625	ng		98
27) 2,4-Dimethylphenol	7.804	122	40421	9.986	ng		99
28) bis(2-Chloroethoxy)met...	7.898	93	77116	10.274	ng		99
29) 2,4-Dichlorophenol	8.016	162	55037	10.261	ng		99
30) 1,2,4-Trichlorobenzene	8.092	180	63769	10.413	ng		98
31) Naphthalene	8.175	128	203054	10.434	ng		99
32) Benzoic acid	7.887	122	19174m	11.820	ng		
33) 4-Chloroaniline	8.222	127	60102	10.315	ng		99
34) Hexachlorobutadiene	8.287	225	42479	10.472	ng		98
35) Caprolactam	8.563	113	17126	10.317	ng		96
36) 4-Chloro-3-methylphenol	8.704	107	60104	10.008	ng		99
37) 2-Methylnaphthalene	8.863	142	128393	10.387	ng		100
38) 1-Methylnaphthalene	8.963	142	125672	10.372	ng		99
40) 1,2,4,5-Tetrachloroben...	9.034	216	64508	10.308	ng		99
41) Hexachlorocyclopentadiene	9.016	237	5836	11.063	ng		98
43) 2,4,6-Trichlorophenol	9.145	196	38279	9.748	ng		99

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140530.D
Acq On : 21 Nov 2024 12:05
Operator : RC/JU
Sample : SSTDICC010
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC010

Manual Integrations APPROVED
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/27/2024

Quant Time: Nov 21 15:10:46 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.192	196	42321	9.930	ng	99
46) 1,1'-Biphenyl	9.328	154	163500	10.244	ng	99
47) 2-Chloronaphthalene	9.351	162	122350	10.117	ng	99
48) 2-Nitroaniline	9.451	65	37481	9.655	ng	98
49) Acenaphthylene	9.769	152	188676	10.326	ng	99
50) Dimethylphthalate	9.622	163	142079	10.092	ng	100
51) 2,6-Dinitrotoluene	9.692	165	31999	10.021	ng	94
52) Acenaphthene	9.939	154	118691	10.031	ng	99
53) 3-Nitroaniline	9.863	138	31781	10.177	ng	96
54) 2,4-Dinitrophenol	9.981	184	6086	11.143	ng	98
55) Dibenzofuran	10.116	168	185902	10.497	ng	99
56) 4-Nitrophenol	10.039	139	17052	8.006	ng	96
57) 2,4-Dinitrotoluene	10.098	165	43030	10.140	ng	95
58) Fluorene	10.457	166	150592	10.594	ng	99
59) 2,3,4,6-Tetrachlorophenol	10.239	232	31672	9.670	ng	98
60) Diethylphthalate	10.322	149	146994	10.276	ng	99
61) 4-Chlorophenyl-phenyle...	10.451	204	72915	10.452	ng	97
62) 4-Nitroaniline	10.469	138	32193	9.829	ng	96
63) Azobenzene	10.610	77	141049	10.412	ng	98
65) 4,6-Dinitro-2-methylph...	10.510	198	14572	7.140	ng	93
66) n-Nitrosodiphenylamine	10.563	169	123384	10.447	ng	99
67) 4-Bromophenyl-phenylether	10.939	248	42955	10.444	ng	98
68) Hexachlorobenzene	11.010	284	47993	10.078	ng	97
69) Atrazine	11.092	200	34193	10.292	ng	100
70) Pentachlorophenol	11.210	266	14110	6.732	ng	97
71) Phenanthrene	11.422	178	203602	10.606	ng	99
72) Anthracene	11.475	178	198430	10.567	ng	100
73) Carbazole	11.633	167	189597	10.495	ng	100
74) Di-n-butylphthalate	11.957	149	214564	10.288	ng	99
75) Fluoranthene	12.616	202	221773	10.640	ng	99
77) Benzidine	12.739	184	54022	7.252	ng	100
78) Pyrene	12.845	202	230747	9.741	ng	98
80) Butylbenzylphthalate	13.457	149	82557	9.674	ng	100
81) Benzo(a)anthracene	14.033	228	168988	9.964	ng	99
82) 3,3'-Dichlorobenzidine	13.998	252	49053	9.634	ng	100
83) Chrysene	14.069	228	161811	10.435	ng	99
84) Bis(2-ethylhexyl)phtha...	14.016	149	106093	9.846	ng	100
85) Di-n-octyl phthalate	14.633	149	145085	9.852	ng	100
87) Indeno(1,2,3-cd)pyrene	17.033	276	124455	9.843	ng	99
88) Benzo(b)fluoranthene	15.098	252	121884	10.001	ng	99
89) Benzo(k)fluoranthene	15.127	252	119878	11.241	ng	100
90) Benzo(a)pyrene	15.468	252	101824	10.276	ng	97
91) Dibenzo(a,h)anthracene	17.051	278	100656	9.720	ng	99
92) Benzo(g,h,i)perylene	17.492	276	105771	10.010	ng	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

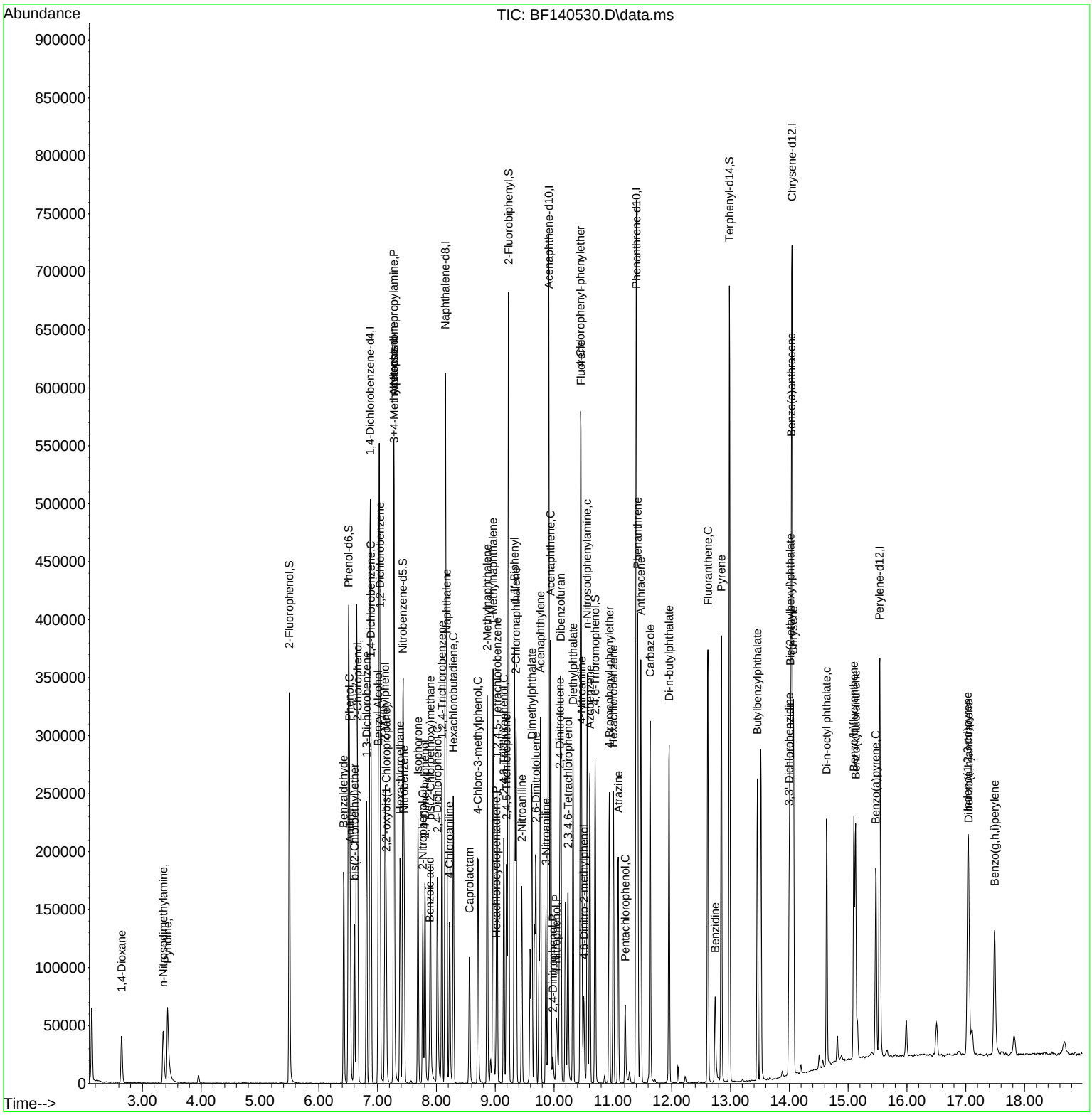
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Data File : BF140530.D
Acq On : 21 Nov 2024 12:05
Operator : RC/JU
Sample : SSTDICC010
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 21 15:10:46 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDICC010

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/27/2024



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140531.D
Acq On : 21 Nov 2024 12:32
Operator : RC/JU
Sample : SSTDICC020
Misc :
ALS Vial : 6 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC020

Manual Integrations APPROVED
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/27/2024

Quant Time: Nov 21 15:11:39 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.875	152	99570	20.000	ng	0.00
21) Naphthalene-d8	8.151	136	364692	20.000	ng	0.00
39) Acenaphthene-d10	9.910	164	198805	20.000	ng	0.00
64) Phenanthrene-d10	11.398	188	382041	20.000	ng	0.00
76) Chrysene-d12	14.051	240	225903	20.000	ng	0.00
86) Perylene-d12	15.533	264	173612	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.499	112	239365	41.017	ng	0.00
7) Phenol-d6	6.510	99	310375	40.230	ng	0.00
23) Nitrobenzene-d5	7.434	82	288201	40.422	ng	0.00
42) 2,4,6-Tribromophenol	10.704	330	87426	41.118	ng	0.00
45) 2-Fluorobiphenyl	9.228	172	565607	42.389	ng	0.00
79) Terphenyl-d14	12.986	244	590771	40.721	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	2.646	88	57318	23.361	ng	98
3) Pyridine	3.422	79	111651	20.682	ng	98
4) n-Nitrosodimethylamine	3.357	42	65851	20.754	ng	95
6) Aniline	6.534	93	112828	20.778	ng	88
8) 2-Chlorophenol	6.663	128	127220	20.263	ng	96
9) Benzaldehyde	6.422	77	96584	23.648	ng	97
10) Phenol	6.522	94	161262	20.467	ng	94
11) bis(2-Chloroethyl)ether	6.604	93	120837	20.042	ng	100
12) 1,3-Dichlorobenzene	6.816	146	142704	20.228	ng	99
13) 1,4-Dichlorobenzene	6.893	146	144955	20.293	ng	100
14) 1,2-Dichlorobenzene	7.045	146	136939	20.459	ng	99
15) Benzyl Alcohol	7.010	79	115602	20.205	ng	98
16) 2,2'-oxybis(1-Chloropr...	7.146	45	142742	20.040	ng	81
17) 2-Methylphenol	7.128	107	102895	20.473	ng	94
18) Hexachloroethane	7.381	117	54624	20.475	ng	97
19) n-Nitroso-di-n-propyla...	7.281	70	91173	19.996	ng	97
20) 3+4-Methylphenols	7.281	107	129954	20.117	ng	94
22) Acetophenone	7.281	105	180222	20.270	ng	100
24) Nitrobenzene	7.451	77	148986	20.218	ng	100
25) Isophorone	7.687	82	239713	20.158	ng	98
26) 2-Nitrophenol	7.769	139	67593	20.699	ng	100
27) 2,4-Dimethylphenol	7.804	122	77504	19.836	ng	99
28) bis(2-Chloroethoxy)met...	7.898	93	146899	20.277	ng	100
29) 2,4-Dichlorophenol	8.016	162	105906	20.456	ng	98
30) 1,2,4-Trichlorobenzene	8.092	180	120949	20.461	ng	100
31) Naphthalene	8.175	128	387236	20.614	ng	99
32) Benzoic acid	7.904	122	45935	18.678	ng	99
33) 4-Chloroaniline	8.222	127	112719	20.042	ng	100
34) Hexachlorobutadiene	8.287	225	79980	20.427	ng	99
35) Caprolactam	8.581	113	33020	20.609	ng	94
36) 4-Chloro-3-methylphenol	8.710	107	115782	19.974	ng	98
37) 2-Methylnaphthalene	8.863	142	243949	20.446	ng	99
38) 1-Methylnaphthalene	8.963	142	240502	20.564	ng	98
40) 1,2,4,5-Tetrachloroben...	9.034	216	120444	20.695	ng	100
41) Hexachlorocyclopentadiene	9.016	237	17909	19.734	ng	98
43) 2,4,6-Trichlorophenol	9.145	196	74538	20.410	ng	100

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140531.D
Acq On : 21 Nov 2024 12:32
Operator : RC/JU
Sample : SSTDICC020
Misc :
ALS Vial : 6 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC020

Manual Integrations APPROVED
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/27/2024

Quant Time: Nov 21 15:11:39 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.192	196	81588	20.585	ng	98
46) 1,1'-Biphenyl	9.328	154	310749	20.936	ng	100
47) 2-Chloronaphthalene	9.357	162	231066	20.545	ng	99
48) 2-Nitroaniline	9.451	65	75343	20.871	ng	99
49) Acenaphthylene	9.769	152	359483	21.155	ng	100
50) Dimethylphthalate	9.628	163	267629	20.440	ng	99
51) 2,6-Dinitrotoluene	9.692	165	61076	20.568	ng	97
52) Acenaphthene	9.945	154	225540m	20.497	ng	
53) 3-Nitroaniline	9.863	138	61362	21.128	ng	96
54) 2,4-Dinitrophenol	9.975	184	17628	18.164	ng	98
55) Dibenzofuran	10.116	168	345729	20.992	ng	100
56) 4-Nitrophenol	10.034	139	38787	19.582	ng	97
57) 2,4-Dinitrotoluene	10.098	165	82706	20.957	ng	96
58) Fluorene	10.457	166	278115	21.038	ng	100
59) 2,3,4,6-Tetrachlorophenol	10.239	232	61142	20.072	ng	98
60) Diethylphthalate	10.328	149	276859	20.812	ng	100
61) 4-Chlorophenyl-phenyle...	10.451	204	136189	20.992	ng	98
62) 4-Nitroaniline	10.475	138	62610	20.555	ng	99
63) Azobenzene	10.610	77	262444	20.833	ng	99
65) 4,6-Dinitro-2-methylph...	10.510	198	34412	17.627	ng	97
66) n-Nitrosodiphenylamine	10.569	169	228075	20.187	ng	99
67) 4-Bromophenyl-phenylether	10.939	248	78863	20.044	ng	98
68) Hexachlorobenzene	11.010	284	91363	20.055	ng	97
69) Atrazine	11.092	200	50070	15.754	ng	99
70) Pentachlorophenol	11.210	266	34309	17.111	ng	97
71) Phenanthrene	11.428	178	370424	20.171	ng	99
72) Anthracene	11.475	178	366152	20.383	ng	100
73) Carbazole	11.633	167	355423	20.567	ng	99
74) Di-n-butylphthalate	11.957	149	410317	20.566	ng	99
75) Fluoranthene	12.616	202	425403	21.335	ng	99
77) Benzidine	12.739	184	66895	10.185	ng	99
78) Pyrene	12.845	202	428479	20.514	ng	99
80) Butylbenzylphthalate	13.457	149	156775	20.835	ng	96
81) Benzo(a)anthracene	14.039	228	311416	20.825	ng	99
82) 3,3'-Dichlorobenzidine	13.998	252	88858	19.791	ng	98
83) Chrysene	14.074	228	275068	20.117	ng	100
84) Bis(2-ethylhexyl)phtha...	14.016	149	194626	20.484	ng	100
85) Di-n-octyl phthalate	14.633	149	259088	19.953	ng	100
87) Indeno(1,2,3-cd)pyrene	17.039	276	225489	19.930	ng	100
88) Benzo(b)fluoranthene	15.098	252	239653	21.977	ng	99
89) Benzo(k)fluoranthene	15.127	252	183799	19.261	ng	99
90) Benzo(a)pyrene	15.474	252	184528	20.812	ng	98
91) Dibenzo(a,h)anthracene	17.051	278	184632	19.926	ng	99
92) Benzo(g,h,i)perylene	17.492	276	187164	19.795	ng	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

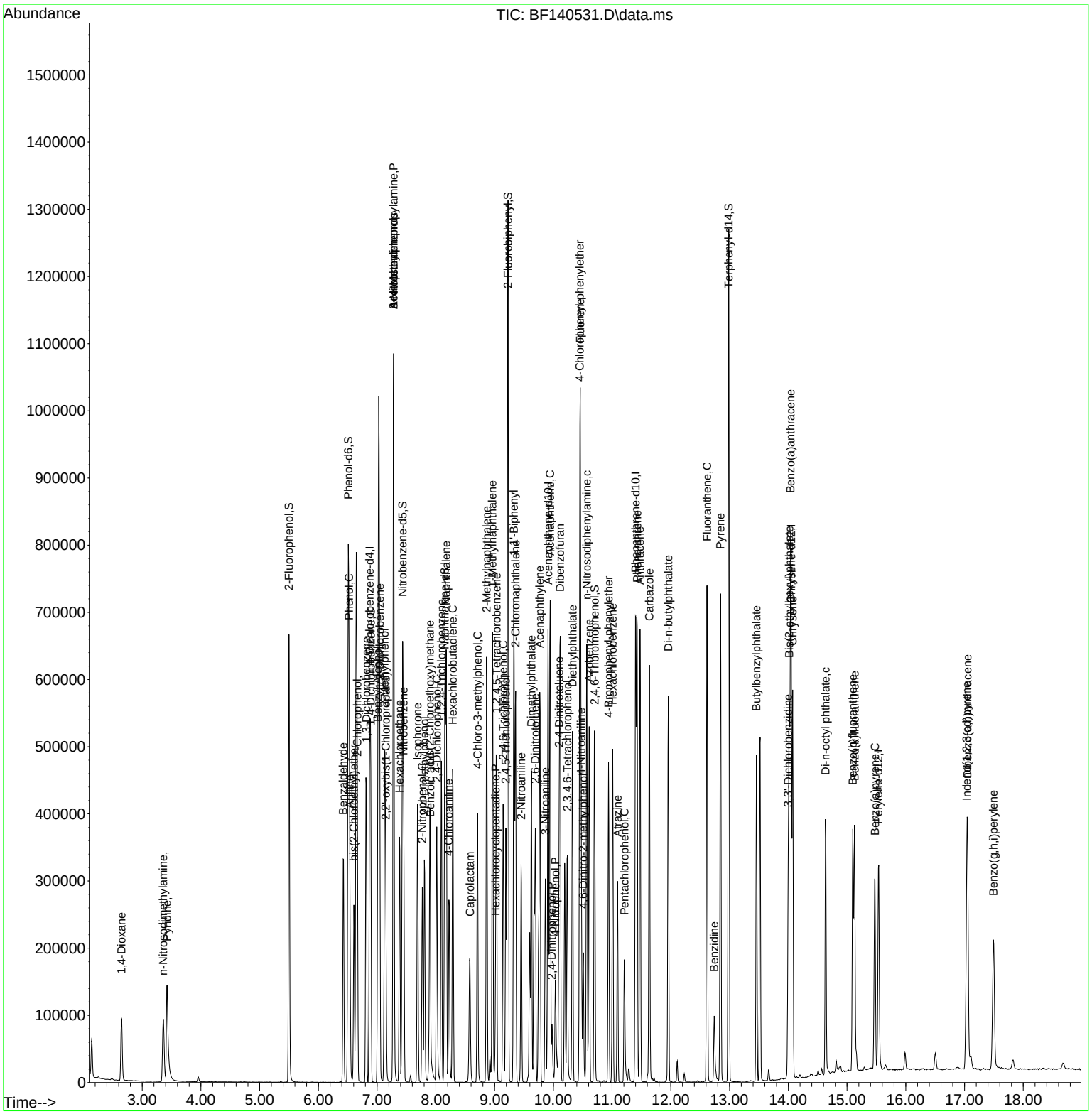
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Data File : BF140531.D
Acq On : 21 Nov 2024 12:32
Operator : RC/JU
Sample : SSTDICC020
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 21 15:11:39 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDICC020

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/27/2024



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140532.D
Acq On : 21 Nov 2024 12:58
Operator : RC/JU
Sample : SSTDICCC040
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 21 15:12:33 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDICCC040

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/27/2024

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.875	152	107516	20.000	ng	0.00
21) Naphthalene-d8	8.157	136	413408	20.000	ng	0.00
39) Acenaphthene-d10	9.916	164	234407	20.000	ng	0.00
64) Phenanthrene-d10	11.404	188	437466	20.000	ng	0.00
76) Chrysene-d12	14.051	240	239343	20.000	ng	0.00
86) Perylene-d12	15.539	264	211422	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.498	112	504816	80.111	ng	0.00
7) Phenol-d6	6.516	99	688812	82.684	ng	0.00
23) Nitrobenzene-d5	7.439	82	648845	80.281	ng	0.00
42) 2,4,6-Tribromophenol	10.704	330	202517	80.781	ng	0.00
45) 2-Fluorobiphenyl	9.233	172	1210929	76.969	ng	0.00
79) Terphenyl-d14	12.992	244	1228064	79.896	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	2.652	88	105183	39.700	ng	100
3) Pyridine	3.422	79	256255	43.959	ng	100
4) n-Nitrosodimethylamine	3.381	42	139435	40.698	ng	100
6) Aniline	6.540	93	268994	45.875	ng	100
8) 2-Chlorophenol	6.663	128	275937	40.702	ng	100
9) Benzaldehyde	6.428	77	158653	35.975	ng	100
10) Phenol	6.528	94	358490	42.137	ng	100
11) bis(2-Chloroethyl)ether	6.610	93	267847	41.142	ng	100
12) 1,3-Dichlorobenzene	6.816	146	300744	39.480	ng	100
13) 1,4-Dichlorobenzene	6.892	146	307112	39.817	ng	100
14) 1,2-Dichlorobenzene	7.045	146	291347	40.311	ng	100
15) Benzyl Alcohol	7.016	79	263144	42.594	ng	100
16) 2,2'-oxybis(1-Chloropr...	7.145	45	314582	40.901	ng	100
17) 2-Methylphenol	7.134	107	223977	41.272	ng	100
18) Hexachloroethane	7.387	117	115481	40.087	ng	100
19) n-Nitroso-di-n-propyla...	7.287	70	203356	41.304	ng	100
20) 3+4-Methylphenols	7.287	107	289597	41.517	ng	100
22) Acetophenone	7.287	105	397747	39.464	ng	100
24) Nitrobenzene	7.457	77	331927	39.736	ng	100
25) Isophorone	7.698	82	546985	40.576	ng	100
26) 2-Nitrophenol	7.775	139	149133	40.287	ng	100
27) 2,4-Dimethylphenol	7.810	122	185514	41.885	ng	100
28) bis(2-Chloroethoxy)met...	7.904	93	328053	39.946	ng	100
29) 2,4-Dichlorophenol	8.016	162	233140	39.725	ng	100
30) 1,2,4-Trichlorobenzene	8.098	180	261862	39.078	ng	100
31) Naphthalene	8.181	128	837233	39.318	ng	100
32) Benzoic acid	7.939	122	146245	39.450	ng	100
33) 4-Chloroaniline	8.228	127	268662	42.139	ng	100
34) Hexachlorobutadiene	8.292	225	175198	39.473	ng	100
35) Caprolactam	8.604	113	74771	41.168	ng	100
36) 4-Chloro-3-methylphenol	8.716	107	270395	41.150	ng	100
37) 2-Methylnaphthalene	8.869	142	537039	39.707	ng	100
38) 1-Methylnaphthalene	8.969	142	527387	39.781	ng	100
40) 1,2,4,5-Tetrachloroben...	9.033	216	263939	38.462	ng	100
41) Hexachlorocyclopentadiene	9.016	237	53531	38.833	ng	100
43) 2,4,6-Trichlorophenol	9.151	196	171374	39.799	ng	100

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140532.D
Acq On : 21 Nov 2024 12:58
Operator : RC/JU
Sample : SSTDICCC040
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 21 15:12:33 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDICCC040

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/27/2024

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.192	196	189287	40.504	ng	100
46) 1,1'-Biphenyl	9.333	154	678172	38.750	ng	100
47) 2-Chloronaphthalene	9.357	162	518320	39.086	ng	100
48) 2-Nitroaniline	9.457	65	172005	40.410	ng	100
49) Acenaphthylene	9.775	152	779390	38.899	ng	100
50) Dimethylphthalate	9.633	163	608948	39.445	ng	100
51) 2,6-Dinitrotoluene	9.698	165	140922	40.249	ng	100
52) Acenaphthene	9.945	154	498119m	38.394	ng	
53) 3-Nitroaniline	9.869	138	140859	41.134	ng	100
54) 2,4-Dinitrophenol	9.980	184	65546	40.435	ng	100
55) Dibenzofuran	10.122	168	760308	39.153	ng	100
56) 4-Nitrophenol	10.039	139	97133	41.591	ng	100
57) 2,4-Dinitrotoluene	10.104	165	189213	40.662	ng	100
58) Fluorene	10.463	166	607198	38.956	ng	100
59) 2,3,4,6-Tetrachlorophenol	10.239	232	146383	40.757	ng	100
60) Diethylphthalate	10.333	149	614490	39.176	ng	100
61) 4-Chlorophenyl-phenyle...	10.451	204	299662	39.175	ng	100
62) 4-Nitroaniline	10.486	138	146354	40.750	ng	100
63) Azobenzene	10.616	77	579042	38.983	ng	100
65) 4,6-Dinitro-2-methylph...	10.516	198	96120	42.998	ng	100
66) n-Nitrosodiphenylamine	10.575	169	505450	39.070	ng	100
67) 4-Bromophenyl-phenylether	10.945	248	174746	38.787	ng	100
68) Hexachlorobenzene	11.016	284	204123	39.129	ng	100
69) Atrazine	11.098	200	122413	33.635	ng	100
70) Pentachlorophenol	11.210	266	101542	44.226	ng	100
71) Phenanthrene	11.427	178	826269	39.293	ng	100
72) Anthracene	11.480	178	808988	39.329	ng	100
73) Carbazole	11.639	167	778112	39.322	ng	100
74) Di-n-butylphthalate	11.957	149	895236	39.186	ng	100
75) Fluoranthene	12.621	202	886900	38.845	ng	100
77) Benzidine	12.739	184	275047	39.525	ng	100
78) Pyrene	12.851	202	887193	40.090	ng	100
80) Butylbenzylphthalate	13.463	149	324879	40.751	ng	100
81) Benzo(a)anthracene	14.039	228	615808	38.868	ng	100
82) 3,3'-Dichlorobenzidine	13.998	252	197667	41.554	ng	100
83) Chrysene	14.080	228	575079	39.696	ng	100
84) Bis(2-ethylhexyl)phtha...	14.015	149	398677	39.604	ng	100
85) Di-n-octyl phthalate	14.633	149	541933	39.393	ng	100
87) Indeno(1,2,3-cd)pyrene	17.051	276	551596	40.034	ng	100
88) Benzo(b)fluoranthene	15.104	252	501607	37.772	ng	100
89) Benzo(k)fluoranthene	15.133	252	465620	40.067	ng	100
90) Benzo(a)pyrene	15.474	252	425894	39.444	ng	100
91) Dibenzo(a,h)anthracene	17.062	278	451597	40.022	ng	100
92) Benzo(g,h,i)perylene	17.509	276	458972	39.861	ng	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

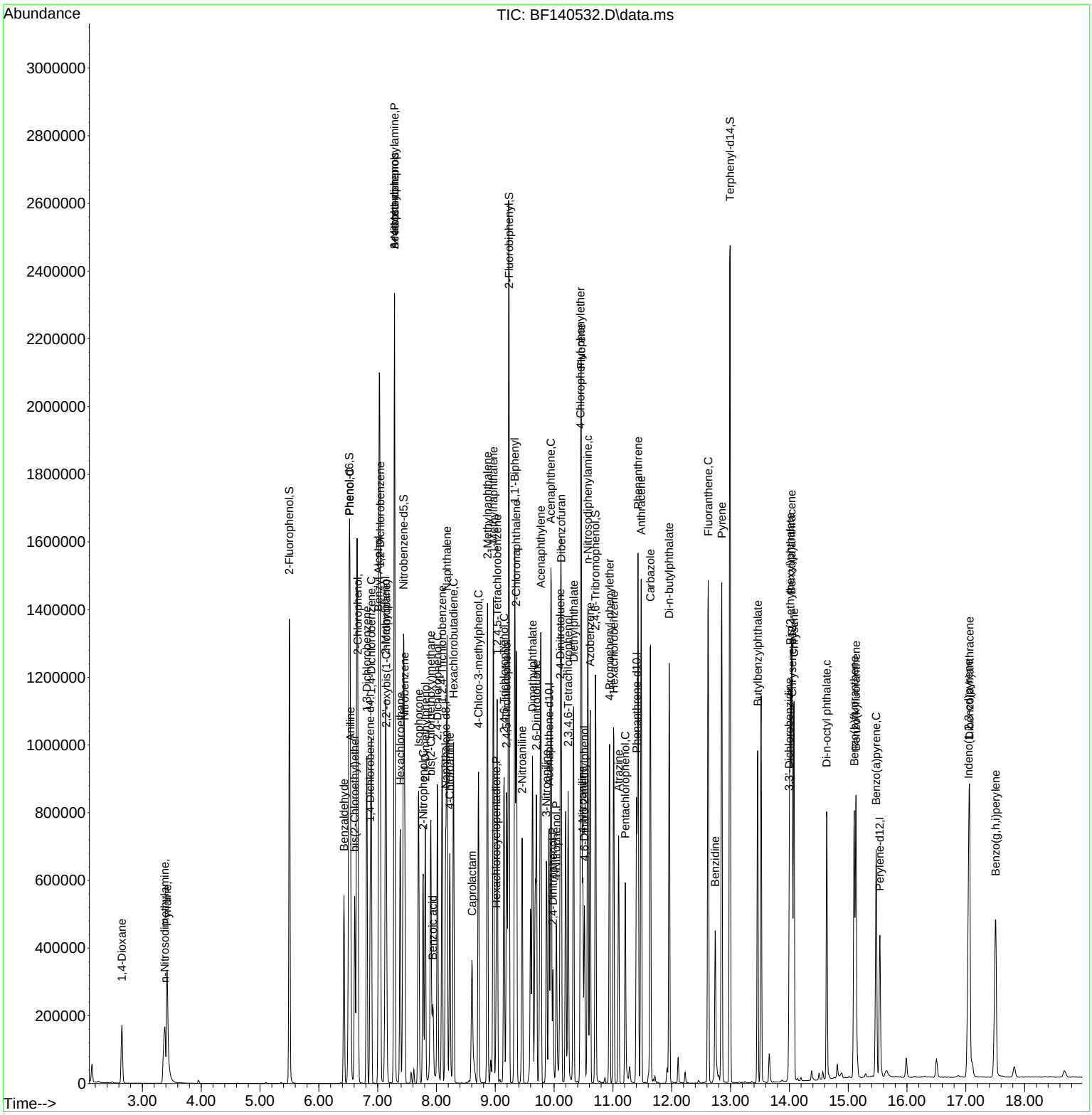
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140532.D
Acq On : 21 Nov 2024 12:58
Operator : RC/JU
Sample : SSTDICCC040
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 21 15:12:33 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDICCC040

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/27/2024



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140533.D
Acq On : 21 Nov 2024 13:25
Operator : RC/JU
Sample : SSTDICC050
Misc :
ALS Vial : 8 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC050

Quant Time: Nov 21 15:13:26 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.875	152	117539	20.000	ng	0.00
21) Naphthalene-d8	8.157	136	425301	20.000	ng	0.00
39) Acenaphthene-d10	9.916	164	233869	20.000	ng	0.00
64) Phenanthrene-d10	11.404	188	432727	20.000	ng	0.00
76) Chrysene-d12	14.057	240	241266	20.000	ng	0.00
86) Perylene-d12	15.545	264	219139	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.504	112	656695	95.327	ng	0.00
7) Phenol-d6	6.522	99	860924	94.531	ng	0.00
23) Nitrobenzene-d5	7.445	82	801144	96.352	ng	0.00
42) 2,4,6-Tribromophenol	10.710	330	245159	98.015	ng	0.00
45) 2-Fluorobiphenyl	9.233	172	1467020	93.462	ng	0.00
79) Terphenyl-d14	12.992	244	1481875	95.640	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	2.646	88	132951	45.902	ng	99
3) Pyridine	3.416	79	312094	48.973	ng	97
4) n-Nitrosodimethylamine	3.387	42	185759	49.595	ng	99
6) Aniline	6.545	93	306198	47.767	ng	99
8) 2-Chlorophenol	6.669	128	352950	47.623	ng	97
9) Benzaldehyde	6.428	77	220959	45.830	ng	100
10) Phenol	6.534	94	444859	47.830	ng	98
11) bis(2-Chloroethyl)ether	6.616	93	336892	47.335	ng	100
12) 1,3-Dichlorobenzene	6.816	146	395334	47.472	ng	99
13) 1,4-Dichlorobenzene	6.892	146	399191	47.341	ng	100
14) 1,2-Dichlorobenzene	7.045	146	372552	47.151	ng	98
15) Benzyl Alcohol	7.022	79	327081	48.428	ng	99
16) 2,2'-oxybis(1-Chloropr...	7.151	45	392372	46.665	ng	93
17) 2-Methylphenol	7.134	107	280882	47.344	ng	98
18) Hexachloroethane	7.386	117	151045	47.961	ng	99
19) n-Nitroso-di-n-propyla...	7.292	70	251453	46.718	ng	99
20) 3+4-Methylphenols	7.292	107	355860	46.666	ng	95
22) Acetophenone	7.286	105	492194	47.469	ng	98
24) Nitrobenzene	7.463	77	412860	48.043	ng	99
25) Isophorone	7.698	82	668649	48.214	ng	100
26) 2-Nitrophenol	7.775	139	189056	49.644	ng	99
27) 2,4-Dimethylphenol	7.816	122	217017	47.628	ng	99
28) bis(2-Chloroethoxy)met...	7.904	93	402409	47.630	ng	100
29) 2,4-Dichlorophenol	8.022	162	295023	48.863	ng	98
30) 1,2,4-Trichlorobenzene	8.098	180	336812	48.858	ng	98
31) Naphthalene	8.181	128	1055423	48.178	ng	100
32) Benzoic acid	7.957	122	196545	49.333	ng	99
33) 4-Chloroaniline	8.233	127	322212	49.125	ng	99
34) Hexachlorobutadiene	8.292	225	221707	48.555	ng	99
35) Caprolactam	8.616	113	90596	48.486	ng	99
36) 4-Chloro-3-methylphenol	8.716	107	326418	48.287	ng	99
37) 2-Methylnaphthalene	8.869	142	662592	47.620	ng	100
38) 1-Methylnaphthalene	8.969	142	649248	47.603	ng	99
40) 1,2,4,5-Tetrachloroben...	9.033	216	328190	47.935	ng	99
41) Hexachlorocyclopentadiene	9.016	237	70831	49.123	ng	97
43) 2,4,6-Trichlorophenol	9.151	196	212974	49.574	ng	99

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140533.D
Acq On : 21 Nov 2024 13:25
Operator : RC/JU
Sample : SSTDICC050
Misc :
ALS Vial : 8 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC050

Quant Time: Nov 21 15:13:26 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration

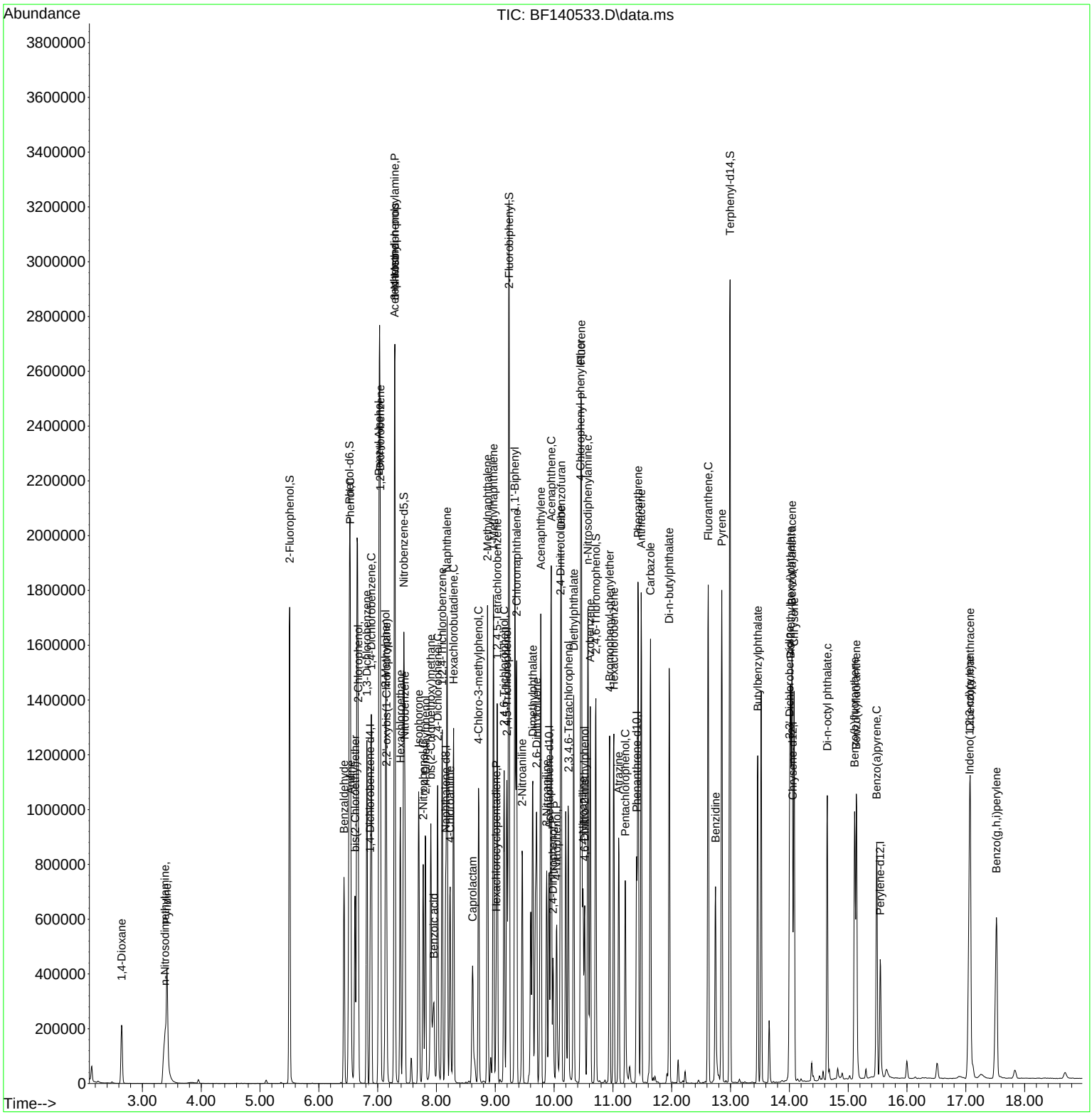
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.198	196	227840	48.866	ng	98
46) 1,1'-Biphenyl	9.333	154	834139	47.772	ng	99
47) 2-Chloronaphthalene	9.363	162	632459	47.803	ng	99
48) 2-Nitroaniline	9.457	65	212420	50.020	ng	98
49) Acenaphthylene	9.775	152	951784	47.612	ng	99
50) Dimethylphthalate	9.639	163	740559	48.081	ng	99
51) 2,6-Dinitrotoluene	9.704	165	169989	48.663	ng	96
52) Acenaphthene	9.951	154	615149	47.524	ng	99
53) 3-Nitroaniline	9.875	138	169234	49.534	ng	96
54) 2,4-Dinitrophenol	9.980	184	84985	50.205	ng	99
55) Dibenzofuran	10.122	168	911771	47.061	ng	99
56) 4-Nitrophenol	10.045	139	124021	53.227	ng	98
57) 2,4-Dinitrotoluene	10.110	165	225762	48.629	ng	98
58) Fluorene	10.463	166	738453	47.486	ng	100
59) 2,3,4,6-Tetrachlorophenol	10.245	232	178549	49.828	ng	97
60) Diethylphthalate	10.333	149	755358	48.268	ng	100
61) 4-Chlorophenyl-phenyle...	10.451	204	361856	47.414	ng	100
62) 4-Nitroaniline	10.492	138	180999	50.512	ng	99
63) Azobenzene	10.616	77	704370	47.529	ng	99
65) 4,6-Dinitro-2-methylph...	10.522	198	119290	53.947	ng	99
66) n-Nitrosodiphenylamine	10.574	169	623715	48.740	ng	100
67) 4-Bromophenyl-phenylether	10.945	248	216523	48.587	ng	97
68) Hexachlorobenzene	11.016	284	251498	48.739	ng	100
69) Atrazine	11.098	200	159048	44.180	ng	99
70) Pentachlorophenol	11.210	266	124128	54.656	ng	99
71) Phenanthrene	11.427	178	1000897	48.118	ng	100
72) Anthracene	11.480	178	978923	48.111	ng	100
73) Carbazole	11.639	167	948090	48.436	ng	99
74) Di-n-butylphthalate	11.957	149	1105032	48.899	ng	100
75) Fluoranthene	12.621	202	1080641	47.849	ng	100
77) Benzidine	12.745	184	442856	63.133	ng	100
78) Pyrene	12.851	202	1080149	48.420	ng	100
80) Butylbenzylphthalate	13.463	149	394867	49.136	ng	99
81) Benzo(a)anthracene	14.045	228	780853	48.892	ng	100
82) 3,3'-Dichlorobenzidine	14.004	252	244892	51.072	ng	99
83) Chrysene	14.080	228	685847	46.964	ng	100
84) Bis(2-ethylhexyl)phtha...	14.021	149	497161	48.994	ng	100
85) Di-n-octyl phthalate	14.645	149	692020	49.901	ng	100
87) Indeno(1,2,3-cd)pyrene	17.062	276	715720	50.117	ng	100
88) Benzo(b)fluoranthene	15.109	252	683919	49.687	ng	100
89) Benzo(k)fluoranthene	15.139	252	559704	46.467	ng	100
90) Benzo(a)pyrene	15.486	252	546539	48.835	ng	99
91) Dibenzo(a,h)anthracene	17.074	278	588742	50.339	ng	99
92) Benzo(g,h,i)perylene	17.521	276	599158	50.203	ng	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140533.D
Acq On : 21 Nov 2024 13:25
Operator : RC/JU
Sample : SSTDICC050
Misc :
ALS Vial : 8 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC050

Quant Time: Nov 21 15:13:26 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration



ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140534.D
Acq On : 21 Nov 2024 13:51
Operator : RC/JU
Sample : SSTDICC060
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC060

Quant Time: Nov 21 15:14:21 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.875	152	126992	20.000	ng		0.00
21) Naphthalene-d8	8.157	136	460987	20.000	ng		0.00
39) Acenaphthene-d10	9.916	164	252108	20.000	ng		0.00
64) Phenanthrene-d10	11.404	188	449876	20.000	ng		0.00
76) Chrysene-d12	14.051	240	226512	20.000	ng		0.00
86) Perylene-d12	15.539	264	216239	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.504	112	858529	115.348	ng		0.00
7) Phenol-d6	6.522	99	1119751	113.799	ng		0.00
23) Nitrobenzene-d5	7.445	82	1043537	115.789	ng		0.00
42) 2,4,6-Tribromophenol	10.710	330	317506	117.756	ng		0.00
45) 2-Fluorobiphenyl	9.233	172	1875064	110.815	ng		0.00
79) Terphenyl-d14	12.992	244	1783980	122.638	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	2.651	88	172855	55.237	ng		100
3) Pyridine	3.422	79	414269	60.167	ng		97
4) n-Nitrosodimethylamine	3.398	42	240667	59.472	ng		99
6) Aniline	6.545	93	388609	56.111	ng	#	75
8) 2-Chlorophenol	6.669	128	460365	57.492	ng		99
9) Benzaldehyde	6.428	77	242020	46.462	ng		98
10) Phenol	6.539	94	567815	56.506	ng		97
11) bis(2-Chloroethyl)ether	6.616	93	457231	59.461	ng		99
12) 1,3-Dichlorobenzene	6.816	146	518683	57.647	ng		99
13) 1,4-Dichlorobenzene	6.892	146	522883	57.394	ng		99
14) 1,2-Dichlorobenzene	7.051	146	482402	56.509	ng		99
15) Benzyl Alcohol	7.022	79	415427	56.931	ng		99
16) 2,2'-oxybis(1-Chloropr...	7.151	45	524697	57.758	ng		98
17) 2-Methylphenol	7.139	107	365400	57.006	ng		97
18) Hexachloroethane	7.386	117	194336	57.114	ng		100
19) n-Nitroso-di-n-propyla...	7.298	70	326639	56.169	ng		98
20) 3+4-Methylphenols	7.292	107	460654	55.912	ng		95
22) Acetophenone	7.292	105	636564	56.641	ng		98
24) Nitrobenzene	7.463	77	540526	58.030	ng		100
25) Isophorone	7.698	82	876972	58.340	ng		99
26) 2-Nitrophenol	7.775	139	249133	60.355	ng		100
27) 2,4-Dimethylphenol	7.816	122	285825	57.873	ng		98
28) bis(2-Chloroethoxy)met...	7.904	93	531210	58.008	ng		100
29) 2,4-Dichlorophenol	8.022	162	379082	57.925	ng		99
30) 1,2,4-Trichlorobenzene	8.098	180	431792	57.787	ng		100
31) Naphthalene	8.181	128	1359743	57.265	ng		99
32) Benzoic acid	7.969	122	265434	59.698	ng		99
33) 4-Chloroaniline	8.233	127	425356	59.831	ng		99
34) Hexachlorobutadiene	8.292	225	286614	57.911	ng		98
35) Caprolactam	8.622	113	117351	57.943	ng		99
36) 4-Chloro-3-methylphenol	8.722	107	424528	57.938	ng		99
37) 2-Methylnaphthalene	8.869	142	857509	56.857	ng		100
38) 1-Methylnaphthalene	8.969	142	841528	56.925	ng		99
40) 1,2,4,5-Tetrachloroben...	9.033	216	427164	57.878	ng		99
41) Hexachlorocyclopentadiene	9.016	237	97536	60.727	ng		98
43) 2,4,6-Trichlorophenol	9.151	196	272399	58.819	ng		100

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140534.D
Acq On : 21 Nov 2024 13:51
Operator : RC/JU
Sample : SSTDICC060
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC060

Quant Time: Nov 21 15:14:21 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration

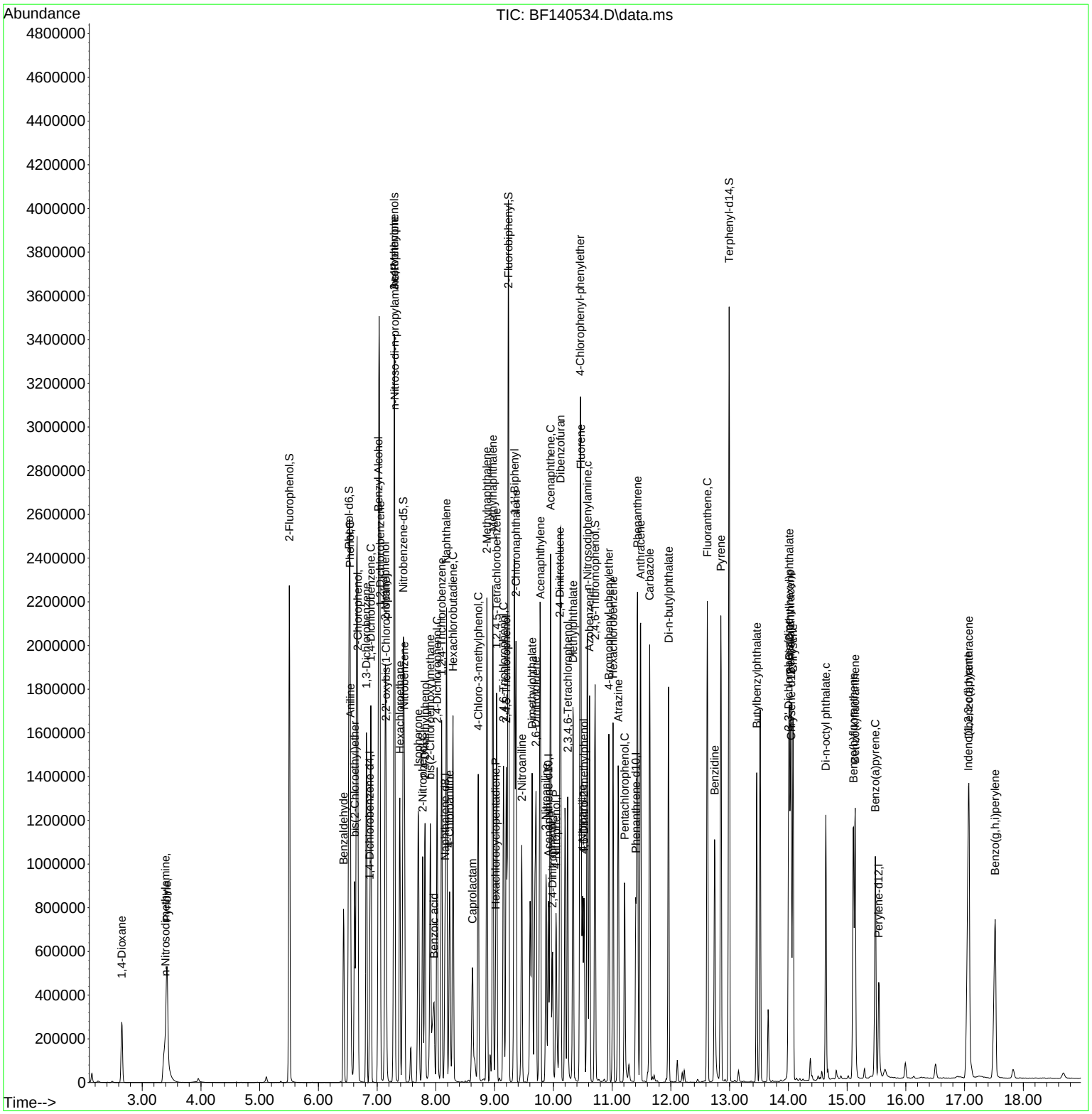
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.198	196	300029	59.694	ng	98
46) 1,1'-Biphenyl	9.339	154	1072474	56.978	ng	99
47) 2-Chloronaphthalene	9.363	162	819966	57.492	ng	99
48) 2-Nitroaniline	9.463	65	269813	58.938	ng	96
49) Acenaphthylene	9.780	152	1227568	56.965	ng	99
50) Dimethylphthalate	9.639	163	960589	57.854	ng	100
51) 2,6-Dinitrotoluene	9.704	165	221428	58.802	ng	99
52) Acenaphthene	9.951	154	784102	56.194	ng	100
53) 3-Nitroaniline	9.875	138	212165	57.607	ng	99
54) 2,4-Dinitrophenol	9.986	184	113495	60.328	ng	97
55) Dibenzofuran	10.122	168	1158263	55.459	ng	98
56) 4-Nitrophenol	10.045	139	161782	64.410	ng	96
57) 2,4-Dinitrotoluene	10.110	165	293950	58.735	ng	98
58) Fluorene	10.469	166	925678	55.218	ng	99
59) 2,3,4,6-Tetrachlorophenol	10.245	232	230786	59.746	ng	97
60) Diethylphthalate	10.333	149	959366	56.869	ng	100
61) 4-Chlorophenyl-phenyle...	10.457	204	457757	55.641	ng	99
62) 4-Nitroaniline	10.498	138	233877	60.547	ng	98
63) Azobenzene	10.616	77	912145	57.097	ng	99
65) 4,6-Dinitro-2-methylph...	10.522	198	158199	68.815	ng	98
66) n-Nitrosodiphenylamine	10.580	169	783428	58.887	ng	100
67) 4-Bromophenyl-phenylether	10.945	248	276260	59.628	ng	98
68) Hexachlorobenzene	11.016	284	317935	59.265	ng	99
69) Atrazine	11.104	200	264529	70.679	ng	100
70) Pentachlorophenol	11.216	266	162925	69.004	ng	99
71) Phenanthrene	11.433	178	1236004	57.156	ng	100
72) Anthracene	11.486	178	1220392	57.692	ng	99
73) Carbazole	11.639	167	1163411	57.171	ng	99
74) Di-n-butylphthalate	11.963	149	1359134	57.851	ng	100
75) Fluoranthene	12.621	202	1298953	55.323	ng	99
77) Benzidine	12.745	184	696576	105.771	ng	100
78) Pyrene	12.851	202	1289961	61.591	ng	100
80) Butylbenzylphthalate	13.463	149	458296	60.743	ng	98
81) Benzo(a)anthracene	14.039	228	909243	60.640	ng	100
82) 3,3'-Dichlorobenzidine	14.004	252	284725	63.247	ng	99
83) Chrysene	14.080	228	797151	58.142	ng	100
84) Bis(2-ethylhexyl)phtha...	14.015	149	571450	59.983	ng	100
85) Di-n-octyl phthalate	14.639	149	794359	61.012	ng	100
87) Indeno(1,2,3-cd)pyrene	17.062	276	914265	64.878	ng	98
88) Benzo(b)fluoranthene	15.109	252	782997	57.648	ng	99
89) Benzo(k)fluoranthene	15.139	252	684548	57.594	ng	100
90) Benzo(a)pyrene	15.480	252	657502	59.538	ng	99
91) Dibenzo(a,h)anthracene	17.074	278	745614	64.606	ng	99
92) Benzo(g,h,i)perylene	17.521	276	753452	63.978	ng	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140534.D
Acq On : 21 Nov 2024 13:51
Operator : RC/JU
Sample : SSTDICC060
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC060

Quant Time: Nov 21 15:14:21 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration



ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140535.D
Acq On : 21 Nov 2024 14:18
Operator : RC/JU
Sample : SSTDICC080
Misc :
ALS Vial : 10 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC080

Quant Time: Nov 21 15:15:15 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.875	152	111872	20.000	ng		0.00
21) Naphthalene-d8	8.157	136	386311	20.000	ng		0.00
39) Acenaphthene-d10	9.916	164	207499	20.000	ng		0.00
64) Phenanthrene-d10	11.404	188	377113	20.000	ng		0.00
76) Chrysene-d12	14.057	240	187912	20.000	ng		0.00
86) Perylene-d12	15.539	264	185457	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.510	112	976816	148.979	ng		0.01
7) Phenol-d6	6.528	99	1259345	145.284	ng		0.01
23) Nitrobenzene-d5	7.451	82	1184453	156.830	ng		0.01
42) 2,4,6-Tribromophenol	10.710	330	350473	157.926	ng		0.00
45) 2-Fluorobiphenyl	9.234	172	2050501	147.236	ng		0.00
79) Terphenyl-d14	12.992	244	1884646	156.171	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	2.663	88	213294	77.371	ng		100
3) Pyridine	3.434	79	504657	83.201	ng		98
4) n-Nitrosodimethylamine	3.416	42	295436	82.873	ng		99
6) Aniline	6.551	93	373764	61.261	ng	#	66
8) 2-Chlorophenol	6.675	128	512168	72.606	ng		97
10) Phenol	6.545	94	633910	71.609	ng		99
11) bis(2-Chloroethyl)ether	6.622	93	509142	75.160	ng		100
12) 1,3-Dichlorobenzene	6.822	146	576538	72.737	ng		99
13) 1,4-Dichlorobenzene	6.893	146	587901	73.253	ng		98
14) 1,2-Dichlorobenzene	7.051	146	541244	71.971	ng		99
15) Benzyl Alcohol	7.028	79	469135	72.980	ng		98
16) 2,2'-oxybis(1-Chloropr...	7.151	45	571163	71.370	ng		89
17) 2-Methylphenol	7.140	107	412367	73.028	ng		97
18) Hexachloroethane	7.387	117	223281	74.489	ng		98
19) n-Nitroso-di-n-propyla...	7.304	70	370745	72.370	ng		97
20) 3+4-Methylphenols	7.298	107	516442	71.155	ng		91
22) Acetophenone	7.292	105	722622	76.727	ng	#	98
24) Nitrobenzene	7.469	77	605207	77.534	ng		98
25) Isophorone	7.704	82	981772	77.937	ng		100
26) 2-Nitrophenol	7.775	139	277762	80.298	ng		98
27) 2,4-Dimethylphenol	7.816	122	336239	81.241	ng		100
28) bis(2-Chloroethoxy)met...	7.904	93	591884	77.128	ng		100
29) 2,4-Dichlorophenol	8.022	162	418686	76.344	ng		99
30) 1,2,4-Trichlorobenzene	8.098	180	482134	76.997	ng		99
31) Naphthalene	8.181	128	1498520	75.309	ng		100
32) Benzoic acid	7.981	122	312770	81.021	ng		99
33) 4-Chloroaniline	8.239	127	446235	74.901	ng		99
34) Hexachlorobutadiene	8.292	225	315951	76.179	ng		99
35) Caprolactam	8.634	113	127641	75.207	ng		99
36) 4-Chloro-3-methylphenol	8.728	107	465184	75.759	ng		100
37) 2-Methylnaphthalene	8.869	142	949611	75.136	ng		100
38) 1-Methylnaphthalene	8.969	142	928964	74.987	ng		100
40) 1,2,4,5-Tetrachloroben...	9.039	216	468632	77.147	ng		100
41) Hexachlorocyclopentadiene	9.022	237	110015	80.520	ng		99
43) 2,4,6-Trichlorophenol	9.157	196	302826	79.446	ng		99
44) 2,4,5-Trichlorophenol	9.204	196	325549	78.696	ng		98

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140535.D
Acq On : 21 Nov 2024 14:18
Operator : RC/JU
Sample : SSTDICC080
Misc :
ALS Vial : 10 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC080

Quant Time: Nov 21 15:15:15 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46)	1,1'-Biphenyl	9.339	154	1164092	75.141	ng	98
47)	2-Chloronaphthalene	9.363	162	905645	77.151	ng	100
48)	2-Nitroaniline	9.463	65	297813	79.040	ng	99
49)	Acenaphthylene	9.781	152	1319777	74.411	ng	99
50)	Dimethylphthalate	9.645	163	1041011	76.177	ng	100
51)	2,6-Dinitrotoluene	9.710	165	237697	76.693	ng	96
52)	Acenaphthene	9.951	154	851353	74.130	ng	99
53)	3-Nitroaniline	9.881	138	217122	71.627	ng	95
54)	2,4-Dinitrophenol	9.986	184	127923	79.725	ng	98
55)	Dibenzofuran	10.122	168	1252581	72.868	ng	98
56)	4-Nitrophenol	10.051	139	172406	83.396	ng	97
57)	2,4-Dinitrotoluene	10.116	165	314478	76.346	ng	96
58)	Fluorene	10.469	166	1004537	72.805	ng	99
59)	2,3,4,6-Tetrachlorophenol	10.245	232	258582	81.333	ng	97
60)	Diethylphthalate	10.339	149	1023948	73.747	ng	99
61)	4-Chlorophenyl-phenyle...	10.457	204	496862	73.378	ng	98
62)	4-Nitroaniline	10.504	138	241223	75.874	ng	99
63)	Azobenzene	10.616	77	978891	74.448	ng	99
65)	4,6-Dinitro-2-methylph...	10.528	198	170169	88.305	ng	98
66)	n-Nitrosodiphenylamine	10.581	169	842038	75.504	ng	99
67)	4-Bromophenyl-phenylether	10.945	248	298430	76.842	ng	98
68)	Hexachlorobenzene	11.016	284	349669	77.757	ng	98
69)	Atrazine	11.110	200	298744	95.222	ng	99
70)	Pentachlorophenol	11.216	266	177717	89.792	ng	99
71)	Phenanthrene	11.433	178	1329366	73.334	ng	100
72)	Anthracene	11.486	178	1295331	73.050	ng	100
73)	Carbazole	11.639	167	1238730	72.617	ng	100
74)	Di-n-butylphthalate	11.963	149	1458047	74.036	ng	100
75)	Fluoranthene	12.622	202	1389485	70.598	ng	99
77)	Benzidine	12.745	184	564372	103.300	ng	100
78)	Pyrene	12.851	202	1352459	77.840	ng	100
80)	Butylbenzylphthalate	13.463	149	481834	76.981	ng	99
81)	Benzo(a)anthracene	14.045	228	933395	75.038	ng	99
82)	3,3'-Dichlorobenzidine	14.004	252	295857	79.219	ng	99
83)	Chrysene	14.080	228	847578	74.518	ng	100
84)	Bis(2-ethylhexyl)phtha...	14.016	149	598926	75.781	ng	100
85)	Di-n-octyl phthalate	14.639	149	842600	78.011	ng	100
87)	Indeno(1,2,3-cd)pyrene	17.062	276	973960	80.586	ng	100
88)	Benzo(b)fluoranthene	15.104	252	866416	74.378	ng	99
89)	Benzo(k)fluoranthene	15.139	252	726636	71.283	ng	100
90)	Benzo(a)pyrene	15.480	252	710060	74.969	ng	99
91)	Dibenzo(a,h)anthracene	17.074	278	789090	79.722	ng	99
92)	Benzo(g,h,i)perylene	17.521	276	803570	79.559	ng	99

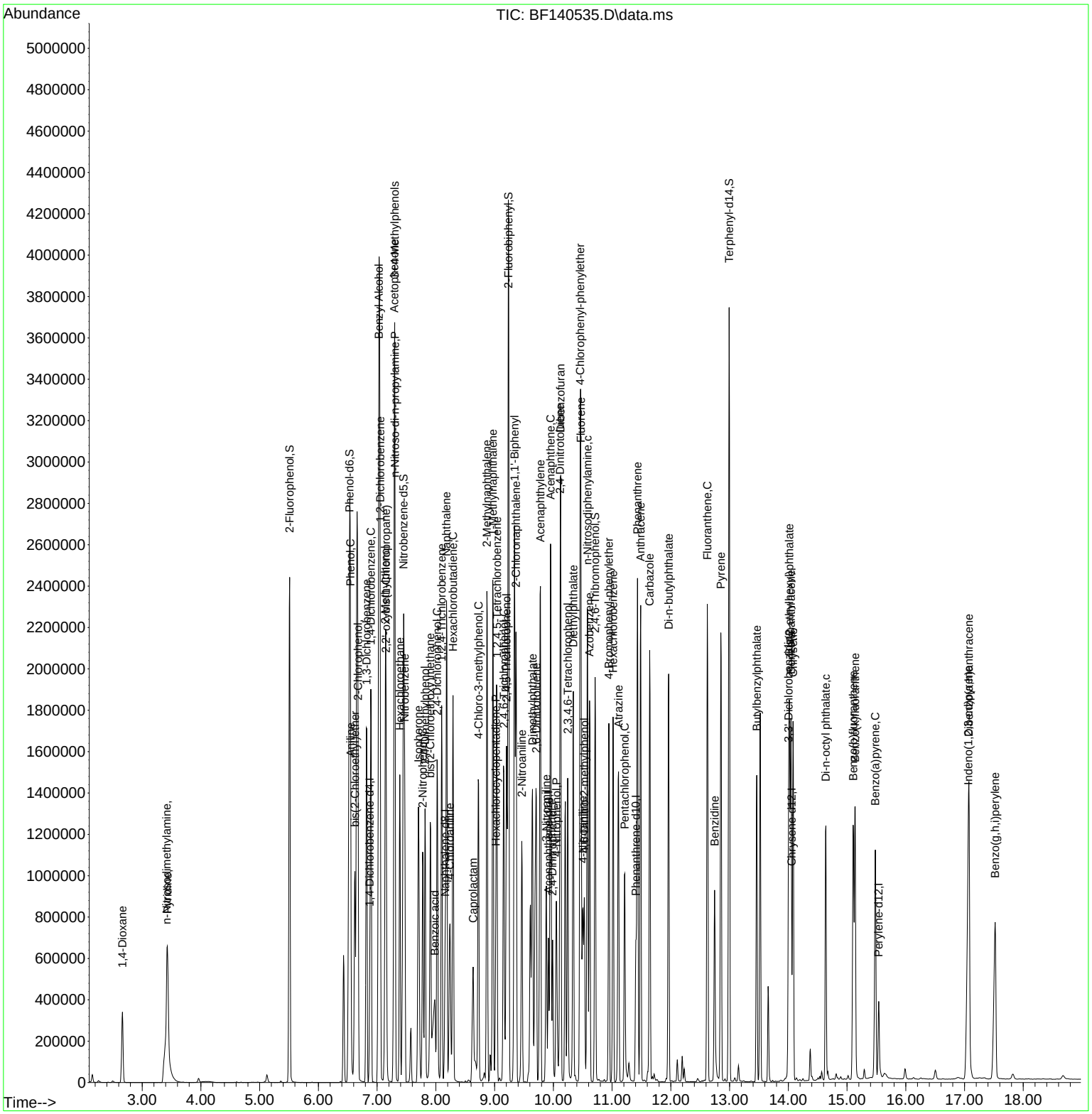
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140535.D
Acq On : 21 Nov 2024 14:18
Operator : RC/JU
Sample : SSTDICC080
Misc :
ALS Vial : 10 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC080

Quant Time: Nov 21 15:15:15 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 14:50:10 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140536.D
Acq On : 21 Nov 2024 15:07
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
ICVBF112124

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/27/2024

Quant Time: Nov 21 16:11:44 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.875	152	106835	20.000	ng	0.00
21) Naphthalene-d8	8.157	136	417612	20.000	ng	0.00
39) Acenaphthene-d10	9.916	164	239418	20.000	ng	0.00
64) Phenanthrene-d10	11.404	188	448820	20.000	ng	0.00
76) Chrysene-d12	14.057	240	266538	20.000	ng	0.00
86) Perylene-d12	15.551	264	215076	20.000	ng	0.01
System Monitoring Compounds						
5) 2-Fluorophenol	5.498	112	494717	79.009	ng	0.00
7) Phenol-d6	6.516	99	674309	81.459	ng	0.00
23) Nitrobenzene-d5	7.439	82	644226	78.907	ng	0.00
42) 2,4,6-Tribromophenol	10.710	330	204020	79.677	ng	0.00
45) 2-Fluorobiphenyl	9.227	172	1227501	76.390	ng	0.00
79) Terphenyl-d14	12.992	244	1291669	75.460	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	2.640	88	102768	39.036	ng	99
3) Pyridine	3.410	79	258925	44.701	ng	99
4) n-Nitrosodimethylamine	3.369	42	140208	41.184	ng	98
6) Aniline	6.539	93	274234	47.067	ng	91
8) 2-Chlorophenol	6.663	128	270746	40.191	ng	98
9) Benzaldehyde	6.428	77	161873	36.939	ng	99
10) Phenol	6.528	94	346860	41.030	ng	98
11) bis(2-Chloroethyl)ether	6.610	93	257441	39.796	ng	99
12) 1,3-Dichlorobenzene	6.816	146	300749	39.732	ng	99
13) 1,4-Dichlorobenzene	6.892	146	304030	39.668	ng	100
14) 1,2-Dichlorobenzene	7.045	146	283001	39.406	ng	98
15) Benzyl Alcohol	7.016	79	257787	41.993	ng	98
16) 2,2'-oxybis(1-Chloropr...	7.145	45	314742	41.183	ng	93
17) 2-Methylphenol	7.133	107	224359	41.606	ng	98
18) Hexachloroethane	7.381	117	114809	40.108	ng	98
19) n-Nitroso-di-n-propyla...	7.286	70	205658	42.038	ng	99
20) 3+4-Methylphenols	7.286	107	287897	41.536	ng	98
22) Acetophenone	7.281	105	396692	38.963	ng	99
24) Nitrobenzene	7.457	77	330161	39.127	ng	99
25) Isophorone	7.692	82	549222	40.332	ng	99
26) 2-Nitrophenol	7.769	139	150969	40.372	ng	98
27) 2,4-Dimethylphenol	7.810	122	177031	39.568	ng	99
28) bis(2-Chloroethoxy)met...	7.898	93	331321	39.938	ng	100
29) 2,4-Dichlorophenol	8.016	162	236857	39.952	ng	99
30) 1,2,4-Trichlorobenzene	8.098	180	263327	38.901	ng	99
31) Naphthalene	8.175	128	842187	39.152	ng	99
32) Benzoic acid	7.939	122	156794	41.429	ng	98
33) 4-Chloroaniline	8.228	127	280483	43.551	ng	99
34) Hexachlorobutadiene	8.292	225	176676	39.406	ng	99
35) Caprolactam	8.604	113	74088	40.381	ng	94
36) 4-Chloro-3-methylphenol	8.716	107	266862	40.203	ng	99
37) 2-Methylnaphthalene	8.869	142	546332	39.987	ng	99
38) 1-Methylnaphthalene	8.969	142	531502	39.688	ng	99
40) 1,2,4,5-Tetrachloroben...	9.033	216	272114	38.824	ng	100
41) Hexachlorocyclopentadiene	9.016	237	52730	37.711	ng	97
43) 2,4,6-Trichlorophenol	9.151	196	173239	39.390	ng	99

Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140536.D
Acq On : 21 Nov 2024 15:07
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
ICVBF112124

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/27/2024

Quant Time: Nov 21 16:11:44 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.192	196	192368	40.302	ng	99
46) 1,1'-Biphenyl	9.333	154	693007	38.769	ng	100
47) 2-Chloronaphthalene	9.357	162	530895	39.197	ng	100
48) 2-Nitroaniline	9.457	65	174060	40.037	ng	99
49) Acenaphthylene	9.774	152	795061	38.850	ng	99
50) Dimethylphthalate	9.633	163	624268	39.591	ng	99
51) 2,6-Dinitrotoluene	9.698	165	140739	39.356	ng	100
52) Acenaphthene	9.945	154	501631m	38.578	ng	
53) 3-Nitroaniline	9.874	138	143055	40.901	ng	96
54) 2,4-Dinitrophenol	9.980	184	58542	36.341	ng	99
55) Dibenzofuran	10.122	168	766460	38.644	ng	99
56) 4-Nitrophenol	10.039	139	100812	42.263	ng	99
57) 2,4-Dinitrotoluene	10.104	165	194980	41.025	ng	98
58) Fluorene	10.463	166	622708	39.115	ng	99
59) 2,3,4,6-Tetrachlorophenol	10.239	232	153327	41.797	ng	97
60) Diethylphthalate	10.333	149	626046	39.078	ng	100
61) 4-Chlorophenyl-phenyle...	10.451	204	308891	39.536	ng	99
62) 4-Nitroaniline	10.486	138	148087	40.369	ng	99
63) Azobenzene	10.616	77	597687	39.396	ng	99
65) 4,6-Dinitro-2-methylph...	10.516	198	94340	41.134	ng	99
66) n-Nitrosodiphenylamine	10.574	169	513960	38.723	ng	99
67) 4-Bromophenyl-phenylether	10.945	248	180160	38.977	ng	99
68) Hexachlorobenzene	11.016	284	208589	38.974	ng	99
69) Atrazine	11.098	200	129353	34.643	ng	99
70) Pentachlorophenol	11.210	266	100767	42.779	ng	98
71) Phenanthrene	11.427	178	838392	38.861	ng	99
72) Anthracene	11.480	178	819442	38.829	ng	100
73) Carbazole	11.639	167	795975	39.207	ng	100
74) Di-n-butylphthalate	11.963	149	932026	39.765	ng	99
75) Fluoranthene	12.621	202	937019	40.002	ng	100
77) Benzidine	12.745	184	304946	39.351	ng	99
78) Pyrene	12.851	202	941890	38.219	ng	99
80) Butylbenzylphthalate	13.463	149	359930	40.542	ng	97
81) Benzo(a)anthracene	14.045	228	700865	39.723	ng	100
82) 3,3'-Dichlorobenzidine	14.004	252	217249	41.011	ng	99
83) Chrysene	14.080	228	635750	39.406	ng	99
84) Bis(2-ethylhexyl)phtha...	14.021	149	468853	41.823	ng	99
85) Di-n-octyl phthalate	14.645	149	673561	43.965	ng	99
87) Indeno(1,2,3-cd)pyrene	17.062	276	546567	38.995	ng	99
88) Benzo(b)fluoranthene	15.109	252	551853	40.850	ng	100
89) Benzo(k)fluoranthene	15.145	252	474176	40.110	ng	100
90) Benzo(a)pyrene	15.486	252	439811	40.041	ng	99
91) Dibenzo(a,h)anthracene	17.074	278	459746	40.052	ng	100
92) Benzo(g,h,i)perylene	17.521	276	463747	39.591	ng	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

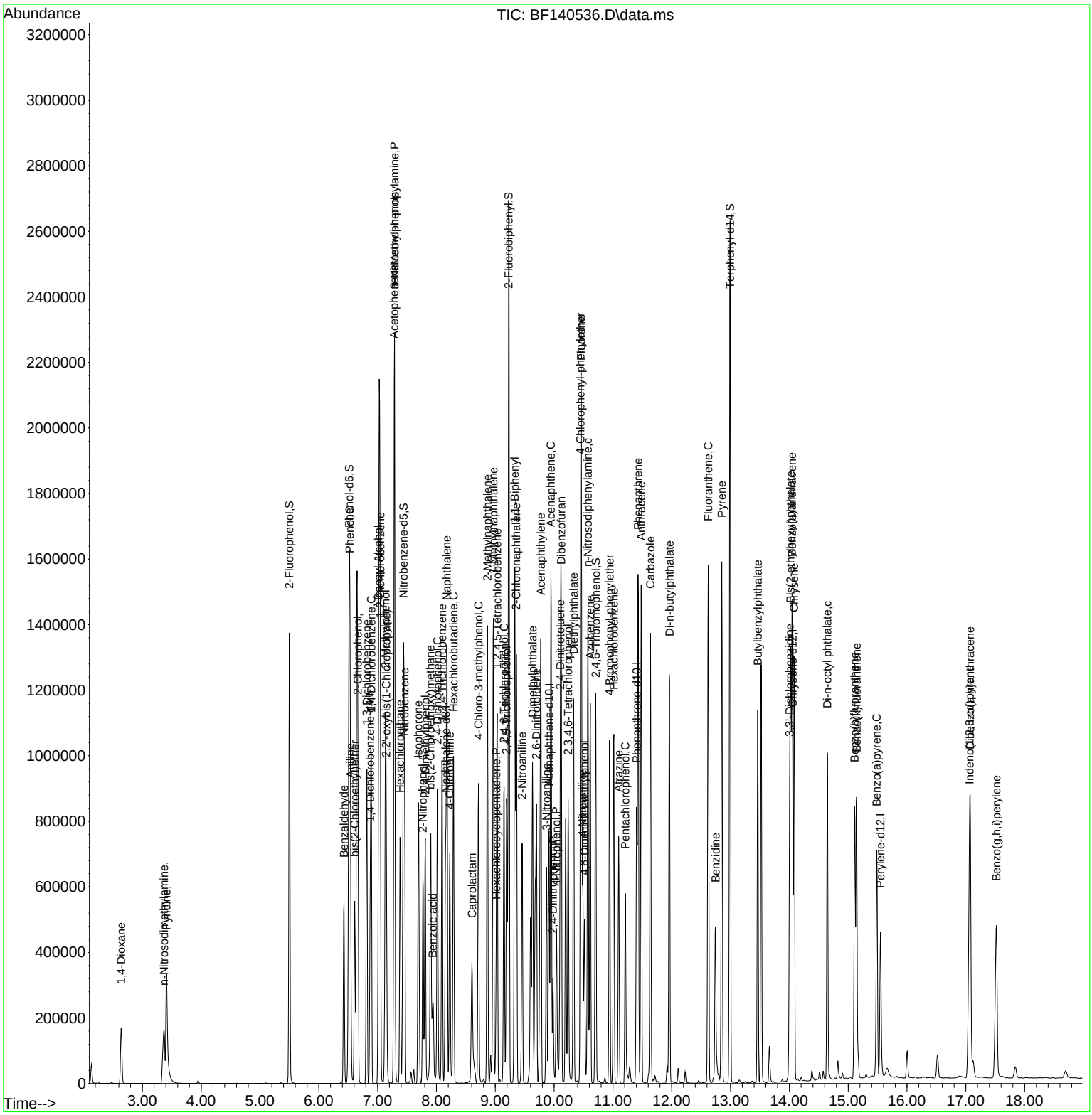
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140536.D
Acq On : 21 Nov 2024 15:07
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 21 16:11:44 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
ICVBF112124

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/27/2024



Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	99	0.00
2		1,4-Dioxane	0.493	0.481	2.4	98	-0.01
3		Pyridine	1.084	1.212	-11.8	101	-0.01
4		n-Nitrosodimethylamine	0.637	0.656	-3.0	101	-0.01
5	S	2-Fluorophenol	1.172	1.158	1.2	98	0.00
6		Aniline	1.091	1.283	-17.6	102	0.00
7	S	Phenol-d6	1.550	1.578	-1.8	98	0.00
8		2-Chlorophenol	1.261	1.267	-0.5	98	0.00
9		Benzaldehyde	0.820	0.758	7.6	102	0.00
10	C	Phenol	1.583	1.623	-2.5	97	0.00
11		bis(2-Chloroethyl)ether	1.211	1.205	0.5	96	0.00
12		1,3-Dichlorobenzene	1.417	1.408	0.6	100	0.00
13	C	1,4-Dichlorobenzene	1.435	1.423	0.8	99	0.00
14		1,2-Dichlorobenzene	1.344	1.324	1.5	97	0.00
15		Benzyl Alcohol	1.149	1.206	-5.0	98	0.00
16		2,2'-oxybis(1-Chloropropane	1.431	1.473	-2.9	100	0.00
17		2-Methylphenol	1.009	1.050	-4.1	100	0.00
18		Hexachloroethane	0.536	0.537	-0.2	99	0.00
19	P	n-Nitroso-di-n-propylamine	0.916	0.963	-5.1	101	0.00
20		3+4-Methylphenols	1.298	1.347	-3.8	99	0.00
21	I	Naphthalene-d8	1.000	1.000	0.0	101	0.00
22		Acetophenone	0.488	0.475	2.7	100	0.00
23	S	Nitrobenzene-d5	0.391	0.386	1.3	99	0.00
24		Nitrobenzene	0.404	0.395	2.2	99	0.00
25		Isophorone	0.652	0.658	-0.9	100	0.00
26	C	2-Nitrophenol	0.179	0.181	-1.1	101	0.00
27		2,4-Dimethylphenol	0.214	0.212	0.9	95	0.00
28		bis(2-Chloroethoxy)methane	0.397	0.397	0.0	101	0.00
29	C	2,4-Dichlorophenol	0.284	0.284	0.0	102	0.00
30		1,2,4-Trichlorobenzene	0.324	0.315	2.8	101	0.00
31		Naphthalene	1.030	1.008	2.1	101	0.00
32		Benzoic acid	0.164	0.188	-14.6	107	0.00
33		4-Chloroaniline	0.308	0.336	-9.1	104	0.00
34	C	Hexachlorobutadiene	0.215	0.212	1.4	101	0.00
35		Caprolactam	0.088	0.089	-1.1	99	0.00
36	C	4-Chloro-3-methylphenol	0.318	0.320	-0.6	99	0.00
37		2-Methylnaphthalene	0.654	0.654	0.0	102	0.00
38		1-Methylnaphthalene	0.641	0.636	0.8	101	0.00
39	I	Acenaphthene-d10	1.000	1.000	0.0	102	0.00
40		1,2,4,5-Tetrachlorobenzene	0.586	0.568	3.1	103	0.00
41	P	Hexachlorocyclopentadiene	0.107	0.110	-2.8	99	0.00
42	S	2,4,6-Tribromophenol	0.214	0.213	0.5	101	0.00
43	C	2,4,6-Trichlorophenol	0.367	0.362	1.4	101	0.00
44		2,4,5-Trichlorophenol	0.399	0.402	-0.8	102	0.00
45	S	2-Fluorobiphenyl	1.342	1.282	4.5	101	0.00
46		1,1'-Biphenyl	1.493	1.447	3.1	102	0.00
47		2-Chloronaphthalene	1.131	1.109	1.9	102	0.00

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140536.D
Acq On : 21 Nov 2024 15:07
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
ICVBF112124

Quant Time: Nov 21 16:11:44 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
48		2-Nitroaniline	0.363	0.364	-0.3	101	0.00
49		Acenaphthylene	1.710	1.660	2.9	102	0.00
50		Dimethylphthalate	1.317	1.304	1.0	103	0.00
51		2,6-Dinitrotoluene	0.299	0.294	1.7	100	0.00
52	C	Acenaphthene	1.086	1.048	3.5	101	0.00
53		3-Nitroaniline	0.292	0.299	-2.4	102	0.00
54	P	2,4-Dinitrophenol	0.122	0.122	0.0	89	0.00
55		Dibenzofuran	1.657	1.601	3.4	101	0.00
56	P	4-Nitrophenol	0.199	0.211	-6.0	104	0.00
57		2,4-Dinitrotoluene	0.397	0.407	-2.5	103	0.00
58		Fluorene	1.330	1.300	2.3	103	0.00
59		2,3,4,6-Tetrachlorophenol	0.306	0.320	-4.6	105	0.00
60		Diethylphthalate	1.338	1.307	2.3	102	0.00
61		4-Chlorophenyl-phenylether	0.653	0.645	1.2	103	0.00
62		4-Nitroaniline	0.306	0.309	-1.0	101	0.00
63		Azobenzene	1.267	1.248	1.5	103	0.00
64	I	Phenanthrene-d10	1.000	1.000	0.0	103	0.00
65		4,6-Dinitro-2-methylphenol	0.102	0.105	-2.9	98	0.00
66	c	n-Nitrosodiphenylamine	0.591	0.573	3.0	102	0.00
67		4-Bromophenyl-phenylether	0.206	0.201	2.4	103	0.00
68		Hexachlorobenzene	0.238	0.232	2.5	102	0.00
69		Atrazine	0.166	0.144	13.3	106	0.00
70	C	Pentachlorophenol	0.105	0.112	-6.7	99	0.00
71		Phenanthrene	0.961	0.934	2.8	101	0.00
72		Anthracene	0.940	0.913	2.9	101	0.00
73		Carbazole	0.905	0.887	2.0	102	0.00
74		Di-n-butylphthalate	1.044	1.038	0.6	104	0.00
75	C	Fluoranthene	1.044	1.044	0.0	106	0.00
76	I	Chrysene-d12	1.000	1.000	0.0	111	0.00
77		Benzidine	0.581	0.572	1.5	111	0.00
78		Pyrene	1.849	1.767	4.4	106	0.00
79	S	Terphenyl-d14	1.284	1.212	5.6	105	0.00
80		Butylbenzylphthalate	0.666	0.675	-1.4	111	0.00
81		Benzo(a)anthracene	1.324	1.315	0.7	114	0.00
82		3,3'-Dichlorobenzidine	0.397	0.408	-2.8	110	0.00
83		Chrysene	1.211	1.193	1.5	111	0.00
84		Bis(2-ethylhexyl)phthalate	0.841	0.880	-4.6	118	0.00
85	c	Di-n-octyl phthalate	1.150	1.264	-9.9	124	0.01
86	I	Perylene-d12	1.000	1.000	0.0	102	0.01
87		Indeno(1,2,3-cd)pyrene	1.303	1.271	2.5	99	0.01
88		Benzo(b)fluoranthene	1.256	1.283	-2.1	110	0.00
89		Benzo(k)fluoranthene	1.099	1.102	-0.3	102	0.01
90	C	Benzo(a)pyrene	1.021	1.022	-0.1	103	0.01
91		Dibenzo(a,h)anthracene	1.067	1.069	-0.2	102	0.01
92		Benzo(g,h,i)perylene	1.089	1.078	1.0	101	0.01

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140536.D
Acq On : 21 Nov 2024 15:07
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
ICVBF112124

Quant Time: Nov 21 16:11:44 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

ICAL Form

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Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	20.000	20.000	0.0	99	0.00
2		1,4-Dioxane	40.000	39.036	2.4	98	-0.01
3		Pyridine	40.000	44.701	-11.8	101	-0.01
4		n-Nitrosodimethylamine	40.000	41.184	-3.0	101	-0.01
5	S	2-Fluorophenol	80.000	79.009	1.2	98	0.00
6		Aniline	40.000	47.067	-17.7	102	0.00
7	S	Phenol-d6	80.000	81.459	-1.8	98	0.00
8		2-Chlorophenol	40.000	40.191	-0.5	98	0.00
9		Benzaldehyde	40.000	36.939	7.7	102	0.00
10	C	Phenol	40.000	41.030	-2.6	97	0.00
11		bis(2-Chloroethyl)ether	40.000	39.796	0.5	96	0.00
12		1,3-Dichlorobenzene	40.000	39.732	0.7	100	0.00
13	C	1,4-Dichlorobenzene	40.000	39.668	0.8	99	0.00
14		1,2-Dichlorobenzene	40.000	39.406	1.5	97	0.00
15		Benzyl Alcohol	40.000	41.993	-5.0	98	0.00
16		2,2'-oxybis(1-Chloropropane	40.000	41.183	-3.0	100	0.00
17		2-Methylphenol	40.000	41.606	-4.0	100	0.00
18		Hexachloroethane	40.000	40.108	-0.3	99	0.00
19	P	n-Nitroso-di-n-propylamine	40.000	42.038	-5.1	101	0.00
20		3+4-Methylphenols	40.000	41.536	-3.8	99	0.00
21	I	Naphthalene-d8	20.000	20.000	0.0	101	0.00
22		Acetophenone	40.000	38.963	2.6	100	0.00
23	S	Nitrobenzene-d5	80.000	78.907	1.4	99	0.00
24		Nitrobenzene	40.000	39.127	2.2	99	0.00
25		Isophorone	40.000	40.332	-0.8	100	0.00
26	C	2-Nitrophenol	40.000	40.372	-0.9	101	0.00
27		2,4-Dimethylphenol	40.000	39.568	1.1	95	0.00
28		bis(2-Chloroethoxy)methane	40.000	39.938	0.2	101	0.00
29	C	2,4-Dichlorophenol	40.000	39.952	0.1	102	0.00
30		1,2,4-Trichlorobenzene	40.000	38.901	2.7	101	0.00
31		Naphthalene	40.000	39.152	2.1	101	0.00
32		Benzoic acid	40.000	41.429	-3.6	107	0.00
33		4-Chloroaniline	40.000	43.551	-8.9	104	0.00
34	C	Hexachlorobutadiene	40.000	39.406	1.5	101	0.00
35		Caprolactam	40.000	40.381	-1.0	99	0.00
36	C	4-Chloro-3-methylphenol	40.000	40.203	-0.5	99	0.00
37		2-Methylnaphthalene	40.000	39.987	0.0	102	0.00
38		1-Methylnaphthalene	40.000	39.688	0.8	101	0.00
39	I	Acenaphthene-d10	20.000	20.000	0.0	102	0.00
40		1,2,4,5-Tetrachlorobenzene	40.000	38.824	2.9	103	0.00
41	P	Hexachlorocyclopentadiene	40.000	37.711	5.7	99	0.00
42	S	2,4,6-Tribromophenol	80.000	79.677	0.4	101	0.00
43	C	2,4,6-Trichlorophenol	40.000	39.390	1.5	101	0.00
44		2,4,5-Trichlorophenol	40.000	40.302	-0.8	102	0.00
45	S	2-Fluorobiphenyl	80.000	76.390	4.5	101	0.00
46		1,1'-Biphenyl	40.000	38.769	3.1	102	0.00
47		2-Chloronaphthalene	40.000	39.197	2.0	102	0.00

ICAL Form

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Instrument :
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Quant Time: Nov 21 16:11:44 2024
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
48		2-Nitroaniline	40.000	40.037	-0.1	101	0.00
49		Acenaphthylene	40.000	38.850	2.9	102	0.00
50		Dimethylphthalate	40.000	39.591	1.0	103	0.00
51		2,6-Dinitrotoluene	40.000	39.356	1.6	100	0.00
52	C	Acenaphthene	40.000	38.578	3.6	101	0.00
53		3-Nitroaniline	40.000	40.901	-2.3	102	0.00
54	P	2,4-Dinitrophenol	40.000	36.341	9.1	89	0.00
55		Dibenzofuran	40.000	38.644	3.4	101	0.00
56	P	4-Nitrophenol	40.000	42.263	-5.7	104	0.00
57		2,4-Dinitrotoluene	40.000	41.025	-2.6	103	0.00
58		Fluorene	40.000	39.115	2.2	103	0.00
59		2,3,4,6-Tetrachlorophenol	40.000	41.797	-4.5	105	0.00
60		Diethylphthalate	40.000	39.078	2.3	102	0.00
61		4-Chlorophenyl-phenylether	40.000	39.536	1.2	103	0.00
62		4-Nitroaniline	40.000	40.369	-0.9	101	0.00
63		Azobenzene	40.000	39.396	1.5	103	0.00
64	I	Phenanthrene-d10	20.000	20.000	0.0	103	0.00
65		4,6-Dinitro-2-methylphenol	40.000	41.134	-2.8	98	0.00
66	c	n-Nitrosodiphenylamine	40.000	38.723	3.2	102	0.00
67		4-Bromophenyl-phenylether	40.000	38.977	2.6	103	0.00
68		Hexachlorobenzene	40.000	38.974	2.6	102	0.00
69		Atrazine	40.000	34.643	13.4	106	0.00
70	C	Pentachlorophenol	40.000	42.779	-6.9	99	0.00
71		Phenanthrene	40.000	38.861	2.8	101	0.00
72		Anthracene	40.000	38.829	2.9	101	0.00
73		Carbazole	40.000	39.207	2.0	102	0.00
74		Di-n-butylphthalate	40.000	39.765	0.6	104	0.00
75	C	Fluoranthene	40.000	40.002	-0.0	106	0.00
76	I	Chrysene-d12	20.000	20.000	0.0	111	0.00
77		Benzidine	40.000	39.351	1.6	111	0.00
78		Pyrene	40.000	38.219	4.5	106	0.00
79	S	Terphenyl-d14	80.000	75.460	5.7	105	0.00
80		Butylbenzylphthalate	40.000	40.542	-1.4	111	0.00
81		Benzo(a)anthracene	40.000	39.723	0.7	114	0.00
82		3,3'-Dichlorobenzidine	40.000	41.011	-2.5	110	0.00
83		Chrysene	40.000	39.406	1.5	111	0.00
84		Bis(2-ethylhexyl)phthalate	40.000	41.823	-4.6	118	0.00
85	c	Di-n-octyl phthalate	40.000	43.965	-9.9	124	0.01
86	I	Perylene-d12	20.000	20.000	0.0	102	0.01
87		Indeno(1,2,3-cd)pyrene	40.000	38.995	2.5	99	0.01
88		Benzo(b)fluoranthene	40.000	40.850	-2.1	110	0.00
89		Benzo(k)fluoranthene	40.000	40.110	-0.3	102	0.01
90	C	Benzo(a)pyrene	40.000	40.041	-0.1	103	0.01
91		Dibenzo(a,h)anthracene	40.000	40.052	-0.1	102	0.01
92		Benzo(g,h,i)perylene	40.000	39.591	1.0	101	0.01

ICAL Form

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Sample : SSTDICV040
Misc :
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Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG No.: P4892

Instrument ID: BNA_F Calibration Date/Time: 11/20/2024 09:31

Lab File ID: BF140488.D Init. Calib. Date(s): 11/13/2024 11/13/2024

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 09:01 12:48

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.171	1.183		1.0	
Benzaldehyde	0.951	1.434		50.8	
Phenol-d6	1.587	1.579		-0.5	
Phenol	1.674	1.657		-1.0	20.0
bis(2-Chloroethyl)ether	1.268	1.277		0.7	
2-Chlorophenol	1.258	1.268		0.8	
2-Methylphenol	1.035	1.032		-0.3	
2,2-oxybis(1-Chloropropane)	1.752	1.634		-6.7	
Acetophenone	0.465	0.469		0.9	
3+4-Methylphenols	1.295	1.290		-0.4	
n-Nitroso-di-n-propylamine	0.959	0.916	0.050	-4.5	
Nitrobenzene-d5	0.384	0.392		2.1	
Hexachloroethane	0.520	0.535		2.9	
Nitrobenzene	0.400	0.409		2.3	
Isophorone	0.680	0.680		0.0	
2-Nitrophenol	0.177	0.189		6.8	20.0
2,4-Dimethylphenol	0.227	0.234		3.1	
bis(2-Chloroethoxy)methane	0.417	0.423		1.4	
2,4-Dichlorophenol	0.281	0.294		4.6	20.0
Naphthalene	1.015	1.040		2.5	
4-Chloroaniline	0.353	0.342		-3.1	
Hexachlorobutadiene	0.199	0.209		5.0	20.0
Caprolactam	0.093	0.096		3.2	
4-Chloro-3-methylphenol	0.311	0.322		3.5	20.0
2-Methylnaphthalene	0.651	0.663		1.8	
Hexachlorocyclopentadiene	0.142	0.127	0.050	-10.6	
2,4,6-Trichlorophenol	0.363	0.377		3.9	20.0
2-Fluorobiphenyl	1.244	1.282		3.1	
2,4,5-Trichlorophenol	0.397	0.418		5.3	
1,1-Biphenyl	1.455	1.501		3.2	
2-Chloronaphthalene	1.108	1.144		3.2	
2-Nitroaniline	0.368	0.375		1.9	
Dimethylphthalate	1.304	1.342		2.9	
Acenaphthylene	1.677	1.721		2.6	
2,6-Dinitrotoluene	0.297	0.314		5.7	
3-Nitroaniline	0.312	0.318		1.9	
Acenaphthene	1.133	1.176		3.8	20.0
2,4-Dinitrophenol	0.153	0.154	0.050	0.7	
4-Nitrophenol	0.228	0.216	0.050	-5.3	

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG No.: P4892

Instrument ID: BNA_F Calibration Date/Time: 11/20/2024 09:31

Lab File ID: BF140488.D Init. Calib. Date(s): 11/13/2024 11/13/2024

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 09:01 12:48

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.603	1.638		2.2	
2,4-Dinitrotoluene	0.391	0.410		4.9	
Diethylphthalate	1.333	1.357		1.8	
4-Chlorophenyl-phenylether	0.625	0.650		4.0	
Fluorene	1.267	1.310		3.4	
4-Nitroaniline	0.319	0.317		-0.6	
4,6-Dinitro-2-methylphenol	0.108	0.121		12.0	
n-Nitrosodiphenylamine	0.578	0.600		3.8	20.0
2,4,6-Tribromophenol	0.199	0.210		5.5	
4-Bromophenyl-phenylether	0.200	0.207		3.5	
Hexachlorobenzene	0.225	0.237		5.3	
Atrazine	0.175	0.161		-8.0	
Pentachlorophenol	0.121	0.122		0.8	20.0
Phenanthrene	0.940	0.958		1.9	
Anthracene	0.921	0.940		2.1	
Carbazole	0.909	0.919		1.1	
Di-n-butylphthalate	1.091	1.108		1.6	
Fluoranthene	1.054	1.040		-1.3	20.0
Pyrene	1.711	1.993		16.5	
Terphenyl-d14	1.152	1.323		14.8	
Butylbenzylphthalate	0.657	0.733		11.6	
3,3-Dichlorobenzidine	0.418	0.425		1.7	
Benzo(a)anthracene	1.314	1.367		4.0	
Chrysene	1.199	1.229		2.5	
Bis(2-ethylhexyl)phthalate	0.877	0.895		2.1	
Di-n-octyl phthalate	1.235	1.193		-3.4	20.0
Benzo(b)fluoranthene	1.308	1.186		-9.3	
Benzo(k)fluoranthene	1.069	1.134		6.1	
Benzo(a)pyrene	1.016	1.047		3.1	20.0
Indeno(1,2,3-cd)pyrene	1.235	1.428		15.6	
Dibenzo(a,h)anthracene	1.021	1.170		14.6	
Benzo(g,h,i)perylene	1.044	1.208		15.7	
1,2,4,5-Tetrachlorobenzene	0.553	0.581		5.1	
1,4-Dioxane	0.522	0.523		0.2	20.0
2,3,4,6-Tetrachlorophenol	0.313	0.321		2.6	

All other compounds must meet a minimum RRF of 0.010.

