

Cover Page

Order ID : P4779

Project ID : HRPC

Client : CHA Companies, Inc.

Lab Sample Number

P4779-01

Client Sample Number

SOIL-01

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: 11/21/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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 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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P4779

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: SOHIL JODHANI

Date: 11/21/2024

LAB CHRONICLE

OrderID:	P4779	OrderDate:	11/8/2024 10:38:00 AM
Client:	CHA Companies, Inc.	Project:	HRPC
Contact:	Scott Smith	Location:	L31,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4779-01	SOIL-01	SOIL	SVOC-TCL BNA -20	8270E	11/07/24	11/10/24	11/14/24	11/08/24



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

Hit Summary Sheet SW-846

SDG No.: P4779
Client: CHA Companies, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : SOIL-01								
P4779-01	SOIL-01	SOIL	1H-Indene, octahydro-2,2,4,4,7,7- *	180.000	J	0	0	ug/Kg
P4779-01	SOIL-01	SOIL	2-Pentanone, 4-hydroxy-4-methyl *	420.000	AB	0	0	ug/Kg
P4779-01	SOIL-01	SOIL	Butane, 2-methoxy-2-methyl- *	1,400.000	J	0	0	ug/Kg
P4779-01	SOIL-01	SOIL	Dodecane, 1-iodo- *	490.000	J	0	0	ug/Kg
P4779-01	SOIL-01	SOIL	Heptadecane, 2,6,10,15-tetrameth: *	510.000	J	0	0	ug/Kg
P4779-01	SOIL-01	SOIL	Heptadecane, 2,6-dimethyl- *	890.000	J	0	0	ug/Kg
P4779-01	SOIL-01	SOIL	Propane, 1,1-dimethoxy- *	89.000	J	0	0	ug/Kg
P4779-01	SOIL-01	SOIL	unknown10.163 *	91.100	J	0	0	ug/Kg
P4779-01	SOIL-01	SOIL	unknown10.310 *	150.000	J	0	0	ug/Kg
P4779-01	SOIL-01	SOIL	unknown9.616 *	150.000	J	0	0	ug/Kg
P4779-01	SOIL-01	SOIL	unknown9.816 *	120.000	J	0	0	ug/Kg
Total Tics :				4,490.10				
Total Concentration:				4,490.10				



QC SUMMARY

Surrogate Summary

SW-846

SDG No.: P4779

Client: CHA Companies, Inc.

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
P4779-01	SOIL-01	2-Fluorophenol	150	91.9	61		18	112
		Phenol-d6	150	93.3	62		15	107
		Nitrobenzene-d5	100	67.7	68		18	107
		2-Fluorobiphenyl	100	72.1	72		20	109
		2,4,6-Tribromophenol	150	67.6	45		10	116
		Terphenyl-d14	100	68.5	69		10	105
P4788-01MS	BP-G3MS	2-Fluorophenol	150	103	69		18	112
		Phenol-d6	150	103	68		15	107
		Nitrobenzene-d5	100	72.2	72		18	107
		2-Fluorobiphenyl	100	80.0	80		20	109
		2,4,6-Tribromophenol	150	92.1	61		10	116
		Terphenyl-d14	100	65.4	65		10	105
P4788-01MSD	BP-G3MSD	2-Fluorophenol	150	102	68		18	112
		Phenol-d6	150	100	67		15	107
		Nitrobenzene-d5	100	70.1	70		18	107
		2-Fluorobiphenyl	100	77.6	78		20	109
		2,4,6-Tribromophenol	150	87.6	58		10	116
		Terphenyl-d14	100	65.3	65		10	105
PB164845BL	PB164845BL	2-Fluorophenol	150	130	87		18	112
		Phenol-d6	150	114	76		15	107
		Nitrobenzene-d5	100	79.3	79		18	107
		2-Fluorobiphenyl	100	84.0	84		20	109
		2,4,6-Tribromophenol	150	106	70		10	116
		Terphenyl-d14	100	84.7	85		10	105
PB164845BS	PB164845BS	2-Fluorophenol	150	122	81		18	112
		Phenol-d6	150	108	72		15	107
		Nitrobenzene-d5	100	76.4	76		18	107
		2-Fluorobiphenyl	100	80.2	80		20	109
		2,4,6-Tribromophenol	150	99.3	66		10	116
		Terphenyl-d14	100	78.0	78		10	105

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4779

Client: CHA Companies, Inc.

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
Lab Sample ID: P4788-01MS		Client Sample ID: BP-G3MS		DataFile: BF140373.D							
Benzaldehyde	1100	0	210	ug/Kg	19				10	86	
Phenol	1100	0	1100	ug/Kg	100				67	126	
bis(2-Chloroethyl)ether	1100	0	1200	ug/Kg	109				54	125	
2-Chlorophenol	1100	0	1200	ug/Kg	109	*			79	107	
2-Methylphenol	1100	0	1100	ug/Kg	100				66	122	
2,2-oxybis(1-Chloropropane)	1100	0	1100	ug/Kg	100				65	110	
Acetophenone	1100	0	1200	ug/Kg	109				75	111	
3+4-Methylphenols	1100	0	1100	ug/Kg	100				66	104	
N-Nitroso-di-n-propylamine	1100	0	1100	ug/Kg	100				59	119	
Hexachloroethane	1100	0	1100	ug/Kg	100				65	117	
Nitrobenzene	1100	0	1100	ug/Kg	100				70	119	
Isophorone	1100	0	1100	ug/Kg	100				76	122	
2-Nitrophenol	1100	0	1200	ug/Kg	109				54	145	
2,4-Dimethylphenol	1100	0	1300	ug/Kg	118				44	135	
bis(2-Chloroethoxy)methane	1100	0	1100	ug/Kg	100				68	112	
2,4-Dichlorophenol	1100	0	1100	ug/Kg	100				72	118	
Naphthalene	1100	0	1100	ug/Kg	100				72	110	
4-Chloroaniline	1100	0	300	ug/Kg	27				10	91	
Hexachlorobutadiene	1100	0	1100	ug/Kg	100				66	114	
Caprolactam	1100	0	1100	ug/Kg	100				51	134	
4-Chloro-3-methylphenol	1100	0	1100	ug/Kg	100				57	132	
2-Methylnaphthalene	1100	0	1100	ug/Kg	100				59	123	
Hexachlorocyclopentadiene	2200	0	1700	ug/Kg	77				10	175	
2,4,6-Trichlorophenol	1100	0	1200	ug/Kg	109				72	117	
2,4,5-Trichlorophenol	1100	0	1100	ug/Kg	100				72	117	
1,1-Biphenyl	1100	0	1200	ug/Kg	109				75	113	
2-Chloronaphthalene	1100	0	1200	ug/Kg	109				67	118	
2-Nitroaniline	1100	0	1200	ug/Kg	109				69	127	
Dimethylphthalate	1100	0	1200	ug/Kg	109				70	113	
Acenaphthylene	1100	0	1200	ug/Kg	109				79	118	
2,6-Dinitrotoluene	1100	0	1100	ug/Kg	100				70	125	
3-Nitroaniline	1100	0	820	ug/Kg	75				30	99	
Acenaphthene	1100	0	1200	ug/Kg	109				70	121	
2,4-Dinitrophenol	2200	0	1400	ug/Kg	64				10	155	
4-Nitrophenol	2200	0	1800	ug/Kg	82				45	133	
Dibenzofuran	1100	0	1200	ug/Kg	109				72	110	
2,4-Dinitrotoluene	1100	0	1100	ug/Kg	100				55	128	
Diethylphthalate	1100	0	1100	ug/Kg	100				70	112	
4-Chlorophenyl-phenylether	1100	0	1100	ug/Kg	100				71	108	
Fluorene	1100	0	1100	ug/Kg	100				68	116	
4-Nitroaniline	1100	0	880	ug/Kg	80				55	120	
4,6-Dinitro-2-methylphenol	1100	0	1100	ug/Kg	100				10	160	
N-Nitrosodiphenylamine	1100	0	1300	ug/Kg	118				73	118	
4-Bromophenyl-phenylether	1100	0	1300	ug/Kg	118				65	121	
Hexachlorobenzene	1100	0	1200	ug/Kg	109				67	118	
Atrazine	1100	0	1300	ug/Kg	118				79	127	

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4779

Client: CHA Companies, Inc.

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
Pentachlorophenol	2200	0	2100	ug/Kg	95				47	128	
Phenanthrene	1100	0	1200	ug/Kg	109				52	128	
Anthracene	1100	0	1200	ug/Kg	109				62	124	
Carbazole	1100	0	1100	ug/Kg	100				59	119	
Di-n-butylphthalate	1100	0	1200	ug/Kg	109				69	118	
Fluoranthene	1100	0	1100	ug/Kg	100				44	125	
Pyrene	1100	0	1000	ug/Kg	91				26	142	
Butylbenzylphthalate	1100	0	1100	ug/Kg	100				64	126	
3,3-Dichlorobenzidine	1100	0	750	ug/Kg	68				33	116	
Benzo(a)anthracene	1100	0	1200	ug/Kg	109				71	114	
Chrysene	1100	0	1200	ug/Kg	109				57	121	
bis(2-Ethylhexyl)phthalate	1100	0	1200	ug/Kg	109				42	169	
Di-n-octyl phthalate	1100	0	1200	ug/Kg	109				23	175	
Benzo(b)fluoranthene	1100	0	1200	ug/Kg	109				67	121	
Benzo(k)fluoranthene	1100	0	1300	ug/Kg	118				57	134	
Benzo(a)pyrene	1100	0	1300	ug/Kg	118				70	142	
Indeno(1,2,3-cd)pyrene	1100	0	1100	ug/Kg	100				40	129	
Dibenz(a,h)anthracene	1100	0	1100	ug/Kg	100				43	123	
Benzo(g,h,i)perylene	1100	0	970	ug/Kg	88				24	125	
1,2,4,5-Tetrachlorobenzene	1100	0	1200	ug/Kg	109				69	124	
1,4-Dioxane	1100	0	1100	ug/Kg	100				46	112	
2,3,4,6-Tetrachlorophenol	1100	0	1100	ug/Kg	100				69	112	

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4779

Client: CHA Companies, Inc.

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
Lab Sample ID:	P4788-01MSD	Client Sample ID:	BP-G3MSD					DataFile:	BF140374.D		
Benzaldehyde	1100	0	200	ug/Kg	18		5		10	86	20
Phenol	1100	0	1100	ug/Kg	100		0		67	126	20
bis(2-Chloroethyl)ether	1100	0	1100	ug/Kg	100		9		54	125	20
2-Chlorophenol	1100	0	1200	ug/Kg	109	*	0		79	107	20
2-Methylphenol	1100	0	1100	ug/Kg	100		0		66	122	20
2,2-oxybis(1-Chloropropane)	1100	0	1100	ug/Kg	100		0		65	110	20
Acetophenone	1100	0	1100	ug/Kg	100		9		75	111	20
3+4-Methylphenols	1100	0	1100	ug/Kg	100		0		66	104	20
N-Nitroso-di-n-propylamine	1100	0	1100	ug/Kg	100		0		59	119	20
Hexachloroethane	1100	0	1100	ug/Kg	100		0		65	117	20
Nitrobenzene	1100	0	1100	ug/Kg	100		0		70	119	20
Isophorone	1100	0	1100	ug/Kg	100		0		76	122	20
2-Nitrophenol	1100	0	1100	ug/Kg	100		9		54	145	20
2,4-Dimethylphenol	1100	0	1300	ug/Kg	118		0		44	135	20
bis(2-Chloroethoxy)methane	1100	0	1100	ug/Kg	100		0		68	112	20
2,4-Dichlorophenol	1100	0	1100	ug/Kg	100		0		72	118	20
Naphthalene	1100	0	1100	ug/Kg	100		0		72	110	20
4-Chloroaniline	1100	0	310	ug/Kg	28		4		10	91	20
Hexachlorobutadiene	1100	0	1100	ug/Kg	100		0		66	114	20
Caprolactam	1100	0	1100	ug/Kg	100		0		51	134	20
4-Chloro-3-methylphenol	1100	0	1100	ug/Kg	100		0		57	132	20
2-Methylnaphthalene	1100	0	1100	ug/Kg	100		0		59	123	20
Hexachlorocyclopentadiene	2200	0	1700	ug/Kg	77		0		10	175	20
2,4,6-Trichlorophenol	1100	0	1200	ug/Kg	109		0		72	117	20
2,4,5-Trichlorophenol	1100	0	1100	ug/Kg	100		0		72	117	20
1,1-Biphenyl	1100	0	1200	ug/Kg	109		0		75	113	20
2-Chloronaphthalene	1100	0	1200	ug/Kg	109		0		67	118	20
2-Nitroaniline	1100	0	1200	ug/Kg	109		0		69	127	20
Dimethylphthalate	1100	0	1200	ug/Kg	109		0		70	113	20
Acenaphthylene	1100	0	1200	ug/Kg	109		0		79	118	20
2,6-Dinitrotoluene	1100	0	1100	ug/Kg	100		0		70	125	20
3-Nitroaniline	1100	0	800	ug/Kg	73		3		30	99	20
Acenaphthene	1100	0	1200	ug/Kg	109		0		70	121	20
2,4-Dinitrophenol	2200	0	1400	ug/Kg	64		0		10	155	20
4-Nitrophenol	2200	0	1800	ug/Kg	82		0		45	133	20
Dibenzofuran	1100	0	1100	ug/Kg	100		9		72	110	20
2,4-Dinitrotoluene	1100	0	1100	ug/Kg	100		0		55	128	20
Diethylphthalate	1100	0	1100	ug/Kg	100		0		70	112	20
4-Chlorophenyl-phenylether	1100	0	1100	ug/Kg	100		0		71	108	20
Fluorene	1100	0	1000	ug/Kg	91		9		68	116	20
4-Nitroaniline	1100	0	840	ug/Kg	76		5		55	120	20
4,6-Dinitro-2-methylphenol	1100	0	1000	ug/Kg	91		9		10	160	20
N-Nitrosodiphenylamine	1100	0	1300	ug/Kg	118		0		73	118	20
4-Bromophenyl-phenylether	1100	0	1200	ug/Kg	109		8		65	121	20
Hexachlorobenzene	1100	0	1200	ug/Kg	109		0		67	118	20
Atrazine	1100	0	1300	ug/Kg	118		0		79	127	20

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4779

Client: CHA Companies, Inc.

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
Pentachlorophenol	2200	0	2000	ug/Kg	91		4		47	128	20
Phenanthrene	1100	0	1200	ug/Kg	109		0		52	128	20
Anthracene	1100	0	1200	ug/Kg	109		0		62	124	20
Carbazole	1100	0	1100	ug/Kg	100		0		59	119	20
Di-n-butylphthalate	1100	0	1100	ug/Kg	100		9		69	118	20
Fluoranthene	1100	0	1100	ug/Kg	100		0		44	125	20
Pyrene	1100	0	1000	ug/Kg	91		0		26	142	20
Butylbenzylphthalate	1100	0	1100	ug/Kg	100		0		64	126	20
3,3-Dichlorobenzidine	1100	0	740	ug/Kg	67		1		33	116	20
Benzo(a)anthracene	1100	0	1200	ug/Kg	109		0		71	114	20
Chrysene	1100	0	1200	ug/Kg	109		0		57	121	20
bis(2-Ethylhexyl)phthalate	1100	0	1200	ug/Kg	109		0		42	169	20
Di-n-octyl phthalate	1100	0	1200	ug/Kg	109		0		23	175	20
Benzo(b)fluoranthene	1100	0	1200	ug/Kg	109		0		67	121	20
Benzo(k)fluoranthene	1100	0	1300	ug/Kg	118		0		57	134	20
Benzo(a)pyrene	1100	0	1300	ug/Kg	118		0		70	142	20
Indeno(1,2,3-cd)pyrene	1100	0	1100	ug/Kg	100		0		40	129	20
Dibenz(a,h)anthracene	1100	0	1100	ug/Kg	100		0		43	123	20
Benzo(g,h,i)perylene	1100	0	980	ug/Kg	89		1		24	125	20
1,2,4,5-Tetrachlorobenzene	1100	0	1200	ug/Kg	109		0		69	124	20
1,4-Dioxane	1100	0	1100	ug/Kg	100		0		46	112	20
2,3,4,6-Tetrachlorophenol	1100	0	1100	ug/Kg	100		0		69	112	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4779

Client: CHA Companies, Inc.

Analytical Method: 8270E

DataFile: BE101566.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Limits		RPD
								Qual	Low	High	
PB164845BS	Benzaldehyde	1700	230	ug/Kg	14				10	133	
	Phenol	1700	1300	ug/Kg	76				62	112	
	bis(2-Chloroethyl)ether	1700	1200	ug/Kg	71				60	101	
	2-Chlorophenol	1700	1300	ug/Kg	76				65	112	
	2-Methylphenol	1700	1300	ug/Kg	76				61	108	
	2,2-oxybis(1-Chloropropane)	1700	1300	ug/Kg	76				51	100	
	Acetophenone	1700	1200	ug/Kg	71				66	98	
	3+4-Methylphenols	1700	1200	ug/Kg	71				58	111	
	N-Nitroso-di-n-propylamine	1700	1200	ug/Kg	71				63	95	
	Hexachloroethane	1700	1300	ug/Kg	76				72	108	
	Nitrobenzene	1700	1300	ug/Kg	76				57	101	
	Isophorone	1700	1200	ug/Kg	71				59	99	
	2-Nitrophenol	1700	1300	ug/Kg	76				61	111	
	2,4-Dimethylphenol	1700	1600	ug/Kg	94				46	141	
	bis(2-Chloroethoxy)methane	1700	1200	ug/Kg	71				66	97	
	2,4-Dichlorophenol	1700	1300	ug/Kg	76				62	107	
	Naphthalene	1700	1200	ug/Kg	71				62	100	
	4-Chloroaniline	1700	500	ug/Kg	29				16	100	
	Hexachlorobutadiene	1700	1200	ug/Kg	71				53	98	
	Caprolactam	1700	1000	ug/Kg	59		*		67	110	
	4-Chloro-3-methylphenol	1700	1100	ug/Kg	65				58	112	
	2-Methylnaphthalene	1700	1200	ug/Kg	71				60	104	
	Hexachlorocyclopentadiene	3300	6300	ug/Kg	191		*		45	165	
	2,4,6-Trichlorophenol	1700	1300	ug/Kg	76				59	102	
	2,4,5-Trichlorophenol	1700	1300	ug/Kg	76				61	98	
	1,1-Biphenyl	1700	1300	ug/Kg	76				57	103	
	2-Chloronaphthalene	1700	1300	ug/Kg	76				58	99	
	2-Nitroaniline	1700	1300	ug/Kg	76				66	101	
	Dimethylphthalate	1700	1200	ug/Kg	71				61	99	
	Acenaphthylene	1700	1400	ug/Kg	82				63	101	
	2,6-Dinitrotoluene	1700	1200	ug/Kg	71				61	104	
	3-Nitroaniline	1700	700	ug/Kg	41				28	100	
	Acenaphthene	1700	1300	ug/Kg	76				57	104	
	2,4-Dinitrophenol	3300	2400	ug/Kg	73				37	128	
	4-Nitrophenol	3300	2500	ug/Kg	76				48	119	
	Dibenzofuran	1700	1300	ug/Kg	76				63	99	
	2,4-Dinitrotoluene	1700	1200	ug/Kg	71				60	106	
	Diethylphthalate	1700	1200	ug/Kg	71				60	101	
	4-Chlorophenyl-phenylether	1700	1200	ug/Kg	71				58	98	
	Fluorene	1700	1200	ug/Kg	71				61	101	
	4-Nitroaniline	1700	1100	ug/Kg	65				64	103	
	4,6-Dinitro-2-methylphenol	1700	1300	ug/Kg	76				76	113	
	N-Nitrosodiphenylamine	1700	1400	ug/Kg	82				71	99	
	4-Bromophenyl-phenylether	1700	1300	ug/Kg	76				66	102	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4779

Client: CHA Companies, Inc.

Analytical Method: 8270E

DataFile: BE101566.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD		Limits		RPD
								Qual	Low	High		
PB164845BS	Hexachlorobenzene	1700	1300	ug/Kg	76					64	98	
	Atrazine	1700	1600	ug/Kg	94					47	152	
	Pentachlorophenol	3300	2500	ug/Kg	76					67	105	
	Phenanthrene	1700	1300	ug/Kg	76					59	103	
	Anthracene	1700	1400	ug/Kg	82					61	105	
	Carbazole	1700	1300	ug/Kg	76					61	99	
	Di-n-butylphthalate	1700	1300	ug/Kg	76					58	104	
	Fluoranthene	1700	1200	ug/Kg	71					57	107	
	Pyrene	1700	1200	ug/Kg	71					59	103	
	Butylbenzylphthalate	1700	1200	ug/Kg	71					55	103	
	3,3-Dichlorobenzidine	1700	1000	ug/Kg	59					42	91	
	Benzo(a)anthracene	1700	1300	ug/Kg	76					60	102	
	Chrysene	1700	1300	ug/Kg	76					59	101	
	bis(2-Ethylhexyl)phthalate	1700	1200	ug/Kg	71					54	135	
	Di-n-octyl phthalate	1700	1300	ug/Kg	76					52	137	
	Benzo(b)fluoranthene	1700	1200	ug/Kg	71					62	109	
	Benzo(k)fluoranthene	1700	1300	ug/Kg	76					62	109	
	Benzo(a)pyrene	1700	1400	ug/Kg	82					63	103	
	Indeno(1,2,3-cd)pyrene	1700	1400	ug/Kg	82					63	101	
	Dibenz(a,h)anthracene	1700	1400	ug/Kg	82					61	112	
	Benzo(g,h,i)perylene	1700	1200	ug/Kg	71					70	108	
	1,2,4,5-Tetrachlorobenzene	1700	1400	ug/Kg	82					53	101	
	1,4-Dioxane	1700	1100	ug/Kg	65					50	96	
	2,3,4,6-Tetrachlorophenol	1700	1200	ug/Kg	71					59	108	

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB164845BL

Lab Name: CHEMTECH

Contract: CLOU03

Lab Code: CHEM Case No.: P4779

SAS No.: P4779 SDG NO.: P4779

Lab File ID: BE101565.D

Lab Sample ID: PB164845BL

Instrument ID: BNA_E

Date Extracted: 11/10/2024

Matrix: (soil/water) SOIL

Date Analyzed: 11/11/2024

Level: (low/med) LOW

Time Analyzed: 10:55

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB164845BS	PB164845BS	BE101566.D	11/11/2024
SOIL-01	P4779-01	BF140361.D	11/14/2024
BP-G3MS	P4788-01MS	BF140373.D	11/14/2024
BP-G3MSD	P4788-01MSD	BF140374.D	11/14/2024

COMMENTS: _____



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Fax : 908 789 8922

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: CLOU03Lab Code: CHEMSAS No.: P4779 SDG NO.: P4779Lab File ID: BE101491.DDFTPP Injection Date: 11/06/2024Instrument ID: BNA_EDFTPP Injection Time: 11:40

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	14.8
68	Less than 2.0% of mass 69	0.2 (1.3) 1
69	Mass 69 relative abundance	16
70	Less than 2.0% of mass 69	0.1 (0.4) 1
127	10.0 - 80.0% of mass 198	23.5
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	3.6
275	10.0 - 60.0% of mass 198	18.3
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	16.4
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	19.6 (19.6) 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	BE101493.D	11/06/2024	13:51
SSTDICC005	SSTDICC005	BE101494.D	11/06/2024	14:27
SSTDICC010	SSTDICC010	BE101495.D	11/06/2024	15:03
SSTDICC020	SSTDICC020	BE101496.D	11/06/2024	15:39
SSTDICCC040	SSTDICCC040	BE101497.D	11/06/2024	16:14
SSTDICC050	SSTDICC050	BE101498.D	11/06/2024	16:50
SSTDICC060	SSTDICC060	BE101499.D	11/06/2024	17:26
SSTDICC080	SSTDICC080	BE101500.D	11/06/2024	18:02



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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: CLOU03Lab Code: CHEMSAS No.: P4779 SDG NO.: P4779Lab File ID: BE101563.DDFTPP Injection Date: 11/11/2024Instrument ID: BNA_EDFTPP Injection Time: 09:43

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	15
68	Less than 2.0% of mass 69	0.3 (1.8) 1
69	Mass 69 relative abundance	15.6
70	Less than 2.0% of mass 69	0.1 (0.5) 1
127	10.0 - 80.0% of mass 198	22.5
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	3.5
275	10.0 - 60.0% of mass 198	18.1
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	16.3
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	19.6 (19.6) 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	BE101564.D	11/11/2024	10:19
PB164845BL	PB164845BL	BE101565.D	11/11/2024	10:55
PB164845BS	PB164845BS	BE101566.D	11/11/2024	11:31



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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: CLOU03Lab Code: CHEMSAS No.: P4779 SDG NO.: P4779Lab File ID: BF140331.DDFTPP Injection Date: 11/13/2024Instrument ID: BNA_FDFTPP 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	88.6
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



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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: CLOU03Lab Code: CHEMSAS No.: P4779 SDG NO.: P4779Lab File ID: BF140350.DDFTPP Injection Date: 11/14/2024Instrument ID: BNA_FDFTPP Injection Time: 08:47

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	37.6
68	Less than 2.0% of mass 69	0.7 (1.7) 1
69	Mass 69 relative abundance	38.3
70	Less than 2.0% of mass 69	0.2 (0.4) 1
127	10.0 - 80.0% of mass 198	48.5
197	Less than 2.0% of mass 198	0.3
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	27.6
365	Greater than 1% of mass 198	3.3
441	Present, but less than mass 443	13.9
442	Greater than 50% of mass 198	88.9
443	15.0 - 24.0% of mass 442	16 (18) 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	BF140351.D	11/14/2024	09:42
SOIL-01	P4779-01	BF140361.D	11/14/2024	14:47



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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: CLOU03Lab Code: CHEMSAS No.: P4779 SDG NO.: P4779Lab File ID: BF140365.DDFTPP Injection Date: 11/14/2024Instrument ID: BNA_FDFTPP Injection Time: 16:35

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	38.3
68	Less than 2.0% of mass 69	0.7 (1.8) 1
69	Mass 69 relative abundance	39.7
70	Less than 2.0% of mass 69	0.3 (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	6.6
275	10.0 - 60.0% of mass 198	28.2
365	Greater than 1% of mass 198	3.4
441	Present, but less than mass 443	12.8
442	Greater than 50% of mass 198	82.7
443	15.0 - 24.0% of mass 442	15.3 (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	BF140366.D	11/14/2024	17:02
BP-G3MS	P4788-01MS	BF140373.D	11/14/2024	20:09
BP-G3MSD	P4788-01MSD	BF140374.D	11/14/2024	20:35

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4779 SAS No.: P4779 SDG NO.: P4779

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

Lab File ID: BE101564.D Time Analyzed: 10:19

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

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	67067	7.559	291057	10.33	192797	14.17
UPPER LIMIT	134134	8.059	582114	10.826	385594	14.669
LOWER LIMIT	33533.5	7.059	145529	9.826	96398.5	13.669
EPA SAMPLE NO.						
01 PB164845BL	54855	7.56	227680	10.33	136558	14.17
02 PB164845BS	62806	7.56	266549	10.32	161238	14.17

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4779 SAS No.: P4779 SDG NO.: P4779

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

Lab File ID: BE101564.D Time Analyzed: 10:19

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

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	444449	16.907	521359	21.072	640453	23.358
UPPER LIMIT	888898	17.407	1042720	21.572	1280910	23.858
LOWER LIMIT	222225	16.407	260680	20.572	320227	22.858
EPA SAMPLE NO.						
01 PB164845BL	302614	16.91	361556	21.07	524875	23.35
02 PB164845BS	328735	16.91	379308	21.07	572361	23.35

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4779 SAS No.: P4779 SDG NO.: P4779

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/14/2024

Lab File ID: BF140351.D Time Analyzed: 09:42

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	138532	6.881	520272	8.16	291630	9.92
UPPER LIMIT	277064	7.381	1040540	8.657	583260	10.416
LOWER LIMIT	69266	6.381	260136	7.657	145815	9.416
EPA SAMPLE NO.						
01 SOIL-01	115948	6.87	442868	8.15	233523	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.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4779 SAS No.: P4779 SDG NO.: P4779

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/14/2024

Lab File ID: BF140351.D Time Analyzed: 09:42

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	549011	11.404	316250	14.057	275847	15.557
UPPER LIMIT	1098020	11.904	632500	14.557	551694	16.057
LOWER LIMIT	274506	10.904	158125	13.557	137924	15.057
EPA SAMPLE NO.						
01 SOIL-01	362127	11.40	194283	14.04	216934	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.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4779 SAS No.: P4779 SDG NO.: P4779

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/14/2024

Lab File ID: BF140366.D Time Analyzed: 17:02

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	130579	6.875	484942	8.16	265027	9.91
UPPER LIMIT	261158	7.375	969884	8.657	530054	10.41
LOWER LIMIT	65289.5	6.375	242471	7.657	132514	9.41
EPA SAMPLE NO.						
01 BP-G3MSD	117020	6.88	430461	8.16	210055	9.91
02 BP-G3MS	111295	6.88	409660	8.16	199456	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.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4779 SAS No.: P4779 SDG NO.: P4779

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/14/2024

Lab File ID: BF140366.D Time Analyzed: 17:02

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	494420	11.398	287889	14.062	258896	15.592
UPPER LIMIT	988840	11.898	575778	14.562	517792	16.092
LOWER LIMIT	247210	10.898	143945	13.562	129448	15.092
EPA SAMPLE NO.						
01 BP-G3MSD	315364	11.40	215698	14.05	157230	15.54
02 BP-G3MS	299656	11.40	210493	14.05	152385	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.

* Values outside of QC limits.



SAMPLE DATA

Report of Analysis

Client:	CHA Companies, Inc.	Date Collected:	11/07/24
Project:	HRPC	Date Received:	11/08/24
Client Sample ID:	SOIL-01	SDG No.:	P4779
Lab Sample ID:	P4779-01	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	96.8
Sample Wt/Vol:	30.06	Units:	g
Soil Aliquot Vol:			uL
Extraction Type :		Decanted :	N
Injection Volume :		GPC Factor :	1.0
Prep Method :	SW3541	Level :	LOW
		Final Vol:	1000 uL
		Test:	SVOC-TCL BNA -20
		GPC Cleanup :	N
		PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140361.D	1	11/10/24 09:10	11/14/24 14:47	PB164845

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	190	U	190	340	ug/Kg
108-95-2	Phenol	85.5	U	85.5	180	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	86.3	U	86.3	180	ug/Kg
95-57-8	2-Chlorophenol	86.1	U	86.1	180	ug/Kg
95-48-7	2-Methylphenol	83.1	U	83.1	180	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	93.7	U	93.7	180	ug/Kg
98-86-2	Acetophenone	89.6	U	89.6	180	ug/Kg
65794-96-9	3+4-Methylphenols	82.3	U	82.3	340	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	41.5	U	41.5	82.5	ug/Kg
67-72-1	Hexachloroethane	85.6	U	85.6	180	ug/Kg
98-95-3	Nitrobenzene	93.6	U	93.6	180	ug/Kg
78-59-1	Isophorone	87.2	U	87.2	180	ug/Kg
88-75-5	2-Nitrophenol	97.4	U	97.4	180	ug/Kg
105-67-9	2,4-Dimethylphenol	96.1	U	96.1	180	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	88.5	U	88.5	180	ug/Kg
120-83-2	2,4-Dichlorophenol	77.8	U	77.8	180	ug/Kg
91-20-3	Naphthalene	85.2	U	85.2	180	ug/Kg
106-47-8	4-Chloroaniline	85.2	U	85.2	180	ug/Kg
87-68-3	Hexachlorobutadiene	85.9	U	85.9	180	ug/Kg
105-60-2	Caprolactam	89.5	UQ	89.5	340	ug/Kg
59-50-7	4-Chloro-3-methylphenol	79.9	U	79.9	180	ug/Kg
91-57-6	2-Methylnaphthalene	85.1	U	85.1	180	ug/Kg
77-47-4	Hexachlorocyclopentadiene	160	UQ	160	340	ug/Kg
88-06-2	2,4,6-Trichlorophenol	73.6	U	73.6	180	ug/Kg
95-95-4	2,4,5-Trichlorophenol	76.3	U	76.3	180	ug/Kg
92-52-4	1,1-Biphenyl	90.1	U	90.1	180	ug/Kg
91-58-7	2-Chloronaphthalene	85.9	U	85.9	180	ug/Kg
88-74-4	2-Nitroaniline	97.9	U	97.9	180	ug/Kg
131-11-3	Dimethylphthalate	84.2	U	84.2	180	ug/Kg

Report of Analysis

Client:	CHA Companies, Inc.	Date Collected:	11/07/24
Project:	HRPC	Date Received:	11/08/24
Client Sample ID:	SOIL-01	SDG No.:	P4779
Lab Sample ID:	P4779-01	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	96.8
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
BF140361.D	1	11/10/24 09:10	11/14/24 14:47	PB164845

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	89.2	U	89.2	180	ug/Kg
606-20-2	2,6-Dinitrotoluene	85.8	U	85.8	180	ug/Kg
99-09-2	3-Nitroaniline	92.0	U	92.0	180	ug/Kg
83-32-9	Acenaphthene	83.6	U	83.6	180	ug/Kg
51-28-5	2,4-Dinitrophenol	250	U	250	340	ug/Kg
100-02-7	4-Nitrophenol	120	U	120	340	ug/Kg
132-64-9	Dibenzofuran	87.0	U	87.0	180	ug/Kg
121-14-2	2,4-Dinitrotoluene	88.9	U	88.9	180	ug/Kg
84-66-2	Diethylphthalate	82.6	U	82.6	180	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	88.3	U	88.3	180	ug/Kg
86-73-7	Fluorene	88.2	U	88.2	180	ug/Kg
100-01-6	4-Nitroaniline	110	U	110	180	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	120	U	120	340	ug/Kg
86-30-6	n-Nitrosodiphenylamine	84.1	U	84.1	180	ug/Kg
101-55-3	4-Bromophenyl-phenylether	81.3	U	81.3	180	ug/Kg
118-74-1	Hexachlorobenzene	87.6	U	87.6	180	ug/Kg
1912-24-9	Atrazine	94.2	U	94.2	180	ug/Kg
87-86-5	Pentachlorophenol	79.7	U	79.7	340	ug/Kg
85-01-8	Phenanthrene	86.6	U	86.6	180	ug/Kg
120-12-7	Anthracene	87.0	U	87.0	180	ug/Kg
86-74-8	Carbazole	82.8	U	82.8	180	ug/Kg
84-74-2	Di-n-butylphthalate	86.9	U	86.9	180	ug/Kg
206-44-0	Fluoranthene	84.2	U	84.2	180	ug/Kg
129-00-0	Pyrene	85.6	U	85.6	180	ug/Kg
85-68-7	Butylbenzylphthalate	99.8	U	99.8	180	ug/Kg
91-94-1	3,3-Dichlorobenzidine	100	U	100	340	ug/Kg
56-55-3	Benzo(a)anthracene	83.2	U	83.2	180	ug/Kg
218-01-9	Chrysene	82.0	U	82.0	180	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	93.8	U	93.8	180	ug/Kg
117-84-0	Di-n-octyl phthalate	110	U	110	340	ug/Kg
205-99-2	Benzo(b)fluoranthene	83.6	U	83.6	180	ug/Kg

Report of Analysis

Client:	CHA Companies, Inc.	Date Collected:	11/07/24
Project:	HRPC	Date Received:	11/08/24
Client Sample ID:	SOIL-01	SDG No.:	P4779
Lab Sample ID:	P4779-01	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	96.8
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
BF140361.D	1	11/10/24 09:10	11/14/24 14:47	PB164845

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	85.2	U	85.2	180	ug/Kg
50-32-8	Benzo(a)pyrene	95.9	U	95.9	180	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	80.5	U	80.5	180	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	83.7	U	83.7	180	ug/Kg
191-24-2	Benzo(g,h,i)perylene	82.6	U	82.6	180	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	89.5	U	89.5	180	ug/Kg
123-91-1	1,4-Dioxane	110	U	110	180	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	77.0	U	77.0	180	ug/Kg

SURROGATES

367-12-4	2-Fluorophenol	91.9		18 - 112	61%	SPK: 150
13127-88-3	Phenol-d6	93.3		15 - 107	62%	SPK: 150
4165-60-0	Nitrobenzene-d5	67.7		18 - 107	68%	SPK: 100
321-60-8	2-Fluorobiphenyl	72.1		20 - 109	72%	SPK: 100
118-79-6	2,4,6-Tribromophenol	67.6		10 - 116	45%	SPK: 150
1718-51-0	Terphenyl-d14	68.5		10 - 105	69%	SPK: 100

INTERNAL STANDARDS

3855-82-1	1,4-Dichlorobenzene-d4	116000	6.869
1146-65-2	Naphthalene-d8	443000	8.151
15067-26-2	Acenaphthene-d10	234000	9.904
1517-22-2	Phenanthrene-d10	362000	11.398
1719-03-5	Chrysene-d12	194000	14.039
1520-96-3	Perylene-d12	217000	15.539

TENTATIVE IDENTIFIED COMPOUNDS

000994-05-8	Butane, 2-methoxy-2-methyl-	1400	J	2.16	ug/Kg
004744-10-9	Propane, 1,1-dimethoxy-	89.0	J	2.27	ug/Kg
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	420	AB	5.09	ug/Kg
	unknown9.616	150	J	9.62	ug/Kg
	unknown9.816	120	J	9.82	ug/Kg
	unknown10.163	91.1	J	10.2	ug/Kg
054832-83-6	1H-Indene, octahydro-2,2,4,4,7,7-h	180	J	10.2	ug/Kg

Report of Analysis

Client:	CHA Companies, Inc.	Date Collected:	11/07/24
Project:	HRPC	Date Received:	11/08/24
Client Sample ID:	SOIL-01	SDG No.:	P4779
Lab Sample ID:	P4779-01	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	96.8
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
BF140361.D	1	11/10/24 09:10	11/14/24 14:47	PB164845

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
	unknown10.310	150	J		10.3	ug/Kg
004292-19-7	Dodecane, 1-iodo-	490	J		10.6	ug/Kg
054105-67-8	Heptadecane, 2,6-dimethyl-	890	J		10.8	ug/Kg
054833-48-6	Heptadecane, 2,6,10,15-tetramethyl	510	J		11.3	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

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140361.D
Acq On : 14 Nov 2024 14:47
Operator : RC/JU
Sample : P4779-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SOIL-01

Quant Time: Nov 14 15:24:57 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 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	115948	20.000	ng	-0.01
21) Naphthalene-d8	8.151	136	442868	20.000	ng	0.00
39) Acenaphthene-d10	9.904	164	233523	20.000	ng	-0.01
64) Phenanthrene-d10	11.398	188	362127	20.000	ng	0.00
76) Chrysene-d12	14.039	240	194283	20.000	ng	-0.01
86) Perylene-d12	15.539	264	216934	20.000	ng	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	5.493	112	624310	91.932	ng	0.00
7) Phenol-d6	6.498	99	858657	93.325	ng	0.00
23) Nitrobenzene-d5	7.428	82	575146	67.665	ng	-0.01
42) 2,4,6-Tribromophenol	10.698	330	156900	67.565	ng	0.00
45) 2-Fluorobiphenyl	9.228	172	1046816	72.062	ng	0.00
79) Terphenyl-d14	12.980	244	767225	68.547	ng	0.00

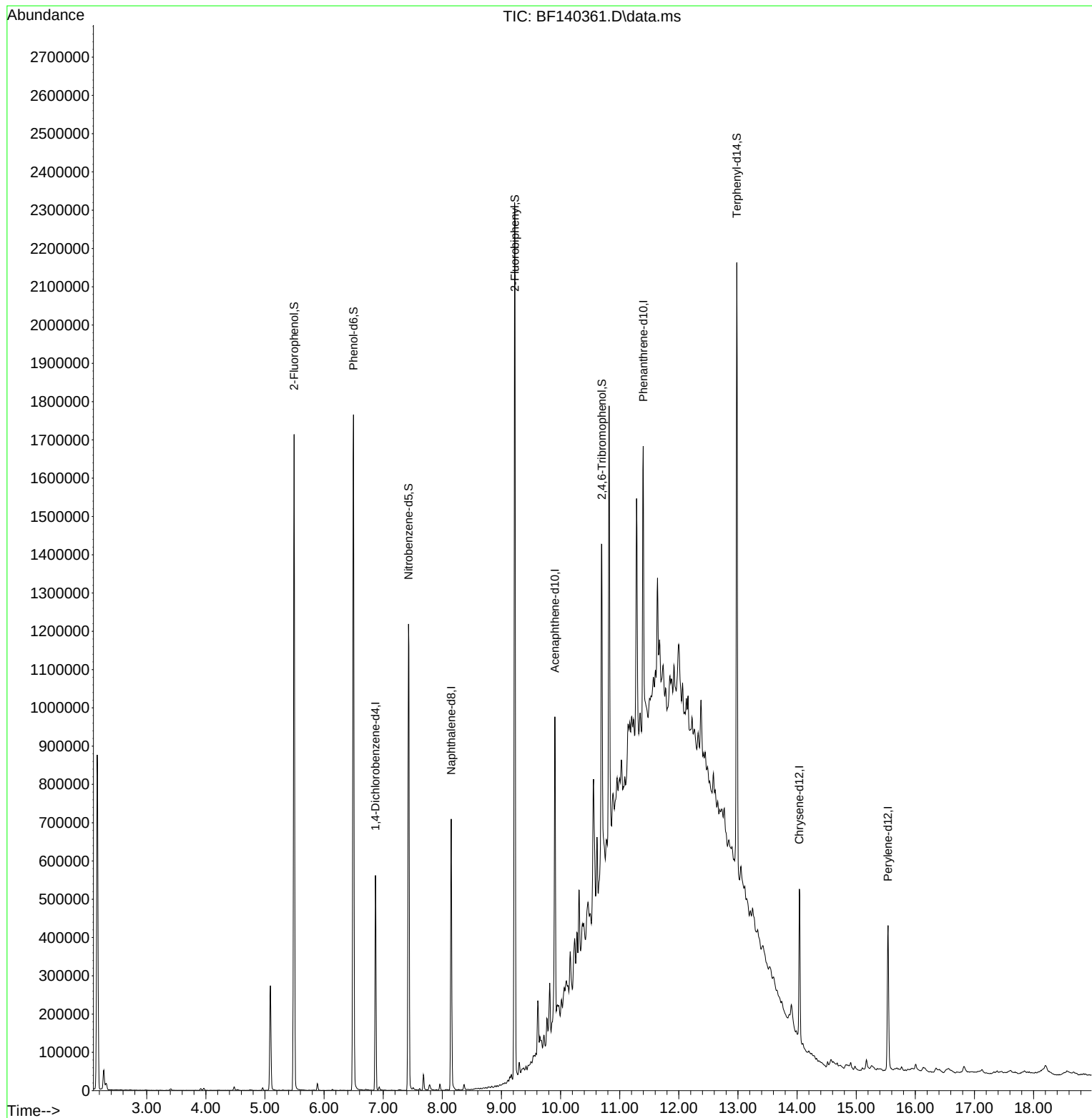
Target Compounds	Qvalue

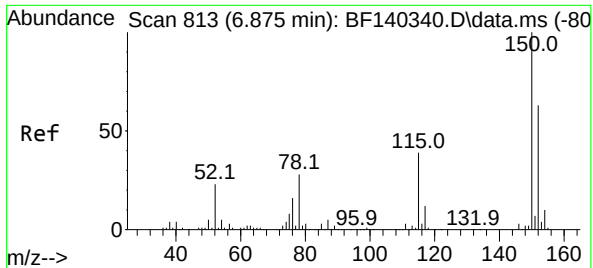
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140361.D
Acq On : 14 Nov 2024 14:47
Operator : RC/JU
Sample : P4779-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SOIL-01

Quant Time: Nov 14 15:24:57 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 14:40:06 2024
Response via : Initial Calibration

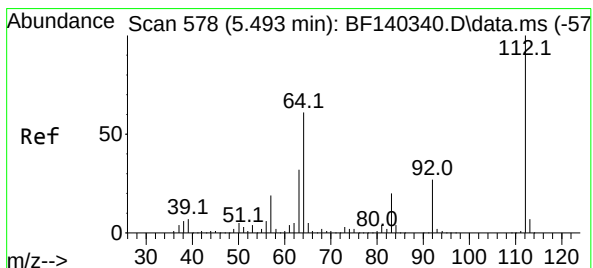
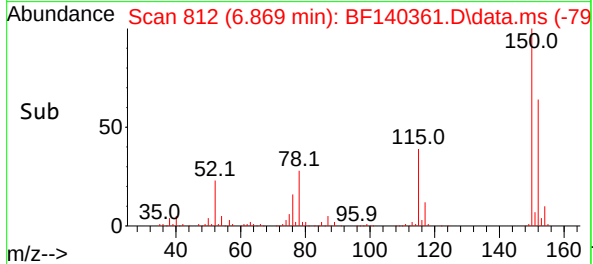
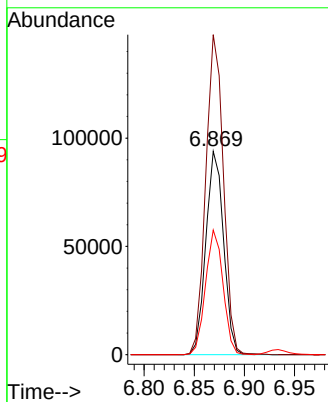
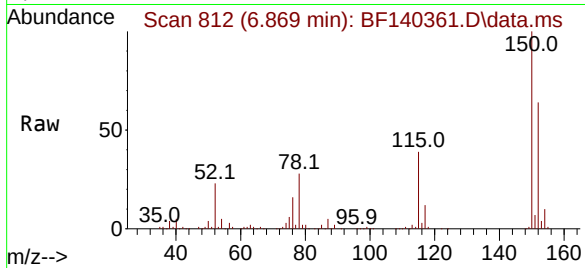




#1
1,4-Dichlorobenzene-d4
Concen: 20.000 ng
RT: 6.869 min Scan# 813
Delta R.T. -0.012 min
Lab File: BF140361.D
Acq: 14 Nov 2024 14:47

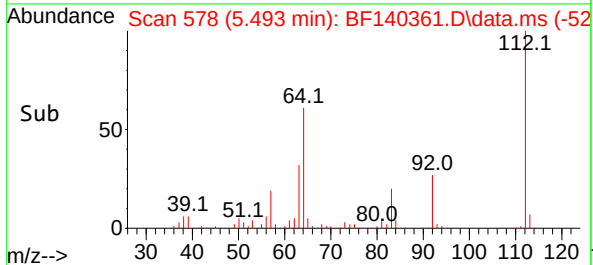
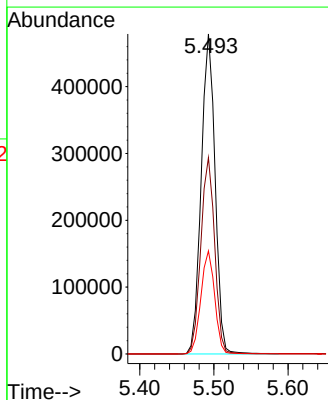
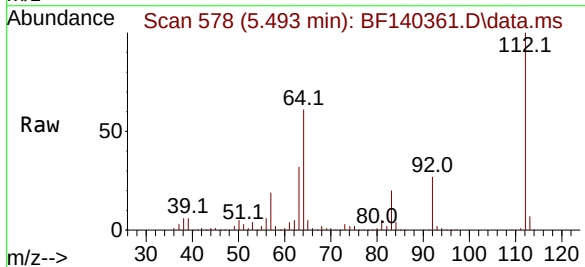
Instrument :
BNA_F
ClientSampleId :
SOIL-01

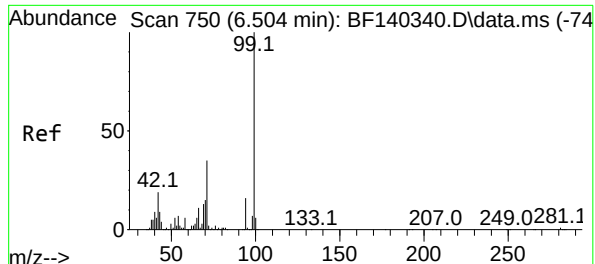
Tgt Ion:152 Resp: 115948
Ion Ratio Lower Upper
152 100
150 157.3 127.4 191.0
115 61.3 47.4 71.2



#5
2-Fluorophenol
Concen: 91.932 ng
RT: 5.493 min Scan# 578
Delta R.T. -0.000 min
Lab File: BF140361.D
Acq: 14 Nov 2024 14:47

Tgt Ion:112 Resp: 624310
Ion Ratio Lower Upper
112 100
64 61.3 49.2 73.8
63 32.2 25.6 38.4

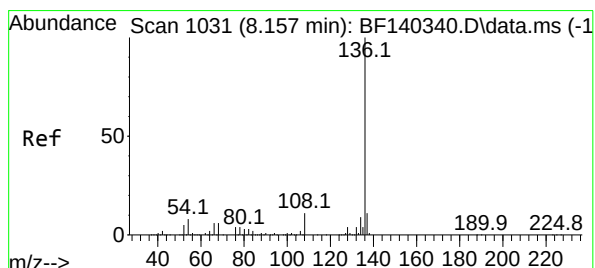
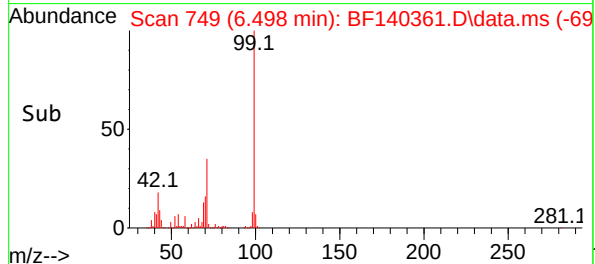
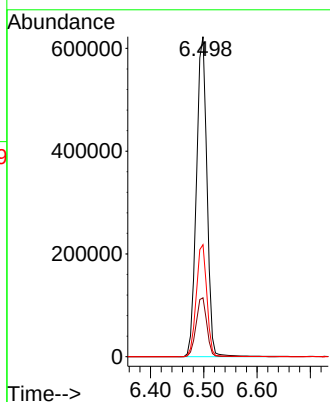
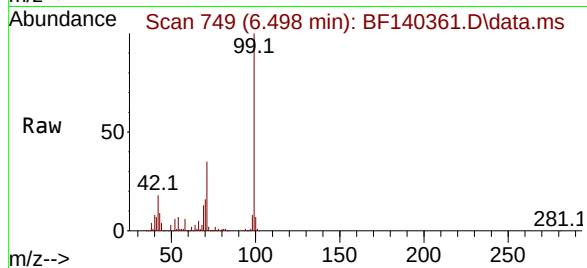




#7
Phenol-d6
Concen: 93.325 ng
RT: 6.498 min Scan# 74
Delta R.T. -0.006 min
Lab File: BF140361.D
Acq: 14 Nov 2024 14:47

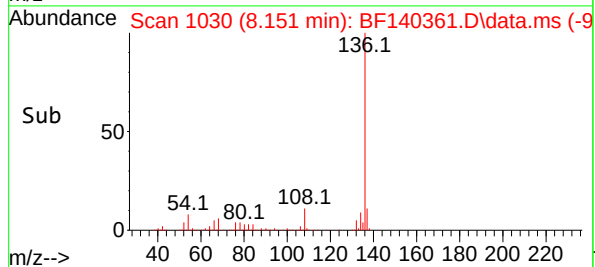
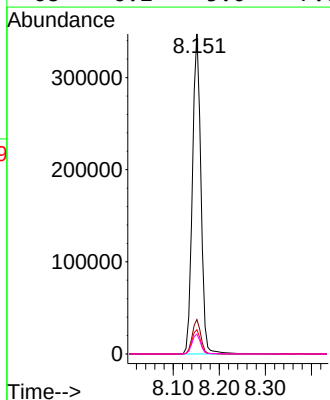
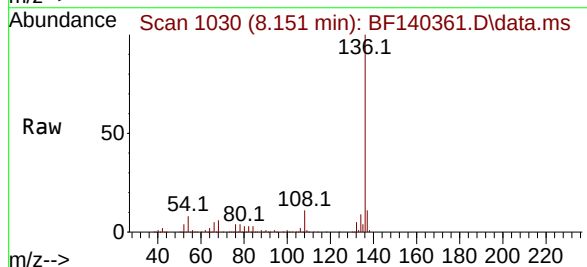
Instrument :
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ClientSampleId :
SOIL-01

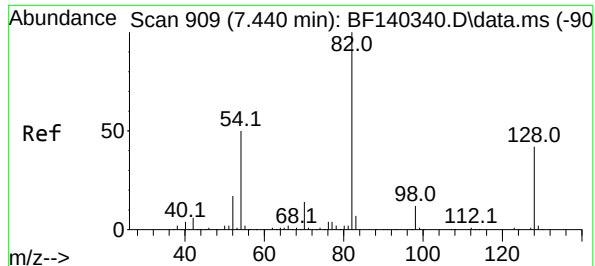
Tgt Ion: 99 Resp: 858657
Ion Ratio Lower Upper
99 100
42 18.4 15.1 22.7
71 35.0 27.9 41.9



#21
Naphthalene-d8
Concen: 20.000 ng
RT: 8.151 min Scan# 1030
Delta R.T. -0.006 min
Lab File: BF140361.D
Acq: 14 Nov 2024 14:47

Tgt Ion: 136 Resp: 442868
Ion Ratio Lower Upper
136 100
137 10.7 8.7 13.1
54 7.6 6.5 9.7
68 6.2 5.0 7.6





#23

Nitrobenzene-d5

Concen: 67.665 ng

RT: 7.428 min Scan# 90

Delta R.T. -0.012 min

Lab File: BF140361.D

Acq: 14 Nov 2024 14:47

Instrument :

BNA_F

ClientSampleId :

SOIL-01

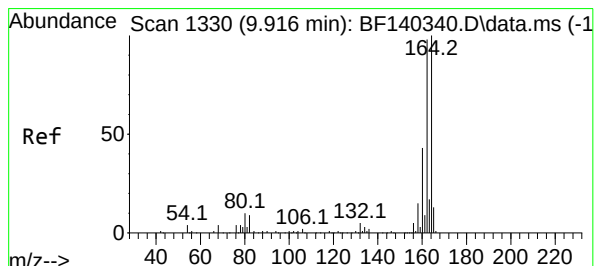
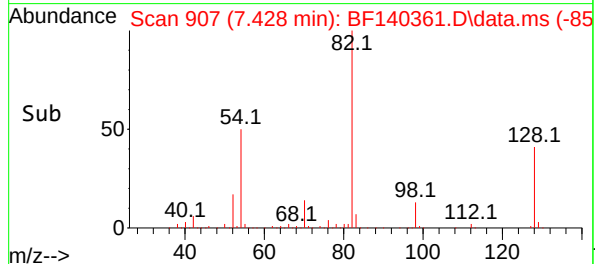
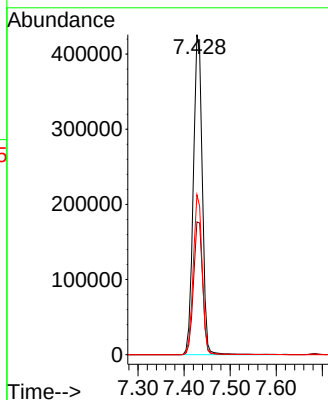
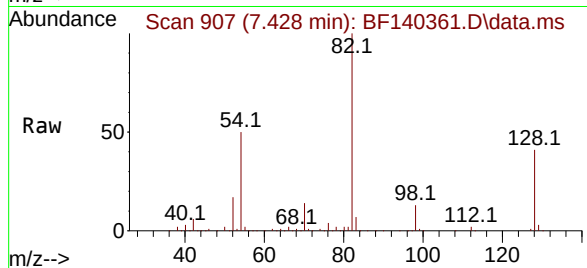
Tgt Ion: 82 Resp: 575146

Ion Ratio Lower Upper

82 100

128 41.5 33.3 49.9

54 50.0 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: BF140361.D

Acq: 14 Nov 2024 14:47

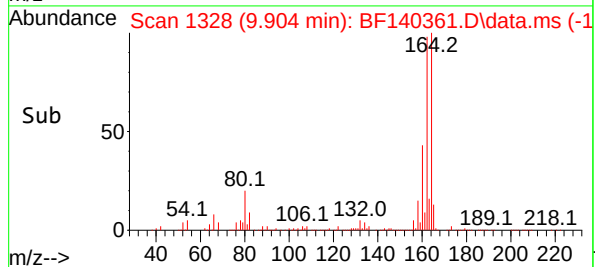
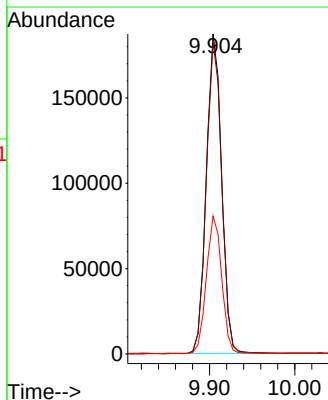
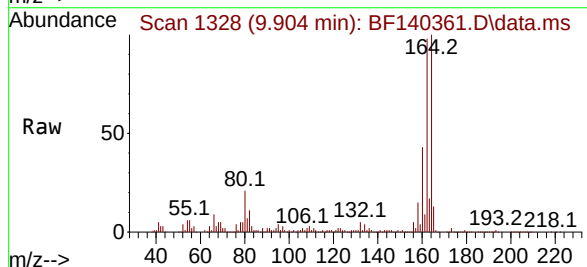
Tgt Ion:164 Resp: 233523

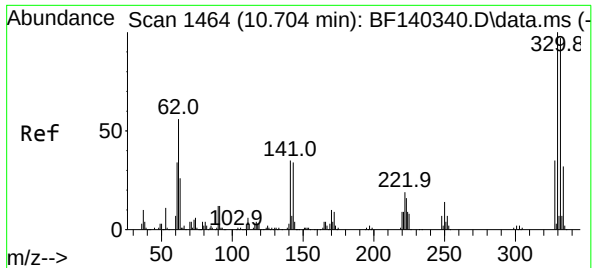
Ion Ratio Lower Upper

164 100

162 97.5 79.8 119.8

160 43.1 35.4 53.0

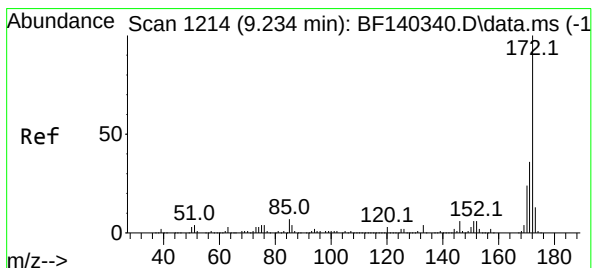
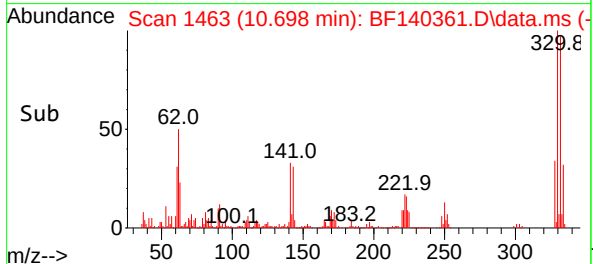
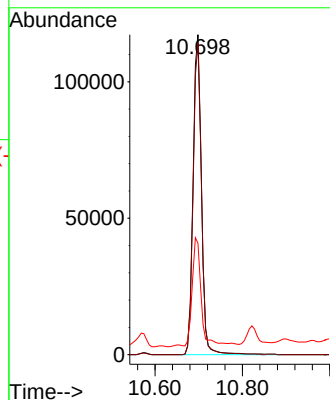
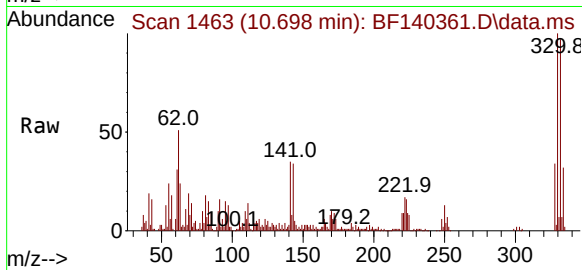




#42
2,4,6-Tribromophenol
Concen: 67.565 ng
RT: 10.698 min Scan# 1463
Delta R.T. -0.006 min
Lab File: BF140361.D
Acq: 14 Nov 2024 14:47

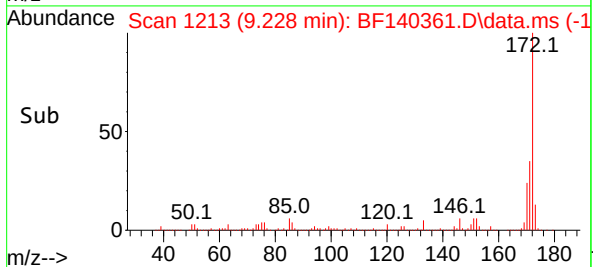
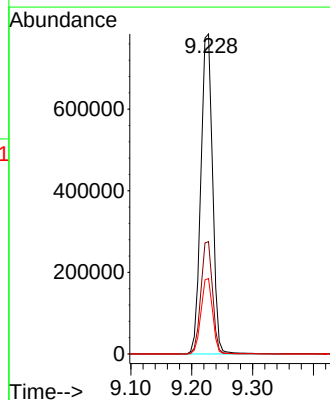
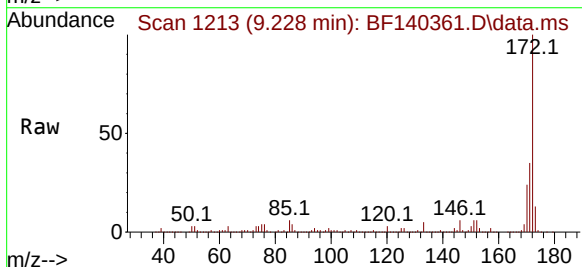
Instrument :
BNA_F
ClientSampleId :
SOIL-01

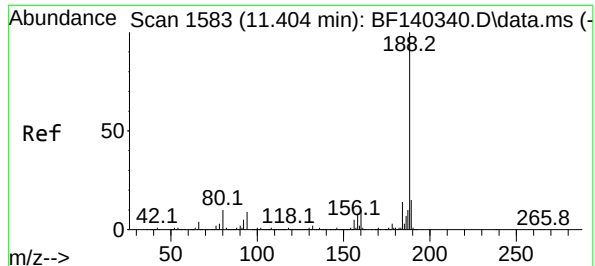
Tgt Ion:330 Resp: 156900
Ion Ratio Lower Upper
330 100
332 96.6 75.9 113.9
141 36.1 26.9 40.3



#45
2-Fluorobiphenyl
Concen: 72.062 ng
RT: 9.228 min Scan# 1213
Delta R.T. -0.006 min
Lab File: BF140361.D
Acq: 14 Nov 2024 14:47

Tgt Ion:172 Resp: 1046816
Ion Ratio Lower Upper
172 100
171 35.1 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: BF140361.D

Acq: 14 Nov 2024 14:47

Instrument :

BNA_F

ClientSampleId :

SOIL-01

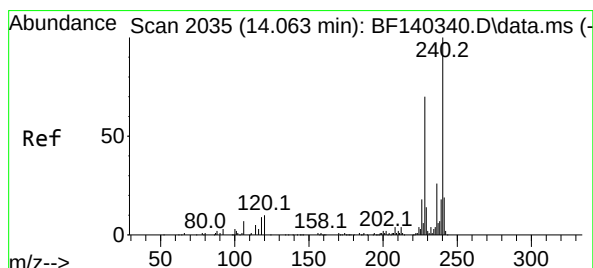
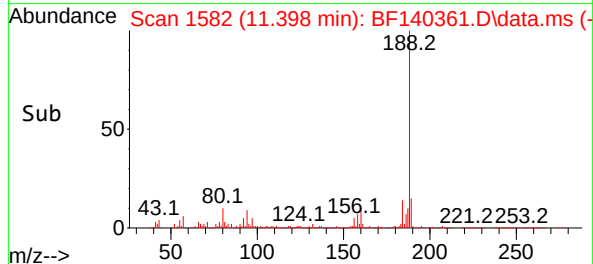
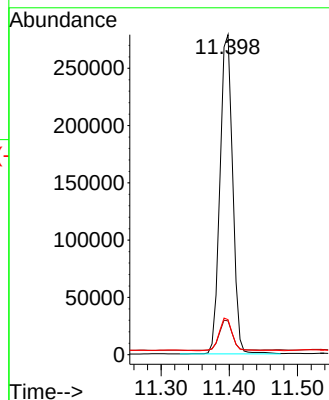
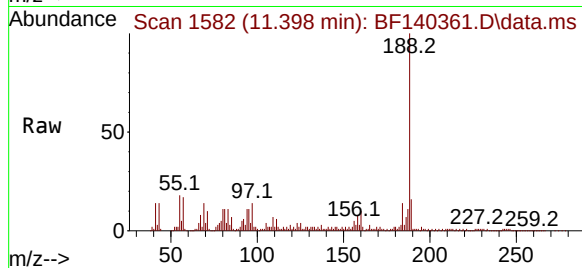
Tgt Ion:188 Resp: 362127

Ion Ratio Lower Upper

188 100

94 10.5 7.6 11.4

80 10.9 8.0 12.0



#76

Chrysene-d12

Concen: 20.000 ng

RT: 14.039 min Scan# 2031

Delta R.T. -0.012 min

Lab File: BF140361.D

Acq: 14 Nov 2024 14:47

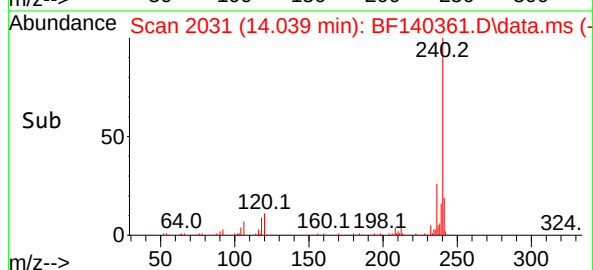
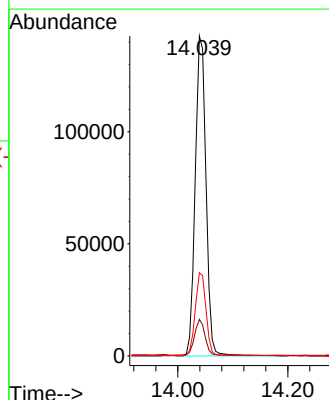
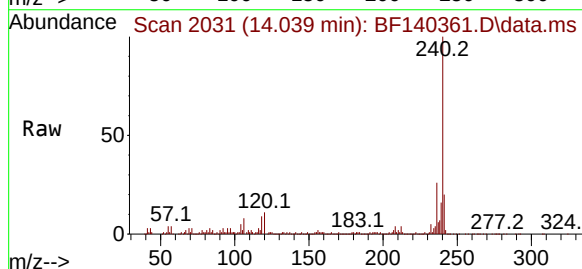
Tgt Ion:240 Resp: 194283

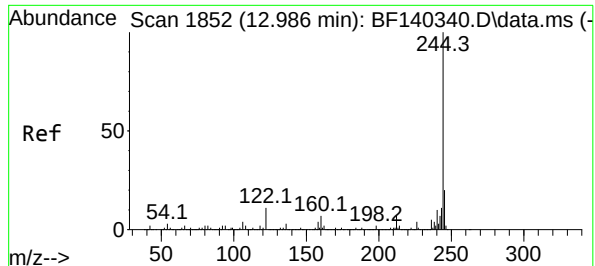
Ion Ratio Lower Upper

240 100

120 11.4 8.8 13.2

236 26.0 20.9 31.3





#79

Terphenyl-d14

Concen: 68.547 ng

RT: 12.980 min Scan# 1851

Delta R.T. -0.006 min

Lab File: BF140361.D

Acq: 14 Nov 2024 14:47

Instrument :

BNA_F

ClientSampleId :

SOIL-01

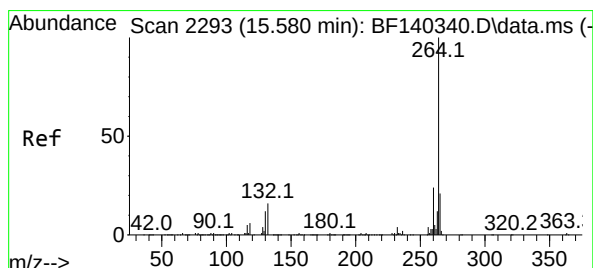
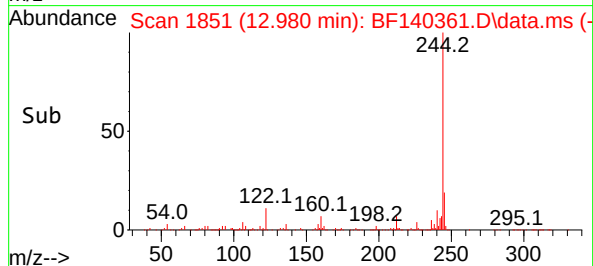
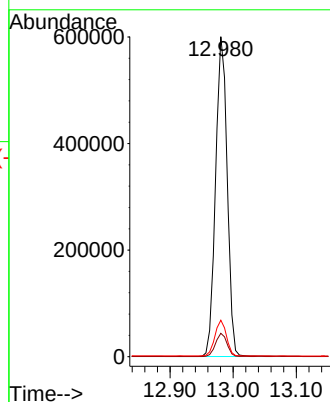
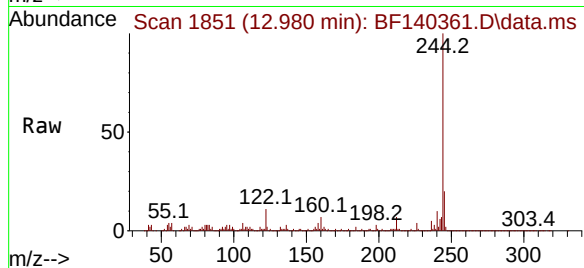
Tgt Ion:244 Resp: 767225

Ion Ratio Lower Upper

244 100

212 7.3 5.8 8.8

122 11.4 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: BF140361.D

Acq: 14 Nov 2024 14:47

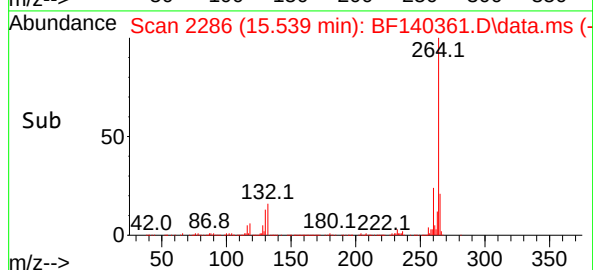
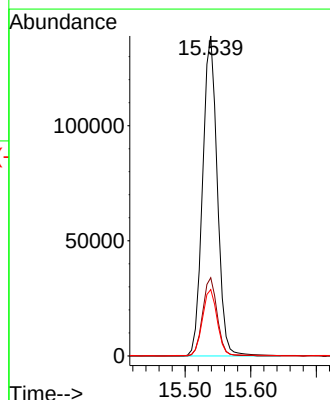
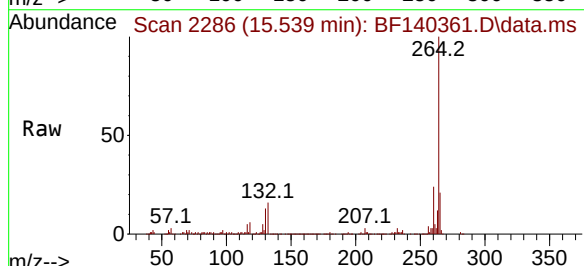
Tgt Ion:264 Resp: 216934

Ion Ratio Lower Upper

264 100

260 24.4 19.2 28.8

265 20.8 17.1 25.7



Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
 Data File : BF140361.D
 Acq On : 14 Nov 2024 14:47
 Operator : RC/JU
 Sample : P4779-01
 Misc :
 ALS Vial : 12 Sample Multiplier: 1

Instrument :
 BNA_F
 ClientSampleId :
 SOIL-01

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: BF140361.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.163	5	12	21	rVV	873138	1372465	44.88%	5.672%
2	2.275	25	31	35	rVV	51040	88517	2.89%	0.366%
3	5.093	502	510	526	rBV	273535	413613	13.53%	1.709%
4	5.493	572	578	598	rBV	1713381	2233138	73.03%	9.228%
5	6.498	742	749	767	rBV	1765011	2457750	80.37%	10.157%
6	6.869	807	812	817	rBV	561420	684596	22.39%	2.829%
7	7.428	901	907	917	rBV	1218188	1639230	53.61%	6.774%
8	7.681	945	950	958	rBV	40637	55288	1.81%	0.228%
9	8.151	1024	1030	1045	rBV	707733	909496	29.74%	3.759%
10	9.222	1207	1212	1221	rBV	2290001	3057926	100.00%	12.637%
11	9.304	1222	1226	1230	rVV5	31565	48751	1.59%	0.201%
12	9.616	1275	1279	1283	rBV3	140867	224882	7.35%	0.929%
13	9.769	1302	1305	1308	rBV3	68441	98716	3.23%	0.408%
14	9.816	1309	1313	1317	rVB2	132048	178595	5.84%	0.738%
15	9.904	1322	1328	1332	rVV	787500	1063384	34.77%	4.394%
16	10.163	1369	1372	1378	rVB3	98295	140964	4.61%	0.583%
17	10.239	1379	1385	1388	rBV3	130460	273147	8.93%	1.129%
18	10.275	1389	1391	1394	rVV3	77299	98661	3.23%	0.408%
19	10.310	1394	1397	1402	rVV2	166999	237048	7.75%	0.980%
20	10.557	1434	1439	1445	rBV	367248	750602	24.55%	3.102%
21	10.692	1458	1462	1473	rBV	833258	1236994	40.45%	5.112%
22	10.822	1480	1484	1491	rBV	1123795	1536613	50.25%	6.350%
23	11.286	1559	1563	1569	rVB	614711	881854	28.84%	3.644%
24	11.398	1578	1582	1596	rBV	739028	1187753	38.84%	4.908%
25	12.980	1847	1851	1859	rVB	1612597	2110474	69.02%	8.722%
26	14.039	2027	2031	2039	rVB	405867	569559	18.63%	2.354%
27	15.174	2221	2224	2233	rVB	22664	35939	1.18%	0.149%
28	15.539	2280	2286	2300	rVB	376923	612393	20.03%	2.531%

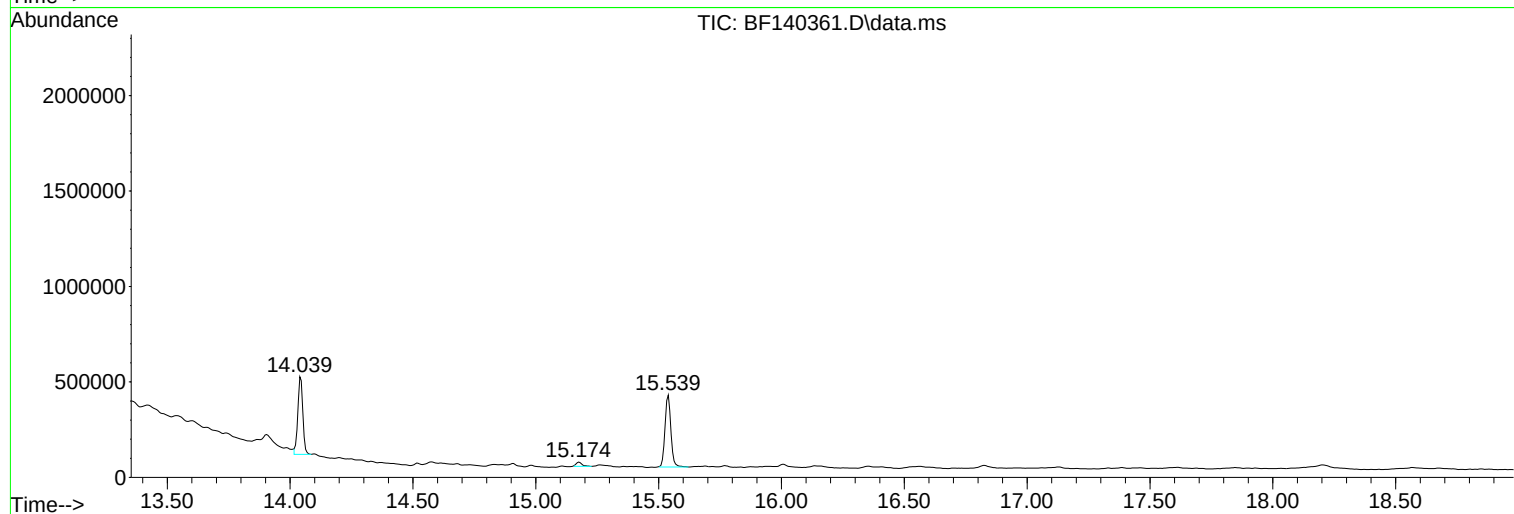
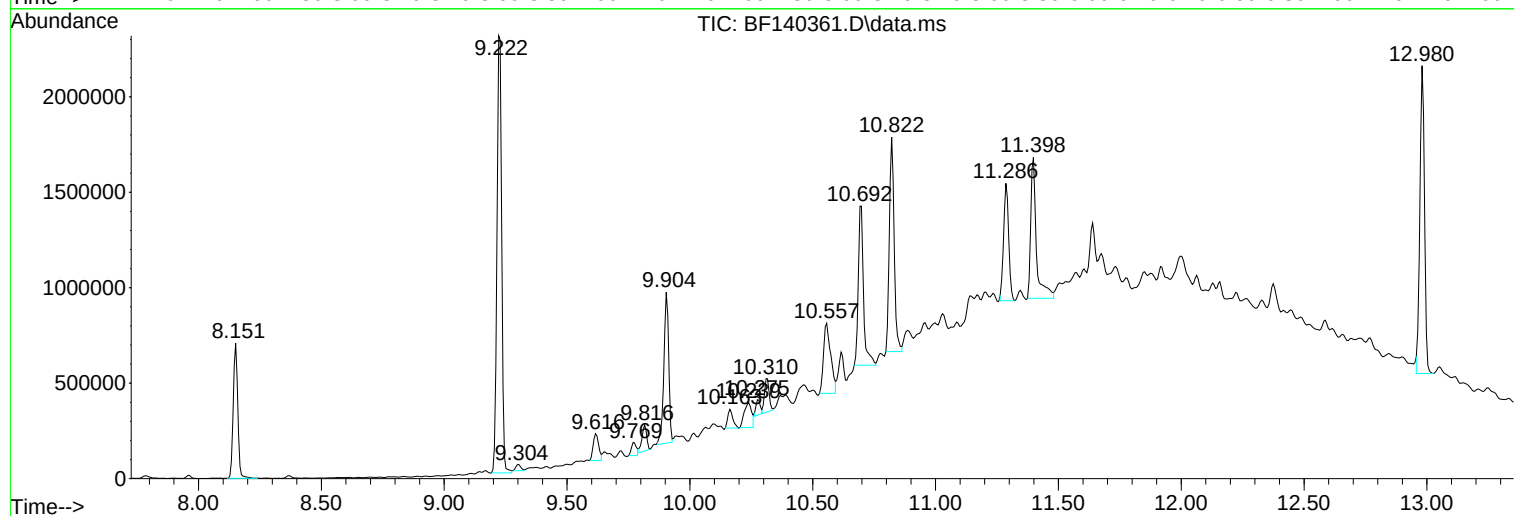
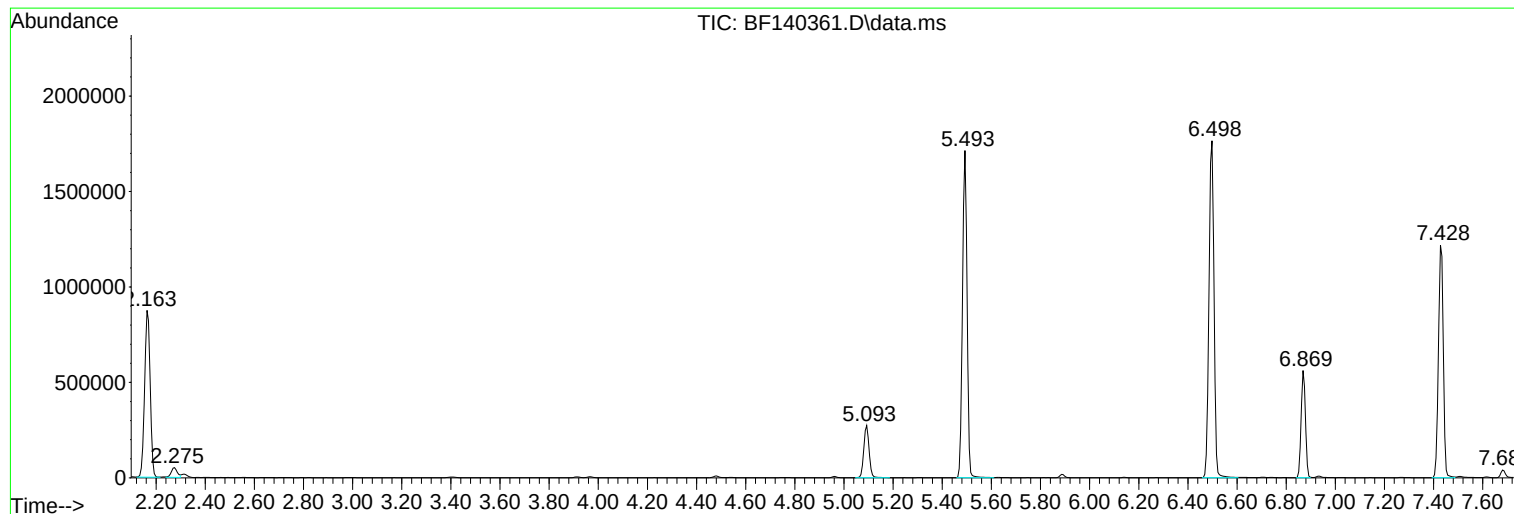
Sum of corrected areas: 24198348

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140361.D
Acq On : 14 Nov 2024 14:47
Operator : RC/JU
Sample : P4779-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SOIL-01

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\BF111424\
Data File : BF140361.D
Acq On : 14 Nov 2024 14:47
Operator : RC/JU
Sample : P4779-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SOIL-01

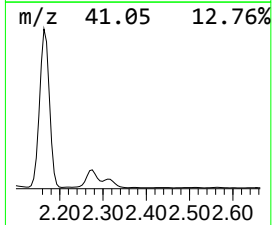
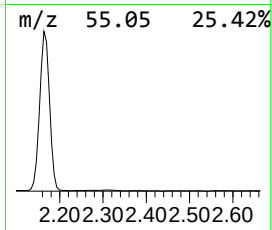
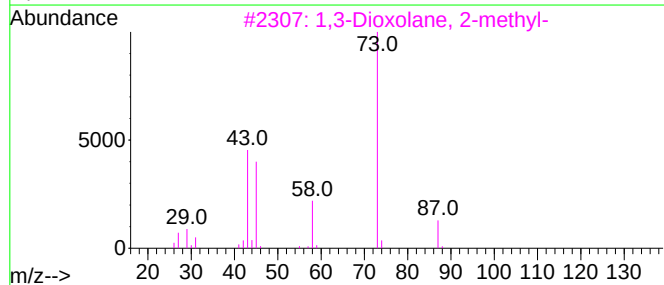
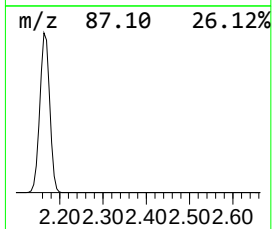
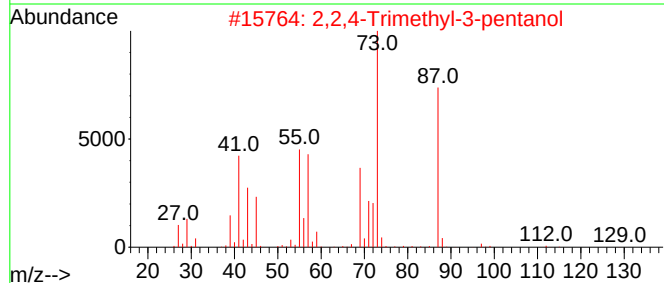
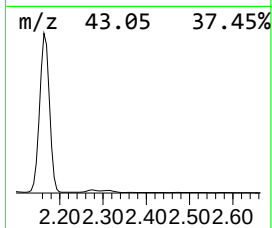
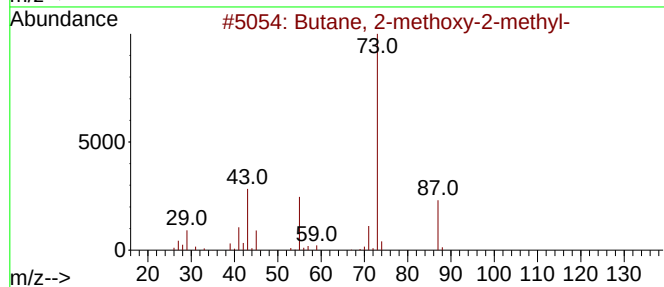
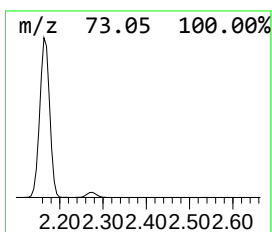
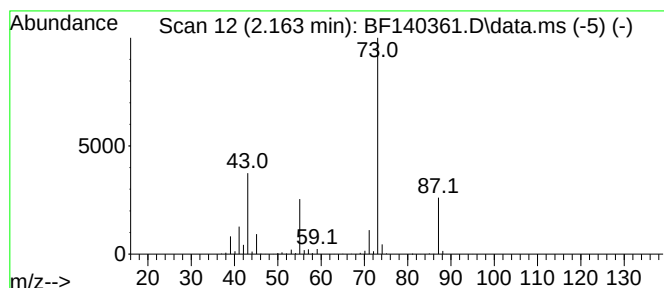
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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.
2.163	40.10 ng	1372470	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			Acetamide, N-ethyl-	87	C4H9NO	000625-50-3	22
5			Pentane, 3-methoxy-	102	C6H14O	036839-67-5	17



Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140361.D
Acq On : 14 Nov 2024 14:47
Operator : RC/JU
Sample : P4779-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SOIL-01

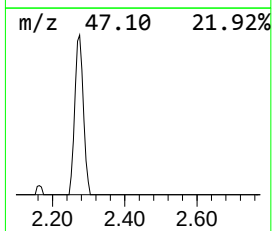
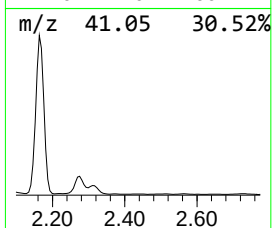
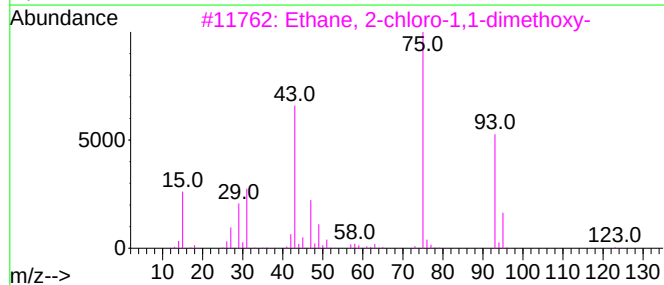
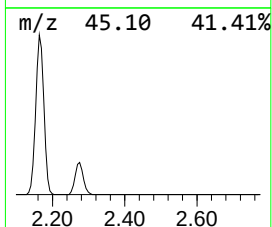
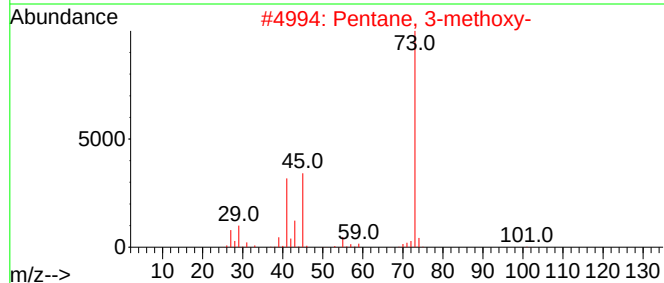
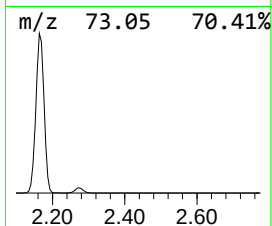
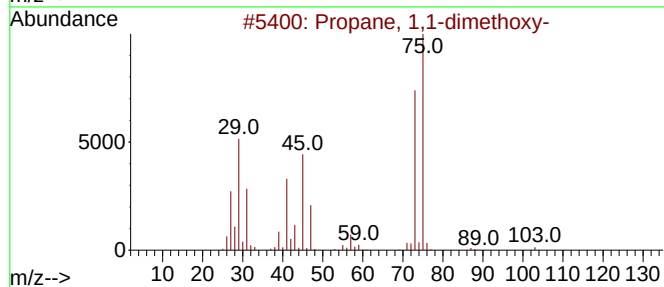
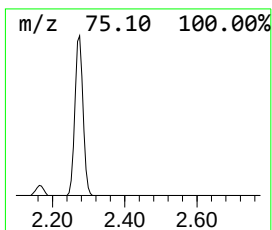
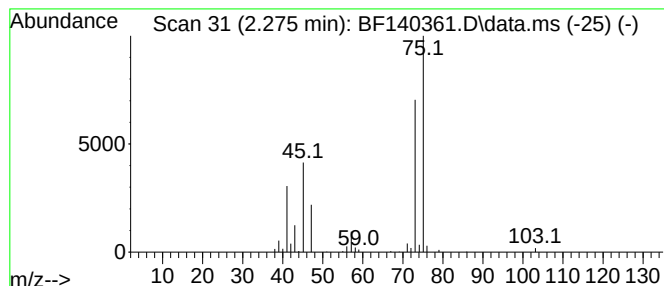
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

Peak Number 2 Propane, 1,1-dimethoxy- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.275	2.59 ng	88517	1,4-Dichlorobenzene-d4	6.869

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Propane, 1,1-dimethoxy-	104	C5H12O2	004744-10-9	74
2			Pentane, 3-methoxy-	102	C6H14O	036839-67-5	10
3			Ethane, 2-chloro-1,1-dimethoxy-	124	C4H9ClO2	000097-97-2	9
4			2-Propanol, 1,1-dimethoxy-	120	C5H12O3	042919-42-6	9
5			2,5-Diethoxy-3-methyl-3-vinylhexane	214	C13H26O2	1000432-70-8	9



Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140361.D
Acq On : 14 Nov 2024 14:47
Operator : RC/JU
Sample : P4779-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

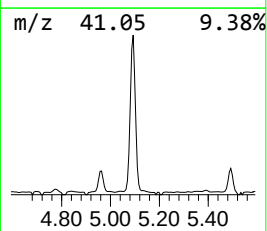
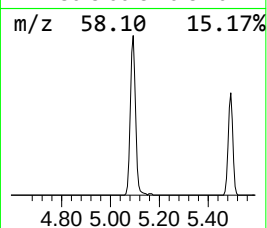
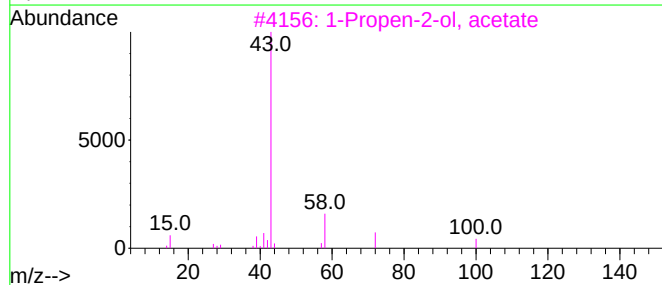
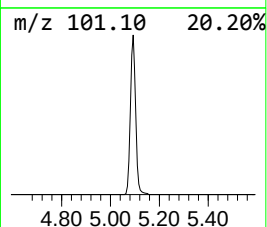
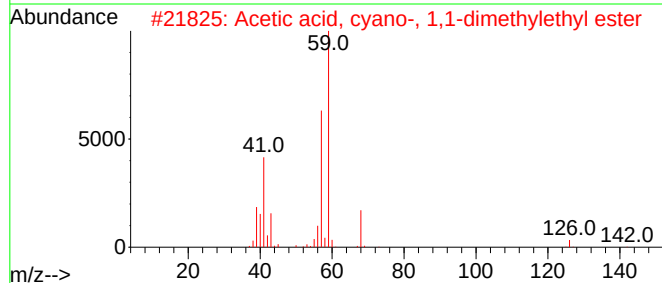
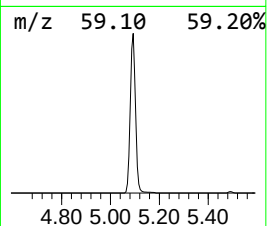
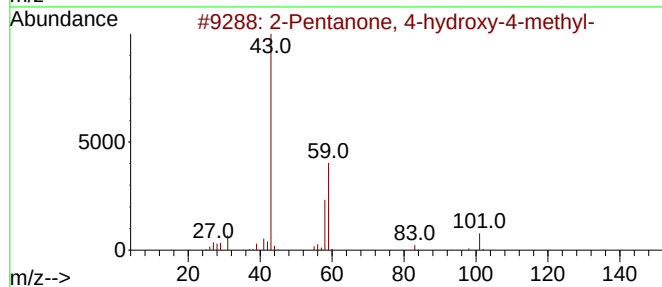
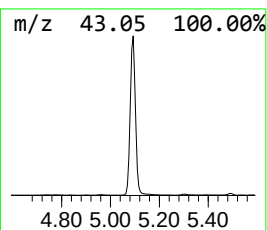
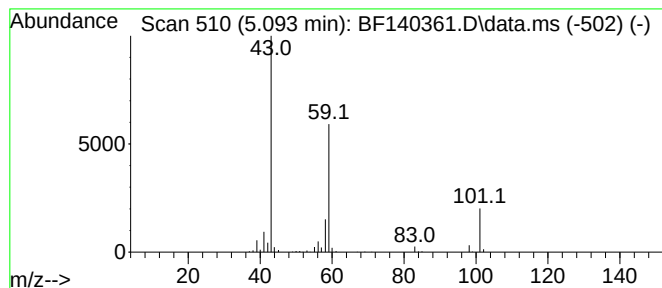
Instrument :
BNA_F
ClientSampleId :
SOIL-01

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 3 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.	
5.093	12.08 ng	413613	1,4-Dichlorobenzene-d4	6.869	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	Acetic acid, cyano-, 1,1-dimethy...	141	C7H11NO2	001116-98-9	17
3	1-Propen-2-ol, acetate	100	C5H8O2	000108-22-5	10
4	Butane, 1-ethoxy-	102	C6H14O	000628-81-9	9
5	Morpholine, 4-methyl-	101	C5H11NO	000109-02-4	9



Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140361.D
Acq On : 14 Nov 2024 14:47
Operator : RC/JU
Sample : P4779-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SOIL-01

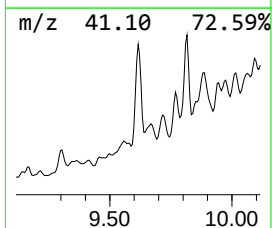
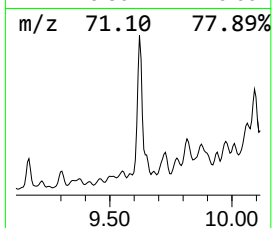
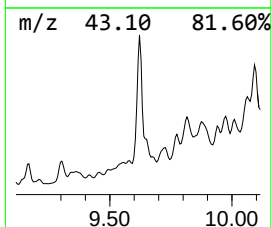
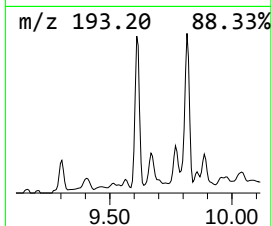
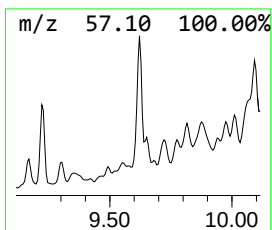
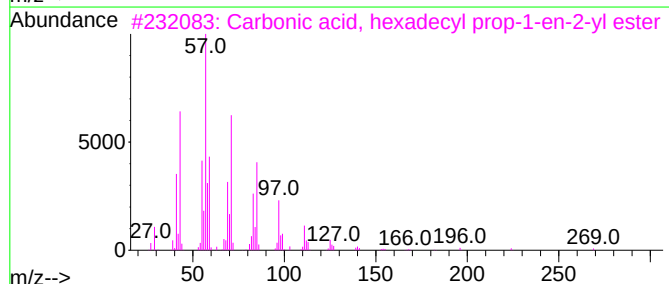
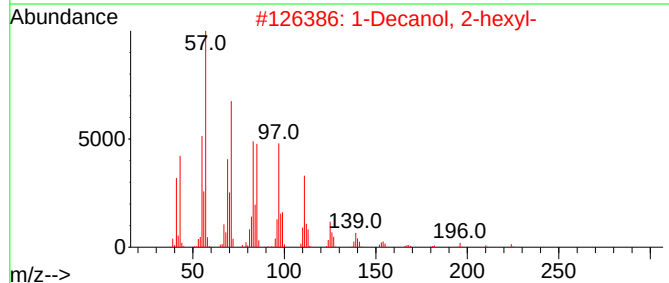
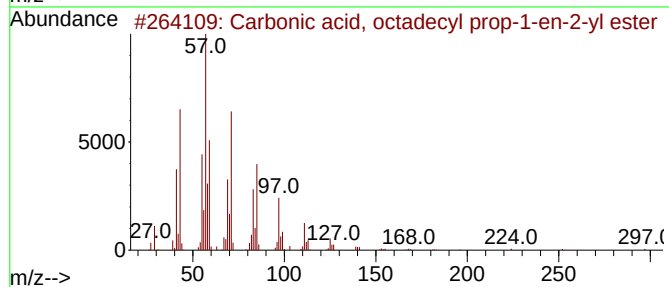
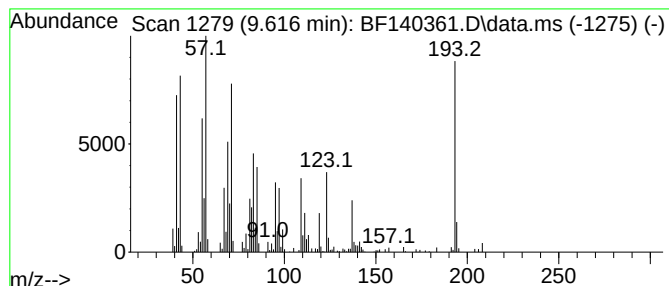
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF111324.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

Peak Number 4 unknown9.616 Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.616	4.23 ng	224882	Acenaphthene-d10	9.904

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Carbonic acid, octadecyl prop-1-...	354	C22H42O3	1000383-11-5	46
2			1-Decanol, 2-hexyl-	242	C16H34O	002425-77-6	43
3			Carbonic acid, hexadecyl prop-1-...	326	C20H38O3	1000382-90-3	38
4			Docosyl octyl ether	438	C30H62O	1000406-38-9	38
5			2,6,10-Trimethylundeca-1,3-diene	194	C14H26	1000222-09-1	38



Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140361.D
Acq On : 14 Nov 2024 14:47
Operator : RC/JU
Sample : P4779-01
Misc :
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Instrument :
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ClientSampleId :
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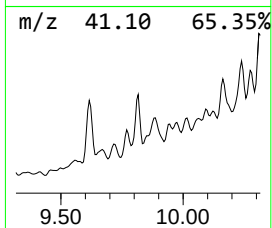
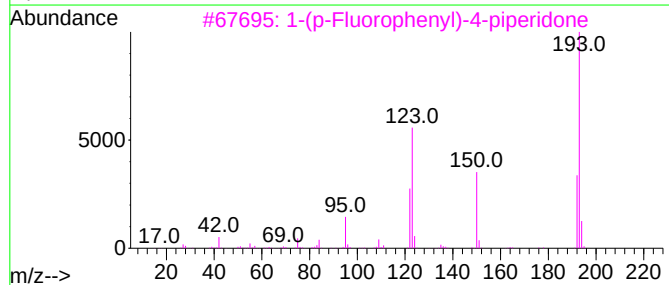
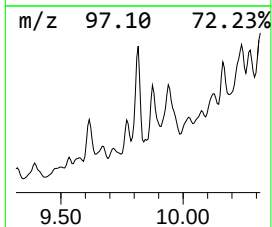
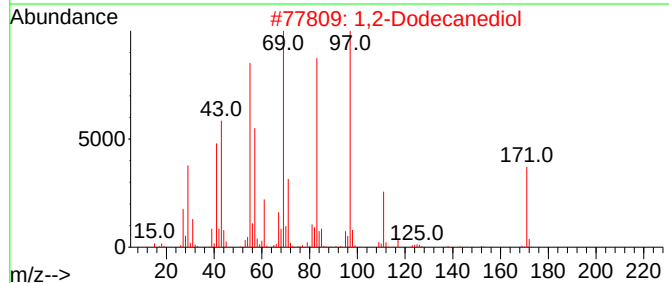
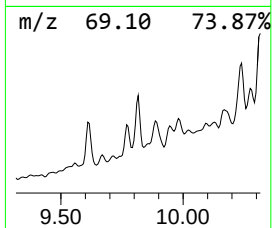
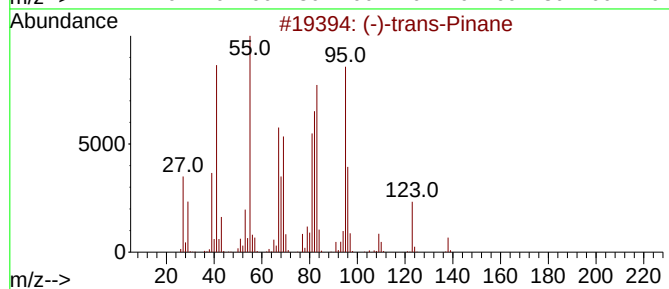
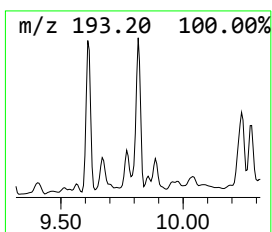
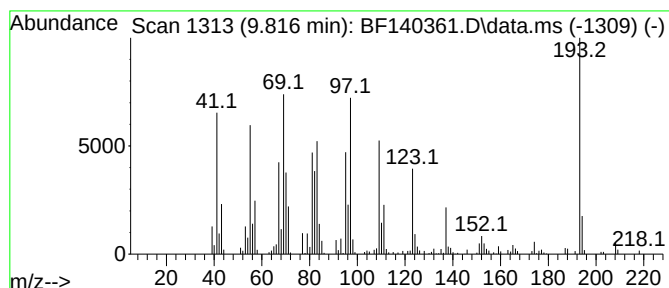
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

Peak Number 5 unknown9.816 Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.816	3.36 ng	178595	Acenaphthene-d10	9.904

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1	(-)-trans-Pinane			138	C10H18	033626-25-4	25
2	1,2-Dodecanediol			202	C12H26O2	001119-87-5	22
3	1-(p-Fluorophenyl)-4-piperidone			193	C11H12FNO	1000238-56-7	22
4	Cyclohexane, 1,1',1''-(1-ethanyl...			276	C20H36	055682-86-5	22
5	2-Pentene, 3-ethyl-4,4-dimethyl-			126	C9H18	053907-59-8	22



Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140361.D
Acq On : 14 Nov 2024 14:47
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Sample : P4779-01
Misc :
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Instrument :
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ClientSampleId :
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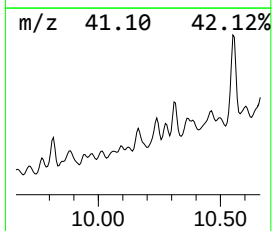
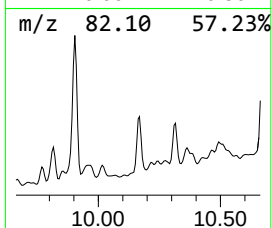
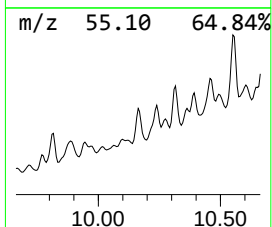
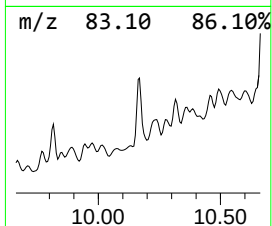
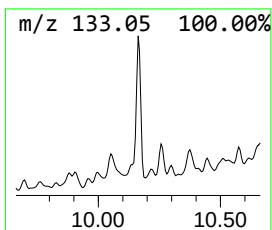
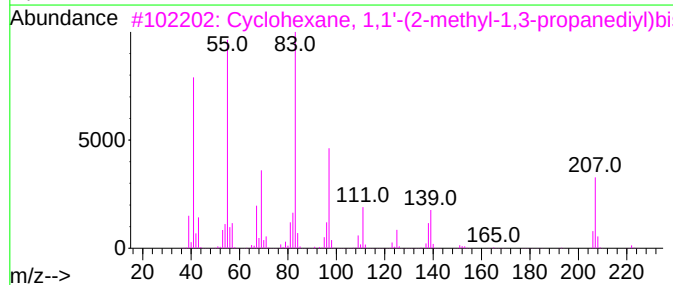
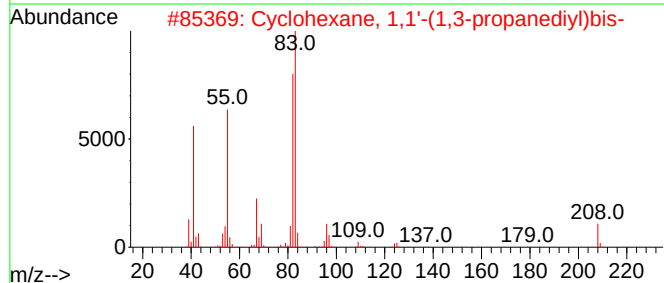
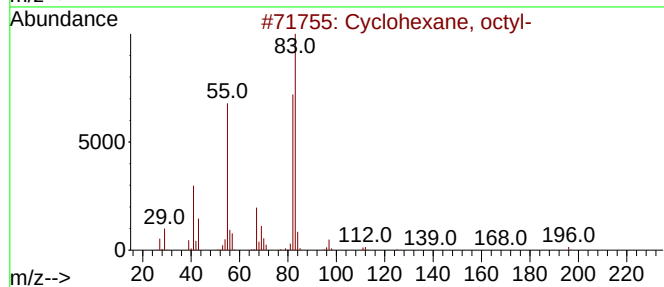
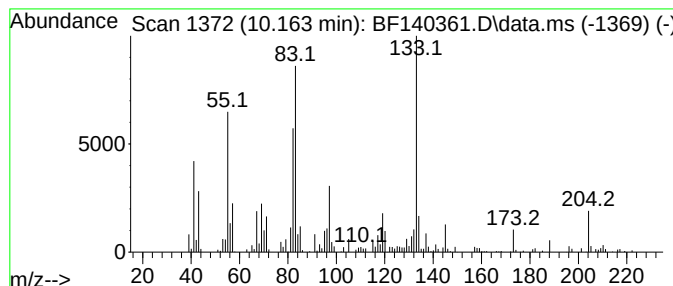
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TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 6 unknown10.163 Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.163	2.65 ng	140964	Acenaphthene-d10	9.904

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Cyclohexane, octyl-	196	C14H28	001795-15-9	38
2			Cyclohexane, 1,1'-(1,3-propanedi...	208	C15H28	003178-24-3	30
3			Cyclohexane, 1,1'-(2-methyl-1,3-...	222	C16H30	002883-08-1	30
4			Cyclohexane, pentyl-	154	C11H22	004292-92-6	27
5			Cyclohexane, 1,1'-(1,4-butanedi...	222	C16H30	006165-44-2	27



Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140361.D
Acq On : 14 Nov 2024 14:47
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Sample : P4779-01
Misc :
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ClientSampleId :
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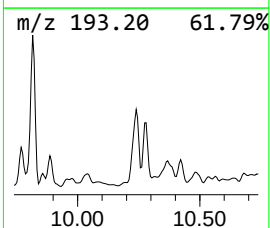
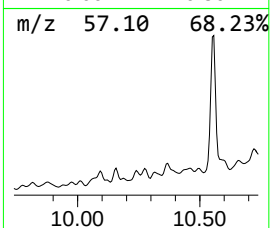
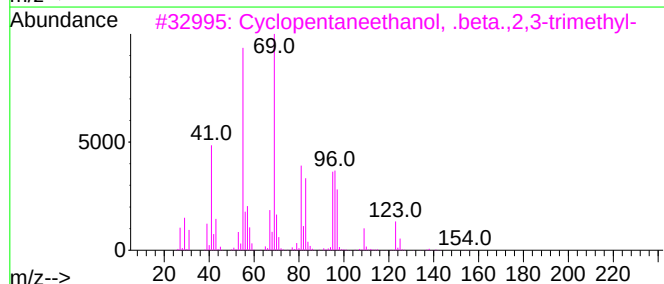
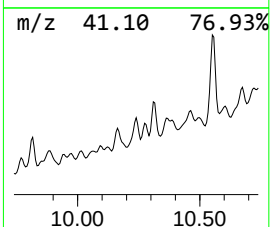
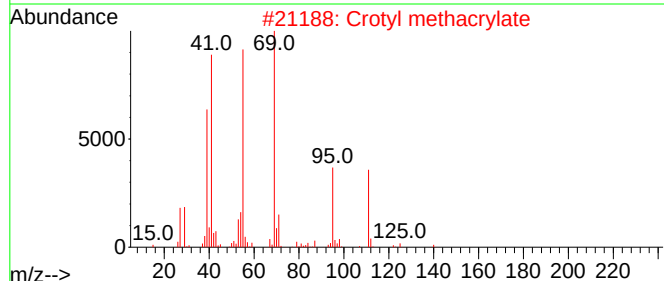
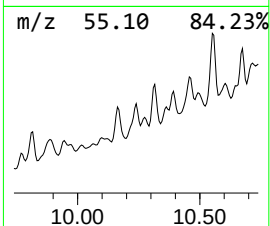
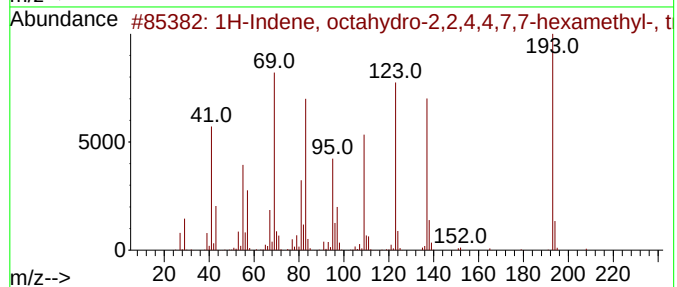
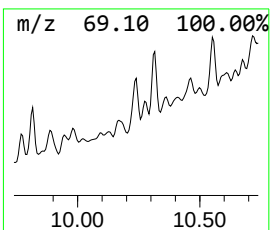
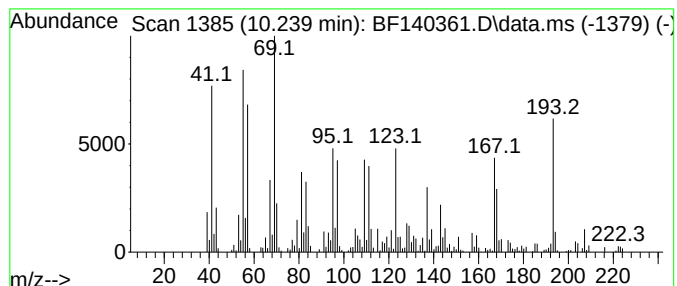
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

Peak Number 7 1H-Indene, octahydro-2,2,4,... Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.239	5.14 ng	273147	Acenaphthene-d10	9.904

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			1H-Indene, octahydro-2,2,4,7,7...	208	C15H28	054832-83-6	58
2			Crotyl methacrylate	140	C8H12O2	007376-45-6	27
3			Cyclopentaneethanol, .beta.,2,3-...	156	C10H20O	021721-18-6	25
4			Cyclopentanecarboxylic acid, eth...	140	C8H12O2	016523-06-1	18
5			Cyclopropane carboxamide, 2-cycl...	207	C13H21NO	331416-19-4	18



Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140361.D
Acq On : 14 Nov 2024 14:47
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Sample : P4779-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

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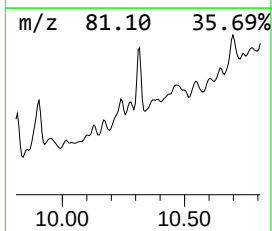
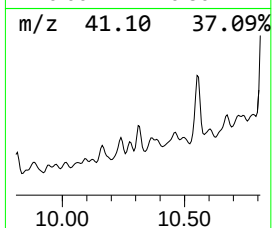
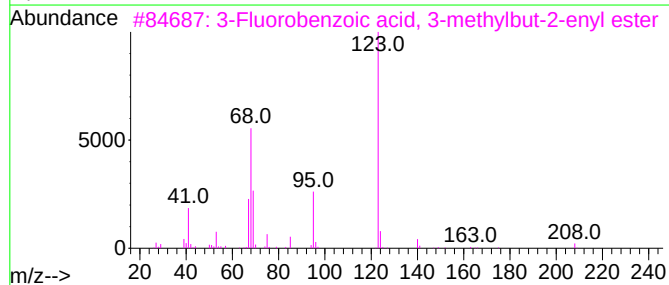
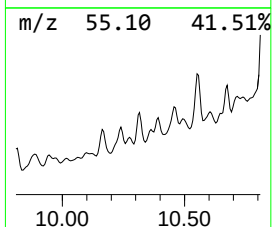
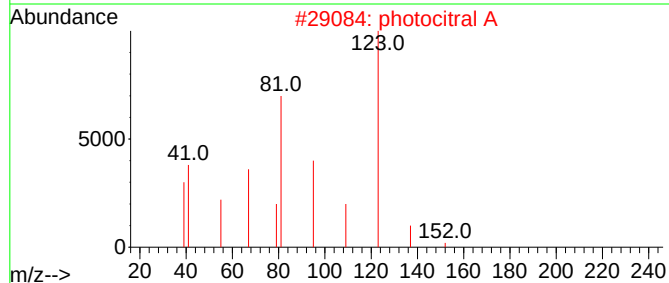
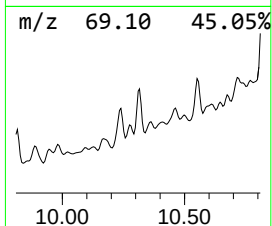
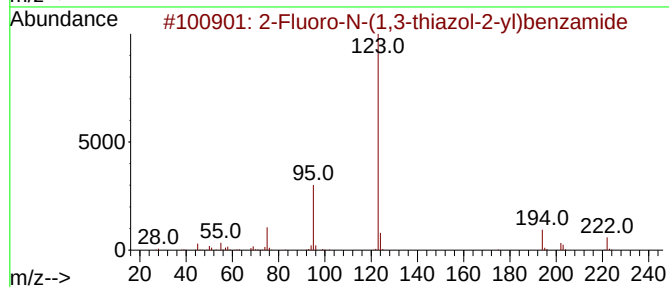
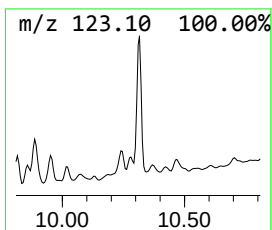
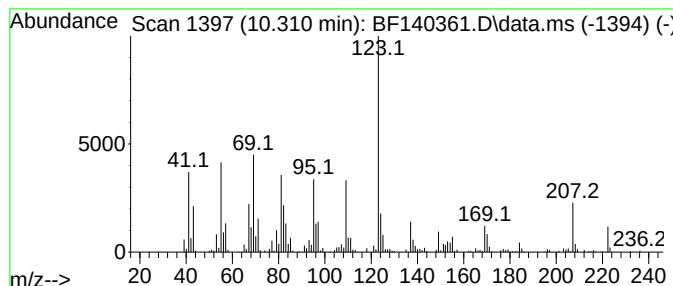
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

Peak Number 8 unknown10.310 Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.310	4.46 ng	237048	Acenaphthene-d10	9.904

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Fluoro-N-(1,3-thiazol-2-yl)ben...	222	C10H7FN2OS	000319-38-0	47		
2	photocitral A	152	C10H16O	055253-28-6	47		
3	3-Fluorobenzoic acid, 3-methylbu...	208	C12H13FO2	154559-38-3	46		
4	Ethanone, 1-[3-[2-methyl-2-(5-me...	222	C13H18O3	080114-28-9	43		
5	Benzeneacetic acid, .alpha.,4-di...	168	C8H8O4	001198-84-1	43		



Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140361.D
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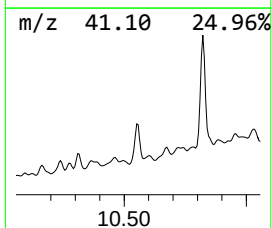
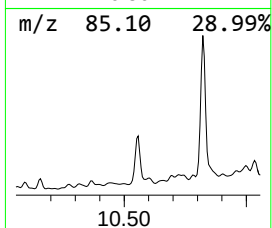
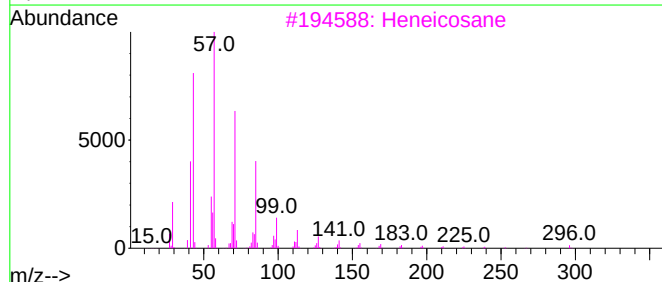
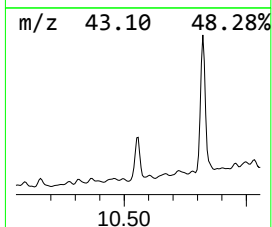
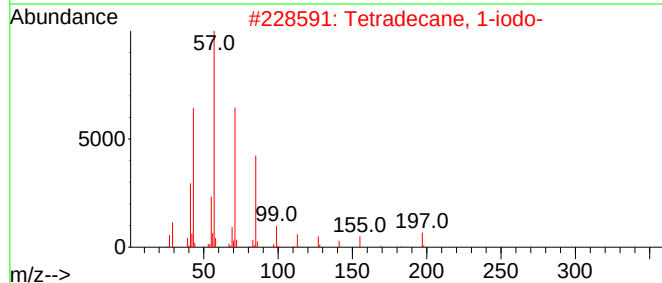
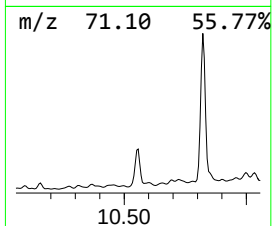
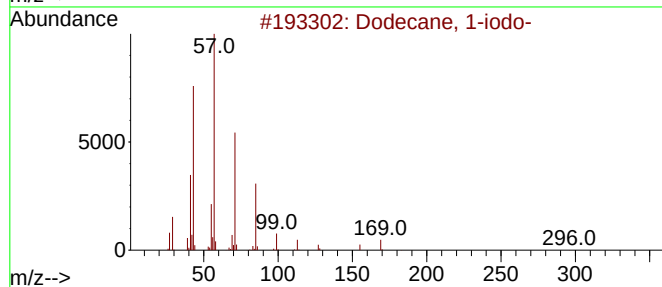
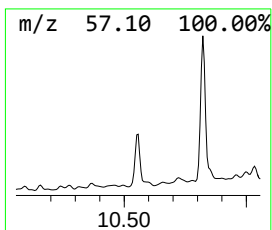
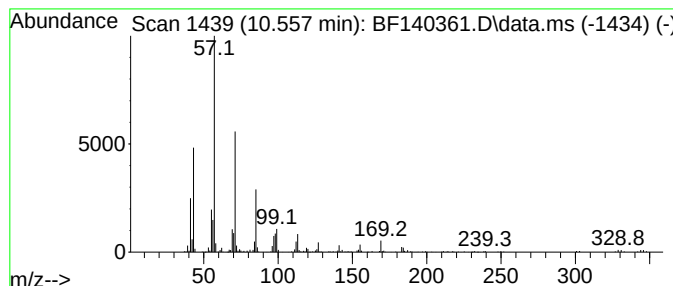
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

Peak Number 9 Dodecane, 1-iodo- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.557	14.12 ng	750602	Acenaphthene-d10	9.904

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Dodecane, 1-iodo-	296	C12H25I	004292-19-7	90
2			Tetradecane, 1-iodo-	324	C14H29I	019218-94-1	87
3			Heneicosane	296	C21H44	000629-94-7	86
4			Nonadecane, 2-methyl-	282	C20H42	001560-86-7	86
5			Heptacosane	380	C27H56	000593-49-7	86



Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
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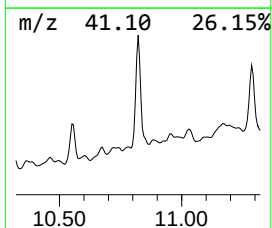
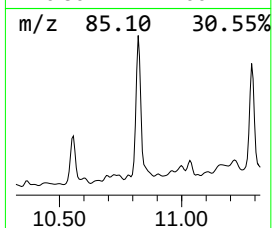
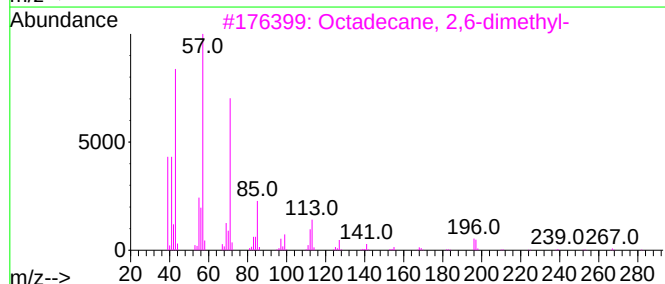
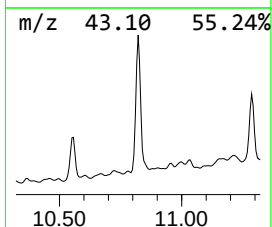
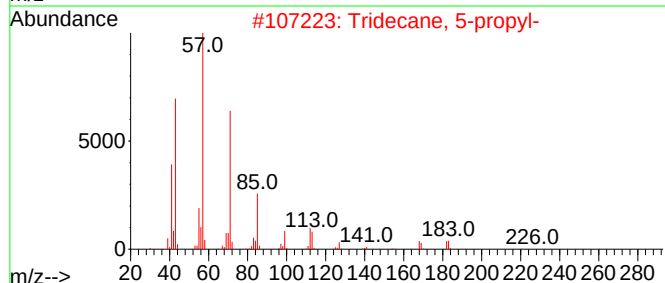
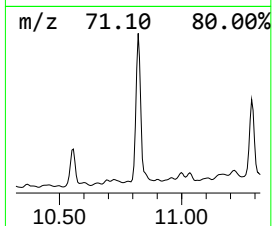
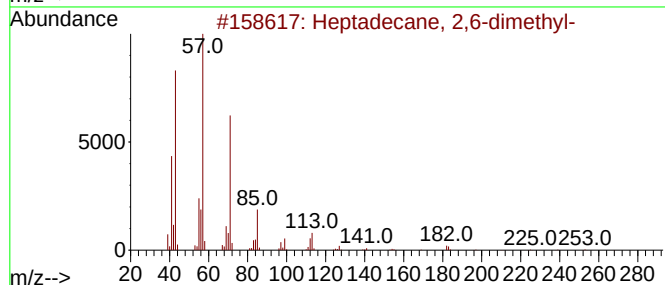
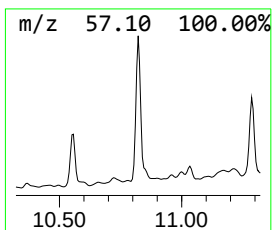
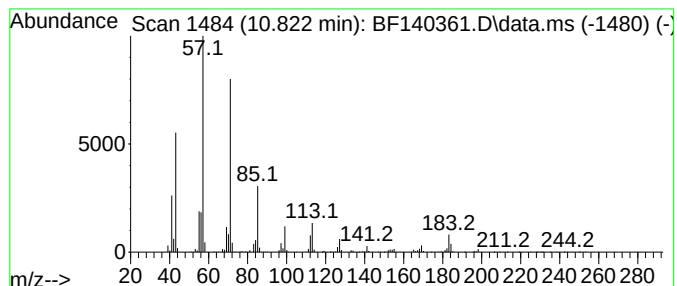
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TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

Peak Number 10 Heptadecane, 2,6-dimethyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.822	25.87 ng	1536610	Phenanthrene-d10	11.398

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		Heptadecane, 2,6-dimethyl-	268	C19H40	054105-67-8	87
2		Tridecane, 5-propyl-	226	C16H34	055045-11-9	86
3		Octadecane, 2,6-dimethyl-	282	C20H42	075163-97-2	80
4		Dodecane, 2,7,10-trimethyl-	212	C15H32	074645-98-0	80
5		Tridecane, 7-methyl-	198	C14H30	026730-14-3	76



Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140361.D
Acq On : 14 Nov 2024 14:47
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Sample : P4779-01
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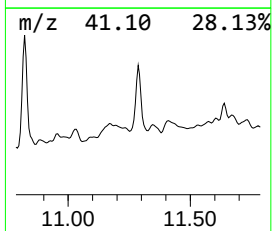
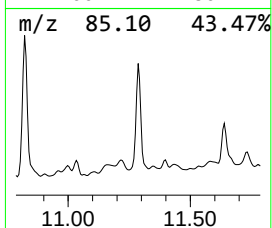
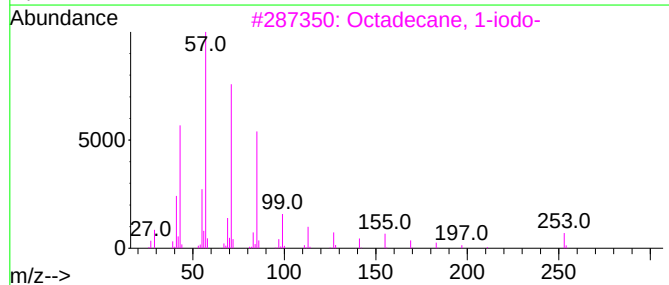
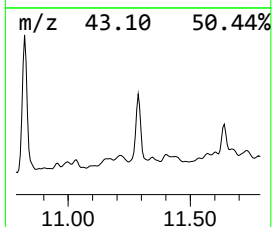
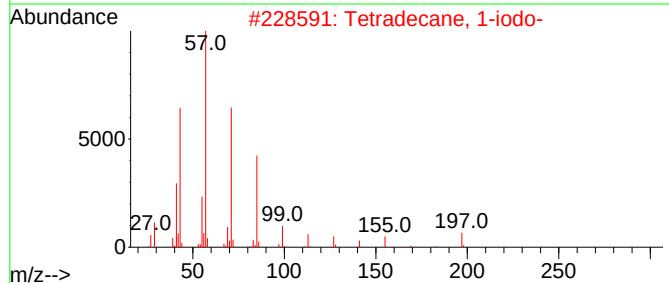
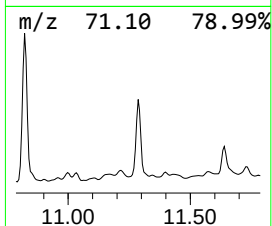
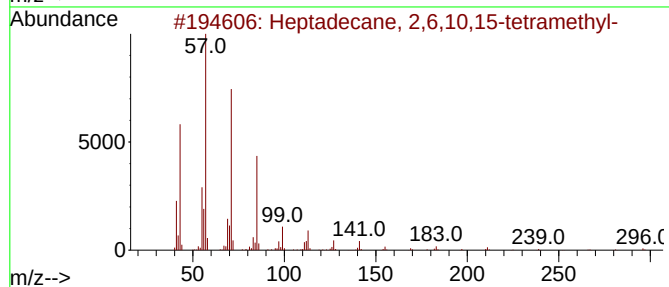
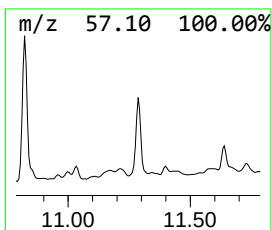
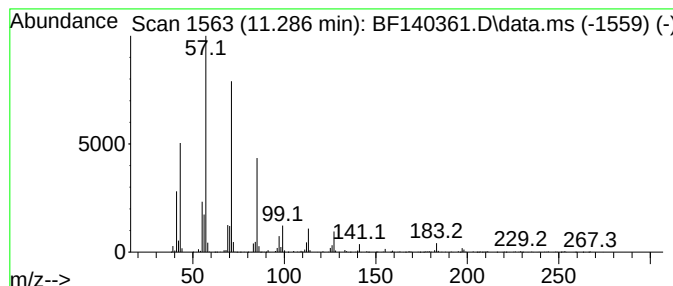
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