Sample Results: **BF140488.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140488.D
Acq On : 20 Nov 2024 09:31
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 20 10:35:19 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Manual Integrations APPROVED
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.875	152	132364	20.000	ng		0.00
21) Naphthalene-d8	8.157	136	490485	20.000	ng		0.00
39) Acenaphthene-d10	9.916	164	273054	20.000	ng		0.00
64) Phenanthrene-d10	11.404	188	510213	20.000	ng		0.00
76) Chrysene-d12	14.051	240	268548	20.000	ng		0.00
86) Perylene-d12	15.539	264	246006	20.000	ng		-0.02
System Monitoring Compounds							
5) 2-Fluorophenol	5.504	112	626328	80.791	ng		0.01
7) Phenol-d6	6.516	99	835879	79.582	ng		0.01
23) Nitrobenzene-d5	7.439	82	768178	81.601	ng		0.00
42) 2,4,6-Tribromophenol	10.704	330	229869	84.657	ng		0.00
45) 2-Fluorobiphenyl	9.228	172	1400225	82.435	ng		0.00
79) Terphenyl-d14	12.986	244	1421238	91.863	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	2.628	88	138405	40.057	ng		98
3) Pyridine	3.404	79	335412	39.486	ng		100
4) n-Nitrosodimethylamine	3.357	42	165619	38.578	ng		99
6) Aniline	6.540	93	342599	37.496	ng	#	61
8) 2-Chlorophenol	6.663	128	335737	40.316	ng		99
9) Benzaldehyde	6.428	77	379602	60.302	ng		98
10) Phenol	6.528	94	438741	39.610	ng		86
11) bis(2-Chloroethyl)ether	6.610	93	338041	40.278	ng		99
12) 1,3-Dichlorobenzene	6.816	146	373631	40.664	ng		99
13) 1,4-Dichlorobenzene	6.892	146	378996	40.679	ng		99
14) 1,2-Dichlorobenzene	7.045	146	351114	40.596	ng		99
15) Benzyl Alcohol	7.016	79	302807	40.015	ng		99
16) 2,2'-oxybis(1-Chloropr...	7.145	45	432663	37.322	ng		66
17) 2-Methylphenol	7.134	107	273264	39.889	ng		96
18) Hexachloroethane	7.386	117	141716	41.146	ng		98
19) n-Nitroso-di-n-propyla...	7.287	70	242440	38.218	ng		99
20) 3+4-Methylphenols	7.287	107	341542	39.866	ng	#	90
22) Acetophenone	7.281	105	459893	40.314	ng		99
24) Nitrobenzene	7.457	77	400779	40.890	ng		99
25) Isophorone	7.692	82	667210	39.991	ng		100
26) 2-Nitrophenol	7.775	139	185216	42.584	ng		99
27) 2,4-Dimethylphenol	7.810	122	229224m	41.165	ng		
28) bis(2-Chloroethoxy)met...	7.904	93	414691	40.536	ng		100
29) 2,4-Dichlorophenol	8.022	162	288595	41.936	ng		99
30) 1,2,4-Trichlorobenzene	8.098	180	318306	41.545	ng		100
31) Naphthalene	8.181	128	1020666	41.021	ng		100
32) Benzoic acid	7.939	122	209323	42.721	ng		99
33) 4-Chloroaniline	8.228	127	335737	38.800	ng		99
34) Hexachlorobutadiene	8.292	225	204877	41.969	ng		99
35) Caprolactam	8.598	113	93813	41.015	ng		97
36) 4-Chloro-3-methylphenol	8.716	107	316051	41.442	ng		98
37) 2-Methylnaphthalene	8.869	142	650164	40.752	ng		99
38) 1-Methylnaphthalene	8.969	142	636817	40.761	ng		100
40) 1,2,4,5-Tetrachloroben...	9.033	216	317385	42.033	ng		99
41) Hexachlorocyclopentadiene	9.016	237	69250	35.720	ng		97
43) 2,4,6-Trichlorophenol	9.151	196	206019	41.575	ng		99

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140488.D
Acq On : 20 Nov 2024 09:31
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 20 10:35:19 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.198	196	228093	42.101	ng	97
46) 1,1'-Biphenyl	9.333	154	819790	41.269	ng	99
47) 2-Chloronaphthalene	9.357	162	624878	41.295	ng	99
48) 2-Nitroaniline	9.457	65	204862	40.822	ng	99
49) Acenaphthylene	9.775	152	939848	41.051	ng	99
50) Dimethylphthalate	9.633	163	733122	41.191	ng	100
51) 2,6-Dinitrotoluene	9.698	165	171295	42.217	ng	99
52) Acenaphthene	9.945	154	642037m	41.519	ng	
53) 3-Nitroaniline	9.869	138	173780	40.783	ng	99
54) 2,4-Dinitrophenol	9.980	184	84341	40.309	ng	97
55) Dibenzofuran	10.122	168	894341	40.855	ng	100
56) 4-Nitrophenol	10.039	139	118069	37.987	ng	98
57) 2,4-Dinitrotoluene	10.104	165	224038	41.954	ng	100
58) Fluorene	10.463	166	715498	41.374	ng	99
59) 2,3,4,6-Tetrachlorophenol	10.239	232	175256	40.969	ng	98
60) Diethylphthalate	10.328	149	741052	40.719	ng	99
61) 4-Chlorophenyl-phenyle...	10.451	204	354853	41.564	ng	99
62) 4-Nitroaniline	10.486	138	173157	39.743	ng	99
63) Azobenzene	10.610	77	722195	40.162	ng	98
65) 4,6-Dinitro-2-methylph...	10.516	198	123832	45.111	ng	96
66) n-Nitrosodiphenylamine	10.575	169	611778	41.500	ng	100
67) 4-Bromophenyl-phenylether	10.945	248	211410	41.452	ng	98
68) Hexachlorobenzene	11.010	284	241874	42.150	ng	100
69) Atrazine	11.098	200	163963	36.762	ng	100
70) Pentachlorophenol	11.210	266	124117	40.153	ng	99
71) Phenanthrene	11.427	178	977064	40.766	ng	100
72) Anthracene	11.480	178	959400	40.843	ng	99
73) Carbazole	11.633	167	938052	40.444	ng	100
74) Di-n-butylphthalate	11.957	149	1130305	40.603	ng	100
75) Fluoranthene	12.616	202	1061273	39.468	ng	100
77) Benzidine	12.739	184	309358	30.014	ng	98
78) Pyrene	12.845	202	1070626	46.608	ng	100
80) Butylbenzylphthalate	13.457	149	393746	44.621	ng	98
81) Benzo(a)anthracene	14.039	228	734108	41.593	ng	99
82) 3,3'-Dichlorobenzidine	13.998	252	228373	40.709	ng	99
83) Chrysene	14.074	228	660037	40.986	ng	99
84) Bis(2-ethylhexyl)phtha...	14.015	149	480832	40.823	ng	99
85) Di-n-octyl phthalate	14.639	149	640686	38.622	ng	99
87) Indeno(1,2,3-cd)pyrene	17.051	276	702801	46.248	ng	99
88) Benzo(b)fluoranthene	15.104	252	583767	36.276	ng	99
89) Benzo(k)fluoranthene	15.133	252	557943	42.441	ng	100
90) Benzo(a)pyrene	15.474	252	515079	41.217	ng	99
91) Dibenzo(a,h)anthracene	17.062	278	575521	45.817	ng	100
92) Benzo(g,h,i)perylene	17.509	276	594253	46.275	ng	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

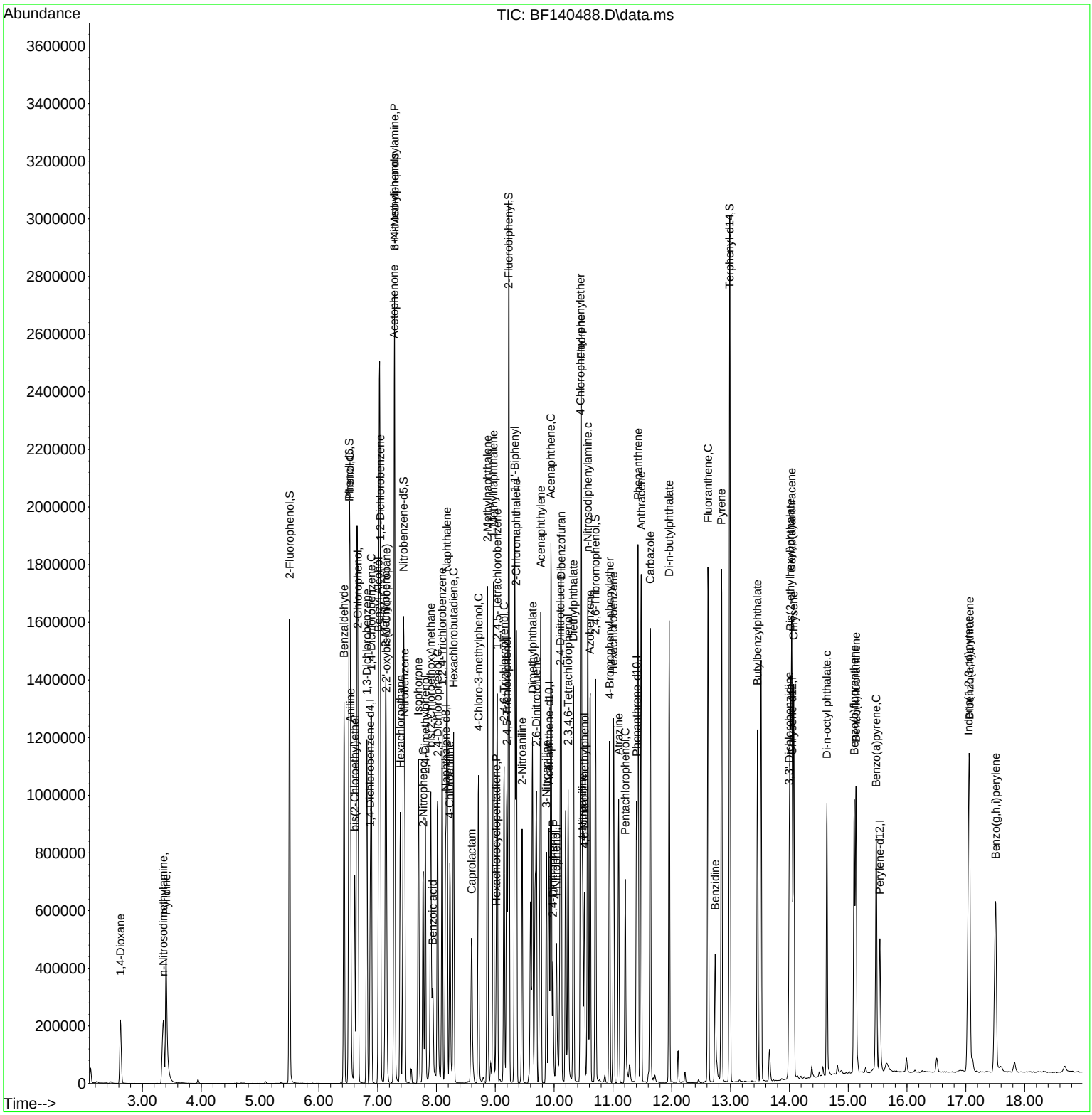
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140488.D
Acq On : 20 Nov 2024 09:31
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 20 10:35:19 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024



Sample Results: **BF140488.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140488.D
Acq On : 20 Nov 2024 09:31
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Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	90	0.00
2		1,4-Dioxane	0.522	0.523	-0.2	91	0.00
3		Pyridine	1.283	1.267	1.2	87	0.00
4		n-Nitrosodimethylamine	0.649	0.626	3.5	85	0.00
5	S	2-Fluorophenol	1.171	1.183	-1.0	93	0.01
6		Aniline	1.381	1.294	6.3	80	0.00
7	S	Phenol-d6	1.587	1.579	0.5	88	0.01
8		2-Chlorophenol	1.258	1.268	-0.8	90	0.00
9		Benzaldehyde	0.951	1.434	-50.8#	145	0.00
10	C	Phenol	1.674	1.657	1.0	86	0.00
11		bis(2-Chloroethyl)ether	1.268	1.277	-0.7	91	0.00
12		1,3-Dichlorobenzene	1.388	1.411	-1.7	92	0.00
13	C	1,4-Dichlorobenzene	1.408	1.432	-1.7	93	0.00
14		1,2-Dichlorobenzene	1.307	1.326	-1.5	92	0.00
15		Benzyl Alcohol	1.143	1.144	-0.1	85	0.00
16		2,2'-oxybis(1-Chloropropane	1.752	1.634	6.7	81	0.00
17		2-Methylphenol	1.035	1.032	0.3	87	0.00
18		Hexachloroethane	0.520	0.535	-2.9	94	0.00
19	P	n-Nitroso-di-n-propylamine	0.959	0.916	4.5	84	0.00
20		3+4-Methylphenols	1.294	1.290	0.3	86	0.00
21	I	Naphthalene-d8	1.000	1.000	0.0	83	0.00
22		Acetophenone	0.465	0.469	-0.9	87	0.00
23	S	Nitrobenzene-d5	0.384	0.392	-2.1	87	0.00
24		Nitrobenzene	0.400	0.409	-2.2	87	0.00
25		Isophorone	0.680	0.680	0.0	84	0.00
26	C	2-Nitrophenol	0.177	0.189	-6.8	88	0.00
27		2,4-Dimethylphenol	0.227	0.234	-3.1	87	0.00
28		bis(2-Chloroethoxy)methane	0.417	0.423	-1.4	86	0.00
29	C	2,4-Dichlorophenol	0.281	0.294	-4.6	89	0.00
30		1,2,4-Trichlorobenzene	0.312	0.324	-3.8	90	0.00
31		Naphthalene	1.015	1.040	-2.5	88	0.00
32		Benzoic acid	0.200	0.213	-6.5	84	0.01
33		4-Chloroaniline	0.353	0.342	3.1	84	0.00
34	C	Hexachlorobutadiene	0.199	0.209	-5.0	90	0.00
35		Caprolactam	0.093	0.096	-3.2	87	0.00
36	C	4-Chloro-3-methylphenol	0.311	0.322	-3.5	87	0.01
37		2-Methylnaphthalene	0.651	0.663	-1.8	87	0.00
38		1-Methylnaphthalene	0.637	0.649	-1.9	86	0.00
39	I	Acenaphthene-d10	1.000	1.000	0.0	82	0.00
40		1,2,4,5-Tetrachlorobenzene	0.553	0.581	-5.1	89	0.00
41	P	Hexachlorocyclopentadiene	0.142	0.127	10.6	74	0.00
42	S	2,4,6-Tribromophenol	0.199	0.210	-5.5	89	0.00
43	C	2,4,6-Trichlorophenol	0.363	0.377	-3.9	86	0.00
44		2,4,5-Trichlorophenol	0.397	0.418	-5.3	88	0.01
45	S	2-Fluorobiphenyl	1.244	1.282	-3.1	89	0.00
46		1,1'-Biphenyl	1.455	1.501	-3.2	87	0.00
47		2-Chloronaphthalene	1.108	1.144	-3.2	88	0.00

Sample Results: **BF140488.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140488.D
Acq On : 20 Nov 2024 09:31
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 20 10:35:19 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
48		2-Nitroaniline	0.368	0.375	-1.9	84	0.00
49		Acenaphthylene	1.677	1.721	-2.6	86	0.00
50		Dimethylphthalate	1.304	1.342	-2.9	87	0.00
51		2,6-Dinitrotoluene	0.297	0.314	-5.7	86	0.00
52	C	Acenaphthene	1.133	1.176	-3.8	88	0.00
53		3-Nitroaniline	0.312	0.318	-1.9	84	0.00
54	P	2,4-Dinitrophenol	0.153	0.154	-0.7	86	0.00
55		Dibenzofuran	1.603	1.638	-2.2	86	0.00
56	P	4-Nitrophenol	0.228	0.216	5.3	75	0.02
57		2,4-Dinitrotoluene	0.391	0.410	-4.9	87	0.00
58		Fluorene	1.267	1.310	-3.4	89	0.00
59		2,3,4,6-Tetrachlorophenol	0.313	0.321	-2.6	82	0.00
60		Diethylphthalate	1.333	1.357	-1.8	86	0.00
61		4-Chlorophenyl-phenylether	0.625	0.650	-4.0	88	0.00
62		4-Nitroaniline	0.319	0.317	0.6	81	0.00
63		Azobenzene	1.317	1.322	-0.4	83	0.00
64	I	Phenanthrene-d10	1.000	1.000	0.0	81	0.00
65		4,6-Dinitro-2-methylphenol	0.108	0.121	-12.0	91	0.00
66	c	n-Nitrosodiphenylamine	0.578	0.600	-3.8	87	0.00
67		4-Bromophenyl-phenylether	0.200	0.207	-3.5	87	0.00
68		Hexachlorobenzene	0.225	0.237	-5.3	88	0.00
69		Atrazine	0.175	0.161	8.0	90	0.00
70	C	Pentachlorophenol	0.121	0.122	-0.8	78	0.00
71		Phenanthrene	0.940	0.958	-1.9	86	0.00
72		Anthracene	0.921	0.940	-2.1	86	0.00
73		Carbazole	0.909	0.919	-1.1	85	0.00
74		Di-n-butylphthalate	1.091	1.108	-1.6	84	0.00
75	C	Fluoranthene	1.054	1.040	1.3	83	0.00
76	I	Chrysene-d12	1.000	1.000	0.0	70	0.00
77		Benzidine	0.768	0.576	25.0#	61	0.00
78		Pyrene	1.711	1.993	-16.5	83	0.00
79	S	Terphenyl-d14	1.152	1.323	-14.8	82	0.00
80		Butylbenzylphthalate	0.657	0.733	-11.6	74	0.00
81		Benzo(a)anthracene	1.314	1.367	-4.0	75	0.00
82		3,3'-Dichlorobenzidine	0.418	0.425	-1.7	74	0.00
83		Chrysene	1.199	1.229	-2.5	73	0.00
84		Bis(2-ethylhexyl)phthalate	0.877	0.895	-2.1	67	0.00
85	c	Di-n-octyl phthalate	1.235	1.193	3.4	64	-0.02
86	I	Perylene-d12	1.000	1.000	0.0	76	-0.02
87		Indeno(1,2,3-cd)pyrene	1.235	1.428	-15.6	87	0.00
88		Benzo(b)fluoranthene	1.308	1.186	9.3	72	-0.01
89		Benzo(k)fluoranthene	1.069	1.134	-6.1	82	-0.02
90	C	Benzo(a)pyrene	1.016	1.047	-3.1	79	-0.02
91		Dibenzo(a,h)anthracene	1.021	1.170	-14.6	86	-0.01
92		Benzo(g,h,i)perylene	1.044	1.208	-15.7	87	0.00

Sample Results: **BF140488.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140488.D
Acq On : 20 Nov 2024 09:31
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 20 10:35:19 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Sample Results: **BF140488.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140488.D
Acq On : 20 Nov 2024 09:31
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 20 10:35:19 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	20.000	20.000	0.0	90	0.00
2		1,4-Dioxane	40.000	40.057	-0.1	91	0.00
3		Pyridine	40.000	39.486	1.3	87	0.00
4		n-Nitrosodimethylamine	40.000	38.578	3.6	85	0.00
5	S	2-Fluorophenol	80.000	80.791	-1.0	93	0.01
6		Aniline	40.000	37.496	6.3	80	0.00
7	S	Phenol-d6	80.000	79.582	0.5	88	0.01
8		2-Chlorophenol	40.000	40.316	-0.8	90	0.00
9		Benzaldehyde	40.000	60.302	-50.8#	145	0.00
10	C	Phenol	40.000	39.610	1.0	86	0.00
11		bis(2-Chloroethyl)ether	40.000	40.278	-0.7	91	0.00
12		1,3-Dichlorobenzene	40.000	40.664	-1.7	92	0.00
13	C	1,4-Dichlorobenzene	40.000	40.679	-1.7	93	0.00
14		1,2-Dichlorobenzene	40.000	40.596	-1.5	92	0.00
15		Benzyl Alcohol	40.000	40.015	-0.0	85	0.00
16		2,2'-oxybis(1-Chloropropane	40.000	37.322	6.7	81	0.00
17		2-Methylphenol	40.000	39.889	0.3	87	0.00
18		Hexachloroethane	40.000	41.146	-2.9	94	0.00
19	P	n-Nitroso-di-n-propylamine	40.000	38.218	4.5	84	0.00
20		3+4-Methylphenols	40.000	39.866	0.3	86	0.00
21	I	Naphthalene-d8	20.000	20.000	0.0	83	0.00
22		Acetophenone	40.000	40.314	-0.8	87	0.00
23	S	Nitrobenzene-d5	80.000	81.601	-2.0	87	0.00
24		Nitrobenzene	40.000	40.890	-2.2	87	0.00
25		Isophorone	40.000	39.991	0.0	84	0.00
26	C	2-Nitrophenol	40.000	42.584	-6.5	88	0.00
27		2,4-Dimethylphenol	40.000	41.165	-2.9	87	0.00
28		bis(2-Chloroethoxy)methane	40.000	40.536	-1.3	86	0.00
29	C	2,4-Dichlorophenol	40.000	41.936	-4.8	89	0.00
30		1,2,4-Trichlorobenzene	40.000	41.545	-3.9	90	0.00
31		Naphthalene	40.000	41.021	-2.6	88	0.00
32		Benzoic acid	40.000	42.721	-6.8	84	0.01
33		4-Chloroaniline	40.000	38.800	3.0	84	0.00
34	C	Hexachlorobutadiene	40.000	41.969	-4.9	90	0.00
35		Caprolactam	40.000	41.015	-2.5	87	0.00
36	C	4-Chloro-3-methylphenol	40.000	41.442	-3.6	87	0.01
37		2-Methylnaphthalene	40.000	40.752	-1.9	87	0.00
38		1-Methylnaphthalene	40.000	40.761	-1.9	86	0.00
39	I	Acenaphthene-d10	20.000	20.000	0.0	82	0.00
40		1,2,4,5-Tetrachlorobenzene	40.000	42.033	-5.1	89	0.00
41	P	Hexachlorocyclopentadiene	40.000	35.720	10.7	74	0.00
42	S	2,4,6-Tribromophenol	80.000	84.657	-5.8	89	0.00
43	C	2,4,6-Trichlorophenol	40.000	41.575	-3.9	86	0.00
44		2,4,5-Trichlorophenol	40.000	42.101	-5.3	88	0.01
45	S	2-Fluorobiphenyl	80.000	82.435	-3.0	89	0.00
46		1,1'-Biphenyl	40.000	41.269	-3.2	87	0.00
47		2-Chloronaphthalene	40.000	41.295	-3.2	88	0.00

Sample Results: **BF140488.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140488.D
Acq On : 20 Nov 2024 09:31
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 20 10:35:19 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
48		2-Nitroaniline	40.000	40.822	-2.1	84	0.00
49		Acenaphthylene	40.000	41.051	-2.6	86	0.00
50		Dimethylphthalate	40.000	41.191	-3.0	87	0.00
51		2,6-Dinitrotoluene	40.000	42.217	-5.5	86	0.00
52	C	Acenaphthene	40.000	41.519	-3.8	88	0.00
53		3-Nitroaniline	40.000	40.783	-2.0	84	0.00
54	P	2,4-Dinitrophenol	40.000	40.309	-0.8	86	0.00
55		Dibenzofuran	40.000	40.855	-2.1	86	0.00
56	P	4-Nitrophenol	40.000	37.987	5.0	75	0.02
57		2,4-Dinitrotoluene	40.000	41.954	-4.9	87	0.00
58		Fluorene	40.000	41.374	-3.4	89	0.00
59		2,3,4,6-Tetrachlorophenol	40.000	40.969	-2.4	82	0.00
60		Diethylphthalate	40.000	40.719	-1.8	86	0.00
61		4-Chlorophenyl-phenylether	40.000	41.564	-3.9	88	0.00
62		4-Nitroaniline	40.000	39.743	0.6	81	0.00
63		Azobenzene	40.000	40.162	-0.4	83	0.00
64	I	Phenanthrene-d10	20.000	20.000	0.0	81	0.00
65		4,6-Dinitro-2-methylphenol	40.000	45.111	-12.8	91	0.00
66	c	n-Nitrosodiphenylamine	40.000	41.500	-3.8	87	0.00
67		4-Bromophenyl-phenylether	40.000	41.452	-3.6	87	0.00
68		Hexachlorobenzene	40.000	42.150	-5.4	88	0.00
69		Atrazine	40.000	36.762	8.1	90	0.00
70	C	Pentachlorophenol	40.000	40.153	-0.4	78	0.00
71		Phenanthrene	40.000	40.766	-1.9	86	0.00
72		Anthracene	40.000	40.843	-2.1	86	0.00
73		Carbazole	40.000	40.444	-1.1	85	0.00
74		Di-n-butylphthalate	40.000	40.603	-1.5	84	0.00
75	C	Fluoranthene	40.000	39.468	1.3	83	0.00
76	I	Chrysene-d12	20.000	20.000	0.0	70	0.00
77		Benzidine	40.000	30.014	25.0	61	0.00
78		Pyrene	40.000	46.608	-16.5	83	0.00
79	S	Terphenyl-d14	80.000	91.863	-14.8	82	0.00
80		Butylbenzylphthalate	40.000	44.621	-11.6	74	0.00
81		Benzo(a)anthracene	40.000	41.593	-4.0	75	0.00
82		3,3'-Dichlorobenzidine	40.000	40.709	-1.8	74	0.00
83		Chrysene	40.000	40.986	-2.5	73	0.00
84		Bis(2-ethylhexyl)phthalate	40.000	40.823	-2.1	67	0.00
85	c	Di-n-octyl phthalate	40.000	38.622	3.4	64	-0.02
86	I	Perylene-d12	20.000	20.000	0.0	76	-0.02
87		Indeno(1,2,3-cd)pyrene	40.000	46.248	-15.6	87	0.00
88		Benzo(b)fluoranthene	40.000	36.276	9.3	72	-0.01
89		Benzo(k)fluoranthene	40.000	42.441	-6.1	82	-0.02
90	C	Benzo(a)pyrene	40.000	41.217	-3.0	79	-0.02
91		Dibenzo(a,h)anthracene	40.000	45.817	-14.5	86	-0.01
92		Benzo(g,h,i)perylene	40.000	46.275	-15.7	87	0.00

Sample Results: **BF140488.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140488.D
Acq On : 20 Nov 2024 09:31
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 20 10:35:19 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG No.: P4892

Instrument ID: BNA_F Calibration Date/Time: 11/20/2024 15:59

Lab File ID: BF140501.D Init. Calib. Date(s): 11/13/2024 11/13/2024

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 09:01 12:48

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.171	1.206		3.0	
Benzaldehyde	0.951	1.414		48.7	
Phenol-d6	1.587	1.601		0.9	
Phenol	1.674	1.671		-0.2	20.0
bis(2-Chloroethyl)ether	1.268	1.316		3.8	
2-Chlorophenol	1.258	1.293		2.8	
2-Methylphenol	1.035	1.046		1.1	
2,2-oxybis(1-Chloropropane)	1.752	1.618		-7.6	
Acetophenone	0.465	0.469		0.9	
3+4-Methylphenols	1.295	1.291		-0.3	
n-Nitroso-di-n-propylamine	0.959	0.908	0.050	-5.3	
Nitrobenzene-d5	0.384	0.393		2.3	
Hexachloroethane	0.520	0.541		4.0	
Nitrobenzene	0.400	0.413		3.3	
Isophorone	0.680	0.677		-0.4	
2-Nitrophenol	0.177	0.190		7.3	20.0
2,4-Dimethylphenol	0.227	0.234		3.1	
bis(2-Chloroethoxy)methane	0.417	0.417		0.0	
2,4-Dichlorophenol	0.281	0.294		4.6	20.0
Naphthalene	1.015	1.038		2.3	
4-Chloroaniline	0.353	0.305		-13.6	
Hexachlorobutadiene	0.199	0.207		4.0	20.0
Caprolactam	0.093	0.095		2.2	
4-Chloro-3-methylphenol	0.311	0.317		1.9	20.0
2-Methylnaphthalene	0.651	0.658		1.1	
Hexachlorocyclopentadiene	0.142	0.127	0.050	-10.6	
2,4,6-Trichlorophenol	0.363	0.378		4.1	20.0
2-Fluorobiphenyl	1.244	1.264		1.6	
2,4,5-Trichlorophenol	0.397	0.416		4.8	
1,1-Biphenyl	1.455	1.494		2.7	
2-Chloronaphthalene	1.108	1.143		3.2	
2-Nitroaniline	0.368	0.382		3.8	
Dimethylphthalate	1.304	1.338		2.6	
Acenaphthylene	1.677	1.745		4.1	
2,6-Dinitrotoluene	0.297	0.313		5.4	
3-Nitroaniline	0.312	0.313		0.3	
Acenaphthene	1.133	1.181		4.2	20.0
2,4-Dinitrophenol	0.153	0.153	0.050	0.0	
4-Nitrophenol	0.228	0.220	0.050	-3.5	

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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG No.: P4892

Instrument ID: BNA_F Calibration Date/Time: 11/20/2024 15:59

Lab File ID: BF140501.D Init. Calib. Date(s): 11/13/2024 11/13/2024

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 09:01 12:48

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.603	1.635		2.0	
2,4-Dinitrotoluene	0.391	0.418		6.9	
Diethylphthalate	1.333	1.348		1.1	
4-Chlorophenyl-phenylether	0.625	0.637		1.9	
Fluorene	1.267	1.308		3.2	
4-Nitroaniline	0.319	0.312		-2.2	
4,6-Dinitro-2-methylphenol	0.108	0.122		13.0	
n-Nitrosodiphenylamine	0.578	0.589		1.9	20.0
2,4,6-Tribromophenol	0.199	0.209		5.0	
4-Bromophenyl-phenylether	0.200	0.205		2.5	
Hexachlorobenzene	0.225	0.230		2.2	
Atrazine	0.175	0.150		-14.3	
Pentachlorophenol	0.121	0.121		0.0	20.0
Phenanthrene	0.940	0.938		-0.2	
Anthracene	0.921	0.933		1.3	
Carbazole	0.909	0.912		0.3	
Di-n-butylphthalate	1.091	1.080		-1.0	
Fluoranthene	1.054	1.030		-2.3	20.0
Pyrene	1.711	1.843		7.7	
Terphenyl-d14	1.152	1.233		7.0	
Butylbenzylphthalate	0.657	0.698		6.2	
3,3-Dichlorobenzidine	0.418	0.413		-1.2	
Benzo(a)anthracene	1.314	1.378		4.9	
Chrysene	1.199	1.184		-1.3	
Bis(2-ethylhexyl)phthalate	0.877	0.903		3.0	
Di-n-octyl phthalate	1.235	1.287		4.2	20.0
Benzo(b)fluoranthene	1.308	1.302		-0.5	
Benzo(k)fluoranthene	1.069	1.034		-3.3	
Benzo(a)pyrene	1.016	1.037		2.1	20.0
Indeno(1,2,3-cd)pyrene	1.235	1.266		2.5	
Dibenzo(a,h)anthracene	1.021	1.045		2.4	
Benzo(g,h,i)perylene	1.044	1.064		1.9	
1,2,4,5-Tetrachlorobenzene	0.553	0.576		4.2	
1,4-Dioxane	0.522	0.543		4.0	20.0
2,3,4,6-Tetrachlorophenol	0.313	0.330		5.4	

All other compounds must meet a minimum RRF of 0.010.

Sample Results: **BF140501.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140501.D
Acq On : 20 Nov 2024 15:59
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 20 16:43:30 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.875	152	136554	20.000	ng		0.00
21) Naphthalene-d8	8.157	136	508396	20.000	ng		0.00
39) Acenaphthene-d10	9.910	164	278192	20.000	ng		0.00
64) Phenanthrene-d10	11.398	188	526085	20.000	ng		0.00
76) Chrysene-d12	14.045	240	294226	20.000	ng		0.00
86) Perylene-d12	15.533	264	277583	20.000	ng		-0.02
System Monitoring Compounds							
5) 2-Fluorophenol	5.499	112	658550	82.341	ng		0.00
7) Phenol-d6	6.516	99	874697	80.723	ng		0.01
23) Nitrobenzene-d5	7.440	82	799594	81.946	ng		0.00
42) 2,4,6-Tribromophenol	10.704	330	232158	83.921	ng		0.00
45) 2-Fluorobiphenyl	9.228	172	1406445	81.272	ng		0.00
79) Terphenyl-d14	12.986	244	1450760	85.588	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	2.634	88	148229	41.583	ng		98
3) Pyridine	3.410	79	337687	38.534	ng		99
4) n-Nitrosodimethylamine	3.363	42	177689	40.119	ng		98
6) Aniline	6.540	93	298762	31.695	ng	#	45
8) 2-Chlorophenol	6.663	128	353128	41.103	ng		100
9) Benzaldehyde	6.428	77	386187	59.466	ng		99
10) Phenol	6.534	94	456281	39.929	ng		85
11) bis(2-Chloroethyl)ether	6.610	93	359301	41.497	ng		99
12) 1,3-Dichlorobenzene	6.816	146	392904	41.450	ng		100
13) 1,4-Dichlorobenzene	6.893	146	394309	41.024	ng		99
14) 1,2-Dichlorobenzene	7.045	146	367537	41.191	ng		99
15) Benzyl Alcohol	7.016	79	314585	40.296	ng		99
16) 2,2'-oxybis(1-Chloropr...	7.145	45	441842	36.944	ng		57
17) 2-Methylphenol	7.134	107	285631	40.415	ng		95
18) Hexachloroethane	7.387	117	147863	41.613	ng		100
19) n-Nitroso-di-n-propyla...	7.287	70	248117	37.913	ng		100
20) 3+4-Methylphenols	7.287	107	352594	39.893	ng	#	90
22) Acetophenone	7.281	105	477359	40.371	ng	#	98
24) Nitrobenzene	7.457	77	419522	41.294	ng		99
25) Isophorone	7.692	82	688455	39.810	ng		100
26) 2-Nitrophenol	7.775	139	193108	42.834	ng		97
27) 2,4-Dimethylphenol	7.810	122	237712m	41.186	ng		
28) bis(2-Chloroethoxy)met...	7.904	93	424418	40.025	ng		100
29) 2,4-Dichlorophenol	8.022	162	298717	41.877	ng		99
30) 1,2,4-Trichlorobenzene	8.098	180	328407	41.353	ng		100
31) Naphthalene	8.181	128	1055886	40.942	ng		100
32) Benzoic acid	7.940	122	205294	40.422	ng		98
33) 4-Chloroaniline	8.234	127	310449	34.613	ng		98
34) Hexachlorobutadiene	8.292	225	210038	41.510	ng		99
35) Caprolactam	8.598	113	97010	40.918	ng		96
36) 4-Chloro-3-methylphenol	8.716	107	322093	40.746	ng		98
37) 2-Methylnaphthalene	8.869	142	668766	40.441	ng		100
38) 1-Methylnaphthalene	8.969	142	651971	40.261	ng		99
40) 1,2,4,5-Tetrachloroben...	9.034	216	320411	41.650	ng		100
41) Hexachlorocyclopentadiene	9.016	237	70490	35.688	ng		100
43) 2,4,6-Trichlorophenol	9.151	196	210199	41.635	ng		99

Sample Results: **BF140501.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140501.D
Acq On : 20 Nov 2024 15:59
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 20 16:43:30 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Manual Integrations APPROVED
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.198	196	231494	41.939	ng	98
46) 1,1'-Biphenyl	9.334	154	831126	41.067	ng	99
47) 2-Chloronaphthalene	9.357	162	636215	41.268	ng	99
48) 2-Nitroaniline	9.457	65	212637	41.589	ng	99
49) Acenaphthylene	9.775	152	971132	41.634	ng	100
50) Dimethylphthalate	9.634	163	744636	41.066	ng	100
51) 2,6-Dinitrotoluene	9.698	165	173934	42.076	ng	98
52) Acenaphthene	9.945	154	656832	41.692	ng	99
53) 3-Nitroaniline	9.869	138	174247	40.137	ng	96
54) 2,4-Dinitrophenol	9.981	184	85216	39.975	ng	96
55) Dibenzofuran	10.116	168	909462	40.778	ng	100
56) 4-Nitrophenol	10.039	139	122321	38.628	ng	98
57) 2,4-Dinitrotoluene	10.104	165	232839	42.797	ng	99
58) Fluorene	10.463	166	727859	41.312	ng	100
59) 2,3,4,6-Tetrachlorophenol	10.239	232	183532	42.111	ng	99
60) Diethylphthalate	10.328	149	749917	40.445	ng	99
61) 4-Chlorophenyl-phenyle...	10.451	204	354149	40.715	ng	100
62) 4-Nitroaniline	10.486	138	173374	39.058	ng	96
63) Azobenzene	10.610	77	724772	39.561	ng	99
65) 4,6-Dinitro-2-methylph...	10.516	198	128673	45.460	ng	93
66) n-Nitrosodiphenylamine	10.569	169	619373	40.747	ng	99
67) 4-Bromophenyl-phenylether	10.939	248	216149	41.102	ng	98
68) Hexachlorobenzene	11.010	284	242459	40.977	ng	99
69) Atrazine	11.098	200	157699	34.291	ng	99
70) Pentachlorophenol	11.210	266	126906	39.817	ng	99
71) Phenanthrene	11.428	178	987185	39.946	ng	100
72) Anthracene	11.480	178	981837	40.538	ng	100
73) Carbazole	11.633	167	959121	40.105	ng	99
74) Di-n-butylphthalate	11.957	149	1136061	39.579	ng	100
75) Fluoranthene	12.616	202	1083488	39.078	ng	100
77) Benzidine	12.739	184	364136	32.246	ng	99
78) Pyrene	12.845	202	1084803	43.104	ng	100
80) Butylbenzylphthalate	13.457	149	410539	42.464	ng	99
81) Benzo(a)anthracene	14.033	228	810665	41.922	ng	100
82) 3,3'-Dichlorobenzidine	13.998	252	242862	39.513	ng	98
83) Chrysene	14.074	228	697007	39.505	ng	100
84) Bis(2-ethylhexyl)phtha...	14.016	149	531226	41.166	ng	99
85) Di-n-octyl phthalate	14.633	149	757391	41.673	ng	99
87) Indeno(1,2,3-cd)pyrene	17.045	276	703084	41.003	ng	100
88) Benzo(b)fluoranthene	15.098	252	722822	39.807	ng	99
89) Benzo(k)fluoranthene	15.127	252	574185	38.708	ng	98
90) Benzo(a)pyrene	15.474	252	575687	40.826	ng	99
91) Dibenzo(a,h)anthracene	17.057	278	580162	40.932	ng	100
92) Benzo(g,h,i)perylene	17.498	276	590600	40.759	ng	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

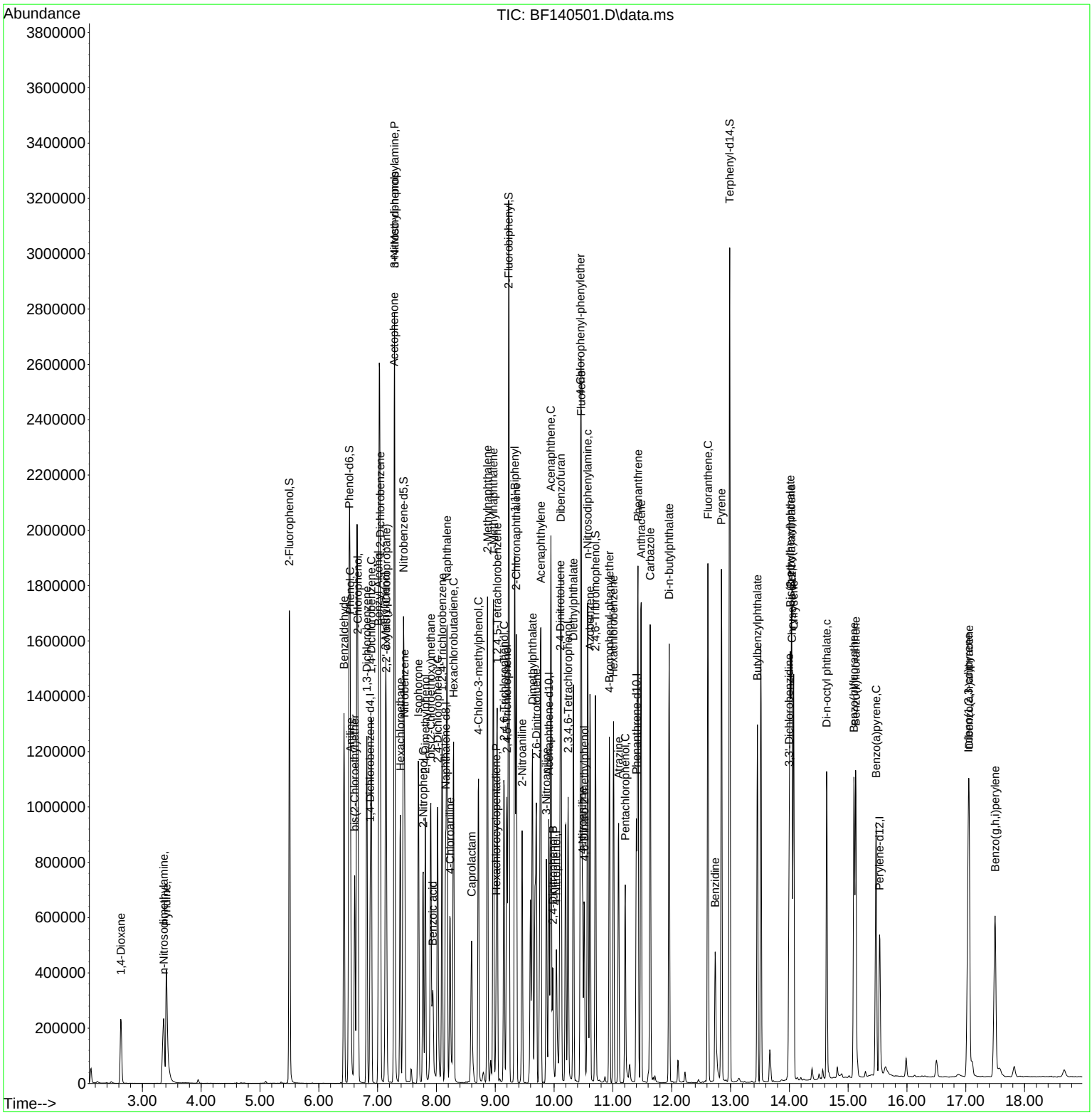
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140501.D
Acq On : 20 Nov 2024 15:59
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 20 16:43:30 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024



Sample Results: **BF140501.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140501.D
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Quant Time: Nov 20 16:43:30 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	93	0.00
2		1,4-Dioxane	0.522	0.543	-4.0	98	0.00
3		Pyridine	1.283	1.236	3.7	87	0.00
4		n-Nitrosodimethylamine	0.649	0.651	-0.3	92	0.00
5	S	2-Fluorophenol	1.171	1.206	-3.0	97	0.00
6		Aniline	1.381	1.094	20.8	70	0.00
7	S	Phenol-d6	1.587	1.601	-0.9	93	0.01
8		2-Chlorophenol	1.258	1.293	-2.8	95	0.00
9		Benzaldehyde	0.951	1.414	-48.7#	147	0.00
10	C	Phenol	1.674	1.671	0.2	90	0.01
11		bis(2-Chloroethyl)ether	1.268	1.316	-3.8	97	0.00
12		1,3-Dichlorobenzene	1.388	1.439	-3.7	97	0.00
13	C	1,4-Dichlorobenzene	1.408	1.444	-2.6	96	0.00
14		1,2-Dichlorobenzene	1.307	1.346	-3.0	96	0.00
15		Benzyl Alcohol	1.143	1.152	-0.8	88	0.00
16		2,2'-oxybis(1-Chloropropane	1.752	1.618	7.6	83	0.00
17		2-Methylphenol	1.035	1.046	-1.1	91	0.00
18		Hexachloroethane	0.520	0.541	-4.0	98	0.00
19	P	n-Nitroso-di-n-propylamine	0.959	0.908	5.3	86	0.00
20		3+4-Methylphenols	1.294	1.291	0.2	89	0.00
21	I	Naphthalene-d8	1.000	1.000	0.0	86	0.00
22		Acetophenone	0.465	0.469	-0.9	90	0.00
23	S	Nitrobenzene-d5	0.384	0.393	-2.3	90	0.00
24		Nitrobenzene	0.400	0.413	-3.2	91	0.00
25		Isophorone	0.680	0.677	0.4	87	0.00
26	C	2-Nitrophenol	0.177	0.190	-7.3	92	0.00
27		2,4-Dimethylphenol	0.227	0.234	-3.1	91	0.00
28		bis(2-Chloroethoxy)methane	0.417	0.417	0.0	89	0.00
29	C	2,4-Dichlorophenol	0.281	0.294	-4.6	92	0.00
30		1,2,4-Trichlorobenzene	0.312	0.323	-3.5	92	0.00
31		Naphthalene	1.015	1.038	-2.3	91	0.00
32		Benzoic acid	0.200	0.202	-1.0	82	0.01
33		4-Chloroaniline	0.353	0.305	13.6	78	0.00
34	C	Hexachlorobutadiene	0.199	0.207	-4.0	92	0.00
35		Caprolactam	0.093	0.095	-2.2	90	0.00
36	C	4-Chloro-3-methylphenol	0.311	0.317	-1.9	88	0.01
37		2-Methylnaphthalene	0.651	0.658	-1.1	90	0.00
38		1-Methylnaphthalene	0.637	0.641	-0.6	88	0.00
39	I	Acenaphthene-d10	1.000	1.000	0.0	83	0.00
40		1,2,4,5-Tetrachlorobenzene	0.553	0.576	-4.2	90	0.00
41	P	Hexachlorocyclopentadiene	0.142	0.127	10.6	76	0.00
42	S	2,4,6-Tribromophenol	0.199	0.209	-5.0	90	0.00
43	C	2,4,6-Trichlorophenol	0.363	0.378	-4.1	87	0.00
44		2,4,5-Trichlorophenol	0.397	0.416	-4.8	89	0.01
45	S	2-Fluorobiphenyl	1.244	1.264	-1.6	90	0.00
46		1,1'-Biphenyl	1.455	1.494	-2.7	88	0.00
47		2-Chloronaphthalene	1.108	1.143	-3.2	89	0.00

Sample Results: **BF140501.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140501.D
Acq On : 20 Nov 2024 15:59
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 20 16:43:30 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
48		2-Nitroaniline	0.368	0.382	-3.8	87	0.00
49		Acenaphthylene	1.677	1.745	-4.1	89	0.00
50		Dimethylphthalate	1.304	1.338	-2.6	88	0.00
51		2,6-Dinitrotoluene	0.297	0.313	-5.4	87	0.00
52	C	Acenaphthene	1.133	1.181	-4.2	90	0.00
53		3-Nitroaniline	0.312	0.313	-0.3	84	0.00
54	P	2,4-Dinitrophenol	0.153	0.153	0.0	86	0.00
55		Dibenzofuran	1.603	1.635	-2.0	87	0.00
56	P	4-Nitrophenol	0.228	0.220	3.5	77	0.02
57		2,4-Dinitrotoluene	0.391	0.418	-6.9	90	0.00
58		Fluorene	1.267	1.308	-3.2	91	0.00
59		2,3,4,6-Tetrachlorophenol	0.313	0.330	-5.4	86	0.00
60		Diethylphthalate	1.333	1.348	-1.1	87	0.00
61		4-Chlorophenyl-phenylether	0.625	0.637	-1.9	88	0.00
62		4-Nitroaniline	0.319	0.312	2.2	81	0.00
63		Azobenzene	1.317	1.303	1.1	84	0.00
64	I	Phenanthrene-d10	1.000	1.000	0.0	84	0.00
65		4,6-Dinitro-2-methylphenol	0.108	0.122	-13.0	94	0.00
66	c	n-Nitrosodiphenylamine	0.578	0.589	-1.9	88	0.00
67		4-Bromophenyl-phenylether	0.200	0.205	-2.5	89	0.00
68		Hexachlorobenzene	0.225	0.230	-2.2	89	0.00
69		Atrazine	0.175	0.150	14.3	87	0.00
70	C	Pentachlorophenol	0.121	0.121	0.0	79	0.00
71		Phenanthrene	0.940	0.938	0.2	87	0.00
72		Anthracene	0.921	0.933	-1.3	88	0.00
73		Carbazole	0.909	0.912	-0.3	87	0.00
74		Di-n-butylphthalate	1.091	1.080	1.0	84	0.00
75	C	Fluoranthene	1.054	1.030	2.3	85	0.00
76	I	Chrysene-d12	1.000	1.000	0.0	76	0.00
77		Benzidine	0.768	0.619	19.4	72	0.00
78		Pyrene	1.711	1.843	-7.7	84	0.00
79	S	Terphenyl-d14	1.152	1.233	-7.0	84	0.00
80		Butylbenzylphthalate	0.657	0.698	-6.2	77	0.00
81		Benzo(a)anthracene	1.314	1.378	-4.9	83	0.00
82		3,3'-Dichlorobenzidine	0.418	0.413	1.2	78	0.00
83		Chrysene	1.199	1.184	1.3	77	0.00
84		Bis(2-ethylhexyl)phthalate	0.877	0.903	-3.0	74	0.00
85	c	Di-n-octyl phthalate	1.235	1.287	-4.2	76	-0.03
86	I	Perylene-d12	1.000	1.000	0.0	86	-0.02
87		Indeno(1,2,3-cd)pyrene	1.235	1.266	-2.5	87	-0.01
88		Benzo(b)fluoranthene	1.308	1.302	0.5	89	-0.02
89		Benzo(k)fluoranthene	1.069	1.034	3.3	84	-0.02
90	C	Benzo(a)pyrene	1.016	1.037	-2.1	89	-0.02
91		Dibenzo(a,h)anthracene	1.021	1.045	-2.4	87	-0.02
92		Benzo(g,h,i)perylene	1.044	1.064	-1.9	86	-0.02

Sample Results: **BF140501.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140501.D
Acq On : 20 Nov 2024 15:59
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
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Quant Time: Nov 20 16:43:30 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Sample Results: **BF140501.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140501.D
Acq On : 20 Nov 2024 15:59
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Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	20.000	20.000	0.0	93	0.00
2		1,4-Dioxane	40.000	41.583	-4.0	98	0.00
3		Pyridine	40.000	38.534	3.7	87	0.00
4		n-Nitrosodimethylamine	40.000	40.119	-0.3	92	0.00
5	S	2-Fluorophenol	80.000	82.341	-2.9	97	0.00
6		Aniline	40.000	31.695	20.8	70	0.00
7	S	Phenol-d6	80.000	80.723	-0.9	93	0.01
8		2-Chlorophenol	40.000	41.103	-2.8	95	0.00
9		Benzaldehyde	40.000	59.466	-48.7#	147	0.00
10	C	Phenol	40.000	39.929	0.2	90	0.01
11		bis(2-Chloroethyl)ether	40.000	41.497	-3.7	97	0.00
12		1,3-Dichlorobenzene	40.000	41.450	-3.6	97	0.00
13	C	1,4-Dichlorobenzene	40.000	41.024	-2.6	96	0.00
14		1,2-Dichlorobenzene	40.000	41.191	-3.0	96	0.00
15		Benzyl Alcohol	40.000	40.296	-0.7	88	0.00
16		2,2'-oxybis(1-Chloropropane	40.000	36.944	7.6	83	0.00
17		2-Methylphenol	40.000	40.415	-1.0	91	0.00
18		Hexachloroethane	40.000	41.613	-4.0	98	0.00
19	P	n-Nitroso-di-n-propylamine	40.000	37.913	5.2	86	0.00
20		3+4-Methylphenols	40.000	39.893	0.3	89	0.00
21	I	Naphthalene-d8	20.000	20.000	0.0	86	0.00
22		Acetophenone	40.000	40.371	-0.9	90	0.00
23	S	Nitrobenzene-d5	80.000	81.946	-2.4	90	0.00
24		Nitrobenzene	40.000	41.294	-3.2	91	0.00
25		Isophorone	40.000	39.810	0.5	87	0.00
26	C	2-Nitrophenol	40.000	42.834	-7.1	92	0.00
27		2,4-Dimethylphenol	40.000	41.186	-3.0	91	0.00
28		bis(2-Chloroethoxy)methane	40.000	40.025	-0.1	89	0.00
29	C	2,4-Dichlorophenol	40.000	41.877	-4.7	92	0.00
30		1,2,4-Trichlorobenzene	40.000	41.353	-3.4	92	0.00
31		Naphthalene	40.000	40.942	-2.4	91	0.00
32		Benzoic acid	40.000	40.422	-1.1	82	0.01
33		4-Chloroaniline	40.000	34.613	13.5	78	0.00
34	C	Hexachlorobutadiene	40.000	41.510	-3.8	92	0.00
35		Caprolactam	40.000	40.918	-2.3	90	0.00
36	C	4-Chloro-3-methylphenol	40.000	40.746	-1.9	88	0.01
37		2-Methylnaphthalene	40.000	40.441	-1.1	90	0.00
38		1-Methylnaphthalene	40.000	40.261	-0.7	88	0.00
39	I	Acenaphthene-d10	20.000	20.000	0.0	83	0.00
40		1,2,4,5-Tetrachlorobenzene	40.000	41.650	-4.1	90	0.00
41	P	Hexachlorocyclopentadiene	40.000	35.688	10.8	76	0.00
42	S	2,4,6-Tribromophenol	80.000	83.921	-4.9	90	0.00
43	C	2,4,6-Trichlorophenol	40.000	41.635	-4.1	87	0.00
44		2,4,5-Trichlorophenol	40.000	41.939	-4.8	89	0.01
45	S	2-Fluorobiphenyl	80.000	81.272	-1.6	90	0.00
46		1,1'-Biphenyl	40.000	41.067	-2.7	88	0.00
47		2-Chloronaphthalene	40.000	41.268	-3.2	89	0.00

Sample Results: **BF140501.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140501.D
Acq On : 20 Nov 2024 15:59
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 20 16:43:30 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
48		2-Nitroaniline	40.000	41.589	-4.0	87	0.00
49		Acenaphthylene	40.000	41.634	-4.1	89	0.00
50		Dimethylphthalate	40.000	41.066	-2.7	88	0.00
51		2,6-Dinitrotoluene	40.000	42.076	-5.2	87	0.00
52	C	Acenaphthene	40.000	41.692	-4.2	90	0.00
53		3-Nitroaniline	40.000	40.137	-0.3	84	0.00
54	P	2,4-Dinitrophenol	40.000	39.975	0.1	86	0.00
55		Dibenzofuran	40.000	40.778	-1.9	87	0.00
56	P	4-Nitrophenol	40.000	38.628	3.4	77	0.02
57		2,4-Dinitrotoluene	40.000	42.797	-7.0	90	0.00
58		Fluorene	40.000	41.312	-3.3	91	0.00
59		2,3,4,6-Tetrachlorophenol	40.000	42.111	-5.3	86	0.00
60		Diethylphthalate	40.000	40.445	-1.1	87	0.00
61		4-Chlorophenyl-phenylether	40.000	40.715	-1.8	88	0.00
62		4-Nitroaniline	40.000	39.058	2.4	81	0.00
63		Azobenzene	40.000	39.561	1.1	84	0.00
64	I	Phenanthrene-d10	20.000	20.000	0.0	84	0.00
65		4,6-Dinitro-2-methylphenol	40.000	45.460	-13.7	94	0.00
66	c	n-Nitrosodiphenylamine	40.000	40.747	-1.9	88	0.00
67		4-Bromophenyl-phenylether	40.000	41.102	-2.8	89	0.00
68		Hexachlorobenzene	40.000	40.977	-2.4	89	0.00
69		Atrazine	40.000	34.291	14.3	87	0.00
70	C	Pentachlorophenol	40.000	39.817	0.5	79	0.00
71		Phenanthrene	40.000	39.946	0.1	87	0.00
72		Anthracene	40.000	40.538	-1.3	88	0.00
73		Carbazole	40.000	40.105	-0.3	87	0.00
74		Di-n-butylphthalate	40.000	39.579	1.1	84	0.00
75	C	Fluoranthene	40.000	39.078	2.3	85	0.00
76	I	Chrysene-d12	20.000	20.000	0.0	76	0.00
77		Benzidine	40.000	32.246	19.4	72	0.00
78		Pyrene	40.000	43.104	-7.8	84	0.00
79	S	Terphenyl-d14	80.000	85.588	-7.0	84	0.00
80		Butylbenzylphthalate	40.000	42.464	-6.2	77	0.00
81		Benzo(a)anthracene	40.000	41.922	-4.8	83	0.00
82		3,3'-Dichlorobenzidine	40.000	39.513	1.2	78	0.00
83		Chrysene	40.000	39.505	1.2	77	0.00
84		Bis(2-ethylhexyl)phthalate	40.000	41.166	-2.9	74	0.00
85	c	Di-n-octyl phthalate	40.000	41.673	-4.2	76	-0.03
86	I	Perylene-d12	20.000	20.000	0.0	86	-0.02
87		Indeno(1,2,3-cd)pyrene	40.000	41.003	-2.5	87	-0.01
88		Benzo(b)fluoranthene	40.000	39.807	0.5	89	-0.02
89		Benzo(k)fluoranthene	40.000	38.708	3.2	84	-0.02
90	C	Benzo(a)pyrene	40.000	40.826	-2.1	89	-0.02
91		Dibenzo(a,h)anthracene	40.000	40.932	-2.3	87	-0.02
92		Benzo(g,h,i)perylene	40.000	40.759	-1.9	86	-0.02

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140501.D
Acq On : 20 Nov 2024 15:59
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 20 16:43:30 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG No.: P4892

Instrument ID: BNA_F Calibration Date/Time: 11/25/2024 09:33

Lab File ID: BF140590.D Init. Calib. Date(s): 11/21/2024 11/21/2024

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:13 14:18

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.172	1.119		-4.5	
Benzaldehyde	0.820	0.779		-5.0	
Phenol-d6	1.550	1.507		-2.8	
Phenol	1.583	1.586		0.2	20.0
bis(2-Chloroethyl)ether	1.211	1.180		-2.6	
2-Chlorophenol	1.261	1.243		-1.4	
2-Methylphenol	1.010	0.988		-2.2	
2,2-oxybis(1-Chloropropane)	1.431	1.423		-0.6	
Acetophenone	0.488	0.461		-5.5	
3+4-Methylphenols	1.298	1.252		-3.5	
n-Nitroso-di-n-propylamine	0.916	0.880	0.050	-3.9	
Nitrobenzene-d5	0.391	0.377		-3.6	
Hexachloroethane	0.536	0.520		-3.0	
Nitrobenzene	0.404	0.386		-4.5	
Isophorone	0.652	0.631		-3.2	
2-Nitrophenol	0.179	0.180		0.6	20.0
2,4-Dimethylphenol	0.214	0.218		1.9	
bis(2-Chloroethoxy)methane	0.397	0.394		-0.8	
2,4-Dichlorophenol	0.284	0.282		-0.7	20.0
Naphthalene	1.030	1.017		-1.3	
4-Chloroaniline	0.308	0.331		7.5	
Hexachlorobutadiene	0.215	0.212		-1.4	20.0
Caprolactam	0.088	0.090		2.3	
4-Chloro-3-methylphenol	0.318	0.314		-1.3	20.0
2-Methylnaphthalene	0.654	0.650		-0.6	
Hexachlorocyclopentadiene	0.107	0.100	0.050	-6.5	
2,4,6-Trichlorophenol	0.367	0.368		0.3	20.0
2-Fluorobiphenyl	1.342	1.315		-2.0	
2,4,5-Trichlorophenol	0.399	0.405		1.5	
1,1-Biphenyl	1.493	1.483		-0.7	
2-Chloronaphthalene	1.131	1.133		0.2	
2-Nitroaniline	0.363	0.361		-0.6	
Dimethylphthalate	1.317	1.305		-0.9	
Acenaphthylene	1.710	1.718		0.5	
2,6-Dinitrotoluene	0.299	0.304		1.7	
3-Nitroaniline	0.292	0.298		2.1	
Acenaphthene	1.086	1.091		0.5	20.0
2,4-Dinitrophenol	0.122	0.127	0.050	4.1	
4-Nitrophenol	0.199	0.190	0.050	-4.5	

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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG No.: P4892

Instrument ID: BNA_F Calibration Date/Time: 11/25/2024 09:33

Lab File ID: BF140590.D Init. Calib. Date(s): 11/21/2024 11/21/2024

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:13 14:18

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.657	1.654		-0.2	
2,4-Dinitrotoluene	0.397	0.407		2.5	
Diethylphthalate	1.338	1.312		-1.9	
4-Chlorophenyl-phenylether	0.653	0.649		-0.6	
Fluorene	1.330	1.315		-1.1	
4-Nitroaniline	0.306	0.308		0.7	
4,6-Dinitro-2-methylphenol	0.102	0.105		2.9	
n-Nitrosodiphenylamine	0.591	0.579		-2.0	20.0
2,4,6-Tribromophenol	0.214	0.210		-1.9	
4-Bromophenyl-phenylether	0.206	0.203		-1.5	
Hexachlorobenzene	0.238	0.233		-2.1	
Atrazine	0.166	0.168		1.2	
Pentachlorophenol	0.105	0.110		4.8	20.0
Phenanthrene	0.961	0.960		-0.1	
Anthracene	0.940	0.932		-0.9	
Carbazole	0.905	0.906		0.1	
Di-n-butylphthalate	1.044	1.047		0.3	
Fluoranthene	1.044	1.089		4.3	20.0
Pyrene	1.849	1.784		-3.5	
Terphenyl-d14	1.284	1.204		-6.2	
Butylbenzylphthalate	0.666	0.675		1.4	
3,3-Dichlorobenzidine	0.397	0.378		-4.8	
Benzo(a)anthracene	1.324	1.309		-1.1	
Chrysene	1.211	1.194		-1.4	
Bis(2-ethylhexyl)phthalate	0.841	0.854		1.5	
Di-n-octyl phthalate	1.150	1.214		5.6	20.0
Benzo(b)fluoranthene	1.256	1.296		3.2	
Benzo(k)fluoranthene	1.099	1.007		-8.4	
Benzo(a)pyrene	1.021	1.000		-2.1	20.0
Indeno(1,2,3-cd)pyrene	1.303	1.273		-2.3	
Dibenzo(a,h)anthracene	1.067	1.042		-2.3	
Benzo(g,h,i)perylene	1.089	1.078		-1.0	
1,2,4,5-Tetrachlorobenzene	0.586	0.586		0.0	
1,4-Dioxane	0.493	0.469		-4.9	20.0
2,3,4,6-Tetrachlorophenol	0.306	0.320		4.6	

All other compounds must meet a minimum RRF of 0.010.

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140590.D
Acq On : 25 Nov 2024 09:33
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 25 18:48:05 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Manual Integrations APPROVED

Reviewed By :Yogesh Patel

11/27/2024
Supervised By :mohammad ahmed

11/27/2024

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.869	152	105131	20.000	ng		0.00
21) Naphthalene-d8	8.151	136	390145	20.000	ng		0.00
39) Acenaphthene-d10	9.910	164	212616	20.000	ng		0.00
64) Phenanthrene-d10	11.398	188	399326	20.000	ng		0.00
76) Chrysene-d12	14.051	240	244297	20.000	ng		0.00
86) Perylene-d12	15.545	264	211888	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.499	112	470615	76.378	ng		0.00
7) Phenol-d6	6.510	99	633777	77.804	ng		0.00
23) Nitrobenzene-d5	7.434	82	587615	77.040	ng		0.00
42) 2,4,6-Tribromophenol	10.704	330	178367	78.440	ng		0.00
45) 2-Fluorobiphenyl	9.228	172	1118753	78.399	ng		0.00
79) Terphenyl-d14	12.980	244	1176908	75.015	ng		-0.01
Target Compounds							Qvalue
2) 1,4-Dioxane	2.646	88	98712	38.103	ng		97
3) Pyridine	3.416	79	236295	41.455	ng		99
4) n-Nitrosodimethylamine	3.369	42	119549	35.685	ng		94
6) Aniline	6.540	93	259443	45.250	ng	#	74
8) 2-Chlorophenol	6.663	128	261308	39.419	ng		97
9) Benzaldehyde	6.422	77	163823	37.990	ng		97
10) Phenol	6.528	94	333559	40.096	ng		99
11) bis(2-Chloroethyl)ether	6.610	93	248111	38.975	ng		99
12) 1,3-Dichlorobenzene	6.810	146	290542	39.006	ng		100
13) 1,4-Dichlorobenzene	6.887	146	294081	38.992	ng		99
14) 1,2-Dichlorobenzene	7.045	146	276053	39.061	ng		99
15) Benzyl Alcohol	7.016	79	237020	39.236	ng		98
16) 2,2'-oxybis(1-Chloropr...	7.145	45	299235	39.789	ng		85
17) 2-Methylphenol	7.128	107	207834	39.166	ng		96
18) Hexachloroethane	7.381	117	109405	38.839	ng		98
19) n-Nitroso-di-n-propyla...	7.281	70	185130	38.455	ng		98
20) 3+4-Methylphenols	7.281	107	263244	38.595	ng		97
22) Acetophenone	7.281	105	359944	37.843	ng		99
24) Nitrobenzene	7.457	77	300910	38.171	ng		98
25) Isophorone	7.692	82	492431	38.707	ng		100
26) 2-Nitrophenol	7.769	139	140623	40.253	ng		98
27) 2,4-Dimethylphenol	7.804	122	169792m	40.621	ng		
28) bis(2-Chloroethoxy)met...	7.898	93	307613	39.691	ng		100
29) 2,4-Dichlorophenol	8.016	162	219962	39.714	ng		98
30) 1,2,4-Trichlorobenzene	8.092	180	249413	39.440	ng		99
31) Naphthalene	8.175	128	793741	39.498	ng		99
32) Benzoic acid	7.928	122	139453	39.786	ng		98
33) 4-Chloroaniline	8.222	127	258045	42.887	ng		99
34) Hexachlorobutadiene	8.287	225	165048	39.404	ng		99
35) Caprolactam	8.598	113	70356	41.047	ng		97
36) 4-Chloro-3-methylphenol	8.710	107	244946	39.500	ng		100
37) 2-Methylnaphthalene	8.863	142	507122	39.730	ng		99
38) 1-Methylnaphthalene	8.963	142	497021	39.726	ng		100
40) 1,2,4,5-Tetrachloroben...	9.034	216	249192	40.035	ng		99
41) Hexachlorocyclopentadiene	9.016	237	42528	34.918	ng		98
43) 2,4,6-Trichlorophenol	9.145	196	156306	40.020	ng		100

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140590.D
Acq On : 25 Nov 2024 09:33
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 25 18:48:05 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Manual Integrations APPROVED

Reviewed By :Yogesh Patel
11/27/2024
Supervised By :mohammad ahmed
11/27/2024

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.192	196	172363	40.663	ng	97
46) 1,1'-Biphenyl	9.328	154	630797	39.737	ng	100
47) 2-Chloronaphthalene	9.357	162	481726	40.050	ng	99
48) 2-Nitroaniline	9.451	65	153300	39.707	ng	99
49) Acenaphthylene	9.769	152	730688	40.206	ng	100
50) Dimethylphthalate	9.628	163	554938	39.631	ng	100
51) 2,6-Dinitrotoluene	9.692	165	129116	40.657	ng	98
52) Acenaphthene	9.945	154	463893	40.173	ng	99
53) 3-Nitroaniline	9.869	138	126708	40.794	ng	95
54) 2,4-Dinitrophenol	9.975	184	54066	37.481	ng	99
55) Dibenzofuran	10.116	168	703450	39.938	ng	100
56) 4-Nitrophenol	10.039	139	80992	38.234	ng	90
57) 2,4-Dinitrotoluene	10.104	165	173064	41.004	ng	97
58) Fluorene	10.457	166	559305	39.561	ng	99
59) 2,3,4,6-Tetrachlorophenol	10.239	232	136090	41.775	ng	95
60) Diethylphthalate	10.328	149	558054	39.225	ng	100
61) 4-Chlorophenyl-phenyle...	10.445	204	276169	39.804	ng	99
62) 4-Nitroaniline	10.481	138	130860	40.170	ng	96
63) Azobenzene	10.610	77	535875	39.774	ng	98
65) 4,6-Dinitro-2-methylph...	10.510	198	83926	41.129	ng	98
66) n-Nitrosodiphenylamine	10.569	169	462410	39.157	ng	100
67) 4-Bromophenyl-phenylether	10.939	248	162115	39.421	ng	98
68) Hexachlorobenzene	11.010	284	186412	39.147	ng	99
69) Atrazine	11.092	200	134171	40.387	ng	99
70) Pentachlorophenol	11.210	266	87978	41.979	ng	100
71) Phenanthrene	11.422	178	766734	39.944	ng	99
72) Anthracene	11.475	178	744369	39.643	ng	99
73) Carbazole	11.633	167	723289	40.042	ng	100
74) Di-n-butylphthalate	11.951	149	836498	40.112	ng	100
75) Fluoranthene	12.616	202	869668	41.729	ng	99
77) Benzidine	12.739	184	240586	33.872	ng	99
78) Pyrene	12.845	202	871645	38.588	ng	99
80) Butylbenzylphthalate	13.457	149	329616	40.507	ng	99
81) Benzo(a)anthracene	14.039	228	639698	39.557	ng	100
82) 3,3'-Dichlorobenzidine	13.998	252	184849	38.072	ng	100
83) Chrysene	14.074	228	583254	39.444	ng	100
84) Bis(2-ethylhexyl)phtha...	14.016	149	417403	40.623	ng	99
85) Di-n-octyl phthalate	14.645	149	593296	42.252	ng	98
87) Indeno(1,2,3-cd)pyrene	17.057	276	539566	39.075	ng	98
88) Benzo(b)fluoranthene	15.110	252	549051	41.254	ng	99
89) Benzo(k)fluoranthene	15.139	252	426772	36.644	ng	99
90) Benzo(a)pyrene	15.486	252	423923	39.175	ng	99
91) Dibenzo(a,h)anthracene	17.068	278	441641	39.053	ng	99
92) Benzo(g,h,i)perylene	17.510	276	456904	39.594	ng	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

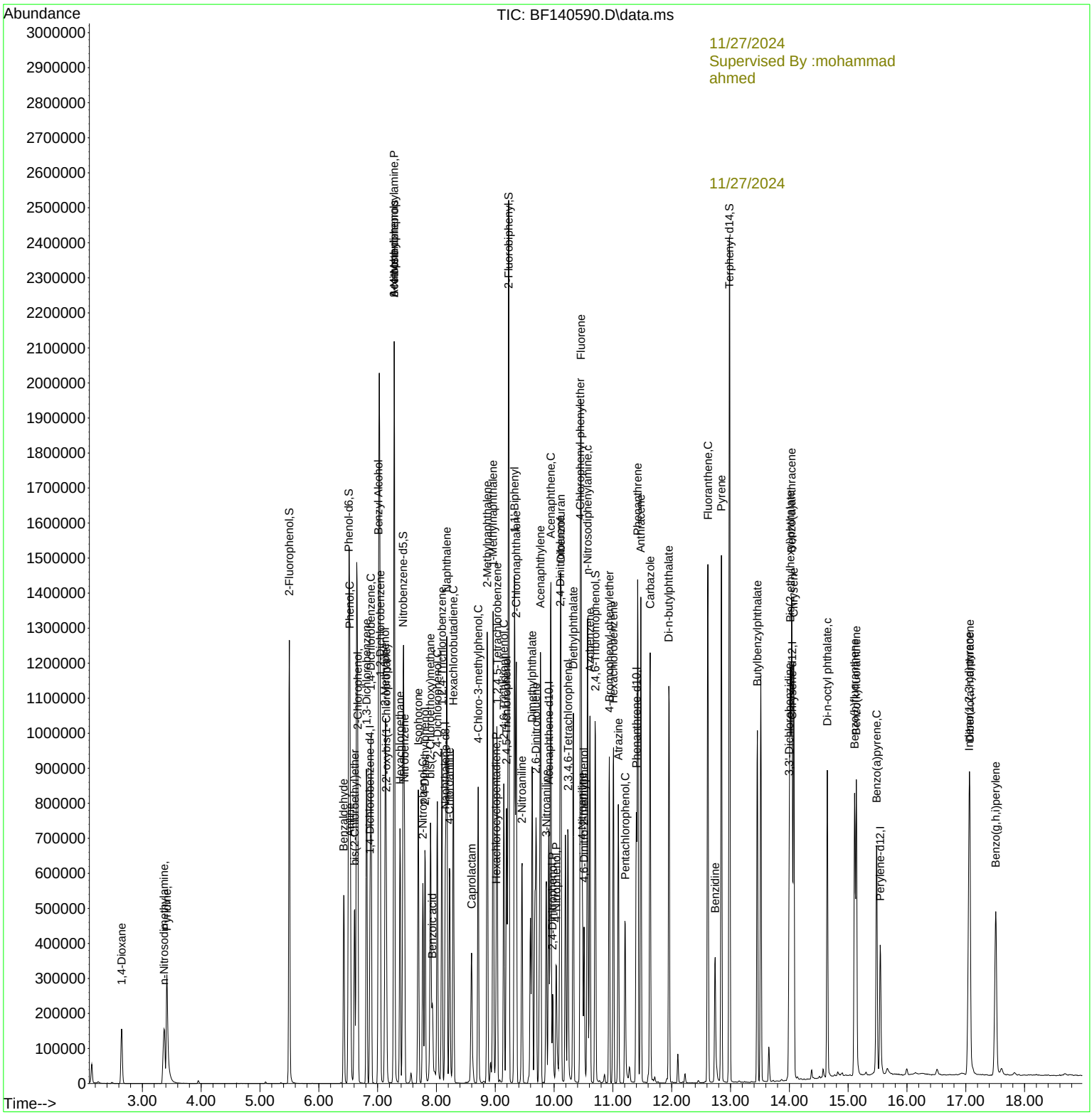
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140590.D
Acq On : 25 Nov 2024 09:33
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 25 18:48:05 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Manual Integrations APPROVED

Reviewed By :Yogesh Patel



Sample Results: **BF140590.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140590.D
Acq On : 25 Nov 2024 09:33
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 25 18:48:05 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	98	0.00
2		1,4-Dioxane	0.493	0.469	4.9	94	0.00
3		Pyridine	1.084	1.124	-3.7	92	0.00
4		n-Nitrosodimethylamine	0.637	0.569	10.7	86	-0.01
5	S	2-Fluorophenol	1.172	1.119	4.5	93	0.00
6		Aniline	1.091	1.234	-13.1	96	0.00
7	S	Phenol-d6	1.550	1.507	2.8	92	0.00
8		2-Chlorophenol	1.261	1.243	1.4	95	0.00
9		Benzaldehyde	0.820	0.779	5.0	103	0.00
10	C	Phenol	1.583	1.586	-0.2	93	0.00
11		bis(2-Chloroethyl)ether	1.211	1.180	2.6	93	0.00
12		1,3-Dichlorobenzene	1.417	1.382	2.5	97	0.00
13	C	1,4-Dichlorobenzene	1.435	1.399	2.5	96	0.00
14		1,2-Dichlorobenzene	1.344	1.313	2.3	95	0.00
15		Benzyl Alcohol	1.149	1.127	1.9	90	0.00
16		2,2'-oxybis(1-Chloropropane	1.431	1.423	0.6	95	0.00
17		2-Methylphenol	1.009	0.988	2.1	93	0.00
18		Hexachloroethane	0.536	0.520	3.0	95	0.00
19	P	n-Nitroso-di-n-propylamine	0.916	0.880	3.9	91	0.00
20		3+4-Methylphenols	1.298	1.252	3.5	91	0.00
21	I	Naphthalene-d8	1.000	1.000	0.0	94	0.00
22		Acetophenone	0.488	0.461	5.5	90	0.00
23	S	Nitrobenzene-d5	0.391	0.377	3.6	91	0.00
24		Nitrobenzene	0.404	0.386	4.5	91	0.00
25		Isophorone	0.652	0.631	3.2	90	0.00
26	C	2-Nitrophenol	0.179	0.180	-0.6	94	0.00
27		2,4-Dimethylphenol	0.214	0.218	-1.9	92	0.00
28		bis(2-Chloroethoxy)methane	0.397	0.394	0.8	94	0.00
29	C	2,4-Dichlorophenol	0.284	0.282	0.7	94	0.00
30		1,2,4-Trichlorobenzene	0.324	0.320	1.2	95	0.00
31		Naphthalene	1.030	1.017	1.3	95	0.00
32		Benzoic acid	0.164	0.179	-9.1	95	-0.01
33		4-Chloroaniline	0.308	0.331	-7.5	96	0.00
34	C	Hexachlorobutadiene	0.215	0.212	1.4	94	0.00
35		Caprolactam	0.088	0.090	-2.3	94	0.00
36	C	4-Chloro-3-methylphenol	0.318	0.314	1.3	91	0.00
37		2-Methylnaphthalene	0.654	0.650	0.6	94	0.00
38		1-Methylnaphthalene	0.641	0.637	0.6	94	0.00
39	I	Acenaphthene-d10	1.000	1.000	0.0	91	0.00
40		1,2,4,5-Tetrachlorobenzene	0.586	0.586	0.0	94	0.00
41	P	Hexachlorocyclopentadiene	0.107	0.100	6.5	79	0.00
42	S	2,4,6-Tribromophenol	0.214	0.210	1.9	88	0.00
43	C	2,4,6-Trichlorophenol	0.367	0.368	-0.3	91	0.00
44		2,4,5-Trichlorophenol	0.399	0.405	-1.5	91	0.00
45	S	2-Fluorobiphenyl	1.342	1.315	2.0	92	0.00
46		1,1'-Biphenyl	1.493	1.483	0.7	93	0.00
47		2-Chloronaphthalene	1.131	1.133	-0.2	93	0.00