Peak Number 11 Heptadecane, 2,6,10,15-tetr... Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.286	14.85 ng	881854	Phenanthrene-d10	11.398

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Heptadecane, 2,6,10,15-tetramethyl-	296	C21H44	054833-48-6	91
2			Tetradecane, 1-iodo-	324	C14H29I	019218-94-1	90
3			Octadecane, 1-iodo-	380	C18H37I	000629-93-6	90
4			Hexacosane	366	C26H54	000630-01-3	90
5			Hexadecane, 1-iodo-	352	C16H33I	000544-77-4	90



Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140361.D
Acq On : 14 Nov 2024 14:47
Operator : RC/JU
Sample : P4779-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SOIL-01

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

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
Butane, 2-metho...	2.163	40.1	ng	1372470	1	6.869	684596	20.0
Propane, 1,1-di...	2.275	2.6	ng	88517	1	6.869	684596	20.0
2-Pentanone, 4-...	5.093	12.1	ng	413613	1	6.869	684596	20.0
unknown9.616	9.616	4.2	ng	224882	3	9.904	1063380	20.0
unknown9.816	9.816	3.4	ng	178595	3	9.904	1063380	20.0
unknown10.163	10.163	2.6	ng	140964	3	9.904	1063380	20.0
1H-Indene, octa...	10.239	5.1	ng	273147	3	9.904	1063380	20.0
unknown10.310	10.310	4.5	ng	237048	3	9.904	1063380	20.0
Dodecane, 1-iodo-	10.557	14.1	ng	750602	3	9.904	1063380	20.0
Heptadecane, 2,...	10.822	25.9	ng	1536610	4	11.398	1187750	20.0
Heptadecane, 2,...	11.286	14.9	ng	881854	4	11.398	1187750	20.0



CALIBRATION SUMMARY

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: CLOU03
 Lab Code: CHEM Case No.: P4779 SAS No.: P4779 SDG No.: P4779
 Instrument ID: BNA_E Calibration Date(s): 11/06/2024 11/06/2024
 Calibration Time(s): 13:51 18:02

LAB FILE ID:		RRF2.5 = BE101493.D			RRF005 = BE101494.D		RRF010 = BE101495.D	
		RRF020 = BE101496.D			RRF040 = BE101497.D		RRF050 = BE101498.D	
COMPOUND	RRF2.5	RRF005	RRF010	RRF020	RRF040	RRF050	RRF	% RSD
2-Fluorophenol		1.161	1.135	1.120	1.101	1.114	1.131	2.0
Benzaldehyde		0.902	0.930	0.875	0.767	0.654	0.759	19.8
Phenol-d6		1.494	1.525	1.558	1.540	1.571	1.551	2.5
Phenol		1.646	1.682	1.702	1.664	1.709	1.688	2.5
bis(2-Chloroethyl) ether		1.362	1.474	1.392	1.165	1.446	1.397	8.0
2-Chlorophenol		1.339	1.343	1.359	1.316	1.336	1.340	1.3
2-Methylphenol		1.015	1.041	1.073	1.113	1.123	1.093	4.8
2,2-oxybis(1-Chloropropane)		1.733	1.690	1.700	1.628	1.625	1.654	3.4
Acetophenone		0.462	0.460	0.461	0.443	0.447	0.453	1.9
3+4-Methylphenols		1.376	1.483	1.529	1.524	1.558	1.515	4.7
n-Nitroso-di-n-propylamine	0.958	0.996	1.040	1.058	1.027	1.046	1.023	3.5
Nitrobenzene-d5		0.313	0.316	0.318	0.312	0.318	0.317	1.5
Hexachloroethane		0.524	0.509	0.507	0.484	0.494	0.500	3.0
Nitrobenzene		0.325	0.329	0.330	0.324	0.329	0.329	1.4
Isophorone		0.599	0.619	0.632	0.611	0.618	0.616	2.0
2-Nitrophenol		0.159	0.167	0.175	0.174	0.182	0.175	5.4
2,4-Dimethylphenol		0.196	0.199	0.204	0.198	0.205	0.203	2.8
bis(2-Chloroethoxy) methane		0.376	0.383	0.386	0.371	0.375	0.377	1.7
2,4-Dichlorophenol		0.275	0.279	0.289	0.283	0.294	0.288	3.4
Naphthalene		1.071	1.033	1.027	0.983	0.983	1.010	3.6
4-Chloroaniline		0.342	0.364	0.371	0.358	0.356	0.355	3.7
Hexachlorobutadiene		0.209	0.198	0.202	0.192	0.195	0.198	3.0
Caprolactam		0.097	0.107	0.107	0.107	0.106	0.106	4.1
4-Chloro-3-methylphenol		0.293	0.318	0.316	0.312	0.318	0.314	3.3
2-Methylnaphthalene		0.744	0.733	0.733	0.706	0.705	0.717	2.9
Hexachlorocyclopentadiene		0.106	0.128	0.153	0.167	0.175	0.154	17.7
2,4,6-Trichlorophenol		0.358	0.352	0.360	0.358	0.361	0.362	2.2
2-Fluorobiphenyl		1.353	1.295	1.299	1.204	1.160	1.225	7.5
2,4,5-Trichlorophenol		0.390	0.381	0.402	0.400	0.411	0.403	3.7
1,1-Biphenyl		1.451	1.416	1.424	1.336	1.344	1.380	3.7
2-Chloronaphthalene		1.124	1.104	1.115	1.060	1.065	1.088	2.5
2-Nitroaniline		0.248	0.273	0.292	0.288	0.300	0.288	7.4
Dimethylphthalate		1.500	1.479	1.478	1.389	1.368	1.424	4.2
Acenaphthylene		1.664	1.660	1.661	1.584	1.586	1.622	2.6

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: CLOU03
 Lab Code: CHEM Case No.: P4779 SAS No.: P4779 SDG No.: P4779
 Instrument ID: BNA_E Calibration Date(s): 11/06/2024 11/06/2024
 Calibration Time(s): 13:51 18:02

LAB FILE ID:		RRF2.5 = BE101493.D			RRF005 = BE101494.D		RRF010 = BE101495.D	
		RRF020 = BE101496.D			RRF040 = BE101497.D		RRF050 = BE101498.D	
COMPOUND	RRF2.5	RRF005	RRF010	RRF020	RRF040	RRF050	RRF	% RSD
2,6-Dinitrotoluene		0.316	0.330	0.336	0.324	0.327	0.329	2.2
3-Nitroaniline		0.282	0.320	0.335	0.328	0.323	0.319	5.7
Acenaphthene		1.116	1.075	1.080	1.007	0.996	1.035	5.4
2,4-Dinitrophenol			0.139	0.178	0.194	0.208	0.193	15.8
4-Nitrophenol		0.197	0.235	0.278	0.275	0.274	0.264	13.3
Dibenzofuran		1.799	1.736	1.724	1.615	1.591	1.666	5.2
2,4-Dinitrotoluene		0.426	0.456	0.480	0.460	0.463	0.462	4.0
Diethylphthalate		1.600	1.579	1.577	1.457	1.442	1.502	5.4
4-Chlorophenyl-phenylether		0.757	0.736	0.733	0.689	0.680	0.706	5.1
Fluorene		1.490	1.475	1.458	1.363	1.328	1.391	6.0
4-Nitroaniline		0.285	0.334	0.359	0.349	0.355	0.344	8.1
4,6-Dinitro-2-methylphenol		0.084	0.104	0.117	0.123	0.131	0.119	16.0
n-Nitrosodiphenylamine		0.550	0.534	0.545	0.519	0.526	0.531	2.7
2,4,6-Tribromophenol		0.388	0.391	0.391	0.369	0.364	0.376	3.6
4-Bromophenyl-phenylether		0.226	0.218	0.221	0.214	0.221	0.221	1.9
Hexachlorobenzene		0.301	0.290	0.295	0.282	0.287	0.290	2.3
Atrazine		0.202	0.187	0.151	0.171	0.121	0.157	19.7
Pentachlorophenol		0.129	0.139	0.155	0.162	0.167	0.158	11.4
Phenanthrene		1.067	1.000	1.016	0.942	0.936	0.973	5.9
Anthracene		1.030	0.985	0.998	0.943	0.932	0.961	4.9
Carbazole		1.030	1.003	1.001	0.940	0.924	0.963	5.0
Di-n-butylphthalate		1.312	1.269	1.261	1.170	1.128	1.190	7.7
Fluoranthene		1.442	1.353	1.316	1.208	1.157	1.247	10.0
Pyrene		1.201	1.158	1.199	1.130	1.125	1.138	4.9
Terphenyl-d14		1.065	1.023	1.028	0.902	0.819	0.904	15.4
Butylbenzylphthalate		0.541	0.522	0.531	0.507	0.500	0.511	4.3
3,3-Dichlorobenzidine		0.466	0.474	0.480	0.469	0.478	0.468	2.9
Benzo (a) anthracene		1.334	1.258	1.258	1.170	1.138	1.188	8.5
Chrysene		1.261	1.215	1.207	1.116	1.074	1.129	9.1
Bis (2-ethylhexyl) phthalate		0.857	0.816	0.822	0.760	0.738	0.773	7.8
Di-n-octyl phthalate		1.510	1.430	1.383	1.284	1.226	1.308	10.6
Benzo (b) fluoranthene		1.220	1.158	1.107	1.056	1.053	1.097	6.5
Benzo (k) fluoranthene		1.119	1.045	1.080	0.977	0.966	0.996	9.2
Benzo (a) pyrene		1.023	0.974	0.977	0.926	0.923	0.947	5.0
Indeno (1,2,3-cd) pyrene		1.480	1.394	1.411	1.347	1.342	1.374	4.4

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1



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: CLOU03
 Lab Code: CHEM Case No.: P4779 SAS No.: P4779 SDG No.: P4779
 Instrument ID: BNA_E Calibration Date(s): 11/06/2024 11/06/2024
 Calibration Time(s): 13:51 18:02

LAB FILE ID:		RRF2.5 = BE101493.D		RRF005 = BE101494.D		RRF010 = BE101495.D		
		RRF020 = BE101496.D		RRF040 = BE101497.D		RRF050 = BE101498.D		
COMPOUND	RRF2.5	RRF005	RRF010	RRF020	RRF040	RRF050	RRF	% RSD
Dibenzo (a,h) anthracene		1.250	1.169	1.189	1.128	1.111	1.145	5.7
Benzo (g,h,i) perylene		1.239	1.164	1.182	1.133	1.148	1.163	3.5
1,2,4,5-Tetrachlorobenzene		0.546	0.518	0.535	0.513	0.519	0.527	2.2
1,4-Dioxane		0.495	0.458	0.438	0.406	0.378	0.421	10.5
2,3,4,6-Tetrachlorophenol		0.379	0.366	0.377	0.369	0.370	0.373	1.5

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1

Method Path : Z:\svoasrv\HPCHEM1\BNA_E\Methods\
 Method File : 8270-BE110624.M
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Thu Nov 07 00:01:20 2024
 Response Via : Initial Calibration

Calibration Files

2.5 =BE101493.D 5 =BE101494.D 10 =BE101495.D 20 =BE101496.D 40 =BE101497.D 50 =BE101498.D 60 =BE101499.D 80 =BE101500.D

	Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD

1) I	1,4-Dichlorobenzen...	-----ISTD-----									
2)	1,4-Dioxane	0.495	0.458	0.438	0.406	0.378	0.394	0.378	0.421	10.54	
3)	Pyridine	1.154	1.183	1.143	1.154	1.192	1.230	1.186	1.177	2.53	
4)	n-Nitrosodimet...	0.509	0.465	0.446	0.445	0.461	0.473	0.464	0.466	4.58	
5) S	2-Fluorophenol	1.161	1.135	1.120	1.101	1.114	1.159	1.127	1.131	1.99	
6)	Aniline	1.323	1.251	1.316	1.368	1.026	1.044	0.819	1.164	17.52	
7) S	Phenol-d6	1.494	1.525	1.558	1.540	1.571	1.617	1.551	1.551	2.49	
8)	2-Chlorophenol	1.339	1.343	1.359	1.316	1.336	1.364	1.324	1.340	1.30	
9)	Benzaldehyde	0.902	0.930	0.875	0.767	0.654	0.640	0.542	0.759	19.80	
10) C	Phenol	1.646	1.682	1.702	1.664	1.709	1.764	1.649	1.688	2.45	
11)	bis(2-Chloroet...	1.362	1.474	1.392	1.165	1.446	1.447	1.497	1.397	8.03	
12)	1,3-Dichlorobe...	1.573	1.526	1.491	1.424	1.410	1.437	1.379	1.463	4.74	
13) C	1,4-Dichlorobe...	1.565	1.543	1.508	1.444	1.437	1.464	1.412	1.482	3.89	
14)	1,2-Dichlorobe...	1.559	1.496	1.481	1.418	1.416	1.435	1.378	1.455	4.20	
15)	Benzyl Alcohol	0.791	0.861	0.910	0.919	0.958	0.977	0.926	0.906	6.94	
16)	2,2'-oxybis(1-...	1.733	1.690	1.700	1.628	1.625	1.636	1.567	1.654	3.41	
17)	2-Methylphenol	1.015	1.041	1.073	1.113	1.123	1.163	1.123	1.093	4.76	
18)	Hexachloroethane	0.524	0.509	0.507	0.484	0.494	0.501	0.483	0.500	2.95	
19) P	n-Nitroso-di-n...	0.958	0.996	1.040	1.058	1.027	1.046	1.057	0.998	1.023	3.48
20)	3+4-Methylphenols	1.376	1.483	1.529	1.524	1.558	1.606	1.530	1.515	4.74	
21) I	Naphthalene-d8	-----ISTD-----									
22)	Acetophenone	0.462	0.460	0.461	0.443	0.447	0.455	0.443	0.453	1.91	
23) S	Nitrobenzene-d5	0.313	0.316	0.318	0.312	0.318	0.325	0.313	0.317	1.46	
24)	Nitrobenzene	0.325	0.329	0.330	0.324	0.329	0.338	0.330	0.329	1.41	
25)	Isophorone	0.599	0.619	0.632	0.611	0.618	0.630	0.605	0.616	1.98	
26) C	2-Nitrophenol	0.159	0.167	0.175	0.174	0.182	0.187	0.183	0.175	5.41	
27)	2,4-Dimethylph...	0.196	0.199	0.204	0.198	0.205	0.212	0.206	0.203	2.83	
28)	bis(2-Chloroet...	0.376	0.383	0.386	0.371	0.375	0.381	0.369	0.377	1.65	
29) C	2,4-Dichloroph...	0.275	0.279	0.289	0.283	0.294	0.302	0.294	0.288	3.35	
30)	1,2,4-Trichlor...	0.344	0.326	0.323	0.311	0.313	0.321	0.312	0.321	3.63	
31)	Naphthalene	1.071	1.033	1.027	0.983	0.983	1.003	0.968	1.010	3.58	
32)	Benzoic acid		0.112	0.137	0.166	0.191	0.202	0.202	0.168	22.18	
33)	4-Chloroaniline	0.342	0.364	0.371	0.358	0.356	0.361	0.334	0.355	3.65	
34) C	Hexachlorobuta...	0.209	0.198	0.202	0.192	0.195	0.198	0.193	0.198	2.95	
35)	Caprolactam	0.097	0.107	0.107	0.107	0.106	0.111	0.105	0.106	4.09	
36) C	4-Chloro-3-met...	0.293	0.318	0.316	0.312	0.318	0.327	0.317	0.314	3.27	
37)	2-Methylnaphth...	0.744	0.733	0.733	0.706	0.705	0.715	0.684	0.717	2.93	
38)	1-Methylnaphth...	0.752	0.738	0.734	0.696	0.697	0.711	0.679	0.715	3.72	

Method Path : Z:\svoasrv\HPCHEM1\BNA_E\Methods\
 Method File : 8270-BE110624.M

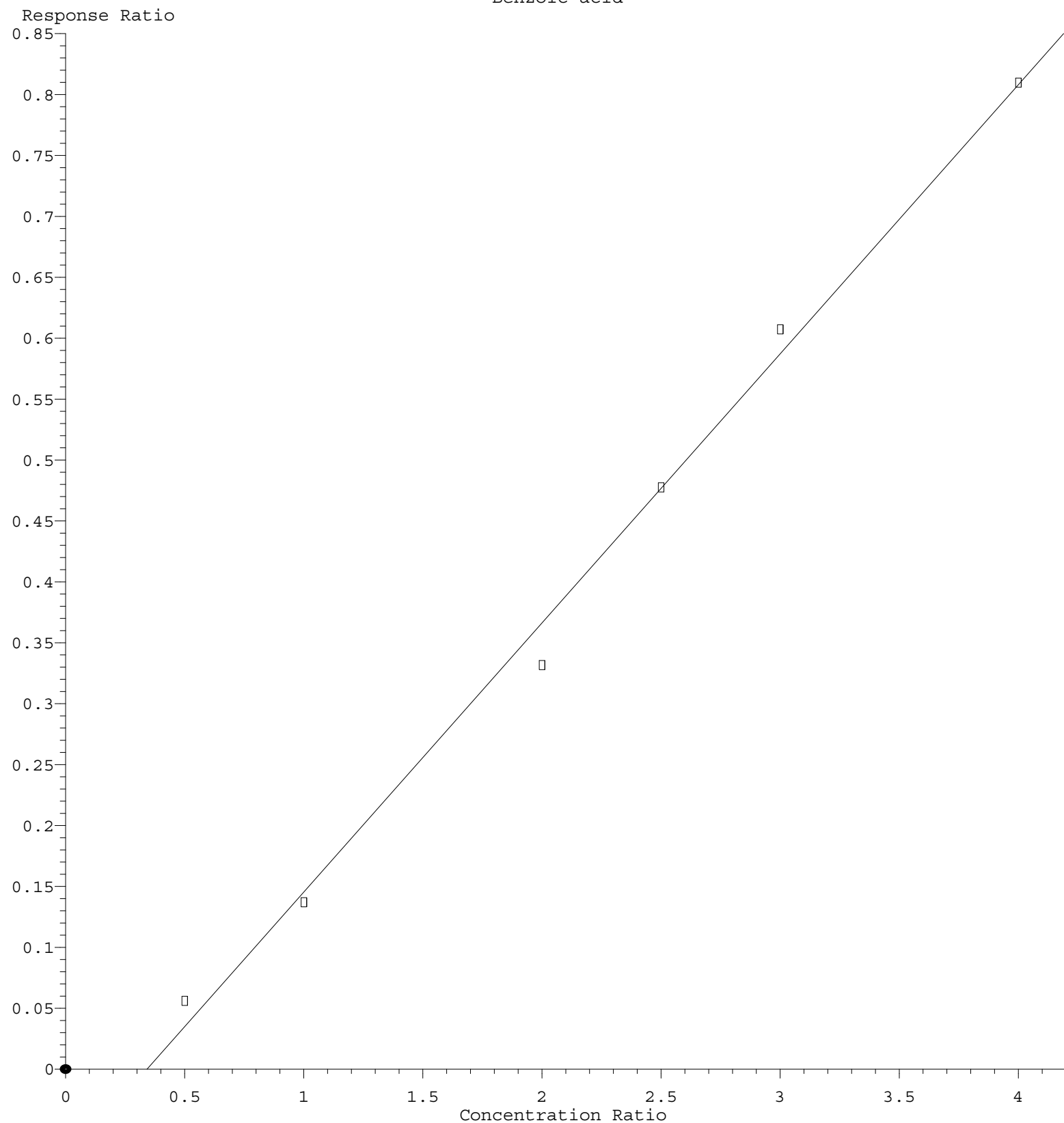
39) I	Acenaphthene-d10	-----ISTD-----									
40)	1,2,4,5-Tetrac...	0.546	0.518	0.535	0.513	0.519	0.535	0.525	0.527	2.24	
41) P	Hexachlorocycl...	0.106	0.128	0.153	0.167	0.175	0.178	0.171	0.154	17.72	
42) S	2,4,6-Tribromo...	0.388	0.391	0.391	0.369	0.364	0.375	0.357	0.376	3.64	
43) C	2,4,6-Trichlor...	0.358	0.352	0.360	0.358	0.361	0.376	0.369	0.362	2.21	
44)	2,4,5-Trichlor...	0.390	0.381	0.402	0.400	0.411	0.425	0.415	0.403	3.71	
45) S	2-Fluorobiphenyl	1.353	1.295	1.299	1.204	1.160	1.163	1.100	1.225	7.52	
46)	1,1'-Biphenyl	1.451	1.416	1.424	1.336	1.344	1.366	1.320	1.380	3.66	
47)	2-Chloronaphth...	1.124	1.104	1.115	1.060	1.065	1.091	1.060	1.088	2.49	
48)	2-Nitroaniline	0.248	0.273	0.292	0.288	0.300	0.312	0.302	0.288	7.44	
49)	Acenaphthylene	1.664	1.660	1.661	1.584	1.586	1.629	1.565	1.622	2.62	
50)	Dimethylphthalate	1.500	1.479	1.478	1.389	1.368	1.403	1.352	1.424	4.22	
51)	2,6-Dinitrotol...	0.316	0.330	0.336	0.324	0.327	0.338	0.329	0.329	2.23	
52) C	Acenaphthene	1.116	1.075	1.080	1.007	0.996	1.007	0.962	1.035	5.38	
53)	3-Nitroaniline	0.282	0.320	0.335	0.328	0.323	0.333	0.314	0.319	5.67	
54) P	2,4-Dinitrophenol		0.139	0.178	0.194	0.208	0.220	0.217	0.193	15.82	
55)	Dibenzofuran	1.799	1.736	1.724	1.615	1.591	1.629	1.568	1.666	5.20	
56) P	4-Nitrophenol	0.197	0.235	0.278	0.275	0.274	0.295	0.290	0.264	13.26	
57)	2,4-Dinitrotol...	0.426	0.456	0.480	0.460	0.463	0.482	0.466	0.462	3.99	
58)	Fluorene	1.490	1.475	1.458	1.363	1.328	1.347	1.272	1.391	6.03	
59)	2,3,4,6-Tetrac...	0.379	0.366	0.377	0.369	0.370	0.381	0.372	0.373	1.53	
60)	Diethylphthalate	1.600	1.579	1.577	1.457	1.442	1.460	1.397	1.502	5.41	
61)	4-Chlorophenyl...	0.757	0.736	0.733	0.689	0.680	0.692	0.657	0.706	5.12	
62)	4-Nitroaniline	0.285	0.334	0.359	0.349	0.355	0.366	0.359	0.344	8.07	
63)	Azobenzene	1.283	1.269	1.289	1.196	1.183	1.203	1.153	1.225	4.44	
64) I	Phenanthrene-d10	-----ISTD-----									
65)	4,6-Dinitro-2-...	0.084	0.104	0.117	0.123	0.131	0.136	0.135	0.119	15.97	
66) c	n-Nitrosodiphe...	0.550	0.534	0.545	0.519	0.526	0.533	0.509	0.531	2.68	
67)	4-Bromophenyl-...	0.226	0.218	0.221	0.214	0.221	0.225	0.219	0.221	1.85	
68)	Hexachlorobenzene	0.301	0.290	0.295	0.282	0.287	0.294	0.283	0.290	2.33	
69)	Atrazine	0.202	0.187	0.151	0.171	0.121	0.135	0.130	0.157	19.70	
70) C	Pentachlorophenol	0.129	0.139	0.155	0.162	0.167	0.176	0.176	0.158	11.39	
71)	Phenanthrene	1.067	1.000	1.016	0.942	0.936	0.947	0.901	0.973	5.87	
72)	Anthracene	1.030	0.985	0.998	0.943	0.932	0.949	0.887	0.961	4.94	
73)	Carbazole	1.030	1.003	1.001	0.940	0.924	0.947	0.899	0.963	5.00	
74)	Di-n-butylphth...	1.312	1.269	1.261	1.170	1.128	1.121	1.068	1.190	7.68	
75) C	Fluoranthene	1.442	1.353	1.316	1.208	1.157	1.158	1.096	1.247	10.04	
76) I	Chrysene-d12	-----ISTD-----									
77)	Benzidine	0.324	0.433	0.250	0.403	0.656	0.503	0.440	0.430	30.17	
78)	Pyrene	1.201	1.158	1.199	1.130	1.125	1.117	1.036	1.138	4.95	
79) S	Terphenyl-d14	1.065	1.023	1.028	0.902	0.819	0.780	0.707	0.904	15.44	
80)	Butylbenzylpht...	0.541	0.522	0.531	0.507	0.500	0.505	0.474	0.511	4.31	
81)	Benzo(a)anthra...	1.334	1.258	1.258	1.170	1.138	1.118	1.040	1.188	8.47	
82)	3,3'-Dichlorob...	0.466	0.474	0.480	0.469	0.478	0.467	0.439	0.468	2.92	
83)	Chrysene	1.261	1.215	1.207	1.116	1.074	1.050	0.979	1.129	9.06	
84)	Bis(2-ethylhex...	0.857	0.816	0.822	0.760	0.738	0.733	0.686	0.773	7.81	
85) c	Di-n-octyl pht...	1.510	1.430	1.383	1.284	1.226	1.203	1.119	1.308	10.60	

Method Path : Z:\svoasrv\HPCHEM1\BNA_E\Methods\
Method File : 8270-BE110624.M

86) I	Perylene-d12	-----ISTD-----								
87)	Indeno(1,2,3-c...	1.480	1.394	1.411	1.347	1.342	1.357	1.290	1.374	4.40
88)	Benzo(b)fluora...	1.220	1.158	1.107	1.056	1.053	1.073	1.014	1.097	6.46
89)	Benzo(k)fluora...	1.119	1.045	1.080	0.977	0.966	0.937	0.849	0.996	9.23
90) C	Benzo(a)pyrene	1.023	0.974	0.977	0.926	0.923	0.931	0.877	0.947	5.02
91)	Dibenzo(a,h)an...	1.250	1.169	1.189	1.128	1.111	1.119	1.047	1.145	5.68
92)	Benzo(g,h,i)pe...	1.239	1.164	1.182	1.133	1.148	1.162	1.113	1.163	3.46

(#) = Out of Range

Benzoic acid



Response = 2.209e-001 * Amt - 7.549e-002
 Coef of Det (r^2) = 0.994812 Curve Fit: Linear
 Method Name: Z:\svoasrv\HPCHEM1\BNA E\Methods\8270-BE110624.M
 Calibration Table Last Updated: Thu Nov 07 00:01:20 2024

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
Data File : BE101493.D
Acq On : 6 Nov 2024 13:51
Operator : RC/JU
Sample : SSTDICC2.5
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
SSTDICC2.5

Quant Time: Nov 06 23:14:20 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 06 23:10:33 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

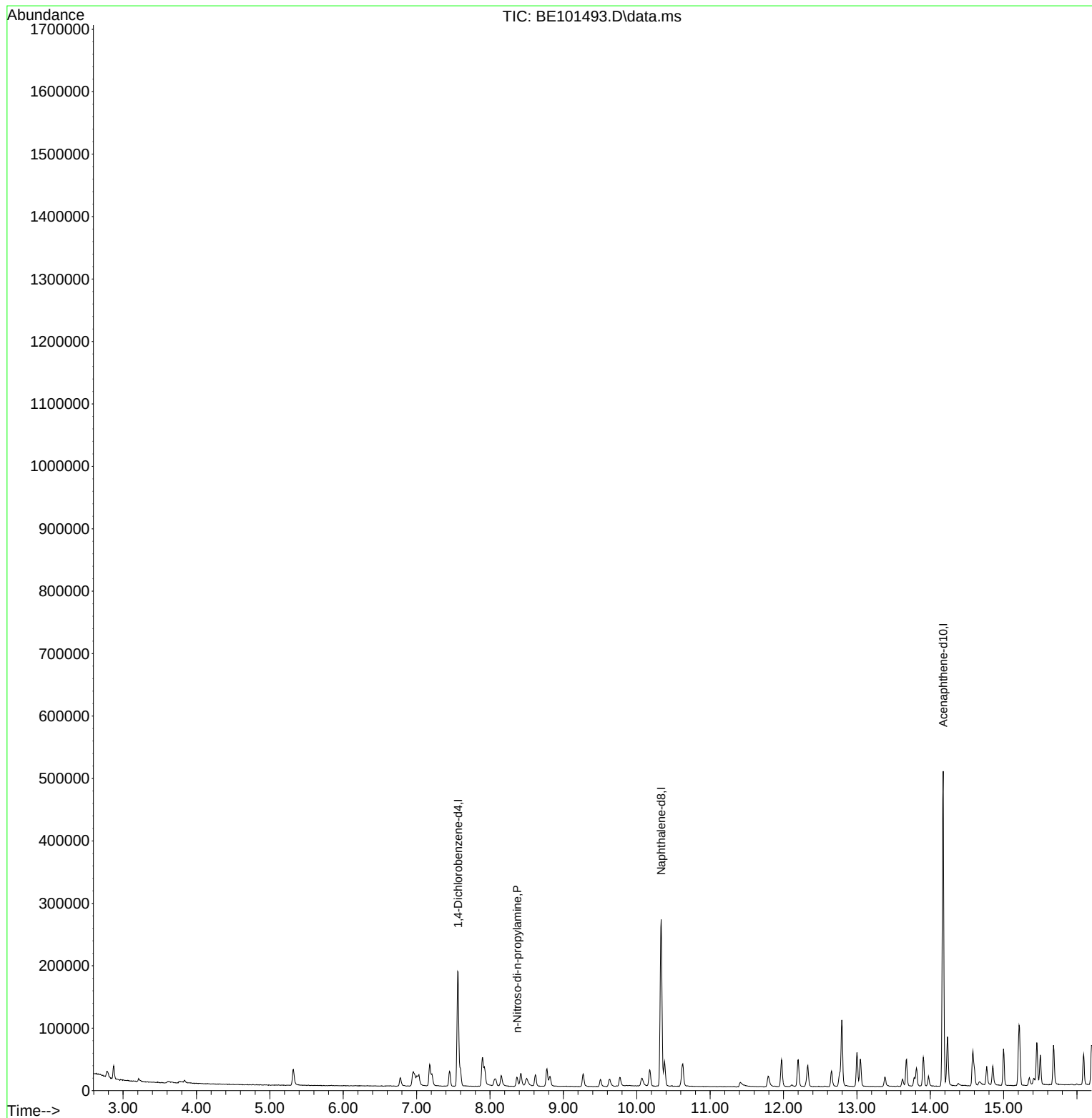
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.566	152	55140	20.000	ng	0.00
21) Naphthalene-d8	10.333	136	244662	20.000	ng	0.00
39) Acenaphthene-d10	14.176	164	174059	20.000	ng	0.00
64) Phenanthrene-d10	16.908	188	418467	20.000	ng	0.00
76) Chrysene-d12	21.074	240	553680	20.000	ng	0.00
86) Perylene-d12	23.359	264	716356	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...	8.371	70	6602	2.281	ng	97

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

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
Data File : BE101493.D
Acq On : 6 Nov 2024 13:51
Operator : RC/JU
Sample : SSTDICC2.5
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
SSTDICC2.5

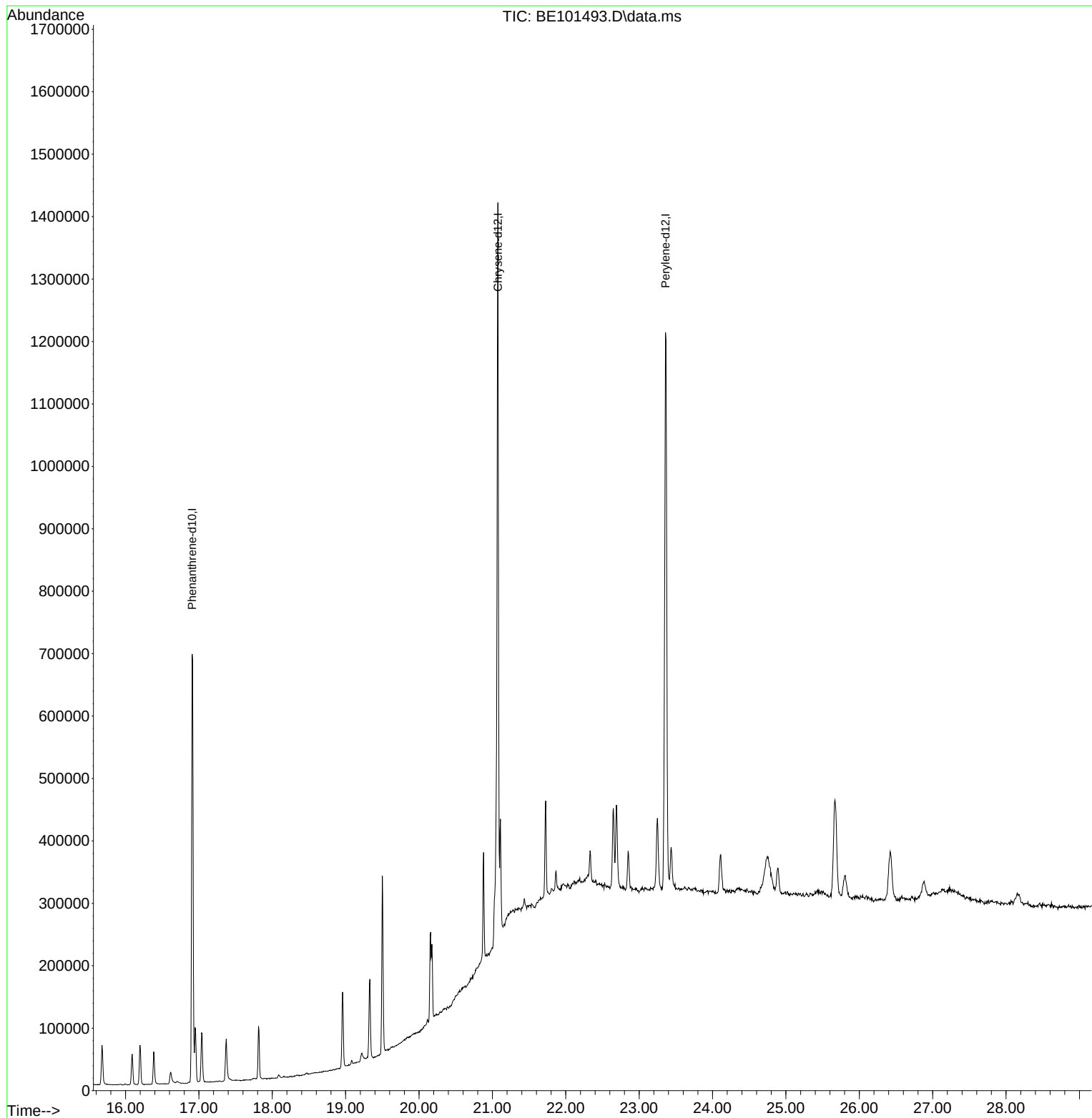
Quant Time: Nov 06 23:14:20 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 06 23:10:33 2024
Response via : Initial Calibration



Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
Data File : BE101493.D
Acq On : 6 Nov 2024 13:51
Operator : RC/JU
Sample : SSTDICC2.5
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
SSTDICC2.5

Quant Time: Nov 06 23:14:20 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 06 23:10:33 2024
Response via : Initial Calibration



Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101494.D
 Acq On : 6 Nov 2024 14:27
 Operator : RC/JU
 Sample : SSTDICC005
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

SSTDICC005

Manual Integrations

APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
 Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 06 23:57:56 2024

Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Wed Nov 06 23:45:11 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.564	152	58383	20.000	ng	0.00
21) Naphthalene-d8	10.331	136	258182	20.000	ng	0.00
39) Acenaphthene-d10	14.174	164	180549	20.000	ng	0.00
64) Phenanthrene-d10	16.912	188	423331	20.000	ng	0.00
76) Chrysene-d12	21.071	240	546701	20.000	ng	0.00
86) Perylene-d12	23.357	264	699482	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.319	112	33886	10.263	ng	0.00
7) Phenol-d6	6.947	99	43601	9.631	ng	0.00
23) Nitrobenzene-d5	8.774	82	40354	9.873	ng	0.00
42) 2,4,6-Tribromophenol	15.678	330	34985	10.298	ng	0.00
45) 2-Fluorobiphenyl	12.793	172	122142	11.046	ng	0.00
79) Terphenyl-d14	19.503	244	291227	11.792	ng	0.00
Target Compounds						
						Qvalue
2) 1,4-Dioxane	3.204	88	7228	5.882	ng	99
3) Pyridine	3.721	79	16838m	4.912	ng	
4) n-Nitrosodimethylamine	3.586	42	7426m	5.472	ng	
6) Aniline	7.006	93	19305m	5.682	ng	
8) 2-Chlorophenol	7.205	128	19545	4.996	ng	98
9) Benzaldehyde	6.776	77	13162	5.944	ng	97
10) Phenol	6.976	94	24029	4.876	ng	98
11) bis(2-Chloroethyl)ether	7.029	93	19885m	4.875	ng	
12) 1,3-Dichlorobenzene	7.452	146	22962	5.377	ng	99
13) 1,4-Dichlorobenzene	7.599	146	22839	5.280	ng	97
14) 1,2-Dichlorobenzene	7.928	146	22755	5.359	ng	99
15) Benzyl Alcohol	7.910	79	11539	4.363	ng	97
16) 2,2'-oxybis(1-Chloropr...	8.069	45	25301	5.240	ng	98
17) 2-Methylphenol	8.151	107	14815	4.644	ng	99
18) Hexachloroethane	8.621	117	7655	5.240	ng	93
19) n-Nitroso-di-n-propyla...	8.363	70	14542	4.872	ng	98
20) 3+4-Methylphenols	8.498	107	20087	4.541	ng	95
22) Acetophenone	8.416	105	29818	5.100	ng	# 99
24) Nitrobenzene	8.815	77	20993	4.938	ng	96
25) Isophorone	9.268	82	38686	4.863	ng	100
26) 2-Nitrophenol	9.503	139	10295	4.550	ng	96
27) 2,4-Dimethylphenol	9.626	122	12624	4.822	ng	96
28) bis(2-Chloroethoxy)met...	9.767	93	24274	4.985	ng	99
29) 2,4-Dichlorophenol	10.067	162	17724	4.769	ng	100
30) 1,2,4-Trichlorobenzene	10.178	180	22223	5.357	ng	98
31) Naphthalene	10.378	128	69139	5.304	ng	99
33) 4-Chloroaniline	10.607	127	22048	4.810	ng	97
34) Hexachlorobutadiene	10.625	225	13478	5.271	ng	94
35) Caprolactam	11.389	113	6252m	4.587	ng	
36) 4-Chloro-3-methylphenol	11.788	107	18941	4.667	ng	99
37) 2-Methylnaphthalene	11.970	142	48048	5.190	ng	98
38) 1-Methylnaphthalene	12.199	142	48508	5.254	ng	98
40) 1,2,4,5-Tetrachloroben...	12.329	216	24636	5.175	ng	99
41) Hexachlorocyclopentadiene	12.305	237	4766	3.431	ng	98
43) 2,4,6-Trichlorophenol	12.652	196	16166	4.945	ng	94
44) 2,4,5-Trichlorophenol	12.758	196	17582	4.828	ng	97

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101494.D
 Acq On : 6 Nov 2024 14:27
 Operator : RC/JU
 Sample : SSTDICC005
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

SSTDICC005

Manual Integrations

APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
 Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 06 23:57:56 2024

Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Wed Nov 06 23:45:11 2024

Response via : Initial Calibration

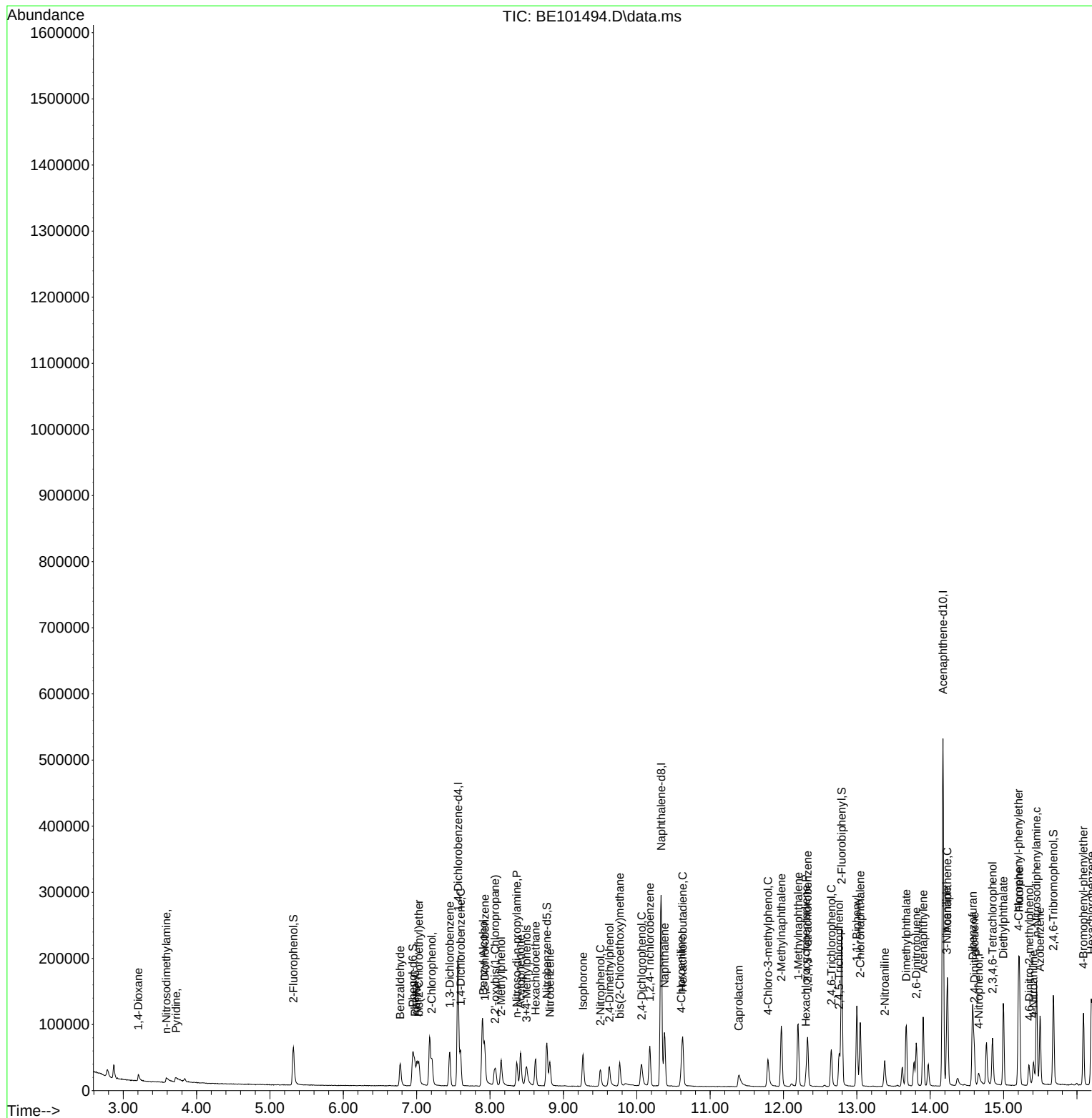
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) 1,1'-Biphenyl	12.999	154	65480	5.258	ng	98
47) 2-Chloronaphthalene	13.046	162	50727	5.164	ng	99
48) 2-Nitroaniline	13.380	65	11198	4.307	ng	98
49) Acenaphthylene	13.903	152	75121	5.132	ng	98
50) Dimethylphthalate	13.674	163	67715	5.267	ng	99
51) 2,6-Dinitrotoluene	13.809	165	14269	4.809	ng	99
52) Acenaphthene	14.232	154	50361	5.391	ng	97
53) 3-Nitroaniline	14.227	138	12712	4.413	ng	97
55) Dibenzofuran	14.579	168	81210	5.399	ng	98
56) 4-Nitrophenol	14.661	139	8908	3.745	ng	94
57) 2,4-Dinitrotoluene	14.603	165	19245	4.616	ng	99
58) Fluorene	15.214	166	67240	5.356	ng	96
59) 2,3,4,6-Tetrachlorophenol	14.849	232	17086	5.070	ng	97
60) Diethylphthalate	14.996	149	72206	5.326	ng	99
61) 4-Chlorophenyl-phenyle...	15.202	204	34173	5.361	ng	99
62) 4-Nitroaniline	15.407	138	12871	4.147	ng	98
63) Azobenzene	15.496	77	57916	5.237	ng	97
65) 4,6-Dinitro-2-methylph...	15.349	198	8886	3.536	ng	99
66) n-Nitrosodiphenylamine	15.449	169	58159	5.177	ng	98
67) 4-Bromophenyl-phenylether	16.089	248	23904	5.120	ng	97
68) Hexachlorobenzene	16.195	284	31869	5.186	ng	97
69) Atrazine	16.383	200	21418	6.457	ng	100
70) Pentachlorophenol	16.612	266	13649	4.094	ng	95
71) Phenanthrene	16.953	178	112923	5.484	ng	98
72) Anthracene	17.035	178	109043	5.363	ng	99
73) Carbazole	17.370	167	108967	5.344	ng	98
74) Di-n-butylphthalate	17.816	149	138845	5.514	ng	100
75) Fluoranthene	18.956	202	152583	5.780	ng	99
77) Benzidine	19.215	184	44276	3.622	ng	98
78) Pyrene	19.326	202	164135	5.277	ng	99
80) Butylbenzylphthalate	20.172	149	73897	5.286	ng	96
81) Benzo(a)anthracene	21.048	228	182321	5.615	ng	98
82) 3,3'-Dichlorobenzidine	21.024	252	63710	4.985	ng	96
83) Chrysene	21.107	228	172304	5.583	ng	96
84) Bis(2-ethylhexyl)phtha...	20.878	149	117153	5.543	ng	99
85) Di-n-octyl phthalate	21.724	149	206394	5.773	ng	99
87) Indeno(1,2,3-cd)pyrene	25.672	276	258737	5.383	ng	100
88) Benzo(b)fluoranthene	22.646	252	213339	5.559	ng	99
89) Benzo(k)fluoranthene	22.687	252	195634	5.616	ng	99
90) Benzo(a)pyrene	23.245	252	178972	5.402	ng	98
91) Dibenzo(a,h)anthracene	25.666	278	218633	5.461	ng	99
92) Benzo(g,h,i)perylene	26.418	276	216594	5.325	ng	99

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

Instrument :
BNA_E
ClientSampleId :
SSTDICC005

Manual Integrations APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
Supervised By :mohammad ahmed 11/08/2024



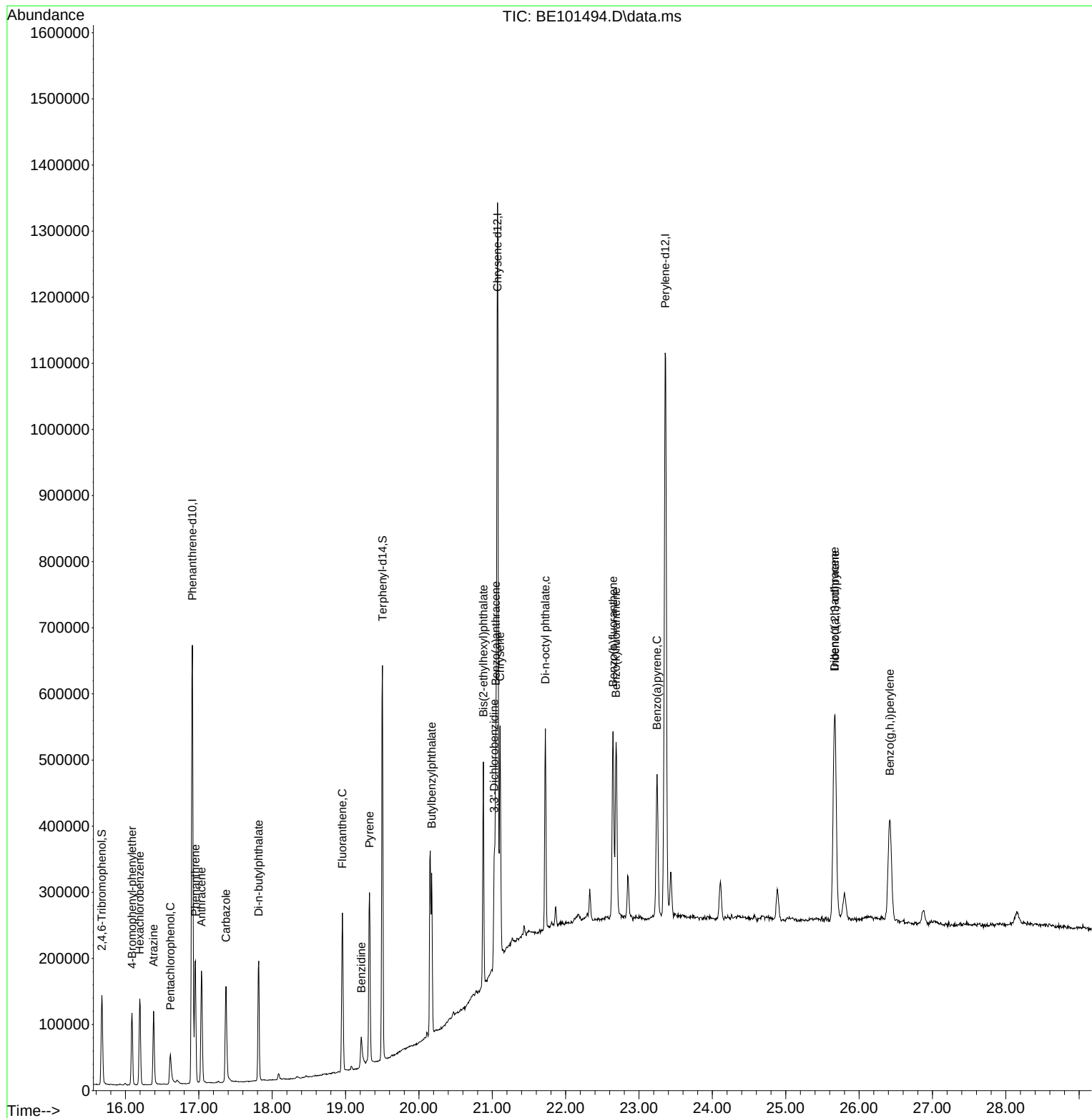
Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
Data File : BE101494.D
Acq On : 6 Nov 2024 14:27
Operator : RC/JU
Sample : SSTDICC005
Misc :
ALS Vial : 4 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
SSTDICC005

Quant Time: Nov 06 23:57:56 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 06 23:45:11 2024
Response via : Initial Calibration

Manual Integrations
APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
Supervised By :mohammad ahmed 11/08/2024



Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101495.D
 Acq On : 6 Nov 2024 15:03
 Operator : RC/JU
 Sample : SSTDICC010
 Misc :
 ALS Vial : 5 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

SSTDICC010

Manual Integrations

APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024

Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 06 23:49:02 2024

Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Wed Nov 06 23:45:11 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.564	152	57903	20.000	ng	0.00
21) Naphthalene-d8	10.331	136	265882	20.000	ng	0.00
39) Acenaphthene-d10	14.174	164	191874	20.000	ng	0.00
64) Phenanthrene-d10	16.912	188	462919	20.000	ng	0.00
76) Chrysene-d12	21.072	240	581190	20.000	ng	0.00
86) Perylene-d12	23.357	264	754679	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.319	112	65746	20.077	ng	0.00
7) Phenol-d6	6.947	99	88292	19.665	ng	0.00
23) Nitrobenzene-d5	8.774	82	84140	19.989	ng	0.00
42) 2,4,6-Tribromophenol	15.678	330	75025	20.780	ng	0.00
45) 2-Fluorobiphenyl	12.793	172	248407	21.139	ng	0.00
79) Terphenyl-d14	19.503	244	594535	22.644	ng	0.00
Target Compounds						
						Qvalue
2) 1,4-Dioxane	3.204	88	13252	10.874	ng	97
3) Pyridine	3.680	79	34238m	10.071	ng	
4) n-Nitrosodimethylamine	3.569	42	13462m	10.002	ng	
6) Aniline	7.000	93	36214	10.746	ng	98
8) 2-Chlorophenol	7.205	128	38871	10.019	ng	97
9) Benzaldehyde	6.771	77	26925	12.260	ng	96
10) Phenol	6.970	94	48699	9.964	ng	98
11) bis(2-Chloroethyl)ether	7.029	93	42663m	10.547	ng	
12) 1,3-Dichlorobenzene	7.446	146	44177	10.430	ng	98
13) 1,4-Dichlorobenzene	7.599	146	44669	10.412	ng	99
14) 1,2-Dichlorobenzene	7.922	146	43304	10.283	ng	99
15) Benzyl Alcohol	7.911	79	24919	9.501	ng	99
16) 2,2'-oxybis(1-Chloropr...	8.063	45	48928	10.216	ng	99
17) 2-Methylphenol	8.151	107	30129	9.522	ng	97
18) Hexachloroethane	8.616	117	14738	10.172	ng	100
19) n-Nitroso-di-n-propyla...	8.363	70	30120	10.174	ng	99
20) 3+4-Methylphenols	8.492	107	42944	9.788	ng	98
22) Acetophenone	8.416	105	61153	10.156	ng	# 100
24) Nitrobenzene	8.815	77	43756	9.994	ng	97
25) Isophorone	9.262	82	82283	10.045	ng	98
26) 2-Nitrophenol	9.503	139	22250	9.550	ng	99
27) 2,4-Dimethylphenol	9.620	122	26420	9.800	ng	99
28) bis(2-Chloroethoxy)met...	9.761	93	50896	10.150	ng	99
29) 2,4-Dichlorophenol	10.061	162	37045	9.680	ng	97
30) 1,2,4-Trichlorobenzene	10.178	180	43281	10.131	ng	100
31) Naphthalene	10.378	128	137286	10.228	ng	99
32) Benzoic acid	9.844	122	14914m	11.988	ng	
33) 4-Chloroaniline	10.607	127	48397	10.253	ng	99
34) Hexachlorobutadiene	10.625	225	26322	9.996	ng	99
35) Caprolactam	11.377	113	14195	10.113	ng	96
36) 4-Chloro-3-methylphenol	11.782	107	42227	10.104	ng	98
37) 2-Methylnaphthalene	11.970	142	97448	10.221	ng	99
38) 1-Methylnaphthalene	12.194	142	98102	10.318	ng	99
40) 1,2,4,5-Tetrachloroben...	12.329	216	49721	9.829	ng	99
41) Hexachlorocyclopentadiene	12.305	237	12302	8.333	ng	94
43) 2,4,6-Trichlorophenol	12.646	196	33805	9.730	ng	99

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101495.D
 Acq On : 6 Nov 2024 15:03
 Operator : RC/JU
 Sample : SSTDICC010
 Misc :
 ALS Vial : 5 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

SSTDICC010

Manual Integrations

APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
 Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 06 23:49:02 2024

Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Wed Nov 06 23:45:11 2024

Response via : Initial Calibration

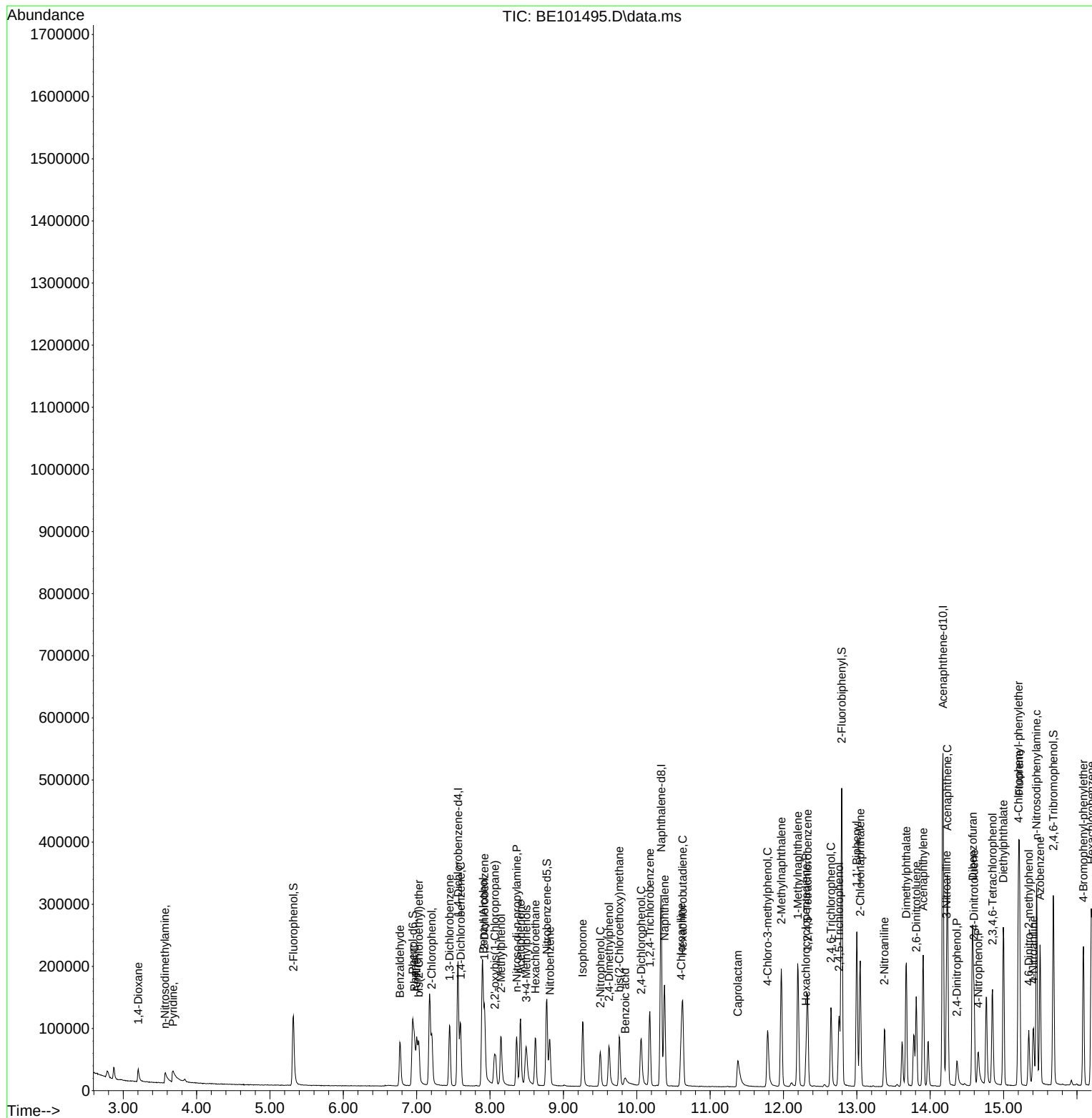
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	12.758	196	36598	9.456	ng	99
46) 1,1'-Biphenyl	12.999	154	135881	10.267	ng	99
47) 2-Chloronaphthalene	13.046	162	105886	10.143	ng	98
48) 2-Nitroaniline	13.375	65	26212	9.486	ng	94
49) Acenaphthylene	13.904	152	159301	10.240	ng	100
50) Dimethylphthalate	13.674	163	141845	10.381	ng	99
51) 2,6-Dinitrotoluene	13.810	165	31703	10.053	ng	98
52) Acenaphthene	14.233	154	103151	10.391	ng	99
53) 3-Nitroaniline	14.221	138	30678	10.021	ng	100
54) 2,4-Dinitrophenol	14.362	184	13356	7.227	ng	95
55) Dibenzofuran	14.579	168	166586	10.421	ng	98
56) 4-Nitrophenol	14.656	139	22580	8.932	ng	98
57) 2,4-Dinitrotoluene	14.597	165	43718	9.868	ng	95
58) Fluorene	15.214	166	141548	10.610	ng	100
59) 2,3,4,6-Tetrachlorophenol	14.849	232	35091	9.798	ng	99
60) Diethylphthalate	14.996	149	151484	10.515	ng	99
61) 4-Chlorophenyl-phenyle...	15.202	204	70641	10.427	ng	99
62) 4-Nitroaniline	15.408	138	32072	9.723	ng	99
63) Azobenzene	15.496	77	121761	10.360	ng	98
65) 4,6-Dinitro-2-methylph...	15.343	198	24157	8.791	ng	96
66) n-Nitrosodiphenylamine	15.449	169	123543	10.056	ng	99
67) 4-Bromophenyl-phenylether	16.089	248	50392	9.870	ng	98
68) Hexachlorobenzene	16.195	284	67099	9.986	ng	98
69) Atrazine	16.383	200	43317	11.943	ng	99
70) Pentachlorophenol	16.606	266	32157	8.820	ng	100
71) Phenanthrene	16.953	178	231521	10.283	ng	99
72) Anthracene	17.035	178	228097	10.259	ng	99
73) Carbazole	17.370	167	232212	10.414	ng	98
74) Di-n-butylphthalate	17.817	149	293685	10.666	ng	99
75) Fluoranthene	18.956	202	313161	10.848	ng	99
77) Benzidine	19.215	184	125704	9.672	ng	98
78) Pyrene	19.327	202	336444	10.174	ng	99
80) Butylbenzylphthalate	20.173	149	151678	10.206	ng	96
81) Benzo(a)anthracene	21.048	228	365483	10.588	ng	99
82) 3,3'-Dichlorobenzidine	21.025	252	137731	10.136	ng	99
83) Chrysene	21.107	228	353202	10.766	ng	98
84) Bis(2-ethylhexyl)phtha...	20.878	149	237030	10.550	ng	99
85) Di-n-octyl phthalate	21.724	149	415603	10.934	ng	100
87) Indeno(1,2,3-cd)pyrene	25.672	276	525995	10.142	ng	100
88) Benzo(b)fluoranthene	22.646	252	437004	10.554	ng	100
89) Benzo(k)fluoranthene	22.687	252	394215	10.488	ng	99
90) Benzo(a)pyrene	23.246	252	367555	10.282	ng	99
91) Dibenzo(a,h)anthracene	25.666	278	440981	10.210	ng	99
92) Benzo(g,h,i)perylene	26.418	276	439224	10.009	ng	98

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

Instrument :
BNA_E
ClientSampleId :
SSTDICC010

Manual Integrations APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
Supervised By :mohammad ahmed 11/08/2024