Sample Results: **BF140590.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140590.D
Acq On : 25 Nov 2024 09:33
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 25 18:48:05 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
48		2-Nitroaniline	0.363	0.361	0.6	89	0.00
49		Acenaphthylene	1.710	1.718	-0.5	94	0.00
50		Dimethylphthalate	1.317	1.305	0.9	91	0.00
51		2,6-Dinitrotoluene	0.299	0.304	-1.7	92	0.00
52	C	Acenaphthene	1.086	1.091	-0.5	93	0.00
53		3-Nitroaniline	0.292	0.298	-2.1	90	0.00
54	P	2,4-Dinitrophenol	0.122	0.127	-4.1	82	0.00
55		Dibenzofuran	1.657	1.654	0.2	93	0.00
56	P	4-Nitrophenol	0.199	0.190	4.5	83	0.00
57		2,4-Dinitrotoluene	0.397	0.407	-2.5	91	0.00
58		Fluorene	1.330	1.315	1.1	92	0.00
59		2,3,4,6-Tetrachlorophenol	0.306	0.320	-4.6	93	0.00
60		Diethylphthalate	1.338	1.312	1.9	91	0.00
61		4-Chlorophenyl-phenylether	0.653	0.649	0.6	92	0.00
62		4-Nitroaniline	0.306	0.308	-0.7	89	0.00
63		Azobenzene	1.267	1.260	0.6	93	0.00
64	I	Phenanthrene-d10	1.000	1.000	0.0	91	0.00
65		4,6-Dinitro-2-methylphenol	0.102	0.105	-2.9	87	0.00
66	c	n-Nitrosodiphenylamine	0.591	0.579	2.0	91	0.00
67		4-Bromophenyl-phenylether	0.206	0.203	1.5	93	0.00
68		Hexachlorobenzene	0.238	0.233	2.1	91	0.00
69		Atrazine	0.166	0.168	-1.2	110	0.00
70	C	Pentachlorophenol	0.105	0.110	-4.8	87	0.00
71		Phenanthrene	0.961	0.960	0.1	93	0.00
72		Anthracene	0.940	0.932	0.9	92	0.00
73		Carbazole	0.905	0.906	-0.1	93	0.00
74		Di-n-butylphthalate	1.044	1.047	-0.3	93	0.00
75	C	Fluoranthene	1.044	1.089	-4.3	98	0.00
76	I	Chrysene-d12	1.000	1.000	0.0	102	0.00
77		Benzidine	0.581	0.492	15.3	87	0.00
78		Pyrene	1.849	1.784	3.5	98	0.00
79	S	Terphenyl-d14	1.284	1.204	6.2	96	-0.01
80		Butylbenzylphthalate	0.666	0.675	-1.4	101	0.00
81		Benzo(a)anthracene	1.324	1.309	1.1	104	0.00
82		3,3'-Dichlorobenzidine	0.397	0.378	4.8	94	0.00
83		Chrysene	1.211	1.194	1.4	101	0.00
84		Bis(2-ethylhexyl)phthalate	0.841	0.854	-1.5	105	0.00
85	c	Di-n-octyl phthalate	1.150	1.214	-5.6	109	0.01
86	I	Perylene-d12	1.000	1.000	0.0	100	0.00
87		Indeno(1,2,3-cd)pyrene	1.303	1.273	2.3	98	0.00
88		Benzo(b)fluoranthene	1.256	1.296	-3.2	109	0.00
89		Benzo(k)fluoranthene	1.099	1.007	8.4	92	0.00
90	C	Benzo(a)pyrene	1.021	1.000	2.1	100	0.01
91		Dibenzo(a,h)anthracene	1.067	1.042	2.3	98	0.00
92		Benzo(g,h,i)perylene	1.089	1.078	1.0	100	0.00

Sample Results: **BF140590.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140590.D
Acq On : 25 Nov 2024 09:33
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 25 18:48:05 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Sample Results: **BF140590.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140590.D
Acq On : 25 Nov 2024 09:33
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 25 18:48:05 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	20.000	20.000	0.0	98	0.00
2		1,4-Dioxane	40.000	38.103	4.7	94	0.00
3		Pyridine	40.000	41.455	-3.6	92	0.00
4		n-Nitrosodimethylamine	40.000	35.685	10.8	86	-0.01
5	S	2-Fluorophenol	80.000	76.378	4.5	93	0.00
6		Aniline	40.000	45.250	-13.1	96	0.00
7	S	Phenol-d6	80.000	77.804	2.7	92	0.00
8		2-Chlorophenol	40.000	39.419	1.5	95	0.00
9		Benzaldehyde	40.000	37.990	5.0	103	0.00
10	C	Phenol	40.000	40.096	-0.2	93	0.00
11		bis(2-Chloroethyl)ether	40.000	38.975	2.6	93	0.00
12		1,3-Dichlorobenzene	40.000	39.006	2.5	97	0.00
13	C	1,4-Dichlorobenzene	40.000	38.992	2.5	96	0.00
14		1,2-Dichlorobenzene	40.000	39.061	2.3	95	0.00
15		Benzyl Alcohol	40.000	39.236	1.9	90	0.00
16		2,2'-oxybis(1-Chloropropane	40.000	39.789	0.5	95	0.00
17		2-Methylphenol	40.000	39.166	2.1	93	0.00
18		Hexachloroethane	40.000	38.839	2.9	95	0.00
19	P	n-Nitroso-di-n-propylamine	40.000	38.455	3.9	91	0.00
20		3+4-Methylphenols	40.000	38.595	3.5	91	0.00
21	I	Naphthalene-d8	20.000	20.000	0.0	94	0.00
22		Acetophenone	40.000	37.843	5.4	90	0.00
23	S	Nitrobenzene-d5	80.000	77.040	3.7	91	0.00
24		Nitrobenzene	40.000	38.171	4.6	91	0.00
25		Isophorone	40.000	38.707	3.2	90	0.00
26	C	2-Nitrophenol	40.000	40.253	-0.6	94	0.00
27		2,4-Dimethylphenol	40.000	40.621	-1.6	92	0.00
28		bis(2-Chloroethoxy)methane	40.000	39.691	0.8	94	0.00
29	C	2,4-Dichlorophenol	40.000	39.714	0.7	94	0.00
30		1,2,4-Trichlorobenzene	40.000	39.440	1.4	95	0.00
31		Naphthalene	40.000	39.498	1.3	95	0.00
32		Benzoic acid	40.000	39.786	0.5	95	-0.01
33		4-Chloroaniline	40.000	42.887	-7.2	96	0.00
34	C	Hexachlorobutadiene	40.000	39.404	1.5	94	0.00
35		Caprolactam	40.000	41.047	-2.6	94	0.00
36	C	4-Chloro-3-methylphenol	40.000	39.500	1.3	91	0.00
37		2-Methylnaphthalene	40.000	39.730	0.7	94	0.00
38		1-Methylnaphthalene	40.000	39.726	0.7	94	0.00
39	I	Acenaphthene-d10	20.000	20.000	0.0	91	0.00
40		1,2,4,5-Tetrachlorobenzene	40.000	40.035	-0.1	94	0.00
41	P	Hexachlorocyclopentadiene	40.000	34.918	12.7	79	0.00
42	S	2,4,6-Tribromophenol	80.000	78.440	2.0	88	0.00
43	C	2,4,6-Trichlorophenol	40.000	40.020	-0.1	91	0.00
44		2,4,5-Trichlorophenol	40.000	40.663	-1.7	91	0.00
45	S	2-Fluorobiphenyl	80.000	78.399	2.0	92	0.00
46		1,1'-Biphenyl	40.000	39.737	0.7	93	0.00
47		2-Chloronaphthalene	40.000	40.050	-0.1	93	0.00

Sample Results: **BF140590.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140590.D
Acq On : 25 Nov 2024 09:33
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 25 18:48:05 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
48		2-Nitroaniline	40.000	39.707	0.7	89	0.00
49		Acenaphthylene	40.000	40.206	-0.5	94	0.00
50		Dimethylphthalate	40.000	39.631	0.9	91	0.00
51		2,6-Dinitrotoluene	40.000	40.657	-1.6	92	0.00
52	C	Acenaphthene	40.000	40.173	-0.4	93	0.00
53		3-Nitroaniline	40.000	40.794	-2.0	90	0.00
54	P	2,4-Dinitrophenol	40.000	37.481	6.3	82	0.00
55		Dibenzofuran	40.000	39.938	0.2	93	0.00
56	P	4-Nitrophenol	40.000	38.234	4.4	83	0.00
57		2,4-Dinitrotoluene	40.000	41.004	-2.5	91	0.00
58		Fluorene	40.000	39.561	1.1	92	0.00
59		2,3,4,6-Tetrachlorophenol	40.000	41.775	-4.4	93	0.00
60		Diethylphthalate	40.000	39.225	1.9	91	0.00
61		4-Chlorophenyl-phenylether	40.000	39.804	0.5	92	0.00
62		4-Nitroaniline	40.000	40.170	-0.4	89	0.00
63		Azobenzene	40.000	39.774	0.6	93	0.00
64	I	Phenanthrene-d10	20.000	20.000	0.0	91	0.00
65		4,6-Dinitro-2-methylphenol	40.000	41.129	-2.8	87	0.00
66	c	n-Nitrosodiphenylamine	40.000	39.157	2.1	91	0.00
67		4-Bromophenyl-phenylether	40.000	39.421	1.4	93	0.00
68		Hexachlorobenzene	40.000	39.147	2.1	91	0.00
69		Atrazine	40.000	40.387	-1.0	110	0.00
70	C	Pentachlorophenol	40.000	41.979	-4.9	87	0.00
71		Phenanthrene	40.000	39.944	0.1	93	0.00
72		Anthracene	40.000	39.643	0.9	92	0.00
73		Carbazole	40.000	40.042	-0.1	93	0.00
74		Di-n-butylphthalate	40.000	40.112	-0.3	93	0.00
75	C	Fluoranthene	40.000	41.729	-4.3	98	0.00
76	I	Chrysene-d12	20.000	20.000	0.0	102	0.00
77		Benzidine	40.000	33.872	15.3	87	0.00
78		Pyrene	40.000	38.588	3.5	98	0.00
79	S	Terphenyl-d14	80.000	75.015	6.2	96	-0.01
80		Butylbenzylphthalate	40.000	40.507	-1.3	101	0.00
81		Benzo(a)anthracene	40.000	39.557	1.1	104	0.00
82		3,3'-Dichlorobenzidine	40.000	38.072	4.8	94	0.00
83		Chrysene	40.000	39.444	1.4	101	0.00
84		Bis(2-ethylhexyl)phthalate	40.000	40.623	-1.6	105	0.00
85	c	Di-n-octyl phthalate	40.000	42.252	-5.6	109	0.01
86	I	Perylene-d12	20.000	20.000	0.0	100	0.00
87		Indeno(1,2,3-cd)pyrene	40.000	39.075	2.3	98	0.00
88		Benzo(b)fluoranthene	40.000	41.254	-3.1	109	0.00
89		Benzo(k)fluoranthene	40.000	36.644	8.4	92	0.00
90	C	Benzo(a)pyrene	40.000	39.175	2.1	100	0.01
91		Dibenzo(a,h)anthracene	40.000	39.053	2.4	98	0.00
92		Benzo(g,h,i)perylene	40.000	39.594	1.0	100	0.00

Sample Results: **BF140590.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140590.D
Acq On : 25 Nov 2024 09:33
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 25 18:48:05 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Raw Data: **BF140604.D**

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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG No.: P4892

Instrument ID: BNA_F Calibration Date/Time: 11/25/2024 15:49

Lab File ID: BF140604.D Init. Calib. Date(s): 11/21/2024 11/21/2024

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:13 14:18

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.172	1.153		-1.6	
Benzaldehyde	0.820	0.848		3.4	
Phenol-d6	1.550	1.521		-1.9	
Phenol	1.583	1.580		-0.2	20.0
bis(2-Chloroethyl)ether	1.211	1.199		-1.0	
2-Chlorophenol	1.261	1.217		-3.5	
2-Methylphenol	1.010	1.019		0.9	
2,2-oxybis(1-Chloropropane)	1.431	1.429		-0.1	
Acetophenone	0.488	0.464		-4.9	
3+4-Methylphenols	1.298	1.259		-3.0	
n-Nitroso-di-n-propylamine	0.916	0.876	0.050	-4.4	
Nitrobenzene-d5	0.391	0.378		-3.3	
Hexachloroethane	0.536	0.521		-2.8	
Nitrobenzene	0.404	0.392		-3.0	
Isophorone	0.652	0.640		-1.8	
2-Nitrophenol	0.179	0.180		0.6	20.0
2,4-Dimethylphenol	0.214	0.224		4.7	
bis(2-Chloroethoxy)methane	0.397	0.393		-1.0	
2,4-Dichlorophenol	0.284	0.284		0.0	20.0
Naphthalene	1.030	1.014		-1.6	
4-Chloroaniline	0.308	0.335		8.8	
Hexachlorobutadiene	0.215	0.210		-2.3	20.0
Caprolactam	0.088	0.088		0.0	
4-Chloro-3-methylphenol	0.318	0.313		-1.6	20.0
2-Methylnaphthalene	0.654	0.641		-2.0	
Hexachlorocyclopentadiene	0.107	0.106	0.050	-0.9	
2,4,6-Trichlorophenol	0.367	0.358		-2.5	20.0
2-Fluorobiphenyl	1.342	1.282		-4.5	
2,4,5-Trichlorophenol	0.399	0.395		-1.0	
1,1-Biphenyl	1.493	1.467		-1.7	
2-Chloronaphthalene	1.131	1.111		-1.8	
2-Nitroaniline	0.363	0.351		-3.3	
Dimethylphthalate	1.317	1.260		-4.3	
Acenaphthylene	1.710	1.672		-2.2	
2,6-Dinitrotoluene	0.299	0.296		-1.0	
3-Nitroaniline	0.292	0.283		-3.1	
Acenaphthene	1.086	1.050		-3.3	20.0
2,4-Dinitrophenol	0.122	0.123	0.050	0.8	
4-Nitrophenol	0.199	0.174	0.050	-12.6	

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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: PORT06

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Instrument ID: BNA_F Calibration Date/Time: 11/25/2024 15:49

Lab File ID: BF140604.D Init. Calib. Date(s): 11/21/2024 11/21/2024

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:13 14:18

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.657	1.581		-4.6	
2,4-Dinitrotoluene	0.397	0.389		-2.0	
Diethylphthalate	1.338	1.281		-4.3	
4-Chlorophenyl-phenylether	0.653	0.627		-4.0	
Fluorene	1.330	1.276		-4.1	
4-Nitroaniline	0.306	0.293		-4.2	
4,6-Dinitro-2-methylphenol	0.102	0.109		6.9	
n-Nitrosodiphenylamine	0.591	0.583		-1.4	20.0
2,4,6-Tribromophenol	0.214	0.206		-3.7	
4-Bromophenyl-phenylether	0.206	0.205		-0.5	
Hexachlorobenzene	0.238	0.236		-0.8	
Atrazine	0.166	0.164		-1.2	
Pentachlorophenol	0.105	0.106		1.0	20.0
Phenanthrene	0.961	0.943		-1.9	
Anthracene	0.940	0.931		-1.0	
Carbazole	0.905	0.887		-2.0	
Di-n-butylphthalate	1.044	1.030		-1.3	
Fluoranthene	1.044	1.007		-3.5	20.0
Pyrene	1.849	1.851		0.1	
Terphenyl-d14	1.284	1.258		-2.0	
Butylbenzylphthalate	0.666	0.676		1.5	
3,3-Dichlorobenzidine	0.397	0.401		1.0	
Benzo(a)anthracene	1.324	1.285		-2.9	
Chrysene	1.211	1.210		-0.1	
Bis(2-ethylhexyl)phthalate	0.841	0.846		0.6	
Di-n-octyl phthalate	1.150	1.150		0.0	20.0
Benzo(b)fluoranthene	1.256	1.146		-8.8	
Benzo(k)fluoranthene	1.099	1.148		4.5	
Benzo(a)pyrene	1.021	1.028		0.7	20.0
Indeno(1,2,3-cd)pyrene	1.303	1.241		-4.8	
Dibenzo(a,h)anthracene	1.067	1.017		-4.7	
Benzo(g,h,i)perylene	1.089	1.022		-6.2	
1,2,4,5-Tetrachlorobenzene	0.586	0.573		-2.2	
1,4-Dioxane	0.493	0.505		2.4	20.0
2,3,4,6-Tetrachlorophenol	0.306	0.314		2.6	

All other compounds must meet a minimum RRF of 0.010.

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140604.D
Acq On : 25 Nov 2024 15:49
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 25 16:13:33 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/27/2024
Supervised By :mohammad ahmed 11/27/2024

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.869	152	106607	20.000	ng	0.00
21) Naphthalene-d8	8.151	136	393427	20.000	ng	0.00
39) Acenaphthene-d10	9.910	164	218835	20.000	ng	0.00
64) Phenanthrene-d10	11.398	188	396344	20.000	ng	0.00
76) Chrysene-d12	14.051	240	217927	20.000	ng	0.00
86) Perylene-d12	15.551	264	192376	20.000	ng	0.01
System Monitoring Compounds						
5) 2-Fluorophenol	5.498	112	491503	78.663	ng	0.00
7) Phenol-d6	6.510	99	648459	78.504	ng	0.00
23) Nitrobenzene-d5	7.434	82	594260	77.261	ng	0.00
42) 2,4,6-Tribromophenol	10.704	330	180057	76.932	ng	0.00
45) 2-Fluorobiphenyl	9.228	172	1121902	76.385	ng	0.00
79) Terphenyl-d14	12.980	244	1096447	78.343	ng	-0.01
Target Compounds						Qvalue
2) 1,4-Dioxane	2.640	88	107772	41.024	ng	99
3) Pyridine	3.410	79	266084	46.035	ng	99
4) n-Nitrosodimethylamine	3.363	42	126830	37.334	ng	90
6) Aniline	6.534	93	266963	45.917	ng	94
8) 2-Chlorophenol	6.663	128	259569	38.614	ng	96
9) Benzaldehyde	6.422	77	180830	41.353	ng	99
10) Phenol	6.522	94	336793	39.924	ng	94
11) bis(2-Chloroethyl)ether	6.604	93	255585	39.593	ng	100
12) 1,3-Dichlorobenzene	6.810	146	294808	39.031	ng	100
13) 1,4-Dichlorobenzene	6.887	146	298643	39.049	ng	100
14) 1,2-Dichlorobenzene	7.040	146	279852	39.050	ng	99
15) Benzyl Alcohol	7.016	79	232661	37.981	ng	99
16) 2,2'-oxybis(1-Chloropr...	7.145	45	304785	39.966	ng	84
17) 2-Methylphenol	7.128	107	217336	40.390	ng	95
18) Hexachloroethane	7.381	117	111096	38.893	ng	97
19) n-Nitroso-di-n-propyla...	7.281	70	186820	38.269	ng	99
20) 3+4-Methylphenols	7.281	107	268518	38.823	ng	96
22) Acetophenone	7.281	105	365107	38.065	ng	99
24) Nitrobenzene	7.457	77	308535	38.812	ng	96
25) Isophorone	7.692	82	503490	39.246	ng	100
26) 2-Nitrophenol	7.769	139	141776	40.245	ng	98
27) 2,4-Dimethylphenol	7.804	122	176239m	41.812	ng	
28) bis(2-Chloroethoxy)met...	7.898	93	309243	39.568	ng	99
29) 2,4-Dichlorophenol	8.016	162	223293	39.979	ng	98
30) 1,2,4-Trichlorobenzene	8.092	180	252061	39.526	ng	98
31) Naphthalene	8.175	128	797717	39.364	ng	99
32) Benzoic acid	7.934	122	132755	37.962	ng	100
33) 4-Chloroaniline	8.222	127	263806	43.479	ng	100
34) Hexachlorobutadiene	8.287	225	165629	39.213	ng	99
35) Caprolactam	8.592	113	69550	40.238	ng	100
36) 4-Chloro-3-methylphenol	8.710	107	246142	39.361	ng	99
37) 2-Methylnaphthalene	8.863	142	504190	39.171	ng	99
38) 1-Methylnaphthalene	8.963	142	500451	39.666	ng	99
40) 1,2,4,5-Tetrachloroben...	9.028	216	250880	39.161	ng	99
41) Hexachlorocyclopentadiene	9.016	237	46360	36.552	ng	98
43) 2,4,6-Trichlorophenol	9.145	196	156633	38.964	ng	98

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140604.D
Acq On : 25 Nov 2024 15:49
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 25 16:13:33 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/27/2024
Supervised By :mohammad ahmed 11/27/2024

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.192	196	172838	39.616	ng	97
46) 1,1'-Biphenyl	9.328	154	642257	39.310	ng	100
47) 2-Chloronaphthalene	9.357	162	486075	39.263	ng	98
48) 2-Nitroaniline	9.451	65	153653	38.667	ng	99
49) Acenaphthylene	9.769	152	731583	39.111	ng	100
50) Dimethylphthalate	9.628	163	551498	38.266	ng	100
51) 2,6-Dinitrotoluene	9.692	165	129715	39.685	ng	97
52) Acenaphthene	9.945	154	459493	38.661	ng	99
53) 3-Nitroaniline	9.863	138	123678	38.687	ng	100
54) 2,4-Dinitrophenol	9.975	184	53762	36.476	ng	96
55) Dibenzofuran	10.116	168	691740	38.157	ng	99
56) 4-Nitrophenol	10.039	139	76021	34.868	ng	91
57) 2,4-Dinitrotoluene	10.098	165	170311	39.205	ng	96
58) Fluorene	10.457	166	558411	38.375	ng	99
59) 2,3,4,6-Tetrachlorophenol	10.233	232	137290	40.946	ng	94
60) Diethylphthalate	10.328	149	560563	38.281	ng	99
61) 4-Chlorophenyl-phenyle...	10.445	204	274540	38.445	ng	98
62) 4-Nitroaniline	10.480	138	128027	38.184	ng	95
63) Azobenzene	10.610	77	539858	38.931	ng	99
65) 4,6-Dinitro-2-methylph...	10.510	198	86152	42.537	ng	98
66) n-Nitrosodiphenylamine	10.569	169	462263	39.439	ng	100
67) 4-Bromophenyl-phenylether	10.939	248	162863	39.900	ng	96
68) Hexachlorobenzene	11.010	284	187402	39.651	ng	100
69) Atrazine	11.092	200	129628	39.313	ng	98
70) Pentachlorophenol	11.210	266	83757	40.265	ng	99
71) Phenanthrene	11.422	178	747251	39.222	ng	99
72) Anthracene	11.475	178	738198	39.611	ng	99
73) Carbazole	11.633	167	703386	39.233	ng	100
74) Di-n-butylphthalate	11.951	149	816492	39.448	ng	100
75) Fluoranthene	12.616	202	798194	38.587	ng	100
77) Benzidine	12.739	184	344350	54.347	ng	100
78) Pyrene	12.845	202	806670	40.033	ng	99
80) Butylbenzylphthalate	13.457	149	294831	40.617	ng	100
81) Benzo(a)anthracene	14.039	228	560182	38.832	ng	100
82) 3,3'-Dichlorobenzidine	13.998	252	174748	40.346	ng	99
83) Chrysene	14.080	228	527192	39.966	ng	99
84) Bis(2-ethylhexyl)phtha...	14.016	149	368655	40.221	ng	100
85) Di-n-octyl phthalate	14.651	149	501073	40.002	ng	99
87) Indeno(1,2,3-cd)pyrene	17.062	276	477561	38.092	ng	98
88) Benzo(b)fluoranthene	15.115	252	440892	36.487	ng	100
89) Benzo(k)fluoranthene	15.145	252	441576	41.760	ng	100
90) Benzo(a)pyrene	15.492	252	395447	40.250	ng	99
91) Dibenzo(a,h)anthracene	17.074	278	391367	38.118	ng	99
92) Benzo(g,h,i)perylene	17.515	276	393138	37.523	ng	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

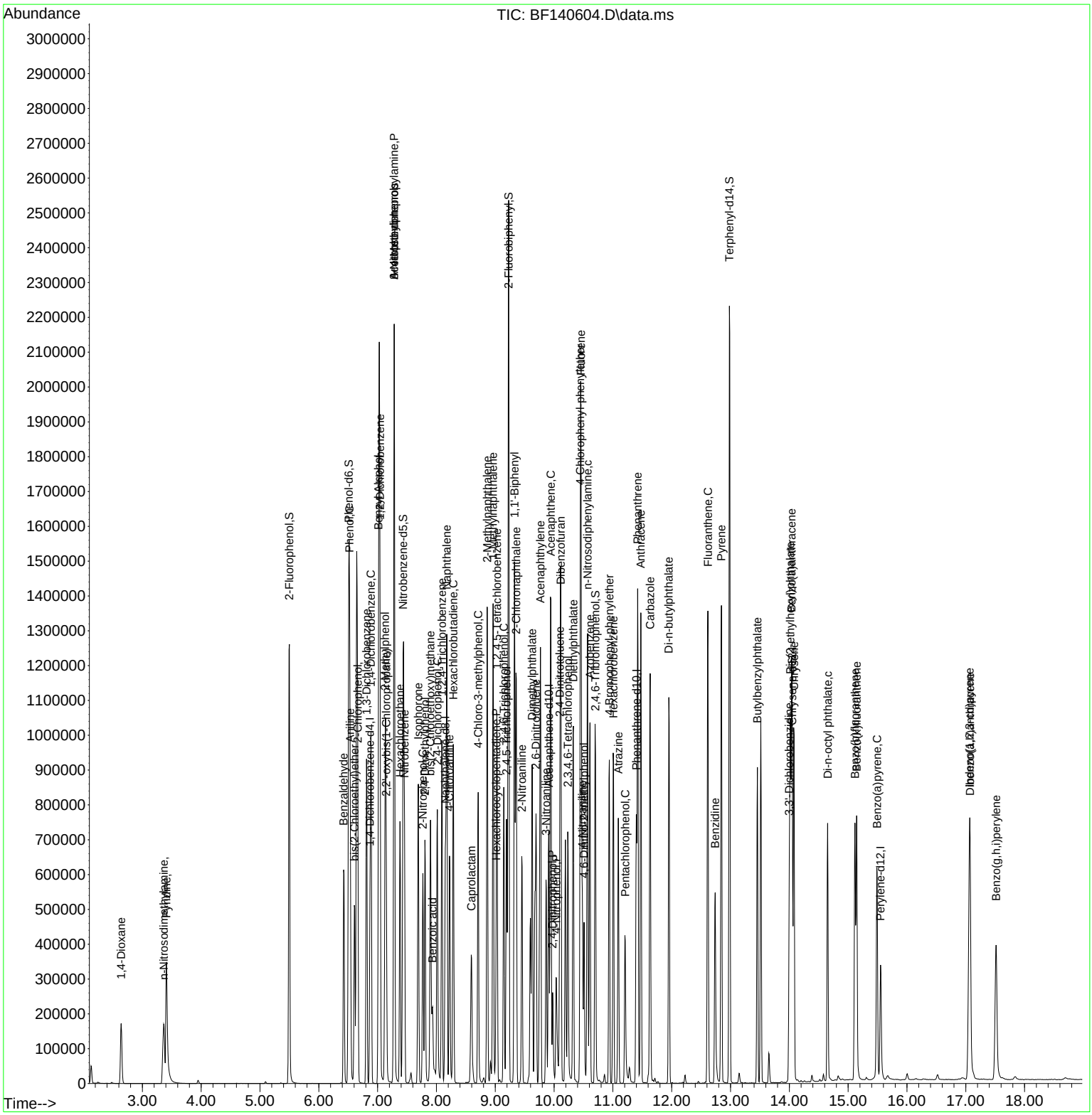
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140604.D
Acq On : 25 Nov 2024 15:49
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 25 16:13:33 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/27/2024
Supervised By :mohammad ahmed 11/27/2024



Sample Results: **BF140604.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140604.D
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Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	99	0.00
2		1,4-Dioxane	0.493	0.505	-2.4	102	-0.01
3		Pyridine	1.084	1.248	-15.1	104	-0.01
4		n-Nitrosodimethylamine	0.637	0.595	6.6	91	-0.02
5	S	2-Fluorophenol	1.172	1.153	1.6	97	0.00
6		Aniline	1.091	1.252	-14.8	99	0.00
7	S	Phenol-d6	1.550	1.521	1.9	94	0.00
8		2-Chlorophenol	1.261	1.217	3.5	94	0.00
9		Benzaldehyde	0.820	0.848	-3.4	114	0.00
10	C	Phenol	1.583	1.580	0.2	94	0.00
11		bis(2-Chloroethyl)ether	1.211	1.199	1.0	95	0.00
12		1,3-Dichlorobenzene	1.417	1.383	2.4	98	0.00
13	C	1,4-Dichlorobenzene	1.435	1.401	2.4	97	0.00
14		1,2-Dichlorobenzene	1.344	1.313	2.3	96	0.00
15		Benzyl Alcohol	1.149	1.091	5.0	88	0.00
16		2,2'-oxybis(1-Chloropropane	1.431	1.429	0.1	97	0.00
17		2-Methylphenol	1.009	1.019	-1.0	97	0.00
18		Hexachloroethane	0.536	0.521	2.8	96	0.00
19	P	n-Nitroso-di-n-propylamine	0.916	0.876	4.4	92	0.00
20		3+4-Methylphenols	1.298	1.259	3.0	93	0.00
21	I	Naphthalene-d8	1.000	1.000	0.0	95	0.00
22		Acetophenone	0.488	0.464	4.9	92	0.00
23	S	Nitrobenzene-d5	0.391	0.378	3.3	92	0.00
24		Nitrobenzene	0.404	0.392	3.0	93	0.00
25		Isophorone	0.652	0.640	1.8	92	0.00
26	C	2-Nitrophenol	0.179	0.180	-0.6	95	0.00
27		2,4-Dimethylphenol	0.214	0.224	-4.7	95	0.00
28		bis(2-Chloroethoxy)methane	0.397	0.393	1.0	94	0.00
29	C	2,4-Dichlorophenol	0.284	0.284	0.0	96	0.00
30		1,2,4-Trichlorobenzene	0.324	0.320	1.2	96	0.00
31		Naphthalene	1.030	1.014	1.6	95	0.00
32		Benzoic acid	0.164	0.169	-3.0	91	0.00
33		4-Chloroaniline	0.308	0.335	-8.8	98	0.00
34	C	Hexachlorobutadiene	0.215	0.210	2.3	95	0.00
35		Caprolactam	0.088	0.088	0.0	93	-0.01
36	C	4-Chloro-3-methylphenol	0.318	0.313	1.6	91	0.00
37		2-Methylnaphthalene	0.654	0.641	2.0	94	0.00
38		1-Methylnaphthalene	0.641	0.636	0.8	95	0.00
39	I	Acenaphthene-d10	1.000	1.000	0.0	93	0.00
40		1,2,4,5-Tetrachlorobenzene	0.586	0.573	2.2	95	0.00
41	P	Hexachlorocyclopentadiene	0.107	0.106	0.9	87	0.00
42	S	2,4,6-Tribromophenol	0.214	0.206	3.7	89	0.00
43	C	2,4,6-Trichlorophenol	0.367	0.358	2.5	91	0.00
44		2,4,5-Trichlorophenol	0.399	0.395	1.0	91	0.00
45	S	2-Fluorobiphenyl	1.342	1.282	4.5	93	0.00
46		1,1'-Biphenyl	1.493	1.467	1.7	95	0.00
47		2-Chloronaphthalene	1.131	1.111	1.8	94	0.00

Sample Results: **BF140604.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140604.D
Acq On : 25 Nov 2024 15:49
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 25 16:13:33 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
48		2-Nitroaniline	0.363	0.351	3.3	89	0.00
49		Acenaphthylene	1.710	1.672	2.2	94	0.00
50		Dimethylphthalate	1.317	1.260	4.3	91	0.00
51		2,6-Dinitrotoluene	0.299	0.296	1.0	92	0.00
52	C	Acenaphthene	1.086	1.050	3.3	92	0.00
53		3-Nitroaniline	0.292	0.283	3.1	88	0.00
54	P	2,4-Dinitrophenol	0.122	0.123	-0.8	82	0.00
55		Dibenzofuran	1.657	1.581	4.6	91	0.00
56	P	4-Nitrophenol	0.199	0.174	12.6	78	0.00
57		2,4-Dinitrotoluene	0.397	0.389	2.0	90	0.00
58		Fluorene	1.330	1.276	4.1	92	0.00
59		2,3,4,6-Tetrachlorophenol	0.306	0.314	-2.6	94	0.00
60		Diethylphthalate	1.338	1.281	4.3	91	0.00
61		4-Chlorophenyl-phenylether	0.653	0.627	4.0	92	0.00
62		4-Nitroaniline	0.306	0.293	4.2	87	0.00
63		Azobenzene	1.267	1.233	2.7	93	0.00
64	I	Phenanthrene-d10	1.000	1.000	0.0	91	0.00
65		4,6-Dinitro-2-methylphenol	0.102	0.109	-6.9	90	0.00
66	c	n-Nitrosodiphenylamine	0.591	0.583	1.4	91	0.00
67		4-Bromophenyl-phenylether	0.206	0.205	0.5	93	0.00
68		Hexachlorobenzene	0.238	0.236	0.8	92	0.00
69		Atrazine	0.166	0.164	1.2	106	0.00
70	C	Pentachlorophenol	0.105	0.106	-1.0	82	0.00
71		Phenanthrene	0.961	0.943	1.9	90	0.00
72		Anthracene	0.940	0.931	1.0	91	0.00
73		Carbazole	0.905	0.887	2.0	90	0.00
74		Di-n-butylphthalate	1.044	1.030	1.3	91	0.00
75	C	Fluoranthene	1.044	1.007	3.5	90	0.00
76	I	Chrysene-d12	1.000	1.000	0.0	91	0.00
77		Benzidine	0.581	0.790	-36.0#	125	0.00
78		Pyrene	1.849	1.851	-0.1	91	0.00
79	S	Terphenyl-d14	1.284	1.258	2.0	89	-0.01
80		Butylbenzylphthalate	0.666	0.676	-1.5	91	0.00
81		Benzo(a)anthracene	1.324	1.285	2.9	91	0.00
82		3,3'-Dichlorobenzidine	0.397	0.401	-1.0	88	0.00
83		Chrysene	1.211	1.210	0.1	92	0.00
84		Bis(2-ethylhexyl)phthalate	0.841	0.846	-0.6	92	0.00
85	c	Di-n-octyl phthalate	1.150	1.150	0.0	92	0.02
86	I	Perylene-d12	1.000	1.000	0.0	91	0.01
87		Indeno(1,2,3-cd)pyrene	1.303	1.241	4.8	87	0.01
88		Benzo(b)fluoranthene	1.256	1.146	8.8	88	0.01
89		Benzo(k)fluoranthene	1.099	1.148	-4.5	95	0.01
90	C	Benzo(a)pyrene	1.021	1.028	-0.7	93	0.02
91		Dibenzo(a,h)anthracene	1.067	1.017	4.7	87	0.01
92		Benzo(g,h,i)perylene	1.089	1.022	6.2	86	0.00

Sample Results: **BF140604.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140604.D
Acq On : 25 Nov 2024 15:49
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 25 16:13:33 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Sample Results: **BF140604.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140604.D
Acq On : 25 Nov 2024 15:49
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 25 16:13:33 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	20.000	20.000	0.0	99	0.00
2		1,4-Dioxane	40.000	41.024	-2.6	102	-0.01
3		Pyridine	40.000	46.035	-15.1	104	-0.01
4		n-Nitrosodimethylamine	40.000	37.334	6.7	91	-0.02
5	S	2-Fluorophenol	80.000	78.663	1.7	97	0.00
6		Aniline	40.000	45.917	-14.8	99	0.00
7	S	Phenol-d6	80.000	78.504	1.9	94	0.00
8		2-Chlorophenol	40.000	38.614	3.5	94	0.00
9		Benzaldehyde	40.000	41.353	-3.4	114	0.00
10	C	Phenol	40.000	39.924	0.2	94	0.00
11		bis(2-Chloroethyl)ether	40.000	39.593	1.0	95	0.00
12		1,3-Dichlorobenzene	40.000	39.031	2.4	98	0.00
13	C	1,4-Dichlorobenzene	40.000	39.049	2.4	97	0.00
14		1,2-Dichlorobenzene	40.000	39.050	2.4	96	0.00
15		Benzyl Alcohol	40.000	37.981	5.0	88	0.00
16		2,2'-oxybis(1-Chloropropane	40.000	39.966	0.1	97	0.00
17		2-Methylphenol	40.000	40.390	-1.0	97	0.00
18		Hexachloroethane	40.000	38.893	2.8	96	0.00
19	P	n-Nitroso-di-n-propylamine	40.000	38.269	4.3	92	0.00
20		3+4-Methylphenols	40.000	38.823	2.9	93	0.00
21	I	Naphthalene-d8	20.000	20.000	0.0	95	0.00
22		Acetophenone	40.000	38.065	4.8	92	0.00
23	S	Nitrobenzene-d5	80.000	77.261	3.4	92	0.00
24		Nitrobenzene	40.000	38.812	3.0	93	0.00
25		Isophorone	40.000	39.246	1.9	92	0.00
26	C	2-Nitrophenol	40.000	40.245	-0.6	95	0.00
27		2,4-Dimethylphenol	40.000	41.812	-4.5	95	0.00
28		bis(2-Chloroethoxy)methane	40.000	39.568	1.1	94	0.00
29	C	2,4-Dichlorophenol	40.000	39.979	0.1	96	0.00
30		1,2,4-Trichlorobenzene	40.000	39.526	1.2	96	0.00
31		Naphthalene	40.000	39.364	1.6	95	0.00
32		Benzoic acid	40.000	37.962	5.1	91	0.00
33		4-Chloroaniline	40.000	43.479	-8.7	98	0.00
34	C	Hexachlorobutadiene	40.000	39.213	2.0	95	0.00
35		Caprolactam	40.000	40.238	-0.6	93	-0.01
36	C	4-Chloro-3-methylphenol	40.000	39.361	1.6	91	0.00
37		2-Methylnaphthalene	40.000	39.171	2.1	94	0.00
38		1-Methylnaphthalene	40.000	39.666	0.8	95	0.00
39	I	Acenaphthene-d10	20.000	20.000	0.0	93	0.00
40		1,2,4,5-Tetrachlorobenzene	40.000	39.161	2.1	95	0.00
41	P	Hexachlorocyclopentadiene	40.000	36.552	8.6	87	0.00
42	S	2,4,6-Tribromophenol	80.000	76.932	3.8	89	0.00
43	C	2,4,6-Trichlorophenol	40.000	38.964	2.6	91	0.00
44		2,4,5-Trichlorophenol	40.000	39.616	1.0	91	0.00
45	S	2-Fluorobiphenyl	80.000	76.385	4.5	93	0.00
46		1,1'-Biphenyl	40.000	39.310	1.7	95	0.00
47		2-Chloronaphthalene	40.000	39.263	1.8	94	0.00

Sample Results: **BF140604.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140604.D
Acq On : 25 Nov 2024 15:49
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 25 16:13:33 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
48		2-Nitroaniline	40.000	38.667	3.3	89	0.00
49		Acenaphthylene	40.000	39.111	2.2	94	0.00
50		Dimethylphthalate	40.000	38.266	4.3	91	0.00
51		2,6-Dinitrotoluene	40.000	39.685	0.8	92	0.00
52	C	Acenaphthene	40.000	38.661	3.3	92	0.00
53		3-Nitroaniline	40.000	38.687	3.3	88	0.00
54	P	2,4-Dinitrophenol	40.000	36.476	8.8	82	0.00
55		Dibenzofuran	40.000	38.157	4.6	91	0.00
56	P	4-Nitrophenol	40.000	34.868	12.8	78	0.00
57		2,4-Dinitrotoluene	40.000	39.205	2.0	90	0.00
58		Fluorene	40.000	38.375	4.1	92	0.00
59		2,3,4,6-Tetrachlorophenol	40.000	40.946	-2.4	94	0.00
60		Diethylphthalate	40.000	38.281	4.3	91	0.00
61		4-Chlorophenyl-phenylether	40.000	38.445	3.9	92	0.00
62		4-Nitroaniline	40.000	38.184	4.5	87	0.00
63		Azobenzene	40.000	38.931	2.7	93	0.00
64	I	Phenanthrene-d10	20.000	20.000	0.0	91	0.00
65		4,6-Dinitro-2-methylphenol	40.000	42.537	-6.3	90	0.00
66	c	n-Nitrosodiphenylamine	40.000	39.439	1.4	91	0.00
67		4-Bromophenyl-phenylether	40.000	39.900	0.3	93	0.00
68		Hexachlorobenzene	40.000	39.651	0.9	92	0.00
69		Atrazine	40.000	39.313	1.7	106	0.00
70	C	Pentachlorophenol	40.000	40.265	-0.7	82	0.00
71		Phenanthrene	40.000	39.222	1.9	90	0.00
72		Anthracene	40.000	39.611	1.0	91	0.00
73		Carbazole	40.000	39.233	1.9	90	0.00
74		Di-n-butylphthalate	40.000	39.448	1.4	91	0.00
75	C	Fluoranthene	40.000	38.587	3.5	90	0.00
76	I	Chrysene-d12	20.000	20.000	0.0	91	0.00
77		Benzidine	40.000	54.347	-35.9#	125	0.00
78		Pyrene	40.000	40.033	-0.1	91	0.00
79	S	Terphenyl-d14	80.000	78.343	2.1	89	-0.01
80		Butylbenzylphthalate	40.000	40.617	-1.5	91	0.00
81		Benzo(a)anthracene	40.000	38.832	2.9	91	0.00
82		3,3'-Dichlorobenzidine	40.000	40.346	-0.9	88	0.00
83		Chrysene	40.000	39.966	0.1	92	0.00
84		Bis(2-ethylhexyl)phthalate	40.000	40.221	-0.6	92	0.00
85	c	Di-n-octyl phthalate	40.000	40.002	-0.0	92	0.02
86	I	Perylene-d12	20.000	20.000	0.0	91	0.01
87		Indeno(1,2,3-cd)pyrene	40.000	38.092	4.8	87	0.01
88		Benzo(b)fluoranthene	40.000	36.487	8.8	88	0.01
89		Benzo(k)fluoranthene	40.000	41.760	-4.4	95	0.01
90	C	Benzo(a)pyrene	40.000	40.250	-0.6	93	0.02
91		Dibenzo(a,h)anthracene	40.000	38.118	4.7	87	0.01
92		Benzo(g,h,i)perylene	40.000	37.523	6.2	86	0.00

Sample Results: **BF140604.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140604.D
Acq On : 25 Nov 2024 15:49
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 25 16:13:33 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

QC SAMPLE DATA

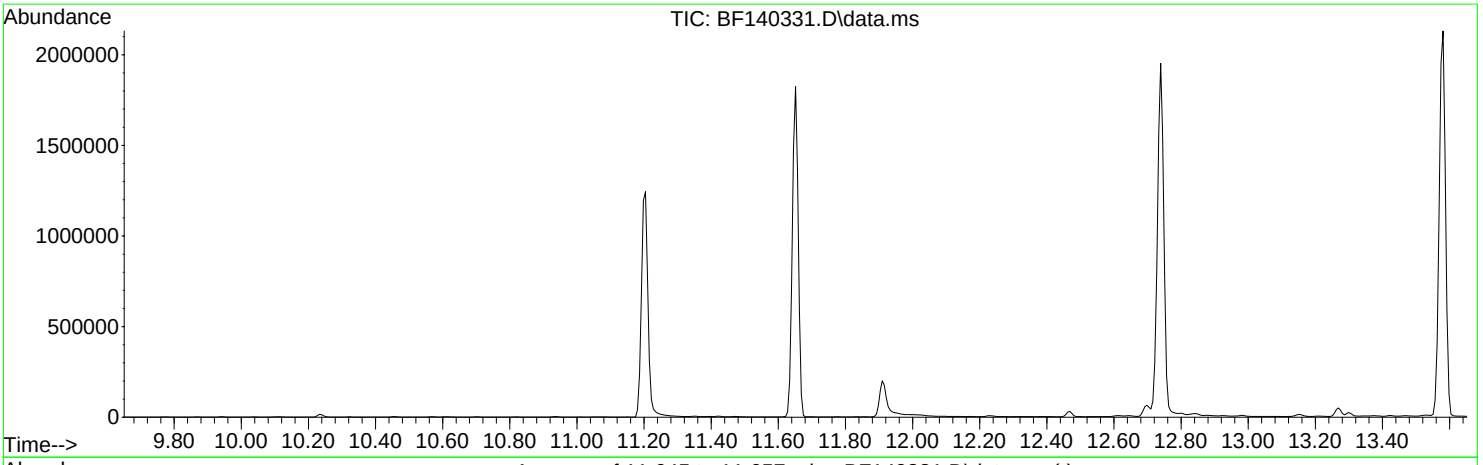
Sample Results: **BF140331.D**

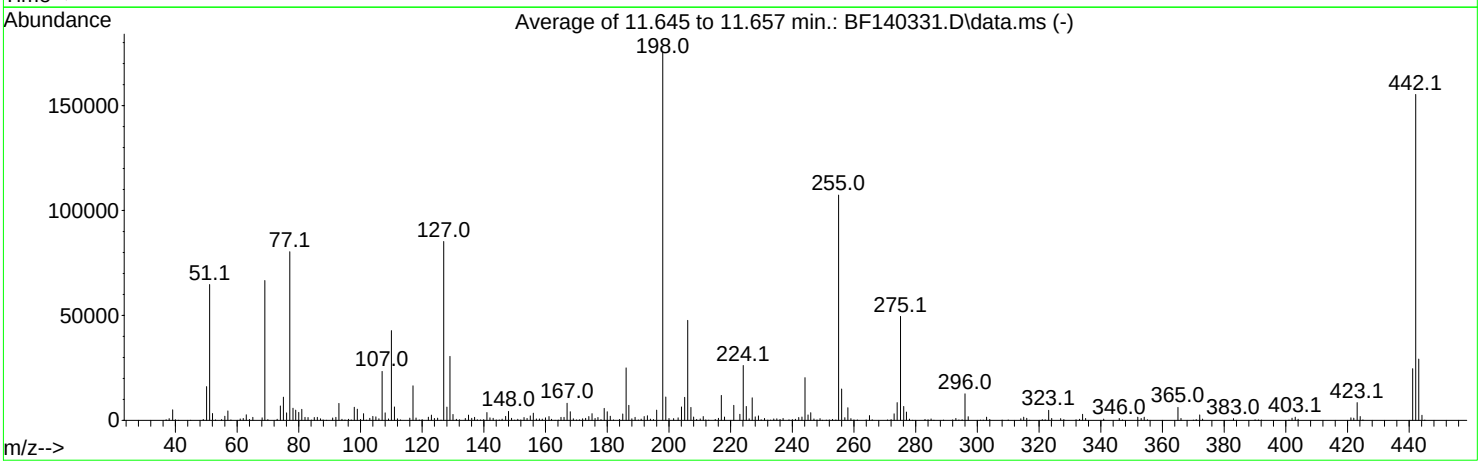
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140331.D
Acq On : 13 Nov 2024 08:35
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Integration File: rteint.p

Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Wed Nov 13 14:40:06 2024





AutoFind: Scans 1624, 1625, 1626; Background Corrected with Scan 1617

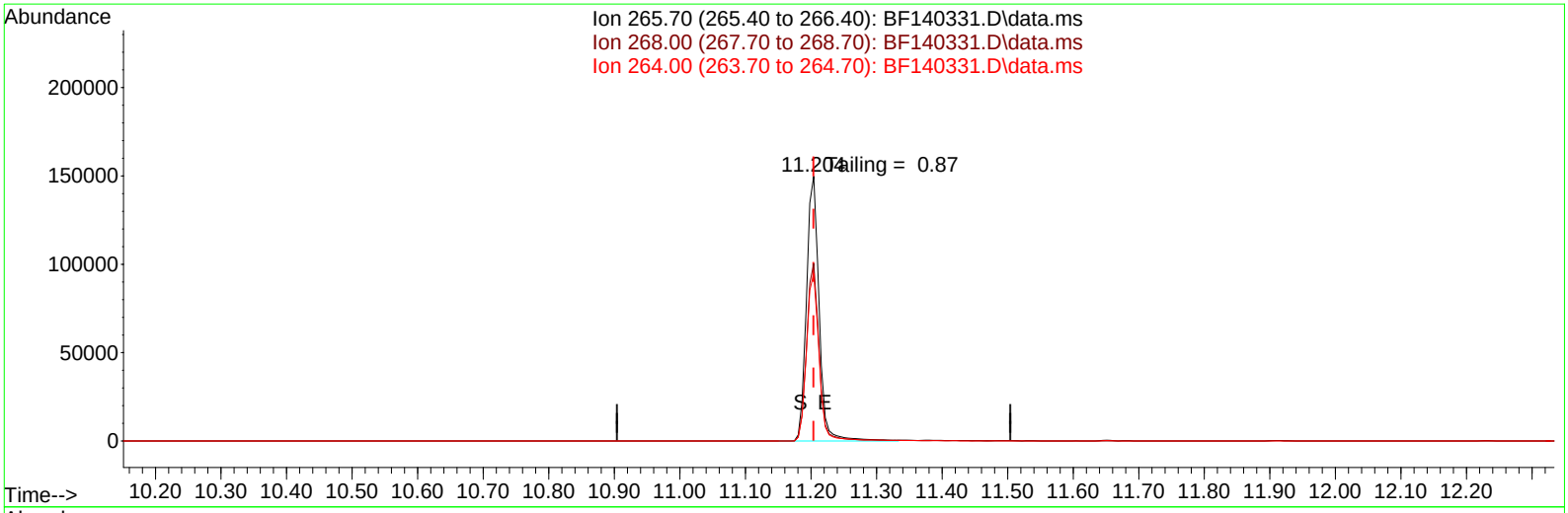
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	36.9	64757	PASS
68	69	0.00	2	1.8	1226	PASS
69	198	0.00	100	38.0	66677	PASS
70	69	0.00	2	0.6	372	PASS
127	198	10	80	48.6	85245	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	175296	PASS
199	198	5	9	6.4	11148	PASS
275	198	10	60	28.3	49536	PASS
365	198	1	100	3.5	6203	PASS
441	198	0.01	100	14.0	24595	PASS
442	442	50	100	100.0	155288	PASS
443	442	15	24	18.8	29203	PASS

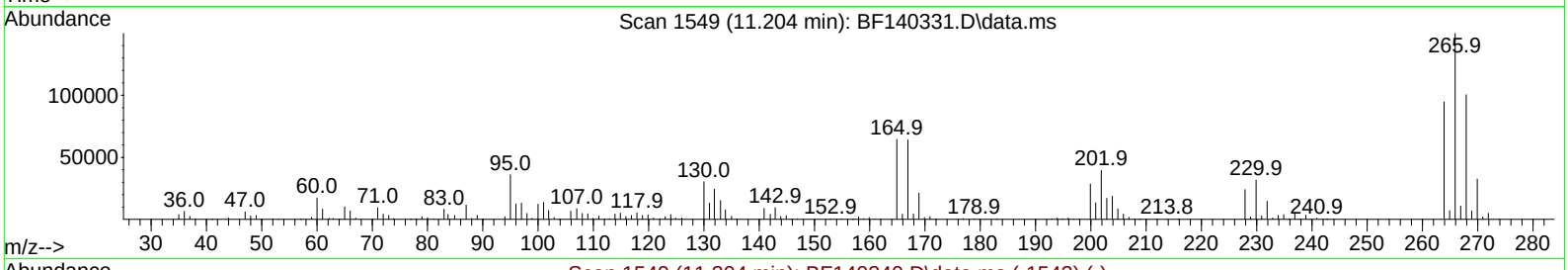
Sample Results: **BF140331.D**

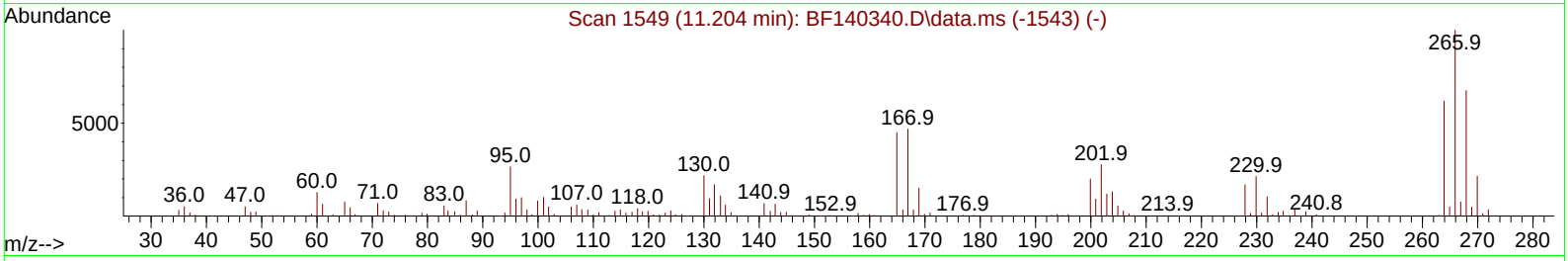
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140331.D
Acq On : 13 Nov 2024 08:35
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Nov 13 14:44:41 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration







TIC: BF140331.D\data.ms

(70) Pentachlorophenol (C)

11.204min (0.000) 23118.21 ng

response 201406

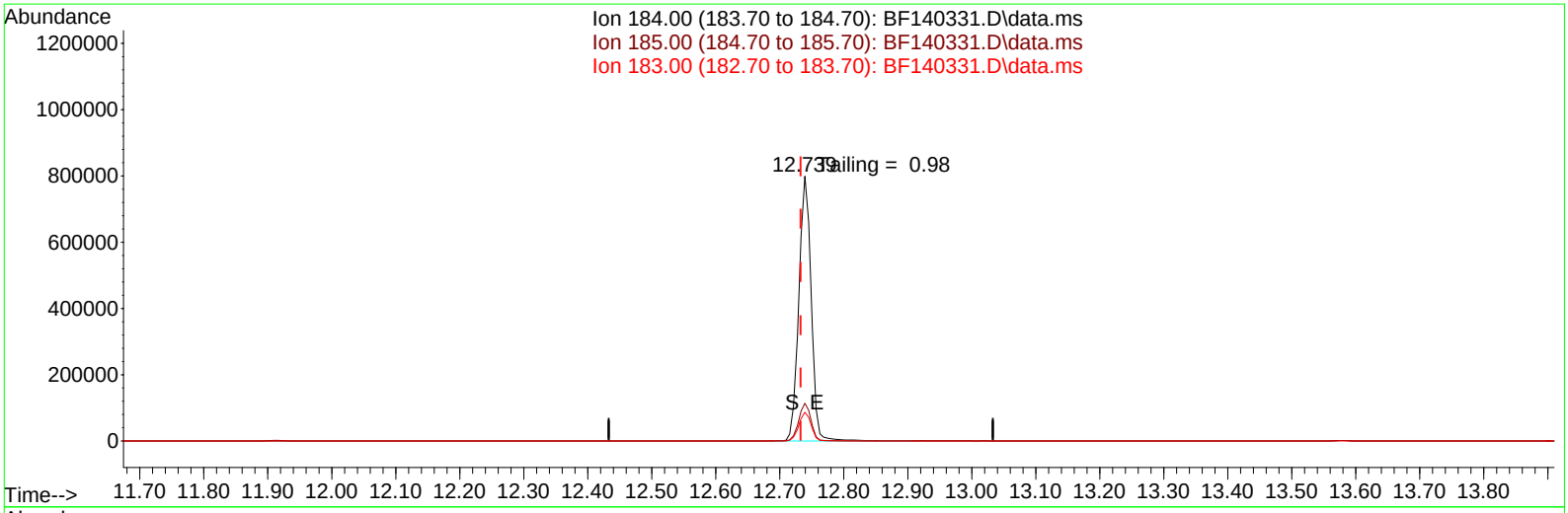
Ion	Exp%	Act%
265.70	100.00	100.00
268.00	66.10	67.05
264.00	62.90	63.20
0.00	0.00	0.00

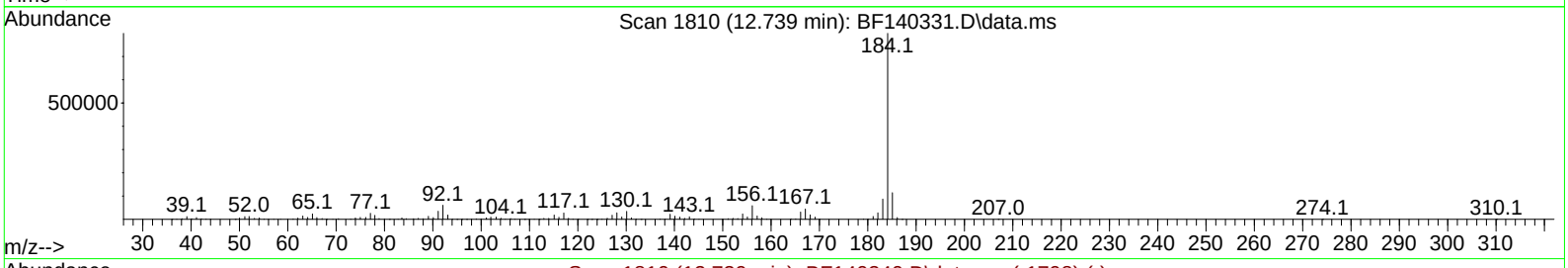
Sample Results: **BF140331.D**

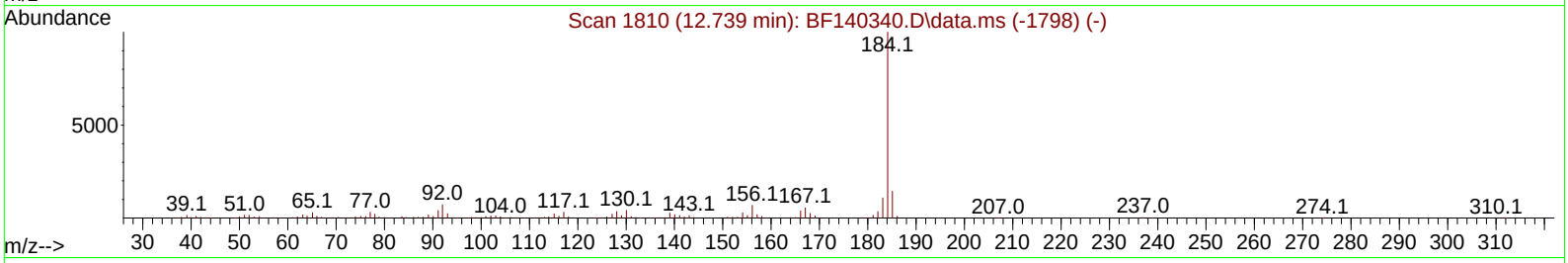
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
Data File : BF140331.D
Acq On : 13 Nov 2024 08:35
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Nov 13 14:44:41 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration







TIC: BF140331.D\data.ms

(77) Benzidine

12.739min (+ 0.006) 47514.94 ng

response 1075955

Ion	Exp%	Act%
184.00	100.00	100.00
185.00	14.90	14.29
183.00	10.80	10.88
0.00	0.00	0.00

DDT Breakdown

Date	Instrument Name	DFTPP Data File
11/13/2024	BNA_F	BF140331.D
Compound Name	**Response**	**Retention Time**
DDT	544964	13.58
DDD	17817	13.269
DDE	776	12.927
SUM(DDD+DDE)	**SUM(DDT+DDD+DDE)**	**% Breakdown Of DDT**
18593	563557	3.30

Instrument :
BNA_F
ClientSampleId :
DFTPP

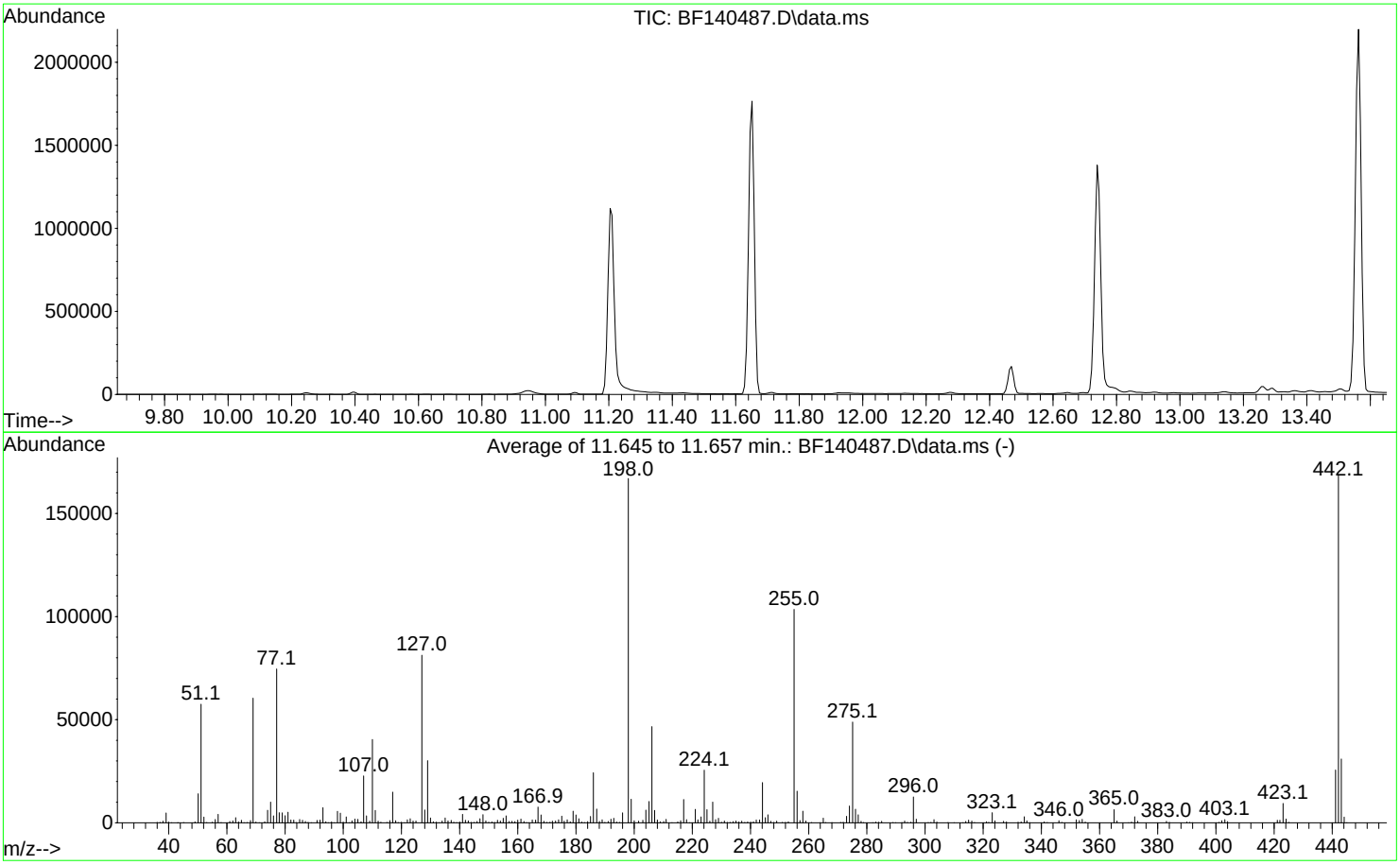
Sample Results: **BF140487.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140487.D
Acq On : 20 Nov 2024 09:04
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Integration File: rteint.p

Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Wed Nov 13 14:40:06 2024



AutoFind: Scans 1624, 1625, 1626; Background Corrected with Scan 1617

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	34.4	57483	PASS
68	69	0.00	2	1.9	1125	PASS
69	198	0.00	100	36.2	60485	PASS
70	69	0.00	2	0.6	336	PASS
127	198	10	80	48.7	81299	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	166936	PASS
199	198	5	9	6.8	11421	PASS
275	198	10	60	29.3	48829	PASS
365	198	1	100	3.8	6418	PASS
441	198	0.01	100	15.3	25587	PASS
442	442	50	100	100.0	168640	PASS
443	442	15	24	18.3	30941	PASS

DDT Breakdown

Date	Instrument Name	DFTPP Data File
11/20/2024	BNA_F	BF140487.D
Compound Name	**Response**	**Retention Time**
DDT	548781	13.563
DDD	16051	13.263
DDE	1359	12.922
SUM(DDD+DDE)	**SUM(DDT+DDD+DDE)**	**% Breakdown Of DDT**
17410	566191	3.07

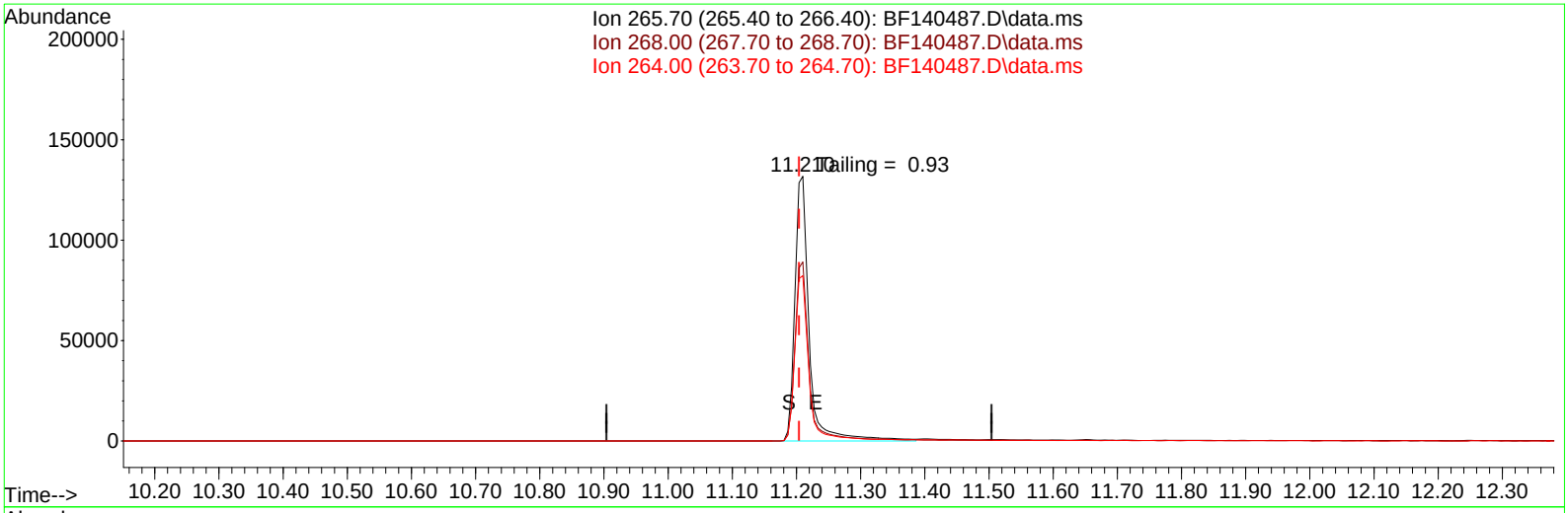
Instrument :
BNA_F
ClientSampleId :
DFTPP

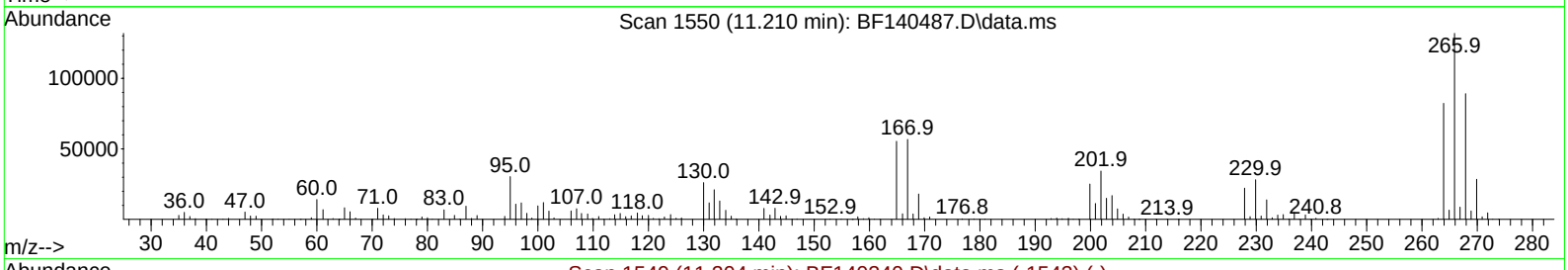
Sample Results: **BF140487.D**

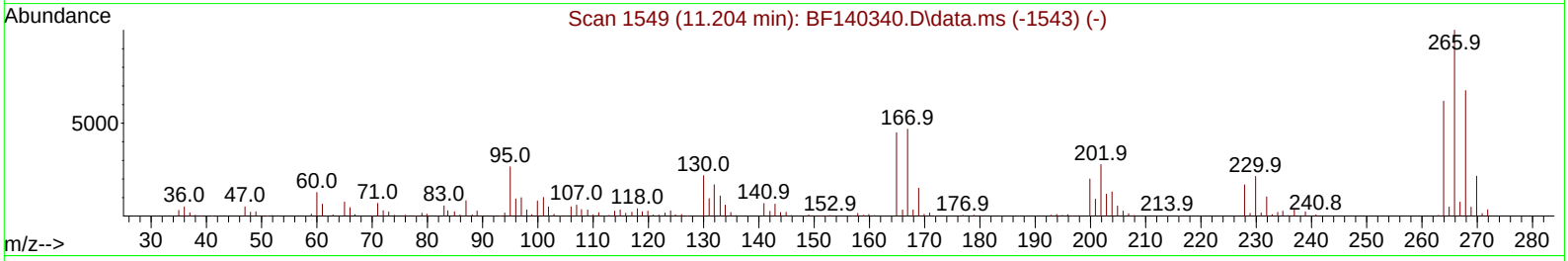
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140487.D
Acq On : 20 Nov 2024 09:04
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Nov 20 09:52:46 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration







TIC: BF140487.D\data.ms

(70) Pentachlorophenol (C)

11.210min (+ 0.006) 71931.11 ng

response 204385

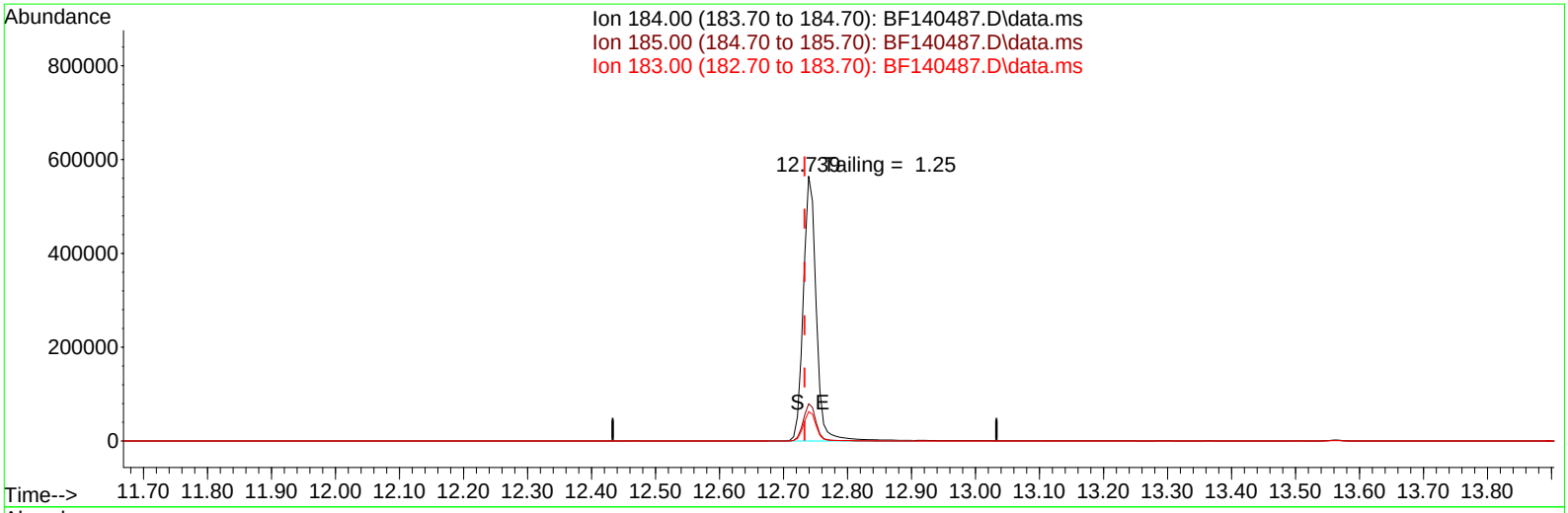
Ion	Exp%	Act%
265.70	100.00	100.00
268.00	66.10	67.61
264.00	62.90	62.46
0.00	0.00	0.00

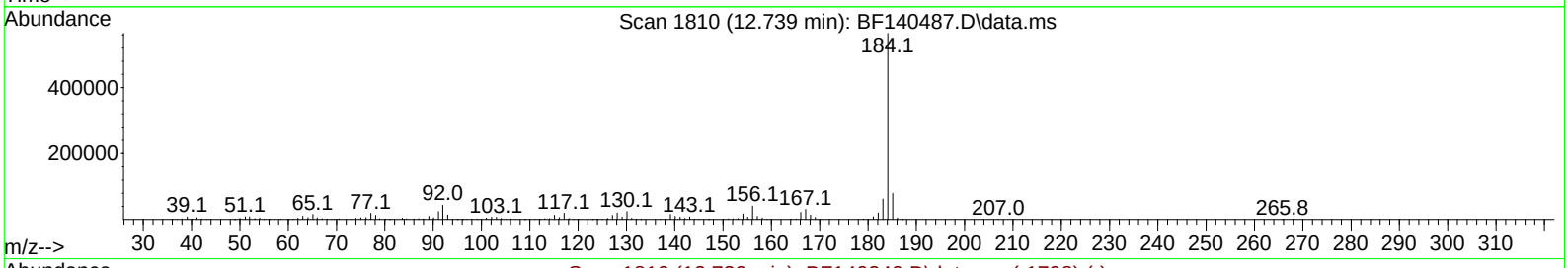
Sample Results: **BF140487.D**

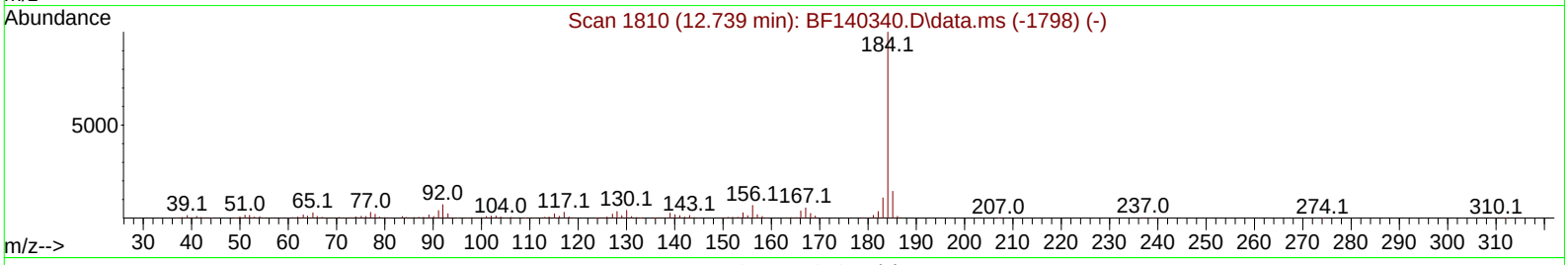
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140487.D
Acq On : 20 Nov 2024 09:04
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Nov 20 09:52:46 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration







TIC: BF140487.D\data.ms

(77) Benzidine

12.739min (+ 0.006) 26914.53 ng

response 799539

Ion	Exp%	Act%
184.00	100.00	100.00
185.00	14.90	14.11
183.00	10.80	11.08
0.00	0.00	0.00

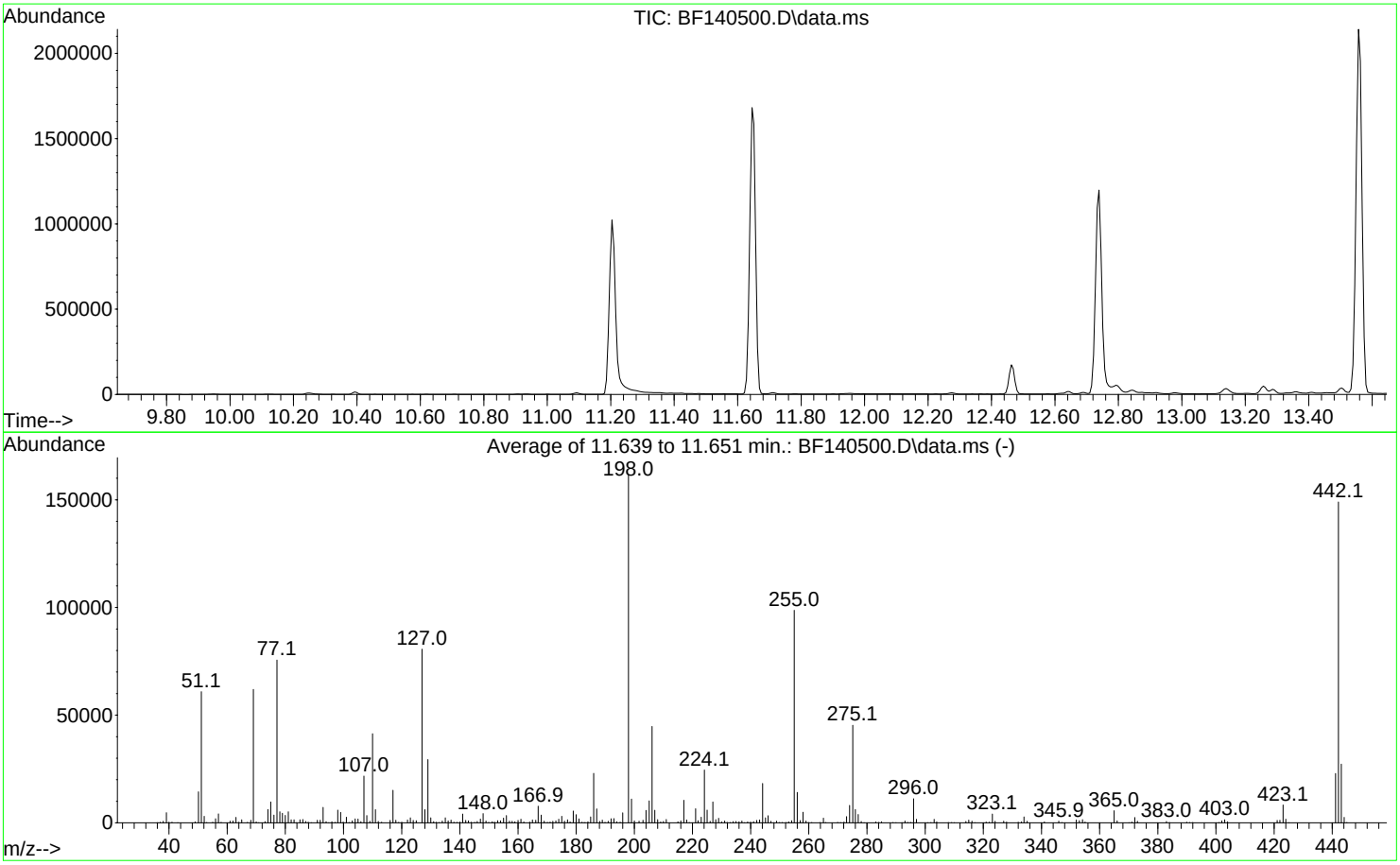
Sample Results: **BF140500.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140500.D
Acq On : 20 Nov 2024 15:33
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Integration File: rteint.p

Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Wed Nov 13 14:40:06 2024



AutoFind: Scans 1623, 1624, 1625; Background Corrected with Scan 1617

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	37.7	60928	PASS
68	69	0.00	2	1.9	1186	PASS
69	198	0.00	100	38.4	61936	PASS
70	69	0.00	2	0.7	421	PASS
127	198	10	80	50.0	80672	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	161499	PASS
199	198	5	9	6.8	11020	PASS
275	198	10	60	28.1	45307	PASS
365	198	1	100	3.5	5617	PASS
441	198	0.01	100	14.2	22910	PASS
442	442	50	100	100.0	148963	PASS
443	442	15	24	18.3	27253	PASS

DDT Breakdown

Date	Instrument Name	DFTPP Data File
11/20/2024	BNA_F	BF140500.D
Compound Name	**Response**	**Retention Time**
DDT	548560	13.557
DDD	17777	13.257
DDE	1079	12.921
SUM(DDD+DDE)	**SUM(DDT+DDD+DDE)**	**% Breakdown Of DDT**
18856	567416	3.32

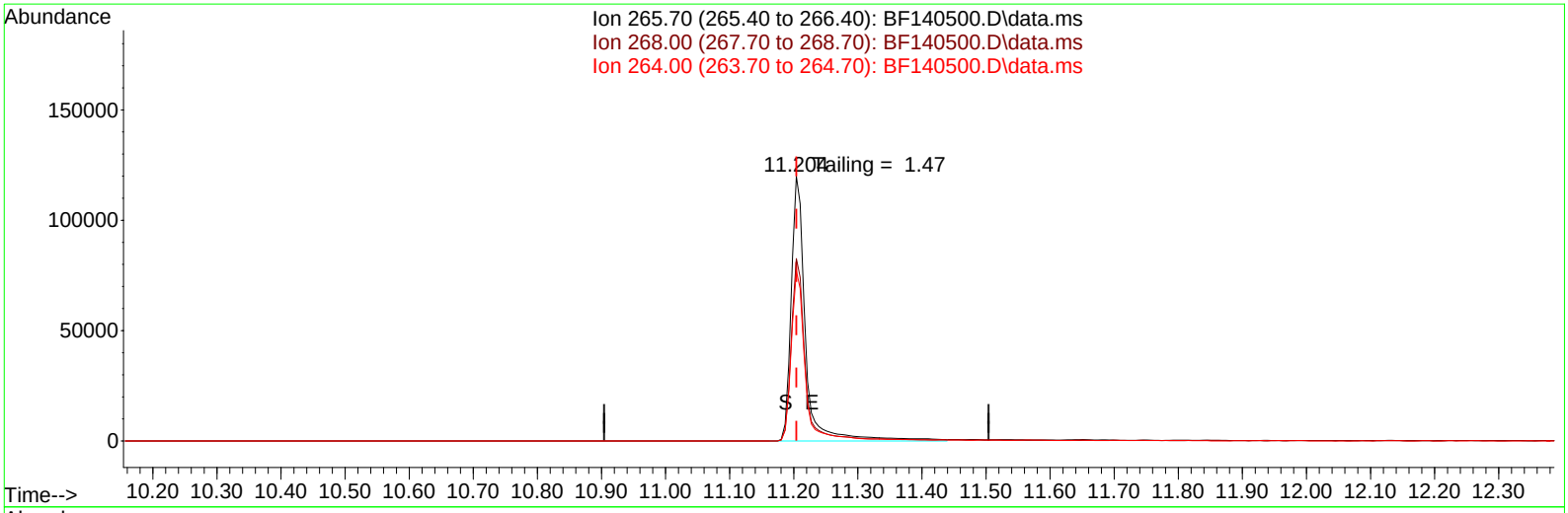
Instrument :
BNA_F
ClientSampleId :
DFTPP

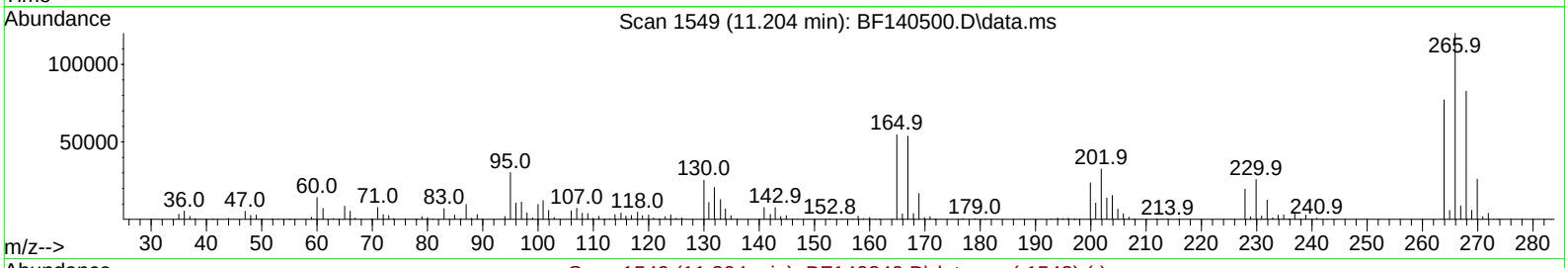
Sample Results: **BF140500.D**

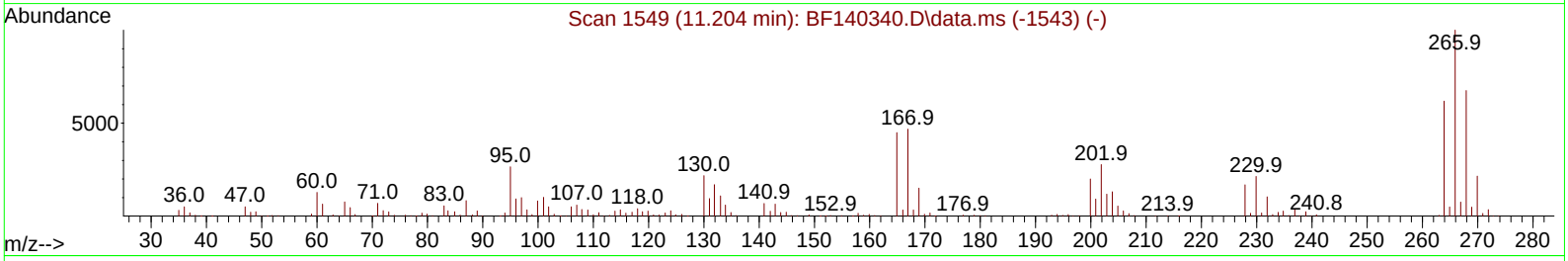
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140500.D
Acq On : 20 Nov 2024 15:33
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Nov 20 17:01:13 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration