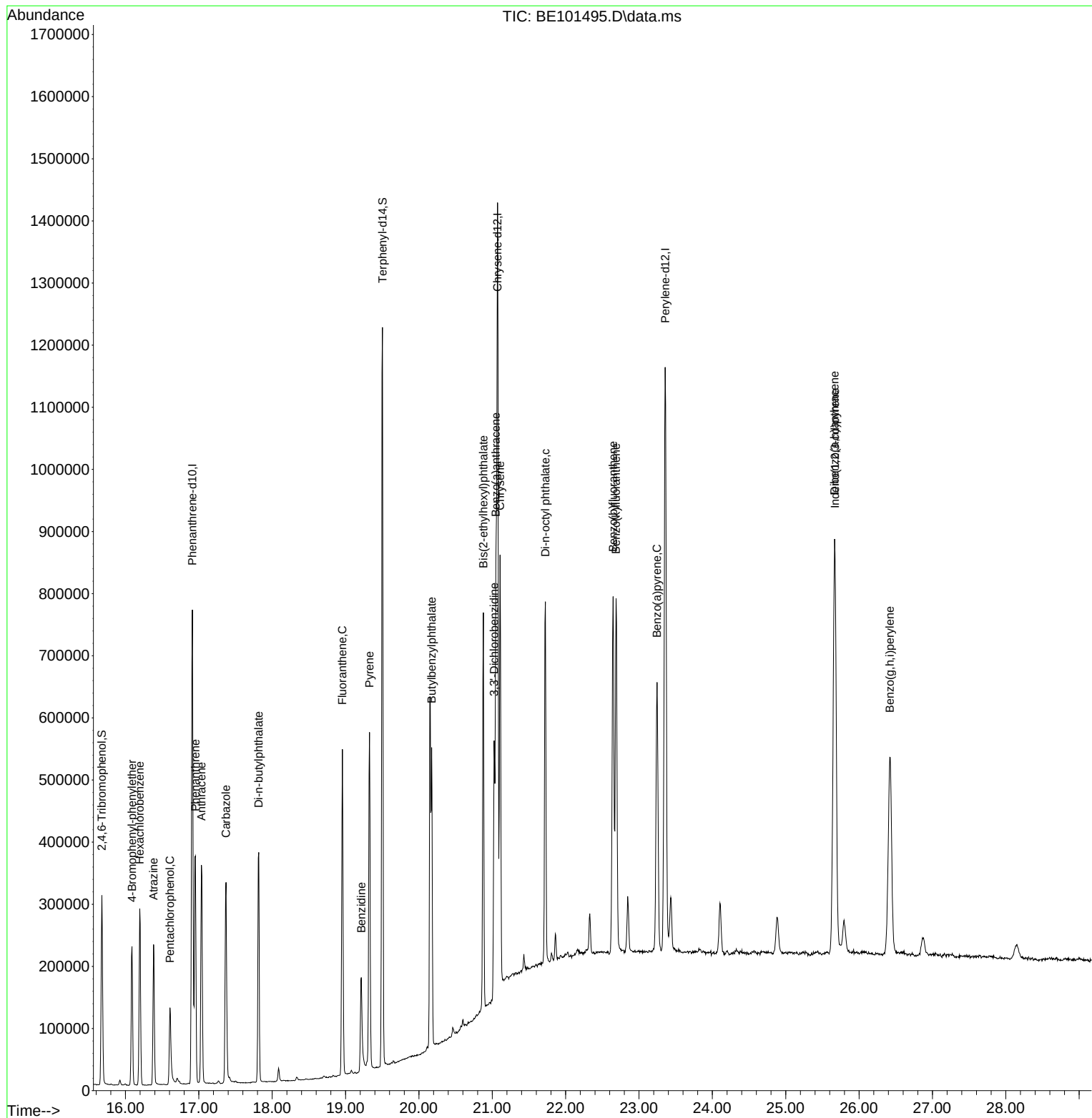
Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
Data File : BE101495.D
Acq On : 6 Nov 2024 15:03
Operator : RC/JU
Sample : SSTDICC010
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
SSTDICC010

Manual Integrations
APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 06 23:49:02 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 06 23:45:11 2024
Response via : Initial Calibration



Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101496.D
 Acq On : 6 Nov 2024 15:39
 Operator : RC/JU
 Sample : SSTDICC020
 Misc :
 ALS Vial : 6 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

SSTDICC020

Manual Integrations

APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024

Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 06 23:50:38 2024

Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Wed Nov 06 23:45:11 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.563	152	62157	20.000	ng	0.00
21) Naphthalene-d8	10.331	136	288909	20.000	ng	0.00
39) Acenaphthene-d10	14.173	164	204232	20.000	ng	0.00
64) Phenanthrene-d10	16.911	188	478096	20.000	ng	0.00
76) Chrysene-d12	21.071	240	559370	20.000	ng	0.00
86) Perylene-d12	23.357	264	714238	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.313	112	139200	39.598	ng	0.00
7) Phenol-d6	6.947	99	193657	40.180	ng	0.00
23) Nitrobenzene-d5	8.768	82	183862	40.198	ng	0.00
42) 2,4,6-Tribromophenol	15.678	330	159627	41.537	ng	0.00
45) 2-Fluorobiphenyl	12.793	172	530710	42.429	ng	0.00
79) Terphenyl-d14	19.502	244	1149756	45.499	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	3.198	88	27229	20.814	ng	97
3) Pyridine	3.639	79	71059m	19.470	ng	
4) n-Nitrosodimethylamine	3.551	42	27721	19.186	ng	93
6) Aniline	6.999	93	81808	22.615	ng	98
8) 2-Chlorophenol	7.205	128	84488	20.286	ng	98
9) Benzaldehyde	6.770	77	54398	23.073	ng	100
10) Phenol	6.970	94	105803	20.167	ng	100
11) bis(2-Chloroethyl)ether	7.029	93	86535m	19.928	ng	
12) 1,3-Dichlorobenzene	7.446	146	92668	20.381	ng	99
13) 1,4-Dichlorobenzene	7.599	146	93750	20.357	ng	98
14) 1,2-Dichlorobenzene	7.928	146	92070	20.367	ng	99
15) Benzyl Alcohol	7.904	79	56585	20.098	ng	99
16) 2,2'-oxybis(1-Chloropr...	8.069	45	105656	20.551	ng	99
17) 2-Methylphenol	8.145	107	66717	19.642	ng	100
18) Hexachloroethane	8.615	117	31540	20.280	ng	99
19) n-Nitroso-di-n-propyla...	8.363	70	65778	20.698	ng	96
20) 3+4-Methylphenols	8.492	107	95041	20.180	ng	97
22) Acetophenone	8.415	105	133156	20.351	ng	99
24) Nitrobenzene	8.815	77	95424	20.058	ng	100
25) Isophorone	9.261	82	182448	20.497	ng	99
26) 2-Nitrophenol	9.502	139	50585	19.981	ng	99
27) 2,4-Dimethylphenol	9.620	122	58909	20.110	ng	96
28) bis(2-Chloroethoxy)met...	9.761	93	111395	20.444	ng	98
29) 2,4-Dichlorophenol	10.055	162	83380	20.050	ng	98
30) 1,2,4-Trichlorobenzene	10.178	180	93377	20.114	ng	98
31) Naphthalene	10.378	128	296678	20.341	ng	100
32) Benzoic acid	9.861	122	39574	19.298	ng	97
33) 4-Chloroaniline	10.601	127	107079	20.877	ng	98
34) Hexachlorobutadiene	10.625	225	58370	20.400	ng	98
35) Caprolactam	11.377	113	31049	20.357	ng	97
36) 4-Chloro-3-methylphenol	11.782	107	91230	20.090	ng	98
37) 2-Methylnaphthalene	11.970	142	211769	20.442	ng	100
38) 1-Methylnaphthalene	12.193	142	212055	20.526	ng	99
40) 1,2,4,5-Tetrachloroben...	12.328	216	109331	20.305	ng	99
41) Hexachlorocyclopentadiene	12.305	237	31257	19.892	ng	97
43) 2,4,6-Trichlorophenol	12.646	196	73612	19.906	ng	99

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101496.D
 Acq On : 6 Nov 2024 15:39
 Operator : RC/JU
 Sample : SSTDICC020
 Misc :
 ALS Vial : 6 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

SSTDICC020

Manual Integrations

APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
 Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 06 23:50:38 2024

Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Wed Nov 06 23:45:11 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	12.752	196	82078	19.923	ng	98
46) 1,1'-Biphenyl	12.998	154	290783	20.641	ng	98
47) 2-Chloronaphthalene	13.045	162	227654	20.488	ng	98
48) 2-Nitroaniline	13.374	65	59673	20.289	ng	95
49) Acenaphthylene	13.903	152	339324	20.493	ng	99
50) Dimethylphthalate	13.674	163	301910	20.759	ng	100
51) 2,6-Dinitrotoluene	13.815	165	68614	20.441	ng	97
52) Acenaphthene	14.238	154	220601	20.878	ng	100
53) 3-Nitroaniline	14.220	138	68336	20.970	ng	100
54) 2,4-Dinitrophenol	14.361	184	36342	18.475	ng	99
55) Dibenzofuran	14.579	168	352138	20.695	ng	99
56) 4-Nitrophenol	14.649	139	56819	21.116	ng	97
57) 2,4-Dinitrotoluene	14.596	165	98001	20.782	ng	99
58) Fluorene	15.213	166	297824	20.973	ng	100
59) 2,3,4,6-Tetrachlorophenol	14.849	232	77085	20.221	ng	98
60) Diethylphthalate	15.002	149	322160	21.009	ng	99
61) 4-Chlorophenyl-phenyle...	15.202	204	149620	20.749	ng	99
62) 4-Nitroaniline	15.407	138	73381	20.901	ng	99
63) Azobenzene	15.495	77	263292	21.046	ng	98
65) 4,6-Dinitro-2-methylph...	15.343	198	56173	19.793	ng	96
66) n-Nitrosodiphenylamine	15.448	169	260701	20.547	ng	100
67) 4-Bromophenyl-phenylether	16.089	248	105846	20.073	ng	99
68) Hexachlorobenzene	16.195	284	140892	20.302	ng	98
69) Atrazine	16.383	200	72153	19.262	ng	98
70) Pentachlorophenol	16.606	266	74047	19.665	ng	98
71) Phenanthrene	16.952	178	485572	20.882	ng	98
72) Anthracene	17.035	178	476989	20.772	ng	99
73) Carbazole	17.370	167	478446	20.777	ng	99
74) Di-n-butylphthalate	17.816	149	602646	21.192	ng	99
75) Fluoranthene	18.956	202	629084	21.100	ng	100
77) Benzidine	19.215	184	139825	11.179	ng	99
78) Pyrene	19.326	202	670466	21.066	ng	99
80) Butylbenzylphthalate	20.172	149	296909	20.758	ng	97
81) Benzo(a)anthracene	21.054	228	703560	21.178	ng	99
82) 3,3'-Dichlorobenzidine	21.024	252	268532	20.534	ng	99
83) Chrysene	21.106	228	675186	21.382	ng	98
84) Bis(2-ethylhexyl)phtha...	20.877	149	460007	21.272	ng	99
85) Di-n-octyl phthalate	21.723	149	773873	21.154	ng	100
87) Indeno(1,2,3-cd)pyrene	25.678	276	1007609	20.529	ng	100
88) Benzo(b)fluoranthene	22.646	252	790994	20.186	ng	100
89) Benzo(k)fluoranthene	22.693	252	771144	21.678	ng	99
90) Benzo(a)pyrene	23.251	252	697499	20.617	ng	98
91) Dibenzo(a,h)anthracene	25.672	278	849560	20.783	ng	99
92) Benzo(g,h,i)perylene	26.430	276	844229	20.329	ng	99

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

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101496.D
 Acq On : 6 Nov 2024 15:39
 Operator : RC/JU
 Sample : SSTDICC020
 Misc :
 ALS Vial : 6 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

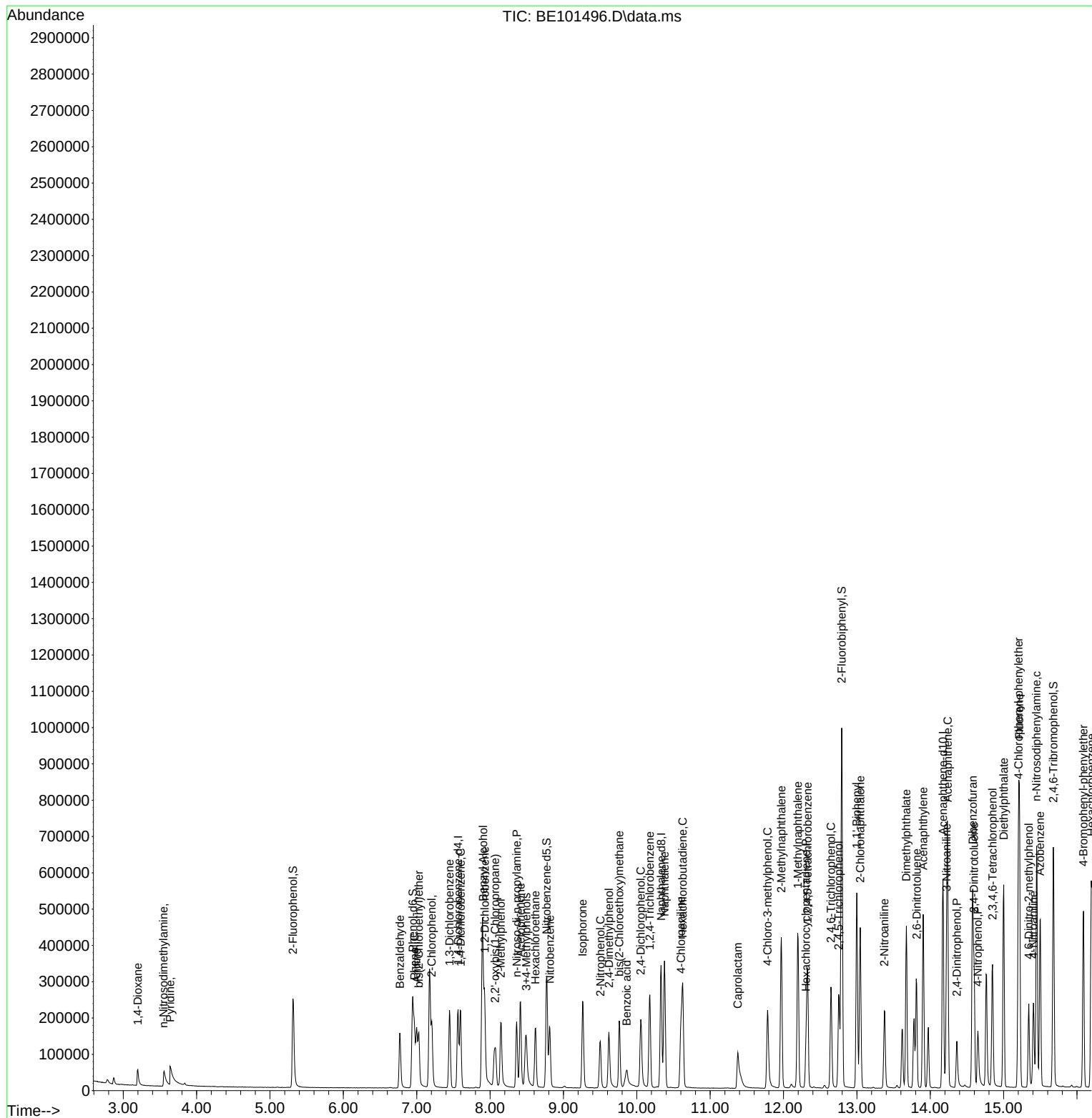
SSTDICC020

Manual Integrations

APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
 Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 06 23:50:38 2024
 Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Wed Nov 06 23:45:11 2024
 Response via : Initial Calibration



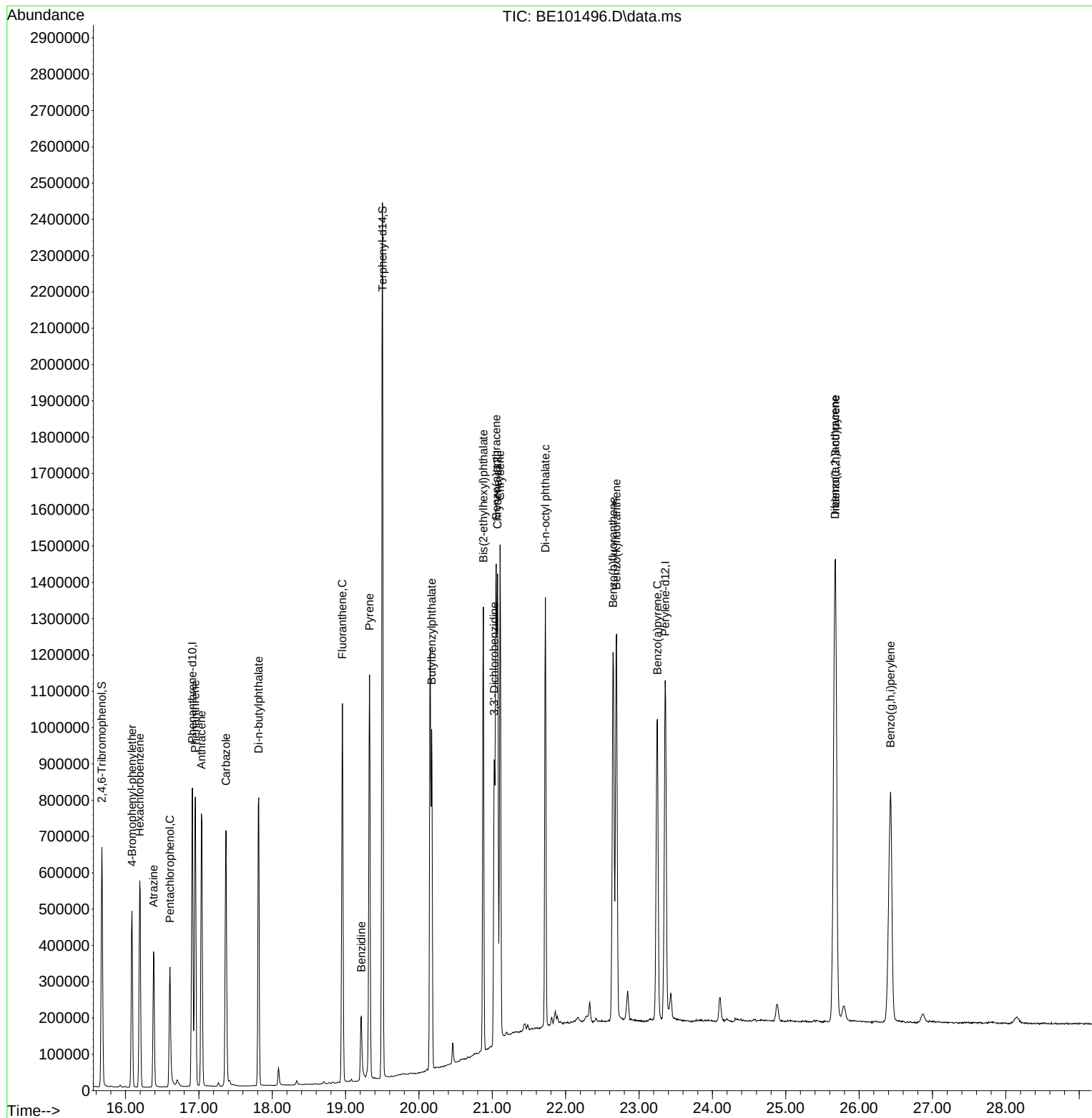
Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
Data File : BE101496.D
Acq On : 6 Nov 2024 15:39
Operator : RC/JU
Sample : SSTDICC020
Misc :
ALS Vial : 6 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
SSTDICC020

Manual Integrations
APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 06 23:50:38 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 06 23:45:11 2024
Response via : Initial Calibration



Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101497.D
 Acq On : 6 Nov 2024 16:14
 Operator : RC/JU
 Sample : SSTDICCC040
 Misc :
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 BNA_E
 ClientSampleId :
 SSTDICCC040

Manual Integrations
 APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
 Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 06 23:52:01 2024
 Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Wed Nov 06 23:45:11 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.563	152	65428	20.000	ng	0.00
21) Naphthalene-d8	10.331	136	303330	20.000	ng	0.00
39) Acenaphthene-d10	14.173	164	215457	20.000	ng	0.00
64) Phenanthrene-d10	16.911	188	491742	20.000	ng	0.00
76) Chrysene-d12	21.077	240	550275	20.000	ng	0.00
86) Perylene-d12	23.357	264	716867	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.313	112	288128	77.866	ng	0.00
7) Phenol-d6	6.946	99	403056	79.445	ng	0.00
23) Nitrobenzene-d5	8.774	82	379149	78.953	ng	0.00
42) 2,4,6-Tribromophenol	15.683	330	317793	78.385	ng	0.00
45) 2-Fluorobiphenyl	12.798	172	1037900	78.655	ng	0.00
79) Terphenyl-d14	19.502	244	1985767	79.880	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	3.192	88	53100	38.561	ng	100
3) Pyridine	3.621	79	151009m	39.308	ng	
4) n-Nitrosodimethylamine	3.544	42	58296	38.331	ng	100
6) Aniline	6.999	93	179040	47.019	ng	100
8) 2-Chlorophenol	7.205	128	172237	39.288	ng	100
9) Benzaldehyde	6.770	77	100349	40.436	ng	100
10) Phenol	6.970	94	217743	39.429	ng	100
11) bis(2-Chloroethyl)ether	7.029	93	152468	33.357	ng	100
12) 1,3-Dichlorobenzene	7.452	146	186373	38.941	ng	100
13) 1,4-Dichlorobenzene	7.599	146	188950	38.978	ng	100
14) 1,2-Dichlorobenzene	7.928	146	185524	38.988	ng	100
15) Benzyl Alcohol	7.898	79	120198	40.558	ng	100
16) 2,2'-oxybis(1-Chloropr...	8.069	45	213049	39.369	ng	100
17) 2-Methylphenol	8.151	107	145652	40.738	ng	100
18) Hexachloroethane	8.615	117	63329	38.684	ng	100
19) n-Nitroso-di-n-propyla...	8.362	70	134354	40.163	ng	100
20) 3+4-Methylphenols	8.486	107	199485	40.239	ng	100
22) Acetophenone	8.415	105	268772	39.126	ng	# 100
24) Nitrobenzene	8.815	77	196271	39.295	ng	100
25) Isophorone	9.267	82	370532	39.648	ng	100
26) 2-Nitrophenol	9.502	139	105465	39.677	ng	100
27) 2,4-Dimethylphenol	9.620	122	119996	39.015	ng	100
28) bis(2-Chloroethoxy)met...	9.761	93	224782	39.293	ng	100
29) 2,4-Dichlorophenol	10.054	162	171951	39.383	ng	100
30) 1,2,4-Trichlorobenzene	10.178	180	188477	38.669	ng	100
31) Naphthalene	10.378	128	596239	38.936	ng	100
32) Benzoic acid	9.896	122	100608	36.895	ng	100
33) 4-Chloroaniline	10.601	127	217302	40.353	ng	100
34) Hexachlorobutadiene	10.624	225	116475	38.771	ng	100
35) Caprolactam	11.394	113	64814m	40.475	ng	
36) 4-Chloro-3-methylphenol	11.788	107	189183	39.679	ng	100
37) 2-Methylnaphthalene	11.970	142	428221	39.371	ng	100
38) 1-Methylnaphthalene	12.199	142	422238	38.928	ng	100
40) 1,2,4,5-Tetrachloroben...	12.328	216	220907	38.889	ng	100
41) Hexachlorocyclopentadiene	12.311	237	71897	43.372	ng	100
43) 2,4,6-Trichlorophenol	12.646	196	154090	39.498	ng	100

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101497.D
 Acq On : 6 Nov 2024 16:14
 Operator : RC/JU
 Sample : SSTDICCC040
 Misc :
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 BNA_E
 ClientSampleId :
 SSTDICCC040

Manual Integrations
 APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
 Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 06 23:52:01 2024
 Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Wed Nov 06 23:45:11 2024
 Response via : Initial Calibration

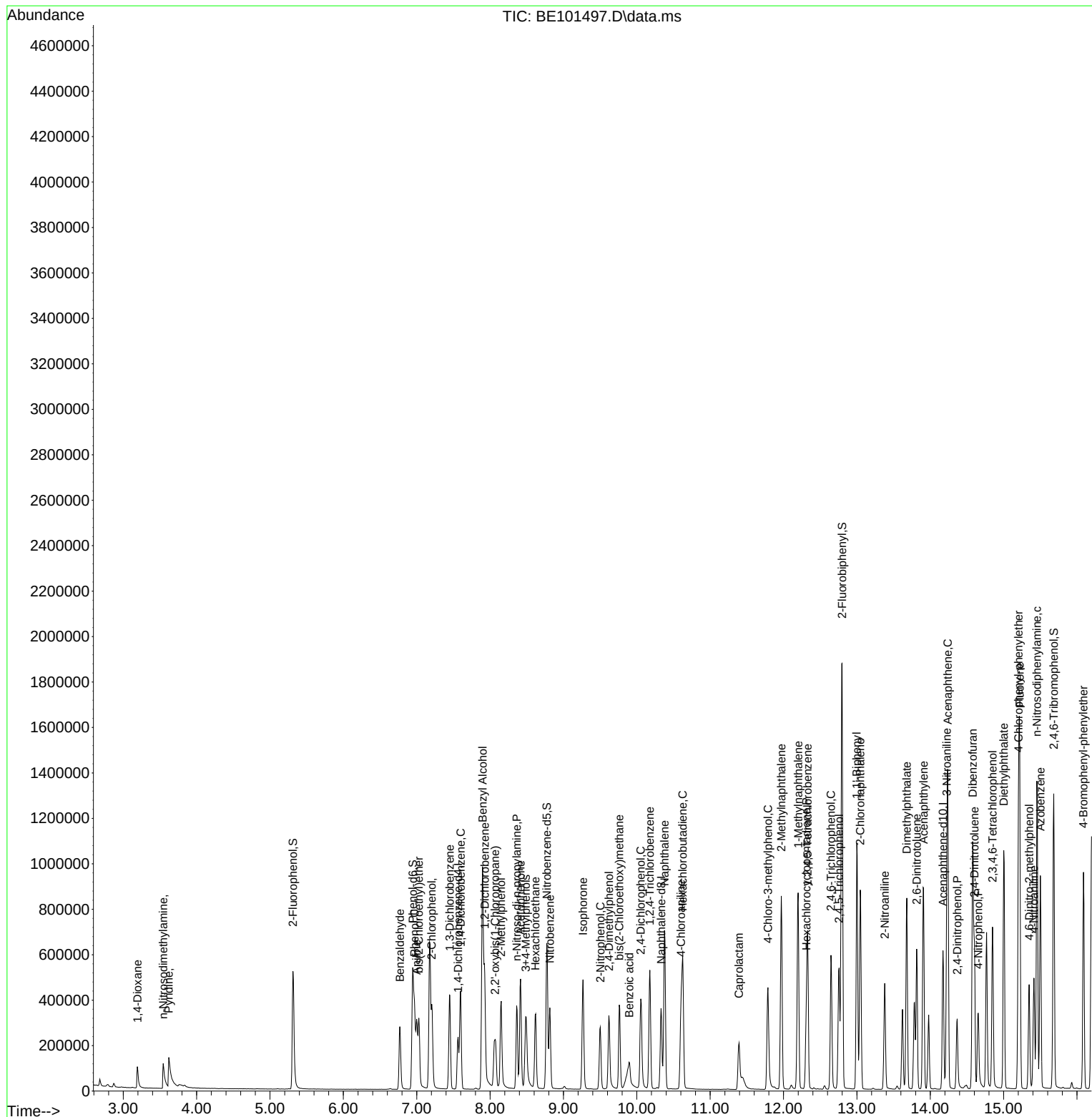
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	12.757	196	172581	39.708	ng	100
46) 1,1'-Biphenyl	12.998	154	575666	38.734	ng	100
47) 2-Chloronaphthalene	13.045	162	456557	38.949	ng	100
48) 2-Nitroaniline	13.380	65	124293	40.058	ng	100
49) Acenaphthylene	13.909	152	682392	39.065	ng	100
50) Dimethylphthalate	13.680	163	598488	39.008	ng	100
51) 2,6-Dinitrotoluene	13.815	165	139657	39.438	ng	100
52) Acenaphthene	14.238	154	434094	38.942	ng	100
53) 3-Nitroaniline	14.226	138	141201	41.073	ng	100
54) 2,4-Dinitrophenol	14.367	184	83465	40.220	ng	100
55) Dibenzofuran	14.579	168	696090	38.778	ng	100
56) 4-Nitrophenol	14.655	139	118316	41.679	ng	100
57) 2,4-Dinitrotoluene	14.602	165	198240	39.848	ng	100
58) Fluorene	15.219	166	587456	39.214	ng	100
59) 2,3,4,6-Tetrachlorophenol	14.849	232	158904	39.512	ng	100
60) Diethylphthalate	15.002	149	627861	38.811	ng	100
61) 4-Chlorophenyl-phenyle...	15.201	204	296844	39.021	ng	100
62) 4-Nitroaniline	15.413	138	150324	40.586	ng	100
63) Azobenzene	15.501	77	515255	39.041	ng	100
65) 4,6-Dinitro-2-methylph...	15.348	198	120802	41.385	ng	100
66) n-Nitrosodiphenylamine	15.454	169	510599	39.126	ng	100
67) 4-Bromophenyl-phenylether	16.089	248	210746	38.857	ng	100
68) Hexachlorobenzene	16.200	284	277335	38.854	ng	100
69) Atrazine	16.388	200	167968	43.596	ng	100
70) Pentachlorophenol	16.606	266	158859	41.018	ng	100
71) Phenanthrene	16.952	178	926504	38.739	ng	100
72) Anthracene	17.040	178	927250	39.259	ng	100
73) Carbazole	17.369	167	924273	39.023	ng	100
74) Di-n-butylphthalate	17.816	149	1150388	39.330	ng	100
75) Fluoranthene	18.956	202	1188222	38.749	ng	100
77) Benzidine	19.214	184	443099	36.010	ng	100
78) Pyrene	19.326	202	1243784	39.725	ng	100
80) Butylbenzylphthalate	20.178	149	557747	39.639	ng	100
81) Benzo(a)anthracene	21.053	228	1287315	39.390	ng	100
82) 3,3'-Dichlorobenzidine	21.030	252	516633	40.158	ng	100
83) Chrysene	21.112	228	1228522	39.549	ng	100
84) Bis(2-ethylhexyl)phtha...	20.877	149	836274	39.312	ng	100
85) Di-n-octyl phthalate	21.723	149	1413042	39.264	ng	100
87) Indeno(1,2,3-cd)pyrene	25.695	276	1931431	39.206	ng	100
88) Benzo(b)fluoranthene	22.651	252	1513421	38.480	ng	100
89) Benzo(k)fluoranthene	22.698	252	1401039	39.241	ng	100
90) Benzo(a)pyrene	23.251	252	1326960	39.080	ng	100
91) Dibenzo(a,h)anthracene	25.683	278	1617066	39.414	ng	100
92) Benzo(g,h,i)perylene	26.441	276	1624063	38.963	ng	100

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

Instrument :
BNA_E
ClientSampleId :
SSTDICCC040

Manual Integrations APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
Supervised By :mohammad ahmed 11/08/2024



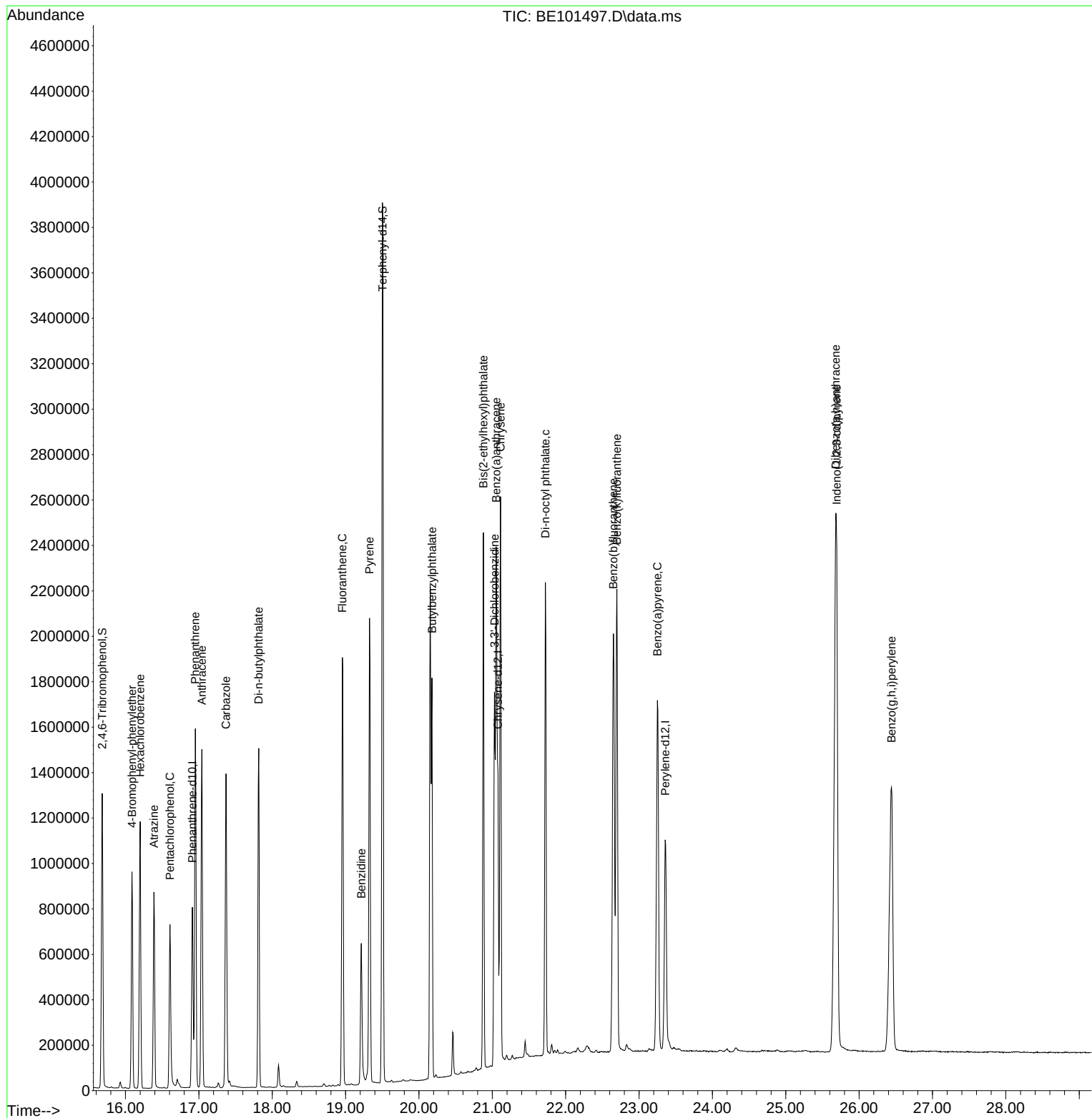
Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
Data File : BE101497.D
Acq On : 6 Nov 2024 16:14
Operator : RC/JU
Sample : SSTDICCC040
Misc :
ALS Vial : 7 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
SSTDICCC040

Manual Integrations
APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 06 23:52:01 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 06 23:45:11 2024
Response via : Initial Calibration



Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101498.D
 Acq On : 6 Nov 2024 16:50
 Operator : RC/JU
 Sample : SSTDICC050
 Misc :
 ALS Vial : 8 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

SSTDICC050

Manual Integrations

APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
 Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 06 23:53:13 2024

Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Wed Nov 06 23:45:11 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.561	152	91095	20.000	ng	0.00
21) Naphthalene-d8	10.334	136	420546	20.000	ng	0.00
39) Acenaphthene-d10	14.177	164	294714	20.000	ng	0.00
64) Phenanthrene-d10	16.915	188	651829	20.000	ng	0.00
76) Chrysene-d12	21.075	240	698124	20.000	ng	0.00
86) Perylene-d12	23.360	264	907393	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.317	112	507391	98.486	ng	0.00
7) Phenol-d6	6.950	99	715571	101.303	ng	0.00
23) Nitrobenzene-d5	8.777	82	669237	100.518	ng	0.00
42) 2,4,6-Tribromophenol	15.687	330	535740	96.606	ng	0.00
45) 2-Fluorobiphenyl	12.802	172	1709745	94.725	ng	0.00
79) Terphenyl-d14	19.506	244	2857301	90.597	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	3.190	88	86138	44.928	ng	99
3) Pyridine	3.613	79	271363m	50.734	ng	
4) n-Nitrosodimethylamine	3.537	42	104883	49.532	ng	97
6) Aniline	7.003	93	233770	44.094	ng	100
8) 2-Chlorophenol	7.209	128	304216	49.841	ng	99
9) Benzaldehyde	6.768	77	149018	43.128	ng	98
10) Phenol	6.974	94	389135	50.610	ng	99
11) bis(2-Chloroethyl)ether	7.032	93	329221	51.732	ng	98
12) 1,3-Dichlorobenzene	7.450	146	321129	48.192	ng	99
13) 1,4-Dichlorobenzene	7.596	146	327207	48.480	ng	99
14) 1,2-Dichlorobenzene	7.926	146	322412	48.664	ng	99
15) Benzyl Alcohol	7.902	79	218205	52.883	ng	98
16) 2,2'-oxybis(1-Chloropr...	8.072	45	369966	49.103	ng	99
17) 2-Methylphenol	8.155	107	255685	51.364	ng	98
18) Hexachloroethane	8.619	117	112465	49.341	ng	98
19) n-Nitroso-di-n-propyla...	8.372	70	238326	51.171	ng	99
20) 3+4-Methylphenols	8.490	107	354774	51.400	ng	99
22) Acetophenone	8.419	105	469557	49.302	ng	# 99
24) Nitrobenzene	8.819	77	345554	49.900	ng	100
25) Isophorone	9.271	82	649442	50.124	ng	100
26) 2-Nitrophenol	9.500	139	190923	51.807	ng	99
27) 2,4-Dimethylphenol	9.624	122	215719	50.589	ng	99
28) bis(2-Chloroethoxy)met...	9.765	93	394162	49.697	ng	100
29) 2,4-Dichlorophenol	10.058	162	308633	50.986	ng	99
30) 1,2,4-Trichlorobenzene	10.176	180	328828	48.661	ng	99
31) Naphthalene	10.381	128	1033552	48.682	ng	100
32) Benzoic acid	9.935	122	200828	50.078	ng	99
33) 4-Chloroaniline	10.611	127	374148	50.114	ng	98
34) Hexachlorobutadiene	10.628	225	205479	49.334	ng	98
35) Caprolactam	11.421	113	111070m	50.028	ng	
36) 4-Chloro-3-methylphenol	11.792	107	334516	50.606	ng	99
37) 2-Methylnaphthalene	11.974	142	741321	49.161	ng	98
38) 1-Methylnaphthalene	12.197	142	733235	48.758	ng	99
40) 1,2,4,5-Tetrachloroben...	12.332	216	382507	49.228	ng	100
41) Hexachlorocyclopentadiene	12.309	237	128897	56.847	ng	98
43) 2,4,6-Trichlorophenol	12.649	196	265972	49.842	ng	99

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101498.D
 Acq On : 6 Nov 2024 16:50
 Operator : RC/JU
 Sample : SSTDICC050
 Misc :
 ALS Vial : 8 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

SSTDICC050

Manual Integrations

APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
 Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 06 23:53:13 2024

Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Wed Nov 06 23:45:11 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	12.755	196	302473	50.879	ng	98
46) 1,1'-Biphenyl	13.002	154	990577	48.727	ng	99
47) 2-Chloronaphthalene	13.049	162	784561	48.931	ng	99
48) 2-Nitroaniline	13.384	65	220977	52.065	ng	99
49) Acenaphthylene	13.907	152	1168645	48.909	ng	99
50) Dimethylphthalate	13.689	163	1007892	48.026	ng	99
51) 2,6-Dinitrotoluene	13.824	165	241242	49.804	ng	98
52) Acenaphthene	14.242	154	733889	48.131	ng	100
53) 3-Nitroaniline	14.230	138	238076	50.629	ng	97
54) 2,4-Dinitrophenol	14.371	184	153156	53.956	ng	98
55) Dibenzofuran	14.582	168	1172466	47.751	ng	98
56) 4-Nitrophenol	14.659	139	201601	51.919	ng	98
57) 2,4-Dinitrotoluene	14.606	165	340766	50.076	ng	99
58) Fluorene	15.223	166	978319	47.743	ng	99
59) 2,3,4,6-Tetrachlorophenol	14.853	232	272447	49.527	ng	99
60) Diethylphthalate	15.011	149	1062117	47.998	ng	99
61) 4-Chlorophenyl-phenyle...	15.205	204	500724	48.121	ng	99
62) 4-Nitroaniline	15.423	138	261365	51.589	ng	99
63) Azobenzene	15.505	77	871780	48.291	ng	99
65) 4,6-Dinitro-2-methylph...	15.352	198	214210	55.361	ng	99
66) n-Nitrosodiphenylamine	15.464	169	857158	49.551	ng	99
67) 4-Bromophenyl-phenylether	16.092	248	359667	50.029	ng	98
68) Hexachlorobenzene	16.204	284	468408	49.506	ng	99
69) Atrazine	16.392	200	197336	38.639	ng	99
70) Pentachlorophenol	16.609	266	272040	52.991	ng	99
71) Phenanthrene	16.956	178	1526029	48.135	ng	100
72) Anthracene	17.044	178	1518459	48.501	ng	99
73) Carbazole	17.373	167	1504975	47.935	ng	98
74) Di-n-butylphthalate	17.820	149	1837620	47.396	ng	99
75) Fluoranthene	18.960	202	1885849	46.395	ng	99
77) Benzidine	19.224	184	1144629	73.321	ng	100
78) Pyrene	19.330	202	1962930	49.416	ng	98
80) Butylbenzylphthalate	20.176	149	873276	48.920	ng	98
81) Benzo(a)anthracene	21.057	228	1985312	47.883	ng	98
82) 3,3'-Dichlorobenzidine	21.034	252	833578	51.072	ng	99
83) Chrysene	21.116	228	1875257	47.584	ng	99
84) Bis(2-ethylhexyl)phtha...	20.881	149	1287632	47.710	ng	# 97
85) Di-n-octyl phthalate	21.727	149	2140362	46.878	ng	100
87) Indeno(1,2,3-cd)pyrene	25.711	276	3044286	48.821	ng	100
88) Benzo(b)fluoranthene	22.655	252	2388668	47.982	ng	99
89) Benzo(k)fluoranthene	22.702	252	2191941	48.502	ng	99
90) Benzo(a)pyrene	23.260	252	2093708	48.714	ng	99
91) Dibenzo(a,h)anthracene	25.699	278	2519176	48.510	ng	100
92) Benzo(g,h,i)perylene	26.457	276	2604721	49.369	ng	100

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

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101498.D
 Acq On : 6 Nov 2024 16:50
 Operator : RC/JU
 Sample : SSTDICC050
 Misc :
 ALS Vial : 8 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

SSTDICC050

Manual Integrations

APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
 Supervised By :mohammad ahmed 11/08/2024

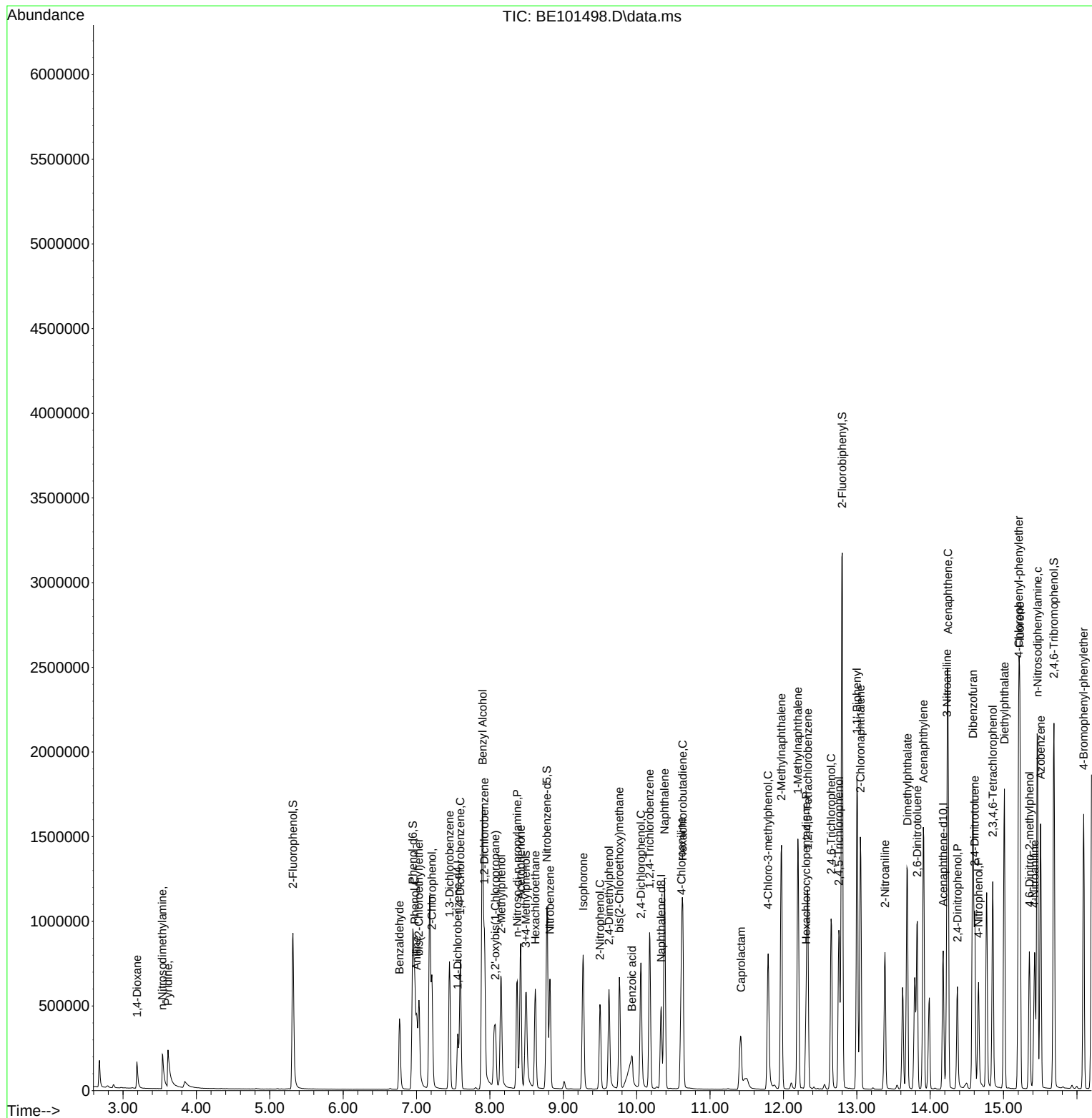
Quant Time: Nov 06 23:53:13 2024

Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Wed Nov 06 23:45:11 2024

Response via : Initial Calibration



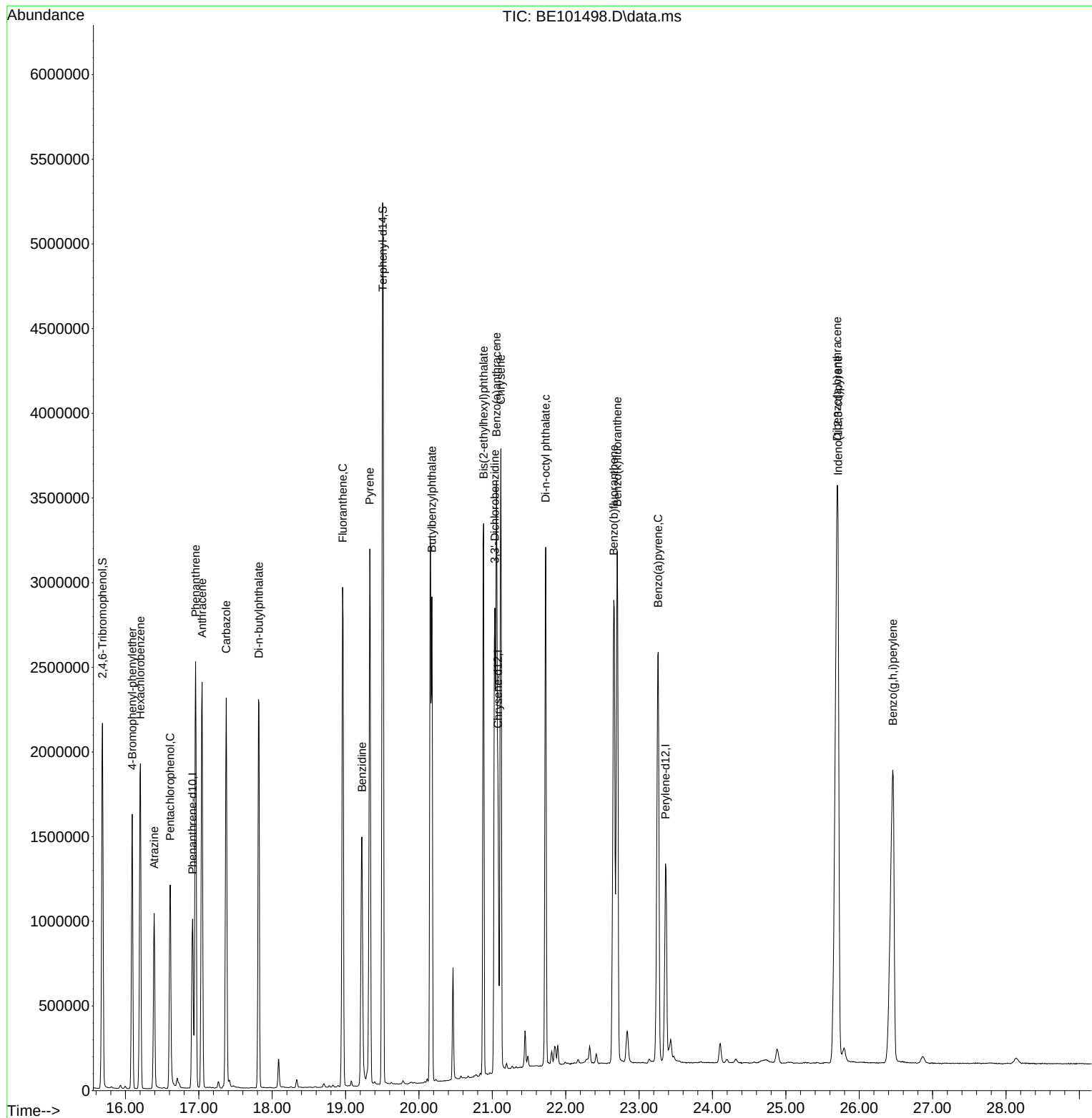
Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
Data File : BE101498.D
Acq On : 6 Nov 2024 16:50
Operator : RC/JU
Sample : SSTDICC050
Misc :
ALS Vial : 8 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
SSTDICC050

Quant Time: Nov 06 23:53:13 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 06 23:45:11 2024
Response via : Initial Calibration

Manual Integrations
APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
Supervised By :mohammad ahmed 11/08/2024



Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101499.D
 Acq On : 6 Nov 2024 17:26
 Operator : RC/JU
 Sample : SSTDICC060
 Misc :
 ALS Vial : 9 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

SSTDICC060

Manual Integrations

APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
 Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 06 23:54:29 2024

Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Wed Nov 06 23:45:11 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.565	152	90839	20.000	ng	0.00
21) Naphthalene-d8	10.332	136	415661	20.000	ng	0.00
39) Acenaphthene-d10	14.175	164	288453	20.000	ng	0.00
64) Phenanthrene-d10	16.913	188	643327	20.000	ng	0.00
76) Chrysene-d12	21.079	240	691975	20.000	ng	0.00
86) Perylene-d12	23.364	264	897873	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.315	112	631877	122.995	ng	0.00
7) Phenol-d6	6.954	99	881551	125.152	ng	0.00
23) Nitrobenzene-d5	8.781	82	811523	123.321	ng	0.00
42) 2,4,6-Tribromophenol	15.691	330	649405	119.644	ng	0.00
45) 2-Fluorobiphenyl	12.800	172	2012001	113.890	ng	0.00
79) Terphenyl-d14	19.510	244	3240402	103.657	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	3.194	88	107275	56.111	ng	99
3) Pyridine	3.611	79	335162m	62.839	ng	
4) n-Nitrosodimethylamine	3.540	42	128959	61.073	ng	98
6) Aniline	7.001	93	284519	53.818	ng	95
8) 2-Chlorophenol	7.213	128	371716	61.071	ng	100
9) Benzaldehyde	6.772	77	174409	50.619	ng	100
10) Phenol	6.978	94	480739	62.700	ng	98
11) bis(2-Chloroethyl)ether	7.036	93	394203	62.117	ng	99
12) 1,3-Dichlorobenzene	7.453	146	391650	58.941	ng	100
13) 1,4-Dichlorobenzene	7.600	146	399059	59.292	ng	99
14) 1,2-Dichlorobenzene	7.929	146	390950	59.175	ng	100
15) Benzyl Alcohol	7.906	79	266179	64.691	ng	98
16) 2,2'-oxybis(1-Chloropr...	8.070	45	445906	59.349	ng	99
17) 2-Methylphenol	8.153	107	316837	63.828	ng	100
18) Hexachloroethane	8.617	117	136504	60.057	ng	99
19) n-Nitroso-di-n-propyla...	8.376	70	287987	62.008	ng	99
20) 3+4-Methylphenols	8.493	107	437786	63.605	ng	99
22) Acetophenone	8.423	105	567981	60.338	ng	# 99
24) Nitrobenzene	8.822	77	421600	61.597	ng	100
25) Isophorone	9.275	82	786152	61.388	ng	99
26) 2-Nitrophenol	9.504	139	232694	63.884	ng	100
27) 2,4-Dimethylphenol	9.627	122	264403	62.735	ng	98
28) bis(2-Chloroethoxy)met...	9.768	93	475374	60.641	ng	100
29) 2,4-Dichlorophenol	10.062	162	376879	62.992	ng	98
30) 1,2,4-Trichlorobenzene	10.180	180	399771	59.854	ng	99
31) Naphthalene	10.379	128	1251339	59.632	ng	99
32) Benzoic acid	9.956	122	252404	61.799	ng	97
33) 4-Chloroaniline	10.614	127	450607	61.064	ng	98
34) Hexachlorobutadiene	10.626	225	246491	59.876	ng	99
35) Caprolactam	11.431	113	138435m	63.087	ng	
36) 4-Chloro-3-methylphenol	11.795	107	407653	62.395	ng	100
37) 2-Methylnaphthalene	11.972	142	891616	59.822	ng	99
38) 1-Methylnaphthalene	12.201	142	886387	59.635	ng	100
40) 1,2,4,5-Tetrachloroben...	12.330	216	463055	60.888	ng	100
41) Hexachlorocyclopentadiene	12.312	237	153986	69.386	ng	98
43) 2,4,6-Trichlorophenol	12.653	196	325669	62.354	ng	98

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101499.D
 Acq On : 6 Nov 2024 17:26
 Operator : RC/JU
 Sample : SSTDICC060
 Misc :
 ALS Vial : 9 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

SSTDICC060

Manual Integrations

APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
 Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 06 23:54:29 2024

Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Wed Nov 06 23:45:11 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	12.759	196	367820	63.214	ng	99
46) 1,1'-Biphenyl	13.006	154	1182260	59.418	ng	98
47) 2-Chloronaphthalene	13.053	162	943815	60.141	ng	98
48) 2-Nitroaniline	13.388	65	270091	65.018	ng	100
49) Acenaphthylene	13.911	152	1409914	60.288	ng	99
50) Dimethylphthalate	13.687	163	1214282	59.116	ng	99
51) 2,6-Dinitrotoluene	13.828	165	292512	61.700	ng	96
52) Acenaphthene	14.245	154	870986	58.363	ng	100
53) 3-Nitroaniline	14.234	138	288330	62.646	ng	99
54) 2,4-Dinitrophenol	14.375	184	190052	68.407	ng	98
55) Dibenzofuran	14.586	168	1409742	58.661	ng	99
56) 4-Nitrophenol	14.663	139	255253	67.163	ng	98
57) 2,4-Dinitrotoluene	14.610	165	416878	62.590	ng	99
58) Fluorene	15.221	166	1166027	58.138	ng	99
59) 2,3,4,6-Tetrachlorophenol	14.857	232	329672	61.230	ng	99
60) Diethylphthalate	15.015	149	1263117	58.321	ng	98
61) 4-Chlorophenyl-phenyle...	15.209	204	598677	58.783	ng	100
62) 4-Nitroaniline	15.432	138	316417	63.811	ng	99
63) Azobenzene	15.509	77	1040817	58.905	ng	98
65) 4,6-Dinitro-2-methylph...	15.356	198	262062	68.624	ng	99
66) n-Nitrosodiphenylamine	15.462	169	1028084	60.217	ng	100
67) 4-Bromophenyl-phenylether	16.096	248	434591	61.249	ng	96
68) Hexachlorobenzene	16.202	284	566929	60.711	ng	98
69) Atrazine	16.396	200	260631	51.707	ng	98
70) Pentachlorophenol	16.613	266	339404	66.986	ng	99
71) Phenanthrene	16.960	178	1827469	58.405	ng	100
72) Anthracene	17.042	178	1830883	59.253	ng	99
73) Carbazole	17.377	167	1828275	59.002	ng	98
74) Di-n-butylphthalate	17.818	149	2163927	56.549	ng	98
75) Fluoranthene	18.963	202	2235797	55.731	ng	98
77) Benzidine	19.222	184	1043586	67.443	ng	99
78) Pyrene	19.334	202	2319401	58.909	ng	97
80) Butylbenzylphthalate	20.180	149	1048588	59.263	ng	98
81) Benzo(a)anthracene	21.055	228	2320150	56.456	ng	97
82) 3,3'-Dichlorobenzidine	21.032	252	969247	59.912	ng	99
83) Chrysene	21.120	228	2180274	55.815	ng	98
84) Bis(2-ethylhexyl)phtha...	20.879	149	1522250	56.905	ng	97
85) Di-n-octyl phthalate	21.725	149	2496636	55.167	ng	100
87) Indeno(1,2,3-cd)pyrene	25.720	276	3656352	59.258	ng	100
88) Benzo(b)fluoranthene	22.659	252	2890510	58.678	ng	99
89) Benzo(k)fluoranthene	22.706	252	2522912	56.418	ng	99
90) Benzo(a)pyrene	23.264	252	2508694	58.988	ng	99
91) Dibenzo(a,h)anthracene	25.709	278	3012923	58.633	ng	100
92) Benzo(g,h,i)perylene	26.466	276	3129136	59.937	ng	99

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

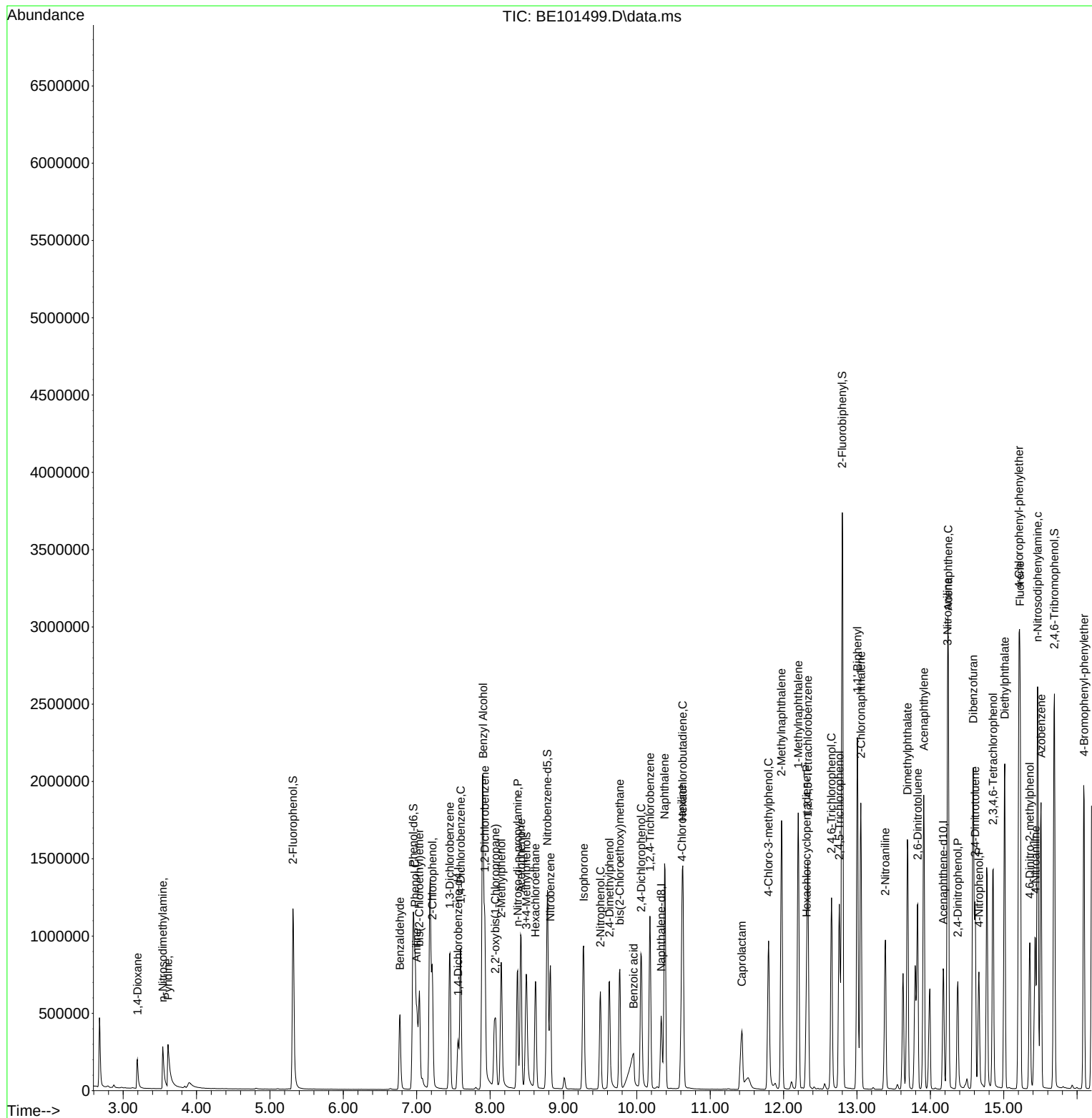
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Data File : BE101499.D
Acq On : 6 Nov 2024 17:26
Operator : RC/JU
Sample : SSTDICC060
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
SSTDICC060

Manual Integrations APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 06 23:54:29 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 06 23:45:11 2024
Response via : Initial Calibration



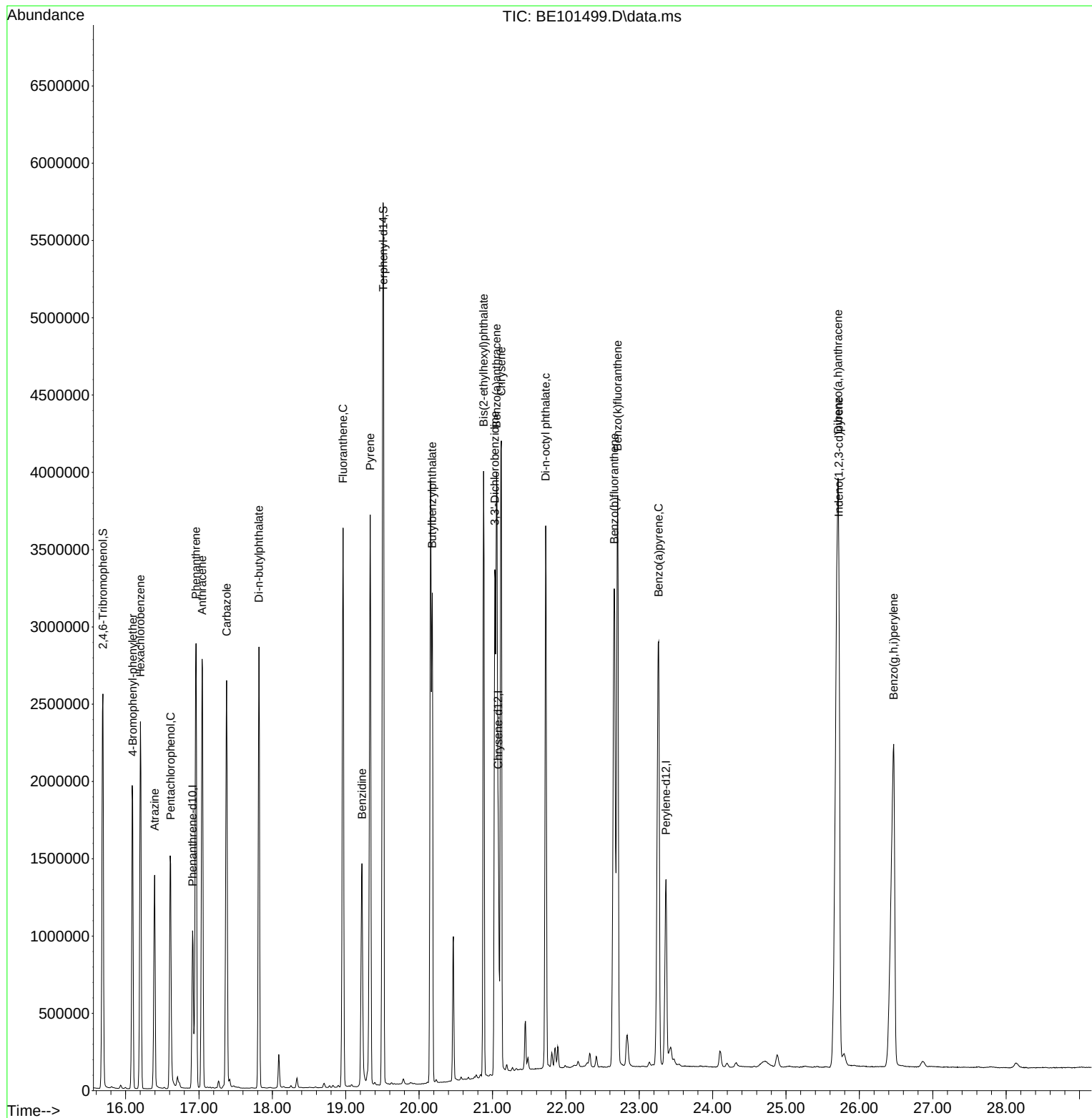
Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
Data File : BE101499.D
Acq On : 6 Nov 2024 17:26
Operator : RC/JU
Sample : SSTDICC060
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
SSTDICC060

Quant Time: Nov 06 23:54:29 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 06 23:45:11 2024
Response via : Initial Calibration

Manual Integrations
APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
Supervised By :mohammad ahmed 11/08/2024



Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101500.D
 Acq On : 6 Nov 2024 18:02
 Operator : RC/JU
 Sample : SSTDICC080
 Misc :
 ALS Vial : 10 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

SSTDICC080

Manual Integrations

APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
 Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 06 23:55:40 2024

Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Wed Nov 06 23:45:11 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.563	152	87885	20.000	ng	0.00
21) Naphthalene-d8	10.336	136	393569	20.000	ng	0.00
39) Acenaphthene-d10	14.179	164	266849	20.000	ng	0.00
64) Phenanthrene-d10	16.917	188	591022	20.000	ng	0.00
76) Chrysene-d12	21.083	240	646333	20.000	ng	0.00
86) Perylene-d12	23.362	264	861007	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.319	112	792721	159.489	ng	0.00
7) Phenol-d6	6.958	99	1090529	160.024	ng	0.01
23) Nitrobenzene-d5	8.785	82	985521	158.169	ng	0.01
42) 2,4,6-Tribromophenol	15.695	330	763174	151.988	ng	0.01
45) 2-Fluorobiphenyl	12.804	172	2348698	143.713	ng	0.00
79) Terphenyl-d14	19.514	244	3657495	125.262	ng	0.01
Target Compounds						Qvalue
2) 1,4-Dioxane	3.192	88	132821	71.808	ng	99
3) Pyridine	3.609	79	416786m	80.769	ng	
4) n-Nitrosodimethylamine	3.538	42	163173	79.874	ng	98
6) Aniline	7.005	93	288050	56.317	ng	95
8) 2-Chlorophenol	7.216	128	465269	79.011	ng	99
9) Benzaldehyde	6.770	77	190543	57.161	ng	100
10) Phenol	6.981	94	579806	78.163	ng	98
11) bis(2-Chloroethyl)ether	7.040	93	526156m	85.697	ng	
12) 1,3-Dichlorobenzene	7.452	146	484934	75.432	ng	100
13) 1,4-Dichlorobenzene	7.598	146	496300	76.219	ng	99
14) 1,2-Dichlorobenzene	7.927	146	484414	75.787	ng	99
15) Benzyl Alcohol	7.910	79	325630	81.800	ng	98
16) 2,2'-oxybis(1-Chloropr...	8.074	45	550972	75.797	ng	100
17) 2-Methylphenol	8.157	107	394719	82.191	ng	99
18) Hexachloroethane	8.621	117	169920	77.271	ng	97
19) n-Nitroso-di-n-propyla...	8.374	70	350712	78.051	ng	99
20) 3+4-Methylphenols	8.497	107	538008	80.794	ng	97
22) Acetophenone	8.421	105	696705	78.167	ng	# 100
24) Nitrobenzene	8.826	77	520072	80.249	ng	99
25) Isophorone	9.273	82	951791	78.494	ng	99
26) 2-Nitrophenol	9.502	139	287810	83.451	ng	99
27) 2,4-Dimethylphenol	9.625	122	324765	81.383	ng	99
28) bis(2-Chloroethoxy)met...	9.766	93	581207	78.303	ng	99
29) 2,4-Dichlorophenol	10.060	162	462923	81.717	ng	99
30) 1,2,4-Trichlorobenzene	10.178	180	491943	77.789	ng	99
31) Naphthalene	10.383	128	1523338	76.669	ng	99
32) Benzoic acid	9.972	122	318691	80.102	ng	97
33) 4-Chloroaniline	10.618	127	525392	75.195	ng	98
34) Hexachlorobutadiene	10.630	225	303206	77.787	ng	98
35) Caprolactam	11.447	113	165929m	79.860	ng	
36) 4-Chloro-3-methylphenol	11.799	107	498667	80.610	ng	99
37) 2-Methylnaphthalene	11.976	142	1076148	76.256	ng	98
38) 1-Methylnaphthalene	12.205	142	1068220	75.902	ng	99
40) 1,2,4,5-Tetrachloroben...	12.334	216	560134	79.616	ng	100
41) Hexachlorocyclopentadiene	12.310	237	182012	88.654	ng	98
43) 2,4,6-Trichlorophenol	12.657	196	393917	81.527	ng	99

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101500.D
 Acq On : 6 Nov 2024 18:02
 Operator : RC/JU
 Sample : SSTDICC080
 Misc :
 ALS Vial : 10 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

SSTDICC080

Manual Integrations

APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
 Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 06 23:55:40 2024
 Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Wed Nov 06 23:45:11 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	12.763	196	443094	82.315	ng	99
46) 1,1'-Biphenyl	13.010	154	1408589	76.525	ng	98
47) 2-Chloronaphthalene	13.057	162	1130911	77.897	ng	98
48) 2-Nitroaniline	13.386	65	322579	83.940	ng	98
49) Acenaphthylene	13.915	152	1670845	77.229	ng	98
50) Dimethylphthalate	13.691	163	1443483	75.964	ng	99
51) 2,6-Dinitrotoluene	13.832	165	351068	80.046	ng	96
52) Acenaphthene	14.244	154	1027003	74.388	ng	99
53) 3-Nitroaniline	14.238	138	334967	78.671	ng	96
54) 2,4-Dinitrophenol	14.379	184	232097	90.304	ng	98
55) Dibenzofuran	14.584	168	1674087	75.300	ng	97
56) 4-Nitrophenol	14.667	139	310060	88.189	ng	99
57) 2,4-Dinitrotoluene	14.614	165	497866	80.801	ng	99
58) Fluorene	15.225	166	1357969	73.190	ng	99
59) 2,3,4,6-Tetrachlorophenol	14.855	232	396992	79.703	ng	100
60) Diethylphthalate	15.013	149	1491516	74.442	ng	98
61) 4-Chlorophenyl-phenyle...	15.207	204	700996	74.402	ng	98
62) 4-Nitroaniline	15.436	138	382870	83.463	ng	99
63) Azobenzene	15.507	77	1230254	75.264	ng	99
65) 4,6-Dinitro-2-methylph...	15.360	198	319525	91.076	ng	99
66) n-Nitrosodiphenylamine	15.466	169	1203171	76.709	ng	99
67) 4-Bromophenyl-phenylether	16.094	248	517626	79.408	ng	100
68) Hexachlorobenzene	16.206	284	669652	78.058	ng	99
69) Atrazine	16.400	200	306249	66.134	ng	98
70) Pentachlorophenol	16.611	266	414939	89.142	ng	99
71) Phenanthrene	16.964	178	2129724	74.089	ng	99
72) Anthracene	17.046	178	2098096	73.910	ng	97
73) Carbazole	17.375	167	2125374	74.660	ng	97
74) Di-n-butylphthalate	17.822	149	2523825	71.791	ng	98
75) Fluoranthene	18.967	202	2590854	70.297	ng	98
77) Benzidine	19.220	184	1136732	78.650	ng	99
78) Pyrene	19.338	202	2679442	72.859	ng	97
80) Butylbenzylphthalate	20.178	149	1225752	74.168	ng	96
81) Benzo(a)anthracene	21.059	228	2689718	70.070	ng	96
82) 3,3'-Dichlorobenzidine	21.036	252	1134917	75.107	ng	99
83) Chrysene	21.118	228	2530820	69.364	ng	96
84) Bis(2-ethylhexyl)phtha...	20.883	149	1773835	70.992	ng	# 96
85) Di-n-octyl phthalate	21.729	149	2894015	68.464	ng	99
87) Indeno(1,2,3-cd)pyrene	25.730	276	4442725	75.086	ng	100
88) Benzo(b)fluoranthene	22.663	252	3491271	73.908	ng	98
89) Benzo(k)fluoranthene	22.710	252	2925504	68.222	ng	98
90) Benzo(a)pyrene	23.268	252	3021625	74.091	ng	99
91) Dibenzo(a,h)anthracene	25.718	278	3606206	73.183	ng	100
92) Benzo(g,h,i)perylene	26.476	276	3833323	76.570	ng	99

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

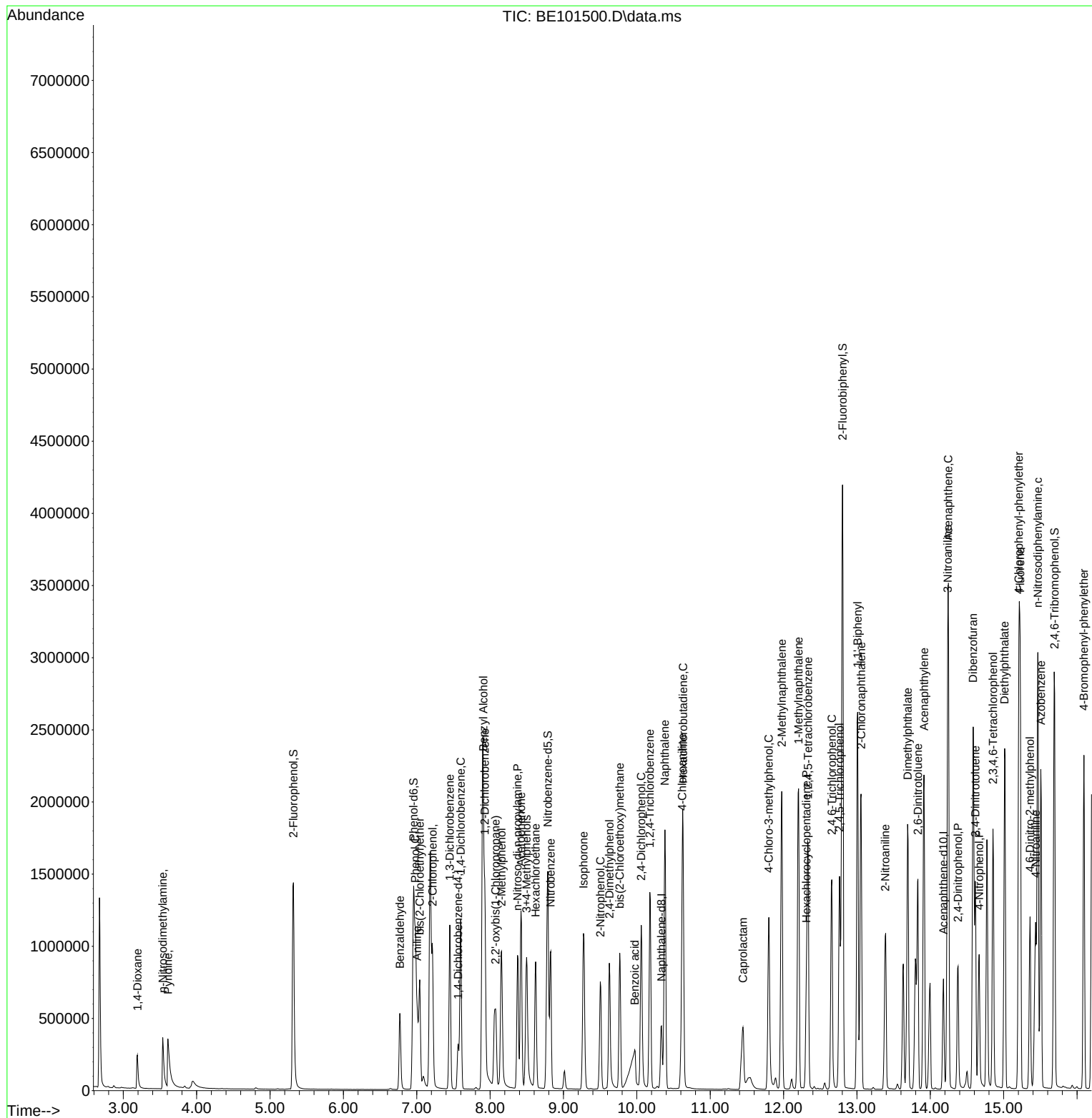
Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
Data File : BE101500.D
Acq On : 6 Nov 2024 18:02
Operator : RC/JU
Sample : SSTDICC080
Misc :
ALS Vial : 10 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
SSTDICC080

Manual Integrations APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 06 23:55:40 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 06 23:45:11 2024
Response via : Initial Calibration



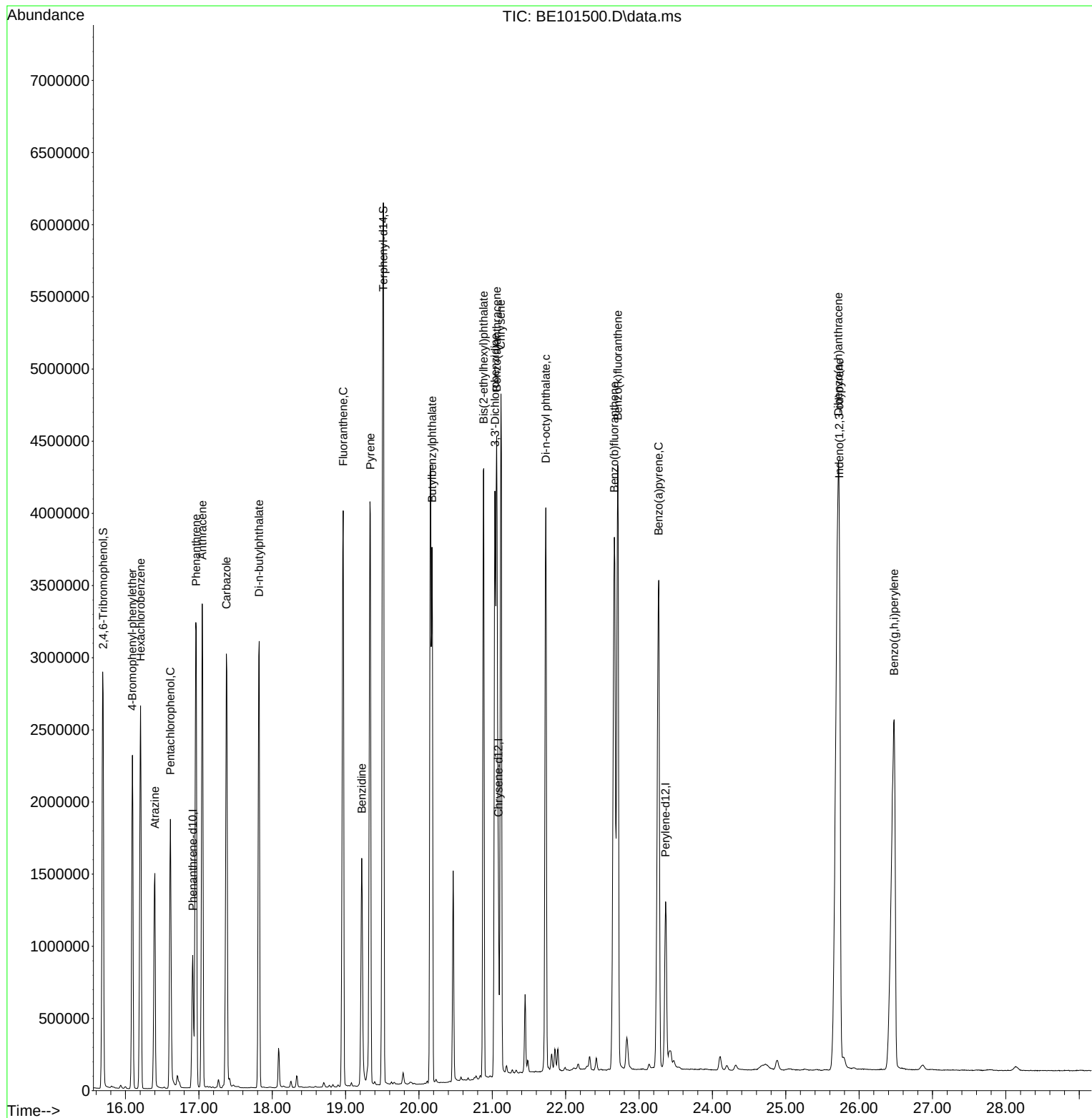
Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
Data File : BE101500.D
Acq On : 6 Nov 2024 18:02
Operator : RC/JU
Sample : SSTDICC080
Misc :
ALS Vial : 10 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
SSTDICC080

Quant Time: Nov 06 23:55:40 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Nov 06 23:45:11 2024
Response via : Initial Calibration

Manual Integrations
APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
Supervised By :mohammad ahmed 11/08/2024



Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101501.D
 Acq On : 6 Nov 2024 18:41
 Operator : RC/JU
 Sample : SSTDICV040
 Misc :
 ALS Vial : 11 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

ICVBE110624

Manual Integrations

APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024

Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 07 00:03:03 2024

Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Thu Nov 07 00:01:20 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.565	152	66495	20.000	ng	0.00
21) Naphthalene-d8	10.332	136	305529	20.000	ng	0.00
39) Acenaphthene-d10	14.174	164	214125	20.000	ng	0.00
64) Phenanthrene-d10	16.912	188	492741	20.000	ng	0.00
76) Chrysene-d12	21.072	240	575039	20.000	ng	0.00
86) Perylene-d12	23.358	264	751306	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.314	112	295905	78.684	ng	0.00
7) Phenol-d6	6.948	99	408365	79.200	ng	0.00
23) Nitrobenzene-d5	8.775	82	384623	79.517	ng	0.00
42) 2,4,6-Tribromophenol	15.684	330	318753	79.111	ng	0.00
45) 2-Fluorobiphenyl	12.800	172	1043690	79.586	ng	0.00
79) Terphenyl-d14	19.503	244	2033696	78.285	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	3.193	88	55275	39.497	ng	100
3) Pyridine	3.616	79	151841m	38.795	ng	
4) n-Nitrosodimethylamine	3.540	42	60866	39.271	ng	99
6) Aniline	7.000	93	170754	44.123	ng	99
8) 2-Chlorophenol	7.206	128	175134	39.308	ng	99
9) Benzaldehyde	6.765	77	111557	44.231	ng	98
10) Phenol	6.971	94	225186	40.122	ng	99
11) bis(2-Chloroethyl)ether	7.030	93	170339m	36.662	ng	
12) 1,3-Dichlorobenzene	7.447	146	189336	38.925	ng	98
13) 1,4-Dichlorobenzene	7.594	146	190702	38.708	ng	99
14) 1,2-Dichlorobenzene	7.923	146	188221	38.920	ng	99
15) Benzyl Alcohol	7.905	79	122453	40.656	ng	100
16) 2,2'-oxybis(1-Chloropr...	8.064	45	214663	39.031	ng	99
17) 2-Methylphenol	8.152	107	149753	41.213	ng	98
18) Hexachloroethane	8.616	117	65058	39.102	ng	98
19) n-Nitroso-di-n-propyla...	8.364	70	135908	39.976	ng	98
20) 3+4-Methylphenols	8.487	107	202548	40.202	ng	99
22) Acetophenone	8.416	105	271118	39.183	ng	# 99
24) Nitrobenzene	8.816	77	199671	39.688	ng	99
25) Isophorone	9.263	82	373587	39.688	ng	98
26) 2-Nitrophenol	9.503	139	107373	40.104	ng	97
27) 2,4-Dimethylphenol	9.621	122	121865	39.338	ng	99
28) bis(2-Chloroethoxy)met...	9.762	93	224407	38.945	ng	99
29) 2,4-Dichlorophenol	10.056	162	175757	39.965	ng	98
30) 1,2,4-Trichlorobenzene	10.173	180	189081	38.514	ng	99
31) Naphthalene	10.379	128	601027	38.966	ng	100
32) Benzoic acid	9.903	122	103366	37.459	ng	97
33) 4-Chloroaniline	10.602	127	222628	41.044	ng	98
34) Hexachlorobutadiene	10.626	225	116815	38.605	ng	98
35) Caprolactam	11.389	113	64308	39.820	ng	94
36) 4-Chloro-3-methylphenol	11.789	107	190903	39.752	ng	99
37) 2-Methylnaphthalene	11.971	142	427137	38.989	ng	99
38) 1-Methylnaphthalene	12.194	142	425569	38.952	ng	100
40) 1,2,4,5-Tetrachloroben...	12.330	216	219009	38.795	ng	100
41) Hexachlorocyclopentadiene	12.306	237	66704	40.490	ng	99
43) 2,4,6-Trichlorophenol	12.647	196	153962	39.711	ng	99

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101501.D
 Acq On : 6 Nov 2024 18:41
 Operator : RC/JU
 Sample : SSTDICV040
 Misc :
 ALS Vial : 11 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

ICVBE110624

Manual Integrations

APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
 Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 07 00:03:03 2024

Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Thu Nov 07 00:01:20 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	12.753	196	173702	40.215	ng	98
46) 1,1'-Biphenyl	12.999	154	580150	39.279	ng	99
47) 2-Chloronaphthalene	13.046	162	454969	39.055	ng	100
48) 2-Nitroaniline	13.381	65	127196	41.248	ng	98
49) Acenaphthylene	13.904	152	684349	39.420	ng	98
50) Dimethylphthalate	13.681	163	598096	39.225	ng	100
51) 2,6-Dinitrotoluene	13.816	165	141344	40.163	ng	98
52) Acenaphthene	14.239	154	435101	39.275	ng	99
53) 3-Nitroaniline	14.227	138	141323	41.364	ng	99
54) 2,4-Dinitrophenol	14.362	184	81552	39.543	ng	96
55) Dibenzofuran	14.580	168	692667	38.827	ng	100
56) 4-Nitrophenol	14.650	139	120392	42.674	ng	96
57) 2,4-Dinitrotoluene	14.603	165	198173	40.082	ng	100
58) Fluorene	15.220	166	586503	39.394	ng	99
59) 2,3,4,6-Tetrachlorophenol	14.850	232	157167	39.324	ng	99
60) Diethylphthalate	15.003	149	629271	39.140	ng	100
61) 4-Chlorophenyl-phenyle...	15.203	204	293483	38.819	ng	99
62) 4-Nitroaniline	15.414	138	150527	40.894	ng	99
63) Azobenzene	15.502	77	515371	39.292	ng	99
65) 4,6-Dinitro-2-methylph...	15.350	198	117499	40.171	ng	98
66) n-Nitrosodiphenylamine	15.455	169	510181	39.015	ng	100
67) 4-Bromophenyl-phenylether	16.090	248	209657	38.578	ng	99
68) Hexachlorobenzene	16.201	284	278570	38.948	ng	99
69) Atrazine	16.389	200	168686	43.693	ng	97
70) Pentachlorophenol	16.607	266	162102	41.771	ng	99
71) Phenanthrene	16.953	178	934044	38.975	ng	99
72) Anthracene	17.042	178	929840	39.289	ng	100
73) Carbazole	17.371	167	936279	39.450	ng	99
74) Di-n-butylphthalate	17.817	149	1166355	39.795	ng	100
75) Fluoranthene	18.957	202	1215918	39.571	ng	99
77) Benzidine	19.216	184	495810	40.139	ng	100
78) Pyrene	19.327	202	1277720	39.051	ng	100
80) Butylbenzylphthalate	20.173	149	578489	39.343	ng	98
81) Benzo(a)anthracene	21.055	228	1359165	39.798	ng	100
82) 3,3'-Dichlorobenzidine	21.025	252	541433	40.273	ng	96
83) Chrysene	21.107	228	1274981	39.277	ng	100
84) Bis(2-ethylhexyl)phtha...	20.878	149	867309	39.015	ng	99
85) Di-n-octyl phthalate	21.724	149	1479070	39.329	ng	99
87) Indeno(1,2,3-cd)pyrene	25.690	276	1998085	38.700	ng	100
88) Benzo(b)fluoranthene	22.653	252	1545976	37.506	ng	99
89) Benzo(k)fluoranthene	22.694	252	1492841	39.896	ng	100
90) Benzo(a)pyrene	23.252	252	1374652	38.628	ng	100
91) Dibenzo(a,h)anthracene	25.679	278	1660639	38.621	ng	100
92) Benzo(g,h,i)perylene	26.442	276	1678161	38.415	ng	99

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

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
Data File : BE101501.D
Acq On : 6 Nov 2024 18:41
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

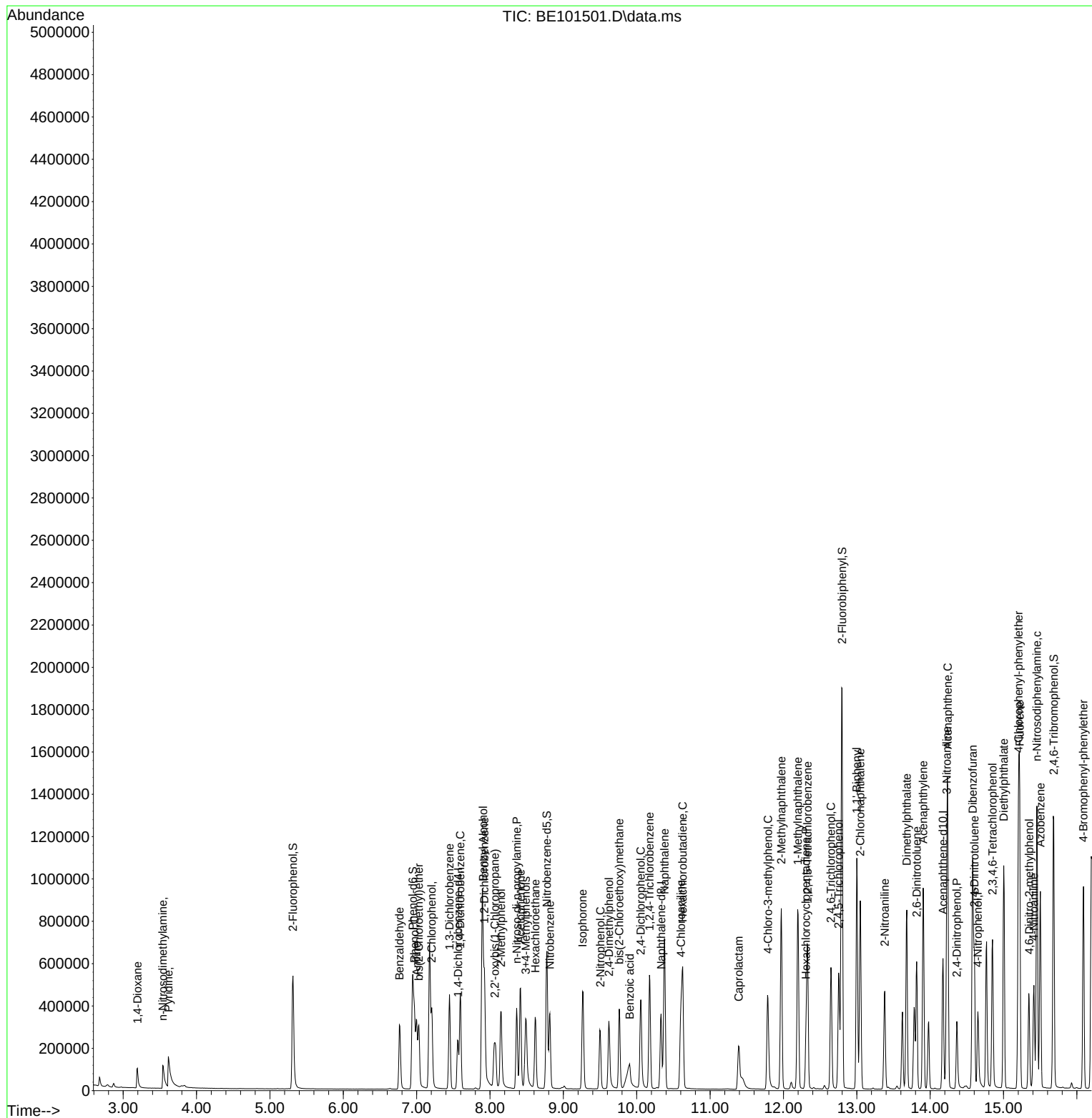
ICVBE110624

Manual Integrations

APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 07 00:03:03 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 07 00:01:20 2024
Response via : Initial Calibration



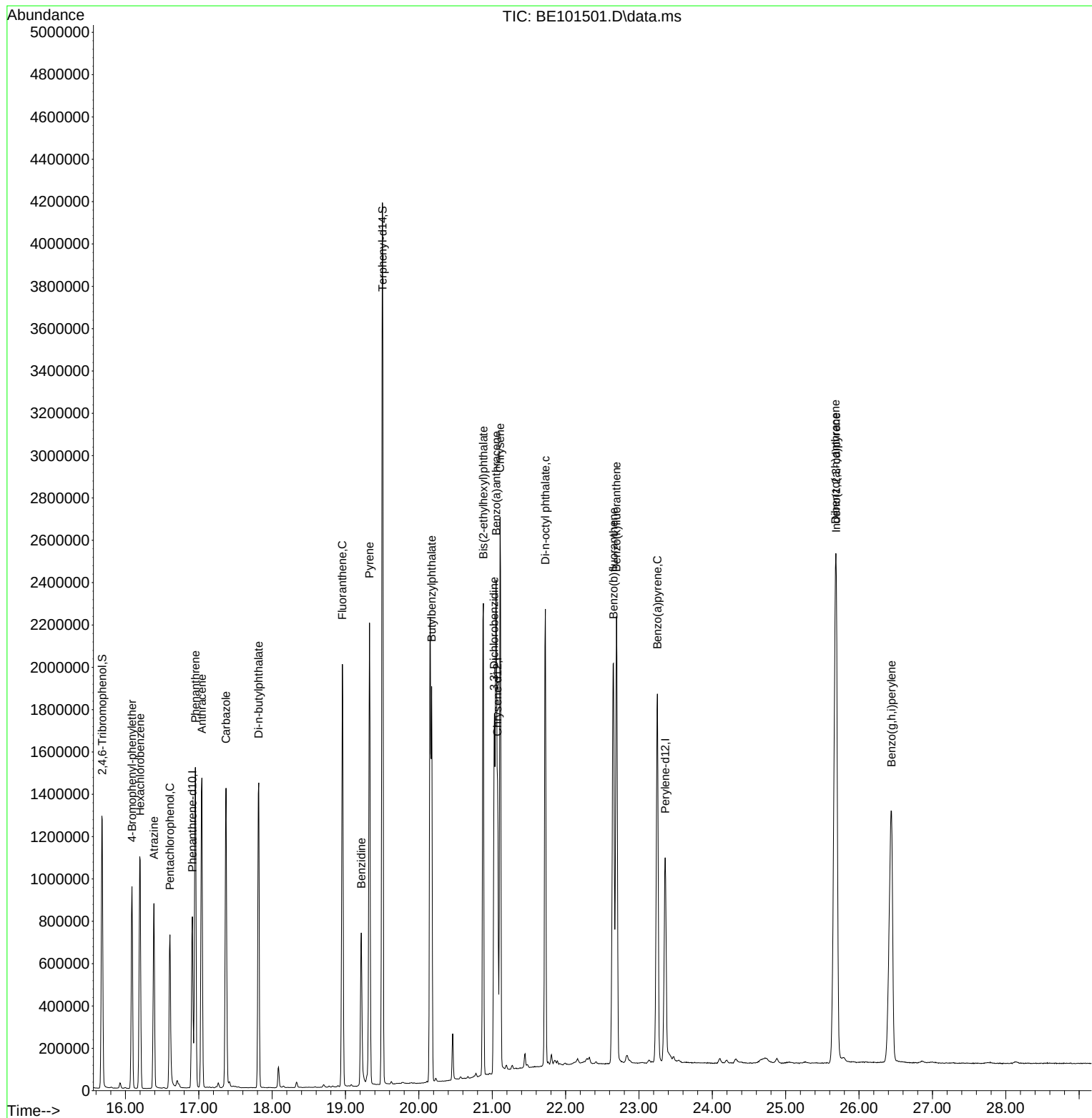
Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
Data File : BE101501.D
Acq On : 6 Nov 2024 18:41
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
ICVBE110624

Manual Integrations
APPROVED

Reviewed By :Jagrut Upadhyay 11/07/2024
Supervised By :mohammad ahmed 11/08/2024

Quant Time: Nov 07 00:03:03 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 07 00:01:20 2024
Response via : Initial Calibration



Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101501.D
 Acq On : 6 Nov 2024 18:41
 Operator : RC/JU
 Sample : SSTDICV040
 Misc :
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 BNA_E
 ClientSampleId :
 ICVBE110624

Quant Time: Nov 07 00:03:03 2024
 Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Thu Nov 07 00:01:20 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	102	0.00
2	1,4-Dioxane	0.421	0.416	1.2	104	0.00
3	Pyridine	1.177	1.142	3.0	101	0.00
4	n-Nitrosodimethylamine	0.466	0.458	1.7	104	0.00
5 S	2-Fluorophenol	1.131	1.113	1.6	103	0.00
6	Aniline	1.164	1.284	-10.3	95	0.00
7 S	Phenol-d6	1.551	1.535	1.0	101	0.00
8	2-Chlorophenol	1.340	1.317	1.7	102	0.00
9	Benzaldehyde	0.759	0.839	-10.5	111	0.00
10 C	Phenol	1.688	1.693	-0.3	103	0.00
11	bis(2-Chloroethyl)ether	1.397	1.281	8.3	112	0.00
12	1,3-Dichlorobenzene	1.463	1.424	2.7	102	0.00
13 C	1,4-Dichlorobenzene	1.482	1.434	3.2	101	0.00
14	1,2-Dichlorobenzene	1.455	1.415	2.7	101	0.00
15	Benzyl Alcohol	0.906	0.921	-1.7	102	0.00
16	2,2'-oxybis(1-Chloropropane	1.654	1.614	2.4	101	0.00
17	2-Methylphenol	1.093	1.126	-3.0	103	0.00
18	Hexachloroethane	0.500	0.489	2.2	103	0.00
19 P	n-Nitroso-di-n-propylamine	1.023	1.022	0.1	101	0.00
20	3+4-Methylphenols	1.515	1.523	-0.5	102	0.00
21 I	Naphthalene-d8	1.000	1.000	0.0	101	0.00
22	Acetophenone	0.453	0.444	2.0	101	0.00
23 S	Nitrobenzene-d5	0.317	0.315	0.6	101	0.00
24	Nitrobenzene	0.329	0.327	0.6	102	0.00
25	Isophorone	0.616	0.611	0.8	101	0.00
26 C	2-Nitrophenol	0.175	0.176	-0.6	102	0.00
27	2,4-Dimethylphenol	0.203	0.199	2.0	102	0.00
28	bis(2-Chloroethoxy)methane	0.377	0.367	2.7	100	0.00
29 C	2,4-Dichlorophenol	0.288	0.288	0.0	102	0.00
30	1,2,4-Trichlorobenzene	0.321	0.309	3.7	100	0.00
31	Naphthalene	1.010	0.984	2.6	101	0.00
32	Benzoic acid	0.168	0.169	-0.6	103	0.00
33	4-Chloroaniline	0.355	0.364	-2.5	102	0.00
34 C	Hexachlorobutadiene	0.198	0.191	3.5	100	0.00
35	Caprolactam	0.106	0.105	0.9	99	0.00
36 C	4-Chloro-3-methylphenol	0.314	0.312	0.6	101	0.00
37	2-Methylnaphthalene	0.717	0.699	2.5	100	0.00
38	1-Methylnaphthalene	0.715	0.696	2.7	101	0.00
39 I	Acenaphthene-d10	1.000	1.000	0.0	99	0.00
40	1,2,4,5-Tetrachlorobenzene	0.527	0.511	3.0	99	0.00
41 P	Hexachlorocyclopentadiene	0.154	0.156	-1.3	93	0.00
42 S	2,4,6-Tribromophenol	0.376	0.372	1.1	100	0.00
43 C	2,4,6-Trichlorophenol	0.362	0.360	0.6	100	0.00
44	2,4,5-Trichlorophenol	0.403	0.406	-0.7	101	0.00
45 S	2-Fluorobiphenyl	1.225	1.219	0.5	101	0.00
46	1,1'-Biphenyl	1.380	1.355	1.8	101	0.00
47	2-Chloronaphthalene	1.088	1.062	2.4	100	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101501.D
 Acq On : 6 Nov 2024 18:41
 Operator : RC/JU
 Sample : SSTDICV040
 Misc :
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 BNA_E
 ClientSampleId :
 ICVBE110624

Quant Time: Nov 07 00:03:03 2024
 Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Thu Nov 07 00:01:20 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	0.288	0.297	-3.1	102	0.00
49	Acenaphthylene	1.622	1.598	1.5	100	0.00
50	Dimethylphthalate	1.424	1.397	1.9	100	0.00
51	2,6-Dinitrotoluene	0.329	0.330	-0.3	101	0.00
52 C	Acenaphthene	1.035	1.016	1.8	100	0.00
53	3-Nitroaniline	0.319	0.330	-3.4	100	0.00
54 P	2,4-Dinitrophenol	0.193	0.190	1.6	98	0.00
55	Dibenzofuran	1.666	1.617	2.9	100	0.00
56 P	4-Nitrophenol	0.264	0.281	-6.4	102	0.00
57	2,4-Dinitrotoluene	0.462	0.463	-0.2	100	0.00
58	Fluorene	1.391	1.370	1.5	100	0.00
59	2,3,4,6-Tetrachlorophenol	0.373	0.367	1.6	99	0.00
60	Diethylphthalate	1.502	1.469	2.2	100	0.00
61	4-Chlorophenyl-phenylether	0.706	0.685	3.0	99	0.00
62	4-Nitroaniline	0.344	0.351	-2.0	100	0.00
63	Azobenzene	1.225	1.203	1.8	100	0.00
64 I	Phenanthrene-d10	1.000	1.000	0.0	100	0.00
65	4,6-Dinitro-2-methylphenol	0.119	0.119	0.0	97	0.00
66 c	n-Nitrosodiphenylamine	0.531	0.518	2.4	100	0.00
67	4-Bromophenyl-phenylether	0.221	0.213	3.6	99	0.00
68	Hexachlorobenzene	0.290	0.283	2.4	100	0.00
69	Atrazine	0.157	0.171	-8.9	100	0.00
70 C	Pentachlorophenol	0.158	0.164	-3.8	102	0.00
71	Phenanthrene	0.973	0.948	2.6	101	0.00
72	Anthracene	0.961	0.944	1.8	100	0.00
73	Carbazole	0.963	0.950	1.3	101	0.00
74	Di-n-butylphthalate	1.190	1.184	0.5	101	0.00
75 C	Fluoranthene	1.247	1.234	1.0	102	0.00
76 I	Chrysene-d12	1.000	1.000	0.0	105	0.00
77	Benzydine	0.430	0.431	-0.2	112	0.00
78	Pyrene	1.138	1.111	2.4	103	0.00
79 S	Terphenyl-d14	0.904	0.884	2.2	102	0.00
80	Butylbenzylphthalate	0.511	0.503	1.6	104	0.00
81	Benzo(a)anthracene	1.188	1.182	0.5	106	0.00
82	3,3'-Dichlorobenzidine	0.468	0.471	-0.6	105	0.00
83	Chrysene	1.129	1.109	1.8	104	0.00
84	Bis(2-ethylhexyl)phthalate	0.773	0.754	2.5	104	0.00
85 c	Di-n-octyl phthalate	1.308	1.286	1.7	105	0.00
86 I	Perylene-d12	1.000	1.000	0.0	105	0.00
87	Indeno(1,2,3-cd)pyrene	1.374	1.330	3.2	103	0.00
88	Benzo(b)fluoranthene	1.097	1.029	6.2	102	0.00
89	Benzo(k)fluoranthene	0.996	0.993	0.3	107	0.00
90 C	Benzo(a)pyrene	0.947	0.915	3.4	104	0.00
91	Dibenzo(a,h)anthracene	1.145	1.105	3.5	103	0.00
92	Benzo(g,h,i)perylene	1.163	1.117	4.0	103	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
Data File : BE101501.D
Acq On : 6 Nov 2024 18:41
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
ICVBE110624

Quant Time: Nov 07 00:03:03 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 07 00:01:20 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

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101501.D
 Acq On : 6 Nov 2024 18:41
 Operator : RC/JU
 Sample : SSTDICV040
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Instrument :
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Quant Time: Nov 07 00:03:03 2024
 Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Thu Nov 07 00:01:20 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	102	0.00
2	1,4-Dioxane	40.000	39.497	1.3	104	0.00
3	Pyridine	40.000	38.795	3.0	101	0.00
4	n-Nitrosodimethylamine	40.000	39.271	1.8	104	0.00
5 S	2-Fluorophenol	80.000	78.684	1.6	103	0.00
6	Aniline	40.000	44.123	-10.3	95	0.00
7 S	Phenol-d6	80.000	79.200	1.0	101	0.00
8	2-Chlorophenol	40.000	39.308	1.7	102	0.00
9	Benzaldehyde	40.000	44.231	-10.6	111	0.00
10 C	Phenol	40.000	40.122	-0.3	103	0.00
11	bis(2-Chloroethyl)ether	40.000	36.662	8.3	112	0.00
12	1,3-Dichlorobenzene	40.000	38.925	2.7	102	0.00
13 C	1,4-Dichlorobenzene	40.000	38.708	3.2	101	0.00
14	1,2-Dichlorobenzene	40.000	38.920	2.7	101	0.00
15	Benzyl Alcohol	40.000	40.656	-1.6	102	0.00
16	2,2'-oxybis(1-Chloropropane	40.000	39.031	2.4	101	0.00
17	2-Methylphenol	40.000	41.213	-3.0	103	0.00
18	Hexachloroethane	40.000	39.102	2.2	103	0.00
19 P	n-Nitroso-di-n-propylamine	40.000	39.976	0.1	101	0.00
20	3+4-Methylphenols	40.000	40.202	-0.5	102	0.00
21 I	Naphthalene-d8	20.000	20.000	0.0	101	0.00
22	Acetophenone	40.000	39.183	2.0	101	0.00
23 S	Nitrobenzene-d5	80.000	79.517	0.6	101	0.00
24	Nitrobenzene	40.000	39.688	0.8	102	0.00
25	Isophorone	40.000	39.688	0.8	101	0.00
26 C	2-Nitrophenol	40.000	40.104	-0.3	102	0.00
27	2,4-Dimethylphenol	40.000	39.338	1.7	102	0.00
28	bis(2-Chloroethoxy)methane	40.000	38.945	2.6	100	0.00
29 C	2,4-Dichlorophenol	40.000	39.965	0.1	102	0.00
30	1,2,4-Trichlorobenzene	40.000	38.514	3.7	100	0.00
31	Naphthalene	40.000	38.966	2.6	101	0.00
32	Benzoic acid	40.000	37.459	6.4	103	0.00
33	4-Chloroaniline	40.000	41.044	-2.6	102	0.00
34 C	Hexachlorobutadiene	40.000	38.605	3.5	100	0.00
35	Caprolactam	40.000	39.820	0.4	99	0.00
36 C	4-Chloro-3-methylphenol	40.000	39.752	0.6	101	0.00
37	2-Methylnaphthalene	40.000	38.989	2.5	100	0.00
38	1-Methylnaphthalene	40.000	38.952	2.6	101	0.00
39 I	Acenaphthene-d10	20.000	20.000	0.0	99	0.00
40	1,2,4,5-Tetrachlorobenzene	40.000	38.795	3.0	99	0.00
41 P	Hexachlorocyclopentadiene	40.000	40.490	-1.2	93	0.00
42 S	2,4,6-Tribromophenol	80.000	79.111	1.1	100	0.00
43 C	2,4,6-Trichlorophenol	40.000	39.711	0.7	100	0.00
44	2,4,5-Trichlorophenol	40.000	40.215	-0.5	101	0.00
45 S	2-Fluorobiphenyl	80.000	79.586	0.5	101	0.00
46	1,1'-Biphenyl	40.000	39.279	1.8	101	0.00
47	2-Chloronaphthalene	40.000	39.055	2.4	100	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
 Data File : BE101501.D
 Acq On : 6 Nov 2024 18:41
 Operator : RC/JU
 Sample : SSTDICV040
 Misc :
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 BNA_E
 ClientSampleId :
 ICVBE110624

Quant Time: Nov 07 00:03:03 2024
 Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Thu Nov 07 00:01:20 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	41.248	-3.1	102	0.00
49	Acenaphthylene	40.000	39.420	1.4	100	0.00
50	Dimethylphthalate	40.000	39.225	1.9	100	0.00
51	2,6-Dinitrotoluene	40.000	40.163	-0.4	101	0.00
52 C	Acenaphthene	40.000	39.275	1.8	100	0.00
53	3-Nitroaniline	40.000	41.364	-3.4	100	0.00
54 P	2,4-Dinitrophenol	40.000	39.543	1.1	98	0.00
55	Dibenzofuran	40.000	38.827	2.9	100	0.00
56 P	4-Nitrophenol	40.000	42.674	-6.7	102	0.00
57	2,4-Dinitrotoluene	40.000	40.082	-0.2	100	0.00
58	Fluorene	40.000	39.394	1.5	100	0.00
59	2,3,4,6-Tetrachlorophenol	40.000	39.324	1.7	99	0.00
60	Diethylphthalate	40.000	39.140	2.1	100	0.00
61	4-Chlorophenyl-phenylether	40.000	38.819	3.0	99	0.00
62	4-Nitroaniline	40.000	40.894	-2.2	100	0.00
63	Azobenzene	40.000	39.292	1.8	100	0.00
64 I	Phenanthrene-d10	20.000	20.000	0.0	100	0.00
65	4,6-Dinitro-2-methylphenol	40.000	40.171	-0.4	97	0.00
66 c	n-Nitrosodiphenylamine	40.000	39.015	2.5	100	0.00
67	4-Bromophenyl-phenylether	40.000	38.578	3.6	99	0.00
68	Hexachlorobenzene	40.000	38.948	2.6	100	0.00
69	Atrazine	40.000	43.693	-9.2	100	0.00
70 C	Pentachlorophenol	40.000	41.771	-4.4	102	0.00
71	Phenanthrene	40.000	38.975	2.6	101	0.00
72	Anthracene	40.000	39.289	1.8	100	0.00
73	Carbazole	40.000	39.450	1.4	101	0.00
74	Di-n-butylphthalate	40.000	39.795	0.5	101	0.00
75 C	Fluoranthene	40.000	39.571	1.1	102	0.00
76 I	Chrysene-d12	20.000	20.000	0.0	105	0.00
77	Benzydine	40.000	40.139	-0.3	112	0.00
78	Pyrene	40.000	39.051	2.4	103	0.00
79 S	Terphenyl-d14	80.000	78.285	2.1	102	0.00
80	Butylbenzylphthalate	40.000	39.343	1.6	104	0.00
81	Benzo(a)anthracene	40.000	39.798	0.5	106	0.00
82	3,3'-Dichlorobenzidine	40.000	40.273	-0.7	105	0.00
83	Chrysene	40.000	39.277	1.8	104	0.00
84	Bis(2-ethylhexyl)phthalate	40.000	39.015	2.5	104	0.00
85 c	Di-n-octyl phthalate	40.000	39.329	1.7	105	0.00
86 I	Perylene-d12	20.000	20.000	0.0	105	0.00
87	Indeno(1,2,3-cd)pyrene	40.000	38.700	3.2	103	0.00
88	Benzo(b)fluoranthene	40.000	37.506	6.2	102	0.00
89	Benzo(k)fluoranthene	40.000	39.896	0.3	107	0.00
90 C	Benzo(a)pyrene	40.000	38.628	3.4	104	0.00
91	Dibenzo(a,h)anthracene	40.000	38.621	3.4	103	0.00
92	Benzo(g,h,i)perylene	40.000	38.415	4.0	103	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
Data File : BE101501.D
Acq On : 6 Nov 2024 18:41
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
ICVBE110624

Quant Time: Nov 07 00:03:03 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 07 00:01:20 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

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: CLOU03
 Lab Code: CHEM Case No.: P4779 SAS No.: P4779 SDG No.: P4779
 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.

Form VI SV-1

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: CLOU03
 Lab Code: CHEM Case No.: P4779 SAS No.: P4779 SDG No.: P4779
 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.

Form VI SV-1



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: CLOU03
 Lab Code: CHEM Case No.: P4779 SAS No.: P4779 SDG No.: P4779
 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.

Form VI SV-1

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 =BF140339.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

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)

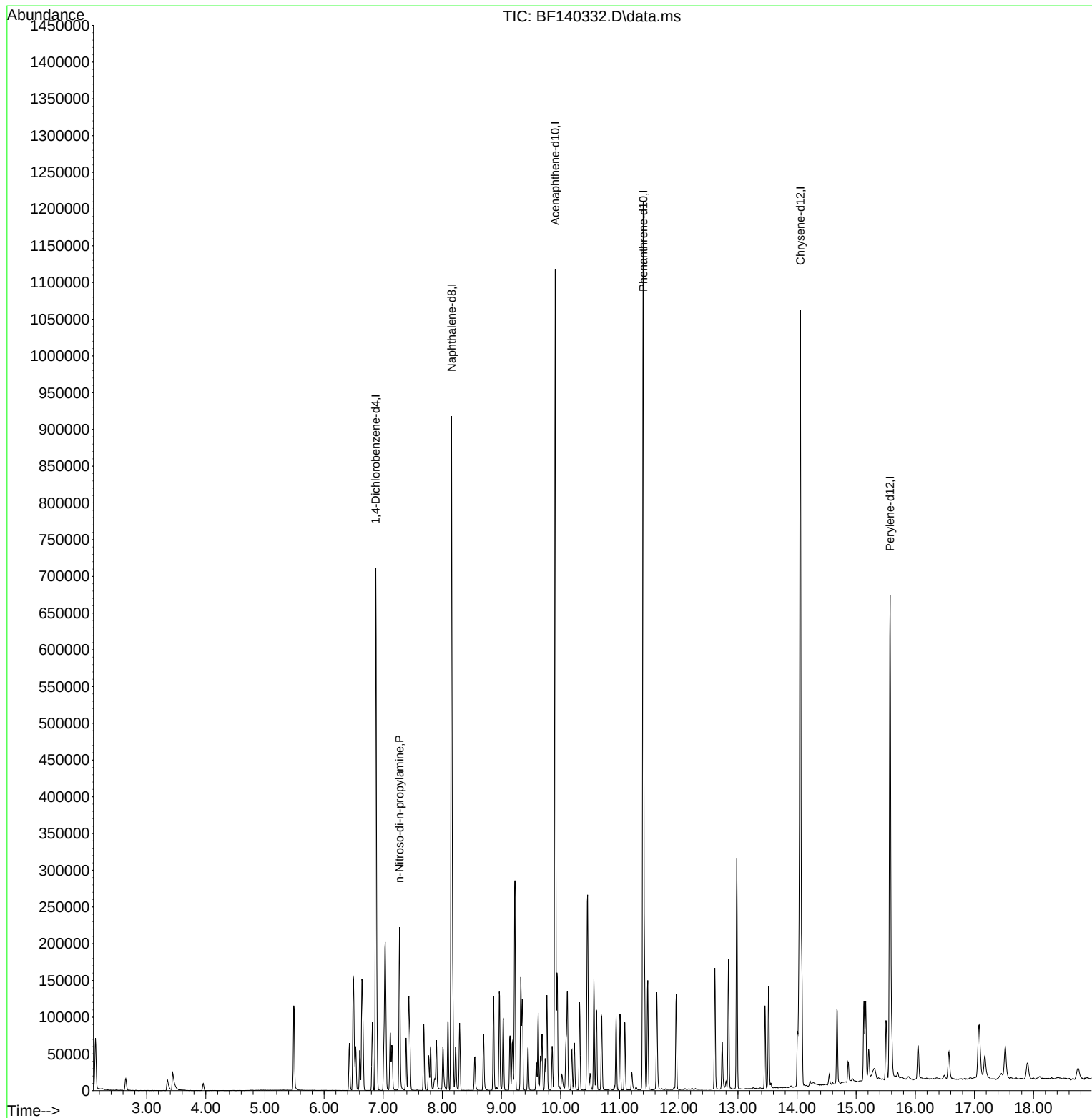
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.875	152	147206	20.000	ng	0.00
21) Naphthalene-d8	8.157	136	569357	20.000	ng	0.00
39) Acenaphthene-d10	9.910	164	324094	20.000	ng	0.00
64) Phenanthrene-d10	11.398	188	631650	20.000	ng	0.00
76) Chrysene-d12	14.057	240	473843	20.000	ng	0.00
86) Perylene-d12	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						
19) n-Nitroso-di-n-propyla...	7.275	70	18995	2.692	ng	Qvalue 97

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

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



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)

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

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

Instrument :
BNA_F
ClientSampleId :
SSTDICC005

Manual Integrations APPROVED

Supervised By :mohammad
ahmed
11/14/2024



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)

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

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

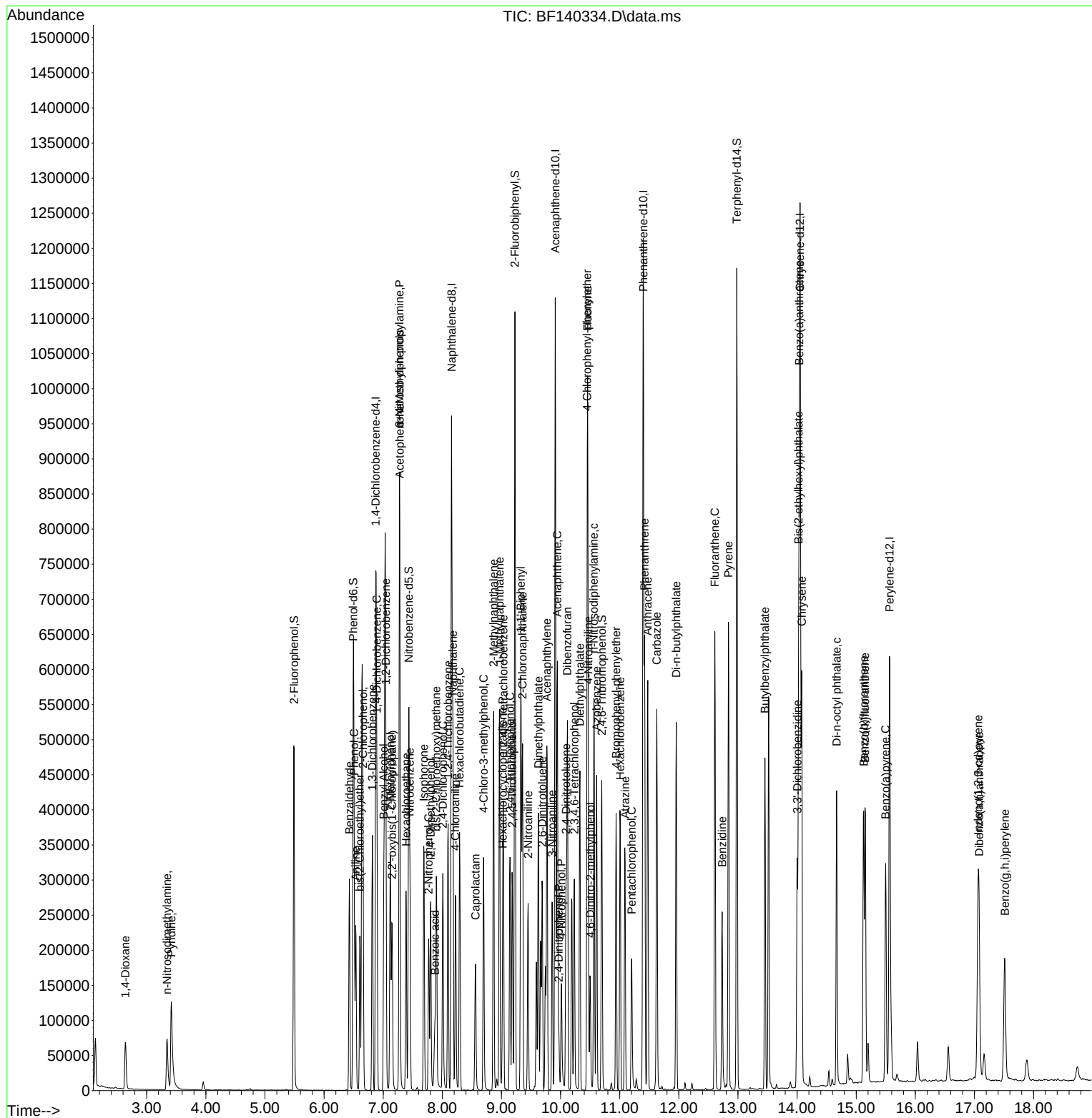
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
 Data File : BF140334.D
 Acq On : 13 Nov 2024 09:53
 Operator : RC/JU
 Sample : SSTDICC010
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

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



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

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

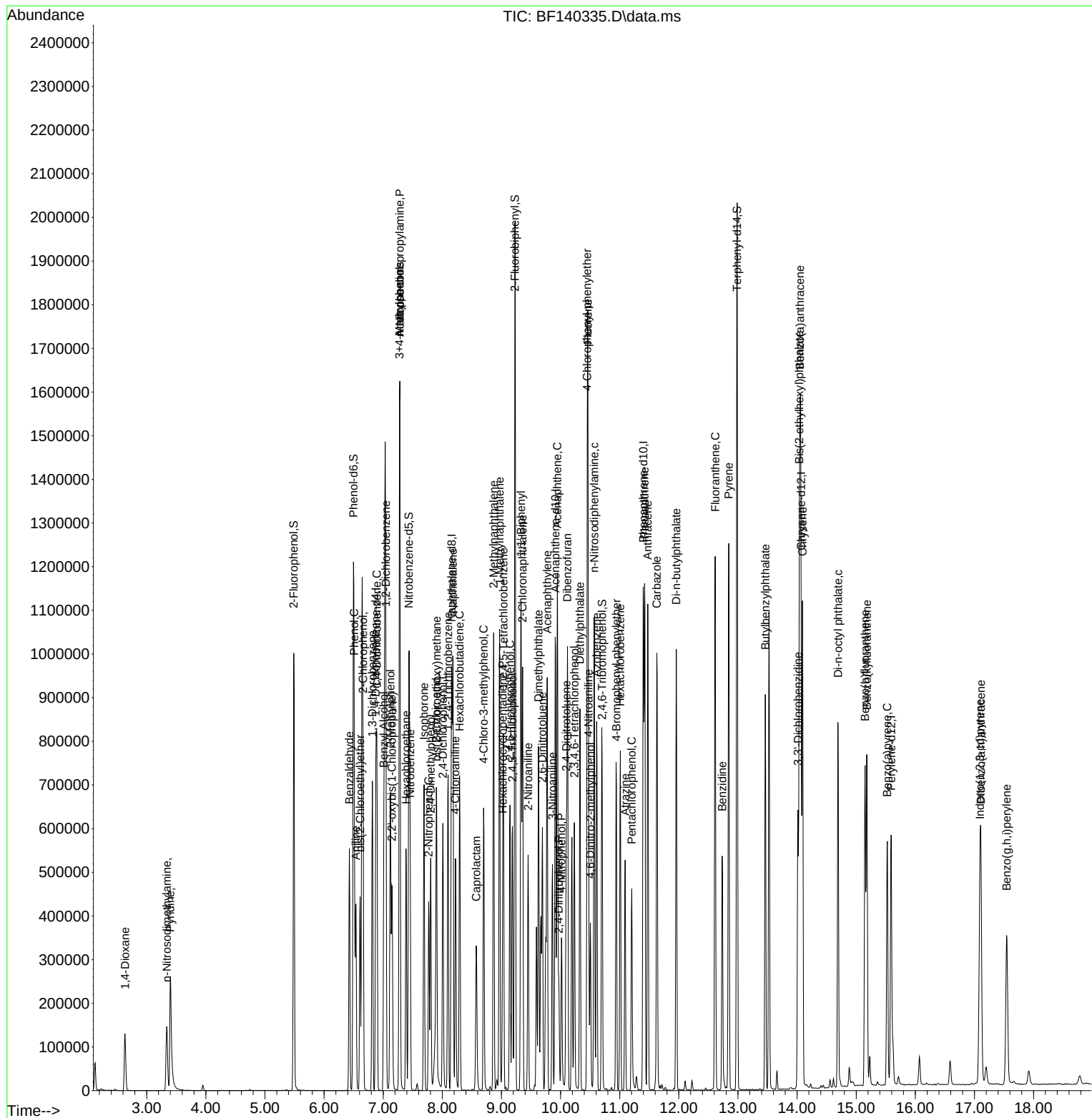
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.186	196	132413	20.789	ng	98
46) 1,1'-Biphenyl	9.333	154	502252	21.506	ng	99
47) 2-Chloronaphthalene	9.357	162	368985	20.741	ng	99
48) 2-Nitroaniline	9.451	65	123220	20.885	ng	98
49) Acenaphthylene	9.775	152	573335	21.301	ng	99
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

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



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

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

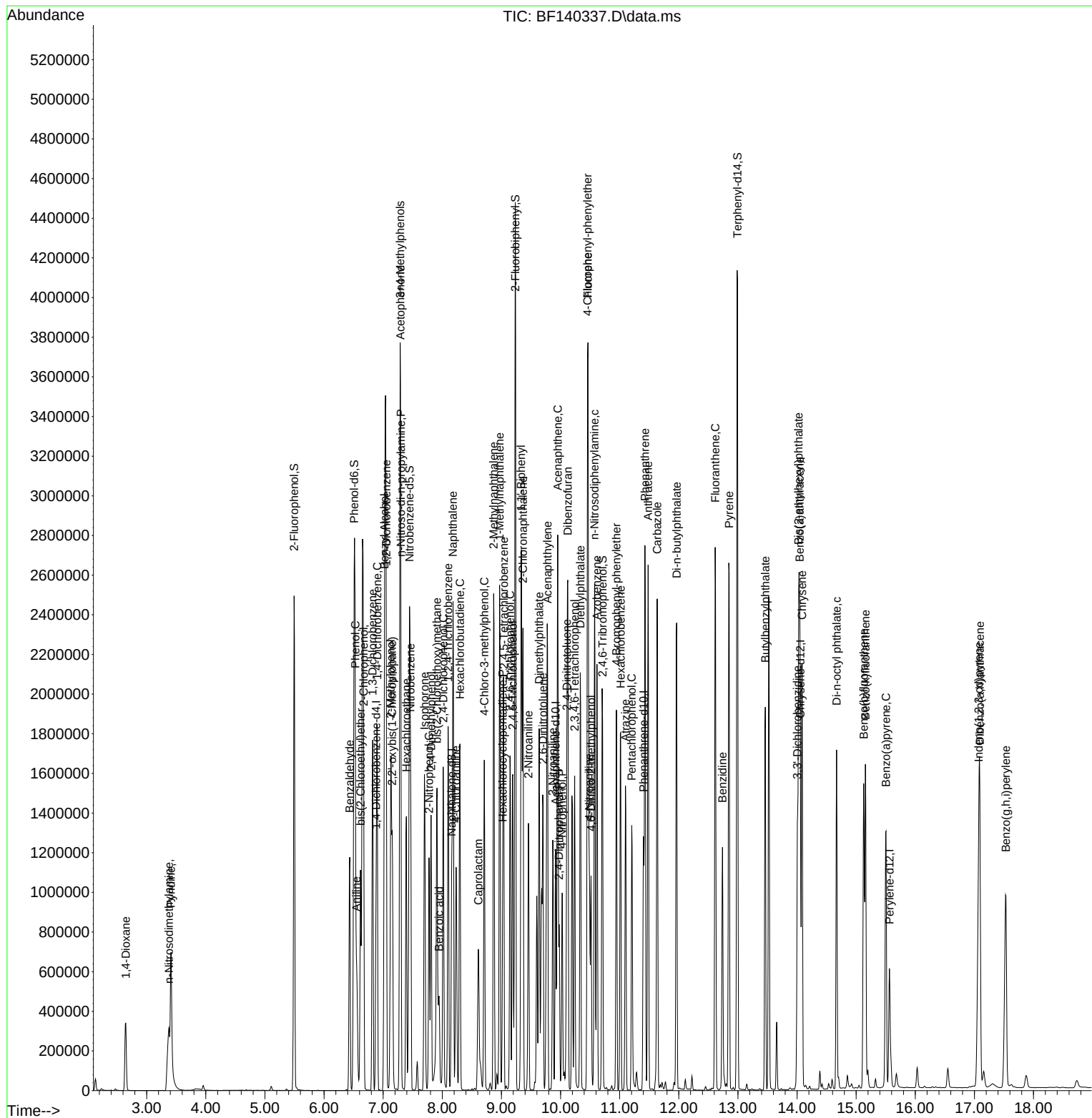
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.192	196	344237	48.773	ng	98
46) 1,1'-Biphenyl	9.334	154	1216913	47.025	ng	99
47) 2-Chloronaphthalene	9.363	162	945855	47.981	ng	99
48) 2-Nitroaniline	9.457	65	324847	49.689	ng	98
49) Acenaphthylene	9.781	152	1406468	47.156	ng	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