TIC: BF140500.D\data.ms

(70) Pentachlorophenol (C)

11.204min (-0.000) 29007.72 ng

response 185231

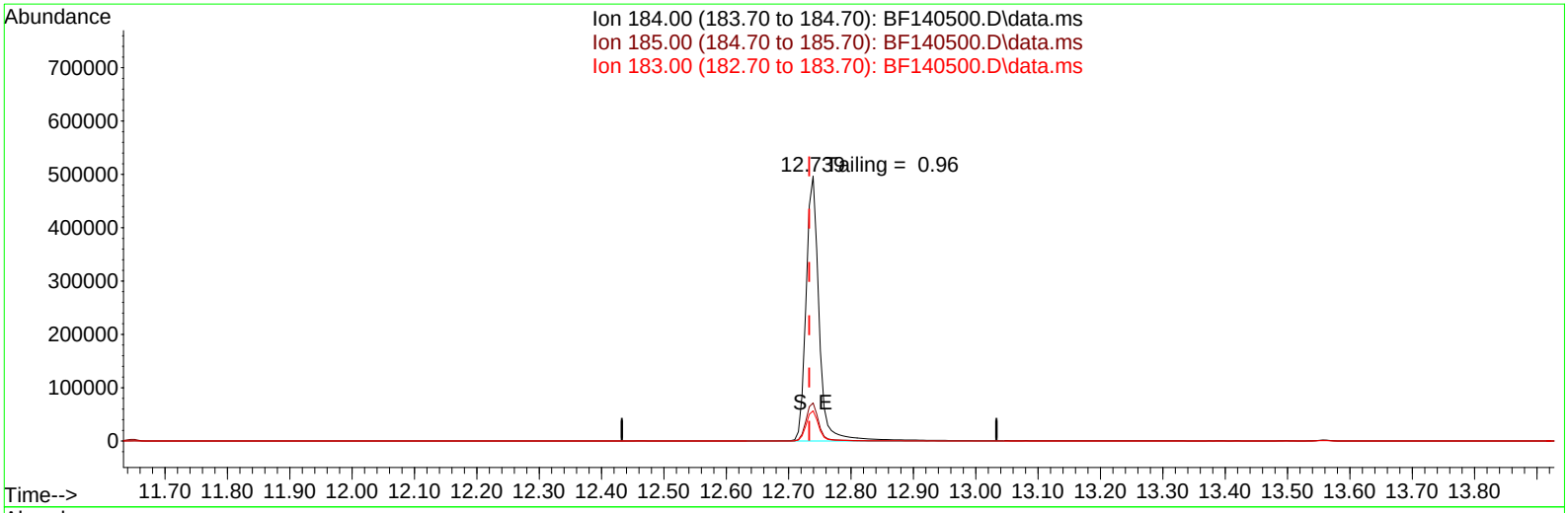
Ion	Exp%	Act%
265.70	100.00	100.00
268.00	66.10	68.93
264.00	62.90	64.29
0.00	0.00	0.00

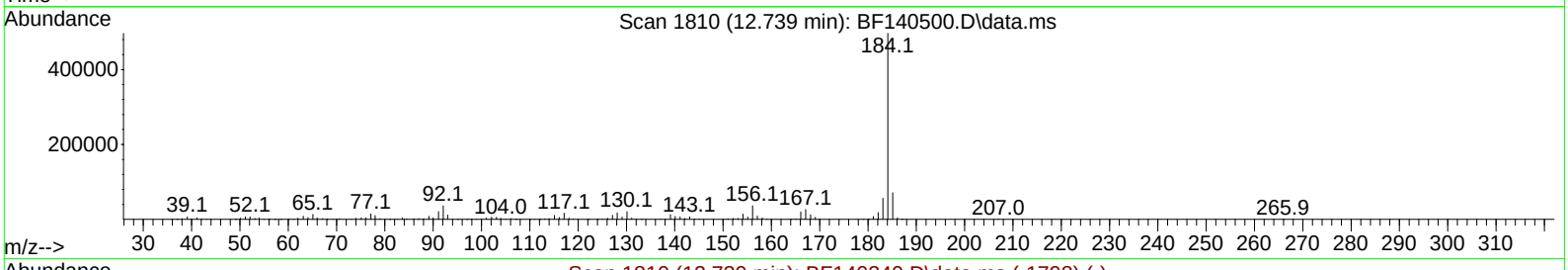
Sample Results: **BF140500.D**

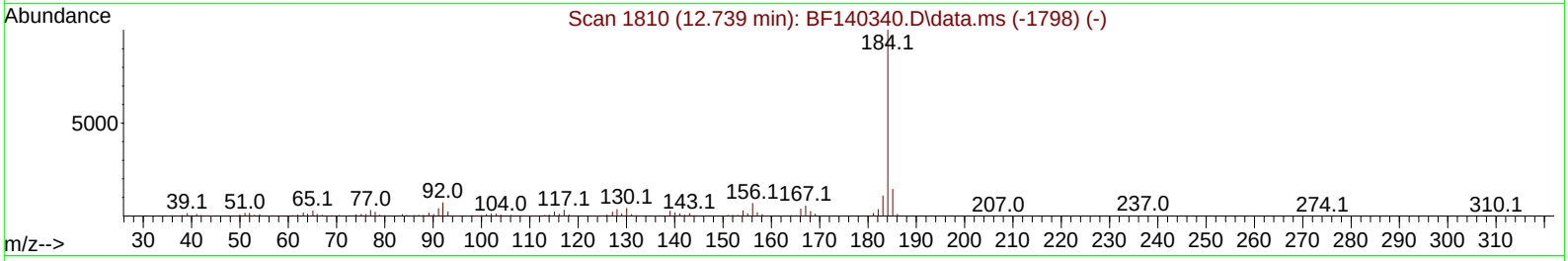
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140500.D
Acq On : 20 Nov 2024 15:33
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Nov 20 17:01:13 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration







TIC: BF140500.D\data.ms

(77) Benzidine

12.739min (+ 0.006) 19345.82 ng

response 723942

Ion	Exp%	Act%
184.00	100.00	100.00
185.00	14.90	14.37
183.00	10.80	11.38
0.00	0.00	0.00

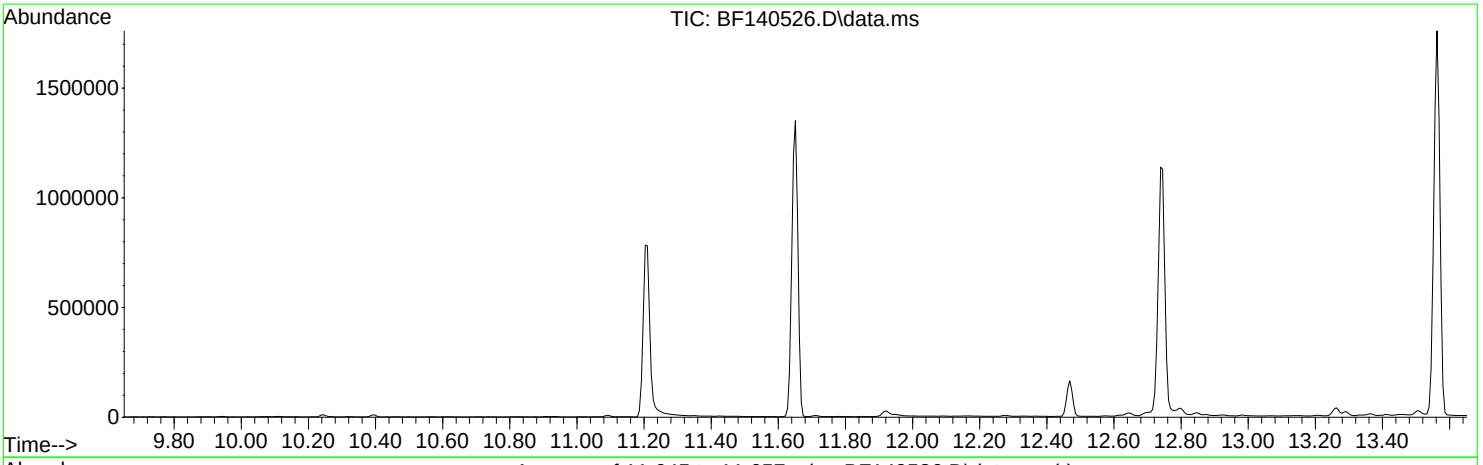
Sample Results: **BF140526.D**

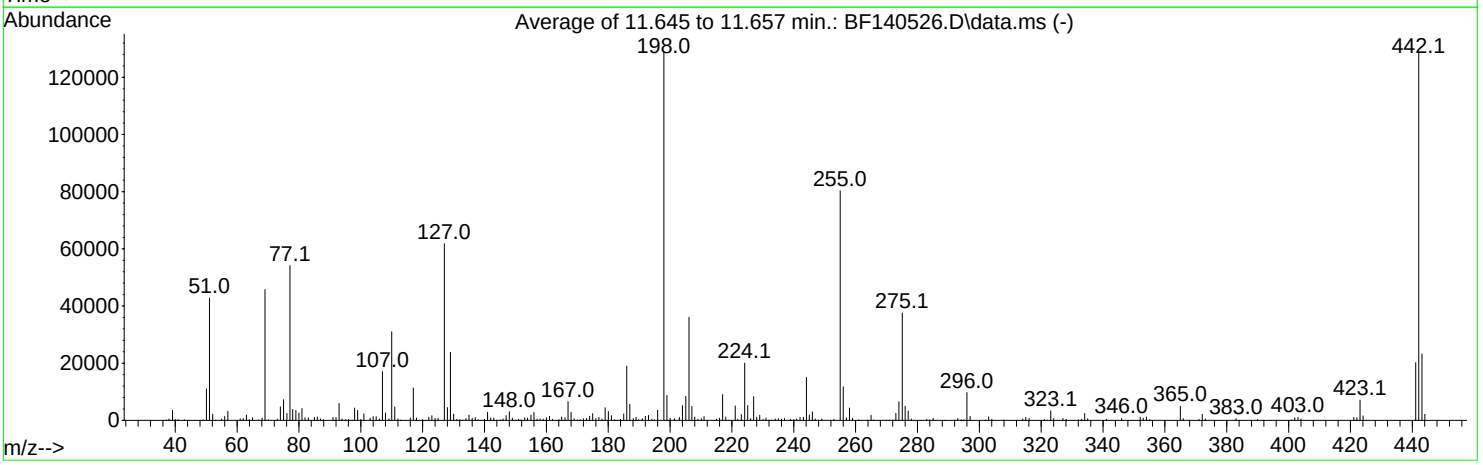
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140526.D
Acq On : 21 Nov 2024 10:17
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Integration File: rteint.p

Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Thu Nov 21 15:23:48 2024





AutoFind: Scans 1624, 1625, 1626; Background Corrected with Scan 1617

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	33.3	42792	PASS
68	69	0.00	2	1.8	810	PASS
69	198	0.00	100	35.5	45731	PASS
70	69	0.00	2	0.7	327	PASS
127	198	10	80	48.0	61811	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	128688	PASS
199	198	5	9	6.8	8723	PASS
275	198	10	60	29.2	37552	PASS
365	198	1	100	3.8	4944	PASS
441	198	0.01	100	15.7	20189	PASS
442	442	50	100	100.0	128421	PASS
443	442	15	24	18.1	23261	PASS

DDT Breakdown

Date	Instrument Name	DFTPP Data File
11/21/2024	BNA_F	BF140526.D
Compound Name	**Response**	**Retention Time**
DDT	424151	13.562
DDD	14557	13.262
DDE	1132	12.921
SUM(DDD+DDE)	**SUM(DDT+DDD+DDE)**	**% Breakdown Of DDT**
15689	439840	3.57

Instrument :
BNA_F
ClientSampleId :
DFTPP

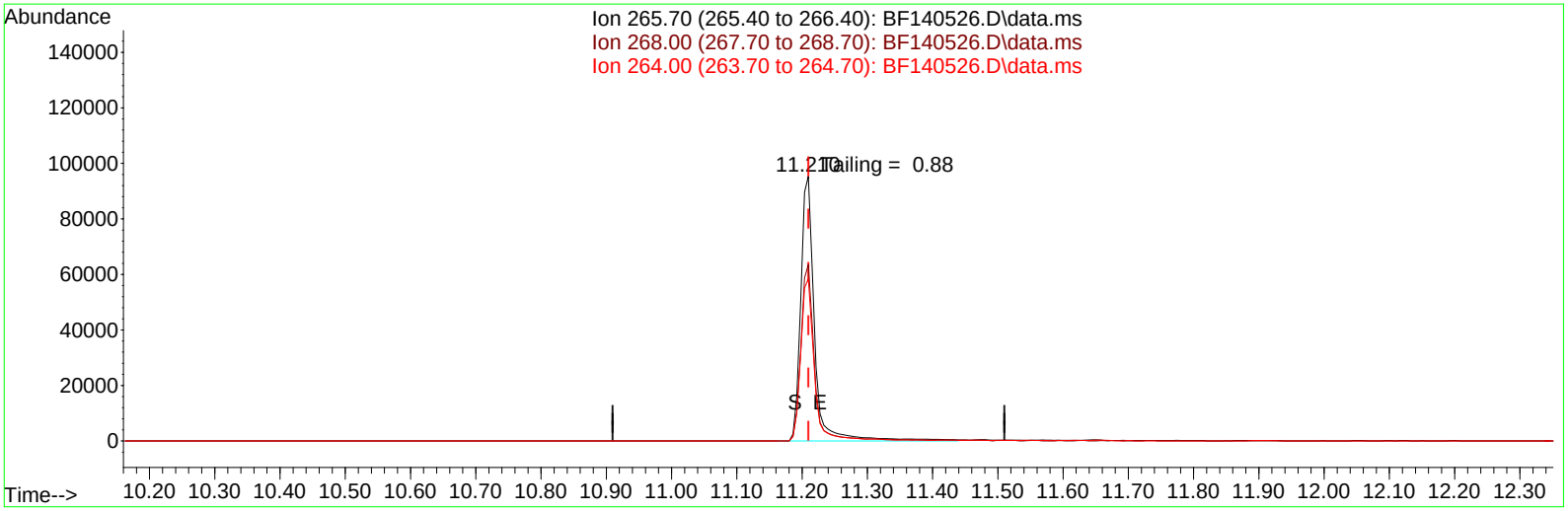
Quantitation Report (Qedit)

Sample Results: **BF140526.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140526.D
Acq On : 21 Nov 2024 10:17
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Nov 21 15:24:39 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

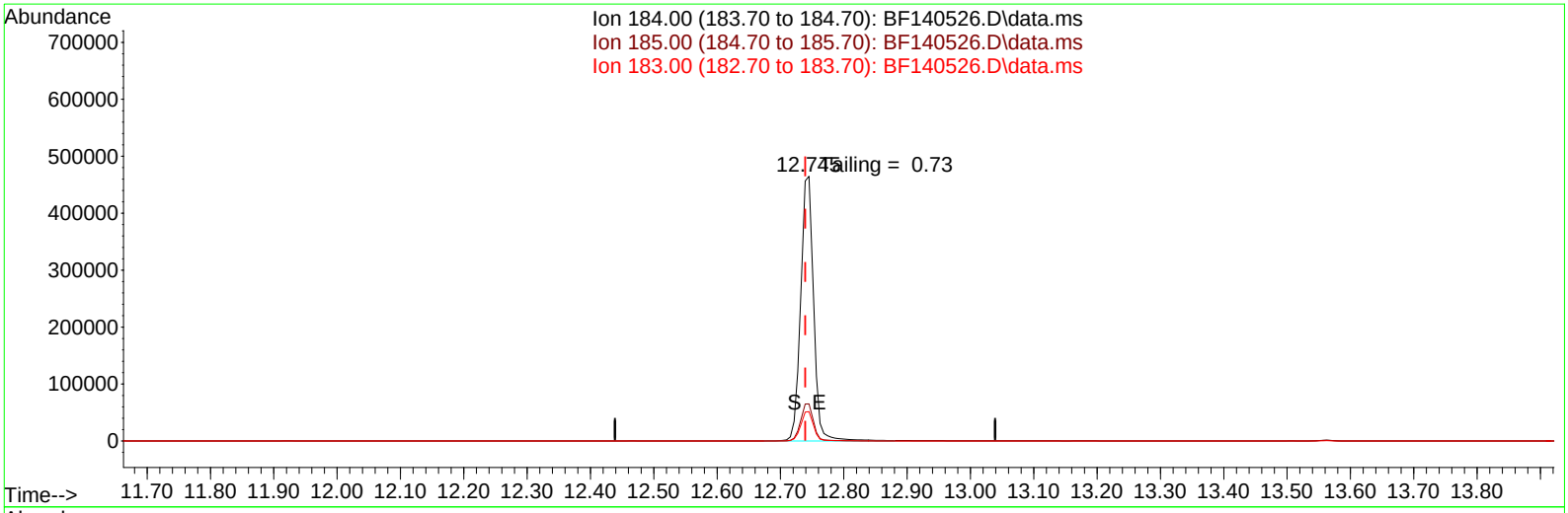


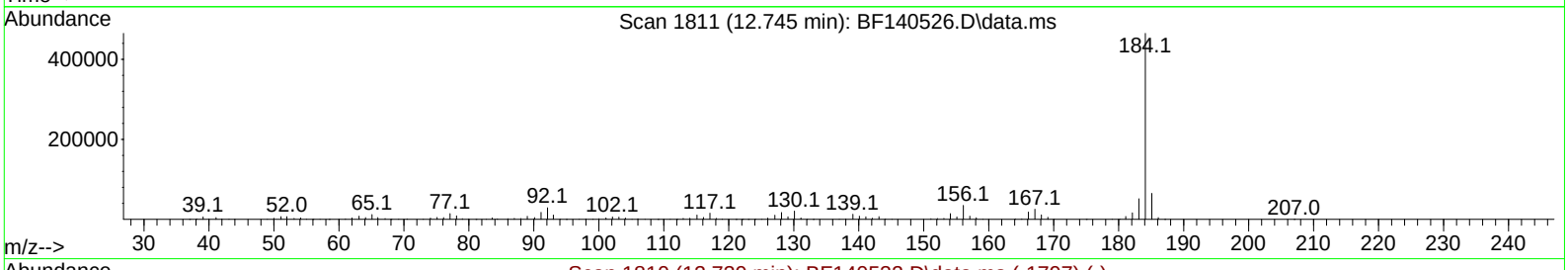
Sample Results: **BF140526.D**

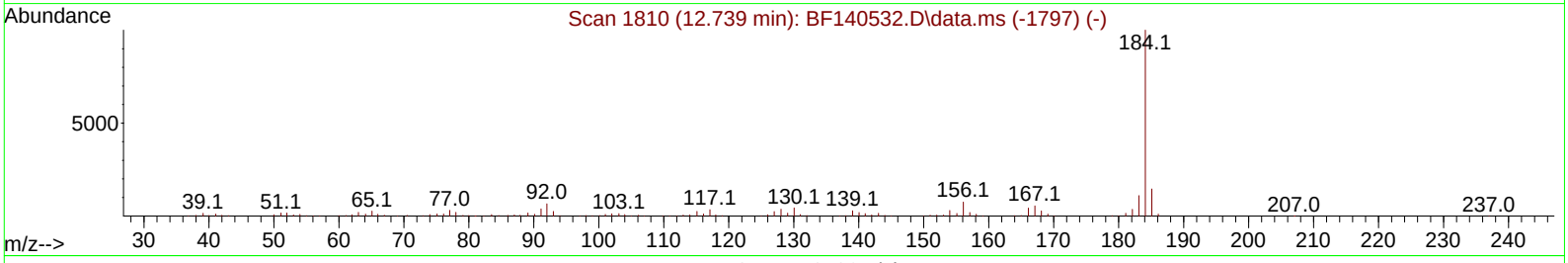
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112124\
Data File : BF140526.D
Acq On : 21 Nov 2024 10:17
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Nov 21 15:24:39 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration







TIC: BF140526.D\data.ms

(77) Benzidine

12.745min (+ 0.006) 32779.12 ng

response 668077

Ion	Exp%	Act%
184.00	100.00	100.00
185.00	14.60	14.02
183.00	11.00	11.11
0.00	0.00	0.00

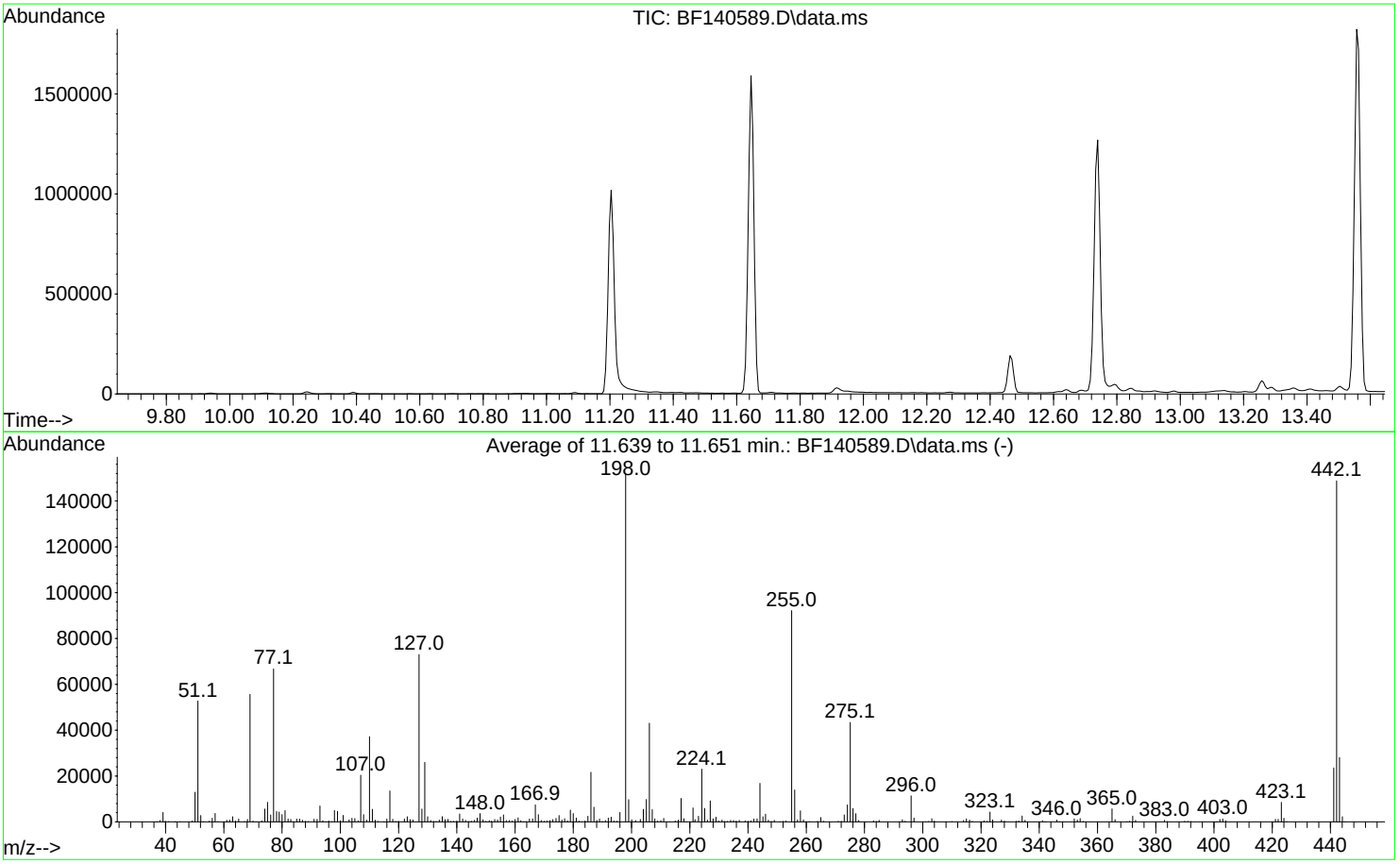
Sample Results: **BF140589.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140589.D
Acq On : 25 Nov 2024 09:07
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Integration File: rteint.p

Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Thu Nov 21 15:23:48 2024



AutoFind: Scans 1623, 1624, 1625; Background Corrected with Scan 1616

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	34.8	52725	PASS
68	69	0.00	2	1.9	1053	PASS
69	198	0.00	100	36.7	55652	PASS
70	69	0.00	2	0.6	343	PASS
127	198	10	80	48.2	73005	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	151552	PASS
199	198	5	9	6.4	9710	PASS
275	198	10	60	28.6	43365	PASS
365	198	1	100	3.7	5678	PASS
441	198	0.01	100	15.5	23530	PASS
442	442	50	100	100.0	148813	PASS
443	442	15	24	18.9	28083	PASS

DDT Breakdown

Date	Instrument Name	DFTPP Data File
11/25/2024	BNA_F	BF140589.D
Compound Name	**Response**	**Retention Time**
DDT	468664	13.557
DDD	19968	13.257
DDE	1731	12.922
SUM(DDD+DDE)	**SUM(DDT+DDD+DDE)**	**% Breakdown Of DDT**
21699	490363	4.43

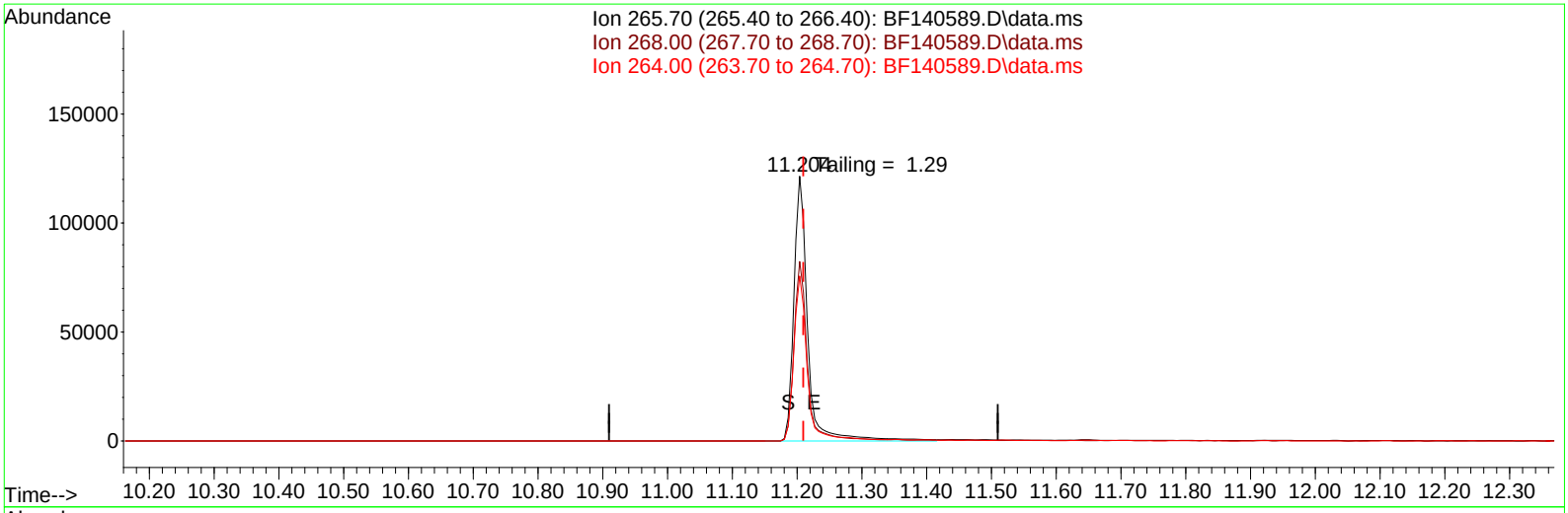
Instrument :
BNA_F
ClientSampleId :
DFTPP

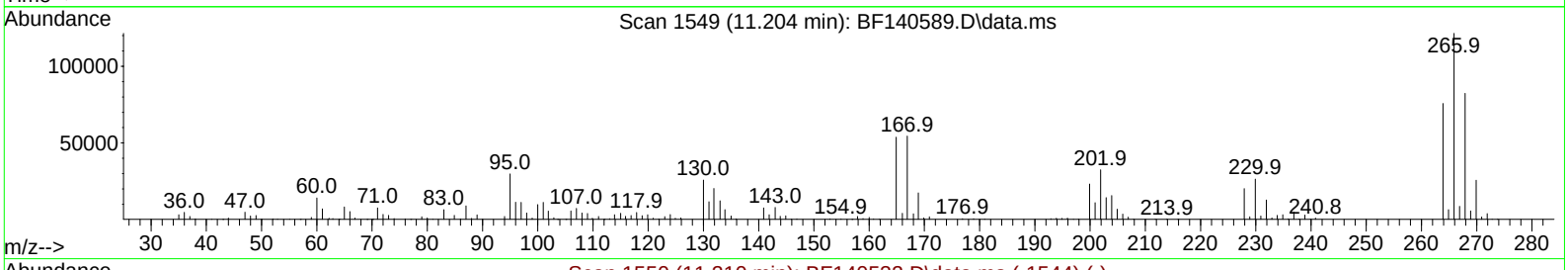
Sample Results: **BF140589.D**

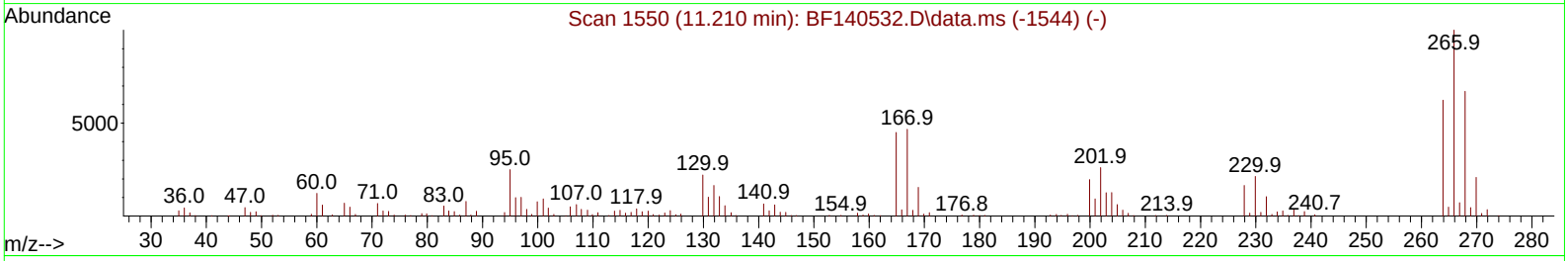
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140589.D
Acq On : 25 Nov 2024 09:07
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Nov 25 10:32:51 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration







TIC: BF140589.D\data.ms

(70) Pentachlorophenol (C)

11.204min (-0.006) 31422.92 ng

response 179265

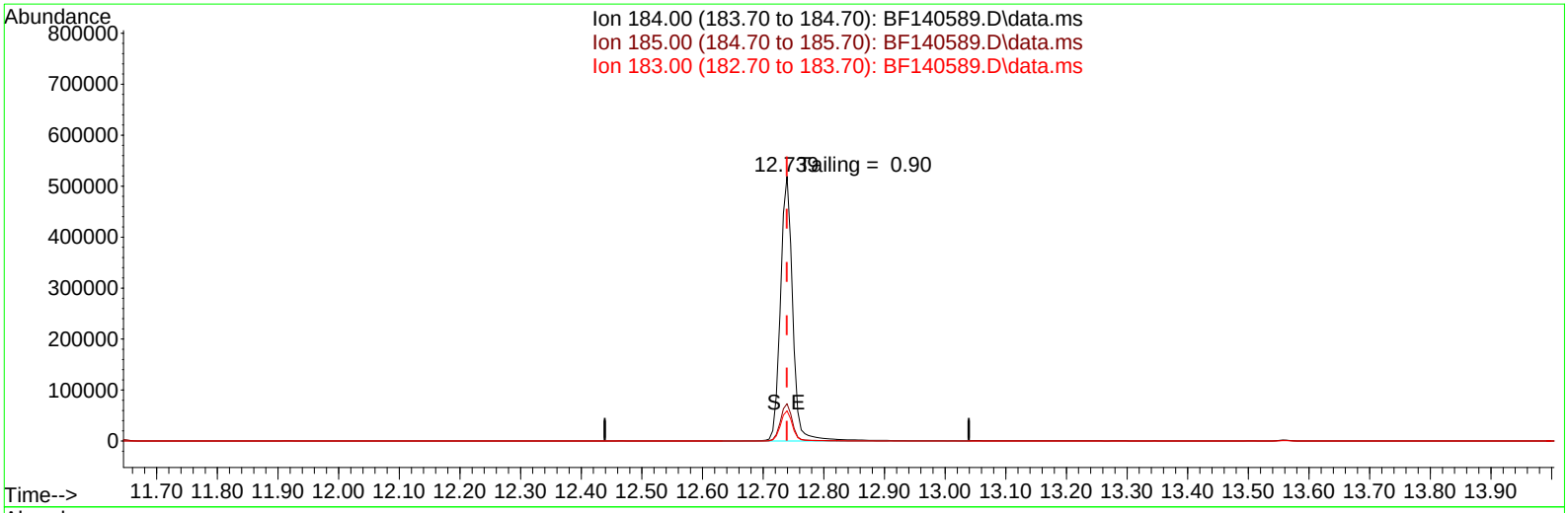
Ion	Exp%	Act%
265.70	100.00	100.00
268.00	67.10	67.82
264.00	62.30	62.34
0.00	0.00	0.00

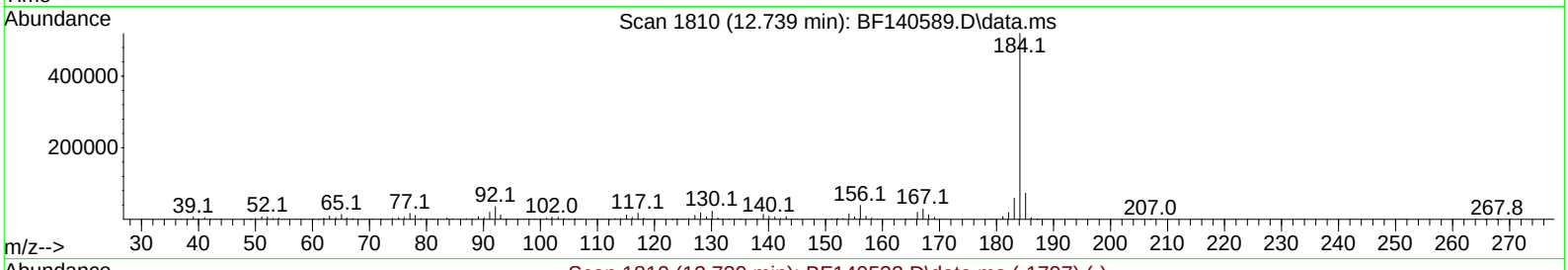
Sample Results: **BF140589.D**

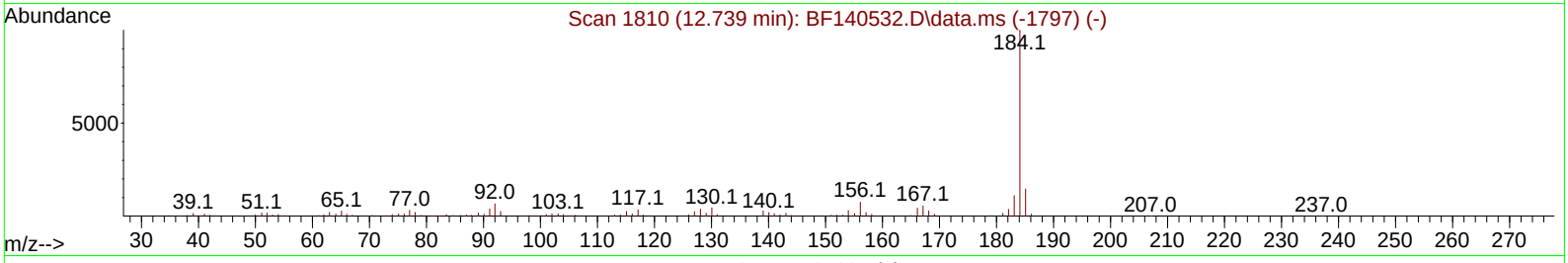
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140589.D
Acq On : 25 Nov 2024 09:07
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Nov 25 10:32:51 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration







TIC: BF140589.D\data.ms

(77) Benzidine

12.739min (+ 0.000) 27658.53 ng

response 736607

Ion	Exp%	Act%
184.00	100.00	100.00
185.00	14.60	14.07
183.00	11.00	11.40
0.00	0.00	0.00

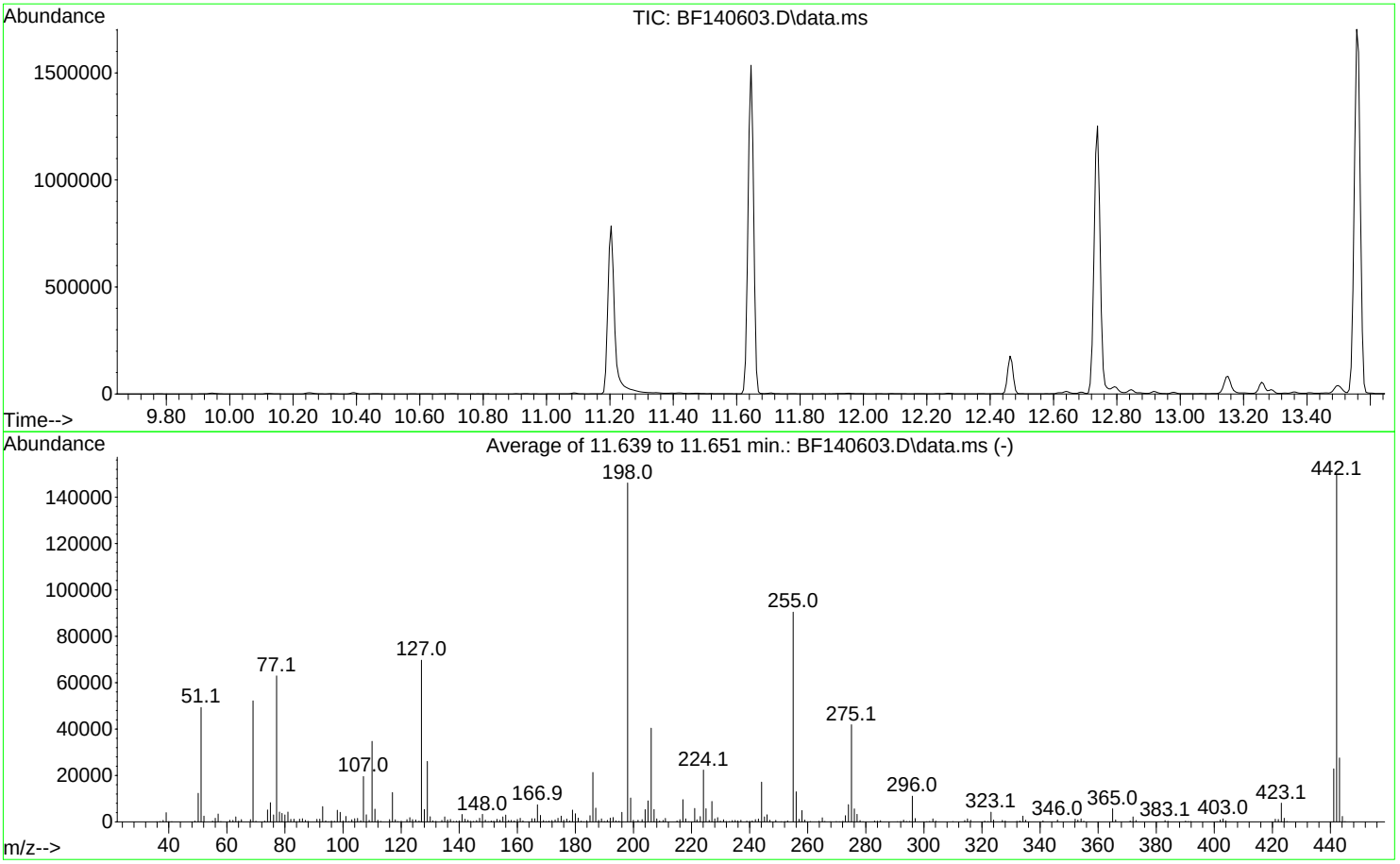
Sample Results: **BF140603.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140603.D
Acq On : 25 Nov 2024 15:23
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Integration File: rteint.p

Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Thu Nov 21 15:23:48 2024



AutoFind: Scans 1623, 1624, 1625; Background Corrected with Scan 1616

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	33.8	49309	PASS
68	69	0.00	2	1.8	961	PASS
69	198	0.00	100	35.7	52187	PASS
70	69	0.00	2	0.5	279	PASS
127	198	10	80	47.7	69688	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	146083	PASS
199	198	5	9	7.0	10280	PASS
275	198	10	60	28.7	41893	PASS
365	198	1	100	3.9	5656	PASS
441	198	0.01	100	15.6	22843	PASS
442	442	50	100	100.0	149765	PASS
443	442	15	24	18.4	27568	PASS

DDT Breakdown

Date	Instrument Name	DFTPP Data File
11/25/2024	BNA_F	BF140603.D
Compound Name	**Response**	**Retention Time**
DDT	443715	13.557
DDD	19336	13.257
DDE	2495	12.921
SUM(DDD+DDE)	**SUM(DDT+DDD+DDE)**	**% Breakdown Of DDT**
21831	465546	4.69

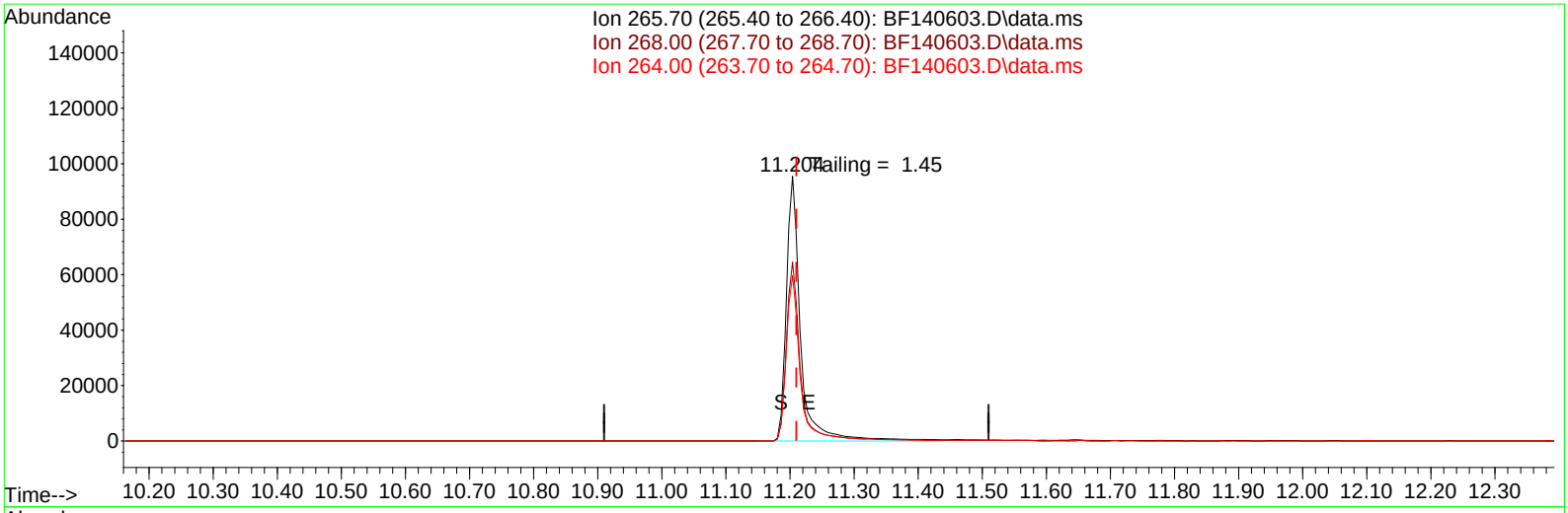
Instrument :
BNA_F
ClientSampleId :
DFTPP

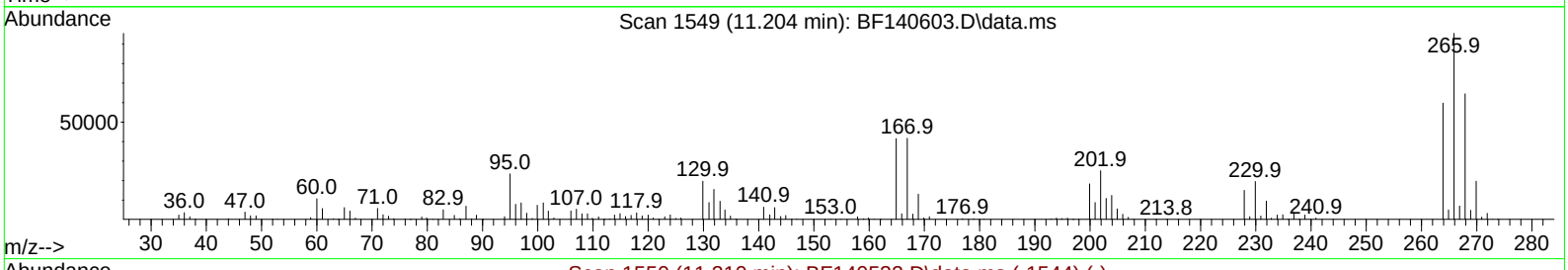
Sample Results: **BF140603.D**

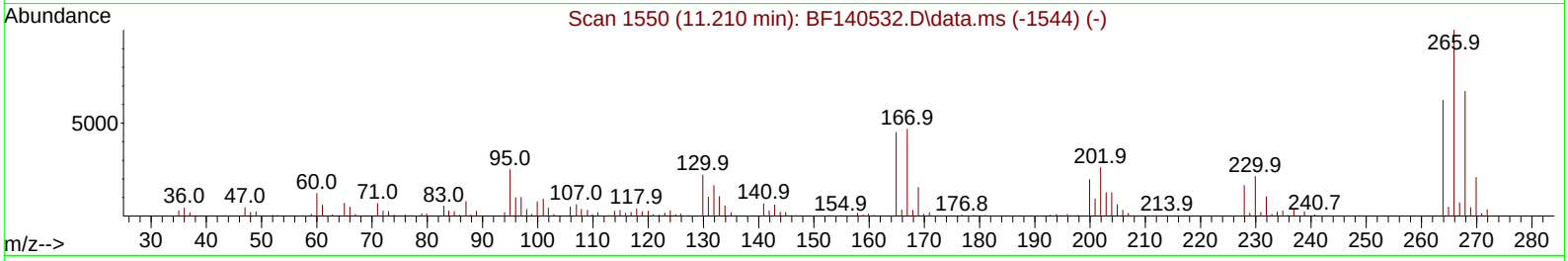
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140603.D
Acq On : 25 Nov 2024 15:23
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Nov 25 15:47:27 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration







TIC: BF140603.D\data.ms

(70) Pentachlorophenol (C)

11.204min (-0.006) 19738.30 ng

response 147516

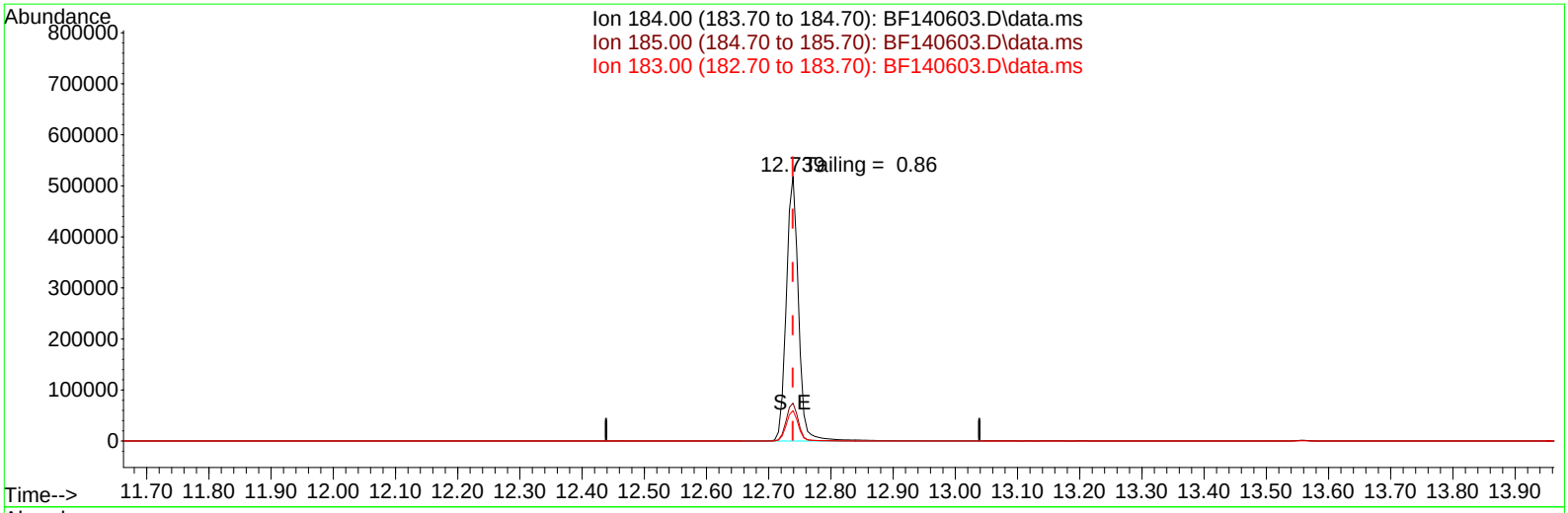
Ion	Exp%	Act%
265.70	100.00	100.00
268.00	67.10	67.54
264.00	62.30	62.51
0.00	0.00	0.00

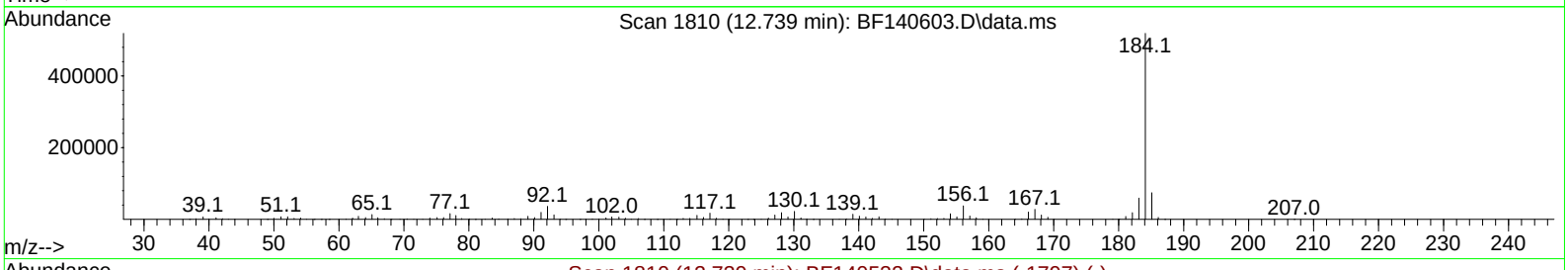
Sample Results: **BF140603.D**

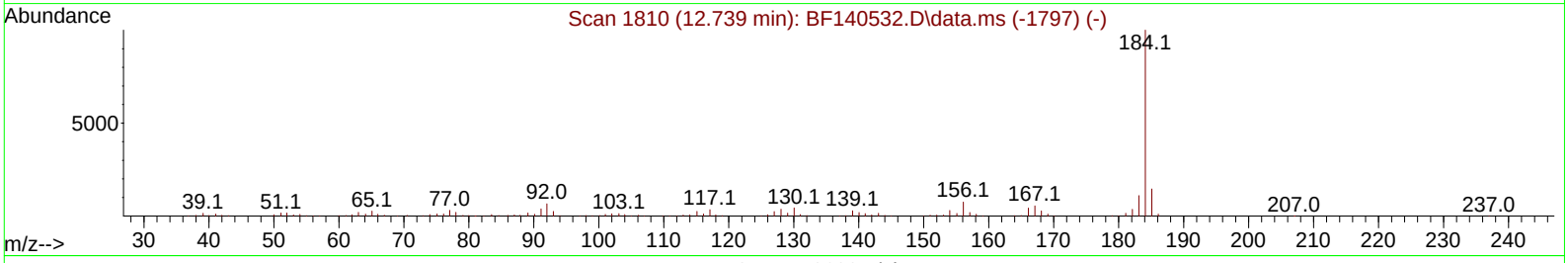
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140603.D
Acq On : 25 Nov 2024 15:23
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Nov 25 15:47:27 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration







TIC: BF140603.D\data.ms

(77) Benzidine

12.739min (+ 0.000) 26793.97 ng

response 714361

Ion	Exp%	Act%
184.00	100.00	100.00
185.00	14.60	14.33
183.00	11.00	11.43
0.00	0.00	0.00

Raw Data: **BF140502.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB165086BL	SDG No.:	P4892
Lab Sample ID:	PB165086BL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140502.D	1	11/19/24 09:00	11/20/24 16:25	PB165086

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	180	U	180	330	ug/Kg
108-95-2	Phenol	82.9	U	82.9	170	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	83.7	U	83.7	170	ug/Kg
95-57-8	2-Chlorophenol	83.5	U	83.5	170	ug/Kg
95-48-7	2-Methylphenol	80.6	U	80.6	170	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	90.9	U	90.9	170	ug/Kg
98-86-2	Acetophenone	86.9	U	86.9	170	ug/Kg
65794-96-9	3+4-Methylphenols	79.8	U	79.8	330	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	40.3	U	40.3	80.0	ug/Kg
67-72-1	Hexachloroethane	83.0	U	83.0	170	ug/Kg
98-95-3	Nitrobenzene	90.8	U	90.8	170	ug/Kg
78-59-1	Isophorone	84.6	U	84.6	170	ug/Kg
88-75-5	2-Nitrophenol	94.5	U	94.5	170	ug/Kg
105-67-9	2,4-Dimethylphenol	93.2	U	93.2	170	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	85.8	U	85.8	170	ug/Kg
120-83-2	2,4-Dichlorophenol	75.5	U	75.5	170	ug/Kg
91-20-3	Naphthalene	82.6	U	82.6	170	ug/Kg
106-47-8	4-Chloroaniline	82.6	U	82.6	170	ug/Kg
87-68-3	Hexachlorobutadiene	83.3	U	83.3	170	ug/Kg
105-60-2	Caprolactam	86.8	U	86.8	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	77.5	U	77.5	170	ug/Kg
91-57-6	2-Methylnaphthalene	82.5	U	82.5	170	ug/Kg
77-47-4	Hexachlorocyclopentadiene	160	U	160	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	71.4	U	71.4	170	ug/Kg
95-95-4	2,4,5-Trichlorophenol	74.0	U	74.0	170	ug/Kg
92-52-4	1,1-Biphenyl	87.4	U	87.4	170	ug/Kg
91-58-7	2-Chloronaphthalene	83.3	U	83.3	170	ug/Kg
88-74-4	2-Nitroaniline	95.0	U	95.0	170	ug/Kg
131-11-3	Dimethylphthalate	81.7	U	81.7	170	ug/Kg

Raw Data: **BF140502.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB165086BL	SDG No.:	P4892
Lab Sample ID:	PB165086BL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140502.D	1	11/19/24 09:00	11/20/24 16:25	PB165086

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	86.5	U	86.5	170	ug/Kg
606-20-2	2,6-Dinitrotoluene	83.2	U	83.2	170	ug/Kg
99-09-2	3-Nitroaniline	89.2	U	89.2	170	ug/Kg
83-32-9	Acenaphthene	81.1	U	81.1	170	ug/Kg
51-28-5	2,4-Dinitrophenol	240	U	240	330	ug/Kg
100-02-7	4-Nitrophenol	120	U	120	330	ug/Kg
132-64-9	Dibenzofuran	84.4	U	84.4	170	ug/Kg
121-14-2	2,4-Dinitrotoluene	86.2	U	86.2	170	ug/Kg
84-66-2	Diethylphthalate	80.1	U	80.1	170	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	85.6	U	85.6	170	ug/Kg
86-73-7	Fluorene	85.5	U	85.5	170	ug/Kg
100-01-6	4-Nitroaniline	110	U	110	170	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	120	U	120	330	ug/Kg
86-30-6	n-Nitrosodiphenylamine	81.6	U	81.6	170	ug/Kg
101-55-3	4-Bromophenyl-phenylether	78.9	U	78.9	170	ug/Kg
118-74-1	Hexachlorobenzene	85.0	U	85.0	170	ug/Kg
1912-24-9	Atrazine	91.4	U	91.4	170	ug/Kg
87-86-5	Pentachlorophenol	77.3	U	77.3	330	ug/Kg
85-01-8	Phenanthrene	84.0	U	84.0	170	ug/Kg
120-12-7	Anthracene	84.4	U	84.4	170	ug/Kg
86-74-8	Carbazole	80.3	U	80.3	170	ug/Kg
84-74-2	Di-n-butylphthalate	84.3	U	84.3	170	ug/Kg
206-44-0	Fluoranthene	81.7	U	81.7	170	ug/Kg
129-00-0	Pyrene	83.0	U	83.0	170	ug/Kg
85-68-7	Butylbenzylphthalate	96.8	U	96.8	170	ug/Kg
91-94-1	3,3-Dichlorobenzidine	98.6	U	98.6	330	ug/Kg
56-55-3	Benzo(a)anthracene	80.7	U	80.7	170	ug/Kg
218-01-9	Chrysene	79.5	U	79.5	170	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	91.0	U	91.0	170	ug/Kg
117-84-0	Di-n-octyl phthalate	110	U	110	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	81.1	U	81.1	170	ug/Kg

Raw Data: **BF140502.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB165086BL	SDG No.:	P4892
Lab Sample ID:	PB165086BL	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140502.D	1	11/19/24 09:00	11/20/24 16:25	PB165086

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	82.6	U	82.6	170	ug/Kg
50-32-8	Benzo(a)pyrene	93.0	U	93.0	170	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	78.1	U	78.1	170	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	81.2	U	81.2	170	ug/Kg
191-24-2	Benzo(g,h,i)perylene	80.1	U	80.1	170	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	86.8	U	86.8	170	ug/Kg
123-91-1	1,4-Dioxane	110	U	110	170	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	74.7	U	74.7	170	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	124		30 (18) - 130 (112)	83%	SPK: 150
13127-88-3	Phenol-d6	120		30 (15) - 130 (107)	80%	SPK: 150
4165-60-0	Nitrobenzene-d5	86.1		30 (18) - 130 (107)	86%	SPK: 100
321-60-8	2-Fluorobiphenyl	86.8		30 (20) - 130 (109)	87%	SPK: 100
118-79-6	2,4,6-Tribromophenol	128		30 (10) - 130 (116)	86%	SPK: 150
1718-51-0	Terphenyl-d14	85.6		30 (10) - 130 (105)	86%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	128000	6.869			
1146-65-2	Naphthalene-d8	486000	8.151			
15067-26-2	Acenaphthene-d10	274000	9.904			
1517-22-2	Phenanthrene-d10	524000	11.398			
1719-03-5	Chrysene-d12	336000	14.045			
1520-96-3	Perylene-d12	270000	15.539			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140502.D
Acq On : 20 Nov 2024 16:25
Operator : RC/JU
Sample : PB165086BL
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
PB165086BL

Quant Time: Nov 20 17:06:00 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

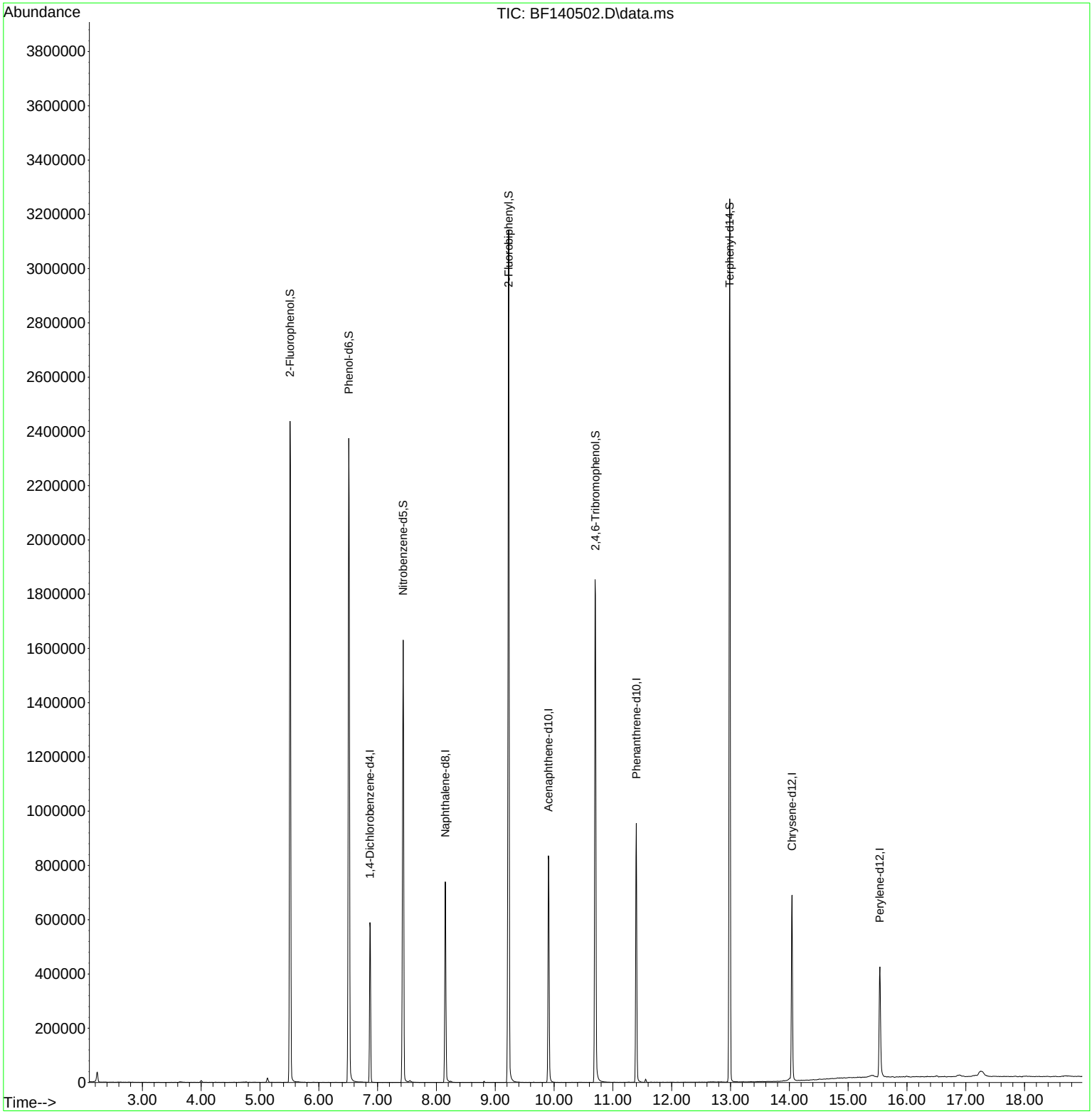
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.869	152	127581	20.000	ng	-0.01
21) Naphthalene-d8	8.151	136	485914	20.000	ng	0.00
39) Acenaphthene-d10	9.904	164	273616	20.000	ng	-0.01
64) Phenanthrene-d10	11.398	188	524410	20.000	ng	0.00
76) Chrysene-d12	14.045	240	336229	20.000	ng	0.00
86) Perylene-d12	15.539	264	269895	20.000	ng	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	5.510	112	929313	124.368	ng	0.02
7) Phenol-d6	6.510	99	1217108	120.223	ng	0.00
23) Nitrobenzene-d5	7.434	82	803231	86.127	ng	0.00
42) 2,4,6-Tribromophenol	10.704	330	349607	128.490	ng	0.00
45) 2-Fluorobiphenyl	9.228	172	1476829	86.767	ng	0.00
79) Terphenyl-d14	12.986	244	1657784	85.584	ng	0.00
Target Compounds						Qvalue

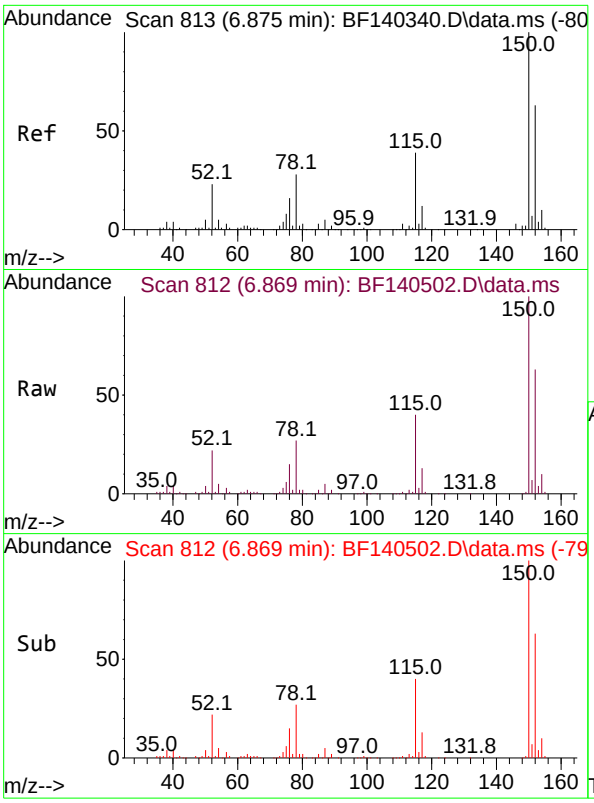
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140502.D
Acq On : 20 Nov 2024 16:25
Operator : RC/JU
Sample : PB165086BL
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
PB165086BL

Quant Time: Nov 20 17:06:00 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration



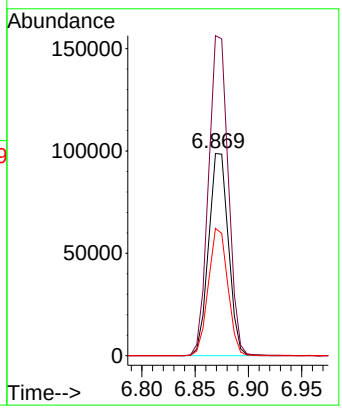


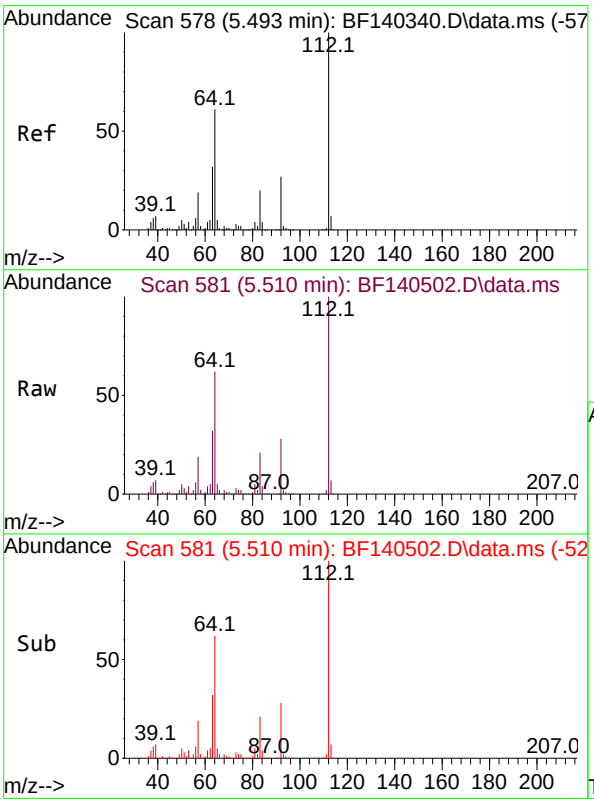
#1
1,4-Dichlorobenzene-d4
Concen: 20.000 ng
RT: 6.869 min Scan# 8
Delta R.T. -0.012 min
Lab File: BF140502.D
Acq: 20 Nov 2024 16:25

Instrument :
BNA_F
ClientSampleId :
PB165086BL

Tgt Ion:152 Resp: 127581

Ion	Ratio	Lower	Upper
152	100		
150	158.2	127.4	191.0
115	63.0	47.4	71.2

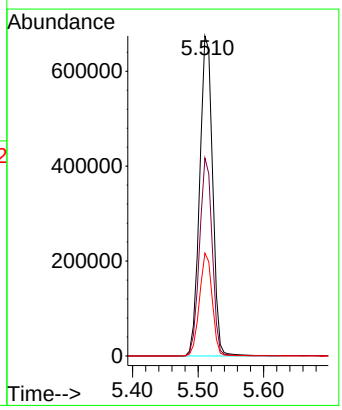


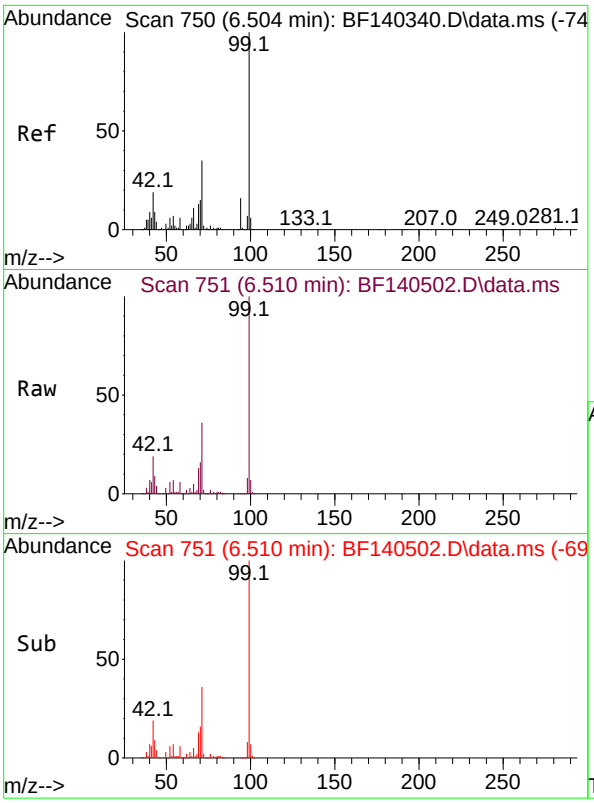


#5
2-Fluorophenol
Concen: 124.368 ng
RT: 5.510 min Scan# 581
Delta R.T. 0.018 min
Lab File: BF140502.D
Acq: 20 Nov 2024 16:25

Tgt Ion:112 Resp: 929313

Ion	Ratio	Lower	Upper
112	100		
64	61.9	49.2	73.8
63	32.1	25.6	38.4



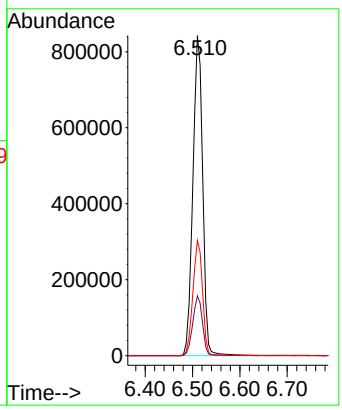


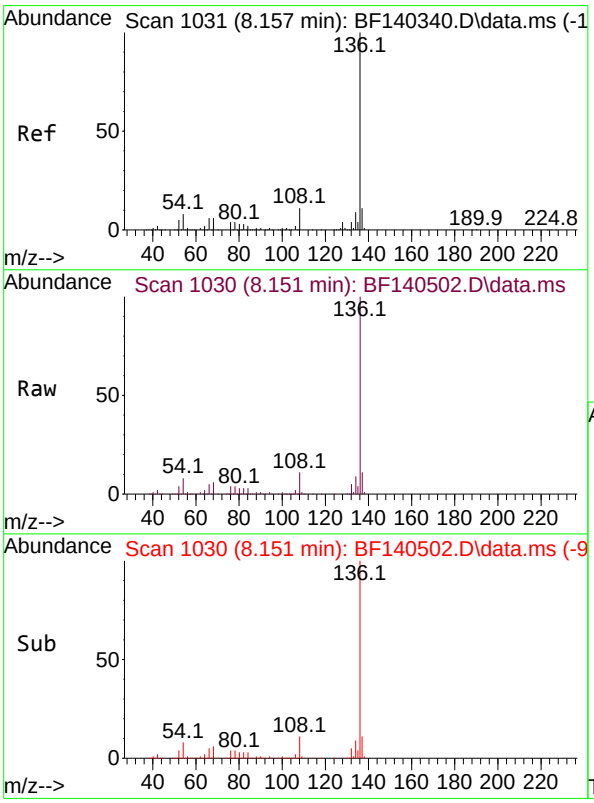
#7
Phenol-d6
Concen: 120.223 ng
RT: 6.510 min Scan# 7
Delta R.T. 0.006 min
Lab File: BF140502.D
Acq: 20 Nov 2024 16:25

Instrument :
BNA_F
ClientSampleId :
PB165086BL

Tgt Ion: 99 Resp: 1217108

Ion	Ratio	Lower	Upper
99	100		
42	18.7	15.1	22.7
71	36.1	27.9	41.9

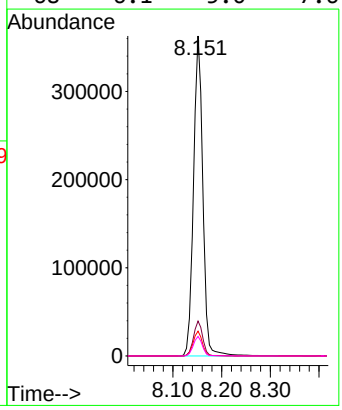


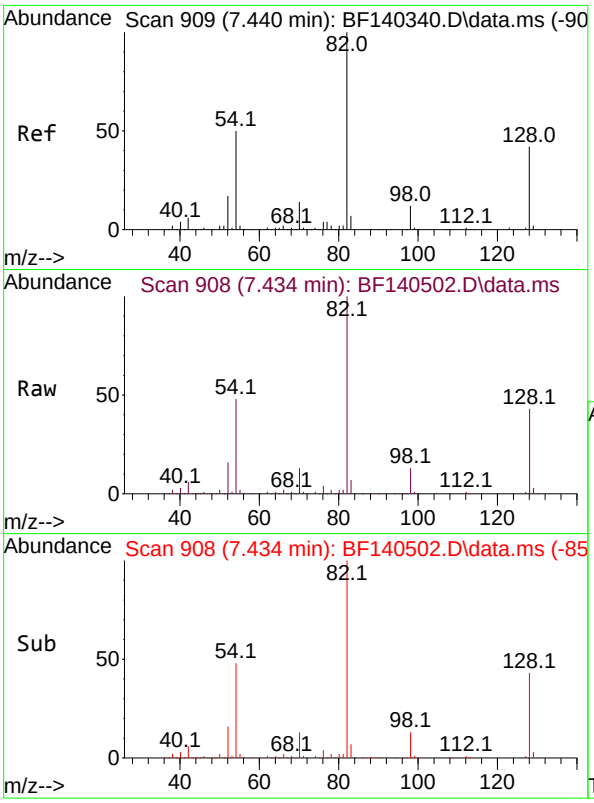


#21
Naphthalene-d8
Concen: 20.000 ng
RT: 8.151 min Scan# 1030
Delta R.T. -0.006 min
Lab File: BF140502.D
Acq: 20 Nov 2024 16:25

Tgt Ion:136 Resp: 485914

Ion	Ratio	Lower	Upper
136	100		
137	10.9	8.7	13.1
54	7.7	6.5	9.7
68	6.1	5.0	7.6



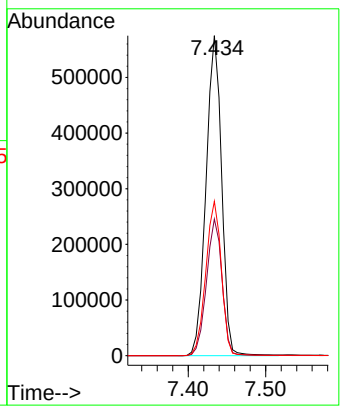


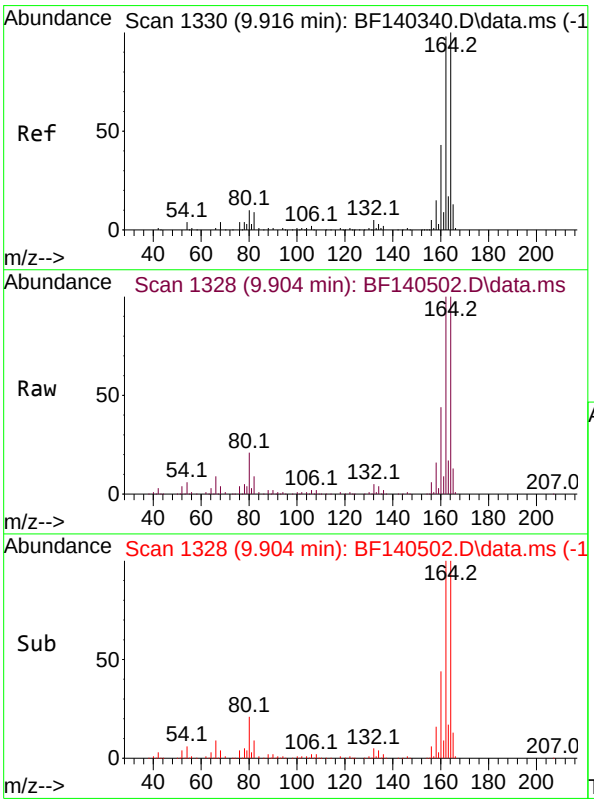
#23
Nitrobenzene-d5
Concen: 86.127 ng
RT: 7.434 min Scan# 9
Delta R.T. -0.006 min
Lab File: BF140502.D
Acq: 20 Nov 2024 16:25

Instrument :
BNA_F
ClientSampleId :
PB165086BL

Tgt Ion: 82 Resp: 803231

Ion	Ratio	Lower	Upper
82	100		
128	42.7	33.3	49.9
54	48.2	39.8	59.8

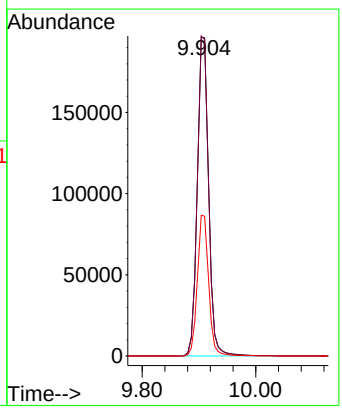


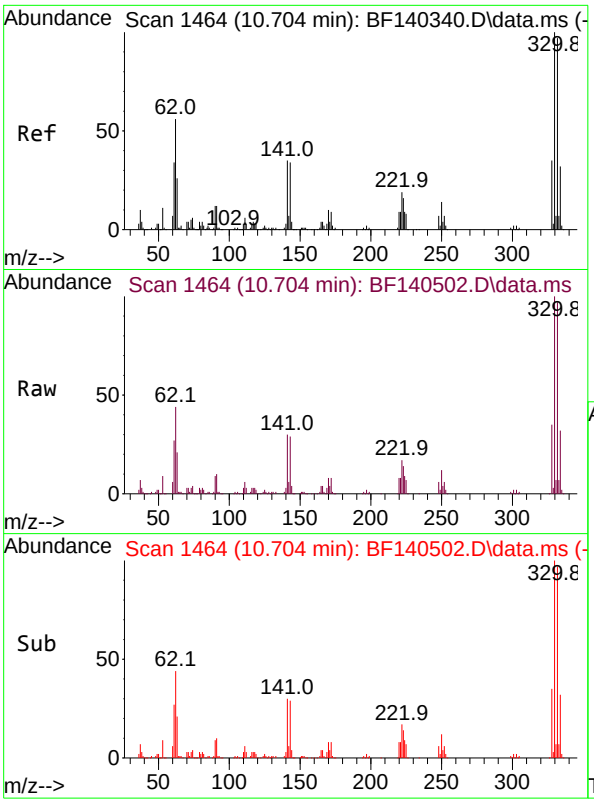


#39
Acenaphthene-d10
Concen: 20.000 ng
RT: 9.904 min Scan# 1328
Delta R.T. -0.012 min
Lab File: BF140502.D
Acq: 20 Nov 2024 16:25

Tgt Ion:164 Resp: 273616

Ion	Ratio	Lower	Upper
164	100		
162	100.3	79.8	119.8
160	44.1	35.4	53.0



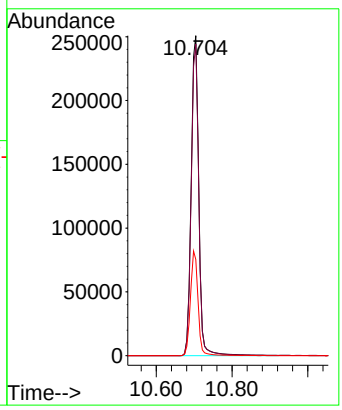


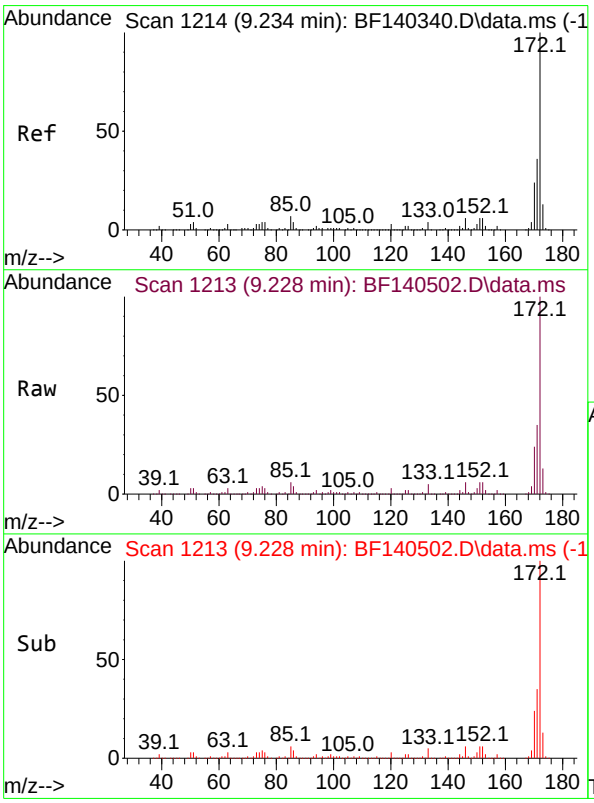
#42
2,4,6-Tribromophenol
Concen: 128.490 ng
RT: 10.704 min Scan# 14
Delta R.T. 0.000 min
Lab File: BF140502.D
Acq: 20 Nov 2024 16:25

Instrument :
BNA_F
ClientSampleId :
PB165086BL

Tgt Ion:330 Resp: 349607

Ion	Ratio	Lower	Upper
330	100		
332	96.8	75.9	113.9
141	32.7	26.9	40.3

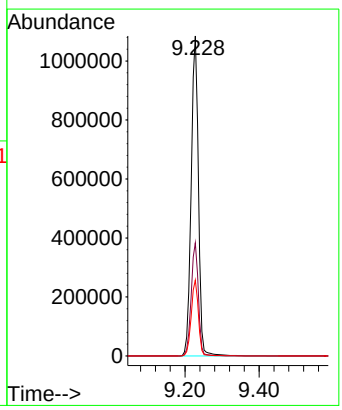


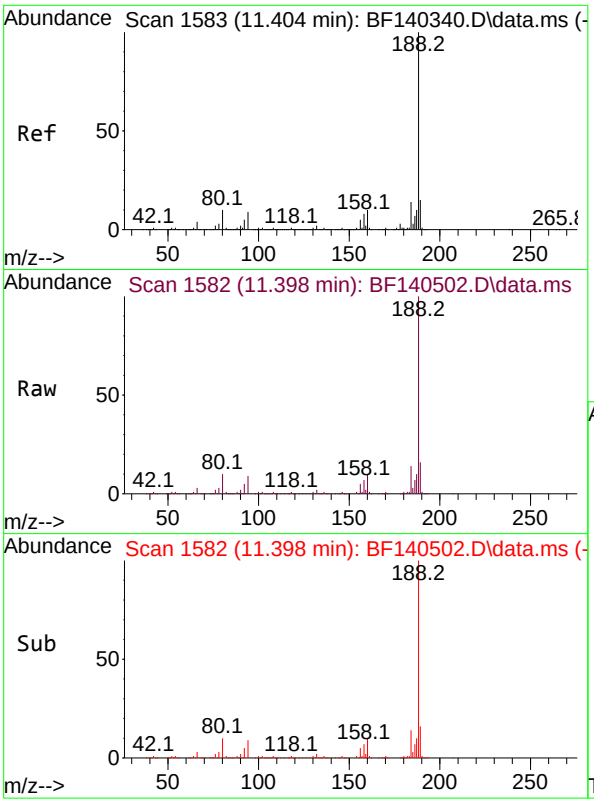


#45
2-Fluorobiphenyl
Concen: 86.767 ng
RT: 9.228 min Scan# 1213
Delta R.T. -0.006 min
Lab File: BF140502.D
Acq: 20 Nov 2024 16:25

Tgt Ion:172 Resp: 1476829

Ion	Ratio	Lower	Upper
172	100		
171	35.4	28.5	42.7
170	23.7	19.1	28.7



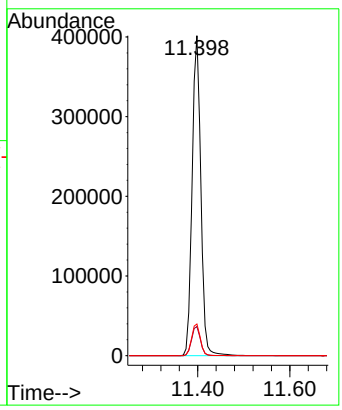


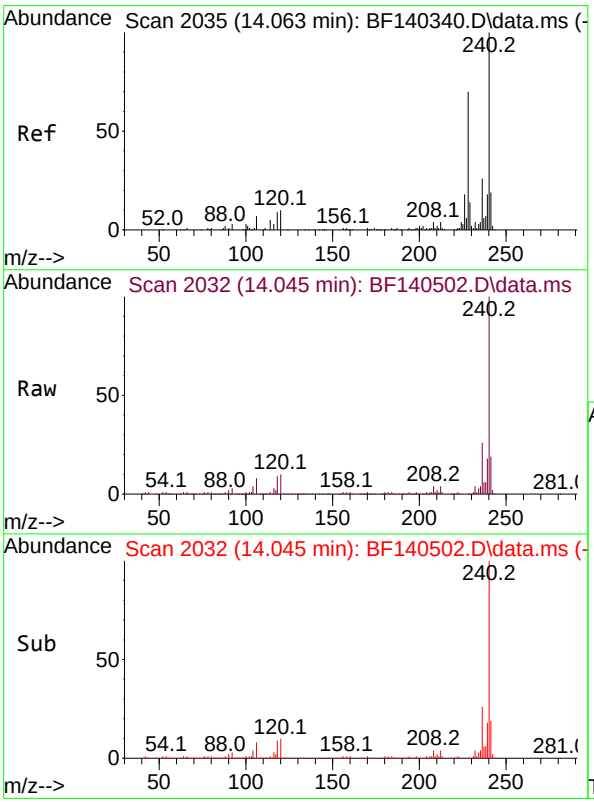
#64
Phenanthrene-d10
Concen: 20.000 ng
RT: 11.398 min Scan# 1
Delta R.T. -0.006 min
Lab File: BF140502.D
Acq: 20 Nov 2024 16:25