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



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

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

Instrument :
BNA_F
ClientSampleId :
SSTDICC060

[illegible]

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

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

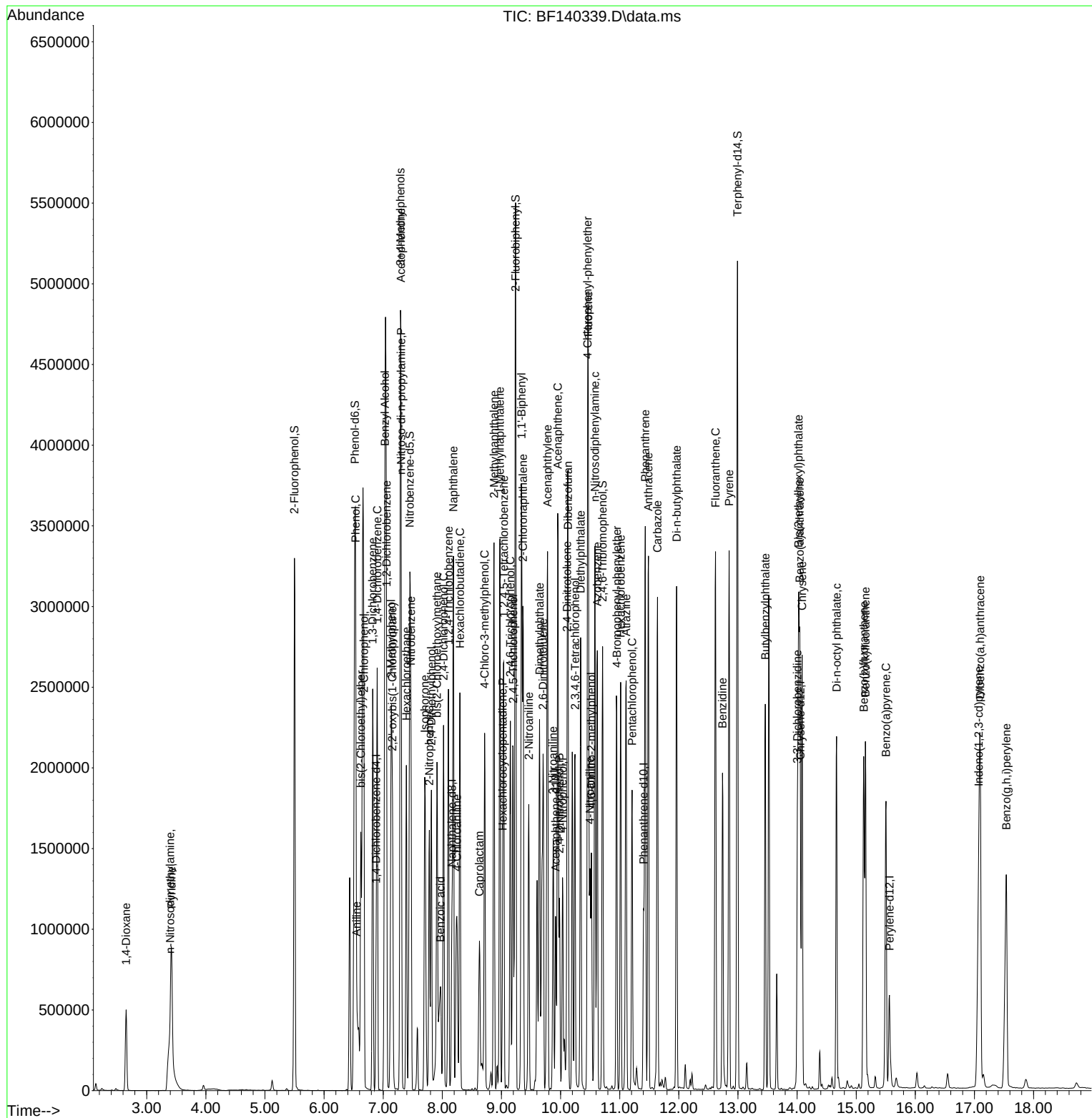
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) 1,1'-Biphenyl	9.339	154	1613420	68.375	ng	99
47) 2-Chloronaphthalene	9.363	162	1259442	70.067	ng	98
48) 2-Nitroaniline	9.463	65	454975	76.323	ng	98
49) Acenaphthylene	9.780	152	1869941	68.758	ng	99
50) Dimethylphthalate	9.645	163	1532197	72.473	ng	100
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

Instrument :
BNA_F
ClientSampleId :
SSTDICC080

Manual Integrations

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



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

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

Instrument :
BNA_F
ClientSampleId :
SSTDICCC040

[illegible]

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

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
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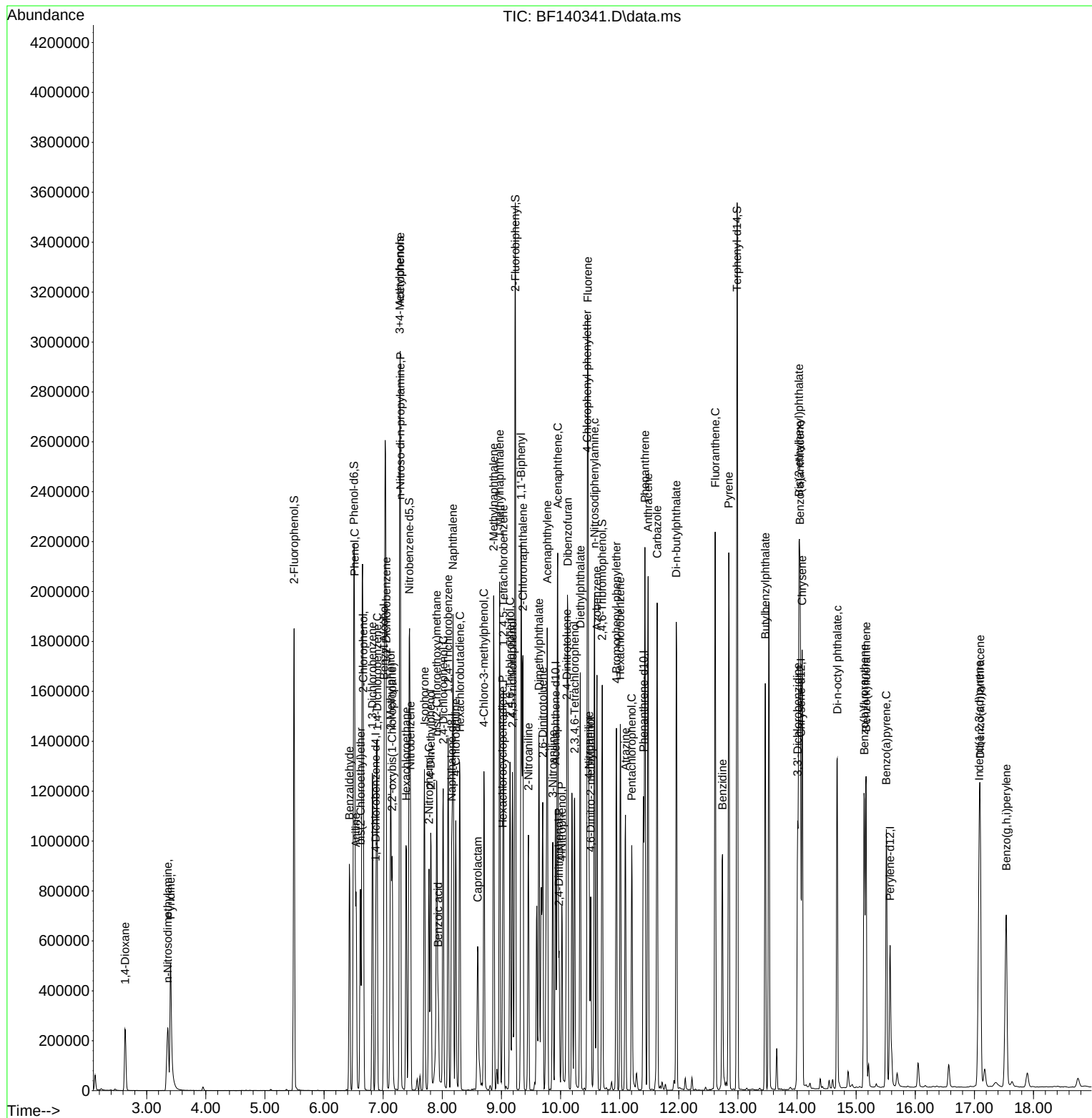
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.186	196	254749	38.542	ng	100
46) 1,1'-Biphenyl	9.334	154	946801	39.068	ng	99
47) 2-Chloronaphthalene	9.363	162	711544	38.543	ng	100
48) 2-Nitroaniline	9.457	65	243803	39.821	ng	99
49) Acenaphthylene	9.775	152	1088251	38.962	ng	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

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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
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 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	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

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	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

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
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Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
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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

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111324\
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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	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

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	Benzydine	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

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



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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: CLOU03

Lab Code: CHEM Case No.: P4779 SAS No.: P4779 SDG No.: P4779

Instrument ID: BNA_E Calibration Date/Time: 11/11/2024 10:19

Lab File ID: BE101564.D Init. Calib. Date(s): 11/06/2024 11/06/2024

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 13:51 18:02

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

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.131	1.139		0.7	
Benzaldehyde	0.759	0.613		-19.2	
Phenol-d6	1.551	1.527		-1.5	
Phenol	1.688	1.669		-1.1	20.0
bis(2-Chloroethyl)ether	1.397	1.470		5.2	
2-Chlorophenol	1.340	1.318		-1.6	
2-Methylphenol	1.093	1.063		-2.7	
2,2-oxybis(1-Chloropropane)	1.654	1.652		-0.1	
Acetophenone	0.453	0.448		-1.1	
3+4-Methylphenols	1.515	1.447		-4.5	
n-Nitroso-di-n-propylamine	1.023	0.985	0.050	-3.7	
Nitrobenzene-d5	0.317	0.328		3.5	
Hexachloroethane	0.500	0.500		0.0	
Nitrobenzene	0.329	0.341		3.6	
Isophorone	0.616	0.607		-1.5	
2-Nitrophenol	0.175	0.176		0.6	20.0
2,4-Dimethylphenol	0.203	0.202		-0.5	
bis(2-Chloroethoxy)methane	0.377	0.369		-2.1	
2,4-Dichlorophenol	0.288	0.284		-1.4	20.0
Naphthalene	1.010	1.008		-0.2	
4-Chloroaniline	0.355	0.352		-0.8	
Hexachlorobutadiene	0.198	0.196		-1.0	20.0
Caprolactam	0.106	0.104		-1.9	
4-Chloro-3-methylphenol	0.314	0.307		-2.2	20.0
2-Methylnaphthalene	0.717	0.702		-2.1	
Hexachlorocyclopentadiene	0.154	0.177	0.050	14.9	
2,4,6-Trichlorophenol	0.362	0.364		0.6	20.0
2-Fluorobiphenyl	1.225	1.263		3.1	
2,4,5-Trichlorophenol	0.403	0.410		1.7	
1,1-Biphenyl	1.380	1.394		1.0	
2-Chloronaphthalene	1.088	1.094		0.6	
2-Nitroaniline	0.288	0.314		9.0	
Dimethylphthalate	1.424	1.413		-0.8	
Acenaphthylene	1.622	1.641		1.2	
2,6-Dinitrotoluene	0.329	0.332		0.9	
3-Nitroaniline	0.319	0.346		8.5	
Acenaphthene	1.035	1.053		1.7	20.0
2,4-Dinitrophenol	0.193	0.212	0.050	9.8	
4-Nitrophenol	0.264	0.290	0.050	9.8	



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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: CLOU03

Lab Code: CHEM Case No.: P4779 SAS No.: P4779 SDG No.: P4779

Instrument ID: BNA_E Calibration Date/Time: 11/11/2024 10:19

Lab File ID: BE101564.D Init. Calib. Date(s): 11/06/2024 11/06/2024

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 13:51 18:02

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

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.666	1.666		0.0	
2,4-Dinitrotoluene	0.462	0.483		4.5	
Diethylphthalate	1.502	1.505		0.2	
4-Chlorophenyl-phenylether	0.706	0.698		-1.1	
Fluorene	1.391	1.415		1.7	
4-Nitroaniline	0.344	0.376		9.3	
4,6-Dinitro-2-methylphenol	0.119	0.128		7.6	
n-Nitrosodiphenylamine	0.531	0.532		0.2	20.0
2,4,6-Tribromophenol	0.376	0.369		-1.9	
4-Bromophenyl-phenylether	0.221	0.213		-3.6	
Hexachlorobenzene	0.290	0.283		-2.4	
Atrazine	0.157	0.160		1.9	
Pentachlorophenol	0.158	0.168		6.3	20.0
Phenanthrene	0.973	0.979		0.6	
Anthracene	0.961	0.973		1.2	
Carbazole	0.963	1.000		3.8	
Di-n-butylphthalate	1.190	1.206		1.3	
Fluoranthene	1.247	1.288		3.3	20.0
Pyrene	1.138	1.146		0.7	
Terphenyl-d14	0.904	0.916		1.3	
Butylbenzylphthalate	0.511	0.516		1.0	
3,3-Dichlorobenzidine	0.468	0.486		3.8	
Benzo (a) anthracene	1.188	1.211		1.9	
Chrysene	1.129	1.144		1.3	
Bis(2-ethylhexyl)phthalate	0.773	0.763		-1.3	
Di-n-octyl phthalate	1.308	1.288		-1.5	20.0
Benzo (b) fluoranthene	1.097	1.125		2.6	
Benzo (k) fluoranthene	0.996	1.055		5.9	
Benzo (a) pyrene	0.947	0.953		0.6	20.0
Indeno (1,2,3-cd) pyrene	1.374	1.369		-0.4	
Dibenzo (a,h) anthracene	1.145	1.138		-0.6	
Benzo (g,h,i) perylene	1.163	1.142		-1.8	
1,2,4,5-Tetrachlorobenzene	0.527	0.532		0.9	
1,4-Dioxane	0.421	0.420		-0.2	20.0
2,3,4,6-Tetrachlorophenol	0.373	0.374		0.3	

All other compounds must meet a minimum RRF of 0.010.

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
 Data File : BE101564.D
 Acq On : 11 Nov 2024 10:19
 Operator : RC/JU
 Sample : SSTDCCC040
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

SSTDCCC040

Manual Integrations

APPROVED

Reviewed By :Yogesh
 Patel

Quant Time: Nov 11 09:59:34 2024

Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Thu Nov 07 00:01:20 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							11/12/2024
1) 1,4-Dichlorobenzene-d4	7.559	152	67067	20.000	ng	0.00	Supervised By :mohammad Ahmed
21) Naphthalene-d8	10.326	136	291057	20.000	ng	0.00	
39) Acenaphthene-d10	14.169	164	192797	20.000	ng	0.00	
64) Phenanthrene-d10	16.907	188	444449	20.000	ng	0.00	
76) Chrysene-d12	21.072	240	521359	20.000	ng	0.00	
86) Perylene-d12	23.358	264	640453	20.000	ng	0.00	11/12/2024
System Monitoring Compounds							
5) 2-Fluorophenol	5.308	112	305599	80.569	ng	0.00	
7) Phenol-d6	6.942	99	409555	78.753	ng	0.00	
23) Nitrobenzene-d5	8.769	82	381606	82.816	ng	0.00	
42) 2,4,6-Tribromophenol	15.679	330	284258	78.354	ng	0.00	
45) 2-Fluorobiphenyl	12.794	172	973668	82.460	ng	0.00	
79) Terphenyl-d14	19.504	244	1909391	81.068	ng	0.00	
Target Compounds							Qvalue
2) 1,4-Dioxane	3.187	88	56345	39.918	ng		97
3) Pyridine	3.610	79	163077m	41.310	ng		
4) n-Nitrosodimethylamine	3.534	42	66264	42.389	ng		93
6) Aniline	6.995	93	134051	34.344	ng		97
8) 2-Chlorophenol	7.200	128	176806	39.345	ng		98
9) Benzaldehyde	6.766	77	82281	32.345	ng		98
10) Phenol	6.965	94	223890	39.551	ng		99
11) bis(2-Chloroethyl)ether	7.024	93	197194	42.080	ng		99
12) 1,3-Dichlorobenzene	7.441	146	195079	39.764	ng		98
13) 1,4-Dichlorobenzene	7.588	146	197767	39.799	ng		99
14) 1,2-Dichlorobenzene	7.917	146	193218	39.612	ng		99
15) Benzyl Alcohol	7.894	79	123428	40.630	ng		98
16) 2,2'-oxybis(1-Chloropr...	8.064	45	221624	39.953	ng		97
17) 2-Methylphenol	8.146	107	142540	38.894	ng		99
18) Hexachloroethane	8.610	117	67044	39.952	ng		98
19) n-Nitroso-di-n-propyla...	8.358	70	132139	38.536	ng		98
20) 3+4-Methylphenols	8.481	107	194113	38.199	ng		98
22) Acetophenone	8.411	105	260625	39.539	ng	#	99
24) Nitrobenzene	8.810	77	198489	41.415	ng		96
25) Isophorone	9.257	82	353410	39.411	ng		98
26) 2-Nitrophenol	9.498	139	102696	40.264	ng		99
27) 2,4-Dimethylphenol	9.615	122	117795	39.915	ng		97
28) bis(2-Chloroethoxy)met...	9.756	93	214929	39.155	ng		99
29) 2,4-Dichlorophenol	10.050	162	165534	39.512	ng		98
30) 1,2,4-Trichlorobenzene	10.173	180	185621	39.689	ng		100
31) Naphthalene	10.373	128	586970	39.947	ng		100
32) Benzoic acid	9.903	122	111469	41.502	ng		97
33) 4-Chloroaniline	10.602	127	205160	39.705	ng		99
34) Hexachlorobutadiene	10.620	225	113882	39.507	ng		98
35) Caprolactam	11.384	113	60423	39.275	ng		93
36) 4-Chloro-3-methylphenol	11.777	107	178429	39.002	ng		99
37) 2-Methylnaphthalene	11.965	142	408490	39.141	ng		98
38) 1-Methylnaphthalene	12.189	142	405218	38.934	ng		100
40) 1,2,4,5-Tetrachloroben...	12.324	216	205323	40.394	ng		100
41) Hexachlorocyclopentadiene	12.300	237	68314	46.055	ng		99
43) 2,4,6-Trichlorophenol	12.641	196	140252	40.177	ng		99

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
 Data File : BE101564.D
 Acq On : 11 Nov 2024 10:19
 Operator : RC/JU
 Sample : SSTDCCC040
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

SSTDCCC040

Manual Integrations

APPROVED

Reviewed By :Yogesh
 Patel

Quant Time: Nov 11 09:59:34 2024

Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Thu Nov 07 00:01:20 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	12.753	196	157982	40.622	ng	99
46) 1,1'-Biphenyl	12.999	154	537421	40.411	ng	99
47) 2-Chloronaphthalene	13.041	162	421999	40.232	ng	99
48) 2-Nitroaniline	13.375	65	121229	43.662	ng	95
49) Acenaphthylene	13.904	152	632657	40.474	ng	99
50) Dimethylphthalate	13.675	163	544950	39.693	ng	100
51) 2,6-Dinitrotoluene	13.816	165	127908	40.366	ng	99
52) Acenaphthene	14.233	154	406213	40.724	ng	99
53) 3-Nitroaniline	14.221	138	133344	43.346	ng	97
54) 2,4-Dinitrophenol	14.362	184	81715	44.005	ng	96
55) Dibenzofuran	14.574	168	642222	39.982	ng	100
56) 4-Nitrophenol	14.650	139	111721	43.981	ng	96
57) 2,4-Dinitrotoluene	14.598	165	186077	41.799	ng	98
58) Fluorene	15.214	166	545733	40.711	ng	100
59) 2,3,4,6-Tetrachlorophenol	14.844	232	144045	40.027	ng	99
60) Diethylphthalate	15.003	149	580398	40.094	ng	100
61) 4-Chlorophenyl-phenyle...	15.197	204	269052	39.525	ng	98
62) 4-Nitroaniline	15.414	138	145065	43.769	ng	96
63) Azobenzene	15.496	77	490519	41.535	ng	98
65) 4,6-Dinitro-2-methylph...	15.344	198	113495	43.019	ng	95
66) n-Nitrosodiphenylamine	15.449	169	472567	40.065	ng	100
67) 4-Bromophenyl-phenylether	16.084	248	189534	38.665	ng	99
68) Hexachlorobenzene	16.196	284	251337	38.959	ng	99
69) Atrazine	16.384	200	142085	40.802	ng	97
70) Pentachlorophenol	16.601	266	149326	42.659	ng	99
71) Phenanthrene	16.948	178	870366	40.264	ng	100
72) Anthracene	17.036	178	864598	40.502	ng	100
73) Carbazole	17.365	167	888501	41.504	ng	99
74) Di-n-butylphthalate	17.811	149	1072313	40.562	ng	100
75) Fluoranthene	18.957	202	1144466	41.293	ng	99
77) Benzidine	19.210	184	527619	47.112	ng	100
78) Pyrene	19.321	202	1195297	40.294	ng	99
80) Butylbenzylphthalate	20.173	149	537832	40.344	ng	98
81) Benzo(a)anthracene	21.049	228	1262423	40.771	ng	100
82) 3,3'-Dichlorobenzidine	21.025	252	506976	41.593	ng	99
83) Chrysene	21.108	228	1193154	40.541	ng	99
84) Bis(2-ethylhexyl)phtha...	20.872	149	795689	39.478	ng	99
85) Di-n-octyl phthalate	21.719	149	1343159	39.392	ng	99
87) Indeno(1,2,3-cd)pyrene	25.690	276	1753889	39.850	ng	99
88) Benzo(b)fluoranthene	22.647	252	1440959	41.009	ng	99
89) Benzo(k)fluoranthene	22.694	252	1350733	42.346	ng	100
90) Benzo(a)pyrene	23.246	252	1220358	40.228	ng	100
91) Dibenzo(a,h)anthracene	25.679	278	1457054	39.752	ng	99
92) Benzo(g,h,i)perylene	26.437	276	1463085	39.289	ng	99

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

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
Data File : BE101564.D
Acq On : 11 Nov 2024 10:19
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

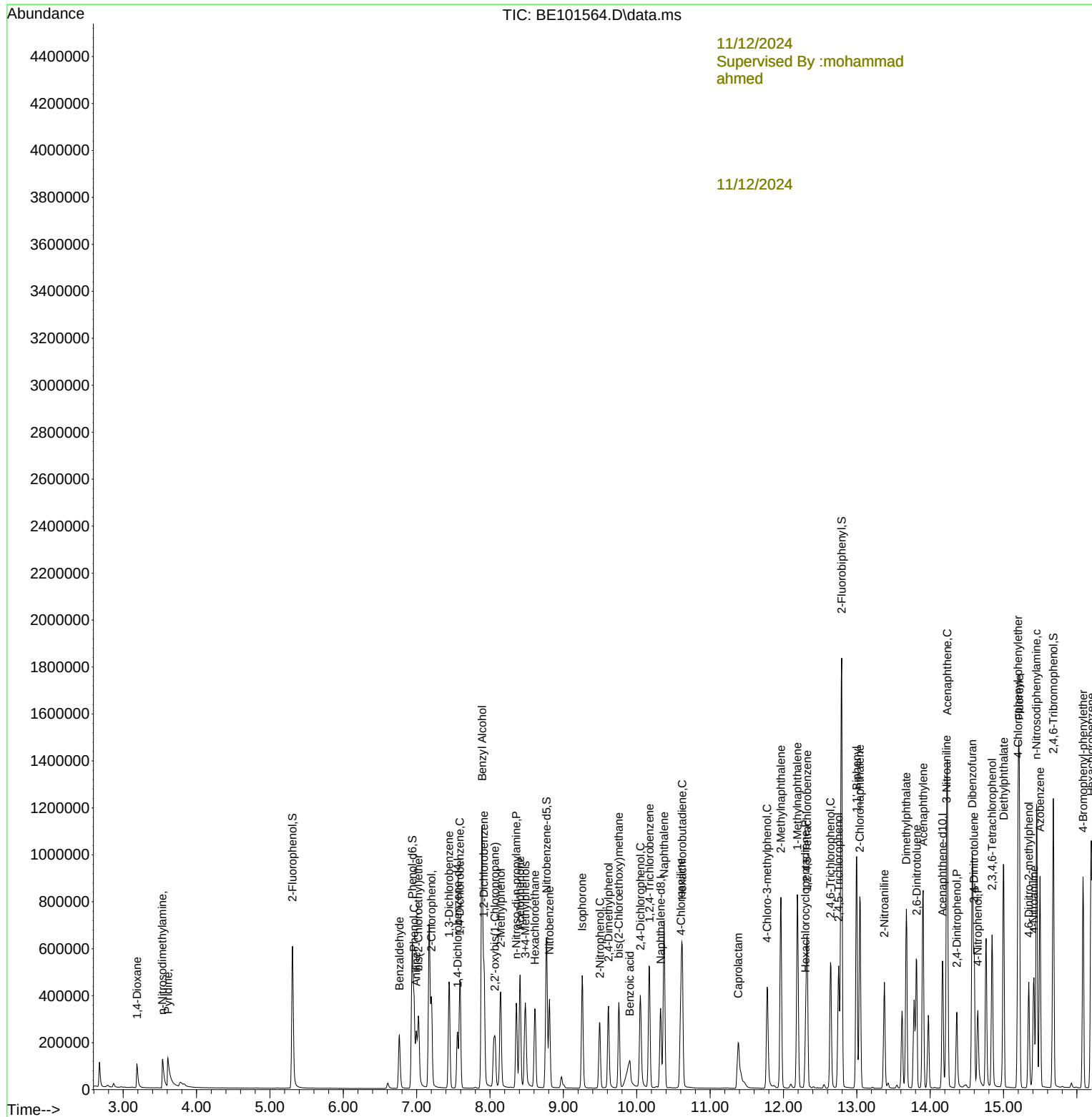
SSTDCCC040

Manual Integrations

APPROVED

Reviewed By :Yogesh
Patel

Quant Time: Nov 11 09:59:34 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 07 00:01:20 2024
Response via : Initial Calibration



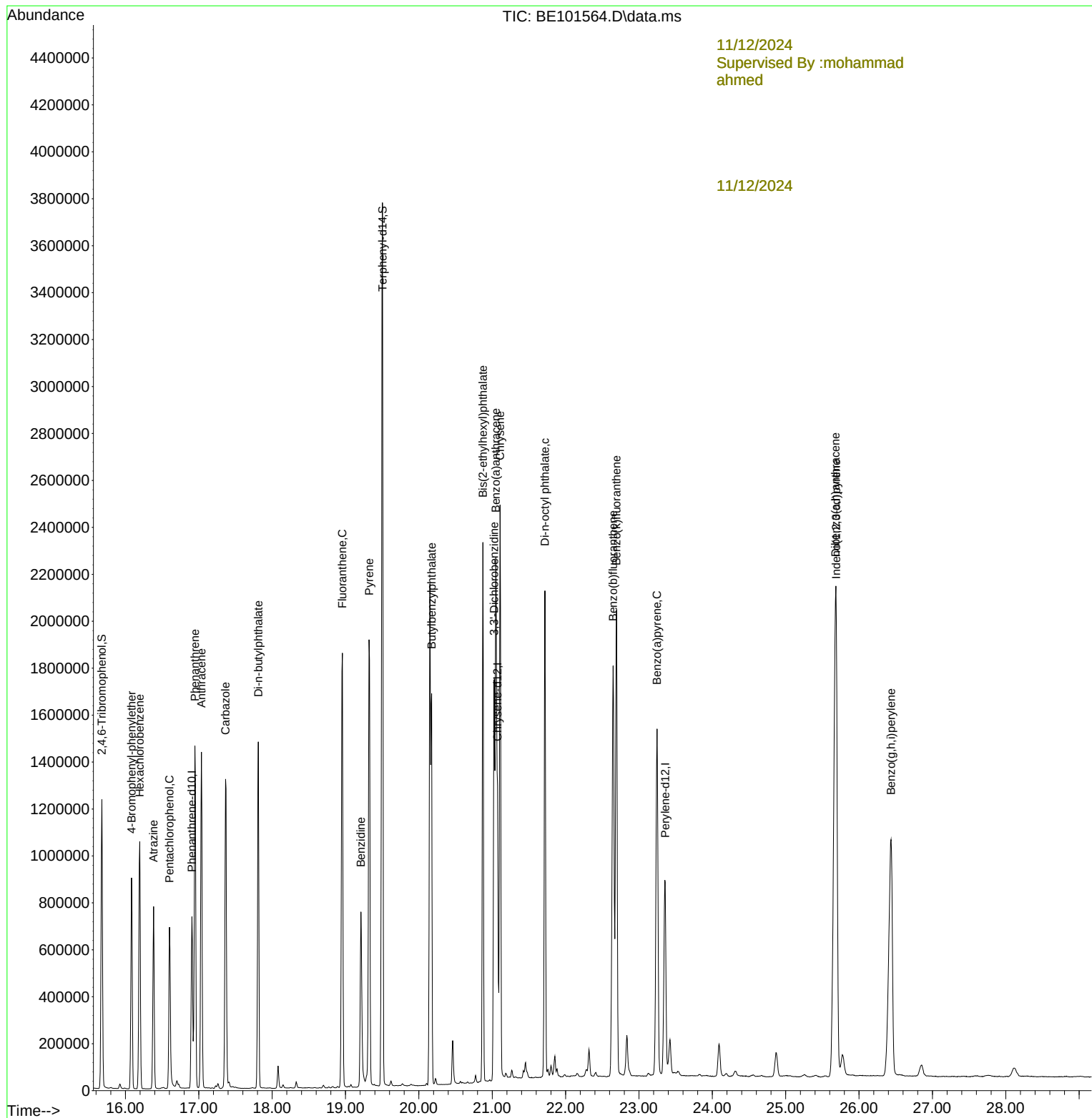
Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
Data File : BE101564.D
Acq On : 11 Nov 2024 10:19
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
SSTDCCC040

Manual Integrations
APPROVED

Reviewed By :Yogesh
Patel

Quant Time: Nov 11 09:59:34 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 07 00:01:20 2024
Response via : Initial Calibration



Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
 Data File : BE101564.D
 Acq On : 11 Nov 2024 10:19
 Operator : RC/JU
 Sample : SSTDCCC040
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 BNA_E
 LabSampleId :
 SSTDCCC040

Quant Time: Nov 11 09:59:34 2024
 Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Thu Nov 07 00:01:20 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	103	0.00
2	1,4-Dioxane	0.421	0.420	0.2	106	0.00
3	Pyridine	1.177	1.216	-3.3	108	-0.01
4	n-Nitrosodimethylamine	0.466	0.494	-6.0	114	-0.01
5 S	2-Fluorophenol	1.131	1.139	-0.7	106	0.00
6	Aniline	1.164	0.999	14.2	75	0.00
7 S	Phenol-d6	1.551	1.527	1.5	102	0.00
8	2-Chlorophenol	1.340	1.318	1.6	103	0.00
9	Benzaldehyde	0.759	0.613	19.2	82	0.00
10 C	Phenol	1.688	1.669	1.1	103	0.00
11	bis(2-Chloroethyl)ether	1.397	1.470	-5.2	129	0.00
12	1,3-Dichlorobenzene	1.463	1.454	0.6	105	-0.01
13 C	1,4-Dichlorobenzene	1.482	1.474	0.5	105	-0.01
14	1,2-Dichlorobenzene	1.455	1.440	1.0	104	-0.01
15	Benzyl Alcohol	0.906	0.920	-1.5	103	0.00
16	2,2'-oxybis(1-Chloropropane	1.654	1.652	0.1	104	0.00
17	2-Methylphenol	1.093	1.063	2.7	98	0.00
18	Hexachloroethane	0.500	0.500	0.0	106	0.00
19 P	n-Nitroso-di-n-propylamine	1.023	0.985	3.7	98	0.00
20	3+4-Methylphenols	1.515	1.447	4.5	97	0.00
21 I	Naphthalene-d8	1.000	1.000	0.0	96	0.00
22	Acetophenone	0.453	0.448	1.1	97	0.00
23 S	Nitrobenzene-d5	0.317	0.328	-3.5	101	0.00
24	Nitrobenzene	0.329	0.341	-3.6	101	0.00
25	Isophorone	0.616	0.607	1.5	95	-0.01
26 C	2-Nitrophenol	0.175	0.176	-0.6	97	0.00
27	2,4-Dimethylphenol	0.203	0.202	0.5	98	0.00
28	bis(2-Chloroethoxy)methane	0.377	0.369	2.1	96	0.00
29 C	2,4-Dichlorophenol	0.288	0.284	1.4	96	0.00
30	1,2,4-Trichlorobenzene	0.321	0.319	0.6	98	0.00
31	Naphthalene	1.010	1.008	0.2	98	0.00
32	Benzoic acid	0.168	0.191	-13.7	111	0.00
33	4-Chloroaniline	0.355	0.352	0.8	94	0.00
34 C	Hexachlorobutadiene	0.198	0.196	1.0	98	0.00
35	Caprolactam	0.106	0.104	1.9	93	-0.01
36 C	4-Chloro-3-methylphenol	0.314	0.307	2.2	94	-0.01
37	2-Methylnaphthalene	0.717	0.702	2.1	95	0.00
38	1-Methylnaphthalene	0.715	0.696	2.7	96	-0.01
39 I	Acenaphthene-d10	1.000	1.000	0.0	89	0.00
40	1,2,4,5-Tetrachlorobenzene	0.527	0.532	-0.9	93	0.00
41 P	Hexachlorocyclopentadiene	0.154	0.177	-14.9	95	-0.01
42 S	2,4,6-Tribromophenol	0.376	0.369	1.9	89	0.00
43 C	2,4,6-Trichlorophenol	0.362	0.364	-0.6	91	0.00
44	2,4,5-Trichlorophenol	0.403	0.410	-1.7	92	0.00
45 S	2-Fluorobiphenyl	1.225	1.263	-3.1	94	0.00
46	1,1'-Biphenyl	1.380	1.394	-1.0	93	0.00
47	2-Chloronaphthalene	1.088	1.094	-0.6	92	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
 Data File : BE101564.D
 Acq On : 11 Nov 2024 10:19
 Operator : RC/JU
 Sample : SSTDCCC040
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 BNA_E
 LabSampleId :
 SSTDCCC040

Quant Time: Nov 11 09:59:34 2024
 Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Thu Nov 07 00:01:20 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	0.288	0.314	-9.0	98	0.00
49	Acenaphthylene	1.622	1.641	-1.2	93	0.00
50	Dimethylphthalate	1.424	1.413	0.8	91	0.00
51	2,6-Dinitrotoluene	0.329	0.332	-0.9	92	0.00
52 C	Acenaphthene	1.035	1.053	-1.7	94	0.00
53	3-Nitroaniline	0.319	0.346	-8.5	94	0.00
54 P	2,4-Dinitrophenol	0.193	0.212	-9.8	98	0.00
55	Dibenzofuran	1.666	1.666	0.0	92	0.00
56 P	4-Nitrophenol	0.264	0.290	-9.8	94	0.00
57	2,4-Dinitrotoluene	0.462	0.483	-4.5	94	0.00
58	Fluorene	1.391	1.415	-1.7	93	0.00
59	2,3,4,6-Tetrachlorophenol	0.373	0.374	-0.3	91	0.00
60	Diethylphthalate	1.502	1.505	-0.2	92	0.00
61	4-Chlorophenyl-phenylether	0.706	0.698	1.1	91	0.00
62	4-Nitroaniline	0.344	0.376	-9.3	97	0.00
63	Azobenzene	1.225	1.272	-3.8	95	0.00
64 I	Phenanthrene-d10	1.000	1.000	0.0	90	0.00
65	4,6-Dinitro-2-methylphenol	0.119	0.128	-7.6	94	0.00
66 c	n-Nitrosodiphenylamine	0.531	0.532	-0.2	93	0.00
67	4-Bromophenyl-phenylether	0.221	0.213	3.6	90	0.00
68	Hexachlorobenzene	0.290	0.283	2.4	91	0.00
69	Atrazine	0.157	0.160	-1.9	85	0.00
70 C	Pentachlorophenol	0.158	0.168	-6.3	94	0.00
71	Phenanthrene	0.973	0.979	-0.6	94	0.00
72	Anthracene	0.961	0.973	-1.2	93	0.00
73	Carbazole	0.963	1.000	-3.8	96	0.00
74	Di-n-butylphthalate	1.190	1.206	-1.3	93	0.00
75 C	Fluoranthene	1.247	1.288	-3.3	96	0.00
76 I	Chrysene-d12	1.000	1.000	0.0	95	0.00
77	Benzydine	0.430	0.506	-17.7	119	0.00
78	Pyrene	1.138	1.146	-0.7	96	0.00
79 S	Terphenyl-d14	0.904	0.916	-1.3	96	0.00
80	Butylbenzylphthalate	0.511	0.516	-1.0	96	0.00
81	Benzo(a)anthracene	1.188	1.211	-1.9	98	0.00
82	3,3'-Dichlorobenzidine	0.468	0.486	-3.8	98	0.00
83	Chrysene	1.129	1.144	-1.3	97	0.00
84	Bis(2-ethylhexyl)phthalate	0.773	0.763	1.3	95	0.00
85 c	Di-n-octyl phthalate	1.308	1.288	1.5	95	0.00
86 I	Perylene-d12	1.000	1.000	0.0	89	0.00
87	Indeno(1,2,3-cd)pyrene	1.374	1.369	0.4	91	0.00
88	Benzo(b)fluoranthene	1.097	1.125	-2.6	95	0.00
89	Benzo(k)fluoranthene	0.996	1.055	-5.9	96	0.00
90 C	Benzo(a)pyrene	0.947	0.953	-0.6	92	0.00
91	Dibenzo(a,h)anthracene	1.145	1.138	0.6	90	0.00
92	Benzo(g,h,i)perylene	1.163	1.142	1.8	90	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
Data File : BE101564.D
Acq On : 11 Nov 2024 10:19
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_E
LabSampleId :
SSTDCCC040

Quant Time: Nov 11 09:59:34 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 07 00:01:20 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

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
 Data File : BE101564.D
 Acq On : 11 Nov 2024 10:19
 Operator : RC/JU
 Sample : SSTDCCC040
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Instrument :
 BNA_E
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Quant Time: Nov 11 09:59:34 2024
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 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
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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)
1 I	1,4-Dichlorobenzene-d4	20.000	20.000	0.0	103	0.00
2	1,4-Dioxane	40.000	39.918	0.2	106	0.00
3	Pyridine	40.000	41.310	-3.3	108	-0.01
4	n-Nitrosodimethylamine	40.000	42.389	-6.0	114	-0.01
5 S	2-Fluorophenol	80.000	80.569	-0.7	106	0.00
6	Aniline	40.000	34.344	14.1	75	0.00
7 S	Phenol-d6	80.000	78.753	1.6	102	0.00
8	2-Chlorophenol	40.000	39.345	1.6	103	0.00
9	Benzaldehyde	40.000	32.345	19.1	82	0.00
10 C	Phenol	40.000	39.551	1.1	103	0.00
11	bis(2-Chloroethyl)ether	40.000	42.080	-5.2	129	0.00
12	1,3-Dichlorobenzene	40.000	39.764	0.6	105	-0.01
13 C	1,4-Dichlorobenzene	40.000	39.799	0.5	105	-0.01
14	1,2-Dichlorobenzene	40.000	39.612	1.0	104	-0.01
15	Benzyl Alcohol	40.000	40.630	-1.6	103	0.00
16	2,2'-oxybis(1-Chloropropane	40.000	39.953	0.1	104	0.00
17	2-Methylphenol	40.000	38.894	2.8	98	0.00
18	Hexachloroethane	40.000	39.952	0.1	106	0.00
19 P	n-Nitroso-di-n-propylamine	40.000	38.536	3.7	98	0.00
20	3+4-Methylphenols	40.000	38.199	4.5	97	0.00
21 I	Naphthalene-d8	20.000	20.000	0.0	96	0.00
22	Acetophenone	40.000	39.539	1.2	97	0.00
23 S	Nitrobenzene-d5	80.000	82.816	-3.5	101	0.00
24	Nitrobenzene	40.000	41.415	-3.5	101	0.00
25	Isophorone	40.000	39.411	1.5	95	-0.01
26 C	2-Nitrophenol	40.000	40.264	-0.7	97	0.00
27	2,4-Dimethylphenol	40.000	39.915	0.2	98	0.00
28	bis(2-Chloroethoxy)methane	40.000	39.155	2.1	96	0.00
29 C	2,4-Dichlorophenol	40.000	39.512	1.2	96	0.00
30	1,2,4-Trichlorobenzene	40.000	39.689	0.8	98	0.00
31	Naphthalene	40.000	39.947	0.1	98	0.00
32	Benzoic acid	40.000	41.502	-3.8	111	0.00
33	4-Chloroaniline	40.000	39.705	0.7	94	0.00
34 C	Hexachlorobutadiene	40.000	39.507	1.2	98	0.00
35	Caprolactam	40.000	39.275	1.8	93	-0.01
36 C	4-Chloro-3-methylphenol	40.000	39.002	2.5	94	-0.01
37	2-Methylnaphthalene	40.000	39.141	2.1	95	0.00
38	1-Methylnaphthalene	40.000	38.934	2.7	96	-0.01
39 I	Acenaphthene-d10	20.000	20.000	0.0	89	0.00
40	1,2,4,5-Tetrachlorobenzene	40.000	40.394	-1.0	93	0.00
41 P	Hexachlorocyclopentadiene	40.000	46.055	-15.1	95	-0.01
42 S	2,4,6-Tribromophenol	80.000	78.354	2.1	89	0.00
43 C	2,4,6-Trichlorophenol	40.000	40.177	-0.4	91	0.00
44	2,4,5-Trichlorophenol	40.000	40.622	-1.6	92	0.00
45 S	2-Fluorobiphenyl	80.000	82.460	-3.1	94	0.00
46	1,1'-Biphenyl	40.000	40.411	-1.0	93	0.00
47	2-Chloronaphthalene	40.000	40.232	-0.6	92	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
 Data File : BE101564.D
 Acq On : 11 Nov 2024 10:19
 Operator : RC/JU
 Sample : SSTDCCC040
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 BNA_E
 LabSampleId :
 SSTDCCC040

Quant Time: Nov 11 09:59:34 2024
 Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Thu Nov 07 00:01:20 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	43.662	-9.2	98	0.00
49	Acenaphthylene	40.000	40.474	-1.2	93	0.00
50	Dimethylphthalate	40.000	39.693	0.8	91	0.00
51	2,6-Dinitrotoluene	40.000	40.366	-0.9	92	0.00
52 C	Acenaphthene	40.000	40.724	-1.8	94	0.00
53	3-Nitroaniline	40.000	43.346	-8.4	94	0.00
54 P	2,4-Dinitrophenol	40.000	44.005	-10.0	98	0.00
55	Dibenzofuran	40.000	39.982	0.0	92	0.00
56 P	4-Nitrophenol	40.000	43.981	-10.0	94	0.00
57	2,4-Dinitrotoluene	40.000	41.799	-4.5	94	0.00
58	Fluorene	40.000	40.711	-1.8	93	0.00
59	2,3,4,6-Tetrachlorophenol	40.000	40.027	-0.1	91	0.00
60	Diethylphthalate	40.000	40.094	-0.2	92	0.00
61	4-Chlorophenyl-phenylether	40.000	39.525	1.2	91	0.00
62	4-Nitroaniline	40.000	43.769	-9.4	97	0.00
63	Azobenzene	40.000	41.535	-3.8	95	0.00
64 I	Phenanthrene-d10	20.000	20.000	0.0	90	0.00
65	4,6-Dinitro-2-methylphenol	40.000	43.019	-7.5	94	0.00
66 c	n-Nitrosodiphenylamine	40.000	40.065	-0.2	93	0.00
67	4-Bromophenyl-phenylether	40.000	38.665	3.3	90	0.00
68	Hexachlorobenzene	40.000	38.959	2.6	91	0.00
69	Atrazine	40.000	40.802	-2.0	85	0.00
70 C	Pentachlorophenol	40.000	42.659	-6.6	94	0.00
71	Phenanthrene	40.000	40.264	-0.7	94	0.00
72	Anthracene	40.000	40.502	-1.3	93	0.00
73	Carbazole	40.000	41.504	-3.8	96	0.00
74	Di-n-butylphthalate	40.000	40.562	-1.4	93	0.00
75 C	Fluoranthene	40.000	41.293	-3.2	96	0.00
76 I	Chrysene-d12	20.000	20.000	0.0	95	0.00
77	Benzydine	40.000	47.112	-17.8	119	0.00
78	Pyrene	40.000	40.294	-0.7	96	0.00
79 S	Terphenyl-d14	80.000	81.068	-1.3	96	0.00
80	Butylbenzylphthalate	40.000	40.344	-0.9	96	0.00
81	Benzo(a)anthracene	40.000	40.771	-1.9	98	0.00
82	3,3'-Dichlorobenzidine	40.000	41.593	-4.0	98	0.00
83	Chrysene	40.000	40.541	-1.4	97	0.00
84	Bis(2-ethylhexyl)phthalate	40.000	39.478	1.3	95	0.00
85 c	Di-n-octyl phthalate	40.000	39.392	1.5	95	0.00
86 I	Perylene-d12	20.000	20.000	0.0	89	0.00
87	Indeno(1,2,3-cd)pyrene	40.000	39.850	0.4	91	0.00
88	Benzo(b)fluoranthene	40.000	41.009	-2.5	95	0.00
89	Benzo(k)fluoranthene	40.000	42.346	-5.9	96	0.00
90 C	Benzo(a)pyrene	40.000	40.228	-0.6	92	0.00
91	Dibenzo(a,h)anthracene	40.000	39.752	0.6	90	0.00
92	Benzo(g,h,i)perylene	40.000	39.289	1.8	90	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
Data File : BE101564.D
Acq On : 11 Nov 2024 10:19
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_E
LabSampleId :
SSTDCCC040

Quant Time: Nov 11 09:59:34 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 07 00:01:20 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



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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: CLOU03

Lab Code: CHEM Case No.: P4779 SAS No.: P4779 SDG No.: P4779

Instrument ID: BNA_F Calibration Date/Time: 11/14/2024 09:42

Lab File ID: BF140351.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	1.155		-1.4	
Benzaldehyde	0.951	0.837		-12.0	
Phenol-d6	1.587	1.544		-2.7	
Phenol	1.674	1.661		-0.8	20.0
bis(2-Chloroethyl)ether	1.268	1.235		-2.6	
2-Chlorophenol	1.258	1.240		-1.4	
2-Methylphenol	1.035	1.025		-1.0	
2,2-oxybis(1-Chloropropane)	1.752	1.728		-1.4	
Acetophenone	0.465	0.458		-1.5	
3+4-Methylphenols	1.295	1.274		-1.6	
n-Nitroso-di-n-propylamine	0.959	0.924	0.050	-3.7	
Nitrobenzene-d5	0.384	0.378		-1.6	
Hexachloroethane	0.520	0.513		-1.3	
Nitrobenzene	0.400	0.400		0.0	
Isophorone	0.680	0.659		-3.1	
2-Nitrophenol	0.177	0.182		2.8	20.0
2,4-Dimethylphenol	0.227	0.225		-0.9	
bis(2-Chloroethoxy)methane	0.417	0.409		-1.9	
2,4-Dichlorophenol	0.281	0.283		0.7	20.0
Naphthalene	1.015	0.996		-1.9	
4-Chloroaniline	0.353	0.336		-4.8	
Hexachlorobutadiene	0.199	0.201		1.0	20.0
Caprolactam	0.093	0.093		0.0	
4-Chloro-3-methylphenol	0.311	0.310		-0.3	20.0
2-Methylnaphthalene	0.651	0.642		-1.4	
Hexachlorocyclopentadiene	0.142	0.145	0.050	2.1	
2,4,6-Trichlorophenol	0.363	0.371		2.2	20.0
2-Fluorobiphenyl	1.244	1.208		-2.9	
2,4,5-Trichlorophenol	0.397	0.392		-1.3	
1,1-Biphenyl	1.455	1.432		-1.6	
2-Chloronaphthalene	1.108	1.084		-2.2	
2-Nitroaniline	0.368	0.361		-1.9	
Dimethylphthalate	1.304	1.276		-2.1	
Acenaphthylene	1.677	1.653		-1.5	
2,6-Dinitrotoluene	0.297	0.295		-0.7	
3-Nitroaniline	0.312	0.311		-0.3	
Acenaphthene	1.133	1.111		-1.9	20.0
2,4-Dinitrophenol	0.153	0.148	0.050	-3.3	
4-Nitrophenol	0.228	0.231	0.050	1.3	



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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: CLOU03

Lab Code: CHEM Case No.: P4779 SAS No.: P4779 SDG No.: P4779

Instrument ID: BNA_F Calibration Date/Time: 11/14/2024 09:42

Lab File ID: BF140351.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	1.580		-1.4	
2,4-Dinitrotoluene	0.391	0.398		1.8	
Diethylphthalate	1.333	1.296		-2.8	
4-Chlorophenyl-phenylether	0.625	0.617		-1.3	
Fluorene	1.267	1.226		-3.2	
4-Nitroaniline	0.319	0.315		-1.3	
4,6-Dinitro-2-methylphenol	0.108	0.112		3.7	
n-Nitrosodiphenylamine	0.578	0.561		-2.9	20.0
2,4,6-Tribromophenol	0.199	0.193		-3.0	
4-Bromophenyl-phenylether	0.200	0.194		-3.0	
Hexachlorobenzene	0.225	0.220		-2.2	
Atrazine	0.175	0.163		-6.9	
Pentachlorophenol	0.121	0.124		2.5	20.0
Phenanthrene	0.940	0.898		-4.5	
Anthracene	0.921	0.904		-1.8	
Carbazole	0.909	0.882		-3.0	
Di-n-butylphthalate	1.091	1.078		-1.2	
Fluoranthene	1.054	1.005		-4.6	20.0
Pyrene	1.711	1.794		4.9	
Terphenyl-d14	1.152	1.182		2.6	
Butylbenzylphthalate	0.657	0.714		8.7	
3,3-Dichlorobenzidine	0.418	0.406		-2.9	
Benzo (a) anthracene	1.314	1.285		-2.2	
Chrysene	1.199	1.151		-4.0	
Bis(2-ethylhexyl)phthalate	0.877	0.945		7.8	
Di-n-octyl phthalate	1.235	1.259		1.9	20.0
Benzo (b) fluoranthene	1.308	1.183		-9.6	
Benzo (k) fluoranthene	1.069	1.083		1.3	
Benzo (a) pyrene	1.016	1.001		-1.5	20.0
Indeno (1,2,3-cd) pyrene	1.235	1.314		6.4	
Dibenzo (a,h) anthracene	1.021	1.090		6.8	
Benzo (g,h,i) perylene	1.044	1.103		5.7	
1,2,4,5-Tetrachlorobenzene	0.553	0.537		-2.9	
1,4-Dioxane	0.522	0.522		0.0	20.0
2,3,4,6-Tetrachlorophenol	0.313	0.315		0.6	

All other compounds must meet a minimum RRF of 0.010.

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
 Data File : BF140351.D
 Acq On : 14 Nov 2024 09:42
 Operator : RC/JU
 Sample : SSTDCCC040
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 BNA_F
 ClientSampleId :
 SSTDCCC040

Quant Time: Nov 14 10:49:11 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

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.881	152	138532	20.000	ng	0.00
21) Naphthalene-d8	8.157	136	520272	20.000	ng	0.00
39) Acenaphthene-d10	9.916	164	291630	20.000	ng	0.00
64) Phenanthrene-d10	11.404	188	549011	20.000	ng	0.00
76) Chrysene-d12	14.057	240	316250	20.000	ng	0.00
86) Perylene-d12	15.557	264	275847	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.493	112	639881	78.864	ng	0.00
7) Phenol-d6	6.504	99	855807	77.852	ng	0.00
23) Nitrobenzene-d5	7.440	82	787316	78.846	ng	0.00
42) 2,4,6-Tribromophenol	10.704	330	225253	77.673	ng	0.00
45) 2-Fluorobiphenyl	9.234	172	1409196	77.679	ng	0.00
79) Terphenyl-d14	12.986	244	1494884	82.049	ng	0.00
Target Compounds						
						Qvalue
2) 1,4-Dioxane	2.634	88	144594	39.985	ng	99
3) Pyridine	3.399	79	362585	40.785	ng	99
4) n-Nitrosodimethylamine	3.352	42	175136	38.978	ng	99
6) Aniline	6.540	93	384465	40.205	ng	99
8) 2-Chlorophenol	6.663	128	343424	39.403	ng	99
9) Benzaldehyde	6.428	77	231965	35.208	ng	100
10) Phenol	6.516	94	460271	39.703	ng	99
11) bis(2-Chloroethyl)ether	6.616	93	342122	38.949	ng	99
12) 1,3-Dichlorobenzene	6.816	146	380915	39.611	ng	98
13) 1,4-Dichlorobenzene	6.898	146	382877	39.266	ng	100
14) 1,2-Dichlorobenzene	7.051	146	361199	39.902	ng	99
15) Benzyl Alcohol	7.016	79	313822	39.624	ng	99
16) 2,2'-oxybis(1-Chloropr...	7.151	45	478787	39.462	ng	100
17) 2-Methylphenol	7.128	107	283968	39.606	ng	99
18) Hexachloroethane	7.387	117	142204	39.449	ng	96
19) n-Nitroso-di-n-propyla...	7.287	70	256144	38.581	ng	99
20) 3+4-Methylphenols	7.281	107	352853	39.352	ng	94
22) Acetophenone	7.287	105	476725	39.397	ng	97
24) Nitrobenzene	7.457	77	416464	40.058	ng	98
25) Isophorone	7.698	82	685604	38.741	ng	99
26) 2-Nitrophenol	7.775	139	189392	41.051	ng	99
27) 2,4-Dimethylphenol	7.804	122	234485	39.699	ng	98
28) bis(2-Chloroethoxy)met...	7.904	93	425968	39.254	ng	100
29) 2,4-Dichlorophenol	8.016	162	294906	40.399	ng	98
30) 1,2,4-Trichlorobenzene	8.098	180	327244	40.266	ng	98
31) Naphthalene	8.181	128	1036330	39.266	ng	100
32) Benzoic acid	7.922	122	206516	39.735	ng	98
33) 4-Chloroaniline	8.228	127	349732	38.103	ng	100
34) Hexachlorobutadiene	8.298	225	208838	40.331	ng	99
35) Caprolactam	8.598	113	97090	40.017	ng	96
36) 4-Chloro-3-methylphenol	8.704	107	322778	39.901	ng	100
37) 2-Methylnaphthalene	8.869	142	667845	39.463	ng	99
38) 1-Methylnaphthalene	8.969	142	648867	39.154	ng	98
40) 1,2,4,5-Tetrachloroben...	9.034	216	313280	38.847	ng	99
41) Hexachlorocyclopentadiene	9.022	237	84495	40.807	ng	100
43) 2,4,6-Trichlorophenol	9.145	196	216432	40.894	ng	99

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
 Data File : BF140351.D
 Acq On : 14 Nov 2024 09:42
 Operator : RC/JU
 Sample : SSTDCCC040
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 BNA_F
 ClientSampleId :
 SSTDCCC040

Quant Time: Nov 14 10:49:11 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

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.186	196	228481	39.486	ng	98
46) 1,1'-Biphenyl	9.334	154	835237	39.368	ng	100
47) 2-Chloronaphthalene	9.357	162	632477	39.135	ng	99
48) 2-Nitroaniline	9.457	65	210803	39.330	ng	99
49) Acenaphthylene	9.775	152	963837	39.417	ng	100
50) Dimethylphthalate	9.633	163	744167	39.149	ng	100
51) 2,6-Dinitrotoluene	9.698	165	171941	39.677	ng	99
52) Acenaphthene	9.951	154	647920	39.231	ng	99
53) 3-Nitroaniline	9.869	138	181248	39.826	ng	98
54) 2,4-Dinitrophenol	9.975	184	86464	38.691	ng	99
55) Dibenzofuran	10.122	168	921536	39.416	ng	99
56) 4-Nitrophenol	10.022	139	134485	40.513	ng	99
57) 2,4-Dinitrotoluene	10.104	165	232041	40.685	ng	99
58) Fluorene	10.463	166	715224	38.724	ng	99
59) 2,3,4,6-Tetrachlorophenol	10.239	232	183689	40.205	ng	99
60) Diethylphthalate	10.333	149	755621	38.875	ng	100
61) 4-Chlorophenyl-phenyle...	10.451	204	359992	39.480	ng	99
62) 4-Nitroaniline	10.480	138	183794	39.497	ng	99
63) Azobenzene	10.616	77	744733	38.778	ng	100
65) 4,6-Dinitro-2-methylph...	10.510	198	122579	41.499	ng	99
66) n-Nitrosodiphenylamine	10.575	169	616531	38.866	ng	100
67) 4-Bromophenyl-phenylether	10.945	248	213545	38.911	ng	99
68) Hexachlorobenzene	11.010	284	241224	39.066	ng	99
69) Atrazine	11.098	200	179476	37.397	ng	100
70) Pentachlorophenol	11.204	266	136219	40.954	ng	99
71) Phenanthrene	11.428	178	985580	38.216	ng	100
72) Anthracene	11.480	178	992694	39.274	ng	99
73) Carbazole	11.633	167	968040	38.788	ng	99
74) Di-n-butylphthalate	11.957	149	1183493	39.510	ng	99
75) Fluoranthene	12.616	202	1103393	38.134	ng	100
77) Benzidine	12.739	184	425256	35.035	ng	99
78) Pyrene	12.845	202	1134753	41.949	ng	100
80) Butylbenzylphthalate	13.463	149	451835	43.480	ng	97
81) Benzo(a)anthracene	14.039	228	813068	39.119	ng	100
82) 3,3'-Dichlorobenzidine	14.004	252	256655	38.849	ng	100
83) Chrysene	14.080	228	728250	38.401	ng	100
84) Bis(2-ethylhexyl)phtha...	14.027	149	597674	43.089	ng	98
85) Di-n-octyl phthalate	14.663	149	796171	40.756	ng	100
87) Indeno(1,2,3-cd)pyrene	17.062	276	725127	42.555	ng	99
88) Benzo(b)fluoranthene	15.121	252	652602	36.166	ng	99
89) Benzo(k)fluoranthene	15.151	252	597715	40.548	ng	100
90) Benzo(a)pyrene	15.492	252	552170	39.405	ng	99
91) Dibenzo(a,h)anthracene	17.074	278	601445	42.701	ng	99
92) Benzo(g,h,i)perylene	17.515	276	608566	42.263	ng	100

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

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

[illegible]

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
 Data File : BF140351.D
 Acq On : 14 Nov 2024 09:42
 Operator : RC/JU
 Sample : SSTDCCC040
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 BNA_F
 LabSampleId :
 SSTDCCC040

Quant Time: Nov 14 10:49:11 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

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	94	0.00
2	1,4-Dioxane	0.522	0.522	0.0	95	0.00
3	Pyridine	1.283	1.309	-2.0	94	0.00
4	n-Nitrosodimethylamine	0.649	0.632	2.6	90	0.00
5 S	2-Fluorophenol	1.171	1.155	1.4	95	0.00
6	Aniline	1.381	1.388	-0.5	90	0.00
7 S	Phenol-d6	1.587	1.544	2.7	91	0.00
8	2-Chlorophenol	1.258	1.240	1.4	92	0.00
9	Benzaldehyde	0.951	0.837	12.0	88	0.00
10 C	Phenol	1.674	1.661	0.8	91	0.00
11	bis(2-Chloroethyl)ether	1.268	1.235	2.6	92	0.00
12	1,3-Dichlorobenzene	1.388	1.375	0.9	94	0.00
13 C	1,4-Dichlorobenzene	1.408	1.382	1.8	94	0.00
14	1,2-Dichlorobenzene	1.307	1.304	0.2	95	0.00
15	Benzyl Alcohol	1.143	1.133	0.9	88	0.00
16	2,2'-oxybis(1-Chloropropane	1.752	1.728	1.4	90	0.00
17	2-Methylphenol	1.035	1.025	1.0	91	0.00
18	Hexachloroethane	0.520	0.513	1.3	94	0.00
19 P	n-Nitroso-di-n-propylamine	0.959	0.924	3.6	89	0.00
20	3+4-Methylphenols	1.294	1.274	1.5	89	0.00
21 I	Naphthalene-d8	1.000	1.000	0.0	88	0.00
22	Acetophenone	0.465	0.458	1.5	90	0.00
23 S	Nitrobenzene-d5	0.384	0.378	1.6	89	0.00
24	Nitrobenzene	0.400	0.400	0.0	90	0.00
25	Isophorone	0.680	0.659	3.1	86	0.00
26 C	2-Nitrophenol	0.177	0.182	-2.8	90	0.00
27	2,4-Dimethylphenol	0.227	0.225	0.9	89	0.00
28	bis(2-Chloroethoxy)methane	0.417	0.409	1.9	89	0.00
29 C	2,4-Dichlorophenol	0.281	0.283	-0.7	91	0.00
30	1,2,4-Trichlorobenzene	0.312	0.314	-0.6	92	0.00
31	Naphthalene	1.015	0.996	1.9	90	0.00
32	Benzoic acid	0.200	0.198	1.0	83	0.00
33	4-Chloroaniline	0.353	0.336	4.8	87	0.00
34 C	Hexachlorobutadiene	0.199	0.201	-1.0	92	0.00
35	Caprolactam	0.093	0.093	0.0	90	0.00
36 C	4-Chloro-3-methylphenol	0.311	0.310	0.3	89	0.00
37	2-Methylnaphthalene	0.651	0.642	1.4	90	0.00
38	1-Methylnaphthalene	0.637	0.624	2.0	88	0.00
39 I	Acenaphthene-d10	1.000	1.000	0.0	87	0.00
40	1,2,4,5-Tetrachlorobenzene	0.553	0.537	2.9	88	0.00
41 P	Hexachlorocyclopentadiene	0.142	0.145	-2.1	91	0.00
42 S	2,4,6-Tribromophenol	0.199	0.193	3.0	87	0.00
43 C	2,4,6-Trichlorophenol	0.363	0.371	-2.2	90	0.00
44	2,4,5-Trichlorophenol	0.397	0.392	1.3	88	0.00
45 S	2-Fluorobiphenyl	1.244	1.208	2.9	90	0.00
46	1,1'-Biphenyl	1.455	1.432	1.6	89	0.00
47	2-Chloronaphthalene	1.108	1.084	2.2	89	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
 Data File : BF140351.D
 Acq On : 14 Nov 2024 09:42
 Operator : RC/JU
 Sample : SSTDCCC040
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 BNA_F
 LabSampleId :
 SSTDCCC040

Quant Time: Nov 14 10:49:11 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

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	0.361	1.9	87	0.00
49	Acenaphthylene	1.677	1.652	1.5	88	0.00
50	Dimethylphthalate	1.304	1.276	2.1	88	0.00
51	2,6-Dinitrotoluene	0.297	0.295	0.7	86	0.00
52 C	Acenaphthene	1.133	1.111	1.9	88	0.00
53	3-Nitroaniline	0.312	0.311	0.3	87	0.00
54 P	2,4-Dinitrophenol	0.153	0.148	3.3	88	0.00
55	Dibenzofuran	1.603	1.580	1.4	88	0.00
56 P	4-Nitrophenol	0.228	0.231	-1.3	85	0.00
57	2,4-Dinitrotoluene	0.391	0.398	-1.8	90	0.00
58	Fluorene	1.267	1.226	3.2	89	0.00
59	2,3,4,6-Tetrachlorophenol	0.313	0.315	-0.6	86	0.00
60	Diethylphthalate	1.333	1.296	2.8	88	0.00
61	4-Chlorophenyl-phenylether	0.625	0.617	1.3	89	0.00
62	4-Nitroaniline	0.319	0.315	1.3	86	0.00
63	Azobenzene	1.317	1.277	3.0	86	0.00
64 I	Phenanthrene-d10	1.000	1.000	0.0	87	0.00
65	4,6-Dinitro-2-methylphenol	0.108	0.112	-3.7	90	0.00
66 c	n-Nitrosodiphenylamine	0.578	0.561	2.9	88	0.00
67	4-Bromophenyl-phenylether	0.200	0.194	3.0	88	0.00
68	Hexachlorobenzene	0.225	0.220	2.2	88	0.00
69	Atrazine	0.175	0.163	6.9	99	0.00
70 C	Pentachlorophenol	0.121	0.124	-2.5	85	0.00
71	Phenanthrene	0.940	0.898	4.5	87	0.00
72	Anthracene	0.921	0.904	1.8	89	0.00
73	Carbazole	0.909	0.882	3.0	88	0.00
74	Di-n-butylphthalate	1.091	1.078	1.2	88	0.00
75 C	Fluoranthene	1.054	1.005	4.6	86	0.00
76 I	Chrysene-d12	1.000	1.000	0.0	82	0.00
77	Benzydine	0.768	0.672	12.5	84	0.00
78	Pyrene	1.711	1.794	-4.9	88	0.00
79 S	Terphenyl-d14	1.152	1.182	-2.6	86	0.00
80	Butylbenzylphthalate	0.657	0.714	-8.7	85	0.00
81	Benzo(a)anthracene	1.314	1.285	2.2	83	0.00
82	3,3'-Dichlorobenzidine	0.418	0.406	2.9	83	0.00
83	Chrysene	1.199	1.151	4.0	81	0.00
84	Bis(2-ethylhexyl)phthalate	0.877	0.945	-7.8	84	0.00
85 c	Di-n-octyl phthalate	1.235	1.259	-1.9	80	0.00
86 I	Perylene-d12	1.000	1.000	0.0	86	0.00
87	Indeno(1,2,3-cd)pyrene	1.235	1.314	-6.4	89	0.00
88	Benzo(b)fluoranthene	1.308	1.183	9.6	80	0.00
89	Benzo(k)fluoranthene	1.069	1.083	-1.3	87	0.00
90 C	Benzo(a)pyrene	1.016	1.001	1.5	85	0.00
91	Dibenzo(a,h)anthracene	1.021	1.090	-6.8	90	0.00
92	Benzo(g,h,i)perylene	1.044	1.103	-5.7	89	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140351.D
Acq On : 14 Nov 2024 09:42
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 14 10:49:11 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

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

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
 Data File : BF140351.D
 Acq On : 14 Nov 2024 09:42
 Operator : RC/JU
 Sample : SSTDCCC040
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Instrument :
 BNA_F
 LabSampleId :
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Quant Time: Nov 14 10:49:11 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

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	94	0.00
2	1,4-Dioxane	40.000	39.985	0.0	95	0.00
3	Pyridine	40.000	40.785	-2.0	94	0.00
4	n-Nitrosodimethylamine	40.000	38.978	2.6	90	0.00
5 S	2-Fluorophenol	80.000	78.864	1.4	95	0.00
6	Aniline	40.000	40.205	-0.5	90	0.00
7 S	Phenol-d6	80.000	77.852	2.7	91	0.00
8	2-Chlorophenol	40.000	39.403	1.5	92	0.00
9	Benzaldehyde	40.000	35.208	12.0	88	0.00
10 C	Phenol	40.000	39.703	0.7	91	0.00
11	bis(2-Chloroethyl)ether	40.000	38.949	2.6	92	0.00
12	1,3-Dichlorobenzene	40.000	39.611	1.0	94	0.00
13 C	1,4-Dichlorobenzene	40.000	39.266	1.8	94	0.00
14	1,2-Dichlorobenzene	40.000	39.902	0.2	95	0.00
15	Benzyl Alcohol	40.000	39.624	0.9	88	0.00
16	2,2'-oxybis(1-Chloropropane	40.000	39.462	1.3	90	0.00
17	2-Methylphenol	40.000	39.606	1.0	91	0.00
18	Hexachloroethane	40.000	39.449	1.4	94	0.00
19 P	n-Nitroso-di-n-propylamine	40.000	38.581	3.5	89	0.00
20	3+4-Methylphenols	40.000	39.352	1.6	89	0.00
21 I	Naphthalene-d8	20.000	20.000	0.0	88	0.00
22	Acetophenone	40.000	39.397	1.5	90	0.00
23 S	Nitrobenzene-d5	80.000	78.846	1.4	89	0.00
24	Nitrobenzene	40.000	40.058	-0.1	90	0.00
25	Isophorone	40.000	38.741	3.1	86	0.00
26 C	2-Nitrophenol	40.000	41.051	-2.6	90	0.00
27	2,4-Dimethylphenol	40.000	39.699	0.8	89	0.00
28	bis(2-Chloroethoxy)methane	40.000	39.254	1.9	89	0.00
29 C	2,4-Dichlorophenol	40.000	40.399	-1.0	91	0.00
30	1,2,4-Trichlorobenzene	40.000	40.266	-0.7	92	0.00
31	Naphthalene	40.000	39.266	1.8	90	0.00
32	Benzoic acid	40.000	39.735	0.7	83	0.00
33	4-Chloroaniline	40.000	38.103	4.7	87	0.00
34 C	Hexachlorobutadiene	40.000	40.331	-0.8	92	0.00
35	Caprolactam	40.000	40.017	-0.0	90	0.00
36 C	4-Chloro-3-methylphenol	40.000	39.901	0.2	89	0.00
37	2-Methylnaphthalene	40.000	39.463	1.3	90	0.00
38	1-Methylnaphthalene	40.000	39.154	2.1	88	0.00
39 I	Acenaphthene-d10	20.000	20.000	0.0	87	0.00
40	1,2,4,5-Tetrachlorobenzene	40.000	38.847	2.9	88	0.00
41 P	Hexachlorocyclopentadiene	40.000	40.807	-2.0	91	0.00
42 S	2,4,6-Tribromophenol	80.000	77.673	2.9	87	0.00
43 C	2,4,6-Trichlorophenol	40.000	40.894	-2.2	90	0.00
44	2,4,5-Trichlorophenol	40.000	39.486	1.3	88	0.00
45 S	2-Fluorobiphenyl	80.000	77.679	2.9	90	0.00
46	1,1'-Biphenyl	40.000	39.368	1.6	89	0.00
47	2-Chloronaphthalene	40.000	39.135	2.2	89	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
 Data File : BF140351.D
 Acq On : 14 Nov 2024 09:42
 Operator : RC/JU
 Sample : SSTDCCC040
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 BNA_F
 LabSampleId :
 SSTDCCC040

Quant Time: Nov 14 10:49:11 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

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	39.330	1.7	87	0.00
49	Acenaphthylene	40.000	39.417	1.5	88	0.00
50	Dimethylphthalate	40.000	39.149	2.1	88	0.00
51	2,6-Dinitrotoluene	40.000	39.677	0.8	86	0.00
52 C	Acenaphthene	40.000	39.231	1.9	88	0.00
53	3-Nitroaniline	40.000	39.826	0.4	87	0.00
54 P	2,4-Dinitrophenol	40.000	38.691	3.3	88	0.00
55	Dibenzofuran	40.000	39.416	1.5	88	0.00
56 P	4-Nitrophenol	40.000	40.513	-1.3	85	0.00
57	2,4-Dinitrotoluene	40.000	40.685	-1.7	90	0.00
58	Fluorene	40.000	38.724	3.2	89	0.00
59	2,3,4,6-Tetrachlorophenol	40.000	40.205	-0.5	86	0.00
60	Diethylphthalate	40.000	38.875	2.8	88	0.00
61	4-Chlorophenyl-phenylether	40.000	39.480	1.3	89	0.00
62	4-Nitroaniline	40.000	39.497	1.3	86	0.00
63	Azobenzene	40.000	38.778	3.1	86	0.00
64 I	Phenanthrene-d10	20.000	20.000	0.0	87	0.00
65	4,6-Dinitro-2-methylphenol	40.000	41.499	-3.7	90	0.00
66 c	n-Nitrosodiphenylamine	40.000	38.866	2.8	88	0.00
67	4-Bromophenyl-phenylether	40.000	38.911	2.7	88	0.00
68	Hexachlorobenzene	40.000	39.066	2.3	88	0.00
69	Atrazine	40.000	37.397	6.5	99	0.00
70 C	Pentachlorophenol	40.000	40.954	-2.4	85	0.00
71	Phenanthrene	40.000	38.216	4.5	87	0.00
72	Anthracene	40.000	39.274	1.8	89	0.00
73	Carbazole	40.000	38.788	3.0	88	0.00
74	Di-n-butylphthalate	40.000	39.510	1.2	88	0.00
75 C	Fluoranthene	40.000	38.134	4.7	86	0.00
76 I	Chrysene-d12	20.000	20.000	0.0	82	0.00
77	Benzydine	40.000	35.035	12.4	84	0.00
78	Pyrene	40.000	41.949	-4.9	88	0.00
79 S	Terphenyl-d14	80.000	82.049	-2.6	86	0.00
80	Butylbenzylphthalate	40.000	43.480	-8.7	85	0.00
81	Benzo(a)anthracene	40.000	39.119	2.2	83	0.00
82	3,3'-Dichlorobenzidine	40.000	38.849	2.9	83	0.00
83	Chrysene	40.000	38.401	4.0	81	0.00
84	Bis(2-ethylhexyl)phthalate	40.000	43.089	-7.7	84	0.00
85 c	Di-n-octyl phthalate	40.000	40.756	-1.9	80	0.00
86 I	Perylene-d12	20.000	20.000	0.0	86	0.00
87	Indeno(1,2,3-cd)pyrene	40.000	42.555	-6.4	89	0.00
88	Benzo(b)fluoranthene	40.000	36.166	9.6	80	0.00
89	Benzo(k)fluoranthene	40.000	40.548	-1.4	87	0.00
90 C	Benzo(a)pyrene	40.000	39.405	1.5	85	0.00
91	Dibenzo(a,h)anthracene	40.000	42.701	-6.8	90	0.00
92	Benzo(g,h,i)perylene	40.000	42.263	-5.7	89	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140351.D
Acq On : 14 Nov 2024 09:42
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 14 10:49:11 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

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



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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: CLOU03

Lab Code: CHEM Case No.: P4779 SAS No.: P4779 SDG No.: P4779

Instrument ID: BNA_F Calibration Date/Time: 11/14/2024 17:02

Lab File ID: BF140366.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	1.188		1.5	
Benzaldehyde	0.951	0.861		-9.5	
Phenol-d6	1.587	1.578		-0.6	
Phenol	1.674	1.678		0.2	20.0
bis(2-Chloroethyl)ether	1.268	1.243		-2.0	
2-Chlorophenol	1.258	1.256		-0.2	
2-Methylphenol	1.035	1.033		-0.2	
2,2-oxybis(1-Chloropropane)	1.752	1.678		-4.2	
Acetophenone	0.465	0.463		-0.4	
3+4-Methylphenols	1.295	1.288		-0.5	
n-Nitroso-di-n-propylamine	0.959	0.909	0.050	-5.2	
Nitrobenzene-d5	0.384	0.381		-0.8	
Hexachloroethane	0.520	0.504		-3.1	
Nitrobenzene	0.400	0.401		0.3	
Isophorone	0.680	0.661		-2.8	
2-Nitrophenol	0.177	0.178		0.6	20.0
2,4-Dimethylphenol	0.227	0.227		0.0	
bis(2-Chloroethoxy)methane	0.417	0.404		-3.1	
2,4-Dichlorophenol	0.281	0.281		0.0	20.0
Naphthalene	1.015	1.009		-0.6	
4-Chloroaniline	0.353	0.327		-7.4	
Hexachlorobutadiene	0.199	0.195		-2.0	20.0
Caprolactam	0.093	0.094		1.1	
4-Chloro-3-methylphenol	0.311	0.311		0.0	20.0
2-Methylnaphthalene	0.651	0.642		-1.4	
Hexachlorocyclopentadiene	0.142	0.133	0.050	-6.3	
2,4,6-Trichlorophenol	0.363	0.368		1.4	20.0
2-Fluorobiphenyl	1.244	1.231		-1.0	
2,4,5-Trichlorophenol	0.397	0.409		3.0	
1,1-Biphenyl	1.455	1.467		0.8	
2-Chloronaphthalene	1.108	1.111		0.3	
2-Nitroaniline	0.368	0.374		1.6	
Dimethylphthalate	1.304	1.272		-2.5	
Acenaphthylene	1.677	1.672		-0.3	
2,6-Dinitrotoluene	0.297	0.303		2.0	
3-Nitroaniline	0.312	0.313		0.3	
Acenaphthene	1.133	1.135		0.2	20.0
2,4-Dinitrophenol	0.153	0.154	0.050	0.7	
4-Nitrophenol	0.228	0.236	0.050	3.5	



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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: CLOU03

Lab Code: CHEM Case No.: P4779 SAS No.: P4779 SDG No.: P4779

Instrument ID: BNA_F Calibration Date/Time: 11/14/2024 17:02

Lab File ID: BF140366.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	1.616		0.8	
2,4-Dinitrotoluene	0.391	0.397		1.5	
Diethylphthalate	1.333	1.281		-3.9	
4-Chlorophenyl-phenylether	0.625	0.604		-3.4	
Fluorene	1.267	1.256		-0.9	
4-Nitroaniline	0.319	0.328		2.8	
4,6-Dinitro-2-methylphenol	0.108	0.114		5.6	
n-Nitrosodiphenylamine	0.578	0.569		-1.6	20.0
2,4,6-Tribromophenol	0.199	0.200		0.5	
4-Bromophenyl-phenylether	0.200	0.193		-3.5	
Hexachlorobenzene	0.225	0.223		-0.9	
Atrazine	0.175	0.164		-6.3	
Pentachlorophenol	0.121	0.124		2.5	20.0
Phenanthrene	0.940	0.926		-1.5	
Anthracene	0.921	0.905		-1.7	
Carbazole	0.909	0.912		0.3	
Di-n-butylphthalate	1.091	1.021		-6.4	
Fluoranthene	1.054	1.029		-2.4	20.0
Pyrene	1.711	1.783		4.2	
Terphenyl-d14	1.152	1.148		-0.3	
Butylbenzylphthalate	0.657	0.642		-2.3	
3,3-Dichlorobenzidine	0.418	0.409		-2.2	
Benzo (a) anthracene	1.314	1.308		-0.5	
Chrysene	1.199	1.156		-3.6	
Bis(2-ethylhexyl)phthalate	0.877	0.791		-9.8	
Di-n-octyl phthalate	1.235	1.083		-12.3	20.0
Benzo (b) fluoranthene	1.308	1.240		-5.2	
Benzo (k) fluoranthene	1.069	1.043		-2.4	
Benzo (a) pyrene	1.016	1.000		-1.6	20.0
Indeno (1,2,3-cd) pyrene	1.235	1.295		4.9	
Dibenzo (a,h) anthracene	1.021	1.058		3.6	
Benzo (g,h,i) perylene	1.044	1.108		6.1	
1,2,4,5-Tetrachlorobenzene	0.553	0.555		0.4	
1,4-Dioxane	0.522	0.547		4.8	20.0
2,3,4,6-Tetrachlorophenol	0.313	0.320		2.2	

All other compounds must meet a minimum RRF of 0.010.

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
 Data File : BF140366.D
 Acq On : 14 Nov 2024 17:02
 Operator : RC/JU
 Sample : SSTDCCC040
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 BNA_F
 ClientSampleId :
 SSTDCCC040

Quant Time: Nov 15 00:26:39 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	130579	20.000	ng	0.00
21) Naphthalene-d8	8.157	136	484942	20.000	ng	0.00
39) Acenaphthene-d10	9.910	164	265027	20.000	ng	0.00
64) Phenanthrene-d10	11.398	188	494420	20.000	ng	0.00
76) Chrysene-d12	14.062	240	287889	20.000	ng	0.01
86) Perylene-d12	15.592	264	258896	20.000	ng	0.04
System Monitoring Compounds						
5) 2-Fluorophenol	5.487	112	620529	81.137	ng	0.00
7) Phenol-d6	6.504	99	824375	79.560	ng	0.00
23) Nitrobenzene-d5	7.439	82	740018	79.508	ng	0.00
42) 2,4,6-Tribromophenol	10.698	330	211524	80.260	ng	0.00
45) 2-Fluorobiphenyl	9.227	172	1304500	79.126	ng	0.00
79) Terphenyl-d14	12.986	244	1322468	79.737	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	2.634	88	142931	41.932	ng	99
3) Pyridine	3.398	79	341136	40.709	ng	99
4) n-Nitrosodimethylamine	3.351	42	170660	40.295	ng	98
6) Aniline	6.539	93	366954	40.711	ng	97
8) 2-Chlorophenol	6.663	128	328140	39.943	ng	97
9) Benzaldehyde	6.428	77	224764	36.193	ng	99
10) Phenol	6.516	94	438278	40.109	ng	99
11) bis(2-Chloroethyl)ether	6.610	93	324570	39.201	ng	99
12) 1,3-Dichlorobenzene	6.816	146	361421	39.873	ng	99
13) 1,4-Dichlorobenzene	6.892	146	362191	39.407	ng	99
14) 1,2-Dichlorobenzene	7.045	146	341302	40.001	ng	99
15) Benzyl Alcohol	7.016	79	300203	40.213	ng	99
16) 2,2'-oxybis(1-Chloropr...	7.145	45	438212	38.318	ng	98
17) 2-Methylphenol	7.122	107	269885	39.935	ng	99
18) Hexachloroethane	7.386	117	131631	38.740	ng	99
19) n-Nitroso-di-n-propyla...	7.286	70	237407	37.936	ng	99
20) 3+4-Methylphenols	7.275	107	336358	39.798	ng	99
22) Acetophenone	7.281	105	448649	39.778	ng	99
24) Nitrobenzene	7.457	77	388560	40.097	ng	100
25) Isophorone	7.692	82	641082	38.864	ng	100
26) 2-Nitrophenol	7.769	139	172692	40.158	ng	97
27) 2,4-Dimethylphenol	7.804	122	220557	40.061	ng	98
28) bis(2-Chloroethoxy)met...	7.904	93	391929	38.749	ng	99
29) 2,4-Dichlorophenol	8.010	162	272161	40.000	ng	99
30) 1,2,4-Trichlorobenzene	8.098	180	302881	39.983	ng	99
31) Naphthalene	8.175	128	978565	39.779	ng	100
32) Benzoic acid	7.916	122	192803	39.799	ng	96
33) 4-Chloroaniline	8.228	127	317418	37.102	ng	100
34) Hexachlorobutadiene	8.292	225	189276	39.216	ng	99
35) Caprolactam	8.592	113	90934	40.211	ng	98
36) 4-Chloro-3-methylphenol	8.704	107	301671	40.008	ng	99
37) 2-Methylnaphthalene	8.869	142	623118	39.503	ng	99
38) 1-Methylnaphthalene	8.969	142	604506	39.135	ng	100
40) 1,2,4,5-Tetrachloroben...	9.033	216	294261	40.151	ng	99
41) Hexachlorocyclopentadiene	9.016	237	70659	37.550	ng	99
43) 2,4,6-Trichlorophenol	9.145	196	194970	40.537	ng	98

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
 Data File : BF140366.D
 Acq On : 14 Nov 2024 17:02
 Operator : RC/JU
 Sample : SSTDCCC040
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 BNA_F
 ClientSampleId :
 SSTDCCC040

Quant Time: Nov 15 00:26:39 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

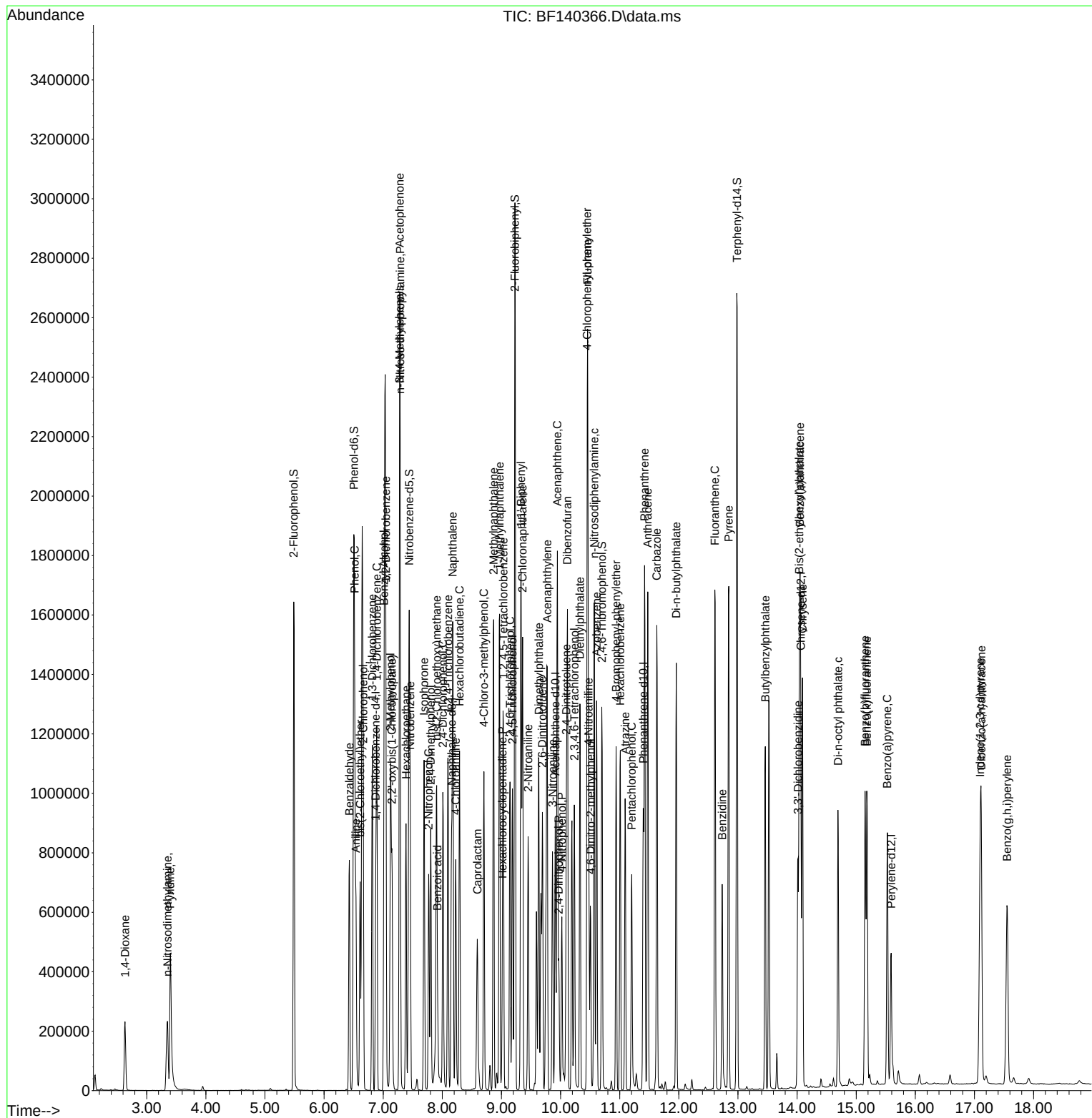
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.186	196	216613	41.193	ng	97
46) 1,1'-Biphenyl	9.333	154	777694	40.335	ng	99
47) 2-Chloronaphthalene	9.357	162	588883	40.095	ng	99
48) 2-Nitroaniline	9.451	65	198227	40.696	ng	97
49) Acenaphthylene	9.774	152	886051	39.873	ng	100
50) Dimethylphthalate	9.633	163	674463	39.043	ng	99
51) 2,6-Dinitrotoluene	9.692	165	160354	40.717	ng	100
52) Acenaphthene	9.945	154	601473	40.074	ng	99
53) 3-Nitroaniline	9.863	138	165761	40.079	ng	98
54) 2,4-Dinitrophenol	9.969	184	81371	40.067	ng	96
55) Dibenzofuran	10.116	168	856528	40.313	ng	99
56) 4-Nitrophenol	10.022	139	125006	41.437	ng	98
57) 2,4-Dinitrotoluene	10.098	165	210411	40.596	ng	99
58) Fluorene	10.457	166	665609	39.655	ng	100
59) 2,3,4,6-Tetrachlorophenol	10.233	232	169520	40.828	ng	99
60) Diethylphthalate	10.327	149	679063	38.443	ng	99
61) 4-Chlorophenyl-phenyle...	10.451	204	320353	38.659	ng	98
62) 4-Nitroaniline	10.474	138	173894	41.121	ng	99
63) Azobenzene	10.610	77	673115	38.567	ng	99
65) 4,6-Dinitro-2-methylph...	10.510	198	112316	42.223	ng	94
66) n-Nitrosodiphenylamine	10.569	169	562191	39.354	ng	99
67) 4-Bromophenyl-phenylether	10.939	248	191092	38.665	ng	99
68) Hexachlorobenzene	11.010	284	220472	39.648	ng	97
69) Atrazine	11.092	200	161785	37.433	ng	99
70) Pentachlorophenol	11.204	266	122784	40.991	ng	99
71) Phenanthrene	11.421	178	915871	39.434	ng	99
72) Anthracene	11.474	178	895201	39.328	ng	100
73) Carbazole	11.627	167	901743	40.121	ng	100
74) Di-n-butylphthalate	11.957	149	1010052	37.443	ng	100
75) Fluoranthene	12.610	202	1017901	39.064	ng	100
77) Benzidine	12.733	184	391088	35.395	ng	100
78) Pyrene	12.845	202	1026765	41.696	ng	100
80) Butylbenzylphthalate	13.463	149	369549	39.065	ng	96
81) Benzo(a)anthracene	14.051	228	753390	39.818	ng	99
82) 3,3'-Dichlorobenzidine	14.015	252	235242	39.116	ng	99
83) Chrysene	14.092	228	665505	38.550	ng	99
84) Bis(2-ethylhexyl)phtha...	14.039	149	455726	36.092	ng	99
85) Di-n-octyl phthalate	14.692	149	623845	35.080	ng	100
87) Indeno(1,2,3-cd)pyrene	17.098	276	670383	41.918	ng	100
88) Benzo(b)fluoranthene	15.151	252	642101	37.914	ng	100
89) Benzo(k)fluoranthene	15.180	252	540295	39.052	ng	99
90) Benzo(a)pyrene	15.527	252	517840	39.374	ng	100
91) Dibenzo(a,h)anthracene	17.115	278	547666	41.429	ng	99
92) Benzo(g,h,i)perylene	17.550	276	573582	42.441	ng	99