Instrument :
BNA_F
ClientSampleId :
PB165086BL

Tgt Ion:188 Resp: 524410

Ion	Ratio	Lower	Upper
188	100		
94	9.1	7.6	11.4
80	9.9	8.0	12.0

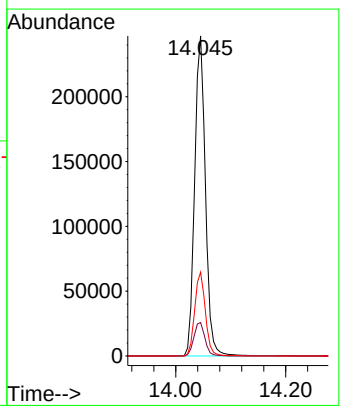


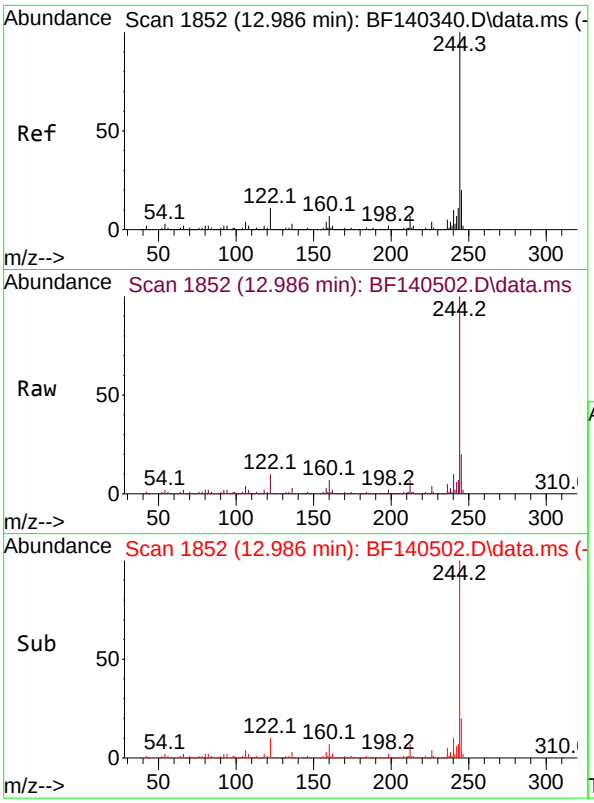


#76
Chrysene-d12
Concen: 20.000 ng
RT: 14.045 min Scan# 2032
Delta R.T. -0.006 min
Lab File: BF140502.D
Acq: 20 Nov 2024 16:25

Tgt Ion:240 Resp: 336229

Ion	Ratio	Lower	Upper
240	100		
120	10.4	8.8	13.2
236	26.2	20.9	31.3



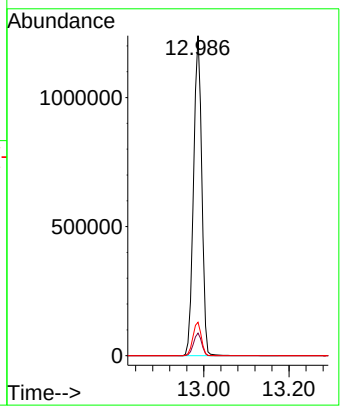


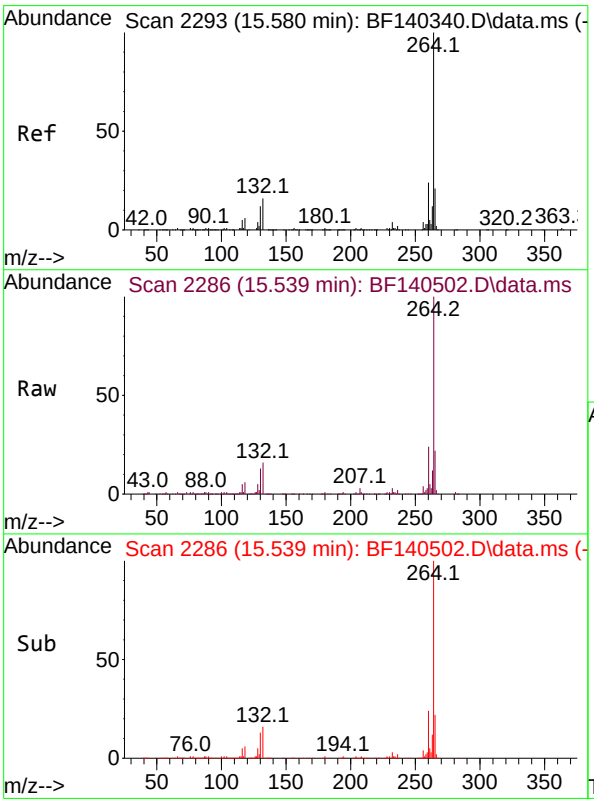
#79
Terphenyl-d14
Concen: 85.584 ng
RT: 12.986 min Scan# 1
Delta R.T. 0.000 min
Lab File: BF140502.D
Acq: 20 Nov 2024 16:25

Instrument :
BNA_F
ClientSampleId :
PB165086BL

Tgt Ion:244 Resp: 1657784

Ion	Ratio	Lower	Upper
244	100		
212	7.0	5.8	8.8
122	10.4	8.8	13.2

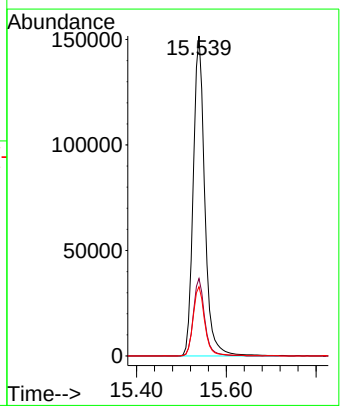




#86
Perylene-d12
Concen: 20.000 ng
RT: 15.539 min Scan# 2286
Delta R.T. -0.018 min
Lab File: BF140502.D
Acq: 20 Nov 2024 16:25

Tgt Ion:264 Resp: 269895

Ion	Ratio	Lower	Upper
264	100		
260	24.2	19.2	28.8
265	21.6	17.1	25.7



Sample Results: **BF140502.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140502.D
Acq On : 20 Nov 2024 16:25
Operator : RC/JU
Sample : PB165086BL
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
PB165086BL

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

Signal : TIC: BF140502.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.234	13	24	33	rVB	36727	68976	1.59%	0.265%
2	5.510	575	581	601	rBV	2436895	3313261	76.37%	12.715%
3	6.510	745	751	772	rBV	2373825	3422684	78.89%	13.135%
4	6.869	807	812	818	rBV	588850	747517	17.23%	2.869%
5	7.434	901	908	913	rBV	1631004	2262765	52.16%	8.684%
6	8.151	1024	1030	1042	rBV	739729	978201	22.55%	3.754%
7	9.228	1206	1213	1239	rBV	3140239	4255047	98.08%	16.329%
8	9.904	1319	1328	1351	rVB	835802	1151952	26.55%	4.421%
9	10.698	1457	1463	1489	rBV	1853447	2633458	60.70%	10.106%
10	11.398	1576	1582	1598	rBV	954304	1240417	28.59%	4.760%
11	12.986	1846	1852	1857	rBV	3254922	4338530	100.00%	16.649%
12	14.045	2026	2032	2048	rVB	683287	933706	21.52%	3.583%
13	15.539	2279	2286	2299	rBV	405830	711575	16.40%	2.731%

Sum of corrected areas: 26058089

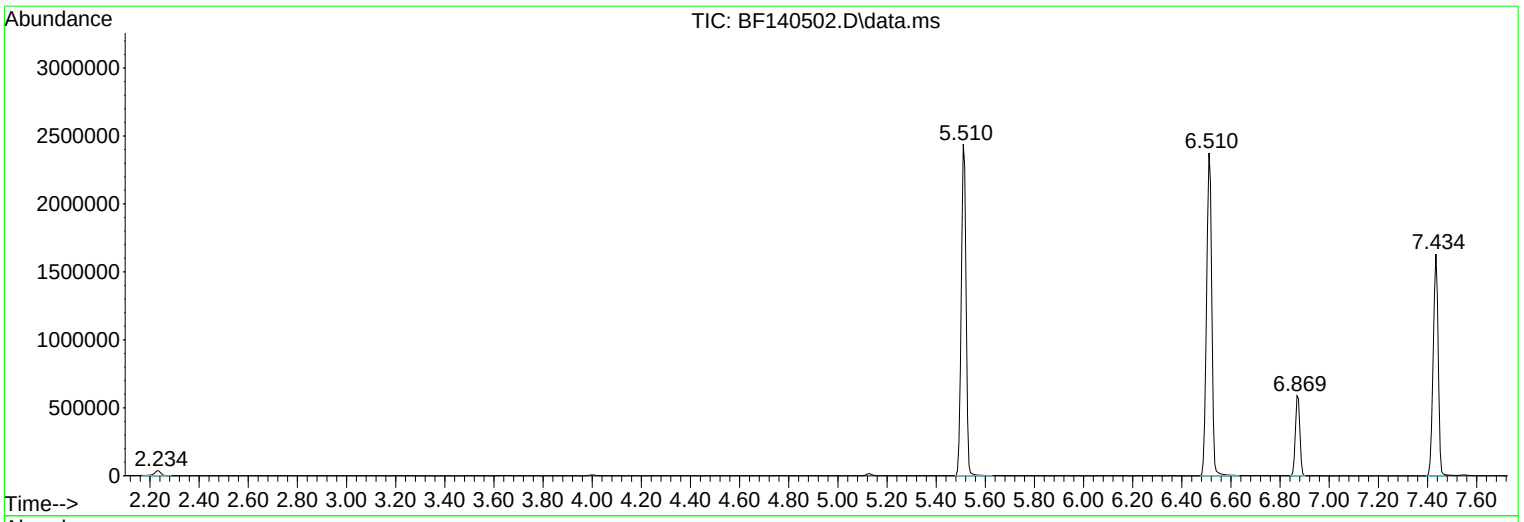
Sample Results: **BF140502.D**

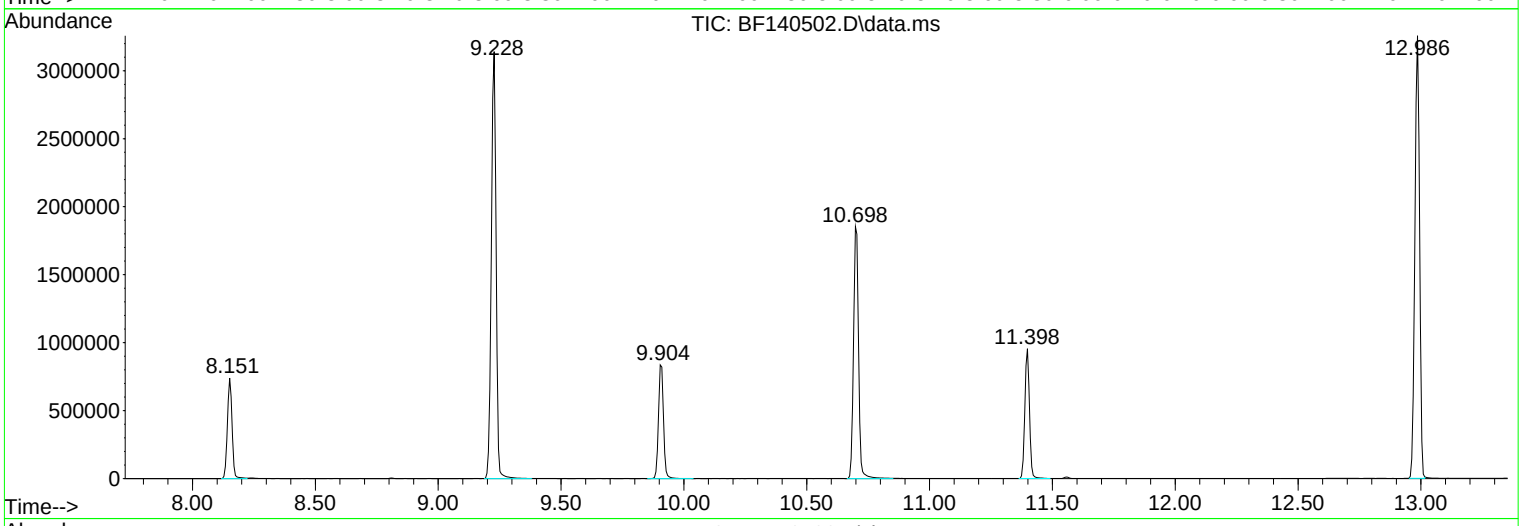
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140502.D
Acq On : 20 Nov 2024 16:25
Operator : RC/JU
Sample : PB165086BL
Misc :
ALS Vial : 3 Sample Multiplier: 1

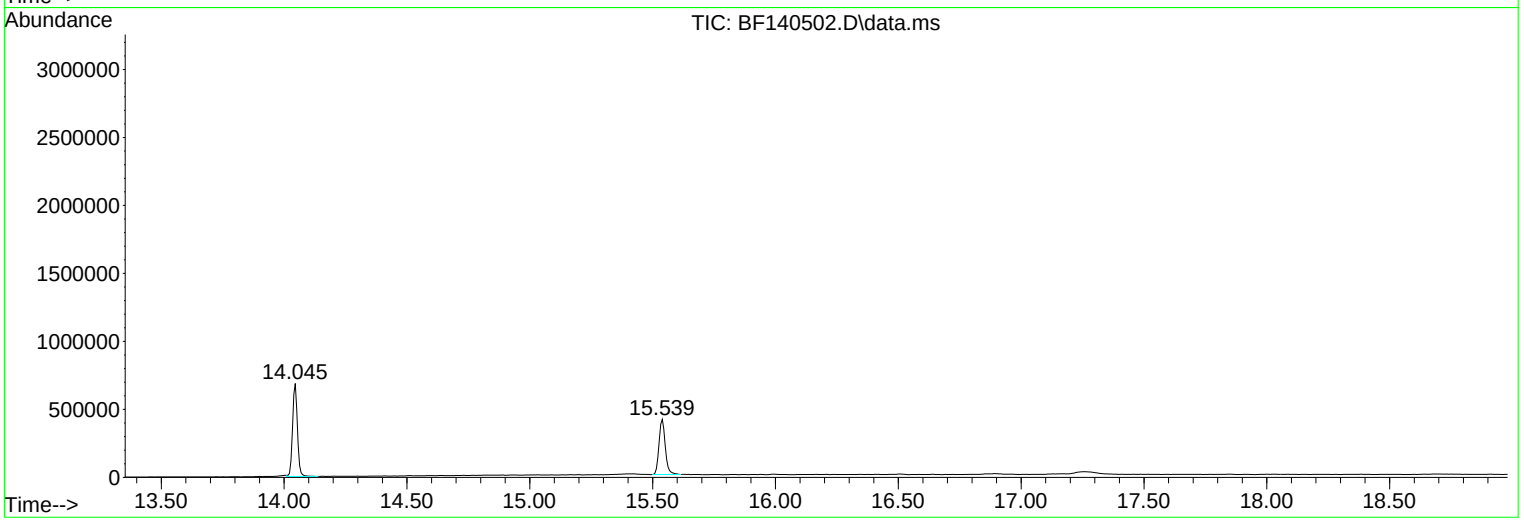
Instrument :
BNA_F
ClientSampleId :
PB165086BL

Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Sample Results: **BF140502.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140502.D
Acq On : 20 Nov 2024 16:25
Operator : RC/JU
Sample : PB165086BL
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
PB165086BL

Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Sample Results: **BF140502.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140502.D
Acq On : 20 Nov 2024 16:25
Operator : RC/JU
Sample : PB165086BL
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
PB165086BL

Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Raw Data: **BF140601.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB165152BL	SDG No.:	P4892
Lab Sample ID:	PB165152BL	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140601.D	1	11/20/24 08:29	11/25/24 14:28	PB165152

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
100-52-7	Benzaldehyde	4.00	U	4.00	10.0	ug/L
108-95-2	Phenol	0.93	U	0.93	5.00	ug/L
111-44-4	bis(2-Chloroethyl)ether	1.20	U	1.20	5.00	ug/L
95-57-8	2-Chlorophenol	0.71	U	0.71	5.00	ug/L
95-48-7	2-Methylphenol	1.10	U	1.10	5.00	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.40	U	1.40	5.00	ug/L
98-86-2	Acetophenone	1.10	U	1.10	5.00	ug/L
65794-96-9	3+4-Methylphenols	1.20	U	1.20	10.0	ug/L
621-64-7	n-Nitroso-di-n-propylamine	1.50	U	1.50	2.50	ug/L
67-72-1	Hexachloroethane	1.00	U	1.00	5.00	ug/L
98-95-3	Nitrobenzene	1.30	U	1.30	5.00	ug/L
78-59-1	Isophorone	1.10	U	1.10	5.00	ug/L
88-75-5	2-Nitrophenol	2.00	U	2.00	5.00	ug/L
105-67-9	2,4-Dimethylphenol	1.50	U	1.50	5.00	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.00	U	1.00	5.00	ug/L
120-83-2	2,4-Dichlorophenol	0.88	U	0.88	5.00	ug/L
91-20-3	Naphthalene	1.00	U	1.00	5.00	ug/L
106-47-8	4-Chloroaniline	1.30	U	1.30	5.00	ug/L
87-68-3	Hexachlorobutadiene	1.30	U	1.30	5.00	ug/L
105-60-2	Caprolactam	1.70	U	1.70	10.0	ug/L
59-50-7	4-Chloro-3-methylphenol	0.84	U	0.84	5.00	ug/L
91-57-6	2-Methylnaphthalene	1.10	U	1.10	5.00	ug/L
77-47-4	Hexachlorocyclopentadiene	5.00	U	5.00	10.0	ug/L
88-06-2	2,4,6-Trichlorophenol	0.89	U	0.89	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	1.00	U	1.00	5.00	ug/L
92-52-4	1,1-Biphenyl	0.91	U	0.91	5.00	ug/L
91-58-7	2-Chloronaphthalene	0.97	U	0.97	5.00	ug/L
88-74-4	2-Nitroaniline	1.40	U	1.40	5.00	ug/L
131-11-3	Dimethylphthalate	0.93	U	0.93	5.00	ug/L

Raw Data: **BF140601.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB165152BL	SDG No.:	P4892
Lab Sample ID:	PB165152BL	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140601.D	1	11/20/24 08:29	11/25/24 14:28	PB165152

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
208-96-8	Acenaphthylene	1.00	U	1.00	5.00	ug/L
606-20-2	2,6-Dinitrotoluene	1.20	U	1.20	5.00	ug/L
99-09-2	3-Nitroaniline	1.40	U	1.40	5.00	ug/L
83-32-9	Acenaphthene	0.81	U	0.81	5.00	ug/L
51-28-5	2,4-Dinitrophenol	6.40	U	6.40	10.0	ug/L
100-02-7	4-Nitrophenol	2.00	U	2.00	10.0	ug/L
132-64-9	Dibenzofuran	0.93	U	0.93	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	1.50	U	1.50	5.00	ug/L
84-66-2	Diethylphthalate	1.00	U	1.00	5.00	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.98	U	0.98	5.00	ug/L
86-73-7	Fluorene	0.96	U	0.96	5.00	ug/L
100-01-6	4-Nitroaniline	2.00	U	2.00	5.00	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	3.10	U	3.10	10.0	ug/L
86-30-6	n-Nitrosodiphenylamine	0.89	U	0.89	5.00	ug/L
101-55-3	4-Bromophenyl-phenylether	0.95	U	0.95	5.00	ug/L
118-74-1	Hexachlorobenzene	1.10	U	1.10	5.00	ug/L
1912-24-9	Atrazine	1.30	U	1.30	5.00	ug/L
87-86-5	Pentachlorophenol	1.90	U	1.90	10.0	ug/L
85-01-8	Phenanthrene	0.89	U	0.89	5.00	ug/L
120-12-7	Anthracene	1.10	U	1.10	5.00	ug/L
86-74-8	Carbazole	1.20	U	1.20	5.00	ug/L
84-74-2	Di-n-butylphthalate	1.50	U	1.50	5.00	ug/L
206-44-0	Fluoranthene	1.30	U	1.30	5.00	ug/L
129-00-0	Pyrene	1.10	U	1.10	5.00	ug/L
85-68-7	Butylbenzylphthalate	2.10	U	2.10	5.00	ug/L
91-94-1	3,3-Dichlorobenzidine	1.30	U	1.30	10.0	ug/L
56-55-3	Benzo(a)anthracene	0.94	U	0.94	5.00	ug/L
218-01-9	Chrysene	0.86	U	0.86	5.00	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	1.90	U	1.90	5.00	ug/L
117-84-0	Di-n-octyl phthalate	2.50	U	2.50	10.0	ug/L
205-99-2	Benzo(b)fluoranthene	1.10	U	1.10	5.00	ug/L

Raw Data: **BF140601.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB165152BL	SDG No.:	P4892
Lab Sample ID:	PB165152BL	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140601.D	1	11/20/24 08:29	11/25/24 14:28	PB165152

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
207-08-9	Benzo(k)fluoranthene	1.20	U	1.20	5.00	ug/L
50-32-8	Benzo(a)pyrene	1.70	U	1.70	5.00	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	1.00	U	1.00	5.00	ug/L
53-70-3	Dibenzo(a,h)anthracene	1.20	U	1.20	5.00	ug/L
191-24-2	Benzo(g,h,i)perylene	1.20	U	1.20	5.00	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	1.10	U	1.10	5.00	ug/L
123-91-1	1,4-Dioxane	1.30	U	1.30	5.00	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	0.79	U	0.79	5.00	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	136		15 (10) - 110 (139)	91%	SPK: 150
13127-88-3	Phenol-d6	131		15 (10) - 110 (134)	87%	SPK: 150
4165-60-0	Nitrobenzene-d5	92.2		30 (49) - 130 (133)	92%	SPK: 100
321-60-8	2-Fluorobiphenyl	93.6		30 (52) - 130 (132)	94%	SPK: 100
118-79-6	2,4,6-Tribromophenol	133		15 (44) - 110 (137)	89%	SPK: 150
1718-51-0	Terphenyl-d14	98.2		30 (48) - 130 (125)	98%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	105000	6.869			
1146-65-2	Naphthalene-d8	390000	8.145			
15067-26-2	Acenaphthene-d10	219000	9.904			
1517-22-2	Phenanthrene-d10	422000	11.398			
1719-03-5	Chrysene-d12	238000	14.057			
1520-96-3	Perylene-d12	201000	15.58			
TENTATIVE IDENTIFIED COMPOUNDS						
000994-05-8	Butane, 2-methoxy-2-methyl-	2.10	J		2.24	ug/L

Raw Data: **BF140601.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB165152BL	SDG No.:	P4892
Lab Sample ID:	PB165152BL	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140601.D	1	11/20/24 08:29	11/25/24 14:28	PB165152

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140601.D
Acq On : 25 Nov 2024 14:28
Operator : RC/JU
Sample : PB165152BL
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
PB165152BL

Quant Time: Nov 25 14:56:23 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

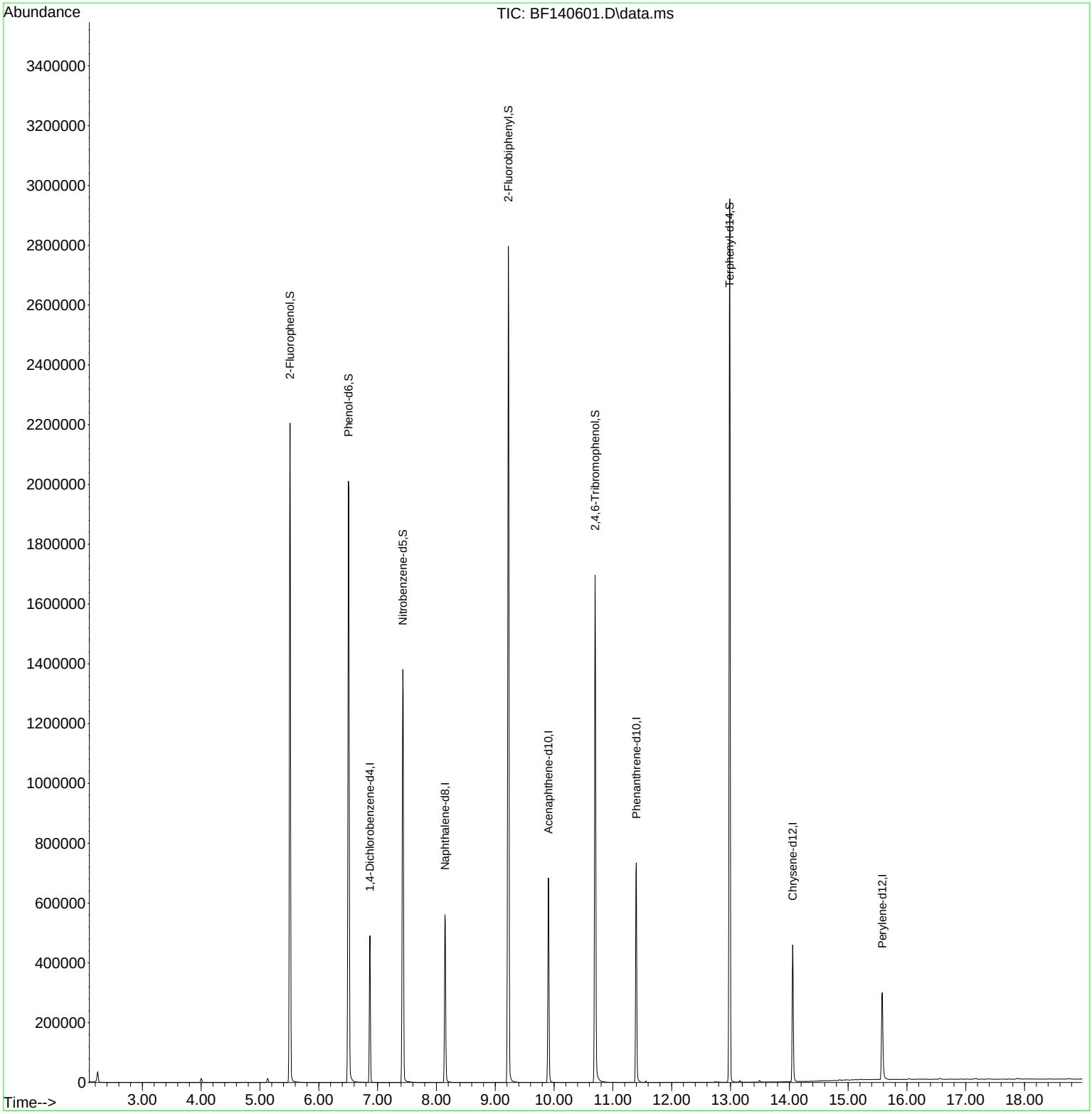
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.869	152	105039	20.000	ng	0.00
21) Naphthalene-d8	8.145	136	390263	20.000	ng	-0.01
39) Acenaphthene-d10	9.904	164	219360	20.000	ng	-0.01
64) Phenanthrene-d10	11.398	188	422337	20.000	ng	0.00
76) Chrysene-d12	14.057	240	238471	20.000	ng	0.00
86) Perylene-d12	15.580	264	201118	20.000	ng	0.04
System Monitoring Compounds						
5) 2-Fluorophenol	5.510	112	839893	136.429	ng	0.01
7) Phenol-d6	6.504	99	1064236	130.762	ng	-0.01
23) Nitrobenzene-d5	7.428	82	703826	92.248	ng	-0.01
42) 2,4,6-Tribromophenol	10.698	330	313171	133.487	ng	0.00
45) 2-Fluorobiphenyl	9.222	172	1378620	93.639	ng	-0.01
79) Terphenyl-d14	12.986	244	1503320	98.161	ng	0.00
Target Compounds						Qvalue

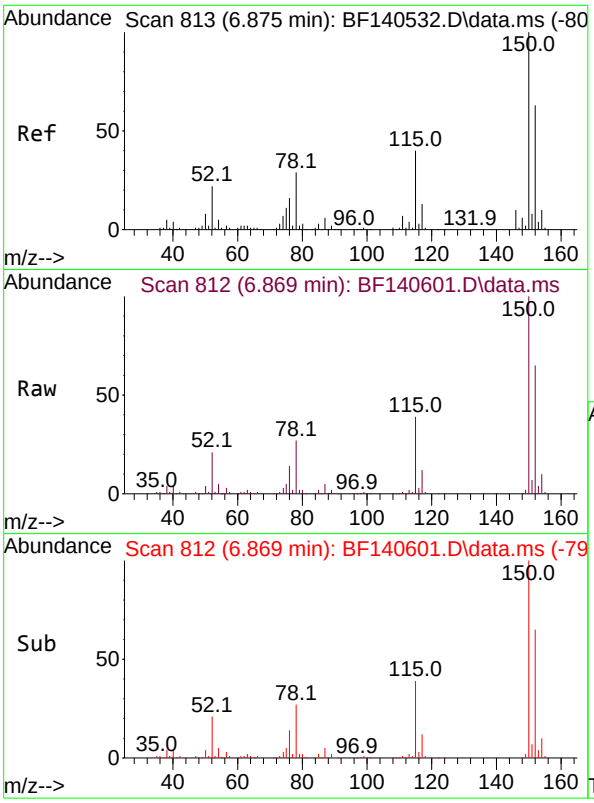
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140601.D
Acq On : 25 Nov 2024 14:28
Operator : RC/JU
Sample : PB165152BL
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
PB165152BL

Quant Time: Nov 25 14:56:23 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration



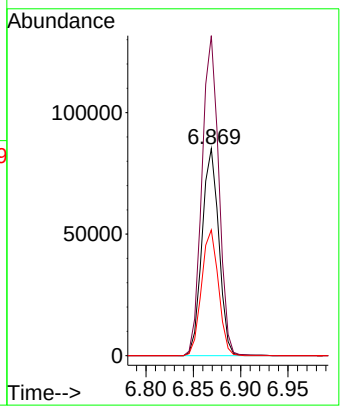


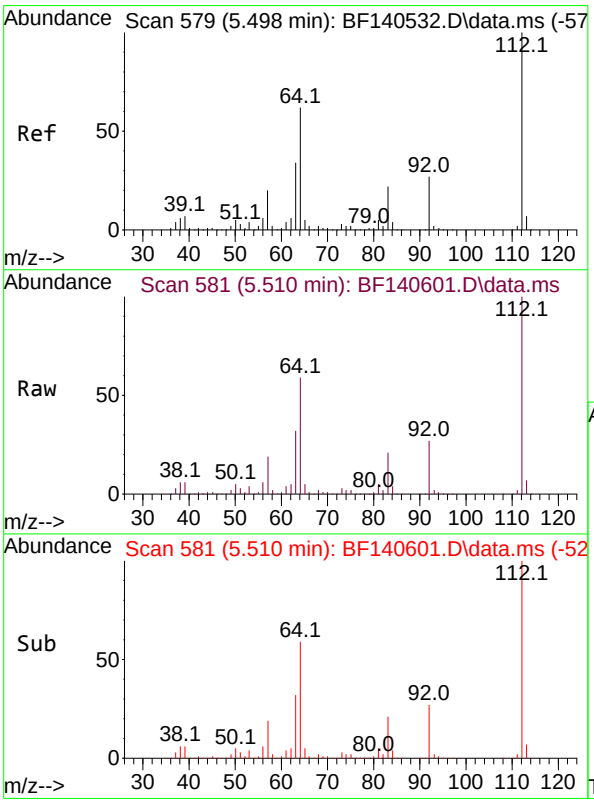
#1
1,4-Dichlorobenzene-d4
Concen: 20.000 ng
RT: 6.869 min Scan# 8
Delta R.T. -0.006 min
Lab File: BF140601.D
Acq: 25 Nov 2024 14:28

Instrument :
BNA_F
ClientSampleId :
PB165152BL

Tgt Ion:152 Resp: 105039

Ion	Ratio	Lower	Upper
152	100		
150	154.5	128.5	192.7
115	60.7	50.2	75.4

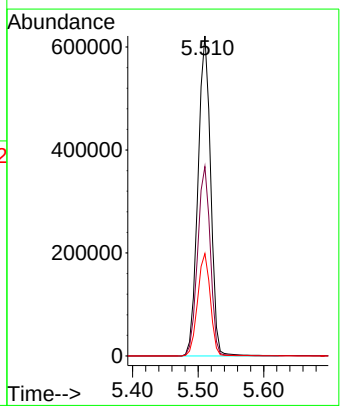


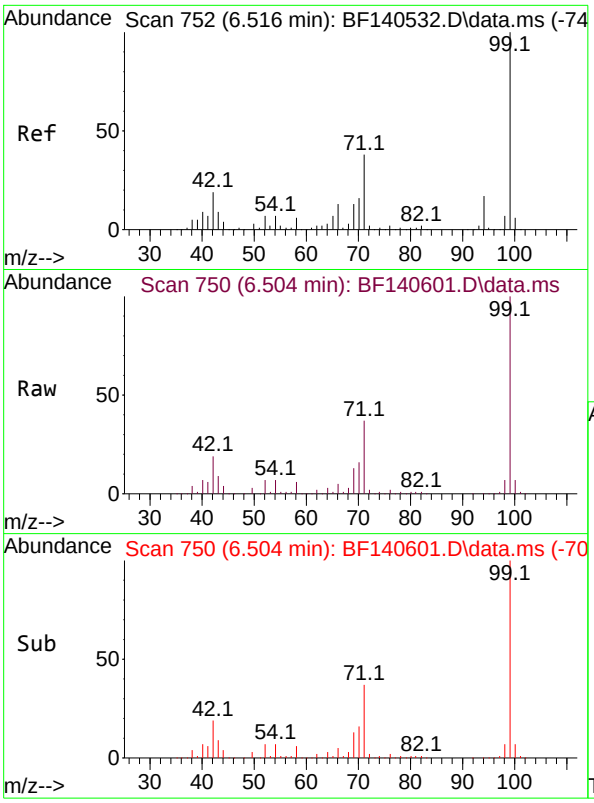


#5
2-Fluorophenol
Concen: 136.429 ng
RT: 5.510 min Scan# 581
Delta R.T. 0.012 min
Lab File: BF140601.D
Acq: 25 Nov 2024 14:28

Tgt Ion:112 Resp: 839893

Ion	Ratio	Lower	Upper
112	100		
64	59.2	49.2	73.8
63	32.0	27.0	40.4



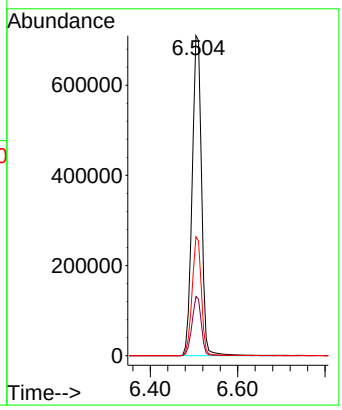


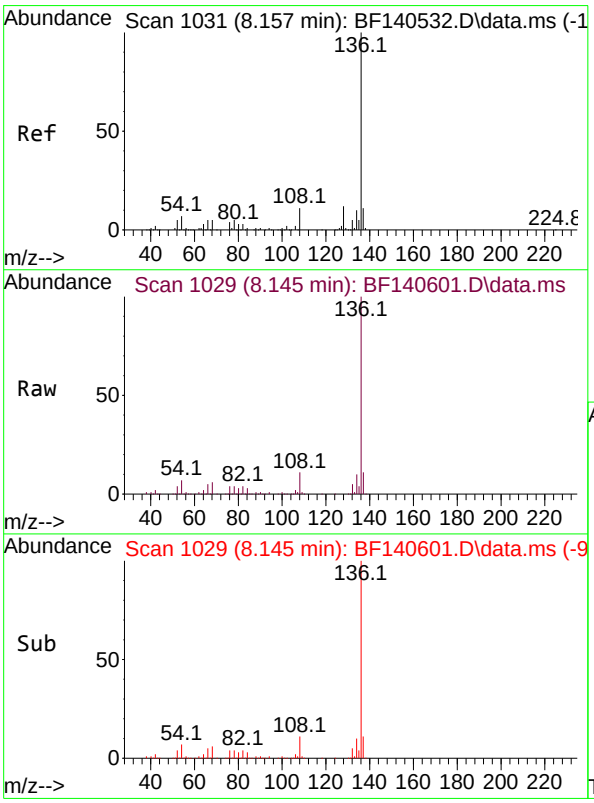
#7
Phenol-d6
Concen: 130.762 ng
RT: 6.504 min Scan# 7
Delta R.T. -0.012 min
Lab File: BF140601.D
Acq: 25 Nov 2024 14:28

Instrument :
BNA_F
ClientSampleId :
PB165152BL

Tgt Ion: 99 Resp: 1064236

Ion	Ratio	Lower	Upper
99	100		
42	18.5	15.4	23.0
71	37.1	30.6	46.0

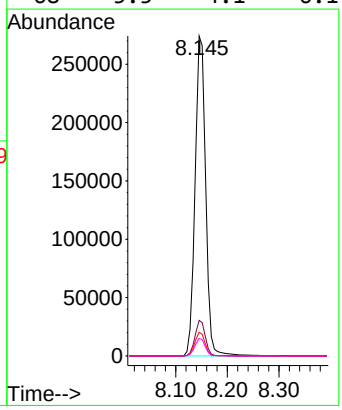


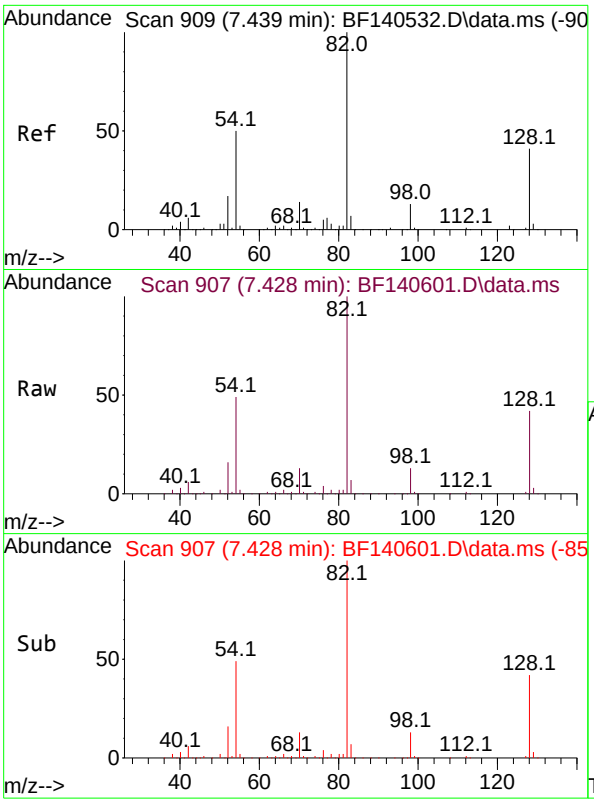


#21
Naphthalene-d8
Concen: 20.000 ng
RT: 8.145 min Scan# 1029
Delta R.T. -0.012 min
Lab File: BF140601.D
Acq: 25 Nov 2024 14:28

Tgt Ion:136 Resp: 390263

Ion	Ratio	Lower	Upper
136	100		
137	11.1	8.6	13.0
54	7.4	5.8	8.8
68	5.5	4.1	6.1



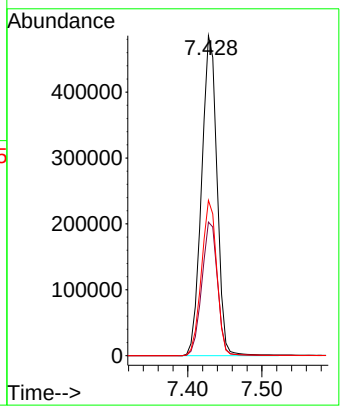


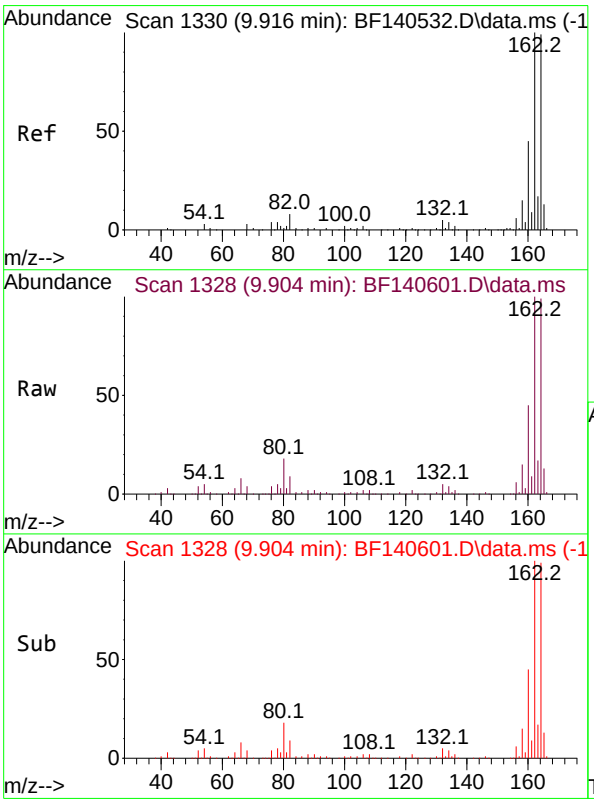
#23
Nitrobenzene-d5
Concen: 92.248 ng
RT: 7.428 min Scan# 9
Delta R.T. -0.012 min
Lab File: BF140601.D
Acq: 25 Nov 2024 14:28

Instrument :
BNA_F
ClientSampleId :
PB165152BL

Tgt Ion: 82 Resp: 703826

Ion	Ratio	Lower	Upper
82	100		
128	41.8	33.0	49.4
54	48.5	39.5	59.3

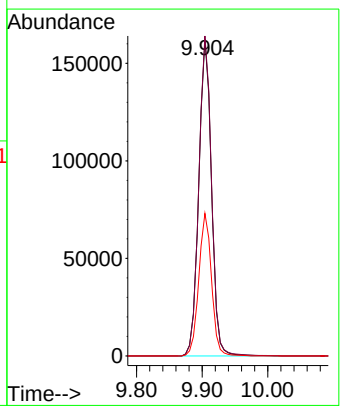


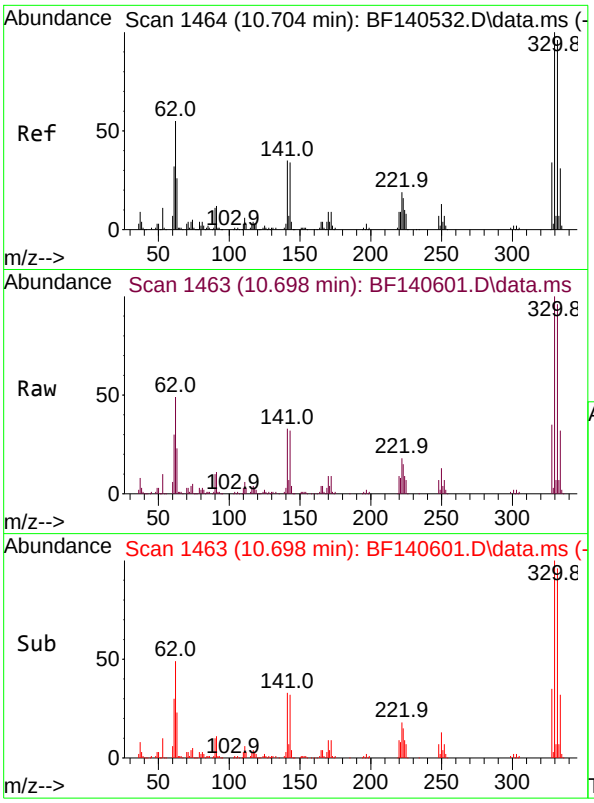


#39
Acenaphthene-d10
Concen: 20.000 ng
RT: 9.904 min Scan# 1328
Delta R.T. -0.012 min
Lab File: BF140601.D
Acq: 25 Nov 2024 14:28

Tgt Ion:164 Resp: 219360

Ion	Ratio	Lower	Upper
164	100		
162	101.1	80.6	120.8
160	45.1	36.2	54.4



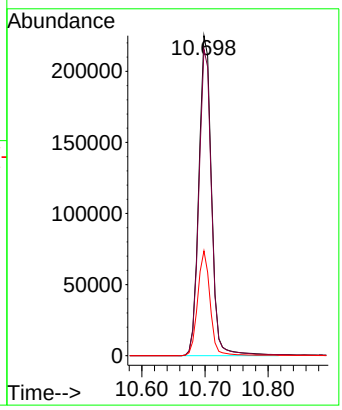


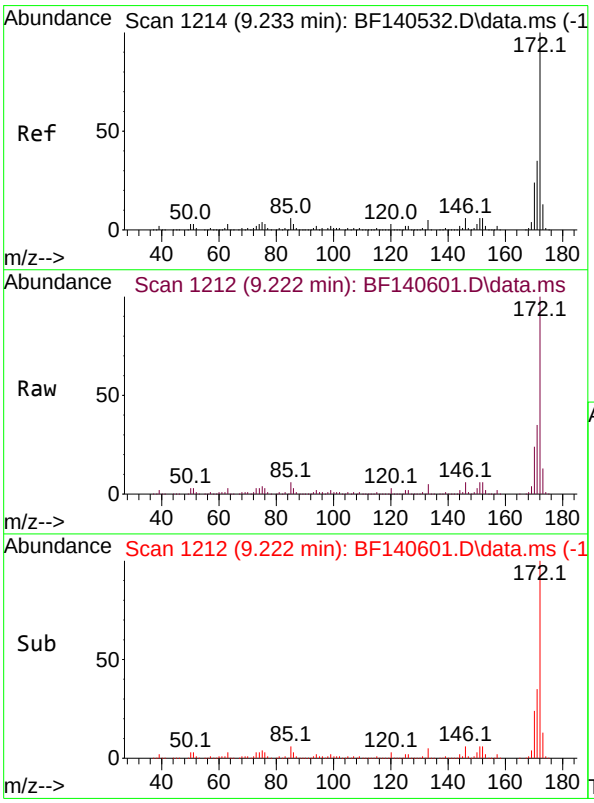
#42
2,4,6-Tribromophenol
Concen: 133.487 ng
RT: 10.698 min Scan# 14
Delta R.T. -0.006 min
Lab File: BF140601.D
Acq: 25 Nov 2024 14:28

Instrument :
BNA_F
ClientSampleId :
PB165152BL

Tgt Ion:330 Resp: 313171

Ion	Ratio	Lower	Upper
330	100		
332	96.4	76.9	115.3
141	32.4	26.7	40.1

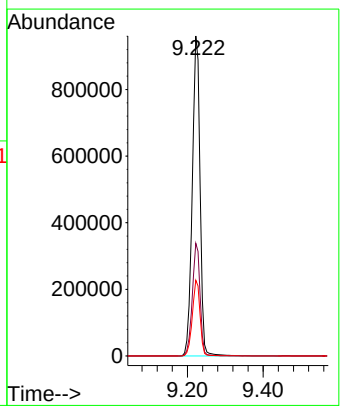


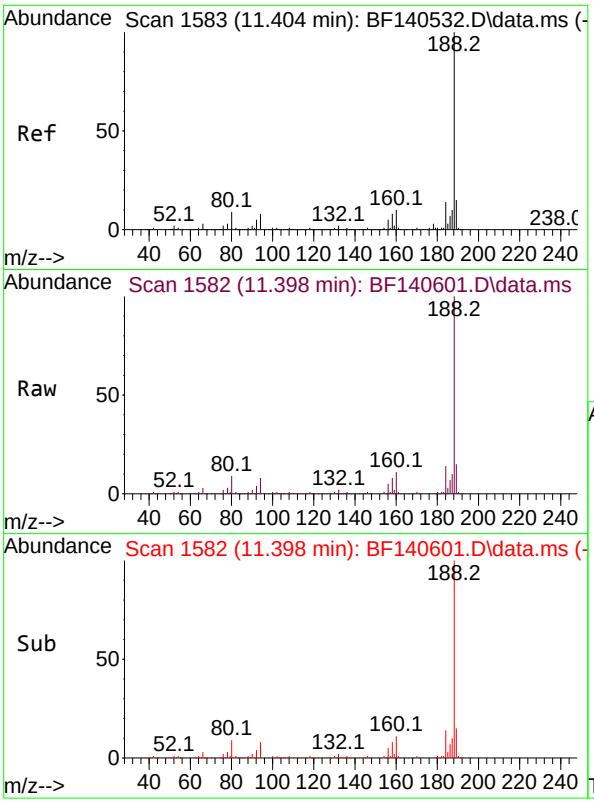


#45
2-Fluorobiphenyl
Concen: 93.639 ng
RT: 9.222 min Scan# 1212
Delta R.T. -0.012 min
Lab File: BF140601.D
Acq: 25 Nov 2024 14:28

Tgt Ion:172 Resp: 1378620

Ion	Ratio	Lower	Upper
172	100		
171	35.2	28.4	42.6
170	23.7	19.0	28.6



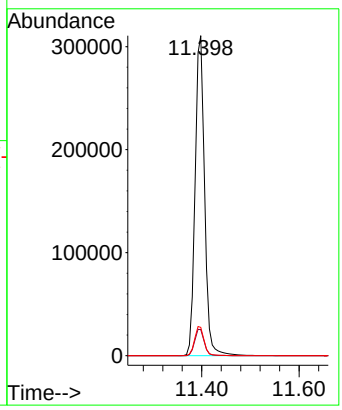


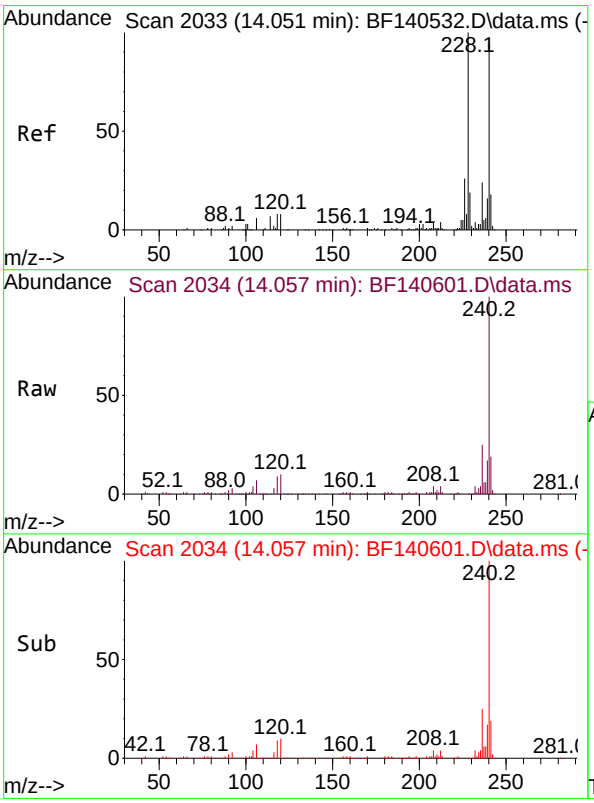
#64
Phenanthrene-d10
Concen: 20.000 ng
RT: 11.398 min Scan# 1
Delta R.T. -0.006 min
Lab File: BF140601.D
Acq: 25 Nov 2024 14:28

Instrument :
BNA_F
ClientSampleId :
PB165152BL

Tgt Ion:188 Resp: 422337

Ion	Ratio	Lower	Upper
188	100		
94	8.2	6.4	9.6
80	8.9	6.9	10.3

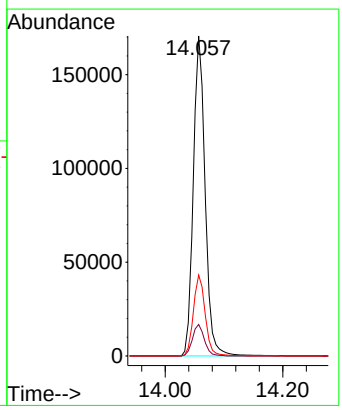


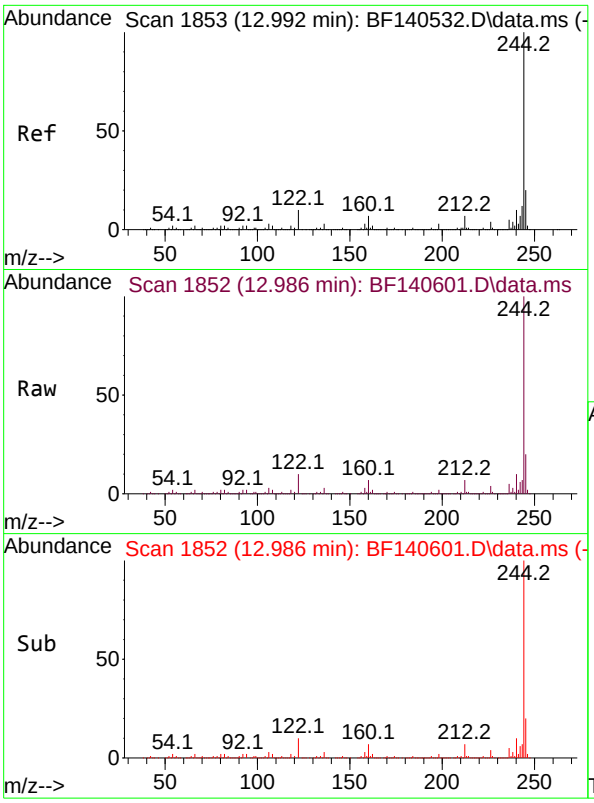


#76
Chrysene-d12
Concen: 20.000 ng
RT: 14.057 min Scan# 2034
Delta R.T. 0.006 min
Lab File: BF140601.D
Acq: 25 Nov 2024 14:28

Tgt Ion:240 Resp: 238471

Ion	Ratio	Lower	Upper
240	100		
120	9.9	7.3	10.9
236	25.3	20.6	31.0



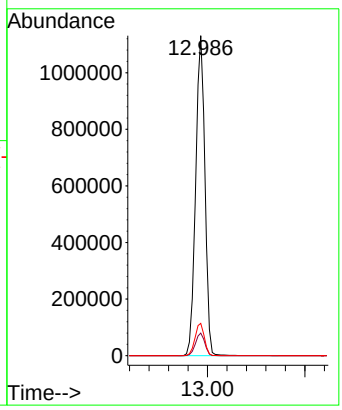


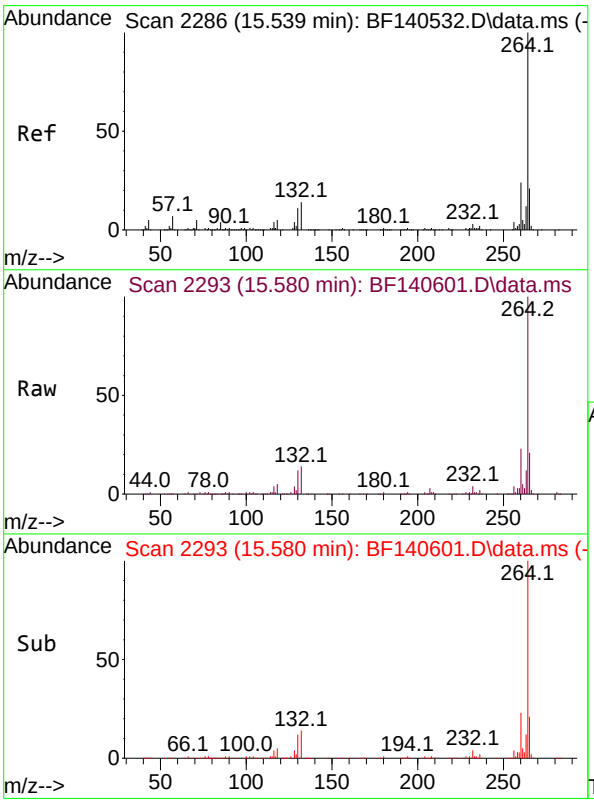
#79
Terphenyl-d14
Concen: 98.161 ng
RT: 12.986 min Scan# 1
Delta R.T. -0.006 min
Lab File: BF140601.D
Acq: 25 Nov 2024 14:28

Instrument :
BNA_F
ClientSampleId :
PB165152BL

Tgt Ion:244 Resp: 1503320

Ion	Ratio	Lower	Upper
244	100		
212	7.0	5.8	8.8
122	10.1	8.0	12.0

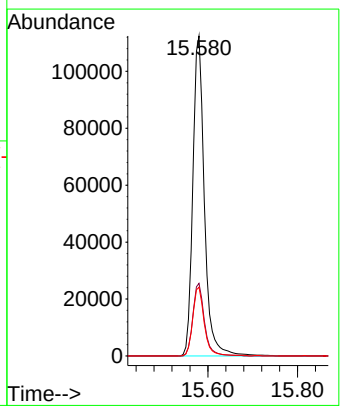




#86
Perylene-d12
Concen: 20.000 ng
RT: 15.580 min Scan# 2293
Delta R.T. 0.041 min
Lab File: BF140601.D
Acq: 25 Nov 2024 14:28

Tgt Ion:264 Resp: 201118

Ion	Ratio	Lower	Upper
264	100		
260	22.7	19.0	28.6
265	21.5	16.6	25.0



Sample Results: **BF140601.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140601.D
Acq On : 25 Nov 2024 14:28
Operator : RC/JU
Sample : PB165152BL
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
PB165152BL

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

Signal : TIC: BF140601.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.240	11	25	32	rVB	34244	63804	1.61%	0.281%
2	5.510	575	581	586	rBV	2204989	2961294	74.74%	13.054%
3	6.504	744	750	770	rBV	2011018	3003080	75.80%	13.238%
4	6.869	807	812	817	rBV	490276	604561	15.26%	2.665%
5	7.428	901	907	924	rBV	1381583	2003501	50.57%	8.832%
6	8.145	1023	1029	1042	rBV	561255	784132	19.79%	3.457%
7	9.222	1205	1212	1243	rBV	2797087	3961932	100.00%	17.465%
8	9.904	1321	1328	1348	rVB	684222	919029	23.20%	4.051%
9	10.698	1457	1463	1488	rBV	1696800	2327294	58.74%	10.259%
10	11.398	1576	1582	1605	rVB	734623	989235	24.97%	4.361%
11	12.986	1846	1852	1857	rBV	2953701	3917606	98.88%	17.270%
12	14.057	2029	2034	2049	rBV	457806	634355	16.01%	2.796%
13	15.580	2286	2293	2313	rBV	290609	514817	12.99%	2.269%

Sum of corrected areas: 22684640

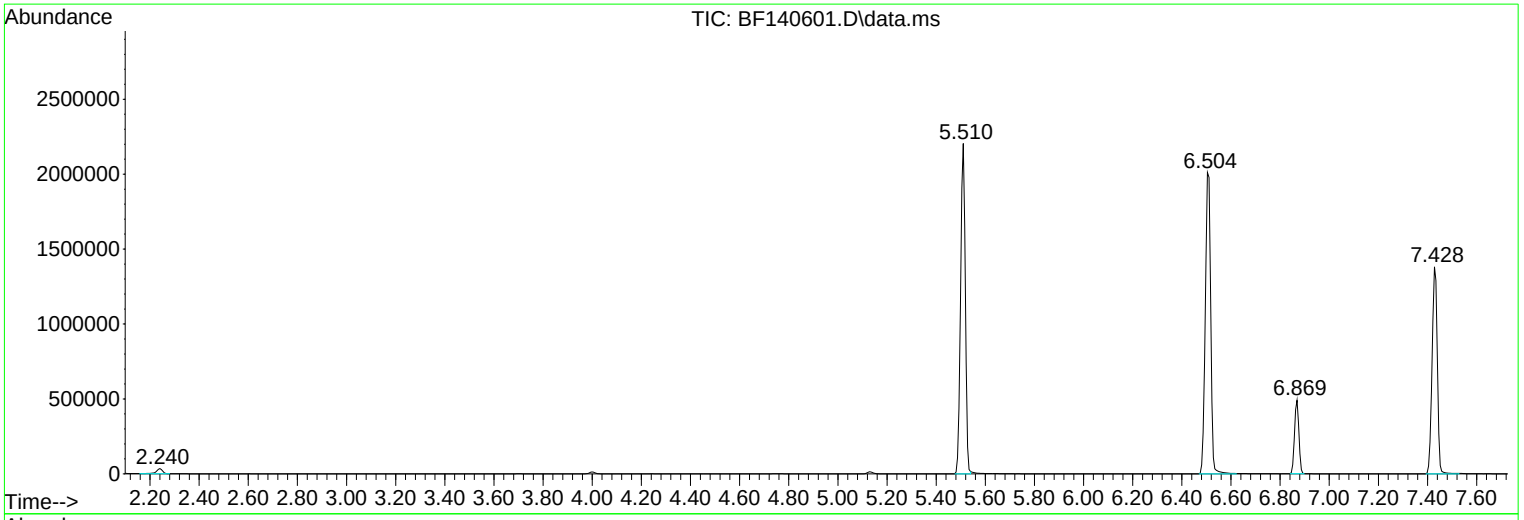
Sample Results: **BF140601.D**

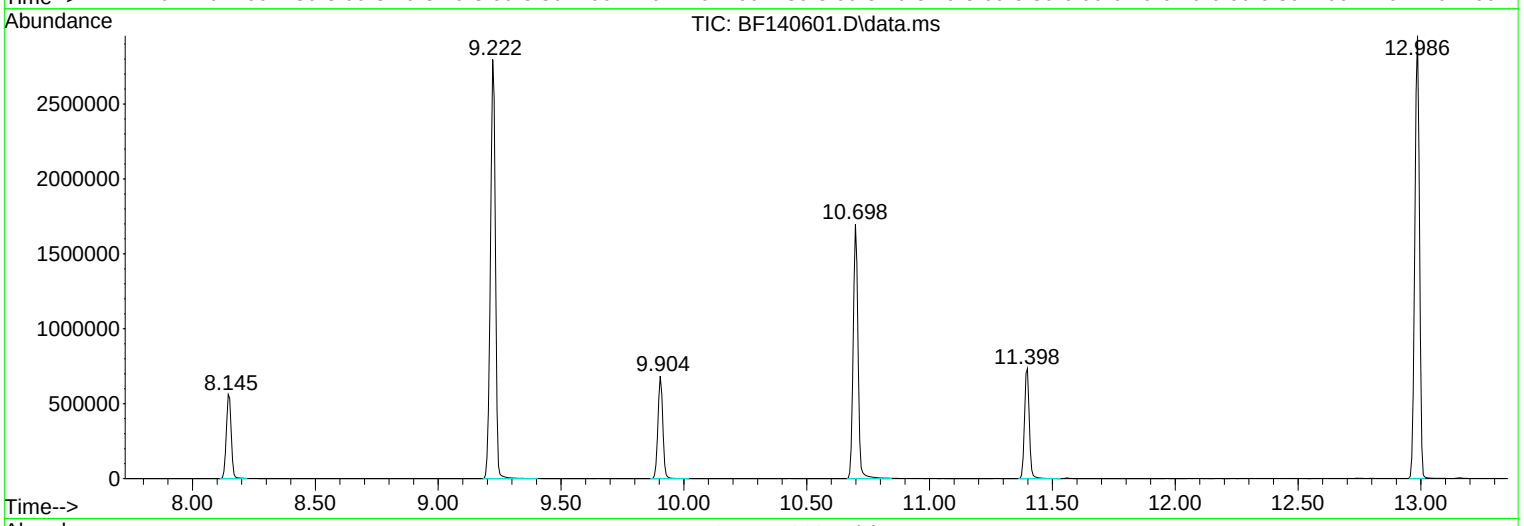
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140601.D
Acq On : 25 Nov 2024 14:28
Operator : RC/JU
Sample : PB165152BL
Misc :
ALS Vial : 13 Sample Multiplier: 1

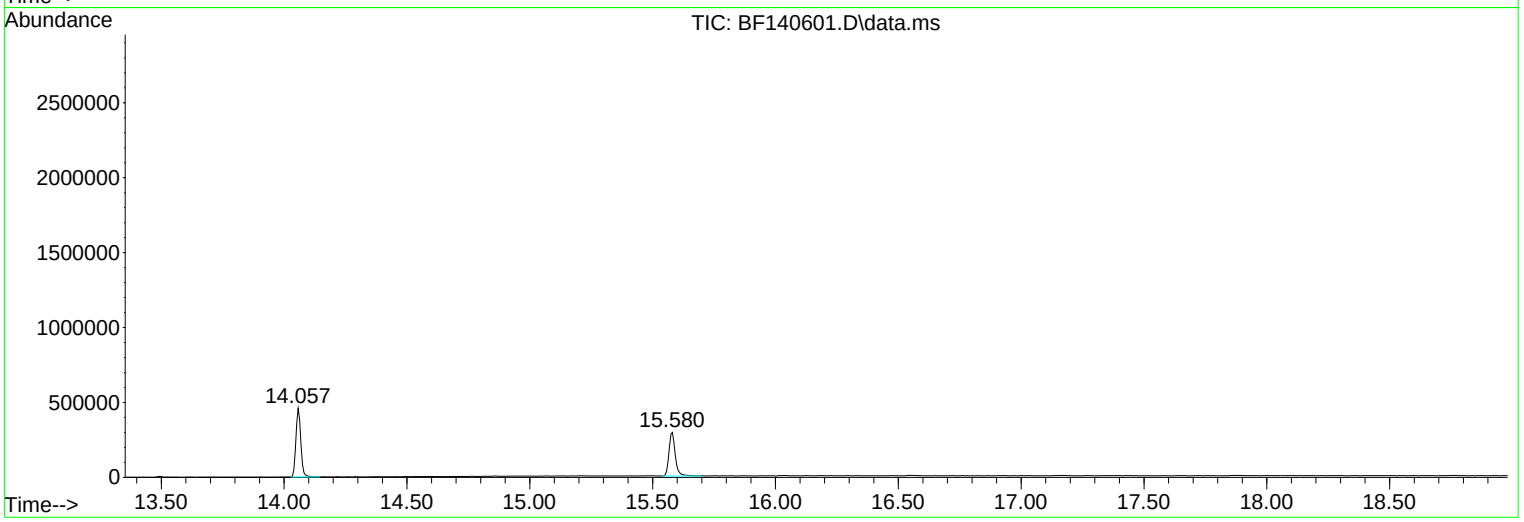
Instrument :
BNA_F
ClientSampleId :
PB165152BL

Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P







Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140601.D
Acq On : 25 Nov 2024 14:28
Operator : RC/JU
Sample : PB165152BL
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
PB165152BL

Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

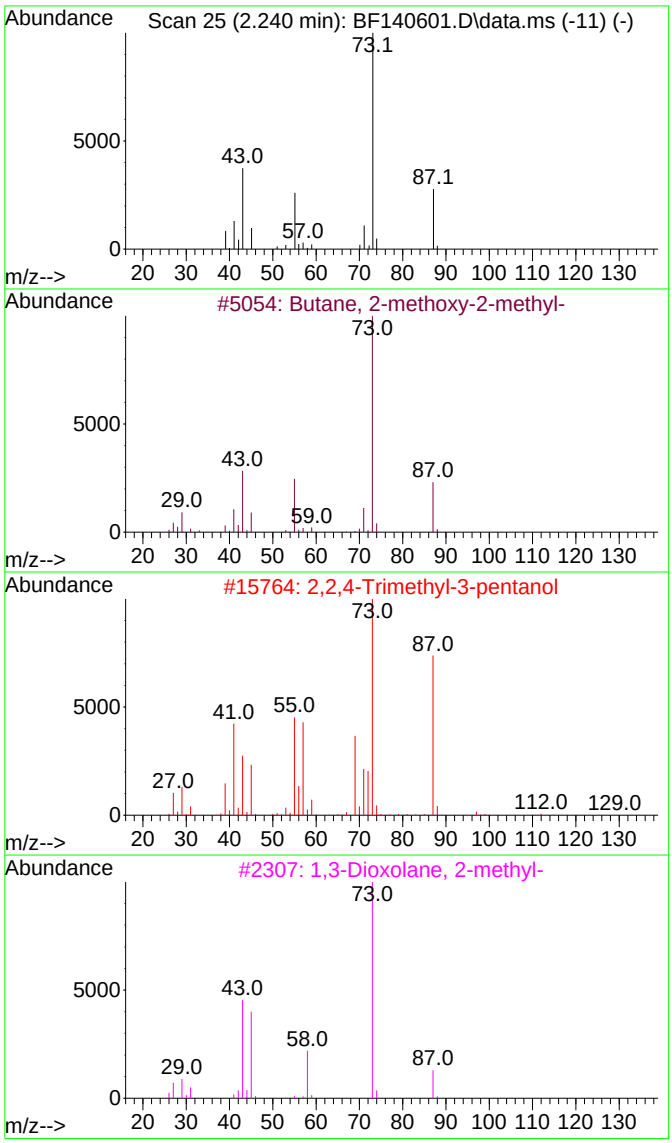
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

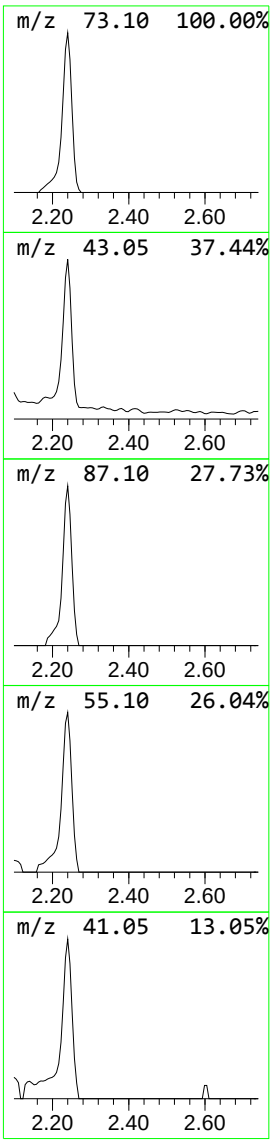
****

Peak Number 1 Butane, 2-methoxy-2-methyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.240	2.11 ng	63804	1,4-Dichlorobenzene-d4	6.869

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methoxy-2-methyl-	102	C6H14O	000994-05-8	78
2	2,2,4-Trimethyl-3-pentanol	130	C8H18O	005162-48-1	40
3	1,3-Dioxolane, 2-methyl-	88	C4H8O2	000497-26-7	25
4	Pentane, 3-methoxy-	102	C6H14O	036839-67-5	17
5	Acetamide, N-ethyl-	87	C4H9NO	000625-50-3	10





Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140601.D
Acq On : 25 Nov 2024 14:28
Operator : RC/JU
Sample : PB165152BL
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
PB165152BL

Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
Butane, 2-metho...	2.240	2.1	ng	63804	1	6.869	604561	20.0

Raw Data: **BF140594.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB165086BS	SDG No.:	P4892
Lab Sample ID:	PB165086BS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140594.D	1	11/19/24 09:00	11/25/24 11:17	PB165086

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	210	J	180	330	ug/Kg
108-95-2	Phenol	1700		82.8	170	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1700		83.6	170	ug/Kg
95-57-8	2-Chlorophenol	1700		83.4	170	ug/Kg
95-48-7	2-Methylphenol	1700		80.5	170	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1800		90.8	170	ug/Kg
98-86-2	Acetophenone	1600		86.8	170	ug/Kg
65794-96-9	3+4-Methylphenols	1700		79.7	330	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	1700		40.3	79.9	ug/Kg
67-72-1	Hexachloroethane	1600		82.9	170	ug/Kg
98-95-3	Nitrobenzene	1600		90.7	170	ug/Kg
78-59-1	Isophorone	1700		84.5	170	ug/Kg
88-75-5	2-Nitrophenol	1700		94.4	170	ug/Kg
105-67-9	2,4-Dimethylphenol	2200		93.1	170	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1700		85.7	170	ug/Kg
120-83-2	2,4-Dichlorophenol	1700		75.4	170	ug/Kg
91-20-3	Naphthalene	1600		82.5	170	ug/Kg
106-47-8	4-Chloroaniline	840		82.5	170	ug/Kg
87-68-3	Hexachlorobutadiene	1600		83.2	170	ug/Kg
105-60-2	Caprolactam	1600		86.7	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1700		77.4	170	ug/Kg
91-57-6	2-Methylnaphthalene	1700		82.4	170	ug/Kg
77-47-4	Hexachlorocyclopentadiene	6200	E	160	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1700		71.4	170	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1600		74.0	170	ug/Kg
92-52-4	1,1-Biphenyl	1600		87.3	170	ug/Kg
91-58-7	2-Chloronaphthalene	1600		83.2	170	ug/Kg
88-74-4	2-Nitroaniline	1600		94.9	170	ug/Kg
131-11-3	Dimethylphthalate	1700		81.6	170	ug/Kg

Raw Data: **BF140594.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB165086BS	SDG No.:	P4892
Lab Sample ID:	PB165086BS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140594.D	1	11/19/24 09:00	11/25/24 11:17	PB165086

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	1700		86.4	170	ug/Kg
606-20-2	2,6-Dinitrotoluene	1600		83.1	170	ug/Kg
99-09-2	3-Nitroaniline	1100		89.1	170	ug/Kg
83-32-9	Acenaphthene	1700		81.0	170	ug/Kg
51-28-5	2,4-Dinitrophenol	2900	E	240	330	ug/Kg
100-02-7	4-Nitrophenol	3300	E	120	330	ug/Kg
132-64-9	Dibenzofuran	1600		84.3	170	ug/Kg
121-14-2	2,4-Dinitrotoluene	1700		86.1	170	ug/Kg
84-66-2	Diethylphthalate	1700		80.0	170	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1700		85.5	170	ug/Kg
86-73-7	Fluorene	1600		85.4	170	ug/Kg
100-01-6	4-Nitroaniline	1600		110	170	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1800		120	330	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1700		81.5	170	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1600		78.8	170	ug/Kg
118-74-1	Hexachlorobenzene	1600		84.9	170	ug/Kg
1912-24-9	Atrazine	1900		91.3	170	ug/Kg
87-86-5	Pentachlorophenol	3400	E	77.2	330	ug/Kg
85-01-8	Phenanthrene	1700		83.9	170	ug/Kg
120-12-7	Anthracene	1800		84.3	170	ug/Kg
86-74-8	Carbazole	1700		80.2	170	ug/Kg
84-74-2	Di-n-butylphthalate	1700		84.2	170	ug/Kg
206-44-0	Fluoranthene	1700		81.6	170	ug/Kg
129-00-0	Pyrene	1600		82.9	170	ug/Kg
85-68-7	Butylbenzylphthalate	1700		96.7	170	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1100		98.5	330	ug/Kg
56-55-3	Benzo(a)anthracene	1700		80.6	170	ug/Kg
218-01-9	Chrysene	1700		79.4	170	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	1800		90.9	170	ug/Kg
117-84-0	Di-n-octyl phthalate	1900		110	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	1700		81.0	170	ug/Kg

Raw Data: **BF140594.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB165086BS	SDG No.:	P4892
Lab Sample ID:	PB165086BS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140594.D	1	11/19/24 09:00	11/25/24 11:17	PB165086

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1700		82.5	170	ug/Kg
50-32-8	Benzo(a)pyrene	1800		92.9	170	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1700		78.0	170	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1700		81.1	170	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1500		80.0	170	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1600		86.7	170	ug/Kg
123-91-1	1,4-Dioxane	1500		110	170	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1800		74.7	170	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	141		30 (18) - 130 (112)	94%	SPK: 150
13127-88-3	Phenol-d6	139		30 (15) - 130 (107)	93%	SPK: 150
4165-60-0	Nitrobenzene-d5	95.8		30 (18) - 130 (107)	96%	SPK: 100
321-60-8	2-Fluorobiphenyl	93.3		30 (20) - 130 (109)	93%	SPK: 100
118-79-6	2,4,6-Tribromophenol	143		30 (10) - 130 (116)	95%	SPK: 150
1718-51-0	Terphenyl-d14	96.5		30 (10) - 130 (105)	96%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	95500	6.869			
1146-65-2	Naphthalene-d8	360000	8.151			
15067-26-2	Acenaphthene-d10	204000	9.91			
1517-22-2	Phenanthrene-d10	384000	11.398			
1719-03-5	Chrysene-d12	226000	14.051			
1520-96-3	Perylene-d12	184000	15.551			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140594.D
Acq On : 25 Nov 2024 11:17
Operator : RC/JU
Sample : PB165086BS
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 25 12:10:20 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
PB165086BS

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/27/2024
Supervised By :mohammad ahmed 11/27/2024

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.869	152	95461	20.000	ng		0.00
21) Naphthalene-d8	8.151	136	360433	20.000	ng		0.00
39) Acenaphthene-d10	9.910	164	204239	20.000	ng		0.00
64) Phenanthrene-d10	11.398	188	384268	20.000	ng		0.00
76) Chrysene-d12	14.051	240	226332	20.000	ng		0.00
86) Perylene-d12	15.551	264	183684	20.000	ng		0.01
System Monitoring Compounds							
5) 2-Fluorophenol	5.516	112	786656	140.602	ng		0.02
7) Phenol-d6	6.516	99	1028062	138.991	ng		0.00
23) Nitrobenzene-d5	7.434	82	675051	95.799	ng		0.00
42) 2,4,6-Tribromophenol	10.704	330	312581	143.100	ng		0.00
45) 2-Fluorobiphenyl	9.228	172	1279048	93.308	ng		0.00
79) Terphenyl-d14	12.986	244	1402340	96.479	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	2.758	88	106907	45.447	ng		97
3) Pyridine	3.516	79	270543	52.271	ng		100
4) n-Nitrosodimethylamine	3.469	42	148775	48.908	ng		93
6) Aniline	6.534	93	264036	50.716	ng	#	78
8) 2-Chlorophenol	6.663	128	315221	52.369	ng		96
9) Benzaldehyde	6.422	77	24983	6.380	ng		98
10) Phenol	6.528	94	387598	51.312	ng		99
11) bis(2-Chloroethyl)ether	6.604	93	295208	51.071	ng		99
12) 1,3-Dichlorobenzene	6.810	146	325129	48.071	ng		99
13) 1,4-Dichlorobenzene	6.887	146	325939	47.594	ng		100
14) 1,2-Dichlorobenzene	7.040	146	313851	48.908	ng		100
15) Benzyl Alcohol	7.016	79	288141	52.530	ng		98
16) 2,2'-oxybis(1-Chloropr...	7.140	45	360776	52.831	ng		89
17) 2-Methylphenol	7.128	107	249475	51.776	ng		98
18) Hexachloroethane	7.381	117	121736	47.595	ng		100
19) n-Nitroso-di-n-propyla...	7.281	70	221858	50.752	ng		99
20) 3+4-Methylphenols	7.281	107	318248	51.386	ng		98
22) Acetophenone	7.281	105	429201	48.844	ng		99
24) Nitrobenzene	7.451	77	342592	47.041	ng		99
25) Isophorone	7.692	82	612974	52.154	ng		99
26) 2-Nitrophenol	7.769	139	168892	52.330	ng		97
27) 2,4-Dimethylphenol	7.810	122	254935	66.019	ng		98
28) bis(2-Chloroethoxy)met...	7.898	93	364440	50.899	ng		100
29) 2,4-Dichlorophenol	8.016	162	262636	51.328	ng		98
30) 1,2,4-Trichlorobenzene	8.092	180	275345	47.130	ng		99
31) Naphthalene	8.175	128	905626	48.780	ng		100
32) Benzoic acid	7.940	122	154953	46.395	ng		97
33) 4-Chloroaniline	8.222	127	139898	25.168	ng		97
34) Hexachlorobutadiene	8.287	225	180530	46.653	ng		98
35) Caprolactam	8.598	113	78235m	49.406	ng		
36) 4-Chloro-3-methylphenol	8.716	107	286716	50.047	ng		100
37) 2-Methylnaphthalene	8.863	142	593210	50.306	ng		99
38) 1-Methylnaphthalene	8.963	142	556200	48.120	ng		99
40) 1,2,4,5-Tetrachloroben...	9.034	216	289964	48.496	ng		98
41) Hexachlorocyclopentadiene	9.016	237	263786	185.676	ng		98
43) 2,4,6-Trichlorophenol	9.145	196	185930	49.557	ng		100

Sample Results: **BF140594.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140594.D
Acq On : 25 Nov 2024 11:17
Operator : RC/JU
Sample : PB165086BS
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 25 12:10:20 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
PB165086BS

Manual Integrations APPROVED
Reviewed By :Yogesh Patel 11/27/2024
Supervised By :mohammad ahmed 11/27/2024

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.198	196	193087	47.421	ng	96
46) 1,1'-Biphenyl	9.328	154	739237	48.479	ng	100
47) 2-Chloronaphthalene	9.357	162	550668	47.659	ng	99
48) 2-Nitroaniline	9.457	65	181803	49.021	ng	96
49) Acenaphthylene	9.775	152	914236	52.369	ng	100
50) Dimethylphthalate	9.628	163	667700	49.639	ng	100
51) 2,6-Dinitrotoluene	9.698	165	143481	47.033	ng	94
52) Acenaphthene	9.945	154	557453	50.255	ng	98
53) 3-Nitroaniline	9.869	138	98515	33.018	ng	95
54) 2,4-Dinitrophenol	9.981	184	137274	86.212	ng	96
55) Dibenzofuran	10.116	168	834818	49.340	ng	99
56) 4-Nitrophenol	10.045	139	199246	97.917	ng	94
57) 2,4-Dinitrotoluene	10.104	165	201607	49.726	ng	98
58) Fluorene	10.463	166	672115	49.490	ng	100
59) 2,3,4,6-Tetrachlorophenol	10.239	232	170505	54.486	ng	95
60) Diethylphthalate	10.328	149	678334	49.635	ng	100
61) 4-Chlorophenyl-phenyle...	10.451	204	332587	49.901	ng	96
62) 4-Nitroaniline	10.486	138	150568	48.116	ng	97
63) Azobenzene	10.610	77	644651	49.810	ng	99
65) 4,6-Dinitro-2-methylph...	10.516	198	103971	52.948	ng	95
66) n-Nitrosodiphenylamine	10.569	169	572661	50.393	ng	99
67) 4-Bromophenyl-phenylether	10.939	248	194886	49.246	ng	99
68) Hexachlorobenzene	11.010	284	224667	49.030	ng	100
69) Atrazine	11.098	200	184571	57.735	ng	99
70) Pentachlorophenol	11.210	266	204321	101.312	ng	99
71) Phenanthrene	11.428	178	935511	50.647	ng	99
72) Anthracene	11.475	178	955770	52.897	ng	100
73) Carbazole	11.633	167	869481	50.022	ng	100
74) Di-n-butylphthalate	11.951	149	1016934	50.676	ng	100
75) Fluoranthene	12.616	202	1008535	50.288	ng	99
77) Benzidine	12.733	184	235993	35.863	ng	99
78) Pyrene	12.845	202	1028303	49.137	ng	100
80) Butylbenzylphthalate	13.457	149	395492	52.461	ng	100
81) Benzo(a)anthracene	14.039	228	756335	50.482	ng	100
82) 3,3'-Dichlorobenzidine	13.998	252	150175	33.385	ng	99
83) Chrysene	14.080	228	708791	51.738	ng	99
84) Bis(2-ethylhexyl)phtha...	14.016	149	513313	53.923	ng	100
85) Di-n-octyl phthalate	14.651	149	724749	55.710	ng	98
87) Indeno(1,2,3-cd)pyrene	17.068	276	607172	50.722	ng	98
88) Benzo(b)fluoranthene	15.116	252	600609	52.057	ng	99
89) Benzo(k)fluoranthene	15.145	252	520314	51.535	ng	99
90) Benzo(a)pyrene	15.492	252	515240	54.925	ng	99
91) Dibenzo(a,h)anthracene	17.074	278	494149	50.406	ng	99
92) Benzo(g,h,i)perylene	17.515	276	449443	44.927	ng	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

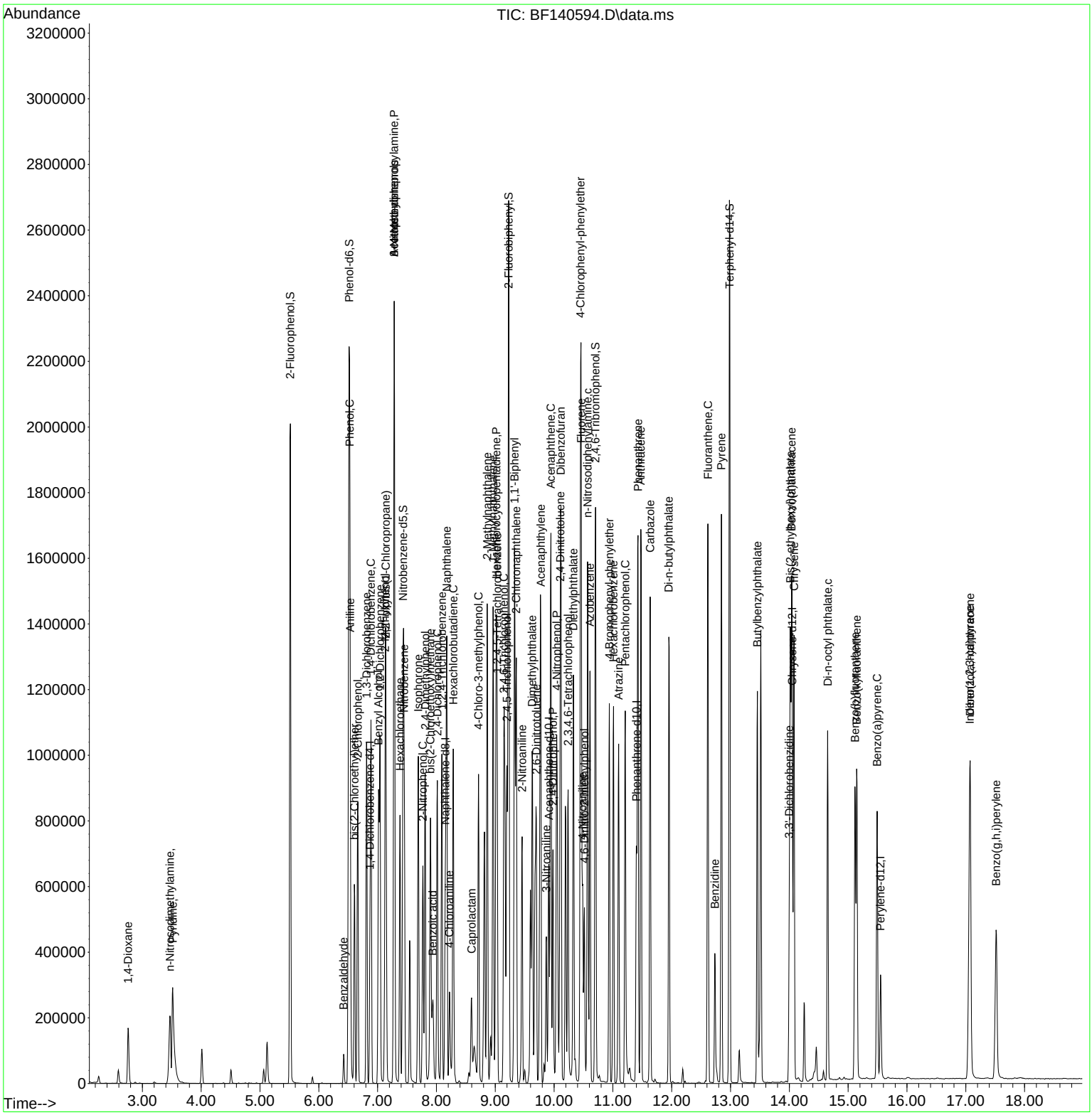
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140594.D
Acq On : 25 Nov 2024 11:17
Operator : RC/JU
Sample : PB165086BS
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 25 12:10:20 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
PB165086BS

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/27/2024
Supervised By :mohammad ahmed 11/27/2024



Raw Data: **BF140598.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB165152BS	SDG No.:	P4892
Lab Sample ID:	PB165152BS	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140598.D	1	11/20/24 08:29	11/25/24 13:02	PB165152

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
100-52-7	Benzaldehyde	38.8		4.00	10.0	ug/L
108-95-2	Phenol	52.3		0.93	5.00	ug/L
111-44-4	bis(2-Chloroethyl)ether	52.0		1.20	5.00	ug/L
95-57-8	2-Chlorophenol	52.9		0.71	5.00	ug/L
95-48-7	2-Methylphenol	52.0		1.10	5.00	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	54.2		1.40	5.00	ug/L
98-86-2	Acetophenone	48.2		1.10	5.00	ug/L
65794-96-9	3+4-Methylphenols	52.1		1.20	10.0	ug/L
621-64-7	n-Nitroso-di-n-propylamine	52.0		1.50	2.50	ug/L
67-72-1	Hexachloroethane	49.8		1.00	5.00	ug/L
98-95-3	Nitrobenzene	46.7		1.30	5.00	ug/L
78-59-1	Isophorone	51.3		1.10	5.00	ug/L
88-75-5	2-Nitrophenol	52.1		2.00	5.00	ug/L
105-67-9	2,4-Dimethylphenol	64.7		1.50	5.00	ug/L
111-91-1	bis(2-Chloroethoxy)methane	50.9		1.00	5.00	ug/L
120-83-2	2,4-Dichlorophenol	51.4		0.88	5.00	ug/L
91-20-3	Naphthalene	48.8		1.00	5.00	ug/L
106-47-8	4-Chloroaniline	22.3		1.30	5.00	ug/L
87-68-3	Hexachlorobutadiene	48.2		1.30	5.00	ug/L
105-60-2	Caprolactam	51.5		1.70	10.0	ug/L
59-50-7	4-Chloro-3-methylphenol	51.3		0.84	5.00	ug/L
91-57-6	2-Methylnaphthalene	50.8		1.10	5.00	ug/L
77-47-4	Hexachlorocyclopentadiene	190	E	5.00	10.0	ug/L
88-06-2	2,4,6-Trichlorophenol	50.9		0.89	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	50.0		1.00	5.00	ug/L
92-52-4	1,1-Biphenyl	49.4		0.91	5.00	ug/L
91-58-7	2-Chloronaphthalene	48.8		0.97	5.00	ug/L
88-74-4	2-Nitroaniline	51.1		1.40	5.00	ug/L
131-11-3	Dimethylphthalate	51.3		0.93	5.00	ug/L

Raw Data: **BF140598.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB165152BS	SDG No.:	P4892
Lab Sample ID:	PB165152BS	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140598.D	1	11/20/24 08:29	11/25/24 13:02	PB165152

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
208-96-8	Acenaphthylene	53.3		1.00	5.00	ug/L
606-20-2	2,6-Dinitrotoluene	49.3		1.20	5.00	ug/L
99-09-2	3-Nitroaniline	32.1		1.40	5.00	ug/L
83-32-9	Acenaphthene	51.2		0.81	5.00	ug/L
51-28-5	2,4-Dinitrophenol	90.8	E	6.40	10.0	ug/L
100-02-7	4-Nitrophenol	100	E	2.00	10.0	ug/L
132-64-9	Dibenzofuran	50.3		0.93	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	49.7		1.50	5.00	ug/L
84-66-2	Diethylphthalate	50.9		1.00	5.00	ug/L
7005-72-3	4-Chlorophenyl-phenylether	49.5		0.98	5.00	ug/L
86-73-7	Fluorene	49.6		0.96	5.00	ug/L
100-01-6	4-Nitroaniline	49.3		2.00	5.00	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	55.9		3.10	10.0	ug/L
86-30-6	n-Nitrosodiphenylamine	51.0		0.89	5.00	ug/L
101-55-3	4-Bromophenyl-phenylether	50.7		0.95	5.00	ug/L
118-74-1	Hexachlorobenzene	50.6		1.10	5.00	ug/L
1912-24-9	Atrazine	61.4		1.30	5.00	ug/L
87-86-5	Pentachlorophenol	100	E	1.90	10.0	ug/L
85-01-8	Phenanthrene	51.7		0.89	5.00	ug/L
120-12-7	Anthracene	54.0		1.10	5.00	ug/L
86-74-8	Carbazole	50.6		1.20	5.00	ug/L
84-74-2	Di-n-butylphthalate	51.5		1.50	5.00	ug/L
206-44-0	Fluoranthene	50.8		1.30	5.00	ug/L
129-00-0	Pyrene	50.7		1.10	5.00	ug/L
85-68-7	Butylbenzylphthalate	53.9		2.10	5.00	ug/L
91-94-1	3,3-Dichlorobenzidine	33.1		1.30	10.0	ug/L
56-55-3	Benzo(a)anthracene	53.6		0.94	5.00	ug/L
218-01-9	Chrysene	51.9		0.86	5.00	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	54.9		1.90	5.00	ug/L
117-84-0	Di-n-octyl phthalate	57.4		2.50	10.0	ug/L
205-99-2	Benzo(b)fluoranthene	50.6		1.10	5.00	ug/L

Raw Data: **BF140598.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB165152BS	SDG No.:	P4892
Lab Sample ID:	PB165152BS	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140598.D	1	11/20/24 08:29	11/25/24 13:02	PB165152

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
207-08-9	Benzo(k)fluoranthene	54.3		1.20	5.00	ug/L
50-32-8	Benzo(a)pyrene	56.3		1.70	5.00	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	50.9		1.00	5.00	ug/L
53-70-3	Dibenzo(a,h)anthracene	50.8		1.20	5.00	ug/L
191-24-2	Benzo(g,h,i)perylene	46.1		1.20	5.00	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	49.0		1.10	5.00	ug/L
123-91-1	1,4-Dioxane	46.3		1.30	5.00	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	55.9		0.79	5.00	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	145		15 (10) - 110 (139)	97%	SPK: 150
13127-88-3	Phenol-d6	143		15 (10) - 110 (134)	95%	SPK: 150
4165-60-0	Nitrobenzene-d5	96.5		30 (49) - 130 (133)	97%	SPK: 100
321-60-8	2-Fluorobiphenyl	96.3		30 (52) - 130 (132)	96%	SPK: 100
118-79-6	2,4,6-Tribromophenol	149		15 (44) - 110 (137)	99%	SPK: 150
1718-51-0	Terphenyl-d14	101		30 (48) - 130 (125)	101%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	99300	6.869			
1146-65-2	Naphthalene-d8	383000	8.151			
15067-26-2	Acenaphthene-d10	214000	9.91			
1517-22-2	Phenanthrene-d10	402000	11.398			
1719-03-5	Chrysene-d12	234000	14.051			
1520-96-3	Perylene-d12	195000	15.557			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Sample Results: **BF140598.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140598.D
Acq On : 25 Nov 2024 13:02
Operator : RC/JU
Sample : PB165152BS
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 25 13:42:08 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
PB165152BS

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/27/2024
Supervised By :mohammad ahmed 11/27/2024

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.869	152	99301	20.000	ng		0.00
21) Naphthalene-d8	8.151	136	382645	20.000	ng		0.00
39) Acenaphthene-d10	9.910	164	214473	20.000	ng		0.00
64) Phenanthrene-d10	11.398	188	401581	20.000	ng		0.00
76) Chrysene-d12	14.051	240	233962	20.000	ng		0.00
86) Perylene-d12	15.557	264	195258	20.000	ng		0.02
System Monitoring Compounds							
5) 2-Fluorophenol	5.516	112	846159	145.389	ng		0.02
7) Phenol-d6	6.516	99	1097124	142.592	ng		0.00
23) Nitrobenzene-d5	7.434	82	721964	96.509	ng		0.00
42) 2,4,6-Tribromophenol	10.704	330	341909	149.058	ng		0.00
45) 2-Fluorobiphenyl	9.228	172	1385588	96.257	ng		0.00
79) Terphenyl-d14	12.986	244	1517791	101.016	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	2.757	88	113338	46.317	ng		99
3) Pyridine	3.516	79	284772	52.893	ng		100
4) n-Nitrosodimethylamine	3.469	42	159233	50.321	ng		94
6) Aniline	6.534	93	296838	54.812	ng	#	76
8) 2-Chlorophenol	6.663	128	331219	52.898	ng		96
9) Benzaldehyde	6.422	77	157871	38.759	ng		99
10) Phenol	6.528	94	410774	52.277	ng		99
11) bis(2-Chloroethyl)ether	6.604	93	312507	51.973	ng		99
12) 1,3-Dichlorobenzene	6.810	146	349953	49.740	ng		99
13) 1,4-Dichlorobenzene	6.887	146	356626	50.061	ng		99
14) 1,2-Dichlorobenzene	7.039	146	335974	50.331	ng		99
15) Benzyl Alcohol	7.016	79	306875	53.782	ng		98
16) 2,2'-oxybis(1-Chloropr...	7.139	45	384656	54.150	ng		87
17) 2-Methylphenol	7.134	107	260567	51.987	ng		97
18) Hexachloroethane	7.381	117	132570	49.826	ng		98
19) n-Nitroso-di-n-propyla...	7.287	70	236264	51.958	ng		97
20) 3+4-Methylphenols	7.281	107	335470	52.072	ng		96
22) Acetophenone	7.281	105	449242	48.157	ng		99
24) Nitrobenzene	7.457	77	360886	46.677	ng		98
25) Isophorone	7.692	82	640025	51.295	ng		100
26) 2-Nitrophenol	7.769	139	178581	52.120	ng		98
27) 2,4-Dimethylphenol	7.810	122	265144	64.677	ng		98
28) bis(2-Chloroethoxy)met...	7.898	93	387181	50.936	ng		100
29) 2,4-Dichlorophenol	8.016	162	279062	51.372	ng		98
30) 1,2,4-Trichlorobenzene	8.092	180	294239	47.440	ng		99
31) Naphthalene	8.175	128	961872	48.802	ng		100
32) Benzoic acid	7.945	122	166417	46.851	ng		99
33) 4-Chloroaniline	8.222	127	131641	22.308	ng		98
34) Hexachlorobutadiene	8.286	225	197852	48.161	ng		99
35) Caprolactam	8.598	113	86604m	51.517	ng		
36) 4-Chloro-3-methylphenol	8.716	107	311756	51.259	ng		99
37) 2-Methylnaphthalene	8.863	142	636017	50.805	ng		100
38) 1-Methylnaphthalene	8.963	142	593614	48.376	ng		99
40) 1,2,4,5-Tetrachloroben...	9.033	216	307592	48.990	ng		99
41) Hexachlorocyclopentadiene	9.016	237	289488	193.715	ng		98
43) 2,4,6-Trichlorophenol	9.145	196	200728	50.949	ng		99

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140598.D
Acq On : 25 Nov 2024 13:02
Operator : RC/JU
Sample : PB165152BS
Misc :
ALS Vial : 10 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
PB165152BS

Manual Integrations APPROVED
Reviewed By :Yogesh Patel 11/27/2024
Supervised By :mohammad ahmed 11/27/2024

Quant Time: Nov 25 13:42:08 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.192	196	213723	49.984	ng	98
46) 1,1'-Biphenyl	9.328	154	791809	49.449	ng	100
47) 2-Chloronaphthalene	9.357	162	592185	48.807	ng	99
48) 2-Nitroaniline	9.457	65	199018	51.102	ng	98
49) Acenaphthylene	9.775	152	977979	53.347	ng	100
50) Dimethylphthalate	9.633	163	724262	51.275	ng	100
51) 2,6-Dinitrotoluene	9.698	165	158048	49.336	ng	94
52) Acenaphthene	9.945	154	596240	51.187	ng	99
53) 3-Nitroaniline	9.869	138	100618	32.114	ng	94
54) 2,4-Dinitrophenol	9.980	184	152527	90.766	ng	96
55) Dibenzofuran	10.116	168	893805	50.306	ng	99
56) 4-Nitrophenol	10.045	139	213899	100.102	ng	96
57) 2,4-Dinitrotoluene	10.104	165	211757	49.737	ng	98
58) Fluorene	10.463	166	706702	49.554	ng	100
59) 2,3,4,6-Tetrachlorophenol	10.239	232	183707	55.904	ng	95
60) Diethylphthalate	10.327	149	729880	50.858	ng	100
61) 4-Chlorophenyl-phenyle...	10.451	204	346192	49.464	ng	97
62) 4-Nitroaniline	10.486	138	162008	49.301	ng	97
63) Azobenzene	10.610	77	687690	50.600	ng	99
65) 4,6-Dinitro-2-methylph...	10.516	198	114647	55.868	ng	98
66) n-Nitrosodiphenylamine	10.569	169	605842	51.015	ng	100
67) 4-Bromophenyl-phenylether	10.939	248	209859	50.744	ng	97
68) Hexachlorobenzene	11.010	284	242139	50.565	ng	100
69) Atrazine	11.098	200	204968	61.351	ng	100
70) Pentachlorophenol	11.210	266	217924	103.398	ng	99
71) Phenanthrene	11.427	178	997351	51.667	ng	100
72) Anthracene	11.480	178	1020413	54.040	ng	100
73) Carbazole	11.633	167	919335	50.610	ng	100
74) Di-n-butylphthalate	11.957	149	1080749	51.534	ng	100
75) Fluoranthene	12.616	202	1065582	50.842	ng	99
77) Benzidine	12.733	184	303000	44.544	ng	99
78) Pyrene	12.845	202	1095938	50.661	ng	100
80) Butylbenzylphthalate	13.457	149	420209	53.922	ng	98
81) Benzo(a)anthracene	14.039	228	830546	53.627	ng	100
82) 3,3'-Dichlorobenzidine	14.004	252	154079	33.136	ng	100
83) Chrysene	14.080	228	735574	51.942	ng	100
84) Bis(2-ethylhexyl)phtha...	14.015	149	539818	54.858	ng	99
85) Di-n-octyl phthalate	14.651	149	772524	57.445	ng	98
87) Indeno(1,2,3-cd)pyrene	17.068	276	647722	50.903	ng	98
88) Benzo(b)fluoranthene	15.121	252	621111	50.643	ng	99
89) Benzo(k)fluoranthene	15.151	252	583206	54.340	ng	99
90) Benzo(a)pyrene	15.492	252	561220	56.280	ng	99
91) Dibenzo(a,h)anthracene	17.080	278	529761	50.835	ng	98
92) Benzo(g,h,i)perylene	17.527	276	490635	46.138	ng	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

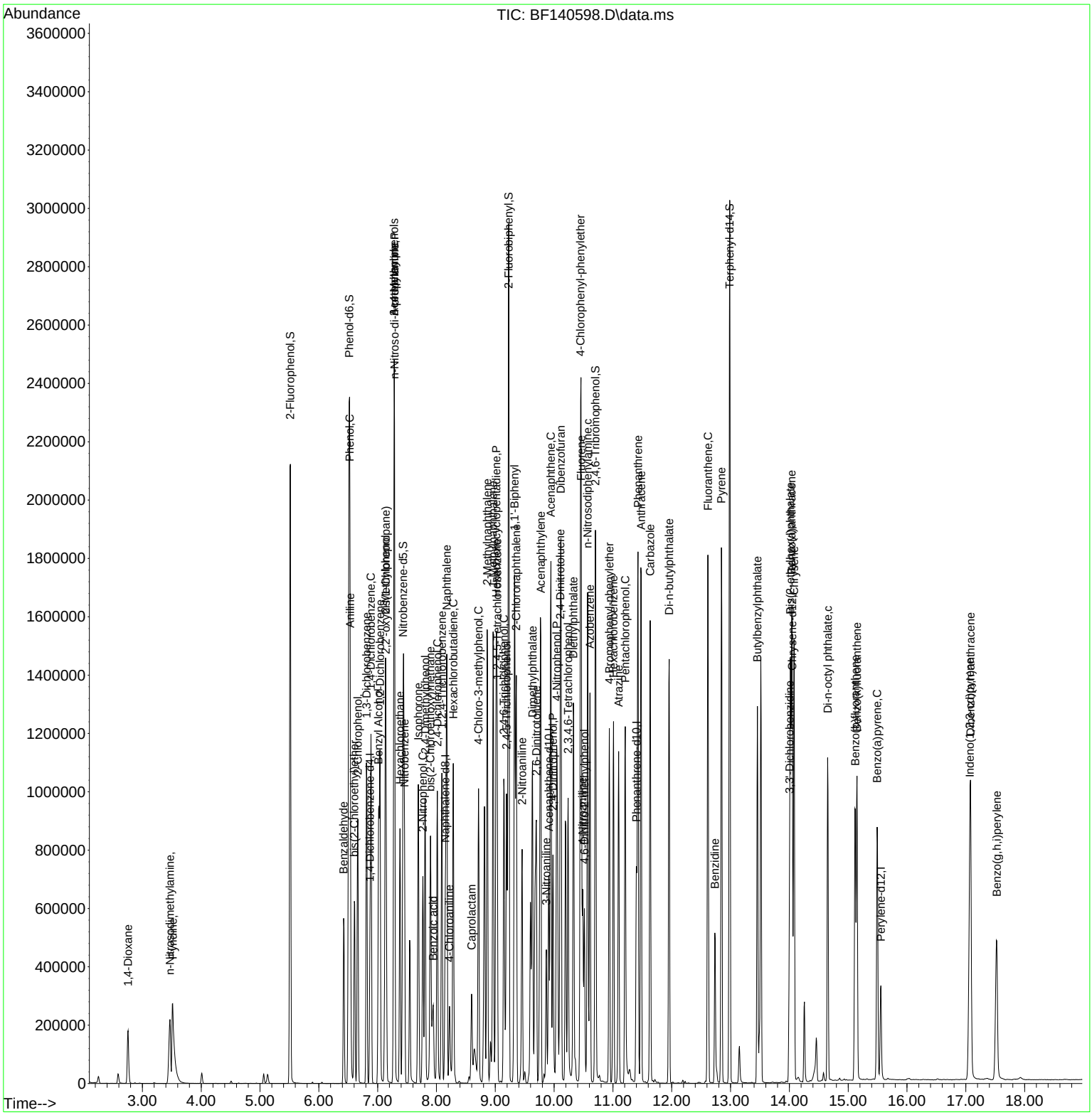
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140598.D
Acq On : 25 Nov 2024 13:02
Operator : RC/JU
Sample : PB165152BS
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 25 13:42:08 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
PB165152BS

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/27/2024
Supervised By :mohammad ahmed 11/27/2024



Raw Data: **BF140600.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB165152BSD	SDG No.:	P4892
Lab Sample ID:	PB165152BSD	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140600.D	1	11/20/24 08:29	11/25/24 13:54	PB165152

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
100-52-7	Benzaldehyde	34.3		4.00	10.0	ug/L
108-95-2	Phenol	44.9		0.93	5.00	ug/L
111-44-4	bis(2-Chloroethyl)ether	44.2		1.20	5.00	ug/L
95-57-8	2-Chlorophenol	45.0		0.71	5.00	ug/L
95-48-7	2-Methylphenol	44.5		1.10	5.00	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	46.7		1.40	5.00	ug/L
98-86-2	Acetophenone	41.4		1.10	5.00	ug/L
65794-96-9	3+4-Methylphenols	44.4		1.20	10.0	ug/L
621-64-7	n-Nitroso-di-n-propylamine	44.3		1.50	2.50	ug/L
67-72-1	Hexachloroethane	42.6		1.00	5.00	ug/L
98-95-3	Nitrobenzene	40.9		1.30	5.00	ug/L
78-59-1	Isophorone	44.5		1.10	5.00	ug/L
88-75-5	2-Nitrophenol	45.1		2.00	5.00	ug/L
105-67-9	2,4-Dimethylphenol	55.3		1.50	5.00	ug/L
111-91-1	bis(2-Chloroethoxy)methane	44.5		1.00	5.00	ug/L
120-83-2	2,4-Dichlorophenol	45.0		0.88	5.00	ug/L
91-20-3	Naphthalene	42.5		1.00	5.00	ug/L
106-47-8	4-Chloroaniline	21.5		1.30	5.00	ug/L
87-68-3	Hexachlorobutadiene	41.5		1.30	5.00	ug/L
105-60-2	Caprolactam	44.0		1.70	10.0	ug/L
59-50-7	4-Chloro-3-methylphenol	44.0		0.84	5.00	ug/L
91-57-6	2-Methylnaphthalene	43.9		1.10	5.00	ug/L
77-47-4	Hexachlorocyclopentadiene	160	E	5.00	10.0	ug/L
88-06-2	2,4,6-Trichlorophenol	44.5		0.89	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	43.2		1.00	5.00	ug/L
92-52-4	1,1-Biphenyl	43.6		0.91	5.00	ug/L
91-58-7	2-Chloronaphthalene	42.6		0.97	5.00	ug/L
88-74-4	2-Nitroaniline	44.6		1.40	5.00	ug/L
131-11-3	Dimethylphthalate	45.3		0.93	5.00	ug/L

Raw Data: **BF140600.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB165152BSD	SDG No.:	P4892
Lab Sample ID:	PB165152BSD	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140600.D	1	11/20/24 08:29	11/25/24 13:54	PB165152

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
208-96-8	Acenaphthylene	46.5		1.00	5.00	ug/L
606-20-2	2,6-Dinitrotoluene	43.1		1.20	5.00	ug/L
99-09-2	3-Nitroaniline	28.8		1.40	5.00	ug/L
83-32-9	Acenaphthene	44.7		0.81	5.00	ug/L
51-28-5	2,4-Dinitrophenol	77.0		6.40	10.0	ug/L
100-02-7	4-Nitrophenol	87.1	E	2.00	10.0	ug/L
132-64-9	Dibenzofuran	43.9		0.93	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	43.3		1.50	5.00	ug/L
84-66-2	Diethylphthalate	44.3		1.00	5.00	ug/L
7005-72-3	4-Chlorophenyl-phenylether	43.3		0.98	5.00	ug/L
86-73-7	Fluorene	43.5		0.96	5.00	ug/L
100-01-6	4-Nitroaniline	43.1		2.00	5.00	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	47.5		3.10	10.0	ug/L
86-30-6	n-Nitrosodiphenylamine	44.6		0.89	5.00	ug/L
101-55-3	4-Bromophenyl-phenylether	43.8		0.95	5.00	ug/L
118-74-1	Hexachlorobenzene	43.1		1.10	5.00	ug/L
1912-24-9	Atrazine	52.5		1.30	5.00	ug/L
87-86-5	Pentachlorophenol	87.2	E	1.90	10.0	ug/L
85-01-8	Phenanthrene	44.9		0.89	5.00	ug/L
120-12-7	Anthracene	46.7		1.10	5.00	ug/L
86-74-8	Carbazole	44.2		1.20	5.00	ug/L
84-74-2	Di-n-butylphthalate	45.0		1.50	5.00	ug/L
206-44-0	Fluoranthene	44.5		1.30	5.00	ug/L
129-00-0	Pyrene	43.9		1.10	5.00	ug/L
85-68-7	Butylbenzylphthalate	46.8		2.10	5.00	ug/L
91-94-1	3,3-Dichlorobenzidine	29.2		1.30	10.0	ug/L
56-55-3	Benzo(a)anthracene	46.9		0.94	5.00	ug/L
218-01-9	Chrysene	44.7		0.86	5.00	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	47.7		1.90	5.00	ug/L
117-84-0	Di-n-octyl phthalate	50.0		2.50	10.0	ug/L
205-99-2	Benzo(b)fluoranthene	42.4		1.10	5.00	ug/L

Raw Data: **BF140600.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB165152BSD	SDG No.:	P4892
Lab Sample ID:	PB165152BSD	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140600.D	1	11/20/24 08:29	11/25/24 13:54	PB165152

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
207-08-9	Benzo(k)fluoranthene	48.3		1.20	5.00	ug/L
50-32-8	Benzo(a)pyrene	49.0		1.70	5.00	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	43.2		1.00	5.00	ug/L
53-70-3	Dibenzo(a,h)anthracene	43.3		1.20	5.00	ug/L
191-24-2	Benzo(g,h,i)perylene	38.6		1.20	5.00	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	43.2		1.10	5.00	ug/L
123-91-1	1,4-Dioxane	38.8		1.30	5.00	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	48.3		0.79	5.00	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	124		15 (10) - 110 (139)	83%	SPK: 150
13127-88-3	Phenol-d6	121		15 (10) - 110 (134)	81%	SPK: 150
4165-60-0	Nitrobenzene-d5	83.1		30 (49) - 130 (133)	83%	SPK: 100
321-60-8	2-Fluorobiphenyl	84.1		30 (52) - 130 (132)	84%	SPK: 100
118-79-6	2,4,6-Tribromophenol	128		15 (44) - 110 (137)	86%	SPK: 150
1718-51-0	Terphenyl-d14	86.5		30 (48) - 130 (125)	87%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	109000	6.869			
1146-65-2	Naphthalene-d8	414000	8.151			
15067-26-2	Acenaphthene-d10	230000	9.91			
1517-22-2	Phenanthrene-d10	432000	11.398			
1719-03-5	Chrysene-d12	254000	14.051			
1520-96-3	Perylene-d12	215000	15.557			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Sample Results: **BF140600.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140600.D
Acq On : 25 Nov 2024 13:54
Operator : RC/JU
Sample : PB165152BSD
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 25 14:23:55 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
PB165152BSD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/27/2024
Supervised By :mohammad ahmed 11/27/2024

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.869	152	109034	20.000	ng	0.00
21) Naphthalene-d8	8.151	136	414003	20.000	ng	0.00
39) Acenaphthene-d10	9.910	164	229665	20.000	ng	0.00
64) Phenanthrene-d10	11.398	188	432290	20.000	ng	0.00
76) Chrysene-d12	14.051	240	254104	20.000	ng	0.00
86) Perylene-d12	15.557	264	215389	20.000	ng	0.02
System Monitoring Compounds						
5) 2-Fluorophenol	5.510	112	795018	124.408	ng	0.01
7) Phenol-d6	6.510	99	1025257	121.357	ng	0.00
23) Nitrobenzene-d5	7.434	82	672895	83.137	ng	0.00
42) 2,4,6-Tribromophenol	10.704	330	315302	128.365	ng	0.00
45) 2-Fluorobiphenyl	9.228	172	1296266	84.095	ng	0.00
79) Terphenyl-d14	12.986	244	1412352	86.548	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	2.746	88	104266	38.806	ng	98
3) Pyridine	3.505	79	258709	43.763	ng	99
4) n-Nitrosodimethylamine	3.458	42	143492	41.299	ng	92
6) Aniline	6.534	93	282196	47.457	ng	90
8) 2-Chlorophenol	6.663	128	309174	44.970	ng	95
9) Benzaldehyde	6.422	77	153487	34.319	ng	99
10) Phenol	6.528	94	387813	44.949	ng	99
11) bis(2-Chloroethyl)ether	6.604	93	291837	44.203	ng	99
12) 1,3-Dichlorobenzene	6.810	146	325535	42.139	ng	99
13) 1,4-Dichlorobenzene	6.887	146	327404	41.856	ng	99
14) 1,2-Dichlorobenzene	7.040	146	315458	43.039	ng	100
15) Benzyl Alcohol	7.016	79	280243	44.730	ng	97
16) 2,2'-oxybis(1-Chloropr...	7.140	45	364425	46.722	ng	93
17) 2-Methylphenol	7.128	107	245042	44.525	ng	98
18) Hexachloroethane	7.381	117	124362	42.569	ng	98
19) n-Nitroso-di-n-propyla...	7.281	70	221100	44.283	ng	98
20) 3+4-Methylphenols	7.281	107	313821	44.364	ng	98
22) Acetophenone	7.281	105	418321	41.446	ng	100
24) Nitrobenzene	7.451	77	342083	40.893	ng	100
25) Isophorone	7.693	82	600875	44.510	ng	100
26) 2-Nitrophenol	7.769	139	167298	45.129	ng	97
27) 2,4-Dimethylphenol	7.804	122	245077	55.254	ng	99
28) bis(2-Chloroethoxy)met...	7.898	93	365627	44.457	ng	100
29) 2,4-Dichlorophenol	8.016	162	264433	44.992	ng	97
30) 1,2,4-Trichlorobenzene	8.093	180	273802	40.802	ng	99
31) Naphthalene	8.175	128	905902	42.481	ng	99
32) Benzoic acid	7.940	122	150123	40.258	ng	99
33) 4-Chloroaniline	8.222	127	137348	21.512	ng	100
34) Hexachlorobutadiene	8.287	225	184677	41.549	ng	99
35) Caprolactam	8.592	113	79973m	43.969	ng	
36) 4-Chloro-3-methylphenol	8.716	107	289415	43.981	ng	98
37) 2-Methylnaphthalene	8.863	142	594944	43.925	ng	100
38) 1-Methylnaphthalene	8.963	142	551141	41.513	ng	98
40) 1,2,4,5-Tetrachloroben...	9.028	216	290675	43.233	ng	99
41) Hexachlorocyclopentadiene	9.016	237	260138	163.733	ng	99
43) 2,4,6-Trichlorophenol	9.145	196	187773	44.508	ng	99

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140600.D
Acq On : 25 Nov 2024 13:54
Operator : RC/JU
Sample : PB165152BSD
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 25 14:23:55 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
PB165152BSD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/27/2024
Supervised By :mohammad ahmed 11/27/2024

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.192	196	197888	43.219	ng	97
46) 1,1'-Biphenyl	9.328	154	747311	43.583	ng	99
47) 2-Chloronaphthalene	9.357	162	553197	42.578	ng	99
48) 2-Nitroaniline	9.451	65	186161	44.639	ng	99
49) Acenaphthylene	9.769	152	912286	46.472	ng	99
50) Dimethylphthalate	9.628	163	685858	45.344	ng	100
51) 2,6-Dinitrotoluene	9.698	165	147685	43.052	ng	92
52) Acenaphthene	9.945	154	557959	44.732	ng	98
53) 3-Nitroaniline	9.869	138	96688	28.818	ng	92
54) 2,4-Dinitrophenol	9.981	184	136283	77.031	ng	96
55) Dibenzofuran	10.116	168	834711	43.872	ng	99
56) 4-Nitrophenol	10.039	139	199311	87.105	ng	96
57) 2,4-Dinitrotoluene	10.104	165	197463	43.312	ng	97
58) Fluorene	10.457	166	664573	43.517	ng	99
59) 2,3,4,6-Tetrachlorophenol	10.239	232	170039	48.322	ng	95
60) Diethylphthalate	10.328	149	680128	44.256	ng	100
61) 4-Chlorophenyl-phenyle...	10.451	204	324555	43.305	ng	97
62) 4-Nitroaniline	10.486	138	151693	43.108	ng	93
63) Azobenzene	10.610	77	642026	44.115	ng	99
65) 4,6-Dinitro-2-methylph...	10.516	198	104960	47.514	ng	95
66) n-Nitrosodiphenylamine	10.569	169	569542	44.551	ng	99
67) 4-Bromophenyl-phenylether	10.939	248	194816	43.760	ng	97
68) Hexachlorobenzene	11.010	284	221937	43.054	ng	99
69) Atrazine	11.098	200	188654	52.457	ng	99
70) Pentachlorophenol	11.210	266	197828	87.195	ng	99
71) Phenanthrene	11.428	178	933782	44.937	ng	99
72) Anthracene	11.475	178	949881	46.731	ng	100
73) Carbazole	11.633	167	865023	44.237	ng	100
74) Di-n-butylphthalate	11.957	149	1016548	45.029	ng	99
75) Fluoranthene	12.616	202	1004061	44.503	ng	99
77) Benzidine	12.733	184	264161	35.756	ng	100
78) Pyrene	12.845	202	1030730	43.870	ng	99
80) Butylbenzylphthalate	13.457	149	396298	46.822	ng	98
81) Benzo(a)anthracene	14.039	228	789309	46.925	ng	100
82) 3,3'-Dichlorobenzidine	13.998	252	147281	29.163	ng	100
83) Chrysene	14.080	228	687256	44.683	ng	99
84) Bis(2-ethylhexyl)phtha...	14.016	149	509958	47.716	ng	99
85) Di-n-octyl phthalate	14.657	149	730693	50.028	ng	98
87) Indeno(1,2,3-cd)pyrene	17.068	276	606607	43.216	ng	98
88) Benzo(b)fluoranthene	15.121	252	574094	42.435	ng	99
89) Benzo(k)fluoranthene	15.151	252	571947	48.311	ng	99
90) Benzo(a)pyrene	15.498	252	539283	49.025	ng	99
91) Dibenzo(a,h)anthracene	17.080	278	498038	43.325	ng	99
92) Benzo(g,h,i)perylene	17.521	276	452716	38.593	ng	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

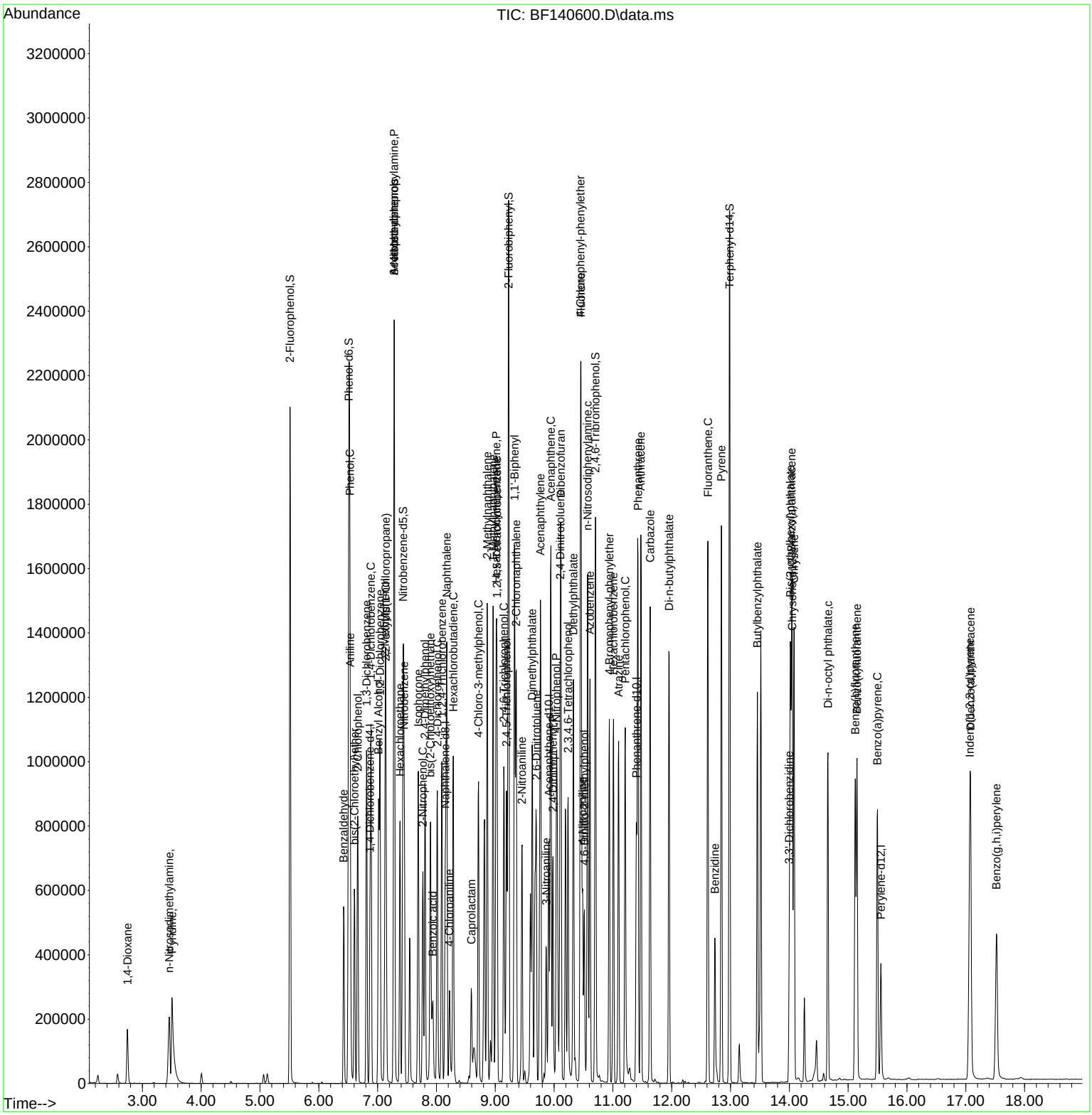
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112524\
Data File : BF140600.D
Acq On : 25 Nov 2024 13:54
Operator : RC/JU
Sample : PB165152BSD
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 25 14:23:55 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF112124.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 21 15:23:48 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
PB165152BSD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/27/2024
Supervised By :mohammad ahmed 11/27/2024



Raw Data: **BF140496.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-BOTMS	SDG No.:	P4892
Lab Sample ID:	P4892-02MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	86.1
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140496.D	1	11/19/24 09:00	11/20/24 13:08	PB165086

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	210	U	210	380	ug/Kg
108-95-2	Phenol	1700		96.1	200	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1700		97.0	200	ug/Kg
95-57-8	2-Chlorophenol	1700		96.8	200	ug/Kg
95-48-7	2-Methylphenol	1600		93.4	200	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1600		110	200	ug/Kg
98-86-2	Acetophenone	1600		100	200	ug/Kg
65794-96-9	3+4-Methylphenols	1600		92.5	380	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	1600		46.7	92.7	ug/Kg
67-72-1	Hexachloroethane	1700		96.2	200	ug/Kg
98-95-3	Nitrobenzene	1600		110	200	ug/Kg
78-59-1	Isophorone	1700		98.0	200	ug/Kg
88-75-5	2-Nitrophenol	1700		110	200	ug/Kg
105-67-9	2,4-Dimethylphenol	2000		110	200	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1700		99.4	200	ug/Kg
120-83-2	2,4-Dichlorophenol	1700		87.5	200	ug/Kg
91-20-3	Naphthalene	1600		95.7	200	ug/Kg
106-47-8	4-Chloroaniline	650		95.7	200	ug/Kg
87-68-3	Hexachlorobutadiene	1600		96.5	200	ug/Kg
105-60-2	Caprolactam	1600		100	380	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1700		89.8	200	ug/Kg
91-57-6	2-Methylnaphthalene	1700		95.6	200	ug/Kg
77-47-4	Hexachlorocyclopentadiene	6600	E	180	380	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1700		82.7	200	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1700		85.7	200	ug/Kg
92-52-4	1,1-Biphenyl	1700		100	200	ug/Kg
91-58-7	2-Chloronaphthalene	1700		96.5	200	ug/Kg
88-74-4	2-Nitroaniline	1700		110	200	ug/Kg
131-11-3	Dimethylphthalate	1800		94.7	200	ug/Kg

Raw Data: **BF140496.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-BOTMS	SDG No.:	P4892
Lab Sample ID:	P4892-02MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	86.1
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140496.D	1	11/19/24 09:00	11/20/24 13:08	PB165086

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	1800		100	200	ug/Kg
606-20-2	2,6-Dinitrotoluene	1700		96.4	200	ug/Kg
99-09-2	3-Nitroaniline	1100		100	200	ug/Kg
83-32-9	Acenaphthene	1900		94.0	200	ug/Kg
51-28-5	2,4-Dinitrophenol	3300	E	280	380	ug/Kg
100-02-7	4-Nitrophenol	3100		130	380	ug/Kg
132-64-9	Dibenzofuran	1700		97.8	200	ug/Kg
121-14-2	2,4-Dinitrotoluene	1700		99.9	200	ug/Kg
84-66-2	Diethylphthalate	1700		92.8	200	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1700		99.2	200	ug/Kg
86-73-7	Fluorene	1700		99.1	200	ug/Kg
100-01-6	4-Nitroaniline	1600		120	200	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1800		140	380	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1800		94.6	200	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1800		91.4	200	ug/Kg
118-74-1	Hexachlorobenzene	1700		98.5	200	ug/Kg
1912-24-9	Atrazine	1900		110	200	ug/Kg
87-86-5	Pentachlorophenol	3100		89.6	380	ug/Kg
85-01-8	Phenanthrene	1700		97.3	200	ug/Kg
120-12-7	Anthracene	1800		97.8	200	ug/Kg
86-74-8	Carbazole	1600		93.0	200	ug/Kg
84-74-2	Di-n-butylphthalate	1700		97.7	200	ug/Kg
206-44-0	Fluoranthene	1500		94.7	200	ug/Kg
129-00-0	Pyrene	1900		96.2	200	ug/Kg
85-68-7	Butylbenzylphthalate	1900		110	200	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1300		110	380	ug/Kg
56-55-3	Benzo(a)anthracene	1800		93.5	200	ug/Kg
218-01-9	Chrysene	1800		92.1	200	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	1900		110	200	ug/Kg
117-84-0	Di-n-octyl phthalate	1900		130	380	ug/Kg
205-99-2	Benzo(b)fluoranthene	1600		94.0	200	ug/Kg

Raw Data: **BF140496.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-BOTMS	SDG No.:	P4892
Lab Sample ID:	P4892-02MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	86.1
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140496.D	1	11/19/24 09:00	11/20/24 13:08	PB165086

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1700		95.7	200	ug/Kg
50-32-8	Benzo(a)pyrene	1900		110	200	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	2100		90.5	200	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	2100		94.1	200	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1900		92.8	200	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1700		100	200	ug/Kg
123-91-1	1,4-Dioxane	1400		130	200	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1800		86.6	200	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	90.7		30 (18) - 130 (112)	60%	SPK: 150
13127-88-3	Phenol-d6	86.7		30 (15) - 130 (107)	58%	SPK: 150
4165-60-0	Nitrobenzene-d5	62.4		30 (18) - 130 (107)	62%	SPK: 100
321-60-8	2-Fluorobiphenyl	66.1		30 (20) - 130 (109)	66%	SPK: 100
118-79-6	2,4,6-Tribromophenol	96.6		30 (10) - 130 (116)	64%	SPK: 150
1718-51-0	Terphenyl-d14	73.3		30 (10) - 130 (105)	73%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	124000	6.875			
1146-65-2	Naphthalene-d8	465000	8.157			
15067-26-2	Acenaphthene-d10	250000	9.91			
1517-22-2	Phenanthrene-d10	454000	11.398			
1719-03-5	Chrysene-d12	229000	14.057			
1520-96-3	Perylene-d12	240000	15.568			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140496.D
Acq On : 20 Nov 2024 13:08
Operator : RC/JU
Sample : P4892-02MS
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 20 13:32:07 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
WB-310-BOTMS

Manual Integrations APPROVED

Reviewed By :Yogesh Patel

11/22/2024
Supervised By :mohammad ahmed

11/22/2024

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.875	152	124435	20.000	ng		0.00
21) Naphthalene-d8	8.157	136	465260	20.000	ng		0.00
39) Acenaphthene-d10	9.910	164	249636	20.000	ng		0.00
64) Phenanthrene-d10	11.398	188	454496	20.000	ng		0.00
76) Chrysene-d12	14.057	240	229017	20.000	ng		0.00
86) Perylene-d12	15.568	264	239777	20.000	ng		0.01
System Monitoring Compounds							
5) 2-Fluorophenol	5.510	112	661003	90.697	ng		0.02
7) Phenol-d6	6.516	99	856389	86.731	ng		0.01
23) Nitrobenzene-d5	7.434	82	556896	62.365	ng		0.00
42) 2,4,6-Tribromophenol	10.704	330	239726	96.569	ng		0.00
45) 2-Fluorobiphenyl	9.228	172	1026634	66.111	ng		0.00
79) Terphenyl-d14	12.980	244	967340	73.318	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	2.681	88	120503	37.098	ng		98
3) Pyridine	3.446	79	273858	34.294	ng		99
4) n-Nitrosodimethylamine	3.399	42	170170	42.163	ng		99
6) Aniline	6.540	93	322914	37.594	ng	#	67
8) 2-Chlorophenol	6.663	128	347796	44.426	ng		98
9) Benzaldehyde	6.428	77	28158	4.758	ng		97
10) Phenol	6.528	94	450604	43.273	ng		88
11) bis(2-Chloroethyl)ether	6.610	93	346354	43.898	ng		100
12) 1,3-Dichlorobenzene	6.816	146	367039	42.492	ng		99
13) 1,4-Dichlorobenzene	6.893	146	372103	42.485	ng		99
14) 1,2-Dichlorobenzene	7.045	146	354704	43.624	ng		100
15) Benzyl Alcohol	7.016	79	311092	43.730	ng		99
16) 2,2'-oxybis(1-Chloropr...	7.146	45	457498	41.979	ng		75
17) 2-Methylphenol	7.134	107	272983	42.387	ng	#	93
18) Hexachloroethane	7.387	117	140279	43.324	ng		99
19) n-Nitroso-di-n-propyla...	7.287	70	244503	40.999	ng		99
20) 3+4-Methylphenols	7.287	107	334559	41.539	ng		95
22) Acetophenone	7.281	105	460959	42.599	ng		99
24) Nitrobenzene	7.457	77	385461	41.459	ng		99
25) Isophorone	7.693	82	679615	42.943	ng		100
26) 2-Nitrophenol	7.769	139	186248	45.143	ng		98
27) 2,4-Dimethylphenol	7.810	122	272973m	51.680	ng		
28) bis(2-Chloroethoxy)met...	7.898	93	419149	43.193	ng		99
29) 2,4-Dichlorophenol	8.016	162	290893	44.562	ng		99
30) 1,2,4-Trichlorobenzene	8.092	180	302855	41.671	ng		99
31) Naphthalene	8.175	128	1004910	42.578	ng		100
32) Benzoic acid	7.934	122	175771	37.818	ng		96
33) 4-Chloroaniline	8.228	127	139160	16.954	ng		98
34) Hexachlorobutadiene	8.292	225	197566	42.665	ng		100
35) Caprolactam	8.592	113	91616m	42.226	ng		
36) 4-Chloro-3-methylphenol	8.716	107	310713	42.951	ng		99
37) 2-Methylnaphthalene	8.869	142	652863	43.139	ng		100
38) 1-Methylnaphthalene	8.969	142	603793	40.742	ng		100
40) 1,2,4,5-Tetrachloroben...	9.034	216	308094	44.630	ng		99
41) Hexachlorocyclopentadiene	9.016	237	304816	171.976	ng		100
43) 2,4,6-Trichlorophenol	9.151	196	203832	44.993	ng		100

Sample Results: **BF140496.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140496.D
Acq On : 20 Nov 2024 13:08
Operator : RC/JU
Sample : P4892-02MS
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 20 13:32:07 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
WB-310-BOTMS

Manual Integrations APPROVED

Reviewed By :Yogesh Patel
11/22/2024
Supervised By :mohammad ahmed
11/22/2024

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.198	196	220223	44.461	ng	96
46) 1,1'-Biphenyl	9.328	154	807015	44.437	ng	100
47) 2-Chloronaphthalene	9.357	162	600001	43.370	ng	100
48) 2-Nitroaniline	9.457	65	199954	43.582	ng	99
49) Acenaphthylene	9.775	152	992239	47.405	ng	99
50) Dimethylphthalate	9.634	163	738750	45.401	ng	99
51) 2,6-Dinitrotoluene	9.698	165	161253	43.470	ng	96
52) Acenaphthene	9.945	154	698498m	49.408	ng	
53) 3-Nitroaniline	9.869	138	114209	29.317	ng	100
54) 2,4-Dinitrophenol	9.981	184	164791	86.146	ng	98
55) Dibenzofuran	10.116	168	902274	45.084	ng	99
56) 4-Nitrophenol	10.039	139	225615	79.398	ng	99
57) 2,4-Dinitrotoluene	10.104	165	213328	43.696	ng	98
58) Fluorene	10.463	166	696131	44.031	ng	99
59) 2,3,4,6-Tetrachlorophenol	10.239	232	181348	46.369	ng	98
60) Diethylphthalate	10.328	149	743819	44.705	ng	100
61) 4-Chlorophenyl-phenyle...	10.451	204	344434	44.128	ng	99
62) 4-Nitroaniline	10.486	138	161229	40.477	ng	100
63) Azobenzene	10.610	77	775322	47.161	ng	99
65) 4,6-Dinitro-2-methylph...	10.516	198	116238	47.535	ng	93
66) n-Nitrosodiphenylamine	10.569	169	609341	46.401	ng	99
67) 4-Bromophenyl-phenylether	10.939	248	206178	45.382	ng	98
68) Hexachlorobenzene	11.010	284	229563	44.909	ng	98
69) Atrazine	11.098	200	194458	48.945	ng	99
70) Pentachlorophenol	11.210	266	219134	79.583	ng	98
71) Phenanthrene	11.428	178	949707	44.482	ng	100
72) Anthracene	11.481	178	985110	47.079	ng	100
73) Carbazole	11.633	167	861731	41.708	ng	100
74) Di-n-butylphthalate	11.957	149	1083111	43.678	ng	100
75) Fluoranthene	12.616	202	956319	39.925	ng	99
77) Benzidine	12.739	184	83936	9.549	ng	100
78) Pyrene	12.845	202	954324	48.716	ng	100
80) Butylbenzylphthalate	13.457	149	369231	49.065	ng	96
81) Benzo(a)anthracene	14.045	228	693541	46.078	ng	99
82) 3,3'-Dichlorobenzidine	14.004	252	158694	33.171	ng	99
83) Chrysene	14.080	228	645670	47.015	ng	99
84) Bis(2-ethylhexyl)phtha...	14.022	149	483566	48.142	ng	100
85) Di-n-octyl phthalate	14.669	149	703473	49.727	ng	98
87) Indeno(1,2,3-cd)pyrene	17.080	276	798846	53.934	ng	100
88) Benzo(b)fluoranthene	15.127	252	636840	40.602	ng	100
89) Benzo(k)fluoranthene	15.163	252	565254	44.114	ng	99
90) Benzo(a)pyrene	15.504	252	589322	48.383	ng	99
91) Dibenzo(a,h)anthracene	17.098	278	655135	53.510	ng	100
92) Benzo(g,h,i)perylene	17.539	276	622290	49.717	ng	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140496.D
Acq On : 20 Nov 2024 13:08
Operator : RC/JU
Sample : P4892-02MS
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 20 13:32:07 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

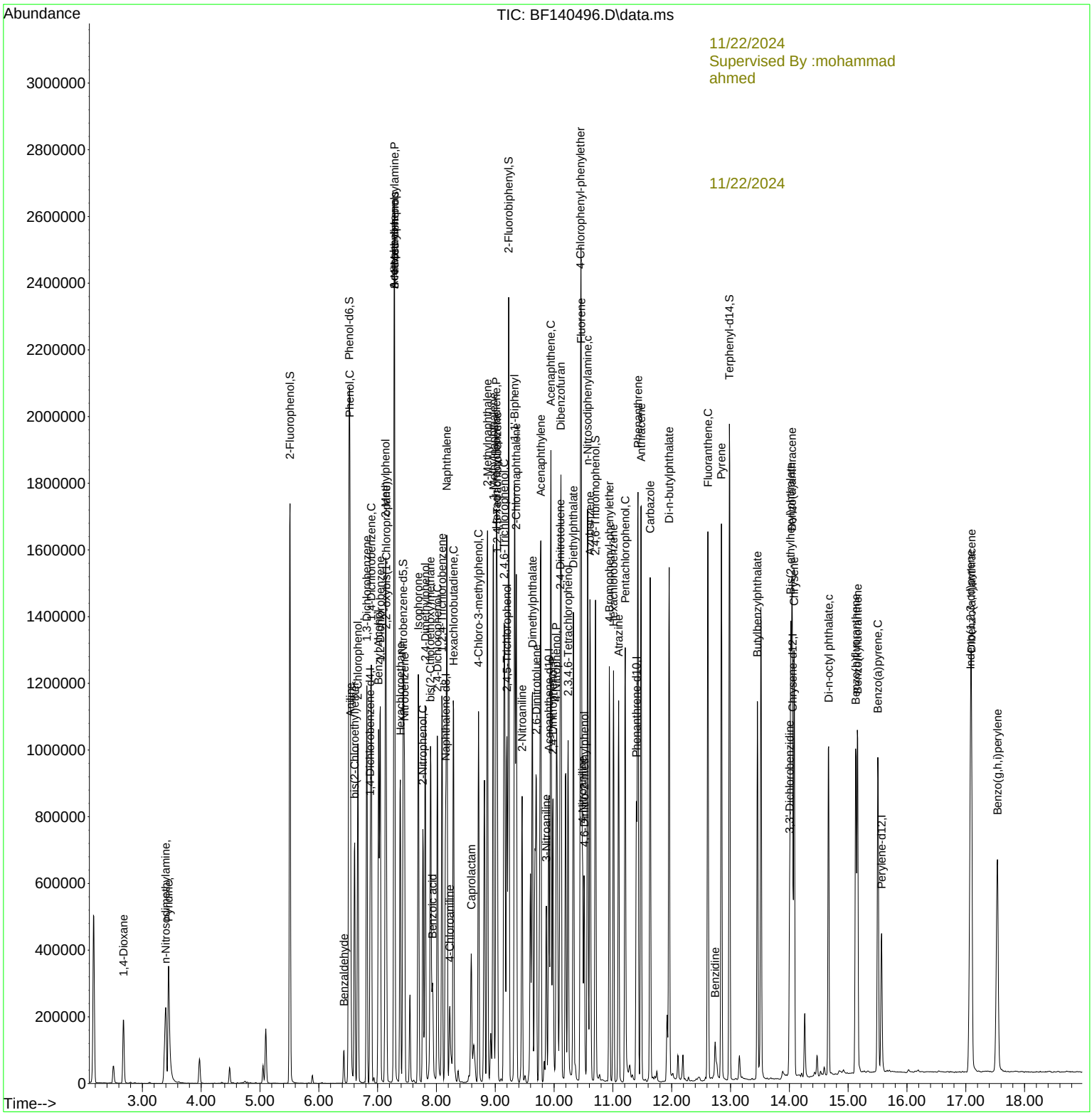
Instrument :
BNA_F
ClientSampleId :
WB-310-BOTMS

Manual Integrations APPROVED

Reviewed By :Yogesh Patel

11/22/2024
Supervised By :mohammad ahmed

11/22/2024



Raw Data: **BF140497.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-BOTMSD	SDG No.:	P4892
Lab Sample ID:	P4892-02MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	86.1
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140497.D	1	11/19/24 09:00	11/20/24 13:35	PB165086

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	210	J	210	380	ug/Kg
108-95-2	Phenol	1900		96.2	200	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	2000		97.1	200	ug/Kg
95-57-8	2-Chlorophenol	2000		96.9	200	ug/Kg
95-48-7	2-Methylphenol	1900		93.5	200	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1900		110	200	ug/Kg
98-86-2	Acetophenone	1900		100	200	ug/Kg
65794-96-9	3+4-Methylphenols	1900		92.6	380	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	1800		46.8	92.8	ug/Kg
67-72-1	Hexachloroethane	1900		96.3	200	ug/Kg
98-95-3	Nitrobenzene	1900		110	200	ug/Kg
78-59-1	Isophorone	2000		98.2	200	ug/Kg
88-75-5	2-Nitrophenol	2100		110	200	ug/Kg
105-67-9	2,4-Dimethylphenol	2400		110	200	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1900		99.6	200	ug/Kg
120-83-2	2,4-Dichlorophenol	2000		87.6	200	ug/Kg
91-20-3	Naphthalene	1900		95.8	200	ug/Kg
106-47-8	4-Chloroaniline	770		95.8	200	ug/Kg
87-68-3	Hexachlorobutadiene	1900		96.7	200	ug/Kg
105-60-2	Caprolactam	1900		100	380	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1900		89.9	200	ug/Kg
91-57-6	2-Methylnaphthalene	1900		95.7	200	ug/Kg
77-47-4	Hexachlorocyclopentadiene	7800	E	180	380	ug/Kg
88-06-2	2,4,6-Trichlorophenol	2000		82.8	200	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1900		85.9	200	ug/Kg
92-52-4	1,1-Biphenyl	1900		100	200	ug/Kg
91-58-7	2-Chloronaphthalene	1900		96.7	200	ug/Kg
88-74-4	2-Nitroaniline	2000		110	200	ug/Kg
131-11-3	Dimethylphthalate	2000		94.8	200	ug/Kg

Raw Data: **BF140497.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-BOTMSD	SDG No.:	P4892
Lab Sample ID:	P4892-02MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	86.1
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140497.D	1	11/19/24 09:00	11/20/24 13:35	PB165086

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	2100		100	200	ug/Kg
606-20-2	2,6-Dinitrotoluene	1900		96.5	200	ug/Kg
99-09-2	3-Nitroaniline	1300		100	200	ug/Kg
83-32-9	Acenaphthene	2200		94.1	200	ug/Kg
51-28-5	2,4-Dinitrophenol	3900	E	280	380	ug/Kg
100-02-7	4-Nitrophenol	3500	E	130	380	ug/Kg
132-64-9	Dibenzofuran	2000		97.9	200	ug/Kg
121-14-2	2,4-Dinitrotoluene	1900		100	200	ug/Kg
84-66-2	Diethylphthalate	2000		92.9	200	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	2000		99.3	200	ug/Kg
86-73-7	Fluorene	1900		99.2	200	ug/Kg
100-01-6	4-Nitroaniline	1800		120	200	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	2200		140	380	ug/Kg
86-30-6	n-Nitrosodiphenylamine	2100		94.7	200	ug/Kg
101-55-3	4-Bromophenyl-phenylether	2100		91.5	200	ug/Kg
118-74-1	Hexachlorobenzene	2100		98.6	200	ug/Kg
1912-24-9	Atrazine	2200		110	200	ug/Kg
87-86-5	Pentachlorophenol	3800	E	89.7	380	ug/Kg
85-01-8	Phenanthrene	2000		97.5	200	ug/Kg
120-12-7	Anthracene	2100		97.9	200	ug/Kg
86-74-8	Carbazole	1900		93.2	200	ug/Kg
84-74-2	Di-n-butylphthalate	2000		97.8	200	ug/Kg
206-44-0	Fluoranthene	1800		94.8	200	ug/Kg
129-00-0	Pyrene	2200		96.3	200	ug/Kg
85-68-7	Butylbenzylphthalate	2200		110	200	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1500		110	380	ug/Kg
56-55-3	Benzo(a)anthracene	2100		93.6	200	ug/Kg
218-01-9	Chrysene	2000		92.2	200	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	2100		110	200	ug/Kg
117-84-0	Di-n-octyl phthalate	2300		130	380	ug/Kg
205-99-2	Benzo(b)fluoranthene	1900		94.1	200	ug/Kg

Raw Data: **BF140497.D**

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-BOTMSD	SDG No.:	P4892
Lab Sample ID:	P4892-02MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	86.1
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140497.D	1	11/19/24 09:00	11/20/24 13:35	PB165086

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1800		95.8	200	ug/Kg
50-32-8	Benzo(a)pyrene	2200		110	200	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	2400		90.6	200	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	2400		94.2	200	ug/Kg
191-24-2	Benzo(g,h,i)perylene	2200		92.9	200	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	2000		100	200	ug/Kg
123-91-1	1,4-Dioxane	1700		130	200	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	2100		86.7	200	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	106		30 (18) - 130 (112)	70%	SPK: 150
13127-88-3	Phenol-d6	101		30 (15) - 130 (107)	67%	SPK: 150
4165-60-0	Nitrobenzene-d5	72.2		30 (18) - 130 (107)	72%	SPK: 100
321-60-8	2-Fluorobiphenyl	75.4		30 (20) - 130 (109)	75%	SPK: 100
118-79-6	2,4,6-Tribromophenol	112		30 (10) - 130 (116)	75%	SPK: 150
1718-51-0	Terphenyl-d14	85.7		30 (10) - 130 (105)	86%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	115000	6.875			
1146-65-2	Naphthalene-d8	427000	8.157			
15067-26-2	Acenaphthene-d10	231000	9.91			
1517-22-2	Phenanthrene-d10	409000	11.398			
1719-03-5	Chrysene-d12	207000	14.045			
1520-96-3	Perylene-d12	226000	15.539			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Sample Results: **BF140497.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140497.D
Acq On : 20 Nov 2024 13:35
Operator : RC/JU
Sample : P4892-02MSD
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WB-310-BOTMSD

Manual Integrations APPROVED
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024

Quant Time: Nov 20 14:10:36 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.875	152	115233	20.000	ng		0.00
21) Naphthalene-d8	8.157	136	427479	20.000	ng		0.00
39) Acenaphthene-d10	9.910	164	231375	20.000	ng		0.00
64) Phenanthrene-d10	11.398	188	409075	20.000	ng		0.00
76) Chrysene-d12	14.045	240	206876	20.000	ng		0.00
86) Perylene-d12	15.539	264	225913	20.000	ng		-0.02
System Monitoring Compounds							
5) 2-Fluorophenol	5.510	112	712357	105.549	ng		0.02
7) Phenol-d6	6.516	99	921403	100.767	ng		0.01
23) Nitrobenzene-d5	7.439	82	592509	72.217	ng		0.00
42) 2,4,6-Tribromophenol	10.704	330	258218	112.228	ng		0.00
45) 2-Fluorobiphenyl	9.228	172	1084808	75.370	ng		0.00
79) Terphenyl-d14	12.980	244	1020809	85.651	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	2.681	88	130097	43.250	ng		96
3) Pyridine	3.446	79	321443	43.467	ng		99
4) n-Nitrosodimethylamine	3.399	42	182270	48.768	ng		98
6) Aniline	6.540	93	371943	46.759	ng	#	60
8) 2-Chlorophenol	6.663	128	377267	52.038	ng		98
9) Benzaldehyde	6.428	77	30199	5.510	ng		97
10) Phenol	6.528	94	485275	50.324	ng		86
11) bis(2-Chloroethyl)ether	6.610	93	373257	51.086	ng		100
12) 1,3-Dichlorobenzene	6.816	146	394685	49.341	ng		100
13) 1,4-Dichlorobenzene	6.892	146	398448	49.125	ng		99
14) 1,2-Dichlorobenzene	7.045	146	378219	50.231	ng		100
15) Benzyl Alcohol	7.016	79	334977	50.847	ng		99
16) 2,2'-oxybis(1-Chloropr...	7.145	45	488625	48.416	ng		70
17) 2-Methylphenol	7.134	107	292445	49.036	ng	#	93
18) Hexachloroethane	7.387	117	149187	49.754	ng		99
19) n-Nitroso-di-n-propyla...	7.287	70	262846	47.595	ng		100
20) 3+4-Methylphenols	7.287	107	359547	48.207	ng		93
22) Acetophenone	7.281	105	491432	49.428	ng		99
24) Nitrobenzene	7.457	77	411726	48.198	ng		99
25) Isophorone	7.692	82	734030	50.480	ng		100
26) 2-Nitrophenol	7.775	139	201445	53.142	ng		98
27) 2,4-Dimethylphenol	7.810	122	296159m	61.025	ng		
28) bis(2-Chloroethoxy)met...	7.898	93	446049	50.027	ng		99
29) 2,4-Dichlorophenol	8.016	162	310556	51.778	ng		98
30) 1,2,4-Trichlorobenzene	8.098	180	327381	49.027	ng		99
31) Naphthalene	8.175	128	1067784	49.240	ng		100
32) Benzoic acid	7.939	122	193846	45.393	ng		96
33) 4-Chloroaniline	8.228	127	151029	20.026	ng		98
34) Hexachlorobutadiene	8.292	225	212771	50.010	ng		99
35) Caprolactam	8.598	113	98618m	49.470	ng		
36) 4-Chloro-3-methylphenol	8.716	107	334024	50.254	ng		99
37) 2-Methylnaphthalene	8.869	142	689081	49.557	ng		99
38) 1-Methylnaphthalene	8.969	142	648042	47.593	ng		99
40) 1,2,4,5-Tetrachloroben...	9.034	216	329073	51.431	ng		99
41) Hexachlorocyclopentadiene	9.016	237	332726	202.539	ng		100
43) 2,4,6-Trichlorophenol	9.151	196	220697	52.560	ng		99

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140497.D
Acq On : 20 Nov 2024 13:35
Operator : RC/JU
Sample : P4892-02MSD
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WB-310-BOTMSD

Manual Integrations APPROVED
Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024

Quant Time: Nov 20 14:10:36 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.198	196	230550	50.220	ng	97
46) 1,1'-Biphenyl	9.333	154	846207	50.272	ng	99
47) 2-Chloronaphthalene	9.357	162	638544	49.799	ng	99
48) 2-Nitroaniline	9.457	65	215455	50.667	ng	99
49) Acenaphthylene	9.775	152	1045592	53.896	ng	100
50) Dimethylphthalate	9.633	163	791800	52.502	ng	100
51) 2,6-Dinitrotoluene	9.698	165	169868	49.407	ng	98
52) Acenaphthene	9.945	154	747063m	57.014	ng	
53) 3-Nitroaniline	9.869	138	117324	32.493	ng	100
54) 2,4-Dinitrophenol	9.980	184	180348	101.720	ng	98
55) Dibenzofuran	10.116	168	959230	51.712	ng	100
56) 4-Nitrophenol	10.045	139	238994	90.745	ng	98
57) 2,4-Dinitrotoluene	10.104	165	227337	50.241	ng	99
58) Fluorene	10.463	166	738282	50.382	ng	99
59) 2,3,4,6-Tetrachlorophenol	10.239	232	193061	53.260	ng	99
60) Diethylphthalate	10.328	149	794405	51.514	ng	99
61) 4-Chlorophenyl-phenyle...	10.451	204	368215	50.898	ng	99
62) 4-Nitroaniline	10.486	138	172490	46.721	ng	99
63) Azobenzene	10.610	77	826525	54.244	ng	99
65) 4,6-Dinitro-2-methylph...	10.516	198	123849	56.272	ng	96
66) n-Nitrosodiphenylamine	10.569	169	647087	54.747	ng	100
67) 4-Bromophenyl-phenylether	10.939	248	222069	54.307	ng	98
68) Hexachlorobenzene	11.010	284	245229	53.300	ng	98
69) Atrazine	11.098	200	205079	57.349	ng	99
70) Pentachlorophenol	11.210	266	241085	97.276	ng	99
71) Phenanthrene	11.427	178	1008970	52.505	ng	100
72) Anthracene	11.480	178	1030542	54.719	ng	100
73) Carbazole	11.633	167	913948	49.147	ng	100
74) Di-n-butylphthalate	11.957	149	1161034	52.019	ng	100
75) Fluoranthene	12.616	202	1005608	46.644	ng	99
77) Benzidine	12.739	184	149604	18.842	ng	98
78) Pyrene	12.845	202	1002591	56.658	ng	100
80) Butylbenzylphthalate	13.457	149	380539	55.980	ng	96
81) Benzo(a)anthracene	14.033	228	751085	55.241	ng	99
82) 3,3'-Dichlorobenzidine	13.998	252	167008	38.645	ng	99
83) Chrysene	14.074	228	648530	52.277	ng	100
84) Bis(2-ethylhexyl)phtha...	14.016	149	496820	54.755	ng	99
85) Di-n-octyl phthalate	14.639	149	743761	58.202	ng	99
87) Indeno(1,2,3-cd)pyrene	17.051	276	870838	62.402	ng	99
88) Benzo(b)fluoranthene	15.104	252	742952	50.274	ng	99
89) Benzo(k)fluoranthene	15.133	252	566235	46.902	ng	98
90) Benzo(a)pyrene	15.480	252	642992	56.028	ng	99
91) Dibenzo(a,h)anthracene	17.068	278	709908	61.542	ng	99
92) Benzo(g,h,i)perylene	17.509	276	671446	56.936	ng	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

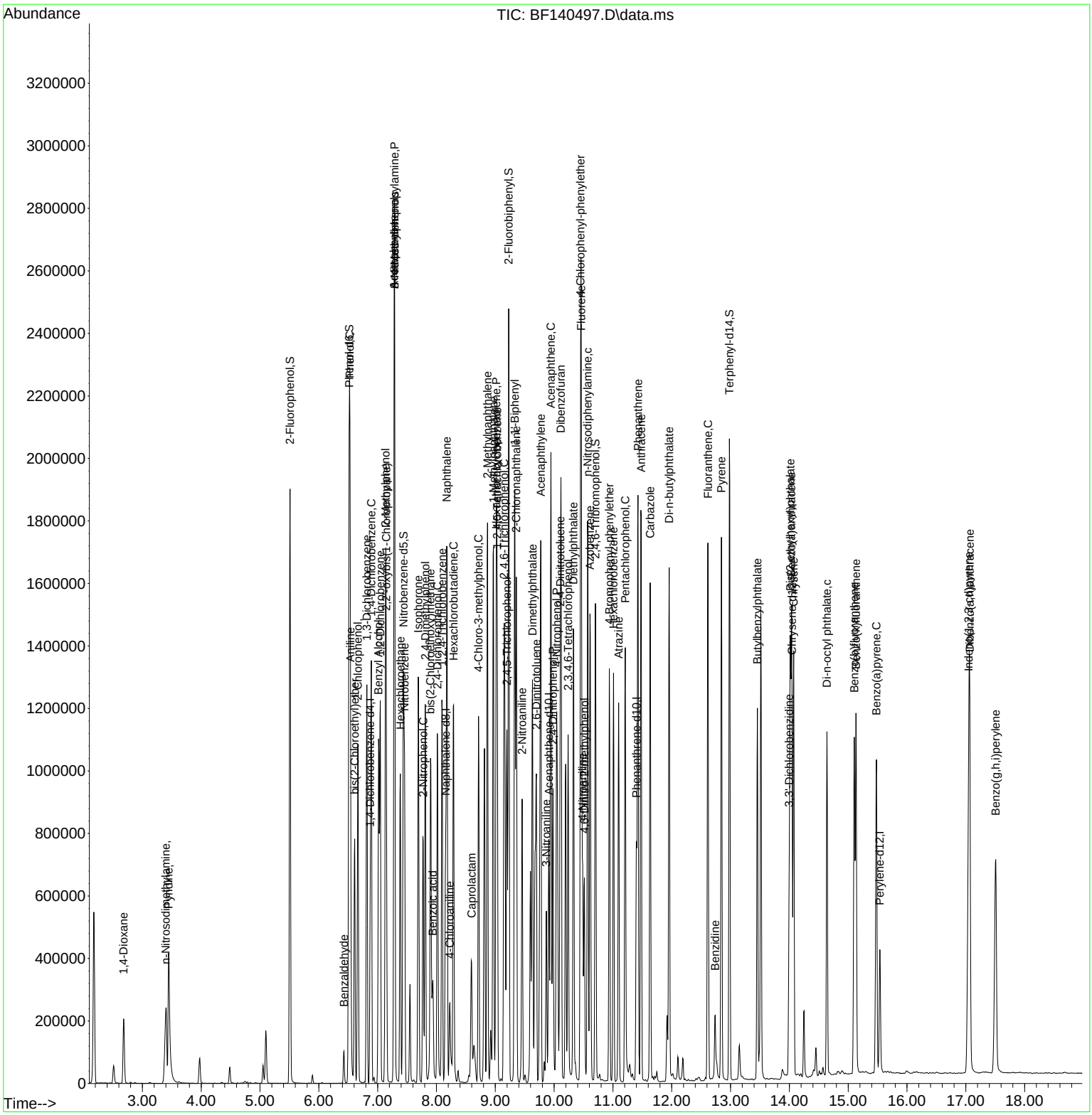
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF112024\
Data File : BF140497.D
Acq On : 20 Nov 2024 13:35
Operator : RC/JU
Sample : P4892-02MSD
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 20 14:10:36 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 13 14:40:06 2024
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
WB-310-BOTMSD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/22/2024
Supervised By :mohammad ahmed 11/22/2024



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Manual Integration Report

Sequence:	BF111324	Instrument	BNA_f

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
SSTDICC005	BF140333.D	Benzoic acid	yogesh	11/14/2024 3:08:33 AM	mohammad	11/15/2024 5:49:17 AM	Peak Integrated by Software
SSTDICC010	BF140334.D	2,3,4,6-Tetrachlorophenol	yogesh	11/14/2024 3:08:38 AM	mohammad	11/15/2024 5:49:17 AM	Peak Integrated by Software
SSTDICC010	BF140334.D	Benzoic acid	yogesh	11/14/2024 3:08:38 AM	mohammad	11/15/2024 5:49:17 AM	Peak Integrated by Software
SSTDICC080	BF140339.D	Caprolactam	yogesh	11/14/2024 3:08:41 AM	mohammad	11/15/2024 5:49:17 AM	Peak Integrated by Software

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

Manual Integration Report

Sequence:	BF112024	Instrument	BNA_f

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
SSTDCCC040	BF140488.D	2,4-Dimethylphenol	yogesh	11/22/2024 3:49:58 AM	mohammad	11/22/2024 4:00:42 AM	Peak Integrated by Software
SSTDCCC040	BF140488.D	Acenaphthene	yogesh	11/22/2024 3:49:58 AM	mohammad	11/22/2024 4:00:42 AM	Peak Integrated by Software
P4892-02MS	BF140496.D	2,4-Dimethylphenol	yogesh	11/22/2024 3:50:23 AM	mohammad	11/22/2024 4:00:42 AM	Peak Integrated by Software
P4892-02MS	BF140496.D	Acenaphthene	yogesh	11/22/2024 3:50:23 AM	mohammad	11/22/2024 4:00:42 AM	Peak Integrated by Software
P4892-02MS	BF140496.D	Caprolactam	yogesh	11/22/2024 3:50:23 AM	mohammad	11/22/2024 4:00:42 AM	Peak Integrated by Software
P4892-02MSD	BF140497.D	2,4-Dimethylphenol	yogesh	11/22/2024 3:50:25 AM	mohammad	11/22/2024 4:00:42 AM	Peak Integrated by Software
P4892-02MSD	BF140497.D	Acenaphthene	yogesh	11/22/2024 3:50:25 AM	mohammad	11/22/2024 4:00:42 AM	Peak Integrated by Software
P4892-02MSD	BF140497.D	Caprolactam	yogesh	11/22/2024 3:50:25 AM	mohammad	11/22/2024 4:00:42 AM	Peak Integrated by Software
SSTDCCC040	BF140499.D	2,4-Dimethylphenol	yogesh	11/22/2024 3:50:27 AM	mohammad	11/22/2024 4:00:42 AM	Peak Integrated by Software
SSTDCCC040	BF140501.D	2,4-Dimethylphenol	yogesh	11/22/2024 3:50:29 AM	mohammad	11/22/2024 4:00:42 AM	Peak Integrated by Software
P4892-01	BF140510.D	Benzo(b)fluoranthene	yogesh	11/22/2024 3:50:31 AM	mohammad	11/22/2024 4:00:42 AM	Peak Integrated by Software
P4892-01	BF140510.D	Benzo(k)fluoranthene	yogesh	11/22/2024 3:50:31 AM	mohammad	11/22/2024 4:00:42 AM	Peak Integrated by Software

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

Manual Integration Report

Sequence:	BF112024	Instrument	BNA_f

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason

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

Manual Integration Report

Sequence:	BF112124	Instrument	BNA_f

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
SSTDICC010	BF140530.D	Benzoic acid	yogesh	11/22/2024 3:53:18 AM	mohammad	11/27/2024 6:03:59 AM	Peak Integrated by Software
SSTDICC020	BF140531.D	Acenaphthene	yogesh	11/22/2024 3:53:19 AM	mohammad	11/27/2024 6:03:59 AM	Peak Integrated by Software
SSTDICCC040	BF140532.D	Acenaphthene	yogesh	11/22/2024 3:53:21 AM	mohammad	11/27/2024 6:03:59 AM	Peak Integrated by Software
SSTDICV040	BF140536.D	Acenaphthene	yogesh	11/22/2024 3:53:22 AM	mohammad	11/27/2024 6:03:59 AM	Peak Integrated by Software
SSTDCCC040	BF140539.D	2,4-Dimethylphenol	yogesh	11/22/2024 3:53:24 AM	mohammad	11/27/2024 6:03:59 AM	Peak Integrated by Software
SSTDCCC040	BF140539.D	Acenaphthene	yogesh	11/22/2024 3:53:24 AM	mohammad	11/27/2024 6:03:59 AM	Peak Integrated by Software

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

Manual Integration Report

Sequence:	bf112524	Instrument	BNA_f

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
SSTDCCC040	BF140590.D	2,4-Dimethylphenol	yogesh	11/27/2024 5:26:43 AM	mohammad	11/27/2024 6:04:35 AM	Peak Integrated by Software
PB165086BS	BF140594.D	Caprolactam	yogesh	11/27/2024 5:26:46 AM	mohammad	11/27/2024 6:04:35 AM	Peak Integrated by Software
PB165152BS	BF140598.D	Caprolactam	yogesh	11/27/2024 5:26:57 AM	mohammad	11/27/2024 6:04:35 AM	Peak Integrated by Software
PB165152BSD	BF140600.D	Caprolactam	yogesh	11/27/2024 5:26:58 AM	mohammad	11/27/2024 6:04:35 AM	Peak Integrated by Software
SSTDCCC040	BF140604.D	2,4-Dimethylphenol	yogesh	11/27/2024 5:27:03 AM	mohammad	11/27/2024 6:04:35 AM	Peak Integrated by Software

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Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF111324

Review By	yogesh	Review On	11/14/2024 3:08:53 AM				
Supervise By	mohammad	Supervise On	11/15/2024 5:49:17 AM				
SubDirectory	BF111324	HP Acquire Method	BNA_F		HP Processing Method	Bf111324	

STD. NAME	STD REF.#
Tune/Reschk	SP6573
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC	SP6624
Internal Standard/PEM	S12327,10ul/1000ul sample
ICV/I.BLK	SP6559
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BF140331.D	13 Nov 2024 08:35	RC/JU	Ok
2	SSTDICC2.5	BF140332.D	13 Nov 2024 09:01	RC/JU	Ok
3	SSTDICC005	BF140333.D	13 Nov 2024 09:27	RC/JU	Ok,M
4	SSTDICC010	BF140334.D	13 Nov 2024 09:53	RC/JU	Ok,M
5	SSTDICC020	BF140335.D	13 Nov 2024 10:29	RC/JU	Ok
6	SSTDICCC040	BF140336.D	13 Nov 2024 10:55	RC/JU	Not Ok
7	SSTDICC050	BF140337.D	13 Nov 2024 11:21	RC/JU	Ok
8	SSTDICC060	BF140338.D	13 Nov 2024 11:47	RC/JU	Ok
9	SSTDICC080	BF140339.D	13 Nov 2024 12:13	RC/JU	Ok,M
10	SSTDICCC040	BF140340.D	13 Nov 2024 12:48	RC/JU	Ok
11	SSTDICV040	BF140341.D	13 Nov 2024 13:19	RC/JU	Ok
12	PB164401BL	BF140342.D	13 Nov 2024 13:45	RC/JU	Ok
13	P4495-11	BF140343.D	13 Nov 2024 15:25	RC/JU	Dilution
14	P4495-11DL	BF140344.D	13 Nov 2024 16:02	RC/JU	Ok
15	P3845-03	BF140345.D	13 Nov 2024 16:40	RC/JU	Dilution
16	P3845-03DL	BF140346.D	13 Nov 2024 17:06	RC/JU	Ok
17	P3845-06	BF140347.D	13 Nov 2024 17:32	RC/JU	Dilution
18	P3845-06DL	BF140348.D	13 Nov 2024 17:58	RC/JU	Not Ok
19	SP6681	BF140349.D	13 Nov 2024 18:39	RC/JU	Ok,NS

M : Manual Integration

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Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF112024

Review By	yogesh	Review On	11/22/2024 3:51:12 AM				
Supervise By	mohammad	Supervise On	11/22/2024 4:00:42 AM				
SubDirectory	BF112024	HP Acquire Method	BNA_F		HP Processing Method	Bf111324	

STD. NAME	STD REF.#
Tune/Reschk	SP6573
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC	SP6624
Internal Standard/PEM	S12329,10ul/1000ul sample
ICV/I.BLK	SP6559
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BF140487.D	20 Nov 2024 09:04	RC/JU	Ok
2	SSTDCCC040	BF140488.D	20 Nov 2024 09:31	RC/JU	Ok,M
3	PB165039BL	BF140489.D	20 Nov 2024 09:57	RC/JU	Ok
4	PB165039BS	BF140490.D	20 Nov 2024 10:23	RC/JU	Ok,M
5	PB165039BSD	BF140491.D	20 Nov 2024 10:49	RC/JU	Ok,M
6	P4843-01	BF140492.D	20 Nov 2024 11:23	RC/JU	Ok,M
7	P4868-01	BF140493.D	20 Nov 2024 11:49	RC/JU	Ok
8	P4868-03	BF140494.D	20 Nov 2024 12:15	RC/JU	ReRun
9	P4892-02	BF140495.D	20 Nov 2024 12:42	RC/JU	Ok
10	P4892-02MS	BF140496.D	20 Nov 2024 13:08	RC/JU	Ok,M
11	P4892-02MSD	BF140497.D	20 Nov 2024 13:35	RC/JU	Ok,M
12	P4868-03RE	BF140498.D	20 Nov 2024 14:01	RC/JU	Confirms
13	SSTDCCC040	BF140499.D	20 Nov 2024 14:34	RC/JU	Ok,M
14	DFTPP	BF140500.D	20 Nov 2024 15:33	RC/JU	Ok
15	SSTDCCC040	BF140501.D	20 Nov 2024 15:59	RC/JU	Ok,M
16	PB165086BL	BF140502.D	20 Nov 2024 16:25	RC/JU	Ok
17	P4849-02	BF140503.D	20 Nov 2024 16:58	RC/JU	Ok
18	P4870-07	BF140504.D	20 Nov 2024 17:24	RC/JU	Ok
19	P4910-01	BF140505.D	20 Nov 2024 17:51	RC/JU	Ok
20	P4893-01	BF140506.D	20 Nov 2024 18:17	RC/JU	Ok
21	P4893-05	BF140507.D	20 Nov 2024 18:43	RC/JU	Ok

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Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF112024

Review By	yogesh	Review On	11/22/2024 3:51:12 AM				
Supervise By	mohammad	Supervise On	11/22/2024 4:00:42 AM				
SubDirectory	BF112024	HP Acquire Method	BNA_F		HP Processing Method	Bf111324	

STD. NAME	STD REF.#
Tune/Reschk	SP6573
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC	SP6624
Internal Standard/PEM	S12329,10ul/1000ul sample
ICV/I.BLK	SP6559
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

22	P4768-05	BF140508.D	20 Nov 2024 19:09	RC/JU	Ok
23	P4870-10	BF140509.D	20 Nov 2024 19:35	RC/JU	Ok
24	P4892-01	BF140510.D	20 Nov 2024 20:02	RC/JU	Ok,M
25	P4909-01	BF140511.D	20 Nov 2024 20:28	RC/JU	Ok,M
26	P4910-05	BF140512.D	20 Nov 2024 20:54	RC/JU	Ok,M
27	P4889-05DL	BF140513.D	20 Nov 2024 21:21	RC/JU	Ok,M
28	P4822-10	BF140514.D	20 Nov 2024 21:47	RC/JU	Ok,M
29	P4822-12	BF140515.D	20 Nov 2024 22:13	RC/JU	Ok,M
30	P4822-06	BF140516.D	20 Nov 2024 22:40	RC/JU	Ok,M
31	P4822-08	BF140517.D	20 Nov 2024 23:06	RC/JU	Ok,M
32	P4822-02	BF140518.D	20 Nov 2024 23:32	RC/JU	ReRun
33	P4822-04	BF140519.D	20 Nov 2024 23:58	RC/JU	ReRun
34	P4887-05	BF140520.D	21 Nov 2024 00:24	RC/JU	ReRun
35	P4860-02	BF140521.D	21 Nov 2024 00:51	RC/JU	ReRun
36	P4860-03	BF140522.D	21 Nov 2024 01:17	RC/JU	ReRun
37	P4860-07	BF140523.D	21 Nov 2024 01:43	RC/JU	ReRun
38	P4916-01	BF140524.D	21 Nov 2024 02:09	RC/JU	ReRun
39	P4916-05	BF140525.D	21 Nov 2024 02:35	RC/JU	ReRun

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Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF112124

Review By	yogesh	Review On	11/22/2024 3:53:36 AM				
Supervise By	mohammad	Supervise On	11/27/2024 6:04:00 AM				
SubDirectory	BF112124	HP Acquire Method	BNA_F		HP Processing Method	bf112124	

STD. NAME	STD REF.#
Tune/Reschk	SP6573
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC	SP6624
Internal Standard/PEM	S12329,10ul/1000ul sample
ICV/I.BLK	SP6559
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BF140526.D	21 Nov 2024 10:17	RC/JU	Ok
2	SSTDCCC040	BF140527.D	21 Nov 2024 10:44	RC/JU	Not Ok
3	SSTDICC2.5	BF140528.D	21 Nov 2024 11:13	RC/JU	Ok
4	SSTDICC005	BF140529.D	21 Nov 2024 11:39	RC/JU	Ok
5	SSTDICC010	BF140530.D	21 Nov 2024 12:05	RC/JU	Ok,M
6	SSTDICC020	BF140531.D	21 Nov 2024 12:32	RC/JU	Ok,M
7	SSTDICCC040	BF140532.D	21 Nov 2024 12:58	RC/JU	Ok,M
8	SSTDICC050	BF140533.D	21 Nov 2024 13:25	RC/JU	Ok
9	SSTDICC060	BF140534.D	21 Nov 2024 13:51	RC/JU	Ok
10	SSTDICC080	BF140535.D	21 Nov 2024 14:18	RC/JU	Ok
11	SSTDICV040	BF140536.D	21 Nov 2024 15:07	RC/JU	Ok,M
12	PB165144BL	BF140537.D	21 Nov 2024 15:34	RC/JU	Ok
13	DFTPP	BF140538.D	21 Nov 2024 16:27	RC/JU	Ok
14	SSTDCCC040	BF140539.D	21 Nov 2024 16:54	RC/JU	Ok,M
15	PB165060TB	BF140540.D	21 Nov 2024 17:20	RC/JU	Ok
16	P4887-06	BF140541.D	21 Nov 2024 17:55	RC/JU	Ok
17	P4887-02	BF140542.D	21 Nov 2024 18:21	RC/JU	Ok
18	P4870-16	BF140543.D	21 Nov 2024 18:48	RC/JU	Ok
19	P4870-15	BF140544.D	21 Nov 2024 19:14	RC/JU	Ok
20	P4870-14	BF140545.D	21 Nov 2024 19:40	RC/JU	Ok
21	P4870-13	BF140546.D	21 Nov 2024 20:07	RC/JU	Ok

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Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF112124

Review By	yogesh	Review On	11/22/2024 3:53:36 AM				
Supervise By	mohammad	Supervise On	11/27/2024 6:04:00 AM				
SubDirectory	BF112124	HP Acquire Method	BNA_F		HP Processing Method	bf112124	

STD. NAME	STD REF.#
Tune/Reschk	SP6573
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC	SP6624
Internal Standard/PEM	S12329,10ul/1000ul sample
ICV/I.BLK	SP6559
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

22	P4929-02	BF140547.D	21 Nov 2024 20:33	RC/JU	Ok
23	P4924-04	BF140548.D	21 Nov 2024 20:59	RC/JU	Ok
24	P4921-01	BF140549.D	21 Nov 2024 21:25	RC/JU	Ok
25	P4916-12	BF140550.D	21 Nov 2024 21:51	RC/JU	Ok
26	P4916-08	BF140551.D	21 Nov 2024 22:18	RC/JU	Ok
27	P4916-04	BF140552.D	21 Nov 2024 22:44	RC/JU	Ok
28	P4887-01	BF140553.D	21 Nov 2024 23:10	RC/JU	Ok
29	P4916-09	BF140554.D	21 Nov 2024 23:36	RC/JU	Ok
30	P4916-09MS	BF140555.D	22 Nov 2024 00:02	RC/JU	Ok,M
31	P4916-09MSD	BF140556.D	22 Nov 2024 00:28	RC/JU	Ok,M
32	P4916-01	BF140557.D	22 Nov 2024 00:54	RC/JU	Ok
33	P4916-05RE	BF140558.D	22 Nov 2024 01:21	RC/JU	Confirms
34	P4887-05RE	BF140559.D	22 Nov 2024 01:47	RC/JU	Confirms
35	P4924-01	BF140560.D	22 Nov 2024 02:13	RC/JU	ReRun
36	P4936-01	BF140561.D	22 Nov 2024 02:39	RC/JU	Ok,M
37	P4929-01	BF140562.D	22 Nov 2024 03:06	RC/JU	Ok,M

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Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF112524

Review By	yogesh	Review On	11/27/2024 5:27:46 AM				
Supervise By	mohammad	Supervise On	11/27/2024 6:04:35 AM				
SubDirectory	BF112524	HP Acquire Method	BNA_F		HP Processing Method	bf112124	

STD. NAME	STD REF.#
Tune/Reschk	SP6573
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC	SP6624
Internal Standard/PEM	S12330,10ul/1000ul sample
ICV/I.BLK	SP6559
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BF140589.D	25 Nov 2024 09:07	RC/JU	Ok
2	SSTDCCC040	BF140590.D	25 Nov 2024 09:33	RC/JU	Ok,M
3	PB165123TB	BF140591.D	25 Nov 2024 09:59	RC/JU	Ok
4	PB165155BS	BF140592.D	25 Nov 2024 10:25	RC/JU	Ok,M
5	PB165155BL	BF140593.D	25 Nov 2024 10:51	RC/JU	Ok
6	PB165086BS	BF140594.D	25 Nov 2024 11:17	RC/JU	Ok,M
7	PB165111TB	BF140595.D	25 Nov 2024 11:43	RC/JU	Ok
8	PB165052BS	BF140596.D	25 Nov 2024 12:09	RC/JU	Ok,M
9	PB164986TB	BF140597.D	25 Nov 2024 12:36	RC/JU	Ok
10	PB165152BS	BF140598.D	25 Nov 2024 13:02	RC/JU	Ok,M
11	PB164886TB	BF140599.D	25 Nov 2024 13:27	RC/JU	Ok
12	PB165152BSD	BF140600.D	25 Nov 2024 13:54	RC/JU	Ok,M
13	PB165152BL	BF140601.D	25 Nov 2024 14:28	RC/JU	Ok
14	PB165185BS	BF140602.D	25 Nov 2024 14:54	RC/JU	Ok,M
15	DFTPP	BF140603.D	25 Nov 2024 15:23	RC/JU	Ok
16	SSTDCCC040	BF140604.D	25 Nov 2024 15:49	RC/JU	Ok,M
17	PB165052BL	BF140605.D	25 Nov 2024 16:17	RC/JU	Ok
18	P4947-01	BF140606.D	25 Nov 2024 16:49	RC/JU	Ok
19	P4892-04	BF140607.D	25 Nov 2024 17:15	RC/JU	Ok
20	P4860-09	BF140608.D	25 Nov 2024 17:41	RC/JU	Ok
21	P4860-01	BF140609.D	25 Nov 2024 18:07	RC/JU	Ok

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Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF112524

Review By	yogesh	Review On	11/27/2024 5:27:46 AM		
Supervise By	mohammad	Supervise On	11/27/2024 6:04:35 AM		
SubDirectory	BF112524	HP Acquire Method	BNA_F	HP Processing Method	bf112124

STD. NAME	STD REF.#
Tune/Reschk	SP6573
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC	SP6624
Internal Standard/PEM	S12330,10ul/1000ul sample
ICV/I.BLK	SP6559
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

22	P4960-01	BF140610.D	25 Nov 2024 18:34	RC/JU	Ok
23	P4960-05	BF140611.D	25 Nov 2024 19:00	RC/JU	Ok
24	P4892-03	BF140612.D	25 Nov 2024 19:26	RC/JU	Ok
25	P4892-03MS	BF140613.D	25 Nov 2024 19:52	RC/JU	Ok,M
26	P4892-03MSD	BF140614.D	25 Nov 2024 20:18	RC/JU	Ok,M
27	P4860-06	BF140615.D	25 Nov 2024 20:45	RC/JU	Ok
28	P4860-09MS	BF140616.D	25 Nov 2024 21:11	RC/JU	Not Ok
29	P4860-09MSD	BF140617.D	25 Nov 2024 21:37	RC/JU	Not Ok
30	P4960-03	BF140618.D	25 Nov 2024 22:03	RC/JU	ReRun
31	P4860-10	BF140619.D	25 Nov 2024 22:29	RC/JU	ReRun
32	P4860-04	BF140620.D	25 Nov 2024 22:55	RC/JU	Ok
33	P4860-07	BF140621.D	25 Nov 2024 23:22	RC/JU	Ok
34	P4860-03	BF140622.D	25 Nov 2024 23:48	RC/JU	Ok
35	P4951-01	BF140623.D	26 Nov 2024 00:14	RC/JU	ReRun
36	P4954-01	BF140624.D	26 Nov 2024 00:40	RC/JU	Ok,M
37	P4954-01MS	BF140625.D	26 Nov 2024 01:06	RC/JU	Ok,M
38	P4954-01MSD	BF140626.D	26 Nov 2024 01:32	RC/JU	Ok,M
39	P4954-03	BF140627.D	26 Nov 2024 01:58	RC/JU	Ok,M

M : Manual Integration

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Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF111324

Review By	yogesh	Review On	11/14/2024 3:08:53 AM		
Supervise By	mohammad	Supervise On	11/15/2024 5:49:17 AM		
SubDirectory	BF111324	HP Acquire Method	BNA_F	HP Processing Method	Bf111324

STD. NAME	STD REF.#
Tune/Reschk	SP6573
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC	SP6624
Internal Standard/PEM	S12327,10ul/1000ul sample
ICV/I.BLK	SP6559
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	DFTPP	DFTPP	BF140331.D	13 Nov 2024 08:35		RC/JU	Ok
2	SSTDICC2.5	SSTDICC2.5	BF140332.D	13 Nov 2024 09:01		RC/JU	Ok
3	SSTDICC005	SSTDICC005	BF140333.D	13 Nov 2024 09:27	Compound#41,54,77 removed from 5 ppm	RC/JU	Ok,M
4	SSTDICC010	SSTDICC010	BF140334.D	13 Nov 2024 09:53		RC/JU	Ok,M
5	SSTDICC020	SSTDICC020	BF140335.D	13 Nov 2024 10:29		RC/JU	Ok
6	SSTDICCC040	SSTDICCC040	BF140336.D	13 Nov 2024 10:55	Injection Error	RC/JU	Not Ok
7	SSTDICC050	SSTDICC050	BF140337.D	13 Nov 2024 11:21		RC/JU	Ok
8	SSTDICC060	SSTDICC060	BF140338.D	13 Nov 2024 11:47		RC/JU	Ok
9	SSTDICC080	SSTDICC080	BF140339.D	13 Nov 2024 12:13	Compound#09 removed from 80 ppm	RC/JU	Ok,M
10	SSTDICCC040	SSTDICCC040	BF140340.D	13 Nov 2024 12:48		RC/JU	Ok
11	SSTDICV040	ICVBF111324	BF140341.D	13 Nov 2024 13:19		RC/JU	Ok
12	PB164401BL	PB164401BL	BF140342.D	13 Nov 2024 13:45		RC/JU	Ok
13	P4495-11	PT-BNA-SOIL	BF140343.D	13 Nov 2024 15:25	PT Sample, Need 5X Dilution	RC/JU	Dilution
14	P4495-11DL	PT-BNA-SOILDL	BF140344.D	13 Nov 2024 16:02		RC/JU	Ok
15	P3845-03	PT-BN-WP	BF140345.D	13 Nov 2024 16:40	PT Sample Analyzed for confirmation - Need 5X Dilution.	RC/JU	Dilution
16	P3845-03DL	PT-BN-WPDL	BF140346.D	13 Nov 2024 17:06		RC/JU	Ok
17	P3845-06	PT-ACIDS-WP	BF140347.D	13 Nov 2024 17:32	PT Sample Analyzed for confirmation - Need 5X Dilution.	RC/JU	Dilution

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Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF111324

Review By	yogesh	Review On	11/14/2024 3:08:53 AM		
Supervise By	mohammad	Supervise On	11/15/2024 5:49:17 AM		
SubDirectory	BF111324	HP Acquire Method	BNA_F	HP Processing Method	Bf111324

STD. NAME	STD REF.#
Tune/Reschk	SP6573
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC	SP6624
Internal Standard/PEM	S12327,10ul/1000ul sample
ICV/I.BLK	SP6559
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

18	P3845-06DL	PT-ACIDS-WPDL	BF140348.D	13 Nov 2024 17:58	Dilution not matching (Low results)	RC/JU	Not Ok
19	SP6681	SP6681	BF140349.D	13 Nov 2024 18:39	8270-625.1 SPIKE SOLUTION	RC/JU	Ok,NS

M : Manual Integration

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Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF112024

Review By	yogesh	Review On	11/22/2024 3:51:12 AM		
Supervise By	mohammad	Supervise On	11/22/2024 4:00:42 AM		
SubDirectory	BF112024	HP Acquire Method	BNA_F	HP Processing Method	Bf111324

STD. NAME	STD REF.#
Tune/Reschk	SP6573
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC	SP6624
Internal Standard/PEM	S12329,10ul/1000ul sample
ICV/I.BLK	SP6559
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	DFTPP	DFTPP	BF140487.D	20 Nov 2024 09:04		RC/JU	Ok
2	SSTDCCC040	SSTDCCC040	BF140488.D	20 Nov 2024 09:31		RC/JU	Ok,M
3	PB165039BL	PB165039BL	BF140489.D	20 Nov 2024 09:57		RC/JU	Ok
4	PB165039BS	PB165039BS	BF140490.D	20 Nov 2024 10:23		RC/JU	Ok,M
5	PB165039BSD	PB165039BSD	BF140491.D	20 Nov 2024 10:49		RC/JU	Ok,M
6	P4843-01	SW-WTS-01	BF140492.D	20 Nov 2024 11:23		RC/JU	Ok,M
7	P4868-01	RW5-SP100-20241114	BF140493.D	20 Nov 2024 11:49		RC/JU	Ok
8	P4868-03	RW5-SP303-20241114	BF140494.D	20 Nov 2024 12:15	Internal Standard Fail	RC/JU	ReRun
9	P4892-02	WB-310-BOT	BF140495.D	20 Nov 2024 12:42		RC/JU	Ok
10	P4892-02MS	WB-310-BOTMS	BF140496.D	20 Nov 2024 13:08		RC/JU	Ok,M
11	P4892-02MSD	WB-310-BOTMSD	BF140497.D	20 Nov 2024 13:35		RC/JU	Ok,M
12	P4868-03RE	RW5-SP303-20241114I	BF140498.D	20 Nov 2024 14:01	Internal Standard Fail	RC/JU	Confirms
13	SSTDCCC040	SSTDCCC040EC	BF140499.D	20 Nov 2024 14:34		RC/JU	Ok,M
14	DFTPP	DFTPP	BF140500.D	20 Nov 2024 15:33		RC/JU	Ok
15	SSTDCCC040	SSTDCCC040	BF140501.D	20 Nov 2024 15:59		RC/JU	Ok,M
16	PB165086BL	PB165086BL	BF140502.D	20 Nov 2024 16:25		RC/JU	Ok
17	P4849-02	RR-1	BF140503.D	20 Nov 2024 16:58		RC/JU	Ok
18	P4870-07	MH-736	BF140504.D	20 Nov 2024 17:24		RC/JU	Ok

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

Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF112024

Review By	yogesh	Review On	11/22/2024 3:51:12 AM		
Supervise By	mohammad	Supervise On	11/22/2024 4:00:42 AM		
SubDirectory	BF112024	HP Acquire Method	BNA_F	HP Processing Method	Bf111324

STD. NAME	STD REF.#
Tune/Reschk	SP6573
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC	SP6624
Internal Standard/PEM	S12329,10ul/1000ul sample
ICV/I.BLK	SP6559
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

19	P4910-01	MH-COTTAGE	BF140505.D	20 Nov 2024 17:51		RC/JU	Ok
20	P4893-01	MH-763	BF140506.D	20 Nov 2024 18:17		RC/JU	Ok
21	P4893-05	MH-762	BF140507.D	20 Nov 2024 18:43		RC/JU	Ok
22	P4768-05	B-5	BF140508.D	20 Nov 2024 19:09	Internal Standard Fail	RC/JU	Ok
23	P4870-10	TP-15	BF140509.D	20 Nov 2024 19:35		RC/JU	Ok
24	P4892-01	WB-310-TOP	BF140510.D	20 Nov 2024 20:02		RC/JU	Ok,M
25	P4909-01	BU-02-111824	BF140511.D	20 Nov 2024 20:28		RC/JU	Ok,M
26	P4910-05	MH-759	BF140512.D	20 Nov 2024 20:54	Internal Standard Fail	RC/JU	Ok,M
27	P4889-05DL	#72-11930DL	BF140513.D	20 Nov 2024 21:21	Internal Standard Fail	RC/JU	Ok,M
28	P4822-10	SOIL-5	BF140514.D	20 Nov 2024 21:47		RC/JU	Ok,M
29	P4822-12	SOIL-6	BF140515.D	20 Nov 2024 22:13		RC/JU	Ok,M
30	P4822-06	SOIL-3	BF140516.D	20 Nov 2024 22:40		RC/JU	Ok,M
31	P4822-08	SOIL-4	BF140517.D	20 Nov 2024 23:06		RC/JU	Ok,M
32	P4822-02	SOIL-1	BF140518.D	20 Nov 2024 23:32	Internal Standard Fail	RC/JU	ReRun
33	P4822-04	SOIL-2	BF140519.D	20 Nov 2024 23:58	Internal Standard Fail	RC/JU	ReRun
34	P4887-05	MH-760	BF140520.D	21 Nov 2024 00:24	Internal Standard Fail	RC/JU	ReRun
35	P4860-02	PH2-BOT-001	BF140521.D	21 Nov 2024 00:51	Internal Standard Fail	RC/JU	ReRun
36	P4860-03	PH2-BOT-002	BF140522.D	21 Nov 2024 01:17	Internal Standard Fail	RC/JU	ReRun
37	P4860-07	PH2-BOT-008	BF140523.D	21 Nov 2024 01:43	Internal Standard Fail	RC/JU	ReRun

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Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF112024

Review By	yogesh	Review On	11/22/2024 3:51:12 AM		
Supervise By	mohammad	Supervise On	11/22/2024 4:00:42 AM		
SubDirectory	BF112024	HP Acquire Method	BNA_F	HP Processing Method	Bf111324

STD. NAME	STD REF.#
Tune/Reschk	SP6573
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC	SP6624
Internal Standard/PEM	S12329,10ul/1000ul sample
ICV/I.BLK	SP6559
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

38	P4916-01	TP-1-WC	BF140524.D	21 Nov 2024 02:09	Internal Standard Fail	RC/JU	ReRun
39	P4916-05	TP-2-WC	BF140525.D	21 Nov 2024 02:35	Internal Standard Fail	RC/JU	ReRun

M : Manual Integration

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Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF112124

Review By	yogesh	Review On	11/22/2024 3:53:36 AM				
Supervise By	mohammad	Supervise On	11/27/2024 6:04:00 AM				
SubDirectory	BF112124	HP Acquire Method	BNA_F	HP Processing Method	bf112124		

STD. NAME	STD REF.#
Tune/Reschk	SP6573
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC	SP6624
Internal Standard/PEM	S12329,10ul/1000ul sample
ICV/I.BLK	SP6559
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	DFTPP	DFTPP	BF140526.D	21 Nov 2024 10:17		RC/JU	Ok
2	SSTDCCC040	SSTDCCC040	BF140527.D	21 Nov 2024 10:44	A Fresh Calibration is required.	RC/JU	Not Ok
3	SSTDICC2.5	SSTDICC2.5	BF140528.D	21 Nov 2024 11:13		RC/JU	Ok
4	SSTDICC005	SSTDICC005	BF140529.D	21 Nov 2024 11:39	Compound#9,32,41,54,56,65,70 removed from 5 ppm	RC/JU	Ok
5	SSTDICC010	SSTDICC010	BF140530.D	21 Nov 2024 12:05		RC/JU	Ok,M
6	SSTDICC020	SSTDICC020	BF140531.D	21 Nov 2024 12:32	Compound#32,41,54 Kept on LR	RC/JU	Ok,M
7	SSTDICCC040	SSTDICCC040	BF140532.D	21 Nov 2024 12:58	Calibration failed for Benzidine	RC/JU	Ok,M
8	SSTDICC050	SSTDICC050	BF140533.D	21 Nov 2024 13:25	The Calibration is Good For 8270 DOD Except com#77 and good for 625.1 Method Except com#77	RC/JU	Ok
9	SSTDICC060	SSTDICC060	BF140534.D	21 Nov 2024 13:51		RC/JU	Ok
10	SSTDICC080	SSTDICC080	BF140535.D	21 Nov 2024 14:18	Compound#9 removed from 80 ppm	RC/JU	Ok
11	SSTDICV040	ICVBF112124	BF140536.D	21 Nov 2024 15:07		RC/JU	Ok,M
12	PB165144BL	PB165144BL	BF140537.D	21 Nov 2024 15:34		RC/JU	Ok
13	DFTPP	DFTPP	BF140538.D	21 Nov 2024 16:27		RC/JU	Ok
14	SSTDCCC040	SSTDCCC040	BF140539.D	21 Nov 2024 16:54		RC/JU	Ok,M
15	PB165060TB	PB165060TB	BF140540.D	21 Nov 2024 17:20		RC/JU	Ok
16	P4887-06	MH-760	BF140541.D	21 Nov 2024 17:55		RC/JU	Ok

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Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF112124

Review By	yogesh	Review On	11/22/2024 3:53:36 AM		
Supervise By	mohammad	Supervise On	11/27/2024 6:04:00 AM		
SubDirectory	BF112124	HP Acquire Method	BNA_F	HP Processing Method	bf112124

STD. NAME	STD REF.#
Tune/Reschk	SP6573
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC	SP6624
Internal Standard/PEM	S12329,10ul/1000ul sample
ICV/I.BLK	SP6559
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

17	P4887-02	MH-739	BF140542.D	21 Nov 2024 18:21		RC/JU	Ok
18	P4870-16	TP-15	BF140543.D	21 Nov 2024 18:48		RC/JU	Ok
19	P4870-15	MH-736	BF140544.D	21 Nov 2024 19:14		RC/JU	Ok
20	P4870-14	MH-735	BF140545.D	21 Nov 2024 19:40		RC/JU	Ok
21	P4870-13	TP-1	BF140546.D	21 Nov 2024 20:07		RC/JU	Ok
22	P4929-02	ARS520	BF140547.D	21 Nov 2024 20:33		RC/JU	Ok
23	P4924-04	MH-4	BF140548.D	21 Nov 2024 20:59		RC/JU	Ok
24	P4921-01	WC-11-A-202411	BF140549.D	21 Nov 2024 21:25		RC/JU	Ok
25	P4916-12	TP-3-WC	BF140550.D	21 Nov 2024 21:51		RC/JU	Ok
26	P4916-08	TP-2-WC	BF140551.D	21 Nov 2024 22:18		RC/JU	Ok
27	P4916-04	TP-1-WC	BF140552.D	21 Nov 2024 22:44		RC/JU	Ok
28	P4887-01	MH-739	BF140553.D	21 Nov 2024 23:10		RC/JU	Ok
29	P4916-09	TP-3-WC	BF140554.D	21 Nov 2024 23:36		RC/JU	Ok
30	P4916-09MS	TP-3-WCMS	BF140555.D	22 Nov 2024 00:02		RC/JU	Ok,M
31	P4916-09MSD	TP-3-WCMSD	BF140556.D	22 Nov 2024 00:28		RC/JU	Ok,M
32	P4916-01	TP-1-WC	BF140557.D	22 Nov 2024 00:54		RC/JU	Ok
33	P4916-05RE	TP-2-WCRE	BF140558.D	22 Nov 2024 01:21	Internal Standard Fail	RC/JU	Confirms
34	P4887-05RE	MH-760RE	BF140559.D	22 Nov 2024 01:47	Internal Standard Fail	RC/JU	Confirms
35	P4924-01	MH-4	BF140560.D	22 Nov 2024 02:13	Internal Standard Fail	RC/JU	ReRun

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Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF112124

Review By	yogesh	Review On	11/22/2024 3:53:36 AM		
Supervise By	mohammad	Supervise On	11/27/2024 6:04:00 AM		
SubDirectory	BF112124	HP Acquire Method	BNA_F	HP Processing Method	bf112124

STD. NAME	STD REF.#
Tune/Reschk	SP6573
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC	SP6624
Internal Standard/PEM	S12329,10ul/1000ul sample
ICV/I.BLK	SP6559
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

36	P4936-01	PL-01-11202024	BF140561.D	22 Nov 2024 02:39	Internal Standard Fail	RC/JU	Ok,M
37	P4929-01	ARS520	BF140562.D	22 Nov 2024 03:06	Internal Standard Fail	RC/JU	Ok,M

M : Manual Integration

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Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF112524

Review By	yogesh	Review On	11/27/2024 5:27:46 AM		
Supervise By	mohammad	Supervise On	11/27/2024 6:04:35 AM		
SubDirectory	BF112524	HP Acquire Method	BNA_F	HP Processing Method	bf112124

STD. NAME	STD REF.#
Tune/Reschk	SP6573
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC	SP6624
Internal Standard/PEM	S12330,10ul/1000ul sample
ICV/I.BLK	SP6559
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	DFTPP	DFTPP	BF140589.D	25 Nov 2024 09:07		RC/JU	Ok
2	SSTDCCC040	SSTDCCC040	BF140590.D	25 Nov 2024 09:33		RC/JU	Ok,M
3	PB165123TB	PB165123TB	BF140591.D	25 Nov 2024 09:59		RC/JU	Ok
4	PB165155BS	PB165155BS	BF140592.D	25 Nov 2024 10:25		RC/JU	Ok,M
5	PB165155BL	PB165155BL	BF140593.D	25 Nov 2024 10:51		RC/JU	Ok
6	PB165086BS	PB165086BS	BF140594.D	25 Nov 2024 11:17		RC/JU	Ok,M
7	PB165111TB	PB165111TB	BF140595.D	25 Nov 2024 11:43		RC/JU	Ok
8	PB165052BS	PB165052BS	BF140596.D	25 Nov 2024 12:09		RC/JU	Ok,M
9	PB164986TB	PB164986TB	BF140597.D	25 Nov 2024 12:36		RC/JU	Ok
10	PB165152BS	PB165152BS	BF140598.D	25 Nov 2024 13:02		RC/JU	Ok,M
11	PB164886TB	PB164886TB	BF140599.D	25 Nov 2024 13:27		RC/JU	Ok
12	PB165152BSD	PB165152BSD	BF140600.D	25 Nov 2024 13:54		RC/JU	Ok,M
13	PB165152BL	PB165152BL	BF140601.D	25 Nov 2024 14:28		RC/JU	Ok
14	PB165185BS	PB165185BS	BF140602.D	25 Nov 2024 14:54		RC/JU	Ok,M
15	DFTPP	DFTPP	BF140603.D	25 Nov 2024 15:23		RC/JU	Ok
16	SSTDCCC040	SSTDCCC040	BF140604.D	25 Nov 2024 15:49		RC/JU	Ok,M
17	PB165052BL	PB165052BL	BF140605.D	25 Nov 2024 16:17		RC/JU	Ok
18	P4947-01	A3988	BF140606.D	25 Nov 2024 16:49		RC/JU	Ok

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Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF112524

Review By	yogesh	Review On	11/27/2024 5:27:46 AM		
Supervise By	mohammad	Supervise On	11/27/2024 6:04:35 AM		
SubDirectory	BF112524	HP Acquire Method	BNA_F	HP Processing Method	bf112124

STD. NAME	STD REF.#
Tune/Reschk	SP6573
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC	SP6624
Internal Standard/PEM	S12330,10ul/1000ul sample
ICV/I.BLK	SP6559
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

19	P4892-04	WB-310-SW	BF140607.D	25 Nov 2024 17:15		RC/JU	Ok
20	P4860-09	PH2-BOT-006	BF140608.D	25 Nov 2024 17:41		RC/JU	Ok
21	P4860-01	DUP-01	BF140609.D	25 Nov 2024 18:07		RC/JU	Ok
22	P4960-01	B1	BF140610.D	25 Nov 2024 18:34		RC/JU	Ok
23	P4960-05	SW3	BF140611.D	25 Nov 2024 19:00		RC/JU	Ok
24	P4892-03	WB-310-BOT	BF140612.D	25 Nov 2024 19:26		RC/JU	Ok
25	P4892-03MS	WB-310-BOTMS	BF140613.D	25 Nov 2024 19:52		RC/JU	Ok,M
26	P4892-03MSD	WB-310-BOTMSD	BF140614.D	25 Nov 2024 20:18		RC/JU	Ok,M
27	P4860-06	PH2-BOT-009	BF140615.D	25 Nov 2024 20:45		RC/JU	Ok
28	P4860-09MS	PH2-BOT-006MS	BF140616.D	25 Nov 2024 21:11	MSD Not Ok	RC/JU	Not Ok
29	P4860-09MSD	PH2-BOT-006MSD	BF140617.D	25 Nov 2024 21:37	Internal Standard Fail	RC/JU	Not Ok
30	P4960-03	SW1	BF140618.D	25 Nov 2024 22:03	Internal Standard Fail	RC/JU	ReRun
31	P4860-10	PH2-BOT-005	BF140619.D	25 Nov 2024 22:29	Internal Standard Fail	RC/JU	ReRun
32	P4860-04	PH2-BOT-003	BF140620.D	25 Nov 2024 22:55		RC/JU	Ok
33	P4860-07	PH2-BOT-008	BF140621.D	25 Nov 2024 23:22		RC/JU	Ok
34	P4860-03	PH2-BOT-002	BF140622.D	25 Nov 2024 23:48		RC/JU	Ok
35	P4951-01	AU-05-112124	BF140623.D	26 Nov 2024 00:14	Internal Standard Fail	RC/JU	ReRun
36	P4954-01	TR-05-112124	BF140624.D	26 Nov 2024 00:40	Internal Standard Fail	RC/JU	Ok,M
37	P4954-01MS	TR-05-112124MS	BF140625.D	26 Nov 2024 01:06	Internal Standard Fail	RC/JU	Ok,M

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Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF112524

Review By	yogesh	Review On	11/27/2024 5:27:46 AM		
Supervise By	mohammad	Supervise On	11/27/2024 6:04:35 AM		
SubDirectory	BF112524	HP Acquire Method	BNA_F	HP Processing Method	bf112124

STD. NAME	STD REF.#
Tune/Reschk	SP6573
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC	SP6624
Internal Standard/PEM	S12330,10ul/1000ul sample
ICV/I.BLK	SP6559
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

38	P4954-01MSD	TR-05-112124MSD	BF140626.D	26 Nov 2024 01:32	Internal Standard Fail	RC/JU	Ok,M
39	P4954-03	TR-06-112124	BF140627.D	26 Nov 2024 01:58	Internal Standard Fail	RC/JU	Ok,M

M : Manual Integration

Alliance TECHNICAL GROUP

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 11/19/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 11/18/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:11
Out Date: 11/19/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB133489

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
P4817-01	BHK70	1	1.15	8.80	9.95	9.07	90.0	
P4817-02	BHK71	2	1.14	8.42	9.56	8.62	88.8	
P4817-03	BHK71MS	3	1.14	8.42	9.56	8.62	88.8	
P4817-04	BHK71MSD	4	1.14	8.42	9.56	8.62	88.8	
P4888-01	01A-01B-01C	5	1.00	1.00	2.00	2.00	100.0	caluk
P4888-02	02A-02B-02C	6	1.00	1.00	2.00	2.00	100.0	caluk
P4890-06	D3721	7	1.00	1.00	2.00	2.00	100.0	debris
P4892-01	WB-310-TOP	8	1.16	8.74	9.9	6.39	59.8	
P4892-02	WB-310-BOT	9	1.15	8.70	9.85	8.64	86.1	
P4893-01	MH-763	10	1.18	8.44	9.62	8.52	87.0	
P4893-02	MH-763-EPH	11	1.14	8.78	9.92	8.81	87.4	
P4893-03	MH-763-VOC	12	1.14	8.83	9.97	8.92	88.1	
P4893-05	MH-762	13	1.16	8.47	9.63	8.68	88.8	
P4893-06	MH-762-EPH	14	1.19	8.65	9.84	8.72	87.1	
P4893-07	MH-762-VOC	15	1.13	8.50	9.63	8.39	85.4	
P4894-01	FES-SB401-1921	16	1.16	8.58	9.74	8.92	90.4	
P4894-02	FES-SB401-6062	17	1.18	8.77	9.95	7.77	75.1	
P4894-03	FES-DUP02-20241114	18	1.15	8.66	9.81	9.17	92.6	
P4908-01	SP-1	19	1.16	8.50	9.66	8.9	91.1	
P4908-02	SP-1-E2	20	1.17	8.54	9.71	8.9	90.5	
P4908-03	SP-2	21	1.16	8.76	9.92	9.22	92.0	
P4908-04	SP-2-E2	22	1.16	8.45	9.61	8.9	91.6	
P4909-01	BU-02-111824	23	1.15	8.74	9.89	9.43	94.7	
P4909-02	BU-02-111824	24	1.16	8.72	9.88	9.09	90.9	
P4910-01	MH-COTTAGE	25	1.15	8.79	9.94	8.87	87.8	
P4910-02	MH-COTTAGE-EPH	26	1.19	8.41	9.6	8.44	86.2	
P4910-03	MH-COTTAGE-VOC	27	1.19	8.67	9.86	8.81	87.9	
P4910-05	MH-759	28	1.11	8.80	9.91	8.85	88.0	

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 11/19/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 11/18/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:11
Out Date: 11/19/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB133489

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
P4910-06	MH-759-EPH	29	1.15	8.82	9.97	9.09	90.0	
P4910-07	MH-759-VOC	30	1.15	8.40	9.55	8.57	88.3	

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

WORKLIST(Hardcopy Internal Chain)

VB133489

WorkList Name : %1-111824 **WorkList ID :** 185509 **Department :** Wet-Chemistry **Date :** 11-18-2024 08:23:47

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4817-01	BHK70	Solid	Percent Solids	Cool 4 deg C	USEP04	Q11	11/11/2024	Chemtech -SO
P4817-02	BHK71	Solid	Percent Solids	Cool 4 deg C	USEP04	Q11	11/11/2024	Chemtech -SO
P4817-03	BHK71MS	Solid	Percent Solids	Cool 4 deg C	USEP04	Q11	11/11/2024	Chemtech -SO
P4817-04	BHK71MSD	Solid	Percent Solids	Cool 4 deg C	USEP04	Q11	11/11/2024	Chemtech -SO
P4888-01	01A-01B-01C	Solid	Percent Solids	Cool 4 deg C	USEP04	Q11	11/11/2024	Chemtech -SO
P4888-02	02A-02B-02C	Solid	Percent Solids	Cool 4 deg C	BSIG01	M11	11/14/2024	Chemtech -SO
P4890-06	D3721	Solid	Percent Solids	Cool 4 deg C	BSIG01	M11	11/14/2024	Chemtech -SO
P4892-01	WB-310-TOP	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	11/15/2024	Chemtech -SO
P4892-02	WB-310-BOT	Solid	Percent Solids	Cool 4 deg C	PORT06	M11	11/15/2024	Chemtech -SO
P4893-01	MH-763	Solid	Percent Solids	Cool 4 deg C	PORT06	M11	11/15/2024	Chemtech -SO
P4893-02	MH-763-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	11/16/2024	Chemtech -SO
P4893-03	MH-763-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	11/16/2024	Chemtech -SO
P4893-05	MH-762	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	11/16/2024	Chemtech -SO
P4893-06	MH-762-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	11/16/2024	Chemtech -SO
P4893-07	MH-762-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	11/16/2024	Chemtech -SO
P4894-01	FES-SB401-1921	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	11/16/2024	Chemtech -SO
P4894-02	FES-SB401-6062	Solid	Percent Solids	Cool 4 deg C	TETR06	L51	11/14/2024	Chemtech -SO
P4894-03	FES-DUP02-20241114	Solid	Percent Solids	Cool 4 deg C	TETR06	L51	11/14/2024	Chemtech -SO
P4908-01	SP-1	Solid	Percent Solids	Cool 4 deg C	TETR06	L51	11/14/2024	Chemtech -SO
P4908-02	SP-1-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	11/18/2024	Chemtech -SO
P4908-03	SP-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	11/18/2024	Chemtech -SO

Date/Time 11-18-24 15:30

Raw Sample Received by: SB WC

Raw Sample Relinquished by: SR

Date/Time 11-18-24 17:10

Raw Sample Received by: SR

Raw Sample Relinquished by: SB WC

WORKLIST(Hardcopy Internal Chain)

WB133489

WorkList Name : %1-111824 **WorkList ID :** 185509 **Department :** Wet-Chemistry **Date :** 11-18-2024 08:23:47

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4908-04	SP-2-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	11/18/2024	Chemtech -SO
P4909-01	BU-02-111824	Solid	Percent Solids	Cool 4 deg C	PSEG05	L51	11/18/2024	Chemtech -SO
P4909-02	BU-02-111824	Solid	Percent Solids	Cool 4 deg C	PSEG05	L51	11/18/2024	Chemtech -SO
P4910-01	MH-COTTAGE	Solid	Percent Solids	Cool 4 deg C	PSEG03	L61	11/18/2024	Chemtech -SO
P4910-02	MH-COTTAGE-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L61	11/18/2024	Chemtech -SO
P4910-03	MH-COTTAGE-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L61	11/18/2024	Chemtech -SO
P4910-05	MH-759	Solid	Percent Solids	Cool 4 deg C	PSEG03	L61	11/18/2024	Chemtech -SO
P4910-06	MH-759-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L61	11/18/2024	Chemtech -SO
P4910-07	MH-759-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L61	11/18/2024	Chemtech -SO

Date/Time 11-18-24 15:30

Raw Sample Received by: BB CCC

Raw Sample Relinquished by: SM

Date/Time 11-18-24 17:10

Raw Sample Received by: SM

Raw Sample Relinquished by: BB CCC

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PB165086

SOP ID: M3541-ASE Extraction-14

Clean Up SOP #: N/A

Matrix : Solid

Weigh By: EH

Balance check: RJ

Balance ID: EX-SC-2

pH Strip Lot#: N/A

Extraction By: RJ

Filter By: RJ

pH Meter ID: N/A

Hood ID: 3,7

Extraction Start Date : 11/19/2024

Extraction Start Time : 09:00

Extraction End Date : 11/19/2024

Extraction End Time : 12:00

Concentration By: EH

Supervisor By : rajesh

Extraction Method: ☐ Seperatory Funnel ☐ Continious Liquid/Liquid ☐ Sonication ☐ Waste Dilution ☑ Soxhlet

Standared Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Spike Sol 1	1.0ML	50/100 PPM	SP6630
Surrogate	1.0ML	100/150 PPM	SP6638
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
MeCl2/Acetone/1:1	N/A	EP2560
Baked Na2SO4	N/A	EP2562
Sand	N/A	E2865
Methylene Chloride	N/A	E3829
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

1.5 ML Vial lot# 2210673.

KD Bath ID: N/A

KD Bath Temperature: N/A

Envap ID: NEVAP-02

Envap Temperature: 40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
11/19/24	RP (Lab)	AC/SVOC
12:05	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PrepBatch ID : PB165086

Analytical Method: M3541-ASE Extraction-14

Concentration Date: 11/19/2024

Sample ID	Client Sample ID	Test	g / mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB165086BL	SBLK086	SVOC-TCL BNA -20	30.01	N/A	ritesh	Evelyn	1			U5-1
PB165086BS	SLCS086	SVOC-TCL BNA -20	30.02	N/A	ritesh	Evelyn	1			2
P4892-01	WB-310-TOP	SVOC-TCL BNA -20	30.06	N/A	ritesh	Evelyn	1	E		3
P4892-02	WB-310-BOT	SVOC-TCL BNA -20	30.09	N/A	ritesh	Evelyn	1	E		4
P4892-02MS	WB-310-BOTMS	SVOC-TCL BNA -20	30.07	N/A	ritesh	Evelyn	1	E		5
P4892-02MSD	WB-310-BOTMSD	SVOC-TCL BNA -20	30.03	N/A	ritesh	Evelyn	1	E		6
P4893-01	MH-763	SVOC-TCL BNA -20	50.06	N/A	ritesh	Evelyn	1	B		U1-1
P4893-05	MH-762	SVOC-TCL BNA -20	50.02	N/A	ritesh	Evelyn	1	B		2
P4908-01	SP-1	SVOC-TCL BNA -20	50.03	N/A	ritesh	Evelyn	1	E		3
P4908-03	SP-2	SVOC-TCL BNA -20	50.08	N/A	ritesh	Evelyn	1	E		4
P4909-01	BU-02-111824	SVOC-TCL BNA -20	50.04	N/A	ritesh	Evelyn	1	B		5
P4910-01	MH-COTTAGE	SVOC-TCL BNA -20	50.06	N/A	ritesh	Evelyn	1	B		6
P4910-05	MH-759	SVOC-TCL BNA -20	50.05	N/A	ritesh	Evelyn	1	B		U6-1

* **Extracts relingulshed on the same date as received.**

11/19/24

165086
8:00

WORKLIST(Hardcopy Internal Chain)

WorkList Name : p4892 **WorkList ID :** 185552 **Department :** Extraction **Date :** 11-19-2024 08:23:19

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4892-01	WB-310-TOP	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PORT06	M11	11/15/2024	8270E
P4892-02	WB-310-BOT	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PORT06	M11	11/15/2024	8270E
P4893-01	MH-763	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG03	L51	11/16/2024	8270E
P4893-05	MH-762	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG03	L51	11/16/2024	8270E
P4908-01	SP-1	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG03	L51	11/18/2024	8270E
P4908-03	SP-2	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG03	L51	11/18/2024	8270E
P4909-01	BU-02-111824	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG03	L51	11/18/2024	8270E
P4910-01	MH-COTTAGE	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG05	L51	11/18/2024	8270E
P4910-05	MH-759	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG03	L61	11/18/2024	8270E
					PSEG03	L61	11/18/2024	8270E

Date/Time 11/19/24 8:55
Raw Sample Received by: RJ (Eag Lab)
Raw Sample Relinquished by: CR SM

Date/Time 11/19/24 9:25
Raw Sample Received by: CR SM
Raw Sample Relinquished by: RJ (Eat Lab)

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PB165152

SOP ID: M3541-ASE Extraction-14

Clean Up SOP #: N/A

Matrix : Water

Weigh By: N/A

Balance check: N/A

Balance ID: N/A

pH Strip Lot#: N/A

Extraction By: RJ

Filter By: RS

pH Meter ID: N/A

Hood ID: 4,5,6,7

Extraction Start Date : 11/20/2024

Extraction Start Time : 08:29

Extraction End Date : 11/20/2024

Extraction End Time : 13:25

Concentration By: EH

Supervisor By : rajesh

Extraction Method: [√] Seperatory Funnel [ ] Continious Liquid/Liquid [ ] Sonication [ ] Waste Dilution [ ] Soxhlet

Standared Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Spike Sol 1	1.0ML	50/100 PPM	SP6681
Surrogate	1.0ML	100/150 PPM	SP6638
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Methylene Chloride	N/A	E3829
Baked Na2SO4	N/A	EP2562
10N NaoH	N/A	EP2559
H2SO4 1:1	N/A	EP2565
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

1.5 ML Vial lot# 2210673. p H Adjusted<2 with 1:1 H2SO4 &>11 with 10N NaOH. P4892-04 Limited volume recd.

KD Bath ID: Water bath -01,02

KD Bath Temperature: 60 °C

Envap ID: NEVAP-02

Envap Temperature: 40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
11/20/24	RJ (Ext Lab)	AC/SVOC
13:30	**Preparation Group**	**Analysis Group**

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PrepBatch ID : PB165152

Analytical Method: M3541-ASE Extraction-14

Concentration Date: 11/20/2024

Sample ID	Client Sample ID	Test	g / mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB165152BL	SBLK152	SVOC-TCL BNA -20	1000	6	RUPESH	rajesh	1			SEP-01
PB165152BS	SLCS152	SVOC-TCL BNA -20	1000	6	RUPESH	rajesh	1			2
PB165152BSD	SLCSD152	SVOC-TCL BNA -20	1000	6	RUPESH	rajesh	1			3
P4892-04	WB-310-SW	SVOC-TCL BNA -20	485	6	RUPESH	rajesh	0.5	E		4

* **Extracts relinquished on the same date as received.**

11/20/24

105152
8:29 AM

WORKLIST(Hardcopy Internal Chain)

WorkList Name : P4892S **WorkList ID :** 185628 **Department :** Extraction **Date :** 11-20-2024 08:15:54

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4892-04	WB-310-SW	Water	EPH	1:1 HCl to pH < 2	PORT06	M11	11/15/2024	NJEPH
P4892-04	WB-310-SW	Water	SVOC-TCL BNA -20	Cool 4 deg C	PORT06	M11	11/15/2024	8270E

Date/Time 11/20/24 8:25
Raw Sample Received by: RS (Stellar Labs)
Raw Sample Relinquished by: JDCSM

Date/Time 11/20/24 8:45
Raw Sample Received by: JDCSM
Raw Sample Relinquished by: RS (Stellar Labs)

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

Prep Standard - Chemical Standard Summary

Order ID : P4892

Test : SVOC-TCL BNA -20

Prepbatch ID : PB165086,PB165152,

Sequence ID/Qc Batch ID: BF111924,BF112024,BF112524,

Standard ID :
EP2559,EP2560,EP2562,EP2565,SP6558,SP6559,SP6573,SP6620,SP6621,SP6622,SP6623,SP6624,SP6625,SP6626,SP6627,SP6628,SP6630,SP6638,SP6681,

Chemical ID :
10ul/1000ul sample,E2865,E3551,E3657,E3768,E3788,E3791,E3815,E3827,E3828,E3829,M5173,S10103,S10247,S10393,S10583,S10977,S10978,S10979,S10980,S11003,S11004,S11005,S11006,S11007,S11008,S11009,S11010,S11085,S11098,S11138,S11141,S11159,S11494,S11541,S11566,S11649,S11766,S11771,S11772,S11773,S11774,S11775,S11776,S11777,S11778,S11779,S11780,S12033,S12078,S12097,S12105,S12106,S12107,S12108,S12109,S12110,S12111,S12113,S12117,S12126,S12127,S12128,S12129,S12130,S12131,S12132,S12133,S12134,S12135,S12136,S12137,S12138,S12139,S12140,S12141,S12142,S12187,S12188,S12189,S12207,S12275,S12314,S12327,S12329,S12330,S12453,S12454,S12455,S12456,S12457,S12458,S12459,S12460,S12461,S12462,S12463,S12464,S12465,S12466,S12467,S12468,S12469,S12509,S12510,S12511,S12512,S12513,S12514,S12515,S12516,S12517,W3112,

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Extractions STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1874	10 N SODIUM HYDROXIDE SOLN	EP2559	11/14/2024	05/14/2025	Rajesh Parikh	Extraction_SCALE_2 (EX-SC-2)	None	RUPESHKUMAR SHAH 11/14/2024

FROM 1000.00000ml of W3112 + 400.00000gram of E3657 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2017	1:1 ACETONE/METHYLENE CHLORIDE	EP2560	11/14/2024	05/08/2025	Rajesh Parikh	None	None	RUPESHKUMAR SHAH 11/14/2024

FROM 8000.00000ml of E3827 + 8000.00000ml of E3828 = Final Quantity: 16000.000 ml

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Extractions STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3923	Baked Sodium Sulfate	EP2562	11/14/2024	01/03/2025	Rajesh Parikh	Extraction_SCALE_2 (EX-SC-2)	None	RUPESHKUMAR SHAH 11/14/2024

FROM 4000.00000gram of E3551 = Final Quantity: 4000.000 gram

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
314	1.1 H2SO4 SOLN	EP2565	11/20/2024	05/20/2025	Rajesh Parikh	None	None	RUPESHKUMAR SHAH 11/20/2024

FROM 1000.00000ml of M5173 + 1000.00000ml of W3112 = Final Quantity: 2000.000 ml

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Fax : 908 789 8922

SVOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
18	Second Source Calibration Stock Standard, 100 PPM, (8270/625/CLP)	SP6558	07/09/2024	11/30/2024	Jagrut Upadhyay	None	None	mohammad ahmed 07/11/2024

FROM 0.04000ml of S10977 + 0.08000ml of S11003 + 0.10000ml of S11766 + 0.20000ml of S11566 + 0.20000ml of S12097 + 0.20000ml of S12117 + 1.18000ml of E3768 = Final Quantity: 2.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
416	40 ng BNA ICV, 40 PPM	SP6559	07/09/2024	11/30/2024	Jagrut Upadhyay	None	None	mohammad ahmed 07/11/2024

FROM 0.01000ml of S12033 + 0.60000ml of E3768 + 0.40000ml of SP6558 = Final Quantity: 1.010 ml

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Fax : 908 789 8922

SVOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3895	50 ug/ml DFTPP 8270E	SP6573	07/15/2024	01/08/2025	Rahul Chavli	None	None	Yogesh Patel 07/17/2024

FROM 1.00000ml of S10247 + 19.00000ml of E3768 = Final Quantity: 20.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3764	8270/625 Stock solution 100 ng	SP6620	09/11/2024	02/08/2025	Jagrut Upadhyay	None	None	mohammad ahmed 09/11/2024

FROM 0.26700ml of S10103 + 0.40000ml of S11494 + 0.50000ml of S12113 + 1.00000ml of S11085 + 1.00000ml of S11098 + 1.00000ml of S11159 + 1.00000ml of S12078 + 1.00000ml of S12275 + 3.83300ml of E3791 = Final Quantity: 10.000 ml

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Fax : 908 789 8922

SVOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
413	80 ng BNA ICC, 80 PPM	SP6621	09/11/2024	02/08/2025	Jagrut Upadhyay	None	None	mohammad ahmed 09/11/2024

FROM 0.01000ml of S12314 + 0.20000ml of E3791 + 0.80000ml of SP6620 = Final Quantity: 1.010 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
412	60 ng BNA ICC, 60 PPM	SP6622	09/11/2024	02/08/2025	Jagrut Upadhyay	None	None	mohammad ahmed 09/11/2024

FROM 0.01000ml of S12314 + 0.40000ml of E3791 + 0.60000ml of SP6620 = Final Quantity: 1.010 ml

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

SVOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
411	50 ng BNA ICC, 50 PPM	SP6623	09/11/2024	02/08/2025	Jagrut Upadhyay	None	None	mohammad ahmed 09/11/2024

FROM 0.01000ml of S12314 + 0.50000ml of E3791 + 0.50000ml of SP6620 = Final Quantity: 1.010 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
410	40 ng BNA ICC, 40 PPM	SP6624	09/11/2024	02/08/2025	Jagrut Upadhyay	None	None	mohammad ahmed 09/11/2024

FROM 0.01000ml of S12314 + 0.60000ml of E3791 + 0.40000ml of SP6620 = Final Quantity: 1.010 ml

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

SVOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3678	20 ng BNA ICC, 20 PPM	SP6625	09/11/2024	02/08/2025	Jagrut Upadhyay	None	None	mohammad ahmed 09/11/2024

FROM 0.01000ml of S12314 + 0.80000ml of E3791 + 0.20000ml of SP6620 = Final Quantity: 1.010 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
408	10 ng BNA ICC, 10 PPM	SP6626	09/11/2024	02/08/2025	Jagrut Upadhyay	None	None	mohammad ahmed 09/11/2024

FROM 0.01000ml of S12314 + 0.90000ml of E3791 + 0.10000ml of SP6620 = Final Quantity: 1.010 ml

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

SVOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
407	5 ng BNA ICC, 5 PPM	SP6627	09/11/2024	02/08/2025	Jagrut Upadhyay	None	None	mohammad ahmed 09/11/2024

FROM 0.01000ml of S12314 + 0.95000ml of E3791 + 0.05000ml of SP6620 = Final Quantity: 1.010 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
175	2.5 ng BNA ICC, 2.5 PPM	SP6628	09/11/2024	02/08/2025	Jagrut Upadhyay	None	None	mohammad ahmed 09/11/2024

FROM 0.01000ml of S12314 + 0.50000ml of E3791 + 0.50000ml of SP6627 = Final Quantity: 1.010 ml

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SVOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
171	8270/625 Spike Solution, 50/100 PPM	SP6630	09/13/2024	02/12/2025	Rahul Chavli	None	None	Yogesh Patel 10/29/2024

FROM 0.10000ml of S12134 + 0.10000ml of S12461 + 0.20000ml of S12453 + 0.30000ml of S11775 + 0.30000ml of S12510 + 0.40000ml of S10393 + 0.40000ml of S10583 + 0.40000ml of S11138 + 0.40000ml of S11141 + 0.40000ml of S11649 + 0.70000ml of S11771 + 0.70000ml of S12105 + 0.80000ml of S12126 + 1.10000ml of S12110 + 1.10000ml of S12133 + 1.10000ml of S12460 + 1.20000ml of S12455 + 1.20000ml of S12456 + 1.20000ml of S12457 + 1.20000ml of S12458 + 1.20000ml of S12459 + 1.20000ml of S12509 + 1.30000ml of S11541 + 1.30000ml of S11772 + 1.30000ml of S11773 + 1.30000ml of S12106 + 1.30000ml of S12108 + 1.30000ml of S12111 + 1.30000ml of S12127 + 1.30000ml of S12129 + 1.30000ml of S12130 + 1.30000ml of S12131 + 1.30000ml of S12454 + 1.40000ml of S11774 + 1.40000ml of S12107 + 1.40000ml of S12109 + 1.40000ml of S12128 + 1.40000ml of S12132 + 163.00000ml of E3788 = Final Quantity: 200.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
19	8270/CLP Surrogate Solution, 100 PPM BN/150 PPM ACID	SP6638	10/10/2024	04/04/2025	Jagrut Upadhyay	None	None	mohammad ahmed 10/18/2024

FROM 1930.00000ml of E3815 + 5.00000ml of S10978 + 5.00000ml of S10979 + 5.00000ml of S10980 + 5.00000ml of S11004 + 5.00000ml of S11005 + 5.00000ml of S11006 + 5.00000ml of S11007 + 5.00000ml of S11008 + 5.00000ml of S11009 + 5.00000ml of S11010 + 5.00000ml of S12187 + 5.00000ml of S12188 + 5.00000ml of S12189 + 5.00000ml of S12207 = Final Quantity: 2000.000 ml

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SVOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
171	8270/625 Spike Solution, 50/100 PPM	SP6681	11/14/2024	02/12/2025	Jagrut Upadhyay	None	None	Yogesh Patel 11/18/2024

FROM

0.20000ml of S12142 + 0.40000ml of S10393 + 0.40000ml of S10583 + 0.40000ml of S11138 + 0.40000ml of S11141 + 0.40000ml of S11649 + 0.40000ml of S11776 + 0.70000ml of S11780 + 0.80000ml of S12461 + 0.80000ml of S12469 + 0.90000ml of S12510 + 1.00000ml of S12134 + 1.00000ml of S12141 + 1.20000ml of S12462 + 1.20000ml of S12463 + 1.20000ml of S12464 + 1.20000ml of S12465 + 1.20000ml of S12466 + 1.20000ml of S12467 + 1.20000ml of S12468 + 1.30000ml of S11777 + 1.30000ml of S11778 + 1.30000ml of S11779 + 1.30000ml of S12135 + 1.30000ml of S12136 + 1.30000ml of S12137 + 1.30000ml of S12138 + 1.30000ml of S12139 + 1.30000ml of S12140 + 1.30000ml of S12511 + 1.30000ml of S12512 + 1.30000ml of S12513 + 1.30000ml of S12514 + 1.30000ml of S12515 + 1.30000ml of S12516 + 1.30000ml of S12517 + 163.00000ml of E3827 = Final Quantity: 200.000 ml

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3382-05 / Sand, Purified (cs/4x2.5kg)	0000243821	12/31/2024	04/30/2020 / RAJESH	04/28/2020 / RAJESH	E2865

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	313201	01/03/2025	01/03/2024 / Rajesh	07/20/2023 / Rajesh	E3551

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19510-5 / Sodium Hydroxide Pellets 2.5 Kg, Pk of 4	23B1556310	12/31/2025	12/04/2023 / Rajesh	12/01/2023 / Rajesh	E3657

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	24E2462004	01/08/2025	07/08/2024 / Rajesh	06/21/2024 / Rajesh	E3768

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	23H1462005	04/23/2025	08/13/2024 / Rajesh	08/13/2024 / Rajesh	E3788

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	24G2362009	03/09/2025	09/09/2024 / Rajesh	09/03/2024 / Rajesh	E3791

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H1462005	04/04/2025	10/04/2024 / Rajesh	10/04/2024 / Rajesh	E3815

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H1462005	05/08/2025	11/08/2024 / Rajesh	11/07/2024 / Rajesh	E3827

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	24G0862003	05/09/2025	11/09/2024 / Rajesh	11/04/2024 / Rajesh	E3828

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	24J0862003	05/18/2025	11/18/2024 / Rajesh	11/04/2024 / Rajesh	E3829

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	0000281827	06/02/2025	06/01/2022 /	04/05/2022 / william	M5173

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-112090-04 / CLP Acid Surrogate Solution, 7500 mg/L, 1ml	440246	02/08/2025	08/08/2024 / Jagrut	12/09/2021 / Christian	S10103

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31615 / SV Mixture, GC/MS Tuning Mixture, CH2Cl2, 1mL,	A0182667	01/15/2025	07/15/2024 / Rahul	03/18/2022 / Christian	S10247

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555871 / Custom Standard, 4-nitrophenol Std [CS 5238-4]	A0185300	03/13/2025	09/13/2024 / yogesh	05/18/2022 / Christian	S10393

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555868 / Custom Standard, Benzidine Std [CS 5328-1]	A0186373	02/12/2025	08/12/2024 / Rahul	07/05/2022 / Christian	S10583

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31087 / Acid Surrogate 10,000ug/ml,methanol,5ml/ ampul	A0188108	11/30/2024	05/31/2024 / Jagrut	12/28/2022 / Christian	S10977

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31087 / Acid Surrogate 10,000ug/ml,methanol,5ml/ ampul	A0188108	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S10978

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31087 / Acid Surrogate 10,000ug/ml,methanol,5ml/ ampul	A0188108	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S10979

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31087 / Acid Surrogate 10,000ug/ml,methanol,5ml/ ampul	A0188108	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S10980

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH2Cl2,5ml	A0189418	11/30/2024	05/31/2024 / Jagrut	12/28/2022 / Christian	S11003

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH2Cl2,5ml	A0189418	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S11004

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH2Cl2,5ml	A0189418	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S11005

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH2Cl2,5ml	A0189418	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S11006

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH2Cl2,5ml	A0189418	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S11007

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH2Cl2,5ml	A0189418	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S11008

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH2Cl2,5ml	A0189418	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S11009

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH2Cl2,5ml	A0189418	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S11010

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-010074-07 / 3,3'-Dichlorobenzidine Solution, 1,000 mg/L, 1 ml, (Maximum Expiration: 180 days)	406703	03/11/2025	09/11/2024 / Rahul	02/07/2023 / Christian	S11085

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	z-110381-01 / 8270 Calibration Solution, 76-1, 500 & 1,000 mg/L, 1ml	495831	03/11/2025	09/11/2024 / Rahul	02/07/2023 / Christian	S11098

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555870 / Custom Standard, 2,4-dinitrophenol Std [CS 5328-3]	A0194698	02/12/2025	08/12/2024 / Rahul	02/20/2023 / Christian	S11138

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555869 / Custom Standard, hexachlorocyclopentadiene Std [CS 5328-2]	A0194702	02/12/2025	08/12/2024 / Rahul	02/20/2023 / Christian	S11141

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-110817-01 / Custom 8270 Mix, 4-55, 1000 mg/L, 1 ml, (Maximum Expiration: 90 Days)	414125	03/11/2025	09/11/2024 / Rahul	03/06/2023 / Christian	S11159

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-110094-02 / CLP Base/Neutral Surrogate Solution, 5000 mg/L, 1ml	506889	02/08/2025	08/08/2024 / Jagrut	08/11/2023 / Yogesh	S11494

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0201940	03/13/2025	09/13/2024 / yogesh	09/18/2023 / Kiran	S11541

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0201940	12/05/2024	06/05/2024 / Rahul	09/18/2023 / Kiran	S11566

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555872 / Custom Standard, pentachlorophenol Std [CS 5328-5]	A0201728	03/13/2025	09/13/2024 / anahy	11/09/2023 / Yogesh	S11649

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0196453	12/14/2024	06/14/2024 / Rahul	11/21/2023 / Rahul	S11766

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0196453	02/20/2025	08/20/2024 / Rahul	11/21/2023 / Rahul	S11771

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0196453	03/13/2025	09/13/2024 / anahy	11/21/2023 / Rahul	S11772

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0196453	03/13/2025	09/13/2024 / anahy	11/21/2023 / Rahul	S11773

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0196453	03/13/2025	09/13/2024 / anahy	11/21/2023 / Rahul	S11774

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0196453	03/13/2025	09/13/2024 / anahy	11/21/2023 / Rahul	S11775

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0196453	03/13/2025	09/13/2024 / anahy	11/21/2023 / Rahul	S11776

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0196453	05/14/2025	11/14/2024 / Jagrut	11/21/2023 / Rahul	S11777

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0196453	05/14/2025	11/14/2024 / Jagrut	11/21/2023 / Rahul	S11778

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0196453	05/14/2025	11/14/2024 / Jagrut	11/21/2023 / Rahul	S11779

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0196453	05/14/2025	11/14/2024 / Jagrut	11/21/2023 / Rahul	S11780

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31206 / SV Mix, CLP method, Internal Std, 2000ug/mL, CH2Cl2, 1mL	A0201320	01/01/2025	07/01/2024 / Rahul	12/21/2023 / Rahul	S12033

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-110816-01 / Custom 8270 Mix, 4-79, 1000 mg/L, 1 mL, (Maximum Expiration: 180 Days)	414127	03/11/2025	09/11/2024 / Rahul	01/31/2024 / Rahul	S12078

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0207706	01/09/2025	07/09/2024 / Jagrut	02/05/2024 / Rahul	S12097

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0207706	02/12/2025	08/12/2024 / Rahul	02/05/2024 / Rahul	S12105

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0207706	03/13/2025	09/13/2024 / anahy	02/05/2024 / Rahul	S12106

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0207706	03/13/2025	09/13/2024 / anahy	02/05/2024 / Rahul	S12107

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0207706	03/13/2025	09/13/2024 / anahy	02/05/2024 / Rahul	S12108

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0207706	03/13/2025	09/13/2024 / anahy	02/05/2024 / Rahul	S12109

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0207706	03/13/2025	09/13/2024 / anahy	02/05/2024 / Rahul	S12110

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0207706	03/13/2025	09/13/2024 / anahy	02/05/2024 / Rahul	S12111

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	z-010223-01 / 1,4-Dioxane Solution, 2,000mg/L, 1ml	454157	02/09/2025	08/09/2024 / Jagrut	03/08/2024 / Rahul	S12113

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	12/05/2024	06/05/2024 / Rahul	03/15/2024 / Rahul	S12117

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	02/12/2025	08/12/2024 / Rahul	03/15/2024 / Rahul	S12126

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	03/13/2025	09/13/2024 / anahy	03/15/2024 / Rahul	S12127

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	03/13/2025	09/13/2024 / anahy	03/15/2024 / Rahul	S12128

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	03/13/2025	09/13/2024 / anahy	03/15/2024 / Rahul	S12129

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	03/13/2025	09/13/2024 / anahy	03/15/2024 / Rahul	S12130

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	03/13/2025	09/13/2024 / anahy	03/15/2024 / Rahul	S12131

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	03/13/2025	09/13/2024 / anahy	03/15/2024 / Rahul	S12132

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	03/13/2025	09/13/2024 / anahy	03/15/2024 / Rahul	S12133

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	03/13/2025	09/13/2024 / anahy	03/15/2024 / Rahul	S12134

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	04/30/2025	11/14/2024 / anahy	03/15/2024 / Rahul	S12135

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	04/30/2025	11/14/2024 / anahy	03/15/2024 / Rahul	S12136

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	04/30/2025	11/14/2024 / anahy	03/15/2024 / Rahul	S12137

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	04/30/2025	11/14/2024 / anahy	03/15/2024 / Rahul	S12138

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	04/30/2025	11/14/2024 / anahy	03/15/2024 / Rahul	S12139

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	04/30/2025	11/14/2024 / anahy	03/15/2024 / Rahul	S12140

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	04/30/2025	11/14/2024 / anahy	03/15/2024 / Rahul	S12141

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	04/30/2025	11/14/2024 / anahy	03/15/2024 / Rahul	S12142

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31087 / Acid Surrogate 10,000ug/ml,methanol,5ml/ ampul	A0206206	04/10/2025	10/10/2024 / anahy	03/15/2024 / Rahul	S12187

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31087 / Acid Surrogate 10,000ug/ml,methanol,5ml/ ampul	A0206206	04/10/2025	10/10/2024 / anahy	03/15/2024 / Rahul	S12188

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31087 / Acid Surrogate 10,000ug/ml,methanol,5ml/ ampul	A0206206	04/10/2025	10/10/2024 / anahy	03/15/2024 / Rahul	S12189

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH2Cl2,5ml	A0206381	04/10/2025	10/10/2024 / anahy	03/15/2024 / Rahul	S12207

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-010442-07 / Benzaldehyde Solution, 1000 mg/L, 1.3 ml, (Maximum Expiration: 90 Days)	495833	03/11/2025	09/11/2024 / Rahul	05/24/2024 / Rahul	S12275

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31206 / SV Mix, CLP method, Internal Std, 2000ug/mL, CH2Cl2, 1mL	A0206540	03/04/2025	09/04/2024 / anahy	05/30/2024 / Rahul	S12314

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31206 / SV Mix, CLP method, Internal Std, 2000ug/mL, CH2Cl2, 1mL	A0206540	05/12/2025	11/12/2024 / anahy	05/30/2024 / Rahul	S12327

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31206 / SV Mix, CLP method, Internal Std, 2000ug/mL, CH2Cl2, 1mL	A0206540	05/18/2025	11/18/2024 / anahy	05/30/2024 / Rahul	S12329

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31206 / SV Mix, CLP method, Internal Std, 2000ug/mL, CH2Cl2, 1mL	A0206540	05/25/2025	11/25/2024 / anahy	05/30/2024 / Rahul	S12330

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	02/12/2025	08/12/2024 / Rahul	07/23/2024 / RAHUL	S12453

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	03/13/2025	09/13/2024 / anahy	07/23/2024 / RAHUL	S12454

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	03/13/2025	09/13/2024 / anahy	07/23/2024 / RAHUL	S12455

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	03/13/2025	09/13/2024 / anahy	07/23/2024 / RAHUL	S12456

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	03/13/2025	09/13/2024 / anahy	07/23/2024 / RAHUL	S12457

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	03/13/2025	09/13/2024 / anahy	07/23/2024 / RAHUL	S12458

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	03/13/2025	09/13/2024 / anahy	07/23/2024 / RAHUL	S12459

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	03/13/2025	09/13/2024 / anahy	07/23/2024 / RAHUL	S12460

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	03/13/2025	09/13/2024 / anahy	07/23/2024 / RAHUL	S12461

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	05/14/2025	11/14/2024 / anahy	07/23/2024 / RAHUL	S12462

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	05/14/2025	11/14/2024 / anahy	07/23/2024 / RAHUL	S12463

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	05/14/2025	11/14/2024 / anahy	07/23/2024 / RAHUL	S12464

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	05/14/2025	11/14/2024 / anahy	07/23/2024 / RAHUL	S12465

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	05/14/2025	11/14/2024 / anahy	07/23/2024 / RAHUL	S12466

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	05/14/2025	11/14/2024 / anahy	07/23/2024 / RAHUL	S12467

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	05/14/2025	11/14/2024 / anahy	07/23/2024 / RAHUL	S12468

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	05/14/2025	11/14/2024 / anahy	07/23/2024 / RAHUL	S12469

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0214017	03/13/2025	09/13/2024 / anahy	07/23/2024 / RAHUL	S12509

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0214017	03/13/2025	09/13/2024 / anahy	07/23/2024 / RAHUL	S12510

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0214017	05/14/2025	11/14/2024 / anahy	07/23/2024 / RAHUL	S12511

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0214017	05/14/2025	11/14/2024 / anahy	07/23/2024 / RAHUL	S12512

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0214017	05/14/2025	11/14/2024 / anahy	07/23/2024 / RAHUL	S12513

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0214017	05/14/2025	11/14/2024 / anahy	07/23/2024 / RAHUL	S12514

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0214017	05/14/2025	11/14/2024 / anahy	07/23/2024 / RAHUL	S12515

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0214017	05/14/2025	11/14/2024 / anahy	07/23/2024 / RAHUL	S12516

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0214017	05/14/2025	11/14/2024 / anahy	07/23/2024 / RAHUL	S12517

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

CPI INTERNATIONAL

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Santa Rosa, CA 95403

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(707)545-7901 Fax

Manufacturer's Quality System
Audited & Registered
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Date Received:_____

Certificate of Analysis

Rev 0

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-010074-07	406703	≤ -10 °C	Methylene Chloride	3/30/2025	3,3'-Dichlorobenzidine Solution, 1,000 mg/L, 1 mL

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
3,3'-dichlorobenzidine	91-94-1	99.5	74.3.26P	989 ± 7.53

Received on
02/07/23
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S11084
to
S11088

*Not a certified value

Certified By: _____
Jacob Mulloy
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricllly.

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Rev 0

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-110817-01	414125	≤ -10 °C	Methylene Chloride	6/21/2025	Custom 8270 Mix, 4-55, 1000 mg/L, 1 mL

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
acetophenone	98-86-2	99.2	85.8.1P	998 ± 11.5
benzoic acid	65-85-0	100	123.7.1P	1010 ± 5.88
biphenyl	92-52-4	99.9	366.29.1P	999 ± 5.82
1,2,4,5-tetrachlorobenzene	95-94-3	99.7	53.7.2P	993 ± 5.79

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S11089
to
S11093

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Certified By: _____
Shane Overcash
Chemist

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Certificate of Analysis

Rev 0

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-112090-04	440246	≤ -10 °C	Methylene Chloride	2/16/2026	CLP Acid Surrogate Solution, 7,500 mg/L, 1 mL

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
2-chlorophenol-d_4	93951-73-6	99.3	248.12.7P	7487 ± 17.2
2-fluorophenol	367-12-4	99.8	10.7.3.3P	7513 ± 17.26
phenol-d6	13127-88-3	99.9	949.120.8P	7481 ± 17.19
2,4,6-tribromophenol	118-79-6	99.8	12.1.6P	7469 ± 17.17

Received on
02/25/21
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S9236
to
S9240

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Certified By: Erica Castiglione

Erica Castiglione
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

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~~S11088~~ S11096 to S11099

Manufacturer's Quality System
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Date Received:_____

Certificate of Analysis

Rev 0

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-110381-01	495831	≤ -10 °C	Methylene Chloride	10/30/2027	Method 8270 Calibration Solution, 76-1, 500 & 1,000 mg/L, 1 mL

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
acenaphthene	83-32-9	99.9	13.1.5P	1003 ± 17.27
acenaphthylene	208-96-8	97.6	14.290.1P	999.8 ± 17.22
aniline	62-53-3	99.9	64.7.1P	995 ± 17.13
anthracene	120-12-7	99.5	15.7.1P	1001 ± 17.24
azobenzene	103-33-3	98.1	252.7.2P	999.1 ± 17.21
benzo[a]anthracene	56-55-3	100	16.7.3P	1001 ± 17.24
benzo[b]fluoranthene	205-99-2	99.8	17.421.3P	1001 ± 19.91
benzo[k]fluoranthene	207-08-9	98.9	18.421.4P	1001 ± 17.92
benzo[ghi]perylene	191-24-2	93	19.286.4P	999.6 ± 19.88
benzo[a]pyrene	50-32-8	97	20.286.2P	999.1 ± 26.35
benzyl alcohol	100-51-6	99.9	65.18.1P	1001 ± 17.24
bis(2-chloroethoxy)methane	111-91-1	99.1	31.3.15P	999.7 ± 17.89
bis(2-chloroethyl)ether	111-44-4	99.8	32.7.1P	1001 ± 17.23
bis(2-chloro-1-methylethyl) ether	108-60-1	99.5	34.3.13P	999.5 ± 17.89
bis(2-ethylhexyl)adipate	103-23-1	99.5	874.7.1P	999.5 ± 17.21
bis(2-ethylhexyl)phthalate	117-81-7	99.4	33.29.1P	998.8 ± 19.86
4-bromophenyl phenyl ether	101-55-3	99.4	35.7.1P	999.1 ± 17.2
butyl benzyl phthalate	85-68-7	98.4	36.1.6P	984.7 ± 19.58
carbazole	86-74-8	99.4	239.7.2P	1000 ± 17.22

*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

Certified By: Briana Smith

Briana Smith
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.
Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

Certificate of Analysis

Catalog No.: Z-110381-01 **Lot No.:** 495831 **Expiration Date:** 10/30/2027

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
1,2,4-trichlorobenzene	120-82-1	99.6	54.29.1P	1000 ± 17.22
2,4,5-trichlorophenol	95-95-4	96.5	121.7.1.1P	1000 ± 17.22
2,4,6-trichlorophenol	88-06-2	99.6	113.7.1P	1002 ± 17.25

*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

Certified By: Briana Smith

Briana Smith
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Received on 03/08/22 by CG S10242 to S10247

Catalog No. : 31615 **Lot No.:** A0182667

Description : GC/MS Tuning Mixture

GC/MS Tuning Mixture 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2025 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Pentachlorophenol **CAS #** 87-86-5 (Lot 211229RSR) **Purity** 99%	1,003.6 µg/mL	+/- 5.8897 µg/mL +/- 45.7132 µg/mL +/- 66.0037 µg/mL	Gravimetric Unstressed Stressed
2	DFTPP (Decafluorotriphenylphosphine) **CAS #** 5074-71-5 (Lot Q117-147) **Purity** 95%	1,006.6 µg/mL	+/- 5.9074 µg/mL +/- 45.8508 µg/mL +/- 66.2023 µg/mL	Gravimetric Unstressed Stressed
3	Benzidine **CAS #** 92-87-5 (Lot 211228JLM) **Purity** 99%	1,008.4 µg/mL	+/- 5.9179 µg/mL +/- 45.9318 µg/mL +/- 66.3193 µg/mL	Gravimetric Unstressed Stressed
4	4,4'-DDT **CAS #** 50-29-3 (Lot 210916JLM) **Purity** 99%	1,007.6 µg/mL	+/- 5.9132 µg/mL +/- 45.8954 µg/mL +/- 66.2667 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

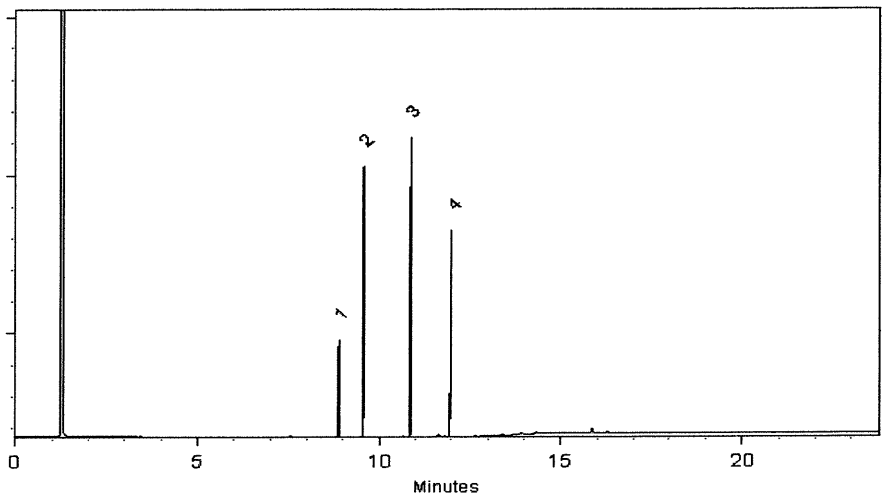
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 08-Mar-2022 **Balance:** B345965662

Merlina Cowan - Operations Tech I

Date Passed: 10-Mar-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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Received by CG on 05/19/22

S10393 to S10402

Catalog No. : 555871 **Lot No.:** A0185300

Description : Custom 4-Nitrophenol Standard

Custom 4-Nitrophenol Standard 25,000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	4-Nitrophenol	25,060.0 µg/mL	+/- 231.9100 µg/mL	Gravimetric
	CAS # 100-02-7 (Lot MKCN1089)		+/- 753.2622 µg/mL	Unstressed
	Purity 99%		+/- 905.6020 µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Katelyn McGinnis - Operations Tech I

Date Mixed: 16-May-2022 **Balance:** 1128342314

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

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Received by
CG
on
07/05/22
S 10583
to
S 10592

Catalog No. : 555868 **Lot No.:** A0186373

Description : Custom Benzidine Standard

Custom Benzidine Standard 25,000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2025 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Benzidine	25,200.0 µg/mL	+/- 233.2055 µg/mL	Gravimetric
	CAS # 92-87-5 (Lot 220511RSR)		+/- 351.6606 µg/mL	Unstressed
	Purity 99%		+/- 512.6054 µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Tom Suckar - Mix Technician **Date Mixed:** 16-Jun-2022 **Balance:** 1122030677

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

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Certificate #3222.02

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Received by CG on 12/28/22 S10951 to S10980

Catalog No. : 31087 **Lot No.:** A0188108

Description : Acid Surrogate Mix (4/89 SOW)

Acid Surrogate 10,000µg/mL, Methanol, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2030 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol **CAS #** 367-12-4 **Purity** 99%	(Lot STBF3761V)	10,088.5 µg/mL	+/- 58.6554 µg/mL +/- 294.4162 µg/mL +/- 357.2628 µg/mL		Gravimetric Unstressed Stressed
2	Phenol-d6 **CAS #** 13127-88-3 **Purity** 99%	(Lot PR-31262)	10,043.3 µg/mL	+/- 58.3923 µg/mL +/- 293.0957 µg/mL +/- 355.6603 µg/mL		Gravimetric Unstressed Stressed
3	2,4,6-Tribromophenol **CAS #** 118-79-6 **Purity** 99%	(Lot MKCJ7664)	10,010.0 µg/mL	+/- 58.1990 µg/mL +/- 292.1253 µg/mL +/- 354.4829 µg/mL		Gravimetric Unstressed Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

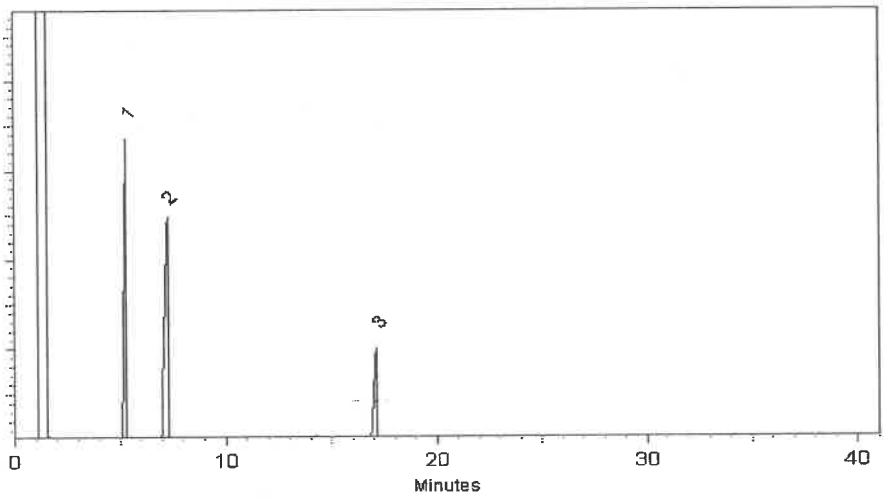
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 02-Aug-2022 **Balance:** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 05-Aug-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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Received by CG on 12/28/22 S10951 to S10980

Catalog No. : 31087 **Lot No.:** A0188108

Description : Acid Surrogate Mix (4/89 SOW)

Acid Surrogate 10,000µg/mL, Methanol, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2030 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol **CAS #** 367-12-4 **Purity** 99%	(Lot STBF3761V)	10,088.5 µg/mL	+/- 58.6554 µg/mL +/- 294.4162 µg/mL +/- 357.2628 µg/mL		Gravimetric Unstressed Stressed
2	Phenol-d6 **CAS #** 13127-88-3 **Purity** 99%	(Lot PR-31262)	10,043.3 µg/mL	+/- 58.3923 µg/mL +/- 293.0957 µg/mL +/- 355.6603 µg/mL		Gravimetric Unstressed Stressed
3	2,4,6-Tribromophenol **CAS #** 118-79-6 **Purity** 99%	(Lot MKCJ7664)	10,010.0 µg/mL	+/- 58.1990 µg/mL +/- 292.1253 µg/mL +/- 354.4829 µg/mL		Gravimetric Unstressed Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

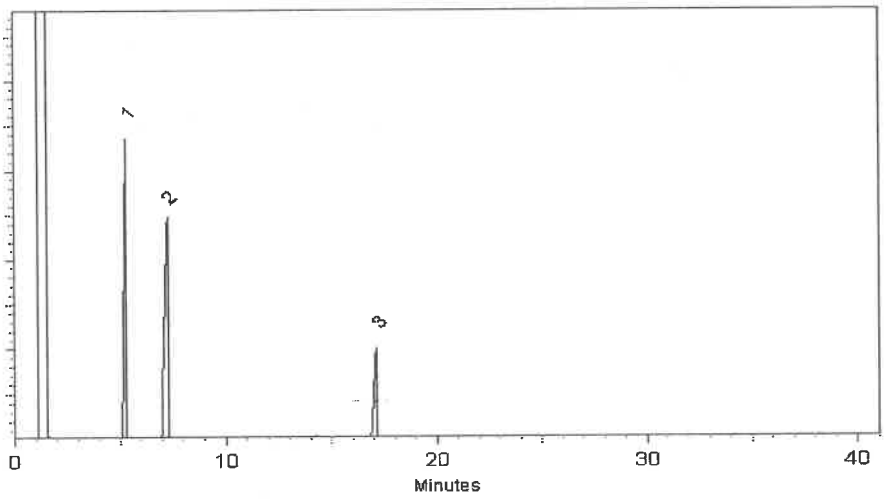
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 02-Aug-2022 **Balance:** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 05-Aug-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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Received by CG on 12/28/22 S10951 to S10980

Catalog No. : 31087 **Lot No.:** A0188108

Description : Acid Surrogate Mix (4/89 SOW)

Acid Surrogate 10,000µg/mL, Methanol, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2030 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol **CAS #** 367-12-4 **Purity** 99%	(Lot STBF3761V)	10,088.5 µg/mL	+/- 58.6554 µg/mL +/- 294.4162 µg/mL +/- 357.2628 µg/mL		Gravimetric Unstressed Stressed
2	Phenol-d6 **CAS #** 13127-88-3 **Purity** 99%	(Lot PR-31262)	10,043.3 µg/mL	+/- 58.3923 µg/mL +/- 293.0957 µg/mL +/- 355.6603 µg/mL		Gravimetric Unstressed Stressed
3	2,4,6-Tribromophenol **CAS #** 118-79-6 **Purity** 99%	(Lot MKCJ7664)	10,010.0 µg/mL	+/- 58.1990 µg/mL +/- 292.1253 µg/mL +/- 354.4829 µg/mL		Gravimetric Unstressed Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

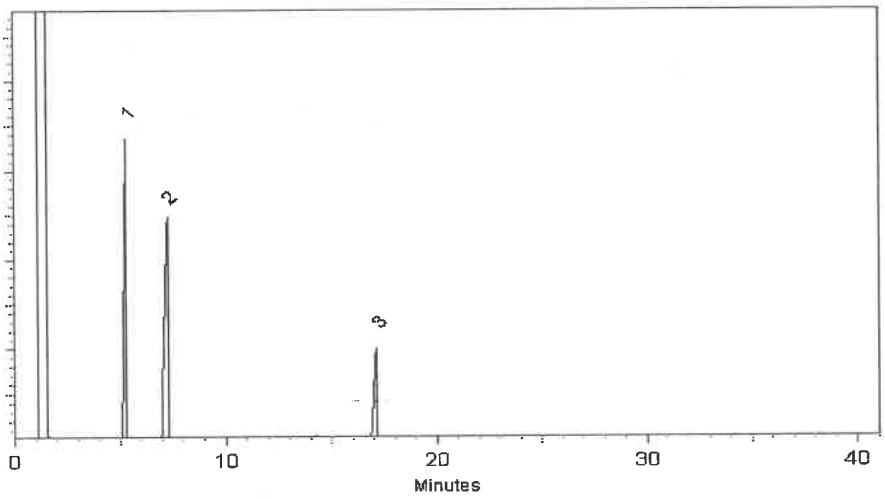
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 02-Aug-2022 **Balance:** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 05-Aug-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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Received by CG on 12/28/22 S10951 to S10980

Catalog No. : 31087 **Lot No.:** A0188108

Description : Acid Surrogate Mix (4/89 SOW)

Acid Surrogate 10,000µg/mL, Methanol, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2030 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol **CAS #** 367-12-4 **Purity** 99%	(Lot STBF3761V)	10,088.5 µg/mL	+/- 58.6554 µg/mL +/- 294.4162 µg/mL +/- 357.2628 µg/mL		Gravimetric Unstressed Stressed
2	Phenol-d6 **CAS #** 13127-88-3 **Purity** 99%	(Lot PR-31262)	10,043.3 µg/mL	+/- 58.3923 µg/mL +/- 293.0957 µg/mL +/- 355.6603 µg/mL		Gravimetric Unstressed Stressed
3	2,4,6-Tribromophenol **CAS #** 118-79-6 **Purity** 99%	(Lot MKCJ7664)	10,010.0 µg/mL	+/- 58.1990 µg/mL +/- 292.1253 µg/mL +/- 354.4829 µg/mL		Gravimetric Unstressed Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

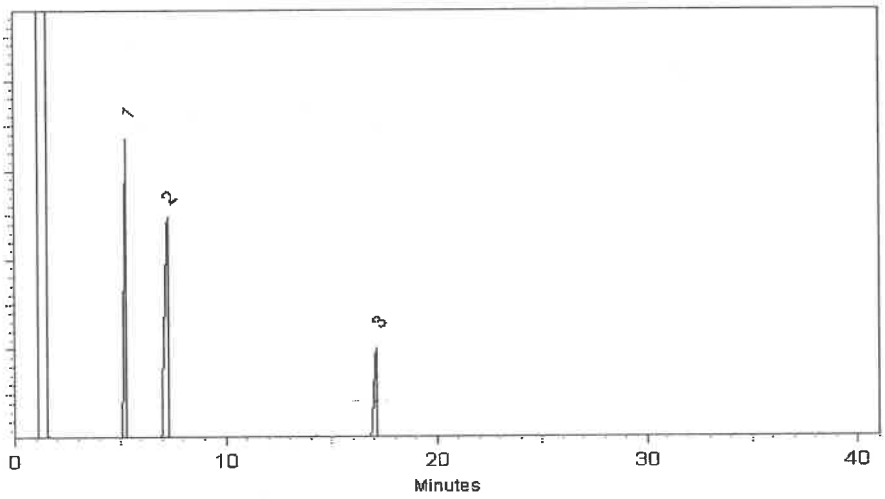
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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Morgan Craighead - Mix Technician

Date Mixed: 02-Aug-2022 **Balance:** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 05-Aug-2022

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Received by CG on 12/28/22 $10981 to $11010

Catalog No. : 31086 **Lot No.:** A0189418

Description : B/N Surrogate Mix (4/89 SOW)

Base Neutral Surrogate 5000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Nitrobenzene-d5 **CAS #** 4165-60-0 (Lot PR-29940A) **Purity** 99%	5,009.8 µg/mL	+/- 29.1271 µg/mL +/- 225.6421 µg/mL +/- 250.3778 µg/mL	Gravimetric Unstressed Stressed
2	2-Fluorobiphenyl **CAS #** 321-60-8 (Lot 00021384) **Purity** 99%	5,026.6 µg/mL	+/- 29.2250 µg/mL +/- 226.4003 µg/mL +/- 251.2191 µg/mL	Gravimetric Unstressed Stressed
3	p-Terphenyl-d14 **CAS #** 1718-51-0 (Lot PR-30504) **Purity** 99%	5,027.3 µg/mL	+/- 29.2289 µg/mL +/- 226.4304 µg/mL +/- 251.2524 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

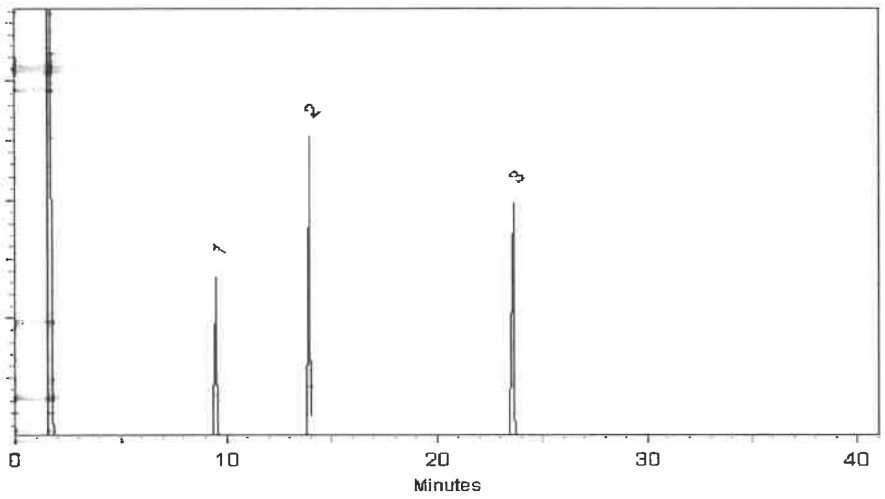
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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John Friedline - Operations Technician I

Date Mixed: 09-Sep-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Sep-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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Received by CG on 12/28/22 $10981 to $11010

Catalog No. : 31086 **Lot No.:** A0189418

Description : B/N Surrogate Mix (4/89 SOW)

Base Neutral Surrogate 5000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
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3	p-Terphenyl-d14 **CAS #** 1718-51-0 (Lot PR-30504) **Purity** 99%	5,027.3 µg/mL	+/- 29.2289 µg/mL +/- 226.4304 µg/mL +/- 251.2524 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

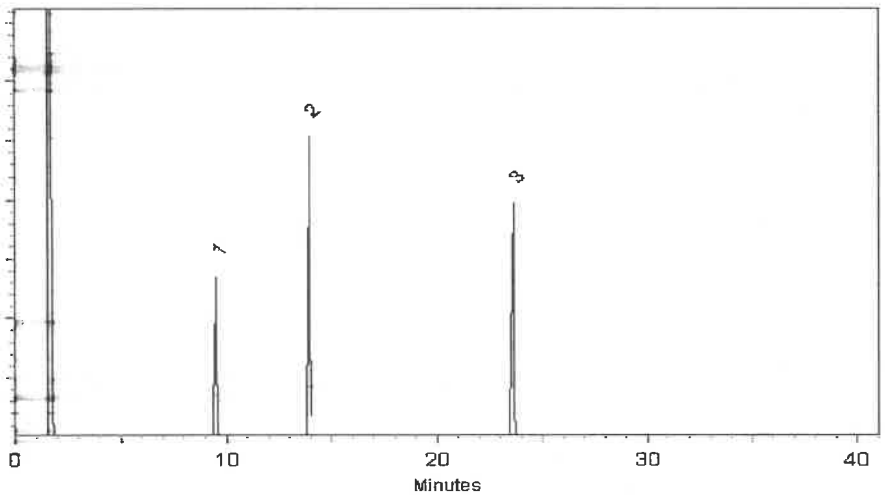
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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John Friedline - Operations Technician I

Date Mixed: 09-Sep-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Sep-2022

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Base Neutral Surrogate 5000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

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Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
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Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

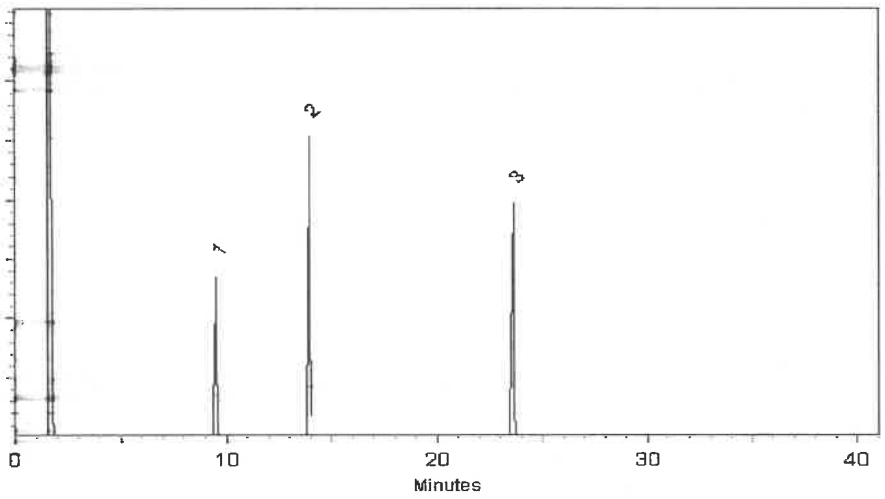
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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John Friedline - Operations Technician I

Date Mixed: 09-Sep-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Sep-2022

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Base Neutral Surrogate 5000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

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3	p-Terphenyl-d14 **CAS #** 1718-51-0 (Lot PR-30504) **Purity** 99%	5,027.3 µg/mL	+/- 29.2289 µg/mL +/- 226.4304 µg/mL +/- 251.2524 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

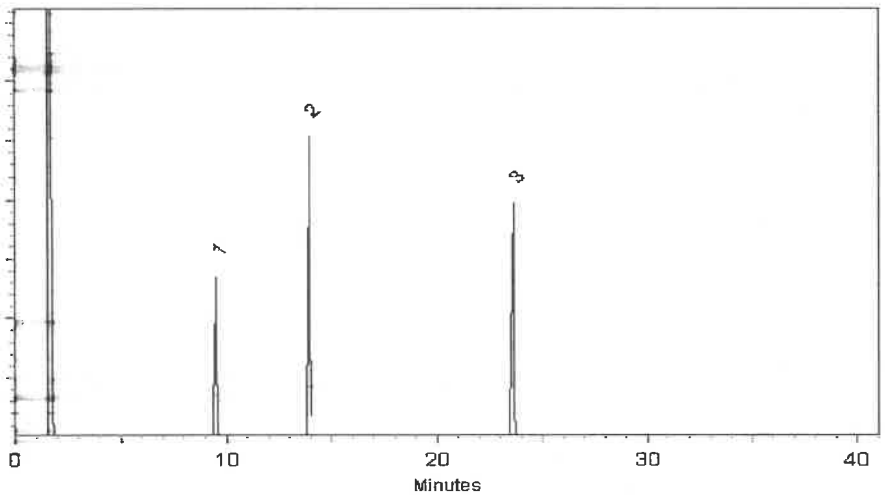
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
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@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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John Friedline - Operations Technician I

Date Mixed: 09-Sep-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Sep-2022

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Description : B/N Surrogate Mix (4/89 SOW)

Base Neutral Surrogate 5000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
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3	p-Terphenyl-d14 **CAS #** 1718-51-0 (Lot PR-30504) **Purity** 99%	5,027.3 µg/mL	+/- 29.2289 µg/mL +/- 226.4304 µg/mL +/- 251.2524 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

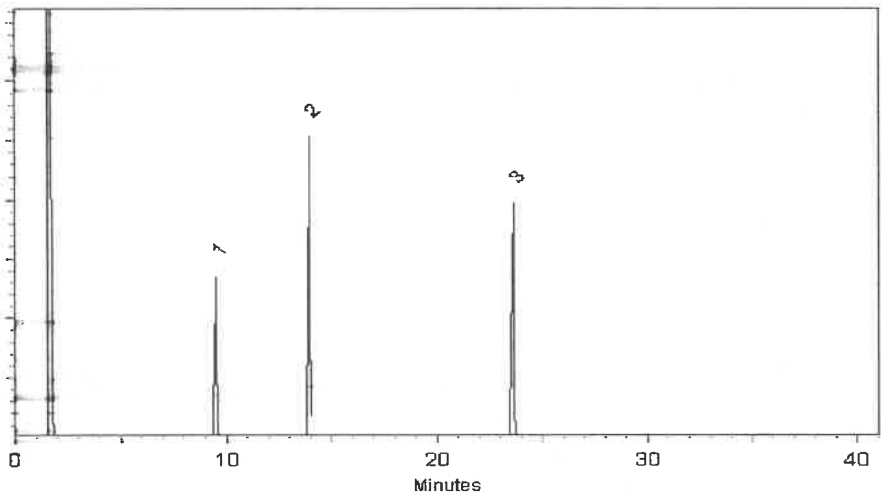
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
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@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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John Friedline - Operations Technician I

Date Mixed: 09-Sep-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Sep-2022

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Catalog No. : 31086 **Lot No.:** A0189418

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Container Size : 5 mL **Pkg Amt:** > 5 mL

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Handling: Sonicate prior to use. **Ship:** Ambient

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Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
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Column:
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Rtx-5 (cat.#10223)

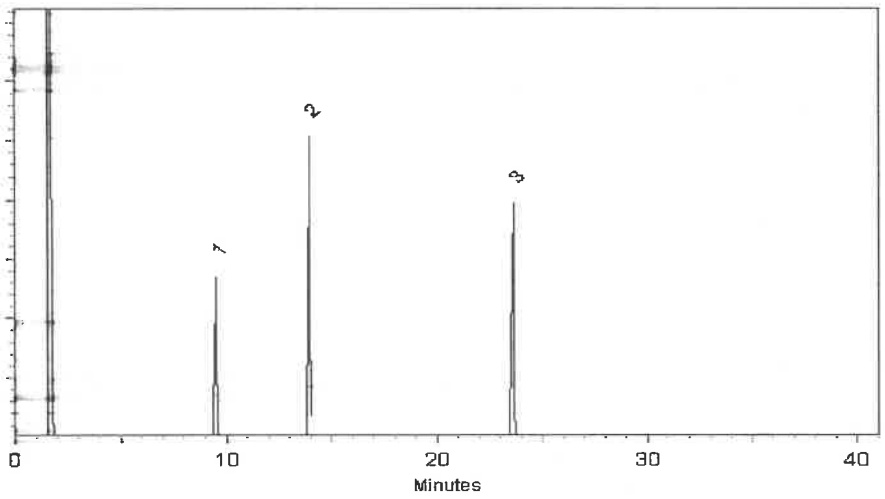
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Temp. Program:
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Inj. Temp:
250°C

Det. Temp:
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Det. Type:
FID



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John Friedline - Operations Technician I

Date Mixed: 09-Sep-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Sep-2022

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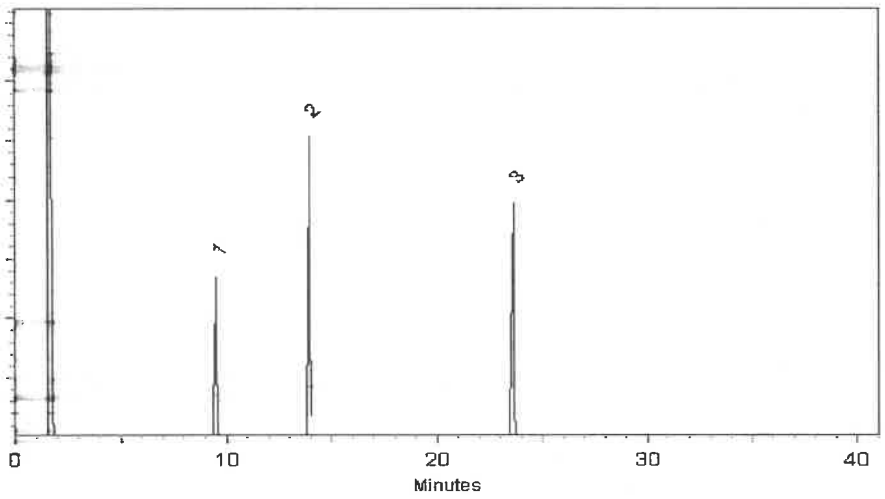
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Inj. Temp:
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Det. Temp:
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Det. Type:
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John Friedline - Operations Technician I

Date Mixed: 09-Sep-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

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CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Nitrobenzene-d5 **CAS #** 4165-60-0 (Lot PR-29940A) **Purity** 99%	5,009.8 µg/mL	+/- 29.1271 µg/mL +/- 225.6421 µg/mL +/- 250.3778 µg/mL	Gravimetric Unstressed Stressed
2	2-Fluorobiphenyl **CAS #** 321-60-8 (Lot 00021384) **Purity** 99%	5,026.6 µg/mL	+/- 29.2250 µg/mL +/- 226.4003 µg/mL +/- 251.2191 µg/mL	Gravimetric Unstressed Stressed
3	p-Terphenyl-d14 **CAS #** 1718-51-0 (Lot PR-30504) **Purity** 99%	5,027.3 µg/mL	+/- 29.2289 µg/mL +/- 226.4304 µg/mL +/- 251.2524 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

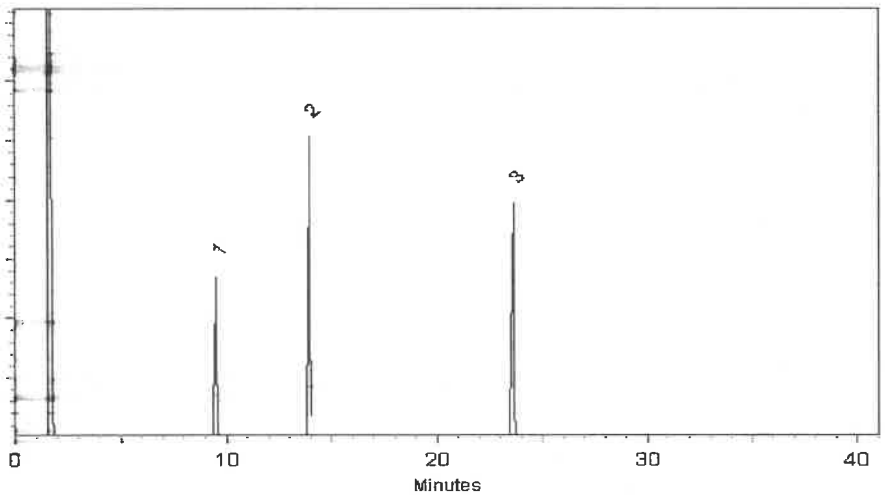
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

John Friedline - Operations Technician I

Date Mixed: 09-Sep-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Sep-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

gravimetric

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555870 **Lot No.:** A0194698

Description : Custom 2,4-Dinitrophenol Standard

Custom 2,4-Dinitrophenol Standard 25,000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)
1	2,4-Dinitrophenol	51-28-5	DR221221RSR	99%	25,195.0 µg/mL

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Russ Bookhamer - Operations Technician I

Date Mixed: 15-Feb-2023 **Balance:** B442140311

Manufactured under Restek's Registered Quality Certificate #FM 8

tified Reference Material Notes

:es:

n date valid for unopened ampul stored in compliance with the recommended conditions.

ıty, concentration, and expiration of the CRM are based on the unopened product being stored according to the ɜnded condition found in the storage field.

d/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, LC/MS, RI, and/or melting point.

ıds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A n factor is used to calculate the amount of compound necessary to achieve the desired concentration of the ɔmpound in solution.

isomeric compounds is reported as the sum of the isomers.

lues are rounded to the nearest whole number.

rtainty Value Notes:

ɜrtainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded ıty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability ıty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

ɜrage factor of 2, which gives a level of confidence of approximately 95%.

ıged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure inimum packaged amount can be sufficiently transferred.

Notes:

tion is based upon gravimetric preparation using either a balance whose calibration has been verified daily Γ traceable weights, and/or dilutions with Class A glassware.

:

the unopened product, when stored in compliance with the recommended conditions, is guaranteed through ion displayed on the product label and certificate. Contact Restek for additional opened product stability ɳ, with the knowledge/understanding that open product stability is subject to the specific handling and ntal conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with ɟards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ɜm. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, ıdes complete instructions.

ssolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

gravimetric

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555869 **Lot No.:** A0194702

Description : Custom Hexachlorocyclopentadiene Standard

Custom Hexachlorocyclopentadiene Standard 25,000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)
1	Hexachlorocyclopentadiene	77-47-4	0012019	99%	25,008.0 µg/mL

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Russ Bookhamer - Operations Technician I

Date Mixed: 15-Feb-2023 **Balance:** B442140311

Manufactured under Restek Registered Quality Certificate #FM

tified Reference Material Notes

:es:

n date valid for unopened ampul stored in compliance with the recommended conditions.

nty, concentration, and expiration of the CRM are based on the unopened product being stored according to the ended condition found in the storage field.

d/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, LC/MS, RI, and/or melting point.

nds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A n factor is used to calculate the amount of compound necessary to achieve the desired concentration of the mpound in solution.

isomeric compounds is reported as the sum of the isomers.

lues are rounded to the nearest whole number.

rtainty Value Notes:

rtainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded ty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability ty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

erage factor of 2, which gives a level of confidence of approximately 95%.

ged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure nimum packaged amount can be sufficiently transferred.

Notes:

tion is based upon gravimetric preparation using either a balance whose calibration has been verified daily traceable weights, and/or dilutions with Class A glassware.

:

the unopened product, when stored in compliance with the recommended conditions, is guaranteed through ion displayed on the product label and certificate. Contact Restek for additional opened product stability ı, with the knowledge/understanding that open product stability is subject to the specific handling and ntal conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with ards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom m. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, des complete instructions.

ssolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely

Sand
Purified
Washed and Ignited

avantor™ | J.T.Baker®

Material No.: 3382-05
Batch No.: 0000243821
Manufactured Date: 2018/04/09
Retest Date: 2025/04/07
Revision No: 1

Certificate of Analysis

Test	Specification	Result
Substances Soluble in HCl	<= 0.16 %	0.01

For Laboratory, Research or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs

Country of Origin: US
Packaging Site: Paris Mfg Ctr & DC

E 2865

James T Ethier

Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

PRODUCTOS QUIMICOS MONTERREY, S.A. DE C.V.

MIRADOR 201, COL. MIRADOR
MONTERREY, N.L. MEXICO
CP 64070
TEL +52 81 13 52 57 57
www.pqm.com.mx

CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS		
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na_2SO_4
SPECIFICATION NUMBER :	6399	RELEASE DATE:	ABR/21/2023
LOT NUMBER :	313201		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na_2SO_4)	Min. 99.0%	99.7 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.1
Insoluble matter	Max. 0.01%	0.005 %
Loss on ignition	Max. 0.5%	0.1 %
Chloride (Cl)	Max. 0.001%	<0.001 %
Nitrogen compounds (as N)	Max. 5 ppm	<5 ppm
Phosphate (PO_4)	Max. 0.001%	<0.001 %
Heavy metals (as Pb)	Max. 5 ppm	<5 ppm
Iron (Fe)	Max. 0.001%	<0.001 %
Calcium (Ca)	Max. 0.01%	0.002 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.003 %
Extraction-concentration suitability	Passes test	Passes test
Appearance	Passes test	Passes test
Identification	Passes test	Passes test
Solubility and foreing matter	Passes test	Passes test
Retained on US Standard No. 10 sieve	Max. 1%	0.1 %
Retained on US Standard No. 60 sieve	Min. 94%	97.3 %
Through US Standard No. 60 sieve	Max. 5%	2.5 %
Through US Standard No. 100 sieve	Max. 10%	0.1 %

COMMENTS

QC: PhC Irma Belmares

If you need further details, please call our factory or contact our local distributor.

RG-02-01, Ed. 3

Recd. by RB on 7/24/23 E3551

VWR®

Certificate of Analysis

Sodium Hydroxide (Pellets)

Material: 0583
Grade: ACS GRADE
Batch Number: 23B1556310

Chemical Formula: NaOH
Molecular Weight: 40
CAS #: 1310-73-2
Appearance:

Pellets

Manufacture Date: 12/14/2022
Expiration Date: 12/31/2025

Storage: Room Temperature

TEST	SPECIFICATION	ANALYSIS	DISPOSITION
Calcium	<= 0.005 %	<0.005 %	PASS
Chloride	<= 0.005 %	0.002 %	PASS
Heavy Metals	<= 0.002 %	<0.002 %	PASS
Iron	<= 0.001 %	<0.001 %	PASS
Magnesium	<= 0.002 %	<0.002 %	PASS
Mercury	<= 0.1 ppm	<0.1 ppm	PASS
Nickel	<= 0.001 %	<0.001 %	PASS
Nitrogen Compounds	<= 0.001 %	<0.001 %	PASS
Phosphate	<= 0.001 %	<0.001 %	PASS
Potassium	<= 0.02 %	<0.02 %	PASS
Purity	>= 97.0 %	99.2 %	PASS
Sodium Carbonate	<= 1.0 %	0.5 %	PASS
Sulfate	<= 0.003 %	<0.003 %	PASS

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

This document has been electronically produced and is valid without a signature.

Leona Edwardson, Quality Control Sr. Manager - Solon
VWR Chemicals, LLC.
28600 Fountain Parkway, Solon OH 44139 USA

Additional Information

Analysis may have been rounded to significant digits in specification limits.

Product meets analytical specifications of the grades listed.

E 3657	E 3659
E 3654	E 3660

PO: PO1-8886 PRODUCT CODE: SHIP DATE: 6/21/2024

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)

avantor™ | J.T.Baker

Material No.: 9266-A4
Batch No.: 24E2462004
Manufactured Date: 2024-04-10
Expiration Date: 2025-07-10
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	3
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	3
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	≥ 99.8 %	100.0 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.1 ppm
Titrable Acid (µeq/g)	≤ 0.3	< 0.1
Chloride (Cl)	≤ 10 ppm	5 ppm
Water (by KF, coulometric)	≤ 0.02 %	< 0.01 %

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC
Manufacturer source batch: MG24D10725

E 3768

JCroak
Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™ | J.T.Baker®

Material No.: 9254-03
Batch No.: 23H1462005
Manufactured Date: 2023-07-26
Expiration Date: 2026-07-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ($(CH_3)_2CO$) (by GC, corrected for water)	≥ 99.4 %	99.7 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.3 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titrable Acid (µeq/g)	≤ 0.3	0.1
Titrable Base (µeq/g)	≤ 0.6	< 0.1
Water (H_2O)	≤ 0.5 %	0.3 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	< 1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	1

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Recd. by RP on 8/13/24

E 3788

Ken Koehnlein
Sr. Manager, Quality Assurance

PO: PO2-76 PRODUCT CODE: SHIP DATE: 9/3/2024

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)

avantor™ | J.T.Baker®

Material No.: 9266-A4
Batch No.: 24G2362009
Manufactured Date: 2024-06-10
Expiration Date: 2025-09-09
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	2
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	1
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	≥ 99.8 %	100.0 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.3 ppm
Titrable Acid (µeq/g)	≤ 0.3	< 0.1
Chloride (Cl)	≤ 10 ppm	< 5 ppm
Water (by KF, coulometric)	≤ 0.02 %	< 0.01 %

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC
Manufacturer source batch: MG24F10024

E 3791

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

PO: PO2-329 PRODUCT CODE: SHIP DATE: 9/30/2024

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor | J.T.Baker

Material No.: 9254-03
Batch No.: 24H1462005
Manufactured Date: 2024-05-24
Expiration Date:2027-05-24
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ($(CH_3)_2CO$) (by GC, corrected forwater)	>= 99.4 %	99.8 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titrable Acid (µeq/g)	<= 0.3	0.2
Titrable Base (µeq/g)	<= 0.6	<0.1
Water (H_2O)	<= 0.5 %	0.2 %
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	<1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E3815

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials,LLC
100 Matsonford Rd, Suite 200,Radnor,PA,19087.U.S.A.Phone 610.386.1700

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™ | J.T.Baker

Material No.: 9254-03
Batch No.: 24H1462005
Manufactured Date: 2024-05-24
Expiration Date:2027-05-24
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ($(CH_3)_2CO$) (by GC, corrected forwater)	>= 99.4 %	99.8 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titrable Acid (µeq/g)	<= 0.3	0.2
Titrable Base (µeq/g)	<= 0.6	<0.1
Water (H_2O)	<= 0.5 %	0.2 %
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	<1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E3827

Recd by RP on ~~11/6~~ 11/7/24
RP 11/7

JCroak
Jamie Croak
Director Quality Operations, Bioscience Production

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)

avantor™ | J.T.Baker

Material No.: 9266-A4
Batch No.: 24J0862003
Manufactured Date: 2024-09-12
Expiration Date:2025-12-12
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	2
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	1
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	>= 99.8 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Titrable Acid (µeq/g)	<= 0.3	<0.1
Chloride (Cl)	<= 10 ppm	<5 ppm
Water (by KF, coulometric)	<= 0.02 %	<0.01 %

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E 3828

JCroak

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials LLC

1/16/24

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)

avantor™ | J.T.Baker

Material No.: 9266-A4
Batch No.: 24J0862003
Manufactured Date: 2024-09-12
Expiration Date:2025-12-12
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	2
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	1
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	>= 99.8 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Titrable Acid (µeq/g)	<= 0.3	<0.1
Chloride (Cl)	<= 10 ppm	<5 ppm
Water (by KF, coulometric)	<= 0.02 %	<0.01 %

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E 3829

JCroak

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

Material No.: 9530-33
Batch No.: 0000281827
Manufactured Date: 2021/03/30
Retest Date: 2026/03/29
Revision No: 1

Certificate of Analysis

Test	Specification	Result
ACS - Assay (as HCl) (by acid-base titrn)	36.5 - 38.0 %	37.6
ACS - Color (APHA)	<= 10	5
ACS - Residue after Ignition	<= 3 ppm	1
ACS - Specific Gravity at 60°/60°F	1.185 - 1.192	1.189
ACS - Bromide (Br)	<= 0.005 %	< 0.005
ACS - Extractable Organic Substances	<= 5 ppm	< 1
ACS - Free Chlorine (as Cl_2)	<= 0.5 ppm	< 0.5
Phosphate (PO_4)	<= 0.05 ppm	< 0.03
Sulfate (SO_4)	<= 0.5 ppm	< 0.3
Sulfite (SO_3)	<= 0.8 ppm	0.3
Ammonium (NH_4)	<= 3 ppm	< 1
Trace Impurities - Arsenic (As)	<= 0.010 ppm	< 0.003
Trace Impurities - Aluminum (Al)	<= 10.0 ppb	0.5
Arsenic and Antimony (as As)	<= 5 ppb	< 3
Trace Impurities - Barium (Ba)	<= 1.0 ppb	< 0.2
Trace Impurities - Beryllium (Be)	<= 1.0 ppb	< 0.2
Trace Impurities - Bismuth (Bi)	<= 10.0 ppb	< 1.0
Trace Impurities - Boron (B)	<= 20.0 ppb	< 5.0
Trace Impurities - Cadmium (Cd)	<= 1.0 ppb	< 0.3
Trace Impurities - Calcium (Ca)	<= 50.0 ppb	15.0
Trace Impurities - Chromium (Cr)	<= 1.0 ppb	< 0.4
Trace Impurities - Cobalt (Co)	<= 1.0 ppb	< 0.3
Trace Impurities - Copper (Cu)	<= 1.0 ppb	< 0.1
Trace Impurities - Gallium (Ga)	<= 1.0 ppb	< 0.2

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Material No.: 9530-33
Batch No.: 0000281827

Test	Specification	Result
Trace Impurities - Germanium (Ge)	<= 3.0 ppb	< 2.0
Trace Impurities - Gold (Au)	<= 4.0 ppb	3.0
Heavy Metals (as Pb)	<= 100 ppb	< 50
Trace Impurities - Iron (Fe)	<= 15.0 ppb	1.0
Trace Impurities - Lead (Pb)	<= 1.0 ppb	< 0.5
Trace Impurities - Lithium (Li)	<= 1.0 ppb	< 0.2
Trace Impurities - Magnesium (Mg)	<= 10.0 ppb	< 0.4
Trace Impurities - Manganese (Mn)	<= 1.0 ppb	< 0.4
Trace Impurities - Mercury (Hg)	<= 0.5 ppb	0.2
Trace Impurities - Molybdenum (Mo)	<= 10.0 ppb	< 5.0
Trace Impurities - Nickel (Ni)	<= 4.0 ppb	< 0.3
Trace Impurities - Niobium (Nb)	<= 1.0 ppb	< 0.2
Trace Impurities - Potassium (K)	<= 9.0 ppb	< 2.0
Trace Impurities - Selenium (Se), For Information Only	ppb	1.0
Trace Impurities - Silicon (Si)	<= 100.0 ppb	18.0
Trace Impurities - Silver (Ag)	<= 1.0 ppb	< 0.3
Trace Impurities - Sodium (Na)	<= 100.0 ppb	< 5.0
Trace Impurities - Strontium (Sr)	<= 1.0 ppb	< 0.2
Trace Impurities - Tantalum (Ta)	<= 1.0 ppb	< 0.9
Trace Impurities - Thallium (Tl)	<= 5.0 ppb	< 2.0
Trace Impurities - Tin (Sn)	<= 5.0 ppb	< 0.8
Trace Impurities - Titanium (Ti)	<= 1.0 ppb	< 0.2
Trace Impurities - Vanadium (V)	<= 1.0 ppb	< 0.2
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	0.4
Trace Impurities - Zirconium (Zr)	<= 1.0 ppb	< 0.1

For Laboratory, Research or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC



For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

CPI INTERNATIONAL

5580 Skylane Blvd
Santa Rosa, CA 95403

(707)525-5788
(800)878-7654 Toll Free
(707)545-7901 Fax

Manufacturer's Quality System
Audited & Registered
by TUV USA to ISO 9001:2015

Date Received:_____

Certificate of Analysis

Rev 0

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-110094-02	506889	≤ -10 °C	Methylene Chloride	7/25/2028	CLP Base/Neutral Surrogate Solution, 5,000 mg/L, 1 ml

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
1,2-dichlorobenzene-d_4	2199-69-1	99.7	247.29.3P	5035 ± 28.02
2-fluorobiphenyl	321-60-8	99.69	8.286.1.1P	4999 ± 103.66
nitrobenzene-d5	4165-60-0	99.67	7.9.3P	4988 ± 27.32
p-terphenyl-d14	1718-51-0	99.3	9.120.8P	5005 ± 27.85

511494 to 511498 } Y.P. 08/11/2023

*Not a certified value

Certified By: _____

Clint Tipton
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

gravimetric

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01
ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555223 **Lot No.:** A0201940

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2025 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

511539 ↓ 511568 Y.P. 091 191

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S230321RSR	99%	1,001.0 µg/mL	+/- 22.9799
2	Atrazine	1912-24-9	5FYWL	99%	1,010.0 µg/mL	+/- 23.1865
3	Benzidine	92-87-5	S221205RSR	99%	1,008.0 µg/mL	+/- 23.1406
4	epsilon-Caprolactam	105-60-2	I16X016	99%	1,008.0 µg/mL	+/- 23.1406

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Sam Moodler - Operations Tech I

REVIEWED
By Jennifer Pollino at 7:10 am, Sep 13, 2023

Date Mixed: 13-Sep-2023 **Balance:** B345965662

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

gravimetric

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01
ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555223 **Lot No.:** A0201940

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2025 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

511539 ↓ 511568 Y.P. 091 191

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S230321RSR	99%	1,001.0 µg/mL	+/- 22.9799
2	Atrazine	1912-24-9	5FYWL	99%	1,010.0 µg/mL	+/- 23.1865
3	Benzidine	92-87-5	S221205RSR	99%	1,008.0 µg/mL	+/- 23.1406
4	epsilon-Caprolactam	105-60-2	I16X016	99%	1,008.0 µg/mL	+/- 23.1406

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Sam Moodler - Operations Tech I

REVIEWED
By Jennifer Pollino at 7:10 am, Sep 13, 2023

Date Mixed: 13-Sep-2023 **Balance:** B345965662

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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Manufacturing Notes:

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Handling Notes:

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

gravimetric

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555872 **Lot No.:** A0201728

Description : Custom Pentachlorophenol Standard

Custom Pentachlorophenol Standard 25,000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

511649 ↓ 511658 Y.P. 11/13/23

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pentachlorophenol	87-86-5	RP230530RSR	99%	25,000.0 µg/mL	+/- 777.0837

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Josh McCloskey - Operations Technician I

Date Mixed: 05-Sep-2023 **Balance:** B251644995

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31853 **Lot No.:** A0196453

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

S11749 ↓ S11794 RC 11/30/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	2,013.0 µg/mL	+/- 25.0521

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

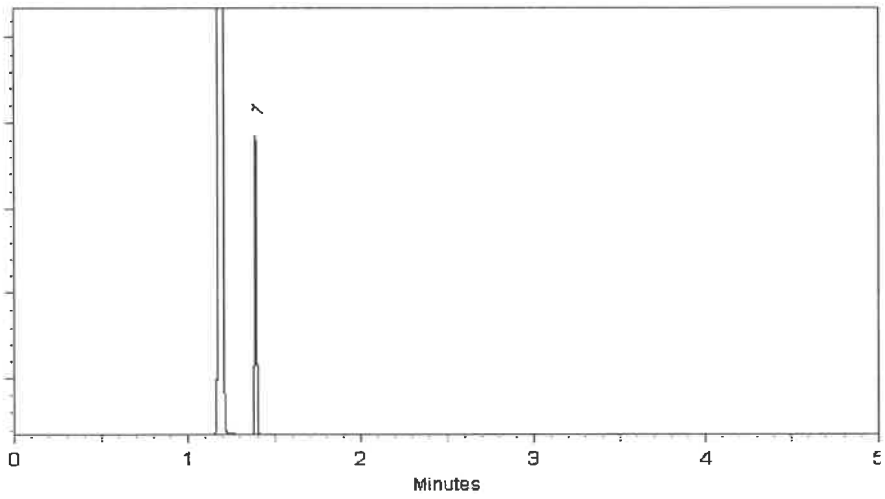
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler - Operations Tech I

Date Mixed: 30-Mar-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 31-Mar-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31853 **Lot No.:** A0196453

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

S11749 ↓ S11794 RC 11/30/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	2,013.0 µg/mL	+/- 25.0521

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

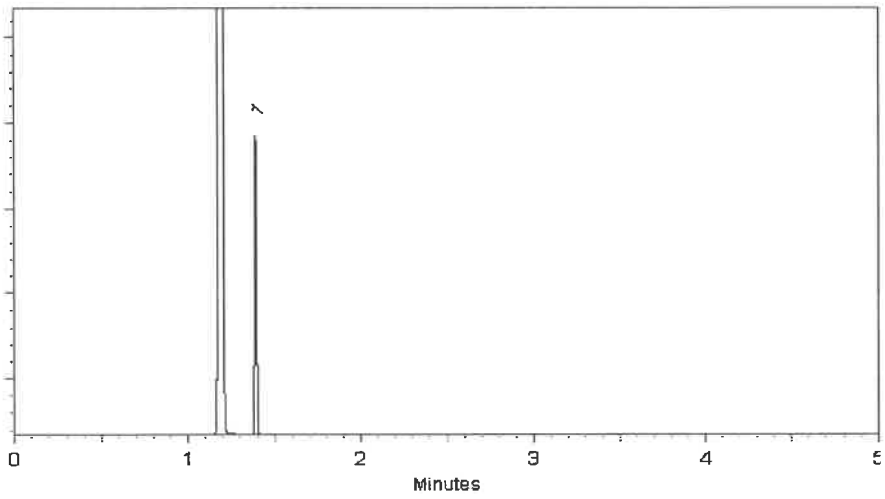
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler - Operations Tech I

Date Mixed: 30-Mar-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 31-Mar-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Catalog No. : 31853 **Lot No.:** A0196453

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

S11749 ↓ S11794 RC 11/30/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	2,013.0 µg/mL	+/- 25.0521

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

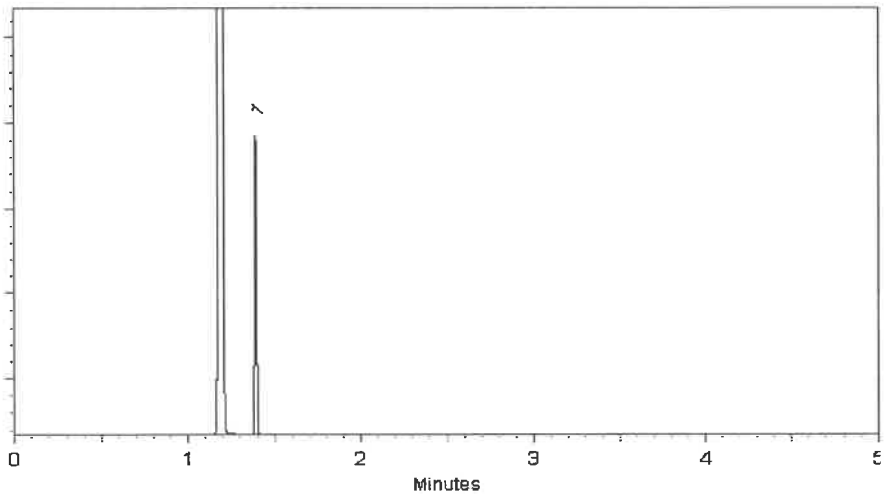
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler - Operations Tech I

Date Mixed: 30-Mar-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 31-Mar-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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110 Benner Circle
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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31853 **Lot No.:** A0196453

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

S11749 ↓ S11794 RC 11/30/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	2,013.0 µg/mL	+/- 25.0521

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

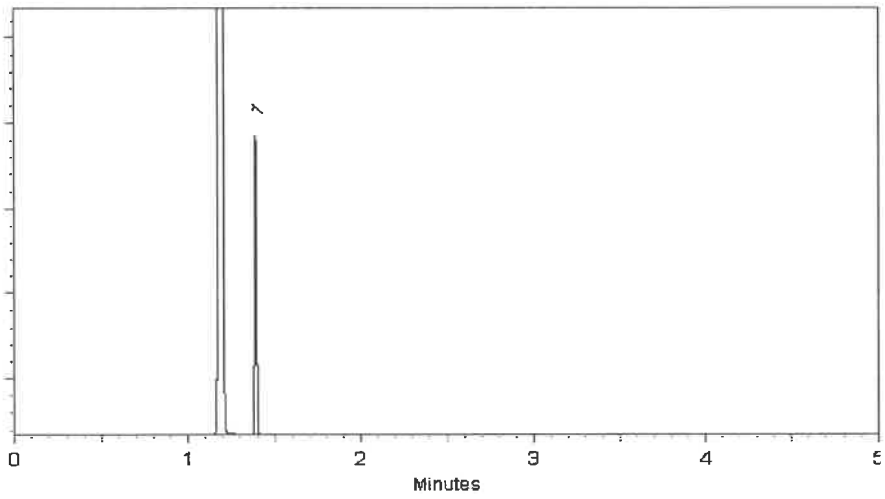
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
1µl



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Sam Moodler - Operations Tech I

Date Mixed: 30-Mar-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 31-Mar-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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Catalog No. : 31853 **Lot No.:** A0196453

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

S11749 ↓ S11794 RC 11/30/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	2,013.0 µg/mL	+/- 25.0521

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

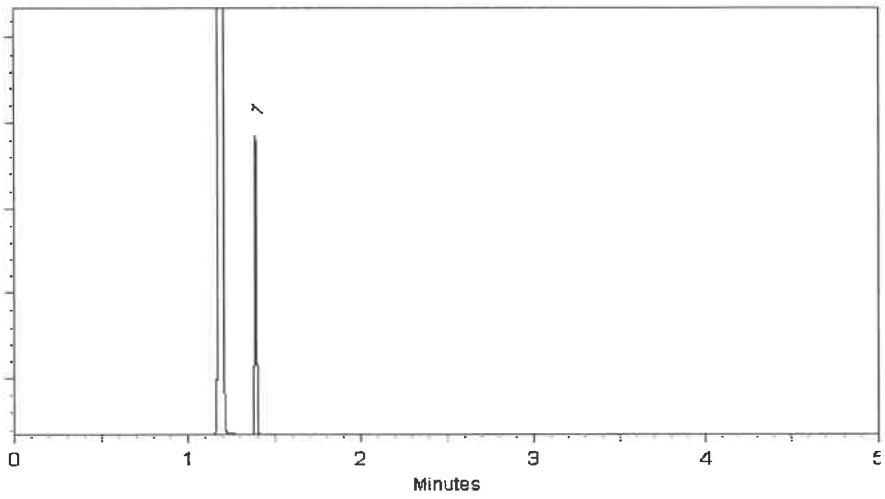
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
1µl



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Sam Moodler - Operations Tech I

Date Mixed: 30-Mar-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 31-Mar-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31853 **Lot No.:** A0196453

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

S11749 ↓ S11794 RC 11/30/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	2,013.0 µg/mL	+/- 25.0521

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

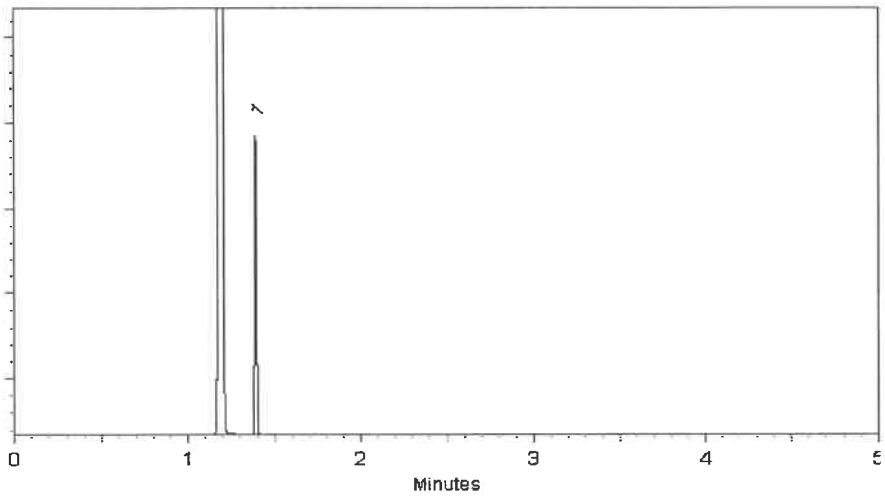
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
1µl



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Sam Moodler - Operations Tech I

Date Mixed: 30-Mar-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 31-Mar-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
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- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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Manufacturing Notes:

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Handling Notes:

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31853 **Lot No.:** A0196453

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

S11749 ↓ S11794 RC 11/30/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	2,013.0 µg/mL	+/- 25.0521

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

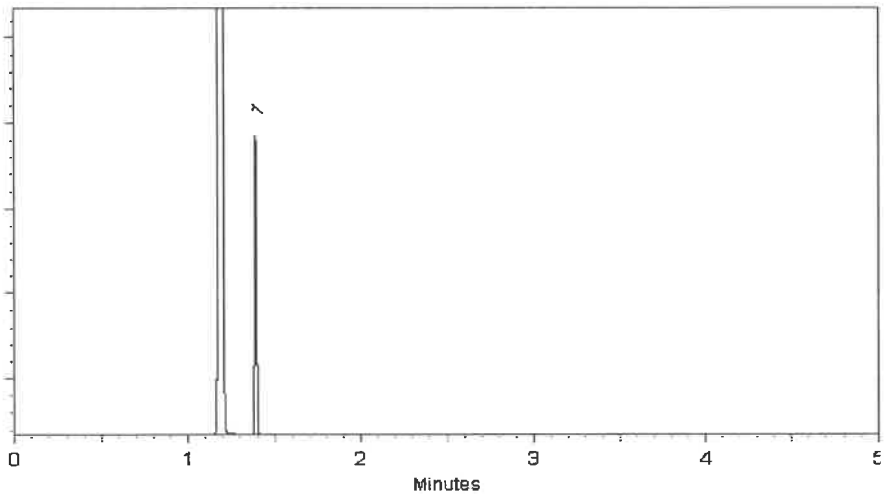
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
1µl



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Sam Moodler - Operations Tech I

Date Mixed: 30-Mar-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 31-Mar-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
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Purity Notes:

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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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Catalog No. : 31853 **Lot No.:** A0196453

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

S11749 ↓ S11794 RC 11/30/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	2,013.0 µg/mL	+/- 25.0521

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

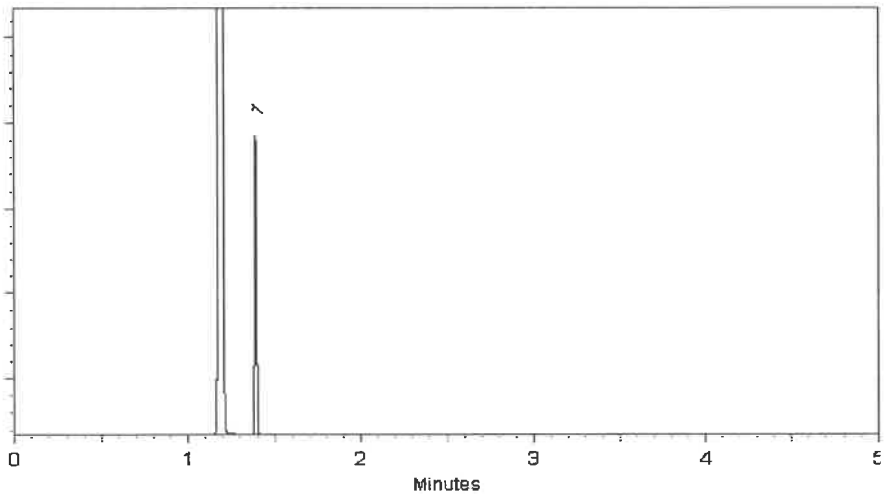
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
1µl



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Sam Moodler - Operations Tech I

Date Mixed: 30-Mar-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 31-Mar-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

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Catalog No. : 31853 **Lot No.:** A0196453

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

S11749 ↓ S11794 RC 11/30/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	2,013.0 µg/mL	+/- 25.0521

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

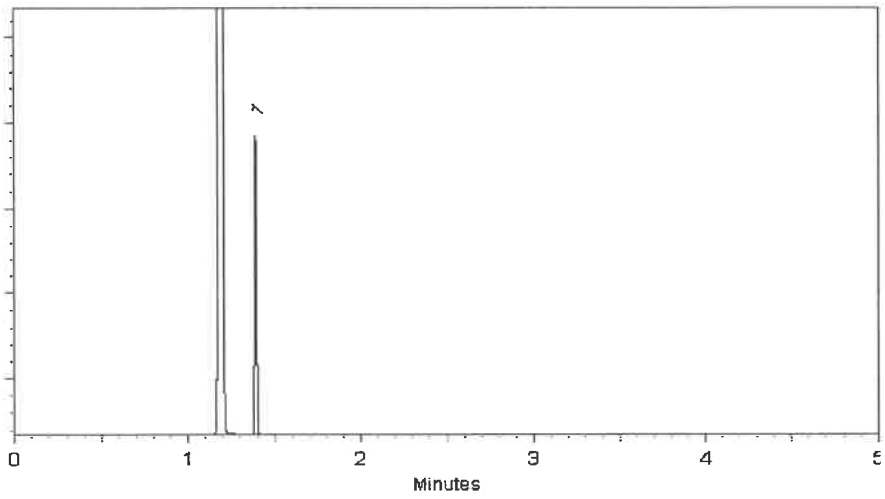
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
1µl



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Sam Moodler - Operations Tech I

Date Mixed: 30-Mar-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 31-Mar-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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110 Benner Circle
Bellefonte, PA 16823-8812
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Fax: 1-814-353-1309

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Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31853 **Lot No.:** A0196453

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

S11749 ↓ S11794 RC 11/30/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	2,013.0 µg/mL	+/- 25.0521

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

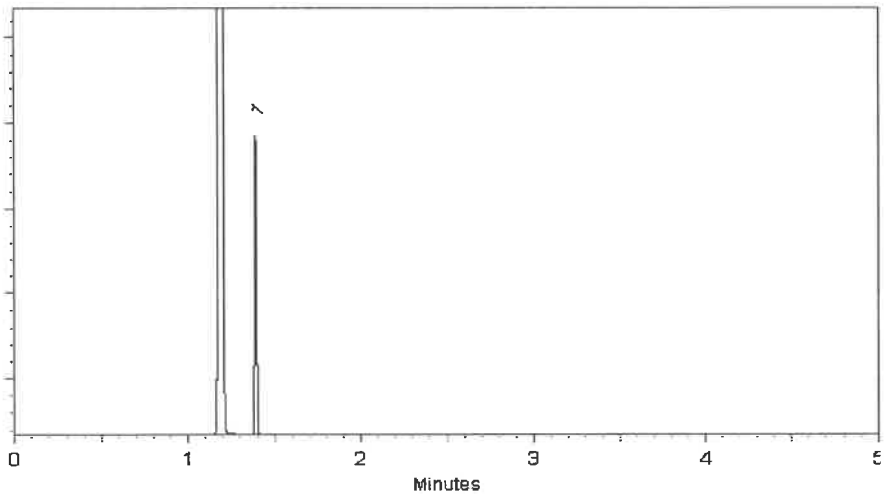
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler - Operations Tech I

Date Mixed: 30-Mar-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 31-Mar-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
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Purity Notes:

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- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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Catalog No. : 31853 **Lot No.:** A0196453

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

S11749 ↓ S11794 RC 11/30/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	2,013.0 µg/mL	+/- 25.0521

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

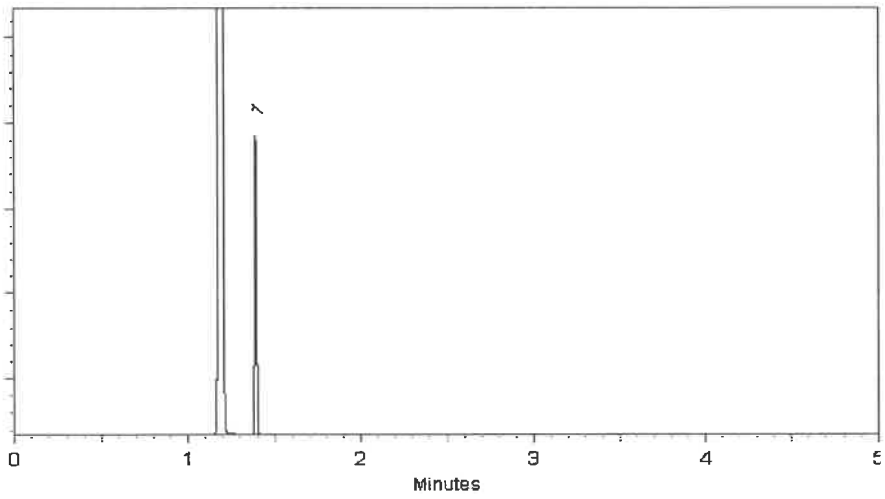
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
1µl



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Sam Moodler - Operations Tech I

Date Mixed: 30-Mar-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 31-Mar-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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Handling Notes:

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Catalog No. : 31206 **Lot No.:** A0201320

S12013 ↓ S12042 RC 12/26/23

Description : SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2029 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dichlorobenzene-d4	3855-82-1	PR-30447	99%	2,017.0 µg/mL	+/- 90.8469
2	Naphthalene-d8	1146-65-2	M-2180	99%	2,011.3 µg/mL	+/- 90.5917
3	Acenaphthene-d10	15067-26-2	PR-33507	99%	2,008.6 µg/mL	+/- 90.4685
4	Phenanthrene-d10	1517-22-2	PR-32303	99%	2,019.4 µg/mL	+/- 90.9550
5	Chrysene-d12	1719-03-5	PR-32210	99%	2,013.7 µg/mL	+/- 90.6968
6	Perylene-d12	1520-96-3	PR-33205	99%	2,012.7 µg/mL	+/- 90.6517

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

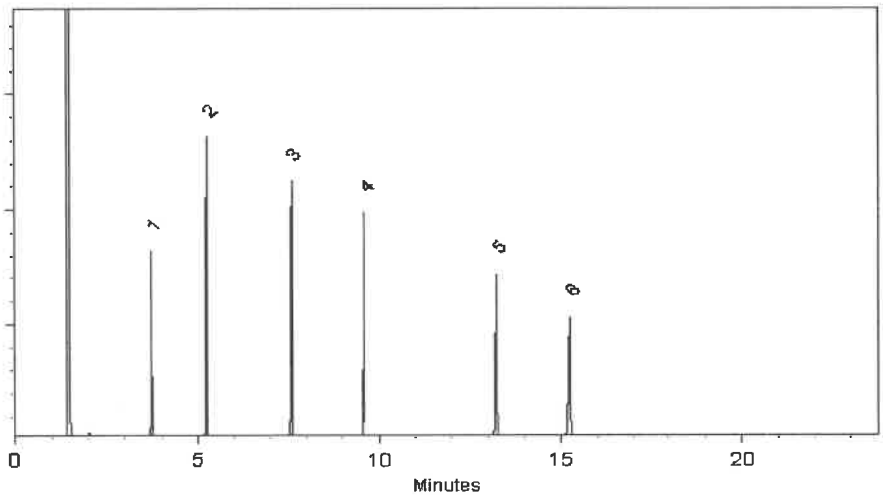
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Peter Robbins - Operations Technician I

Date Mixed: 23-Aug-2023 **Balance Serial #** B345965662

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 25-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

CPI INTERNATIONAL

5580 Skylane Blvd
Santa Rosa, CA 95403

(707)525-5788
(800)878-7654 Toll Free
(707)545-7901 Fax

Manufacturer's Quality System
Audited & Registered
by TUV USA to ISO 9001:2015

Date Received: _____

Certificate of Analysis

Rev 0

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-110816-01	414127	≤ -10 °C	Methylene Chloride	6/21/2025	Custom 8270 Mix, 4-79, 1000 mg/L, 1 mL

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
atrazine	1912-24-9	99.5	337.7.3P	997 ± 5.81
benzidine	92-87-5	99.9	124.18.6.2P	991.8 ± 5.77
caprolactam	105-60-2	99.9	271.1.6P	999 ± 5.82

S12075
↓
S12079
RC
02/01/24

*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

Certified By: _____
Shane Overcash
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555224 **Lot No.:** A0207706

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

S12082 ↓ S12111 RC/ 02/22/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,001.0 µg/mL	+/- 29.424320
2	Acetophenone	98-86-2	STBH8205	99%	1,004.0 µg/mL	+/- 29.512504
3	Benzaldehyde	100-52-7	RD231129RSRA	99%	1,005.0 µg/mL	+/- 29.541899
4	Benzoic acid	65-85-0	MKCR2694	99%	1,003.0 µg/mL	+/- 29.483110
5	Biphenyl	92-52-4	MKCL6515	99%	1,006.0 µg/mL	+/- 29.571294

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

John Friedline - Operations Technician I

Date Mixed: 12-Feb-2024 **Balance:** B345965662

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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Catalog No. : 555224 **Lot No.:** A0207706

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

S12082 ↓ S12111 RC/ 02/22/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,001.0 µg/mL	+/- 29.424320
2	Acetophenone	98-86-2	STBH8205	99%	1,004.0 µg/mL	+/- 29.512504
3	Benzaldehyde	100-52-7	RD231129RSRA	99%	1,005.0 µg/mL	+/- 29.541899
4	Benzoic acid	65-85-0	MKCR2694	99%	1,003.0 µg/mL	+/- 29.483110
5	Biphenyl	92-52-4	MKCL6515	99%	1,006.0 µg/mL	+/- 29.571294

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

John Friedline - Operations Technician I

Date Mixed: 12-Feb-2024 **Balance:** B345965662

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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Catalog No. : 555224 **Lot No.:** A0207706

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

S12082 ↓ S12111 RC/ 02/22/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,001.0 µg/mL	+/- 29.424320
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5	Biphenyl	92-52-4	MKCL6515	99%	1,006.0 µg/mL	+/- 29.571294

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

John Friedline - Operations Technician I

Date Mixed: 12-Feb-2024 **Balance:** B345965662

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Catalog No. : 555224 **Lot No.:** A0207706

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

S12082 ↓ S12111 RC/ 02/22/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
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CAS # 75-09-2
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John Friedline - Operations Technician I

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Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

S12082 ↓ S12111 RC/ 02/22/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2026 **Storage:** 10°C or colder

Ship: Ambient

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ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555224 **Lot No.:** A0207706

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

S12082 ↓ S12111 RC/ 02/22/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,001.0 µg/mL	+/- 29.424320
2	Acetophenone	98-86-2	STBH8205	99%	1,004.0 µg/mL	+/- 29.512504
3	Benzaldehyde	100-52-7	RD231129RSRA	99%	1,005.0 µg/mL	+/- 29.541899
4	Benzoic acid	65-85-0	MKCR2694	99%	1,003.0 µg/mL	+/- 29.483110
5	Biphenyl	92-52-4	MKCL6515	99%	1,006.0 µg/mL	+/- 29.571294

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

John Friedline - Operations Technician I

Date Mixed: 12-Feb-2024 **Balance:** B345965662

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Catalog No. : 555224 **Lot No.:** A0207706

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

S12082 ↓ S12111 RC/ 02/22/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
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2	Acetophenone	98-86-2	STBH8205	99%	1,004.0 µg/mL	+/- 29.512504
3	Benzaldehyde	100-52-7	RD231129RSRA	99%	1,005.0 µg/mL	+/- 29.541899
4	Benzoic acid	65-85-0	MKCR2694	99%	1,003.0 µg/mL	+/- 29.483110
5	Biphenyl	92-52-4	MKCL6515	99%	1,006.0 µg/mL	+/- 29.571294

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

John Friedline - Operations Technician I

Date Mixed: 12-Feb-2024 **Balance:** B345965662

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Catalog No. : 555224 **Lot No.:** A0207706

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

S12082 ↓ S12111 RC/ 02/22/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,001.0 µg/mL	+/- 29.424320
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3	Benzaldehyde	100-52-7	RD231129RSRA	99%	1,005.0 µg/mL	+/- 29.541899
4	Benzoic acid	65-85-0	MKCR2694	99%	1,003.0 µg/mL	+/- 29.483110
5	Biphenyl	92-52-4	MKCL6515	99%	1,006.0 µg/mL	+/- 29.571294

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

John Friedline - Operations Technician I

Date Mixed: 12-Feb-2024 **Balance:** B345965662

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CPI INTERNATIONAL

5580 Skylane Blvd
Santa Rosa, CA 95403

(707)525-5788
(800)878-7654 Toll Free
(707)545-7901 Fax

Manufacturer's Quality System
Audited & Registered
by TUV USA to ISO 9001:2015

Date Received:_____

Certificate of Analysis

Rev 0

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-020223-01	454157	≤ -10 °C	P/T Methanol	6/10/2026	1,4-Dioxane Solution, 2000 mg/L, 1 mL

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
1,4-dioxane	123-91-1	100	223.1.3P	1997 ± 57.08

S12112 ↓ S12116 } RC/ 03/08/24

*Not a certified value

Certified By: Melissa Workoff

Melissa Workoff
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

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chromatographic plus

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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Catalog No. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

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Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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Catalog No. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

RESTEK
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

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CAS # 75-09-2
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Catalog No. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31087 **Lot No.:** A0206206

Description : Acid Surrogate Mix (4/89 SOW)

Acid Surrogate 10, 000µg/mL, Methanol, 5mL/ampul

S12187 ↓ S12206 } RC/ 03/18/24

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2032 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorophenol	367-12-4	STBK1705	99%	10,005.3 µg/mL	+/- 302.5390
2	Phenol-d6	13127-88-3	PR-33287A	99%	10,005.5 µg/mL	+/- 302.5475
3	2,4,6-Tribromophenol	118-79-6	RP230831RSR	99%	10,006.6 µg/mL	+/- 302.5783

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

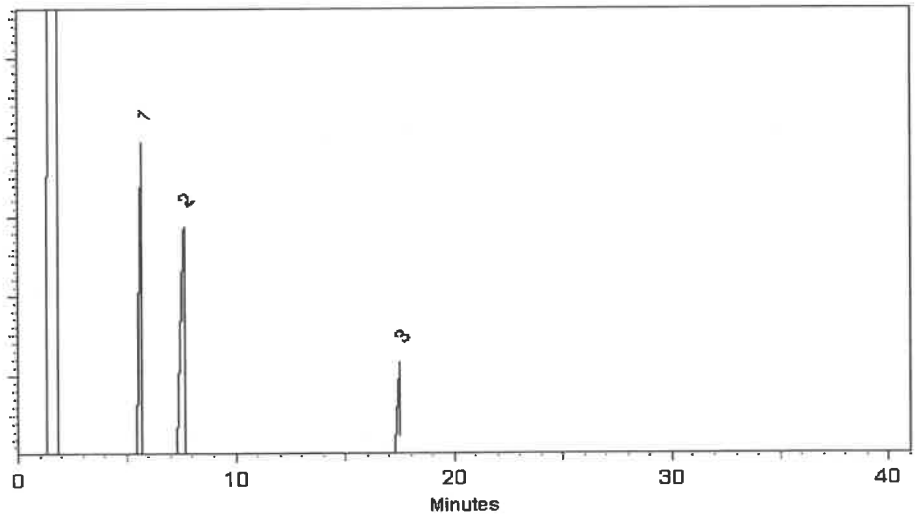
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 04-Jan-2024 **Balance Serial #** 1128360905

Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 08-Jan-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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Catalog No. : 31087 **Lot No.:** A0206206

Description : Acid Surrogate Mix (4/89 SOW)

Acid Surrogate 10, 000µg/mL, Methanol, 5mL/ampul

S12187 ↓ S12206 } RC/ 03/18/24

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2032 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorophenol	367-12-4	STBK1705	99%	10,005.3 µg/mL	+/- 302.5390
2	Phenol-d6	13127-88-3	PR-33287A	99%	10,005.5 µg/mL	+/- 302.5475
3	2,4,6-Tribromophenol	118-79-6	RP230831RSR	99%	10,006.6 µg/mL	+/- 302.5783

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

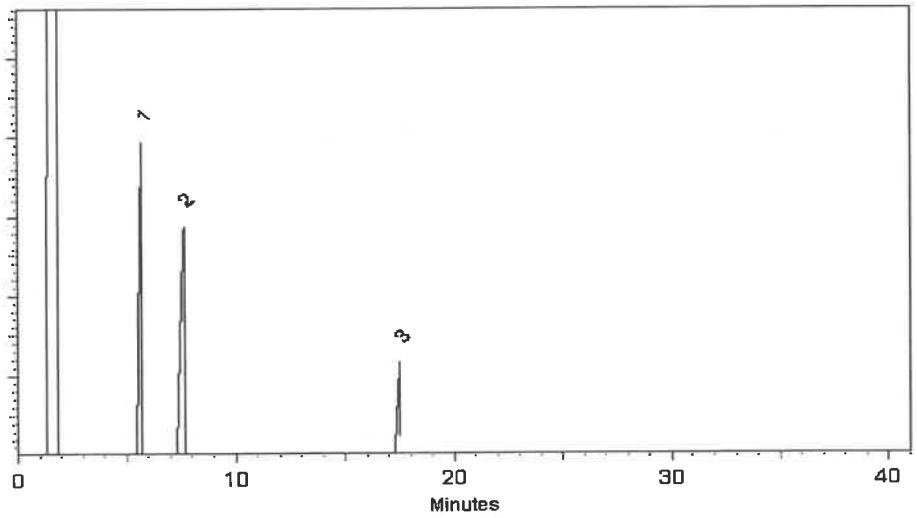
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 04-Jan-2024 **Balance Serial #** 1128360905

Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 08-Jan-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31087 **Lot No.:** A0206206

Description : Acid Surrogate Mix (4/89 SOW)

Acid Surrogate 10, 000µg/mL, Methanol, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2032 **Storage:** 10°C or colder

Ship: Ambient

S12187 ↓ S12206 } RC/ 03/18/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorophenol	367-12-4	STBK1705	99%	10,005.3 µg/mL	+/- 302.5390
2	Phenol-d6	13127-88-3	PR-33287A	99%	10,005.5 µg/mL	+/- 302.5475
3	2,4,6-Tribromophenol	118-79-6	RP230831RSR	99%	10,006.6 µg/mL	+/- 302.5783

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

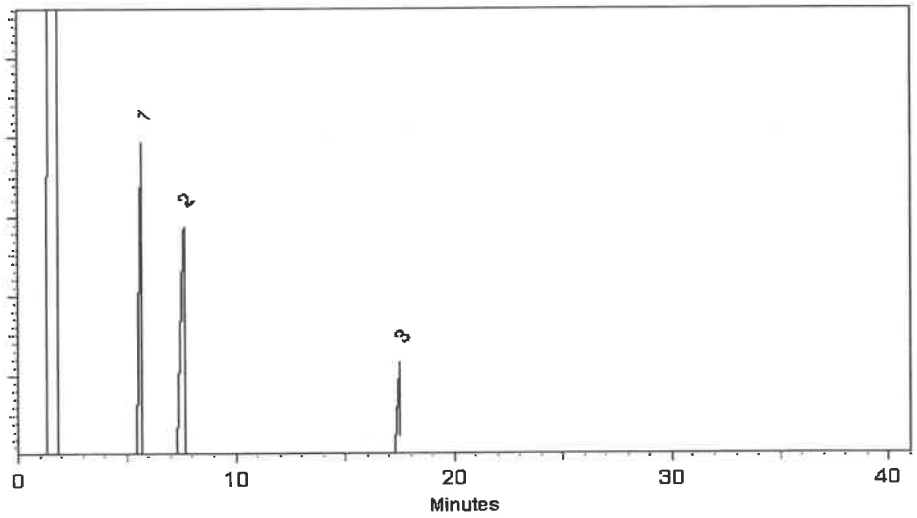
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



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Penelope Riglin - Operations Tech I

Date Mixed: 04-Jan-2024 **Balance Serial #** 1128360905

Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 08-Jan-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31086 **Lot No.:** A0206381

Description : B/N Surrogate Mix (4/89 SOW)

Base Neutral Surrogate 5000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2029 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

S12207 ↓ S12221 RC/ 03/18/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitrobenzene-d5	4165-60-0	I-25158	99%	5,029.3 µg/mL	+/- 226.5204
2	2-Fluorobiphenyl	321-60-8	00021384	99%	5,030.9 µg/mL	+/- 226.5936
3	p-Terphenyl-d14	1718-51-0	PR-32599	99%	5,026.4 µg/mL	+/- 226.3909

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

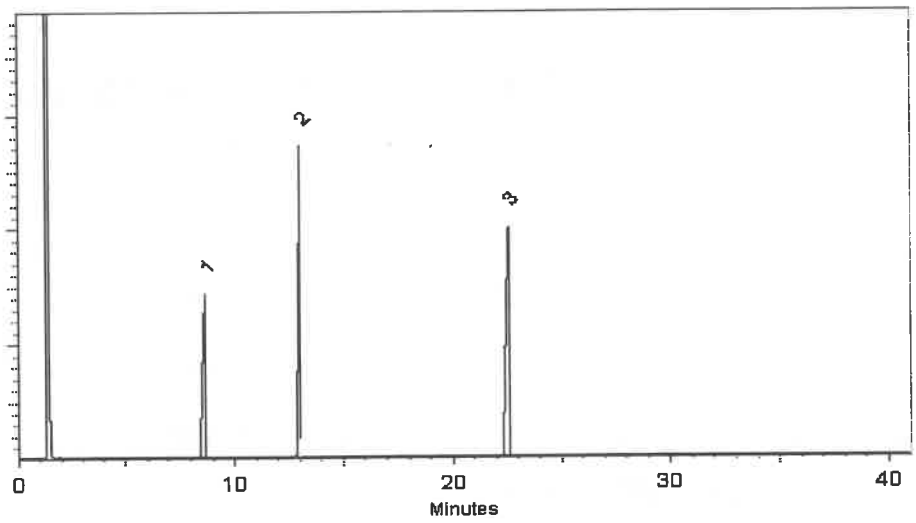
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Jess Hoy - Operations Tech I

Date Mixed: 09-Jan-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 11-Jan-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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Santa Rosa, CA 95403

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(800)878-7654 Toll Free
(707)545-7901 Fax

Manufacturer's Quality System
Audited & Registered
by TUV USA to ISO 9001:2015

Date Received: _____

Certificate of Analysis

Rev 0

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-010442-07	495833	≤ -10 °C	Methylene Chloride	1/16/2028	Benzaldehyde Solution, 1000 mg/L, 1.3 mL

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
benzaldehyde	100-52-7	98.3	442.421.1P	996.8 ± 11.49

S12275 ↓ S12279 } RC/ 05/24/24

*Not a certified value

Certified By: S. Hunter

Scott Hunter
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

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S12312 ↓ S12331 } RC/ 05/30/24

Catalog No. : 31206 **Lot No.:** A0206540

Description : SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2029 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dichlorobenzene-d4	3855-82-1	PR-30447	99%	2,007.1 µg/mL	+/- 90.4025
2	Naphthalene-d8	1146-65-2	M-2180	99%	2,005.9 µg/mL	+/- 90.3454
3	Acenaphthene-d10	15067-26-2	PR-33507	99%	2,007.9 µg/mL	+/- 90.4385
4	Phenanthrene-d10	1517-22-2	PR-32303	99%	2,006.7 µg/mL	+/- 90.3845
5	Chrysene-d12	1719-03-5	PR-32210	99%	2,015.5 µg/mL	+/- 90.7778
6	Perylene-d12	1520-96-3	PR-33205	99%	2,014.7 µg/mL	+/- 90.7448

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

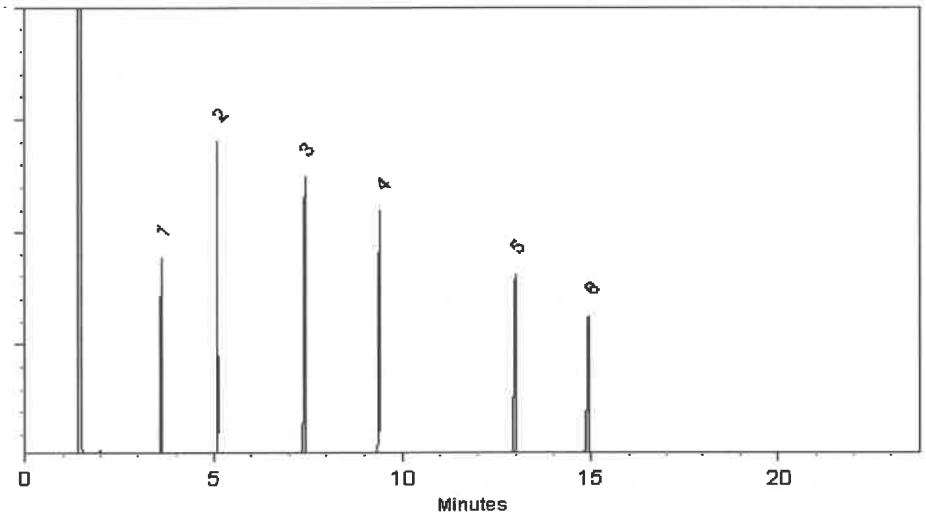
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Malina Homan - Operations Technician I

Date Mixed: 12-Jan-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Jan-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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S12312 ↓ S12331 } RC/ 05/30/24

Catalog No. : 31206 **Lot No.:** A0206540

Description : SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2029 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dichlorobenzene-d4	3855-82-1	PR-30447	99%	2,007.1 µg/mL	+/- 90.4025
2	Naphthalene-d8	1146-65-2	M-2180	99%	2,005.9 µg/mL	+/- 90.3454
3	Acenaphthene-d10	15067-26-2	PR-33507	99%	2,007.9 µg/mL	+/- 90.4385
4	Phenanthrene-d10	1517-22-2	PR-32303	99%	2,006.7 µg/mL	+/- 90.3845
5	Chrysene-d12	1719-03-5	PR-32210	99%	2,015.5 µg/mL	+/- 90.7778
6	Perylene-d12	1520-96-3	PR-33205	99%	2,014.7 µg/mL	+/- 90.7448

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

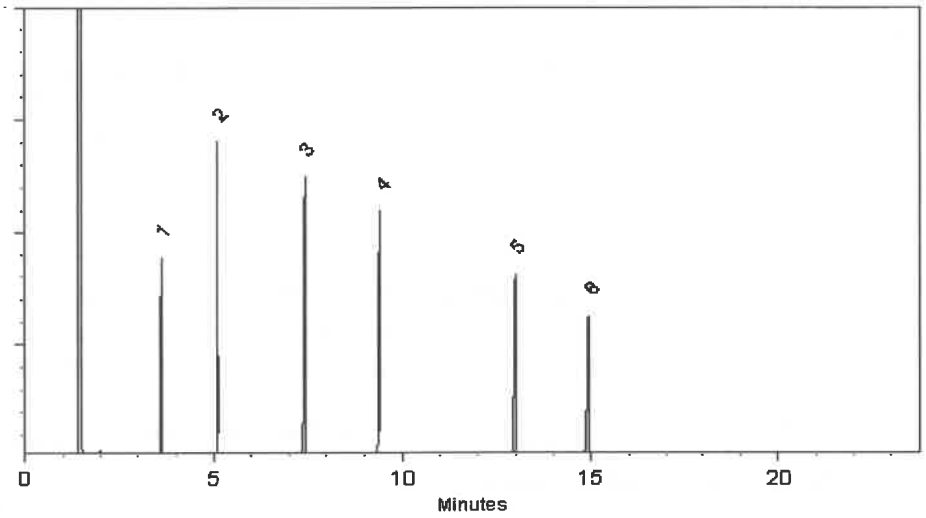
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Malina Homan - Operations Technician I

Date Mixed: 12-Jan-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Jan-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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S12312 ↓ S12331 } RC/ 05/30/24

Catalog No. : 31206 **Lot No.:** A0206540

Description : SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2029 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dichlorobenzene-d4	3855-82-1	PR-30447	99%	2,007.1 µg/mL	+/- 90.4025
2	Naphthalene-d8	1146-65-2	M-2180	99%	2,005.9 µg/mL	+/- 90.3454
3	Acenaphthene-d10	15067-26-2	PR-33507	99%	2,007.9 µg/mL	+/- 90.4385
4	Phenanthrene-d10	1517-22-2	PR-32303	99%	2,006.7 µg/mL	+/- 90.3845
5	Chrysene-d12	1719-03-5	PR-32210	99%	2,015.5 µg/mL	+/- 90.7778
6	Perylene-d12	1520-96-3	PR-33205	99%	2,014.7 µg/mL	+/- 90.7448

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

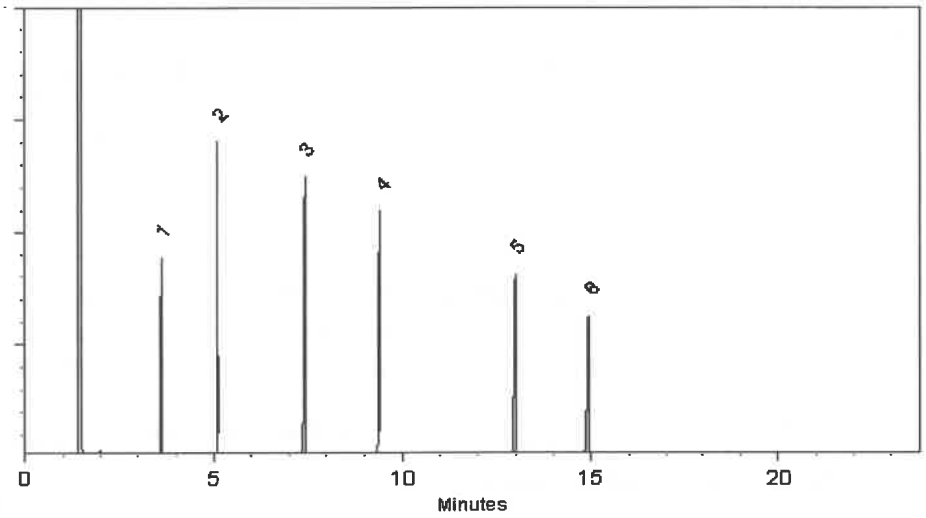
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Malina Homan - Operations Technician I

Date Mixed: 12-Jan-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Jan-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

S12312 ↓ S12331 } RC/ 05/30/24

Catalog No. : 31206 **Lot No.:** A0206540

Description : SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2029 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dichlorobenzene-d4	3855-82-1	PR-30447	99%	2,007.1 µg/mL	+/- 90.4025
2	Naphthalene-d8	1146-65-2	M-2180	99%	2,005.9 µg/mL	+/- 90.3454
3	Acenaphthene-d10	15067-26-2	PR-33507	99%	2,007.9 µg/mL	+/- 90.4385
4	Phenanthrene-d10	1517-22-2	PR-32303	99%	2,006.7 µg/mL	+/- 90.3845
5	Chrysene-d12	1719-03-5	PR-32210	99%	2,015.5 µg/mL	+/- 90.7778
6	Perylene-d12	1520-96-3	PR-33205	99%	2,014.7 µg/mL	+/- 90.7448

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

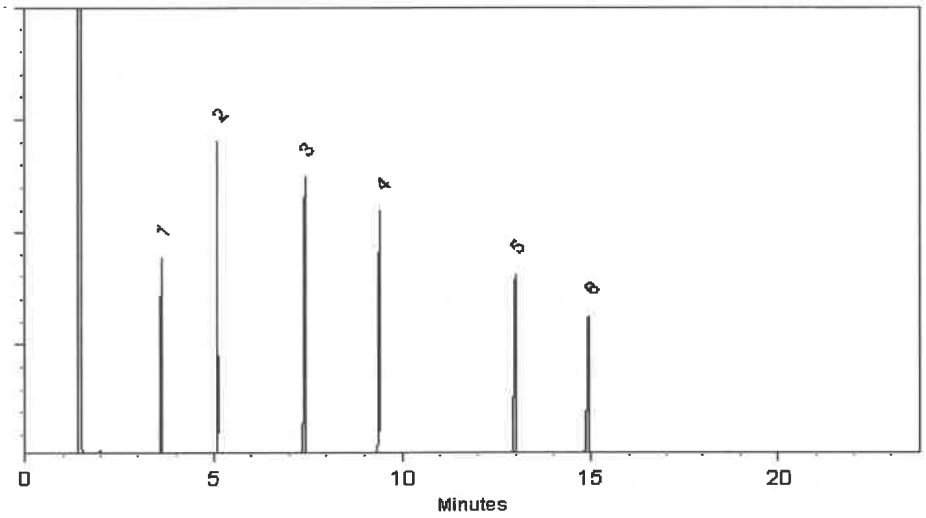
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Malina Homan - Operations Technician I

Date Mixed: 12-Jan-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Jan-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
2	Atrazine	1912-24-9	5FYWL	99%	1,005.0 µg/mL	+/- 23.0717
3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 23.0947
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
2	Atrazine	1912-24-9	5FYWL	99%	1,005.0 µg/mL	+/- 23.0717
3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 23.0947
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
2	Atrazine	1912-24-9	5FYWL	99%	1,005.0 µg/mL	+/- 23.0717
3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 23.0947
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
2	Atrazine	1912-24-9	5FYWL	99%	1,005.0 µg/mL	+/- 23.0717
3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 23.0947
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
2	Atrazine	1912-24-9	5FYWL	99%	1,005.0 µg/mL	+/- 23.0717
3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 23.0947
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
2	Atrazine	1912-24-9	5FYWL	99%	1,005.0 µg/mL	+/- 23.0717
3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 23.0947
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

gravimetric

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
2	Atrazine	1912-24-9	5FYWL	99%	1,005.0 µg/mL	+/- 23.0717
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Expiration Date : July 31, 2026 **Storage:** 10°C or colder

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Catalog No. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
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Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

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Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

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4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

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S12449 ↓ S12508 } RC 7/24/24

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CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
2	Atrazine	1912-24-9	5FYWL	99%	1,005.0 µg/mL	+/- 23.0717
3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 23.0947
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

gravimetric

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
2	Atrazine	1912-24-9	5FYWL	99%	1,005.0 µg/mL	+/- 23.0717
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4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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Catalog No. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
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Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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Catalog No. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
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4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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Catalog No. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
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3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 23.0947
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555224 **Lot No.:** A0214017

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,005.0 µg/mL	+/- 29.541899
2	Acetophenone	98-86-2	STBH8205	99%	1,005.0 µg/mL	+/- 29.541899
3	Benzaldehyde	100-52-7	RD231129RSRA	99%	1,008.0 µg/mL	+/- 29.630084
4	Benzoic acid	65-85-0	MKCR2694	99%	1,010.0 µg/mL	+/- 29.688874
5	Biphenyl	92-52-4	MKCS5928	99%	1,008.0 µg/mL	+/- 29.630084

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12509 ↓ S12568 } RC/ 7/24/24

Jess Hoy - Operations Tech I

Date Mixed: 18-Jul-2024 **Balance:** 1128360905

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

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- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

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Manufacturing Notes:

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Catalog No. : 555224 **Lot No.:** A0214017

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,005.0 µg/mL	+/- 29.541899
2	Acetophenone	98-86-2	STBH8205	99%	1,005.0 µg/mL	+/- 29.541899
3	Benzaldehyde	100-52-7	RD231129RSRA	99%	1,008.0 µg/mL	+/- 29.630084
4	Benzoic acid	65-85-0	MKCR2694	99%	1,010.0 µg/mL	+/- 29.688874
5	Biphenyl	92-52-4	MKCS5928	99%	1,008.0 µg/mL	+/- 29.630084

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12509 ↓ S12568 } RC/ 7/24/24

Jess Hoy - Operations Tech I

Date Mixed: 18-Jul-2024 **Balance:** 1128360905

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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Catalog No. : 555224 **Lot No.:** A0214017

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,005.0 µg/mL	+/- 29.541899
2	Acetophenone	98-86-2	STBH8205	99%	1,005.0 µg/mL	+/- 29.541899
3	Benzaldehyde	100-52-7	RD231129RSRA	99%	1,008.0 µg/mL	+/- 29.630084
4	Benzoic acid	65-85-0	MKCR2694	99%	1,010.0 µg/mL	+/- 29.688874
5	Biphenyl	92-52-4	MKCS5928	99%	1,008.0 µg/mL	+/- 29.630084

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12509 ↓ S12568 } RC/ 7/24/24

Jess Hoy - Operations Tech I

Date Mixed: 18-Jul-2024 **Balance:** 1128360905

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

gravimetric

ISO 17034 Accredited
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Certificate #3222.01

ISO/IEC 17025 Accredited
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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555224 **Lot No.:** A0214017

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
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Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

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Catalog No. : 555224 **Lot No.:** A0214017

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

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Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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Catalog No. : 555224 **Lot No.:** A0214017

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

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CERTIFIED VALUES

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Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. P4891 / P4892
QUOTE NO.
COC Number 2042035

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Garnett Fleming
ADDRESS: 1010 Adams Avenue
CITY Audubon STATE: PA ZIP: 19403
ATTENTION: Joe Krupansky
PHONE: 610-301-8342 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Amtrak's replacement of Sawtooth Bridge.
PROJECT NO.: 9500000878 LOCATION: Kearny, NJ
PROJECT MANAGER: Joe Krupansky
e-mail: ~~bems~~ QAQC@bemsys.com
PHONE: 610-301-8342 FAX:

CLIENT BILLING INFORMATION

BILL TO: ~~Chem~~ Alliance/chemtech PO#:
ADDRESS: 284 Sheffield St.
CITY Mountainside STATE: NJ ZIP: 07092
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): 10 DAYS*
EDD: 10 DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ Level 1 (Results Only)
- ☐ Level 2 (Results + QC)
- ☐ Level 3 (Results + QC + Raw Data)
- ☐ Level 4 (QC + Full Raw Data)
- ☒ NJ Reduced ☐ US EPA CLP
- ☐ NYS ASP A ☐ NYS ASP B
- ☐ Other _____
- ☒ EDD FORMAT BEM EDD

ANALYSIS

1 TCL VOC HQ; 2 TCL PAH; 3 TAL Metals; 4 PCB's; 5 Cl, Cl(+), Cl(-); 6 EPH; 7 FIAA TCAP; 8 RCRA PARA; 9 TOX

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1 (A)	2	3 (B)	4	5 (F)	6	7	8	9	COMMENTS
1.	WB-310-SW	GW	X		11/15	8:05	7	X	X	X	X	X	X				
2.	WB-310-TOP	S	X		11/15	9:00	10	X	X	X	X	X	X				
3.	WB-310-Bot.	S	X		11/15	12:30	9	X	X	X	X	X	X	X	X	X	
4.	TB-111524	DIW			11/15	LAB	2	X									
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

← Specify Preservatives
A-HCl D-NaOH
B-HN03 E-ICE
C-H2SO4 F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. Vamala	11/15 5:02pm	1. 1702 11-15-24
2.		2.
3.	11-15-24 1705	3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 4.0 °C
Comments:

Page ____ of ____

CLIENT: ☐ Hand Delivered ☐ Other _____
CHEMTECH: ☐ Picked Up ☐ Field Sampling

Shipment Complete ☐ YES ☐ NO

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WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

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

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

Alliance TECHNICAL GROUP

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P4892 PORT06
Client Name : Portal Partners Tri-Venture
Client Contact : Joseph Krupansky
Invoice Name : Portal Partners Tri-Venture
Invoice Contact : Joseph Krupansky

Order Date : 11/18/2024 8:10:00 AM
Project Name : Amtrak Sawtooth Bridges 2
Receive DateTime : 11/15/2024 5:45:00 PM
Purchase Order :

Project Mgr : Kiran
Report Type : NJ Reduced
EDD Type : EXCEL NJCLEANUP
Hard Copy Date :
Date Signoff : 11/18/2024 12:55:05 PM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P4892-01	WB-310-TOP	Solid	11/15/2024	09:00					
					VOC-TCLVOA-10		8260D		10 Bus. Days
P4892-02	WB-310-BOT	Solid	11/15/2024	12:30					
					VOC-TCLVOA-10		8260D		10 Bus. Days
P4892-04	WB-310-SW	Water	11/15/2024	08:05					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days

Relinguished By :
Date / Time : 11-18-24 1322

Received By :
Date / Time : 11/18/24 1322

Storage Area : **VOA Refridgerator Room**