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

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Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\  
Data File : BF140366.D  
Acq On    : 14 Nov 2024   17:02  
Operator  : RC/JU  
Sample    : SSTDCCC040  
Misc      :  
ALS Vial  : 2    Sample Multiplier: 1
```

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Quant Time: Nov 15 00:26:39 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



Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
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 BNA_F
 LabSampleId :
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Quant Time: Nov 15 00:26:39 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	89	0.00
2	1,4-Dioxane	0.522	0.547	-4.8	94	0.00
3	Pyridine	1.283	1.306	-1.8	88	0.00
4	n-Nitrosodimethylamine	0.649	0.653	-0.6	88	0.00
5 S	2-Fluorophenol	1.171	1.188	-1.5	92	0.00
6	Aniline	1.381	1.405	-1.7	86	0.00
7 S	Phenol-d6	1.587	1.578	0.6	87	0.00
8	2-Chlorophenol	1.258	1.256	0.2	88	0.00
9	Benzaldehyde	0.951	0.861	9.5	86	0.00
10 C	Phenol	1.674	1.678	-0.2	86	0.00
11	bis(2-Chloroethyl)ether	1.268	1.243	2.0	87	0.00
12	1,3-Dichlorobenzene	1.388	1.384	0.3	89	0.00
13 C	1,4-Dichlorobenzene	1.408	1.387	1.5	88	0.00
14	1,2-Dichlorobenzene	1.307	1.307	0.0	90	0.00
15	Benzyl Alcohol	1.143	1.150	-0.6	84	0.00
16	2,2'-oxybis(1-Chloropropane	1.752	1.678	4.2	82	0.00
17	2-Methylphenol	1.035	1.033	0.2	86	0.00
18	Hexachloroethane	0.520	0.504	3.1	87	0.00
19 P	n-Nitroso-di-n-propylamine	0.959	0.909	5.2	82	0.00
20	3+4-Methylphenols	1.294	1.288	0.5	85	0.00
21 I	Naphthalene-d8	1.000	1.000	0.0	82	0.00
22	Acetophenone	0.465	0.463	0.4	85	0.00
23 S	Nitrobenzene-d5	0.384	0.381	0.8	84	0.00
24	Nitrobenzene	0.400	0.401	-0.3	84	0.00
25	Isophorone	0.680	0.661	2.8	81	0.00
26 C	2-Nitrophenol	0.177	0.178	-0.6	82	0.00
27	2,4-Dimethylphenol	0.227	0.227	0.0	84	0.00
28	bis(2-Chloroethoxy)methane	0.417	0.404	3.1	82	0.00
29 C	2,4-Dichlorophenol	0.281	0.281	0.0	84	0.00
30	1,2,4-Trichlorobenzene	0.312	0.312	0.0	85	0.00
31	Naphthalene	1.015	1.009	0.6	85	0.00
32	Benzoic acid	0.200	0.199	0.5	77	-0.01
33	4-Chloroaniline	0.353	0.327	7.4	79	0.00
34 C	Hexachlorobutadiene	0.199	0.195	2.0	83	0.00
35	Caprolactam	0.093	0.094	-1.1	84	0.00
36 C	4-Chloro-3-methylphenol	0.311	0.311	0.0	83	0.00
37	2-Methylnaphthalene	0.651	0.642	1.4	84	0.00
38	1-Methylnaphthalene	0.637	0.623	2.2	82	0.00
39 I	Acenaphthene-d10	1.000	1.000	0.0	79	0.00
40	1,2,4,5-Tetrachlorobenzene	0.553	0.555	-0.4	83	0.00
41 P	Hexachlorocyclopentadiene	0.142	0.133	6.3	76	0.00
42 S	2,4,6-Tribromophenol	0.199	0.200	-0.5	82	0.00
43 C	2,4,6-Trichlorophenol	0.363	0.368	-1.4	81	0.00
44	2,4,5-Trichlorophenol	0.397	0.409	-3.0	83	0.00
45 S	2-Fluorobiphenyl	1.244	1.231	1.0	83	0.00
46	1,1'-Biphenyl	1.455	1.467	-0.8	83	0.00
47	2-Chloronaphthalene	1.108	1.111	-0.3	83	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
 Data File : BF140366.D
 Acq On : 14 Nov 2024 17:02
 Operator : RC/JU
 Sample : SSTDCCC040
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 BNA_F
 LabSampleId :
 SSTDCCC040

Quant Time: Nov 15 00:26:39 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	0.374	-1.6	81	0.00
49	Acenaphthylene	1.677	1.672	0.3	81	0.00
50	Dimethylphthalate	1.304	1.272	2.5	80	0.00
51	2,6-Dinitrotoluene	0.297	0.303	-2.0	81	0.00
52 C	Acenaphthene	1.133	1.135	-0.2	82	0.00
53	3-Nitroaniline	0.312	0.313	-0.3	80	0.00
54 P	2,4-Dinitrophenol	0.153	0.154	-0.7	83	0.00
55	Dibenzofuran	1.603	1.616	-0.8	82	0.00
56 P	4-Nitrophenol	0.228	0.236	-3.5	79	0.00
57	2,4-Dinitrotoluene	0.391	0.397	-1.5	81	0.00
58	Fluorene	1.267	1.256	0.9	83	0.00
59	2,3,4,6-Tetrachlorophenol	0.313	0.320	-2.2	80	0.00
60	Diethylphthalate	1.333	1.281	3.9	79	0.00
61	4-Chlorophenyl-phenylether	0.625	0.604	3.4	79	0.00
62	4-Nitroaniline	0.319	0.328	-2.8	81	0.00
63	Azobenzene	1.317	1.270	3.6	78	0.00
64 I	Phenanthrene-d10	1.000	1.000	0.0	79	0.00
65	4,6-Dinitro-2-methylphenol	0.108	0.114	-5.6	82	0.00
66 c	n-Nitrosodiphenylamine	0.578	0.569	1.6	80	0.00
67	4-Bromophenyl-phenylether	0.200	0.193	3.5	78	0.00
68	Hexachlorobenzene	0.225	0.223	0.9	81	0.00
69	Atrazine	0.175	0.164	6.3	89	0.00
70 C	Pentachlorophenol	0.121	0.124	-2.5	77	0.00
71	Phenanthrene	0.940	0.926	1.5	81	0.00
72	Anthracene	0.921	0.905	1.7	80	0.00
73	Carbazole	0.909	0.912	-0.3	82	0.00
74	Di-n-butylphthalate	1.091	1.021	6.4	75	0.00
75 C	Fluoranthene	1.054	1.029	2.4	80	0.00
76 I	Chrysene-d12	1.000	1.000	0.0	75	0.01
77	Benzydine	0.768	0.679	11.6	78	0.00
78	Pyrene	1.711	1.783	-4.2	79	0.00
79 S	Terphenyl-d14	1.152	1.148	0.3	76	0.00
80	Butylbenzylphthalate	0.657	0.642	2.3	69	0.00
81	Benzo(a)anthracene	1.314	1.308	0.5	77	0.01
82	3,3'-Dichlorobenzidine	0.418	0.409	2.2	76	0.02
83	Chrysene	1.199	1.156	3.6	74	0.01
84	Bis(2-ethylhexyl)phthalate	0.877	0.791	9.8	64	0.02
85 c	Di-n-octyl phthalate	1.235	1.083	12.3	63	0.03
86 I	Perylene-d12	1.000	1.000	0.0	80	0.04
87	Indeno(1,2,3-cd)pyrene	1.235	1.295	-4.9	83	0.04
88	Benzo(b)fluoranthene	1.308	1.240	5.2	79	0.04
89	Benzo(k)fluoranthene	1.069	1.043	2.4	79	0.03
90 C	Benzo(a)pyrene	1.016	1.000	1.6	80	0.04
91	Dibenzo(a,h)anthracene	1.021	1.058	-3.6	82	0.04
92	Benzo(g,h,i)perylene	1.044	1.108	-6.1	84	0.04

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140366.D
Acq On : 14 Nov 2024 17:02
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 15 00:26:39 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

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
 Data File : BF140366.D
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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	89	0.00
2	1,4-Dioxane	40.000	41.932	-4.8	94	0.00
3	Pyridine	40.000	40.709	-1.8	88	0.00
4	n-Nitrosodimethylamine	40.000	40.295	-0.7	88	0.00
5 S	2-Fluorophenol	80.000	81.137	-1.4	92	0.00
6	Aniline	40.000	40.711	-1.8	86	0.00
7 S	Phenol-d6	80.000	79.560	0.5	87	0.00
8	2-Chlorophenol	40.000	39.943	0.1	88	0.00
9	Benzaldehyde	40.000	36.193	9.5	86	0.00
10 C	Phenol	40.000	40.109	-0.3	86	0.00
11	bis(2-Chloroethyl)ether	40.000	39.201	2.0	87	0.00
12	1,3-Dichlorobenzene	40.000	39.873	0.3	89	0.00
13 C	1,4-Dichlorobenzene	40.000	39.407	1.5	88	0.00
14	1,2-Dichlorobenzene	40.000	40.001	-0.0	90	0.00
15	Benzyl Alcohol	40.000	40.213	-0.5	84	0.00
16	2,2'-oxybis(1-Chloropropane	40.000	38.318	4.2	82	0.00
17	2-Methylphenol	40.000	39.935	0.2	86	0.00
18	Hexachloroethane	40.000	38.740	3.1	87	0.00
19 P	n-Nitroso-di-n-propylamine	40.000	37.936	5.2	82	0.00
20	3+4-Methylphenols	40.000	39.798	0.5	85	0.00
21 I	Naphthalene-d8	20.000	20.000	0.0	82	0.00
22	Acetophenone	40.000	39.778	0.6	85	0.00
23 S	Nitrobenzene-d5	80.000	79.508	0.6	84	0.00
24	Nitrobenzene	40.000	40.097	-0.2	84	0.00
25	Isophorone	40.000	38.864	2.8	81	0.00
26 C	2-Nitrophenol	40.000	40.158	-0.4	82	0.00
27	2,4-Dimethylphenol	40.000	40.061	-0.2	84	0.00
28	bis(2-Chloroethoxy)methane	40.000	38.749	3.1	82	0.00
29 C	2,4-Dichlorophenol	40.000	40.000	0.0	84	0.00
30	1,2,4-Trichlorobenzene	40.000	39.983	0.0	85	0.00
31	Naphthalene	40.000	39.779	0.6	85	0.00
32	Benzoic acid	40.000	39.799	0.5	77	-0.01
33	4-Chloroaniline	40.000	37.102	7.2	79	0.00
34 C	Hexachlorobutadiene	40.000	39.216	2.0	83	0.00
35	Caprolactam	40.000	40.211	-0.5	84	0.00
36 C	4-Chloro-3-methylphenol	40.000	40.008	-0.0	83	0.00
37	2-Methylnaphthalene	40.000	39.503	1.2	84	0.00
38	1-Methylnaphthalene	40.000	39.135	2.2	82	0.00
39 I	Acenaphthene-d10	20.000	20.000	0.0	79	0.00
40	1,2,4,5-Tetrachlorobenzene	40.000	40.151	-0.4	83	0.00
41 P	Hexachlorocyclopentadiene	40.000	37.550	6.1	76	0.00
42 S	2,4,6-Tribromophenol	80.000	80.260	-0.3	82	0.00
43 C	2,4,6-Trichlorophenol	40.000	40.537	-1.3	81	0.00
44	2,4,5-Trichlorophenol	40.000	41.193	-3.0	83	0.00
45 S	2-Fluorobiphenyl	80.000	79.126	1.1	83	0.00
46	1,1'-Biphenyl	40.000	40.335	-0.8	83	0.00
47	2-Chloronaphthalene	40.000	40.095	-0.2	83	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
 Data File : BF140366.D
 Acq On : 14 Nov 2024 17:02
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 Sample : SSTDCCC040
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
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 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	40.696	-1.7	81	0.00
49	Acenaphthylene	40.000	39.873	0.3	81	0.00
50	Dimethylphthalate	40.000	39.043	2.4	80	0.00
51	2,6-Dinitrotoluene	40.000	40.717	-1.8	81	0.00
52 C	Acenaphthene	40.000	40.074	-0.2	82	0.00
53	3-Nitroaniline	40.000	40.079	-0.2	80	0.00
54 P	2,4-Dinitrophenol	40.000	40.067	-0.2	83	0.00
55	Dibenzofuran	40.000	40.313	-0.8	82	0.00
56 P	4-Nitrophenol	40.000	41.437	-3.6	79	0.00
57	2,4-Dinitrotoluene	40.000	40.596	-1.5	81	0.00
58	Fluorene	40.000	39.655	0.9	83	0.00
59	2,3,4,6-Tetrachlorophenol	40.000	40.828	-2.1	80	0.00
60	Diethylphthalate	40.000	38.443	3.9	79	0.00
61	4-Chlorophenyl-phenylether	40.000	38.659	3.4	79	0.00
62	4-Nitroaniline	40.000	41.121	-2.8	81	0.00
63	Azobenzene	40.000	38.567	3.6	78	0.00
64 I	Phenanthrene-d10	20.000	20.000	0.0	79	0.00
65	4,6-Dinitro-2-methylphenol	40.000	42.223	-5.6	82	0.00
66 c	n-Nitrosodiphenylamine	40.000	39.354	1.6	80	0.00
67	4-Bromophenyl-phenylether	40.000	38.665	3.3	78	0.00
68	Hexachlorobenzene	40.000	39.648	0.9	81	0.00
69	Atrazine	40.000	37.433	6.4	89	0.00
70 C	Pentachlorophenol	40.000	40.991	-2.5	77	0.00
71	Phenanthrene	40.000	39.434	1.4	81	0.00
72	Anthracene	40.000	39.328	1.7	80	0.00
73	Carbazole	40.000	40.121	-0.3	82	0.00
74	Di-n-butylphthalate	40.000	37.443	6.4	75	0.00
75 C	Fluoranthene	40.000	39.064	2.3	80	0.00
76 I	Chrysene-d12	20.000	20.000	0.0	75	0.01
77	Benzydine	40.000	35.395	11.5	78	0.00
78	Pyrene	40.000	41.696	-4.2	79	0.00
79 S	Terphenyl-d14	80.000	79.737	0.3	76	0.00
80	Butylbenzylphthalate	40.000	39.065	2.3	69	0.00
81	Benzo(a)anthracene	40.000	39.818	0.5	77	0.01
82	3,3'-Dichlorobenzidine	40.000	39.116	2.2	76	0.02
83	Chrysene	40.000	38.550	3.6	74	0.01
84	Bis(2-ethylhexyl)phthalate	40.000	36.092	9.8	64	0.02
85 c	Di-n-octyl phthalate	40.000	35.080	12.3	63	0.03
86 I	Perylene-d12	20.000	20.000	0.0	80	0.04
87	Indeno(1,2,3-cd)pyrene	40.000	41.918	-4.8	83	0.04
88	Benzo(b)fluoranthene	40.000	37.914	5.2	79	0.04
89	Benzo(k)fluoranthene	40.000	39.052	2.4	79	0.03
90 C	Benzo(a)pyrene	40.000	39.374	1.6	80	0.04
91	Dibenzo(a,h)anthracene	40.000	41.429	-3.6	82	0.04
92	Benzo(g,h,i)perylene	40.000	42.441	-6.1	84	0.04

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140366.D
Acq On : 14 Nov 2024 17:02
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Nov 15 00:26:39 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



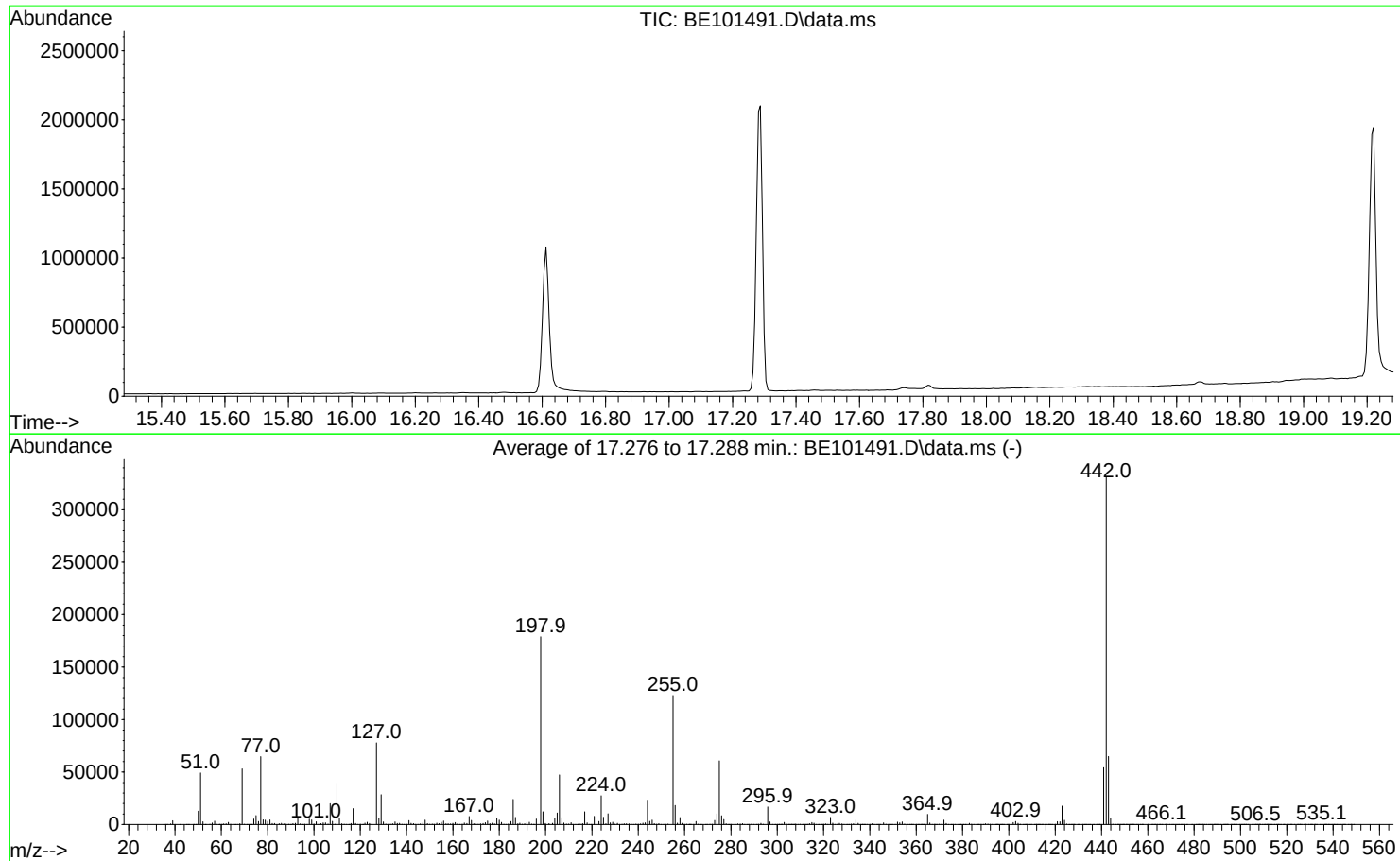
QC SAMPLE DATA

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
Data File : BE101491.D
Acq On : 6 Nov 2024 11:40
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
DFTPP

Integration File: rteint.p

Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Thu Nov 07 00:01:20 2024



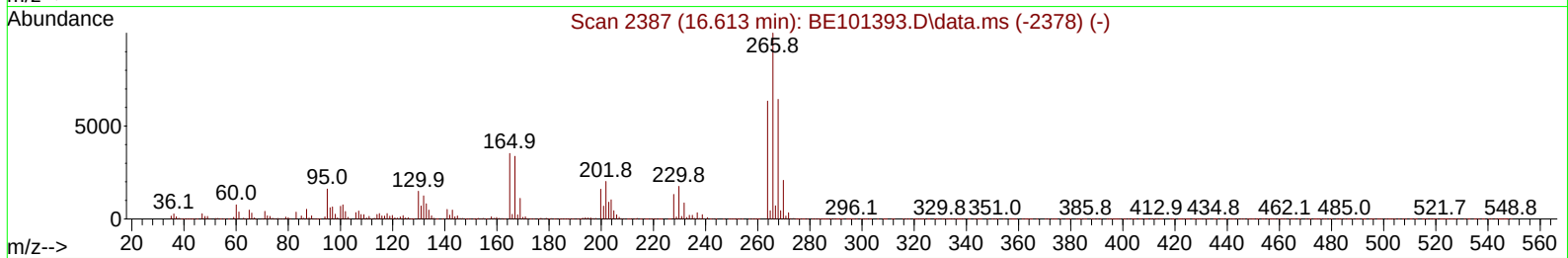
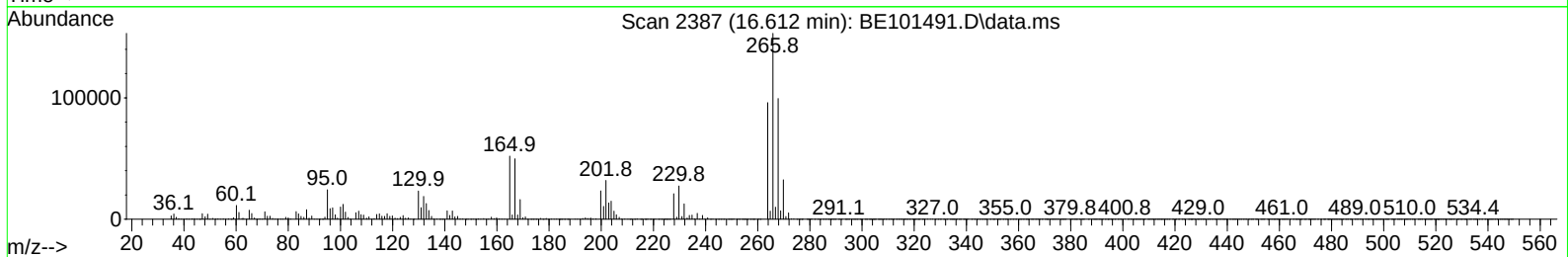
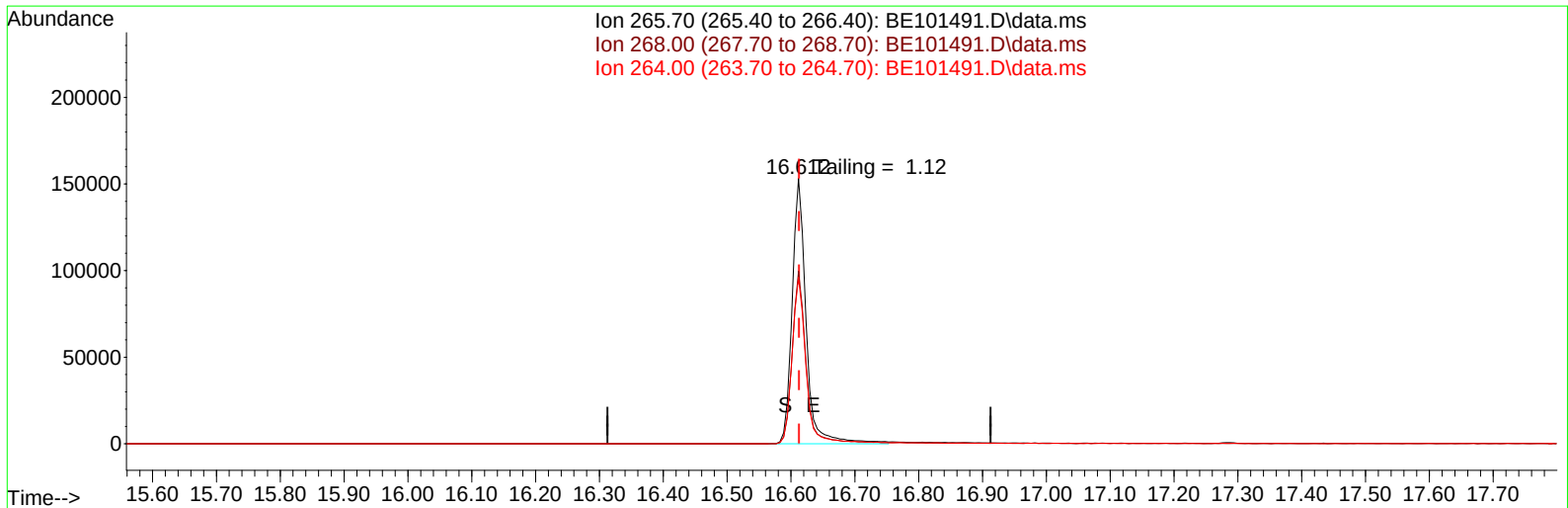
AutoFind: Scans 2500, 2501, 2502; Background Corrected with Scan 2492

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	27.5	49133	PASS
68	69	0.00	2	1.3	713	PASS
69	198	0.00	100	29.7	53047	PASS
70	69	0.00	2	0.4	228	PASS
127	198	10	80	43.5	77857	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	178817	PASS
199	198	5	9	6.7	12064	PASS
275	198	10	60	34.0	60764	PASS
365	198	1	100	5.4	9623	PASS
441	198	0.01	100	30.3	54192	PASS
442	442	50	100	100.0	331371	PASS
443	442	15	24	19.6	64909	PASS

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
Data File : BE101491.D
Acq On : 6 Nov 2024 11:40
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
DFTPP

Quant Time: Nov 06 14:00:31 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Oct 29 01:26:30 2024
Response via : Initial Calibration



TIC: BE101491.D\data.ms

(70) Pentachlorophenol (C)

16.612min (-0.001) 879438.33 ng

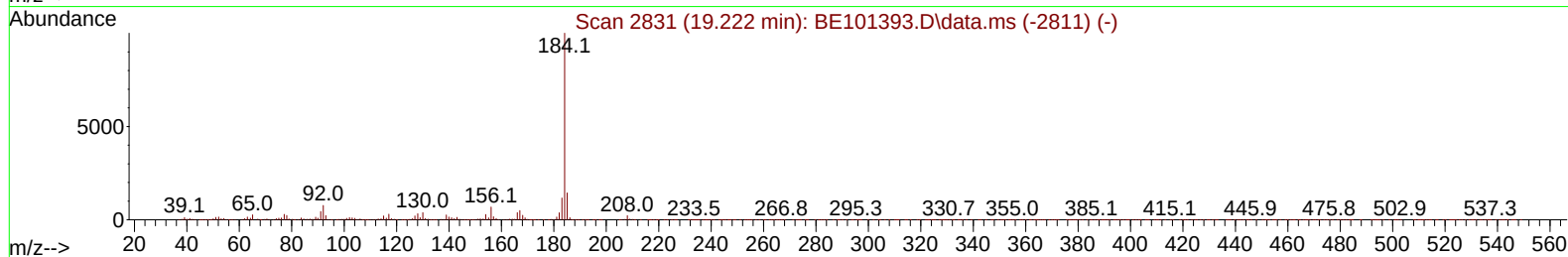
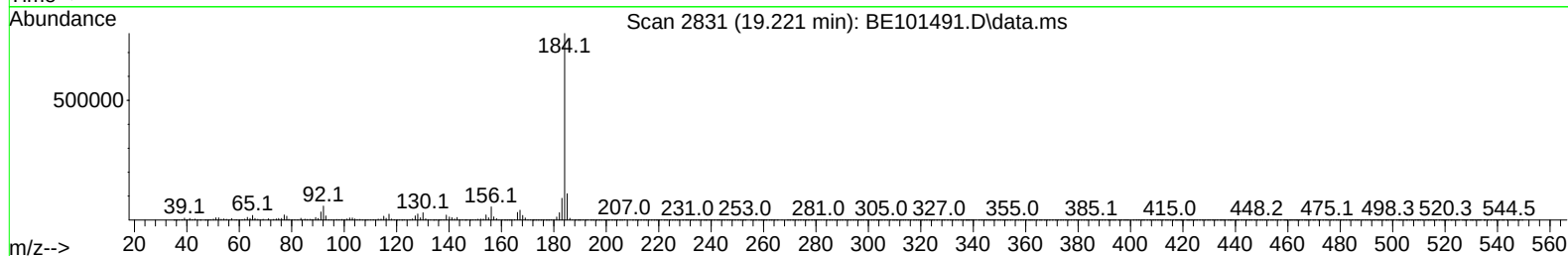
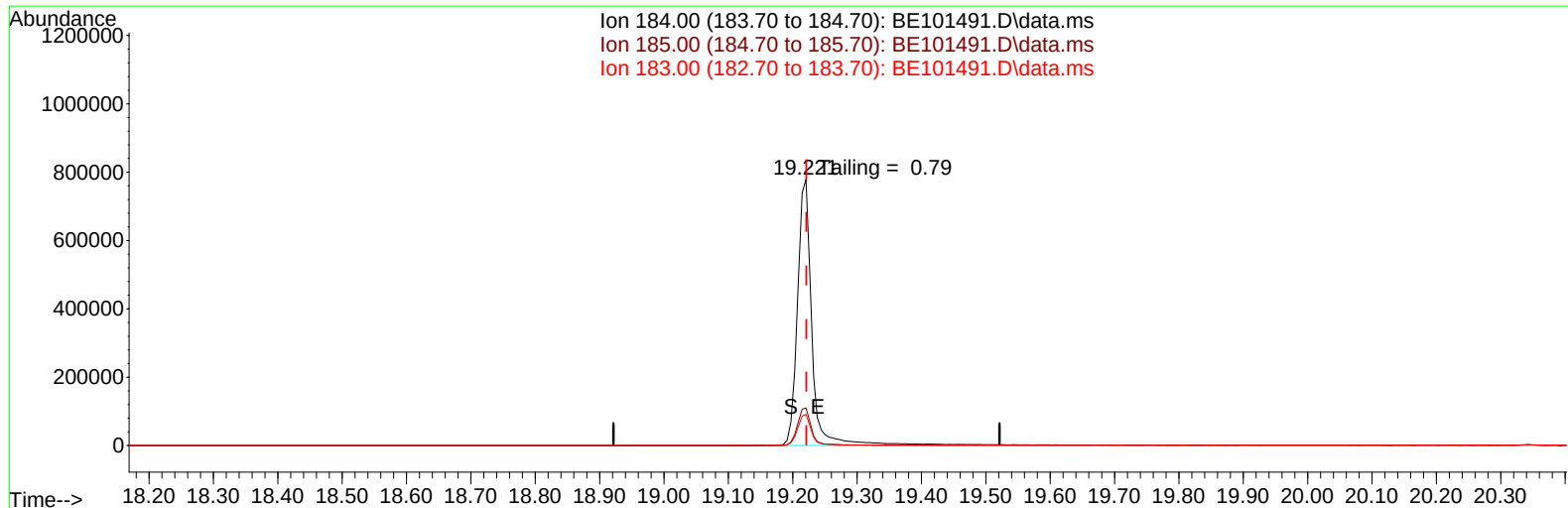
response 237313

Ion	Exp%	Act%
265.70	100.00	100.00
268.00	64.40	64.98
264.00	63.40	62.72
0.00	0.00	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE110624\
Data File : BE101491.D
Acq On : 6 Nov 2024 11:40
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
DFTPP

Quant Time: Nov 06 14:00:31 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Oct 29 01:26:30 2024
Response via : Initial Calibration



TIC: BE101491.D\data.ms

(77) Benzidine**19.221min (-0.001) 515869.86 ng****response 1191601**

Ion	Exp%	Act%
184.00	100.00	100.00
185.00	14.40	14.16
183.00	11.60	11.67
0.00	0.00	0.00

DDT Breakdown

Date	Instrument Name	DFTPP Data File
11/6/2024	BNA_E	<u>BE101491.D</u>
Compound Name	Response	Retention Time
DDT	583091	20.343
DDD	92284	19.914
DDE	1528	19.397
SUM(DDD+DDE)	SUM(DDT+DDD+DDE)	% Breakdown Of DDT
93812	676903	13.86

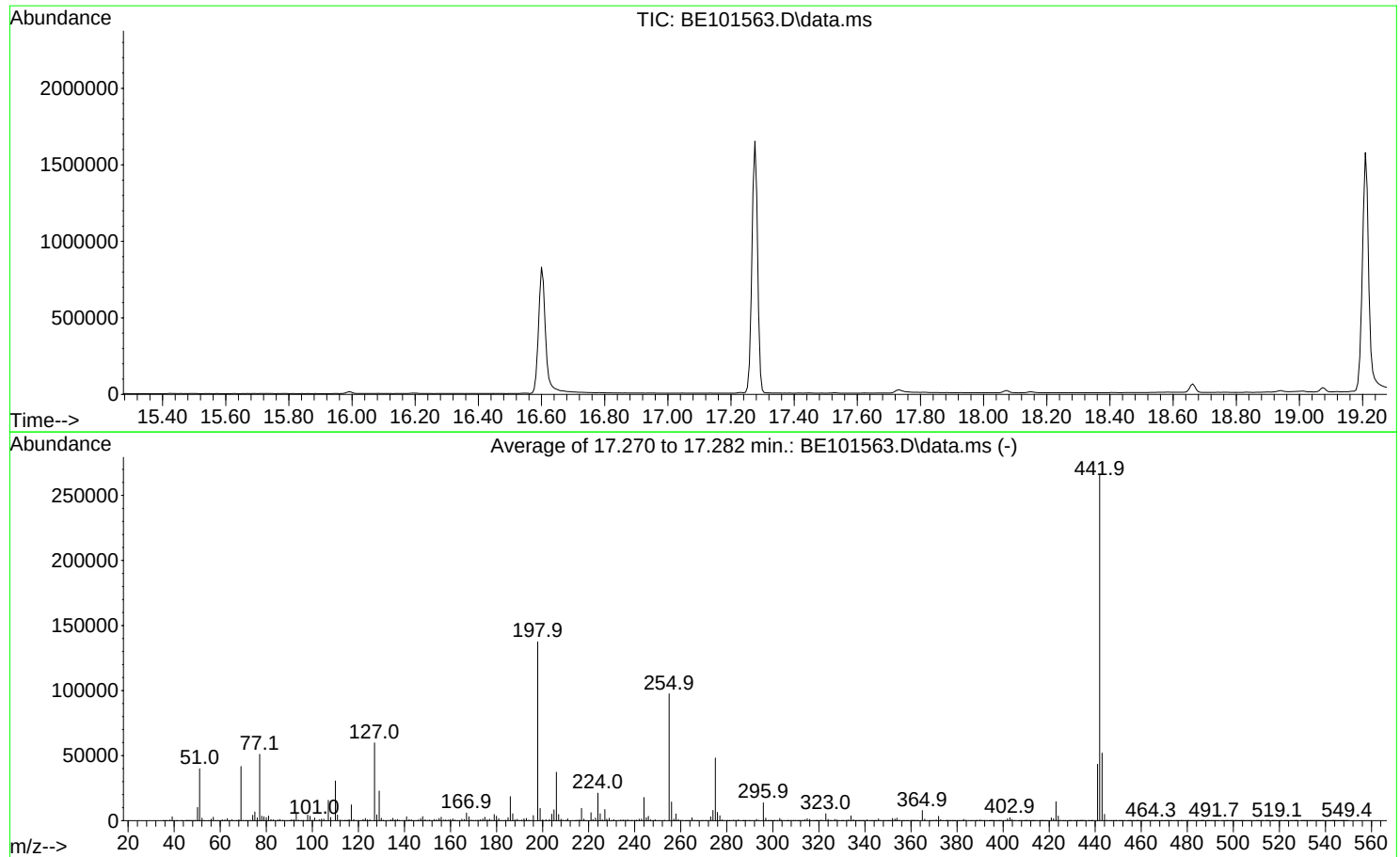
Instrument :
BNA_E
ClientSampleId :
DFTPP

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
Data File : BE101563.D
Acq On : 11 Nov 2024 9:43
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
DFTPP

Integration File: rteint.p

Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Thu Nov 07 00:01:20 2024



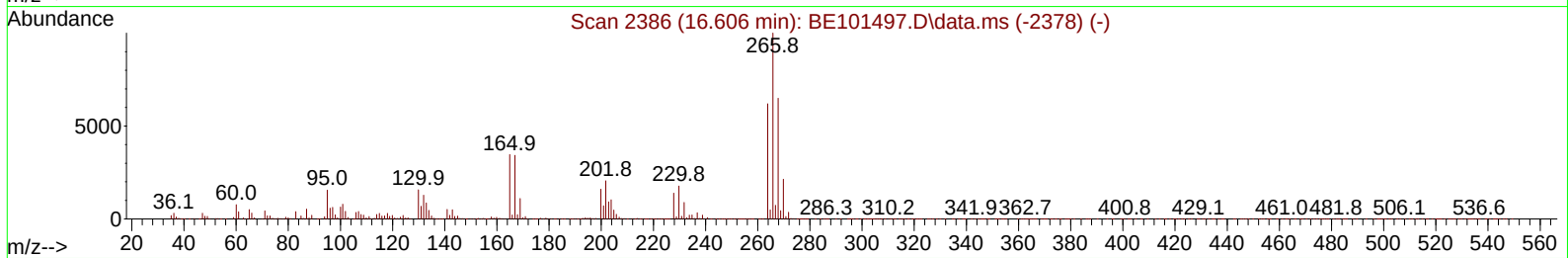
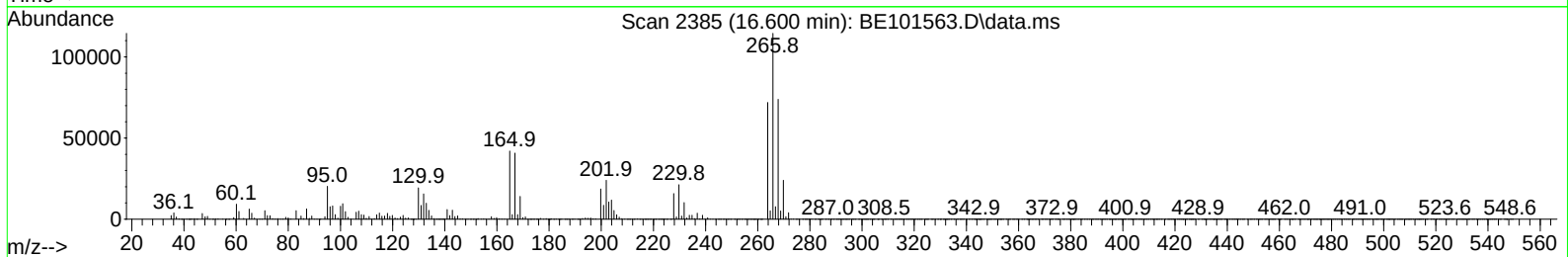
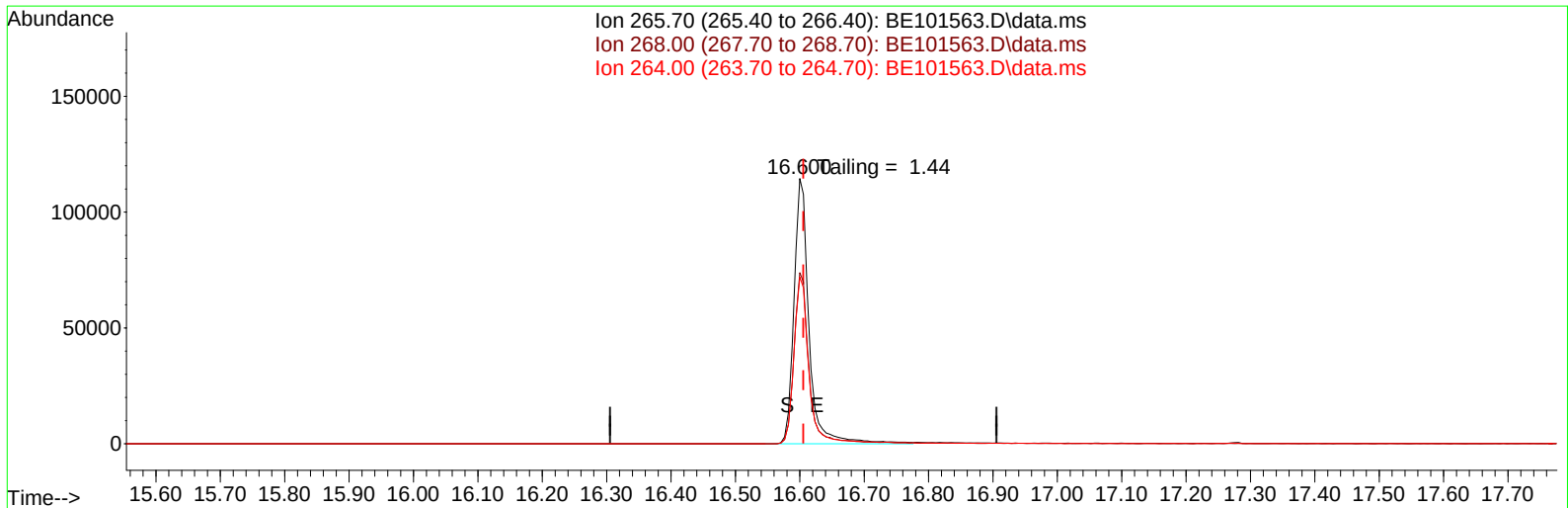
AutoFind: Scans 2499, 2500, 2501; Background Corrected with Scan 2489

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	29.0	39897	PASS
68	69	0.00	2	1.8	758	PASS
69	198	0.00	100	30.3	41620	PASS
70	69	0.00	2	0.5	219	PASS
127	198	10	80	43.6	59887	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	137465	PASS
199	198	5	9	6.9	9428	PASS
275	198	10	60	35.0	48115	PASS
365	198	1	100	5.7	7810	PASS
441	198	0.01	100	31.6	43427	PASS
442	442	50	100	100.0	266002	PASS
443	442	15	24	19.6	52008	PASS

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
Data File : BE101563.D
Acq On : 11 Nov 2024 9:43
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
DFTPP

Quant Time: Nov 11 10:20:26 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 07 00:01:20 2024
Response via : Initial Calibration



TIC: BE101563.D\data.ms

(70) Pentachlorophenol (C)

16.600min (-0.006) 2640600.09 ng

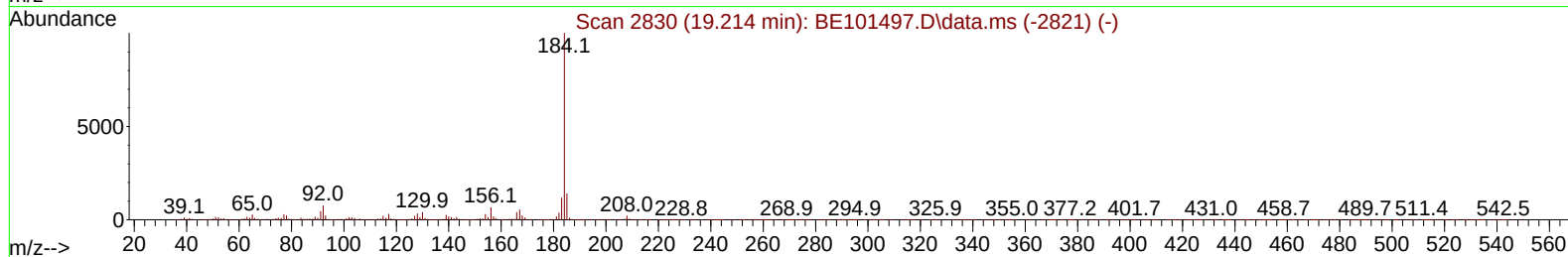
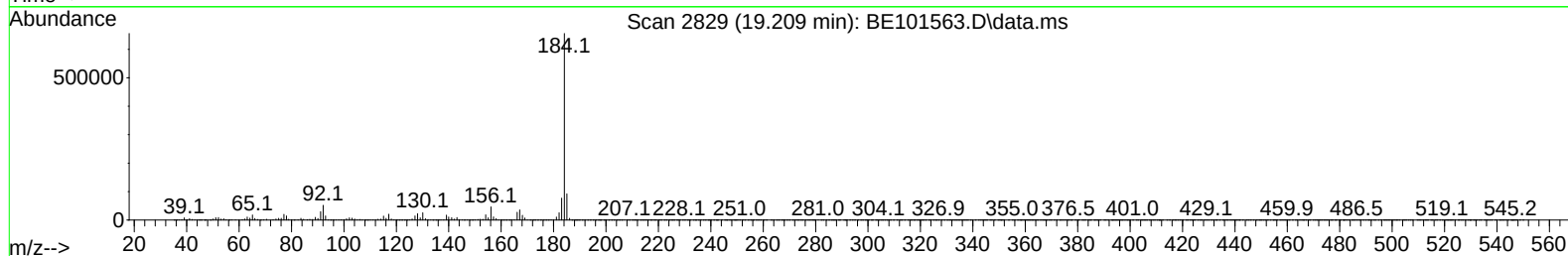
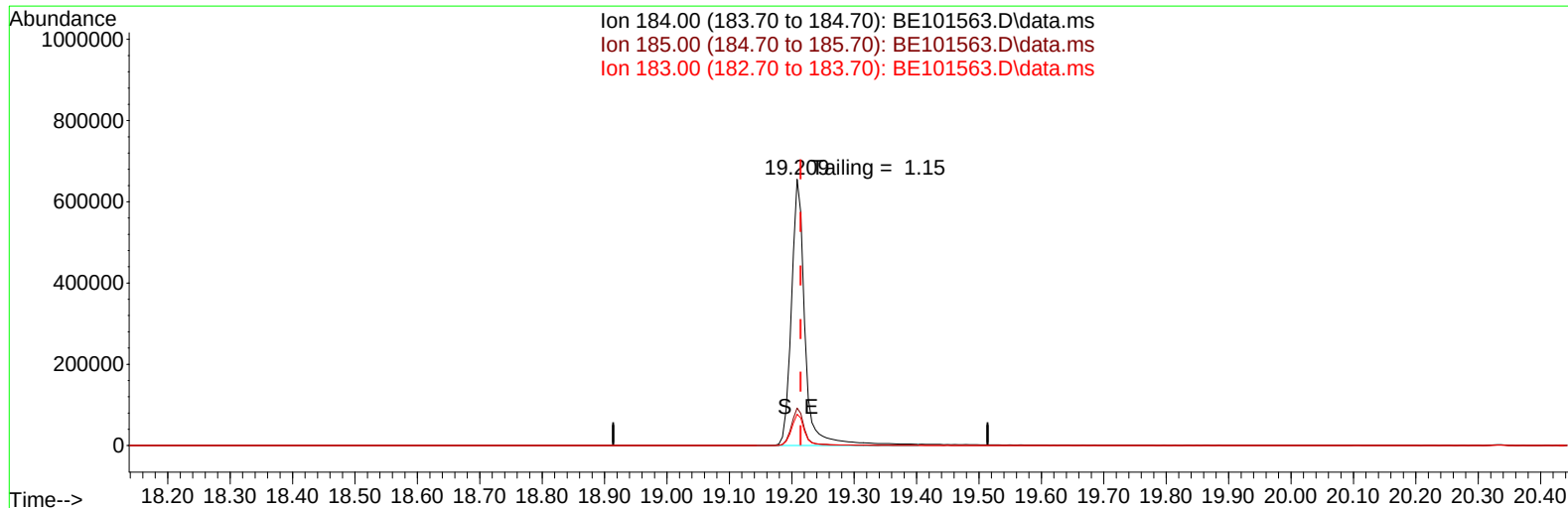
response 187173

Ion	Exp%	Act%
265.70	100.00	100.00
268.00	65.00	64.53
264.00	62.00	62.83
0.00	0.00	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
Data File : BE101563.D
Acq On : 11 Nov 2024 9:43
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
DFTPP

Quant Time: Nov 11 10:20:26 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 07 00:01:20 2024
Response via : Initial Calibration



TIC: BE101563.D\data.ms

(77) Benzidine**19.209min (-0.005) 1105299.77 ng****response 997202**

Ion	Exp%	Act%
184.00	100.00	100.00
185.00	14.00	14.07
183.00	11.70	11.78
0.00	0.00	0.00

DDT Breakdown

Date	Instrument Name	DFTPP Data File
11/11/2024	BNA_E	<u>BE101563.D</u>
Compound Name	Response	Retention Time
DDT	616827	20.331
DDD	10976	19.955
DDE	415	19.391
SUM(DDD+DDE)	SUM(DDT+DDD+DDE)	% Breakdown Of DDT
11391	628218	1.81

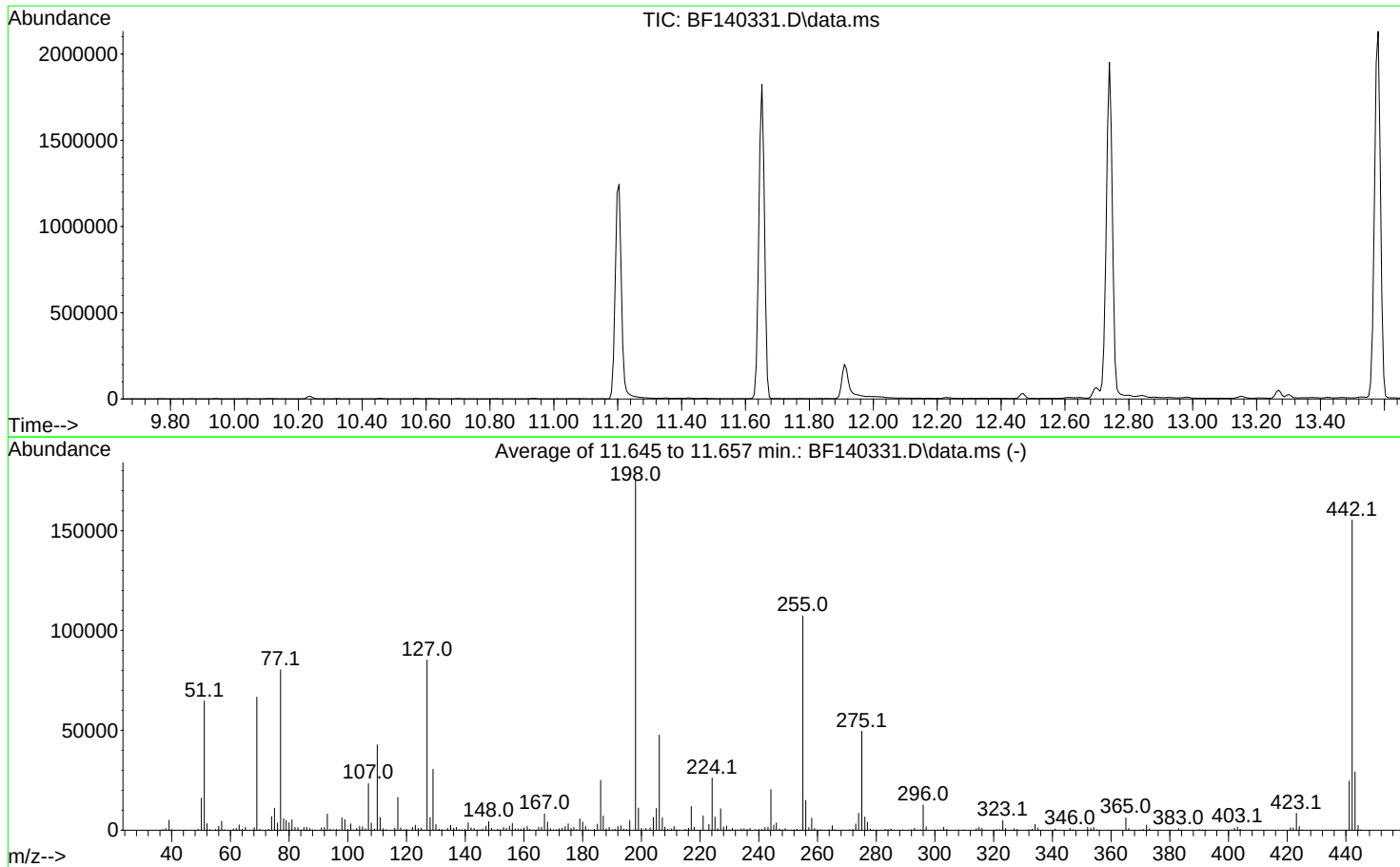
Instrument :
BNA_E
ClientSampleId :
DFTPP

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



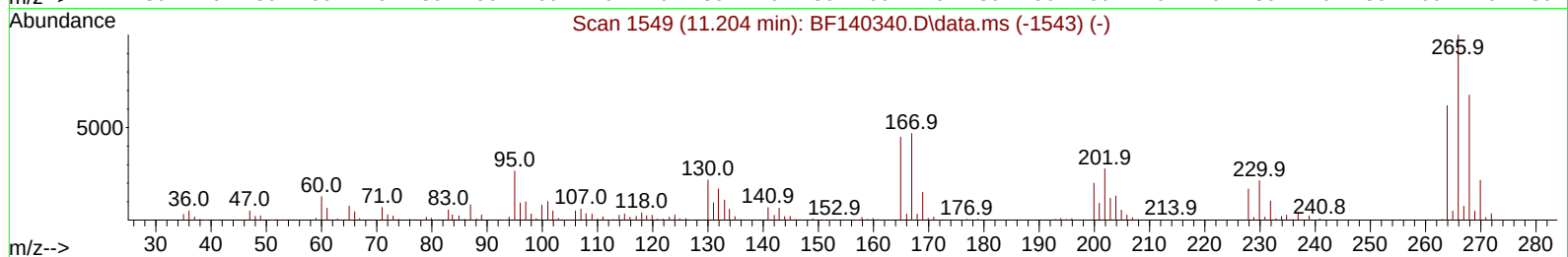
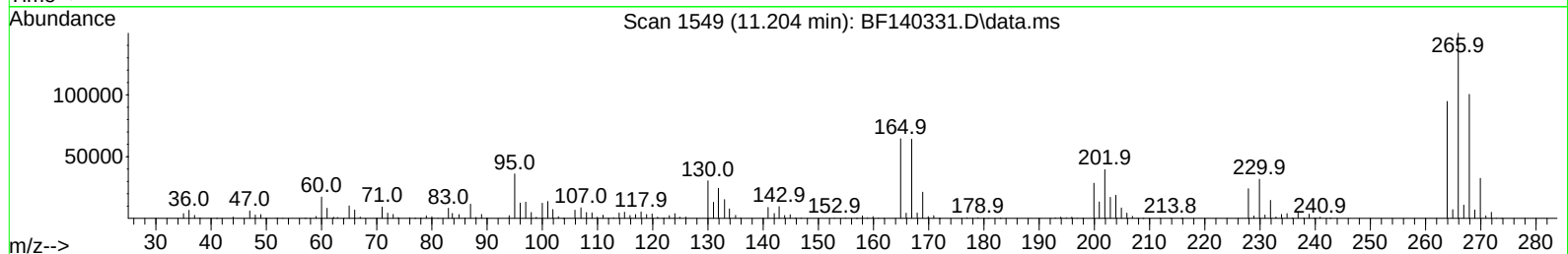
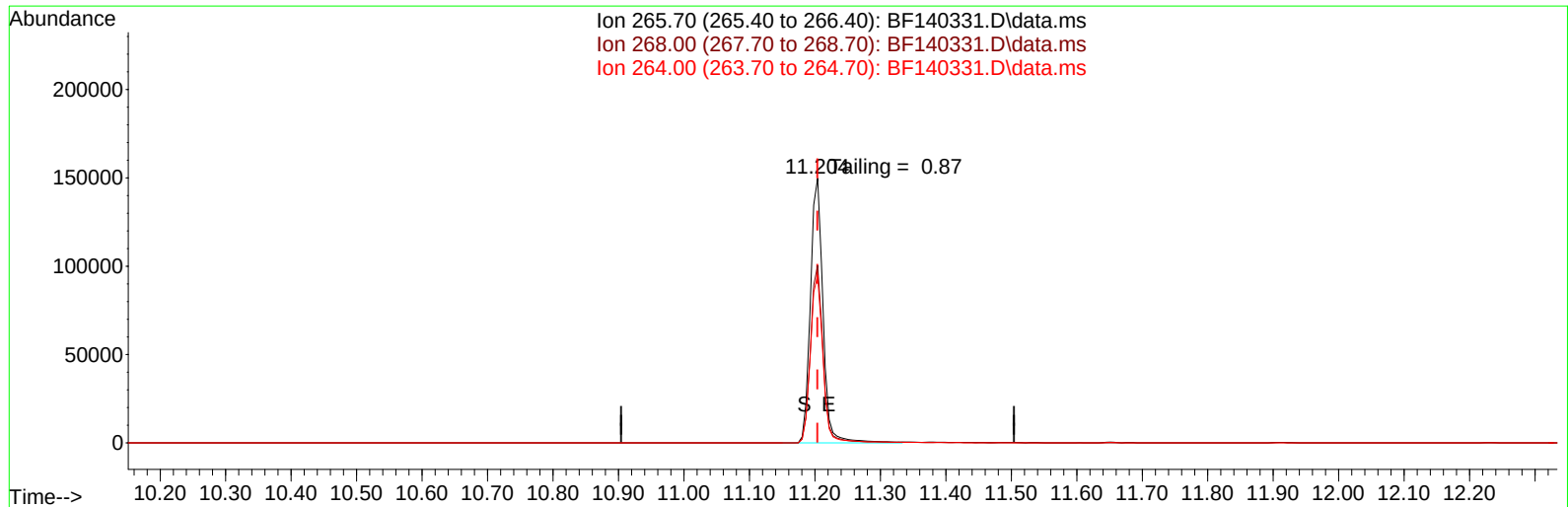
AutoFind: Scans 1624, 1625, 1626; Background Corrected with Scan 1617

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
Mass	Mass	Limit%	Limit%	Abn%	Abn	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

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

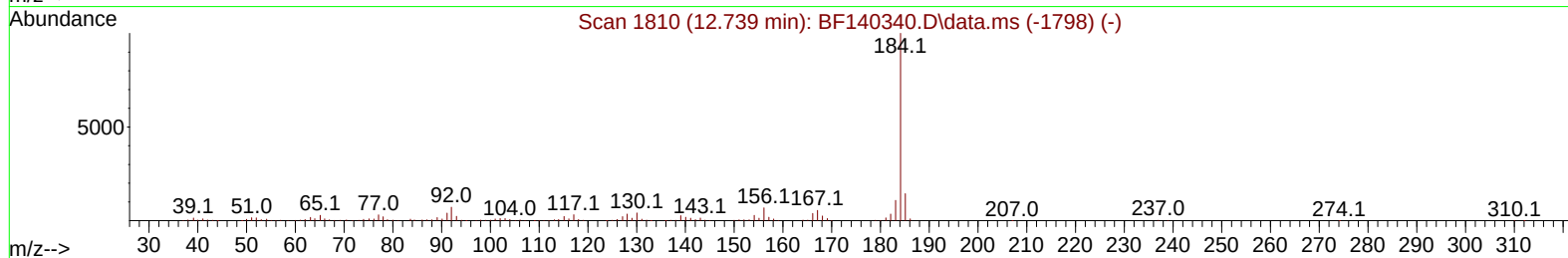
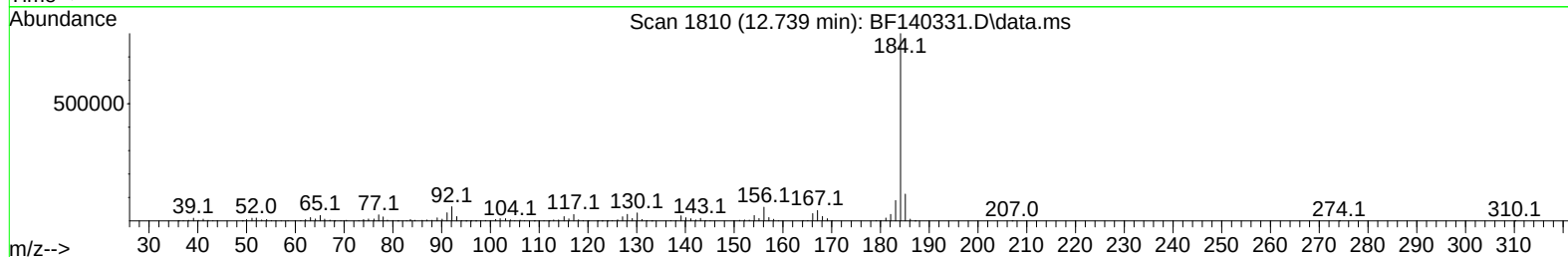
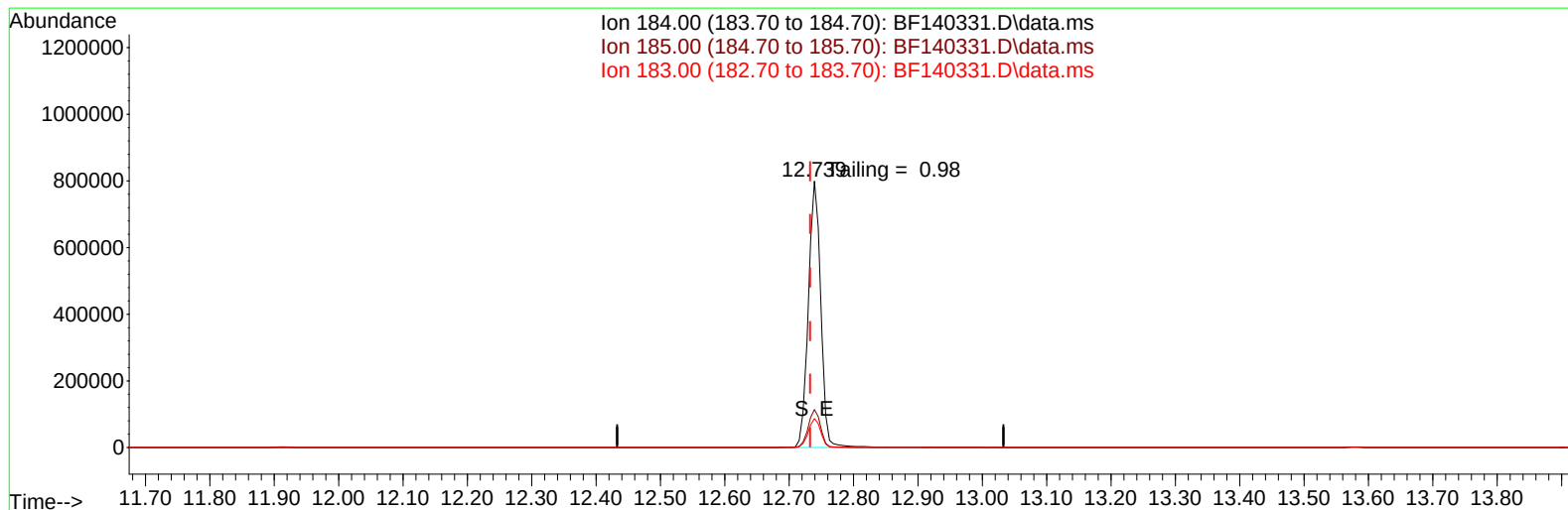
response 201406

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

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	<u>BF140331.D</u>
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

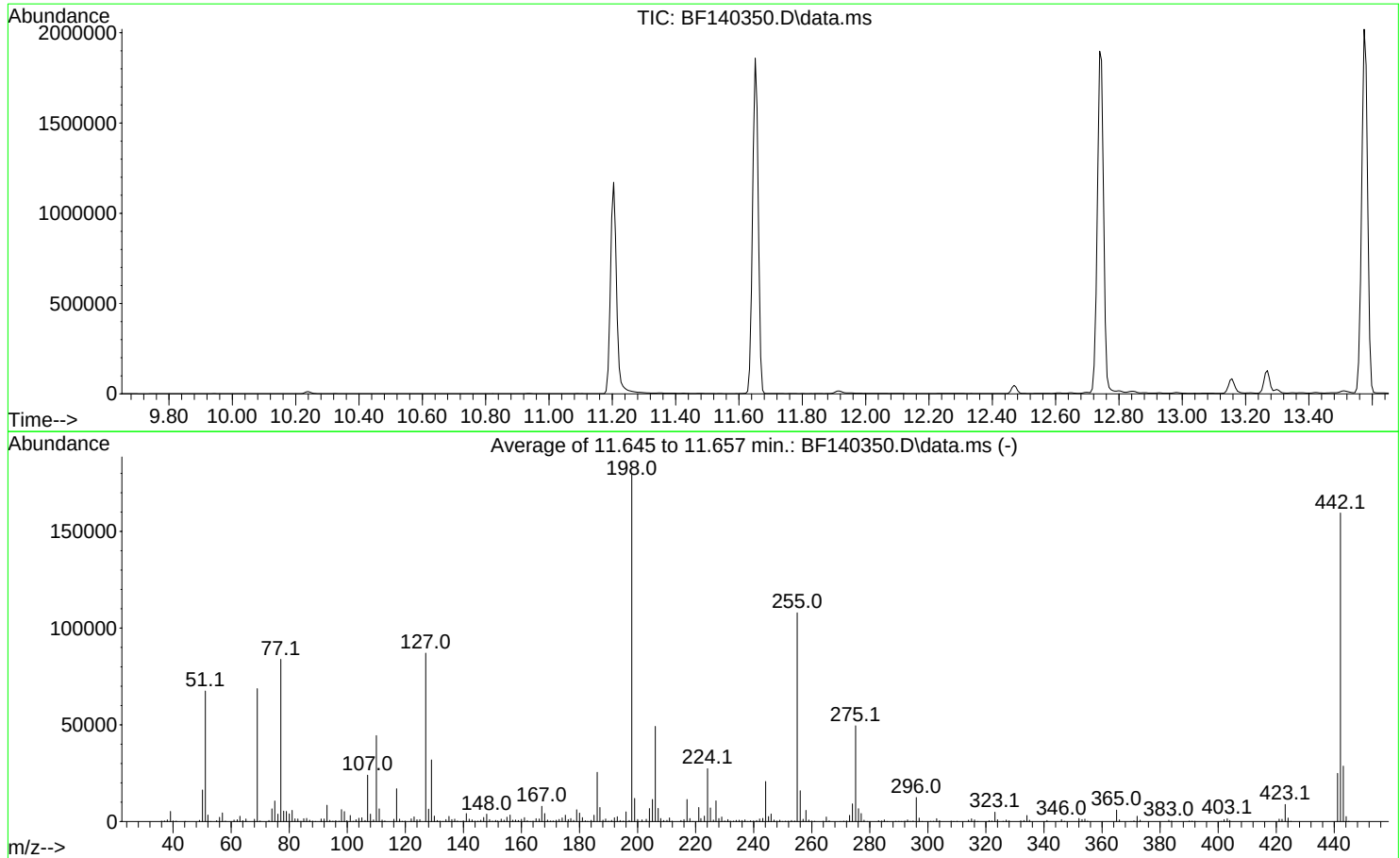
Instrument :
BNA_F
ClientSampleId :
DFTPP

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140350.D
Acq On : 14 Nov 2024 08:47
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



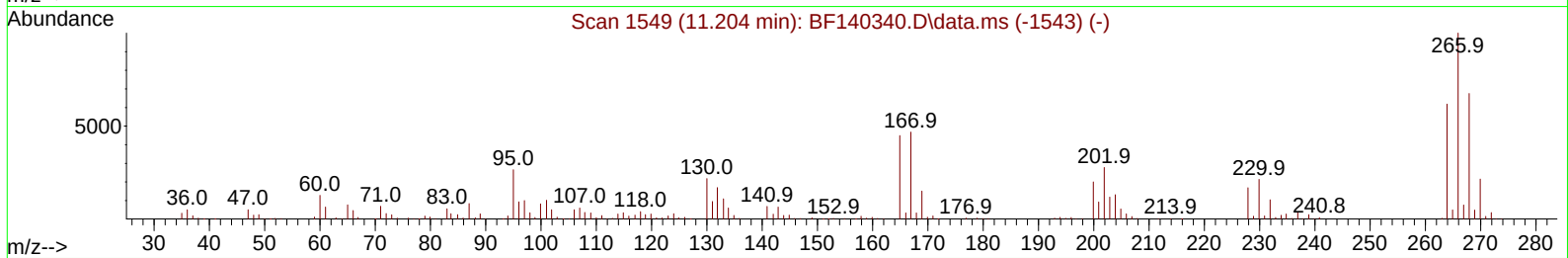
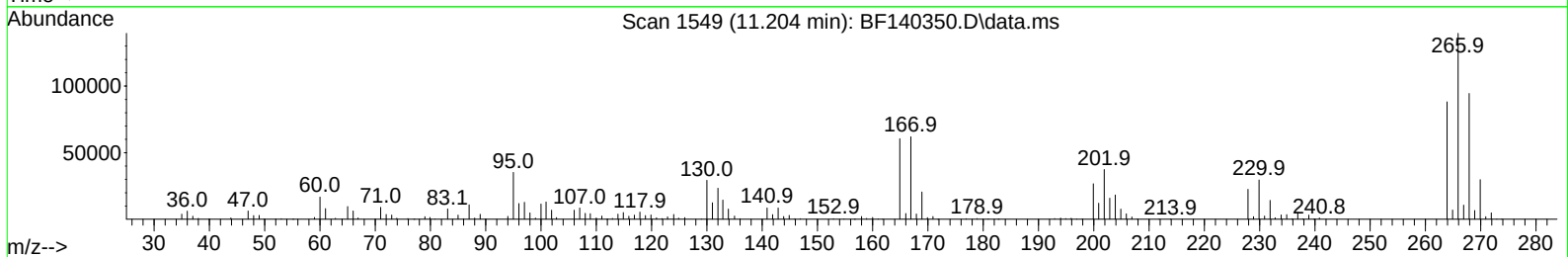
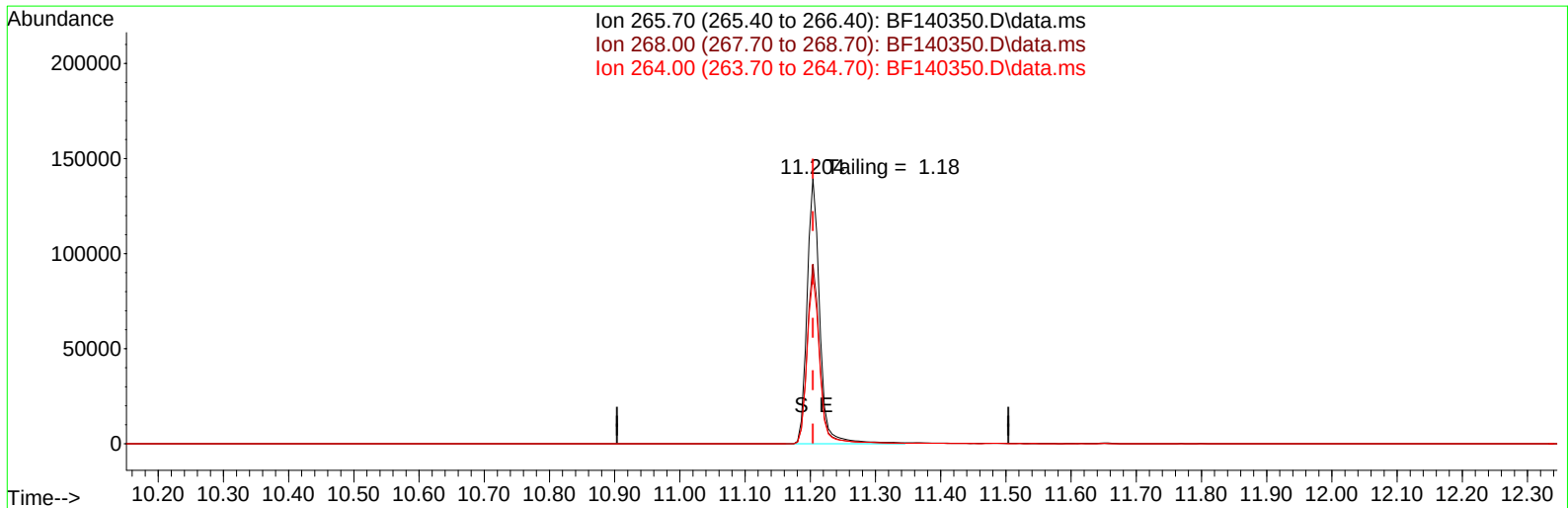
AutoFind: Scans 1624, 1625, 1626; Background Corrected with Scan 1618

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	37.6	67499	PASS
68	69	0.00	2	1.7	1197	PASS
69	198	0.00	100	38.3	68728	PASS
70	69	0.00	2	0.4	296	PASS
127	198	10	80	48.5	87083	PASS
197	198	0.00	2	0.3	544	PASS
198	198	100	100	100.0	179520	PASS
199	198	5	9	6.6	11931	PASS
275	198	10	60	27.6	49539	PASS
365	198	1	100	3.3	5926	PASS
441	198	0.01	100	13.9	24939	PASS
442	442	50	100	100.0	159507	PASS
443	442	15	24	18.0	28645	PASS

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140350.D
Acq On : 14 Nov 2024 08:47
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Nov 14 10:48:35 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: BF140350.D\data.ms

(70) Pentachlorophenol (C)

11.204min (-0.000) 30509.82 ng

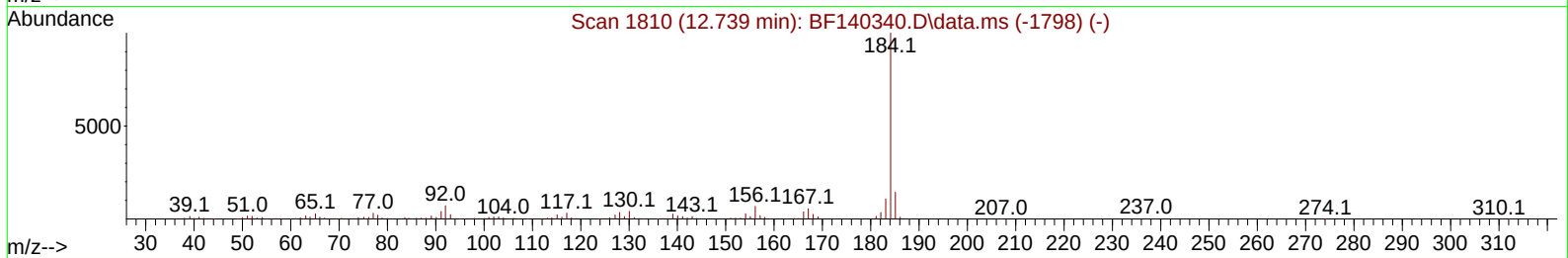
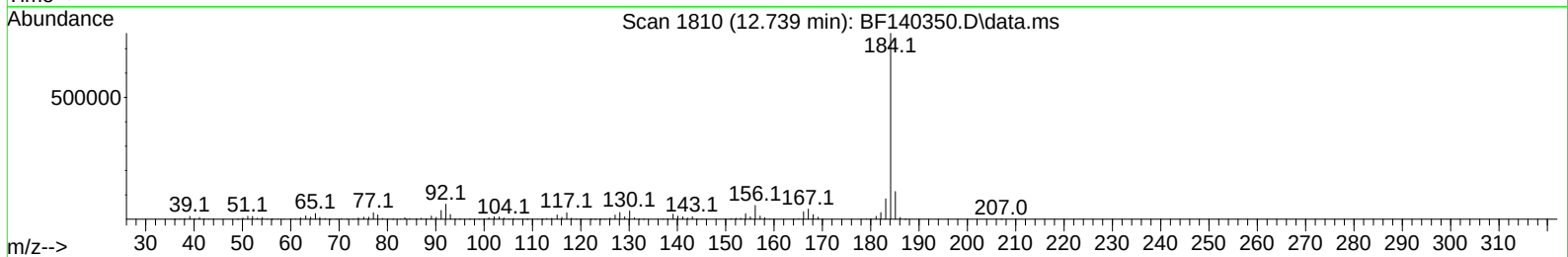
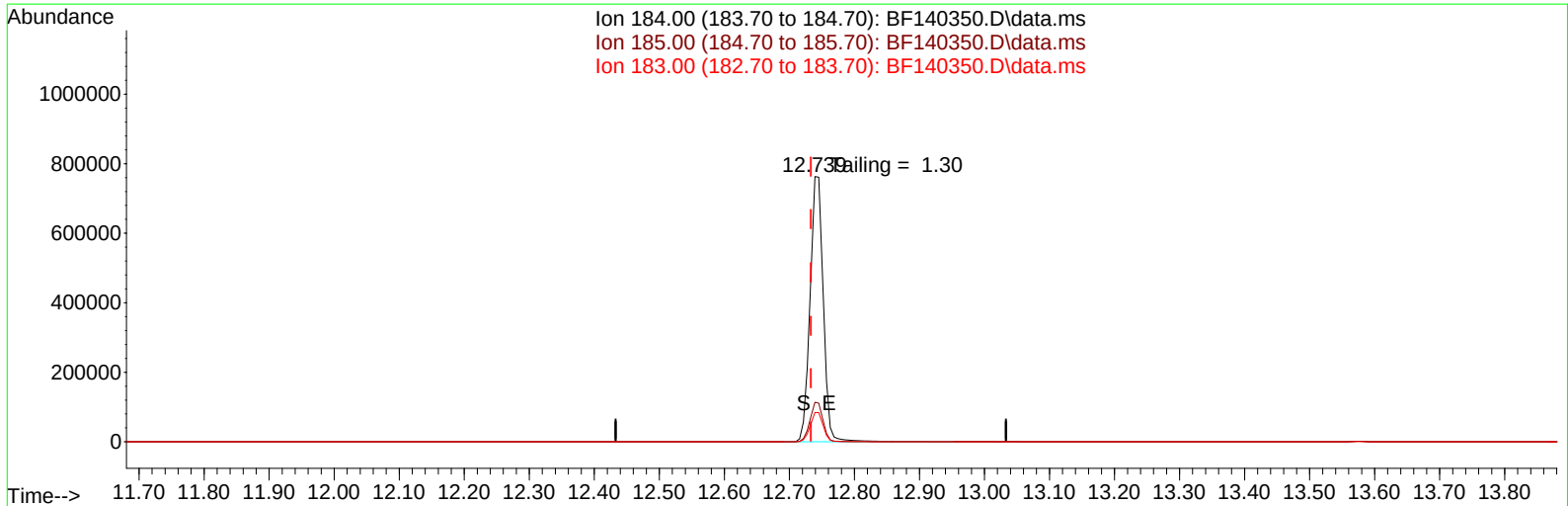
response 188723

Ion	Exp%	Act%
265.70	100.00	100.00
268.00	66.10	67.69
264.00	62.90	63.18
0.00	0.00	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140350.D
Acq On : 14 Nov 2024 08:47
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Nov 14 10:48:35 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: BF140350.D\data.ms

(77) Benzidine

12.739min (+ 0.006) 49755.95 ng

response 1078960

Ion	Exp%	Act%
184.00	100.00	100.00
185.00	14.90	14.90
183.00	10.80	11.03
0.00	0.00	0.00

DDT Breakdown

Date	Instrument Name	DFTPP Data File
11/14/2024	BNA_F	<u>BF140350.D</u>
Compound Name	Response	Retention Time
DDT	519001	13.574
DDD	38421	13.269
DDE	863	12.927
SUM(DDD+DDE)	SUM(DDT+DDD+DDE)	% Breakdown Of DDT
39284	558285	7.04

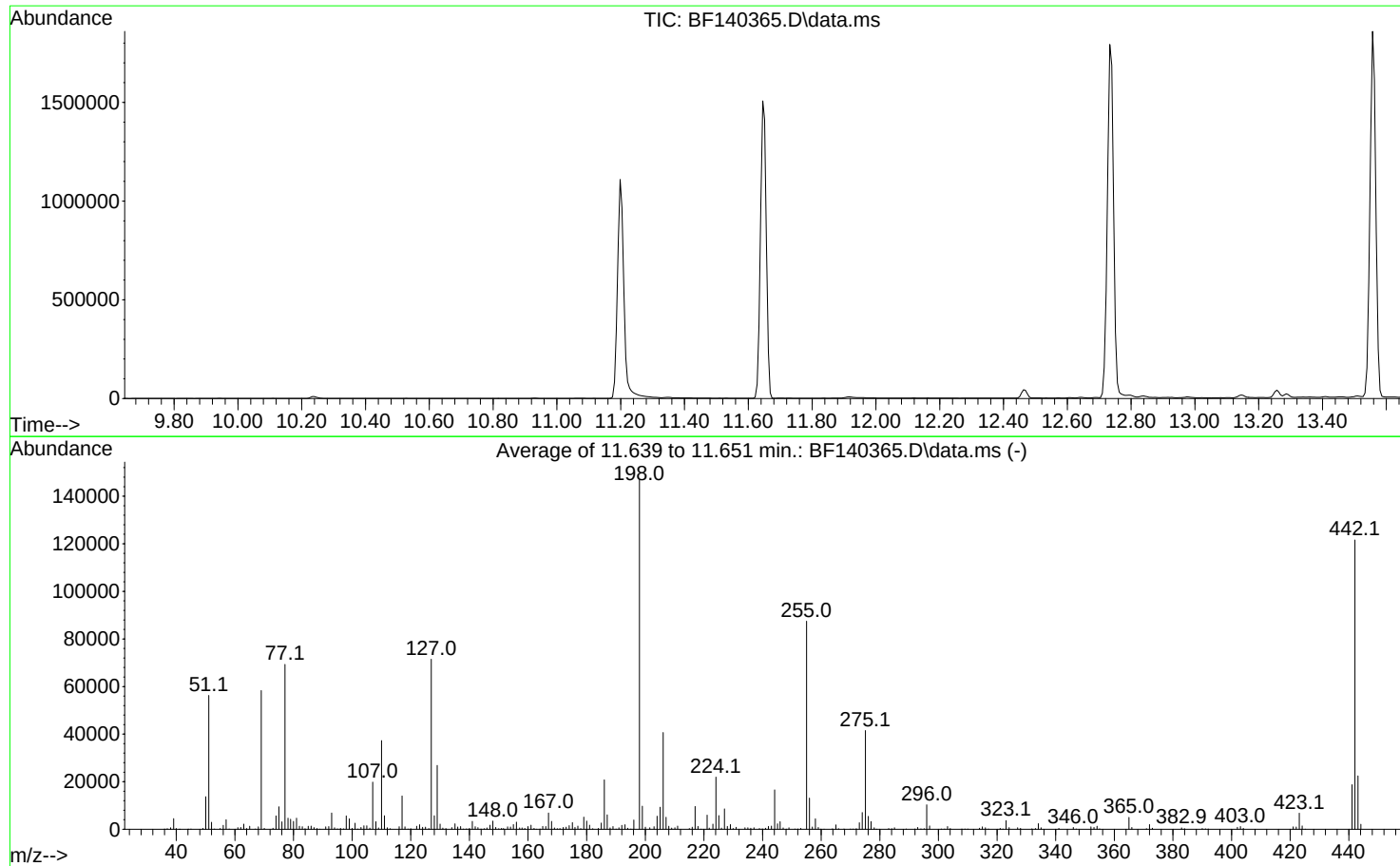
Instrument :
BNA_F
ClientSampleId :
DFTPP

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140365.D
Acq On : 14 Nov 2024 16:35
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



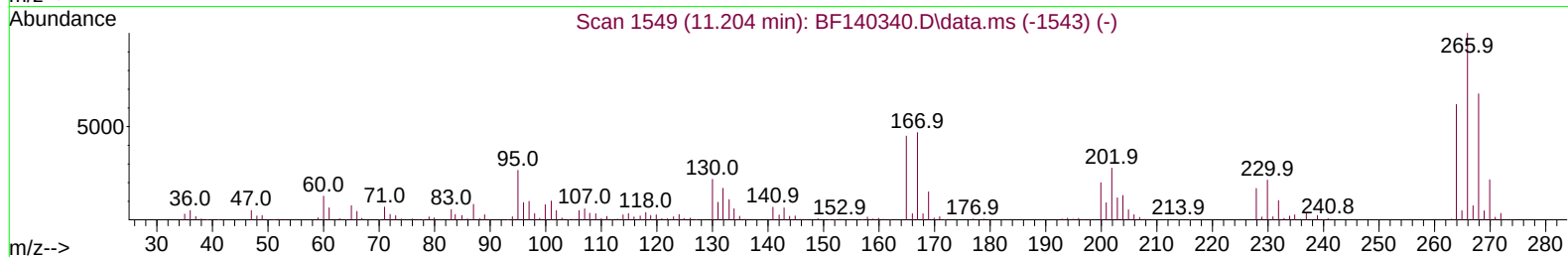
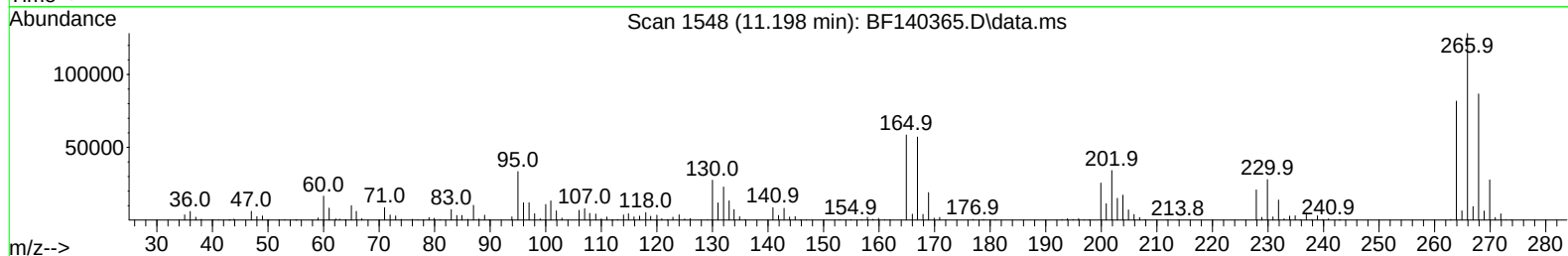
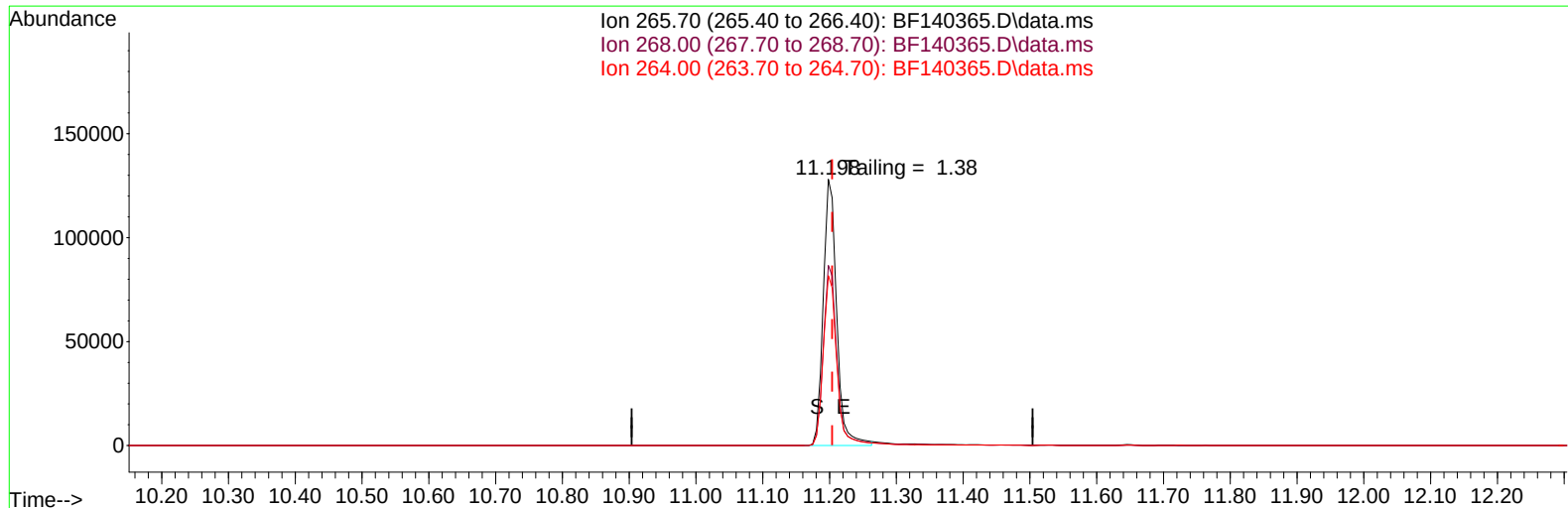
AutoFind: Scans 1623, 1624, 1625; Background Corrected with Scan 1617

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	38.3	56256	PASS
68	69	0.00	2	1.8	1048	PASS
69	198	0.00	100	39.7	58288	PASS
70	69	0.00	2	0.6	372	PASS
127	198	10	80	48.6	71504	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	146981	PASS
199	198	5	9	6.6	9705	PASS
275	198	10	60	28.2	41477	PASS
365	198	1	100	3.4	5013	PASS
441	198	0.01	100	12.8	18763	PASS
442	442	50	100	100.0	121611	PASS
443	442	15	24	18.4	22419	PASS

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140365.D
Acq On : 14 Nov 2024 16:35
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Nov 15 03:47:18 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: BF140365.D\data.ms

(70) Pentachlorophenol (C)

11.198min (-0.006) 63998.59 ng

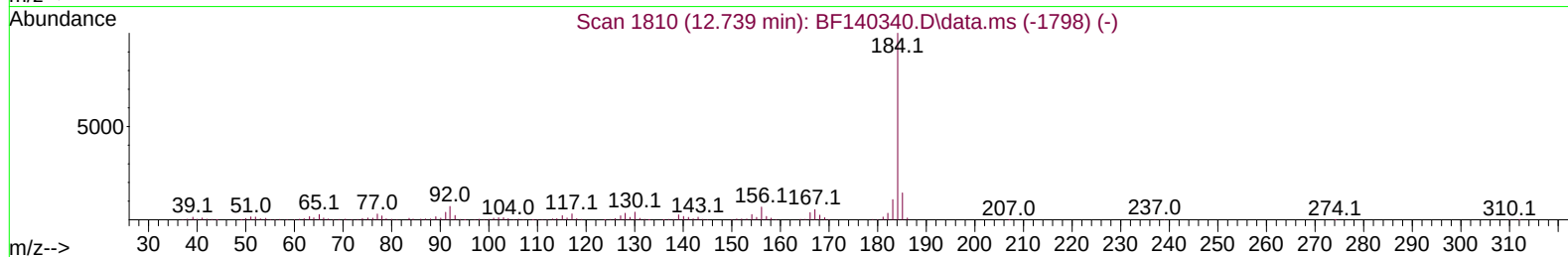
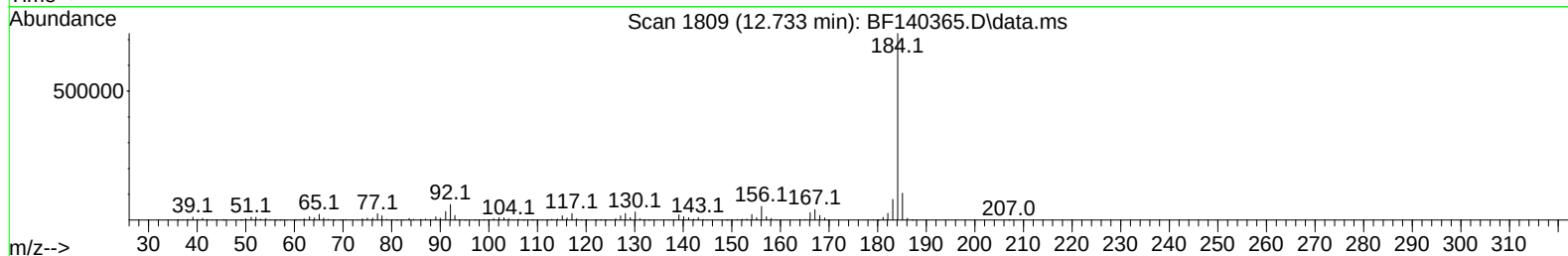
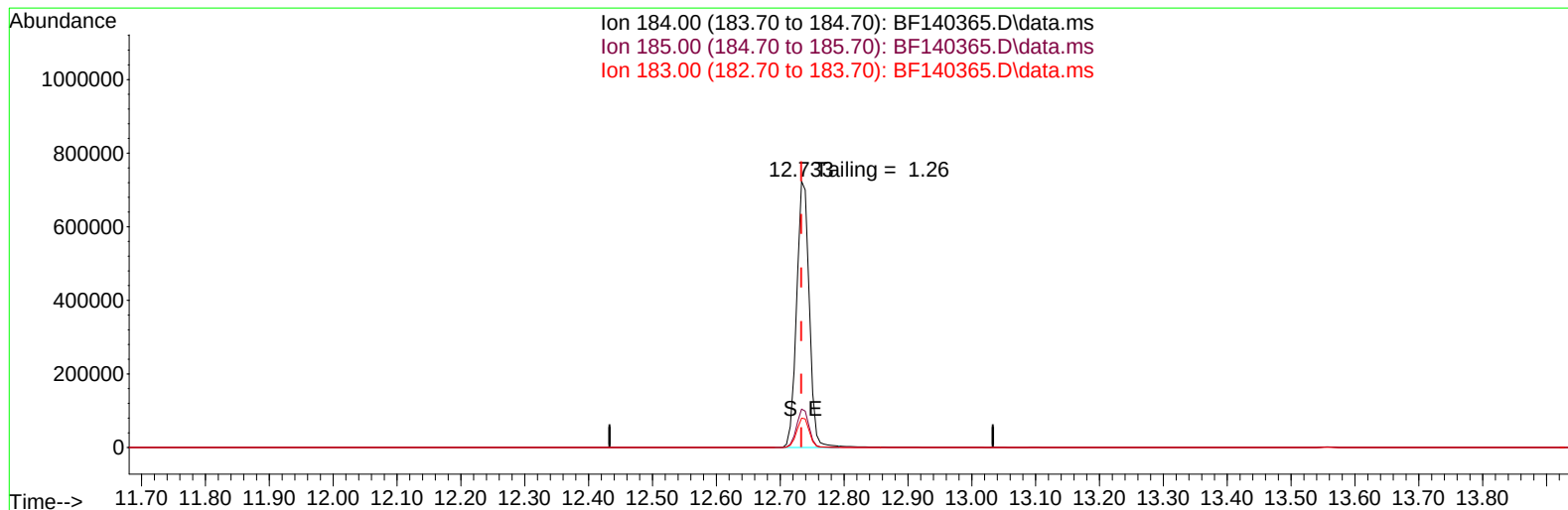
response 182621

Ion	Exp%	Act%
265.70	100.00	100.00
268.00	66.10	67.63
264.00	62.90	63.80
0.00	0.00	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140365.D
Acq On : 14 Nov 2024 16:35
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Nov 15 03:47:18 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: BF140365.D\data.ms

(77) Benzidine

12.733min (+ 0.000) 36692.71 ng

response 1009743

Ion	Exp%	Act%
184.00	100.00	100.00
185.00	14.90	14.42
183.00	10.80	11.08
0.00	0.00	0.00

DDT Breakdown

Date	Instrument Name	DFTPP Data File
11/14/2024	BNA_F	<u>BF140365.D</u>
Compound Name	Response	Retention Time
DDT	468813	13.557
DDD	15679	13.257
DDE	402	12.922
SUM(DDD+DDE)	SUM(DDT+DDD+DDE)	% Breakdown Of DDT
16081	484894	3.32

Instrument :
BNA_F
ClientSampleId :
DFTPP

Report of Analysis

Client:	CHA Companies, Inc.	Date Collected:	
Project:	HRPC	Date Received:	
Client Sample ID:	PB164845BL	SDG No.:	P4779
Lab Sample ID:	PB164845BL	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
BE101565.D	1	11/10/24 09:10	11/11/24 10:55	PB164845

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

Report of Analysis

Client:	CHA Companies, Inc.	Date Collected:	
Project:	HRPC	Date Received:	
Client Sample ID:	PB164845BL	SDG No.:	P4779
Lab Sample ID:	PB164845BL	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
BE101565.D	1	11/10/24 09:10	11/11/24 10:55	PB164845

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

Report of Analysis

Client:	CHA Companies, Inc.	Date Collected:	
Project:	HRPC	Date Received:	
Client Sample ID:	PB164845BL	SDG No.:	P4779
Lab Sample ID:	PB164845BL	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
BE101565.D	1	11/10/24 09:10	11/11/24 10:55	PB164845

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	130		18 - 112	87%	SPK: 150
13127-88-3	Phenol-d6	114		15 - 107	76%	SPK: 150
4165-60-0	Nitrobenzene-d5	79.3		18 - 107	79%	SPK: 100
321-60-8	2-Fluorobiphenyl	84.0		20 - 109	84%	SPK: 100
118-79-6	2,4,6-Tribromophenol	106		10 - 116	70%	SPK: 150
1718-51-0	Terphenyl-d14	84.7		10 - 105	85%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	54900		7.557		
1146-65-2	Naphthalene-d8	228000		10.325		
15067-26-2	Acenaphthene-d10	137000		14.167		
1517-22-2	Phenanthrene-d10	303000		16.905		
1719-03-5	Chrysene-d12	362000		21.065		
1520-96-3	Perylene-d12	525000		23.351		
TENTATIVE IDENTIFIED COMPOUNDS						
000077-76-9	Propane, 2,2-dimethoxy-	1500	J		2.68	ug/Kg
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	140	A		4.78	ug/Kg

Report of Analysis

Client:	CHA Companies, Inc.	Date Collected:	
Project:	HRPC	Date Received:	
Client Sample ID:	PB164845BL	SDG No.:	P4779
Lab Sample ID:	PB164845BL	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
BE101565.D	1	11/10/24 09:10	11/11/24 10:55	PB164845

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_E\Data\BE111124\
Data File : BE101565.D
Acq On : 11 Nov 2024 10:55
Operator : RC/JU
Sample : PB164845BL
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
PB164845BL

Quant Time: Nov 11 11:10:51 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 07 00:01:20 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.557	152	54855	20.000	ng	0.00
21) Naphthalene-d8	10.325	136	227680	20.000	ng	0.00
39) Acenaphthene-d10	14.167	164	136558	20.000	ng	0.00
64) Phenanthrene-d10	16.905	188	302614	20.000	ng	0.00
76) Chrysene-d12	21.065	240	361556	20.000	ng	-0.01
86) Perylene-d12	23.351	264	524875	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.307	112	403756	130.145	ng	0.00
7) Phenol-d6	6.935	99	487008	114.494	ng	-0.01
23) Nitrobenzene-d5	8.768	82	285793	79.287	ng	0.00
42) 2,4,6-Tribromophenol	15.677	330	271514	105.664	ng	0.00
45) 2-Fluorobiphenyl	12.787	172	702132	83.953	ng	-0.01
79) Terphenyl-d14	19.496	244	1383175	84.682	ng	0.00

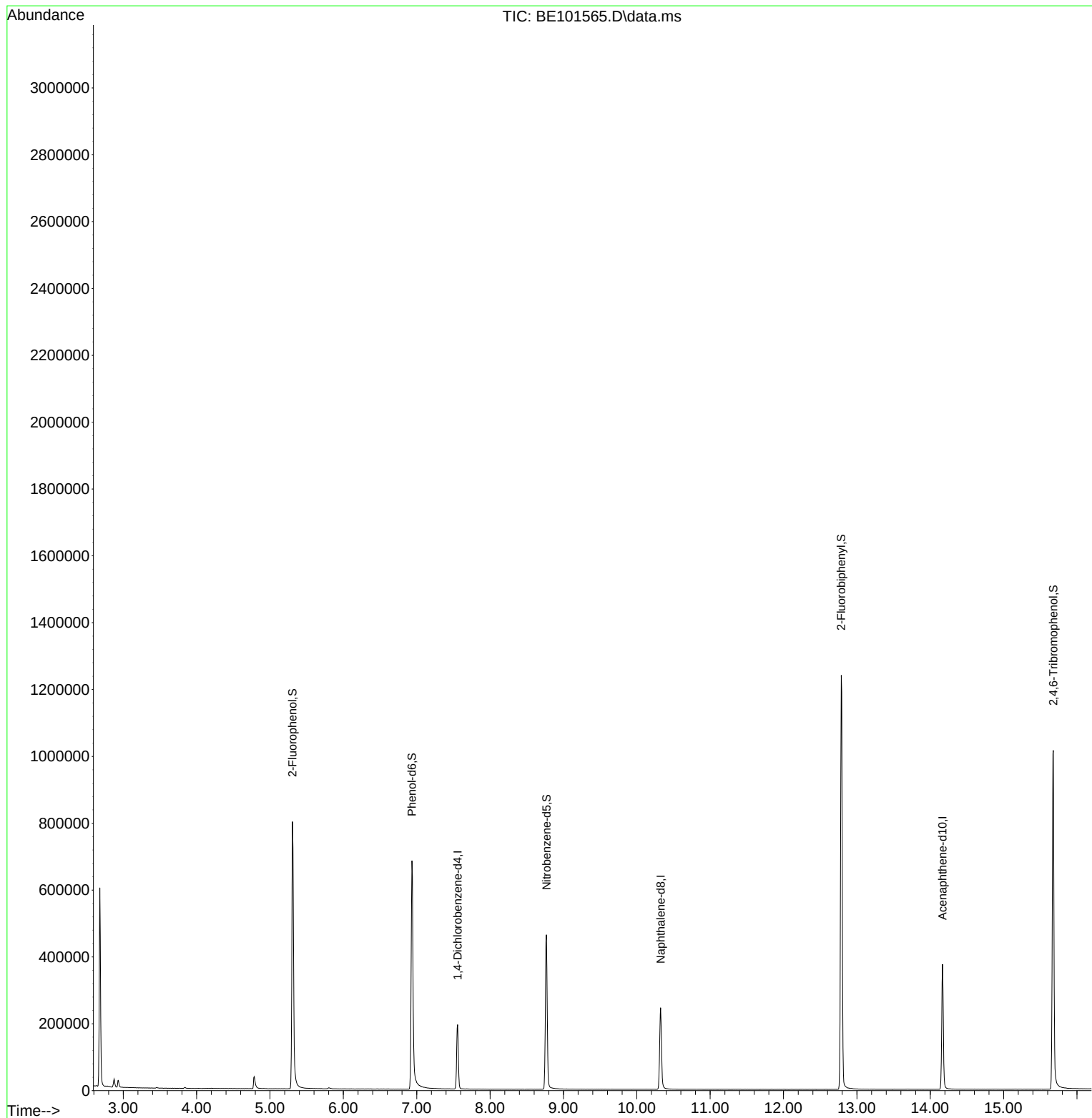
Target Compounds	Qvalue

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

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
Data File : BE101565.D
Acq On : 11 Nov 2024 10:55
Operator : RC/JU
Sample : PB164845BL
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
PB164845BL

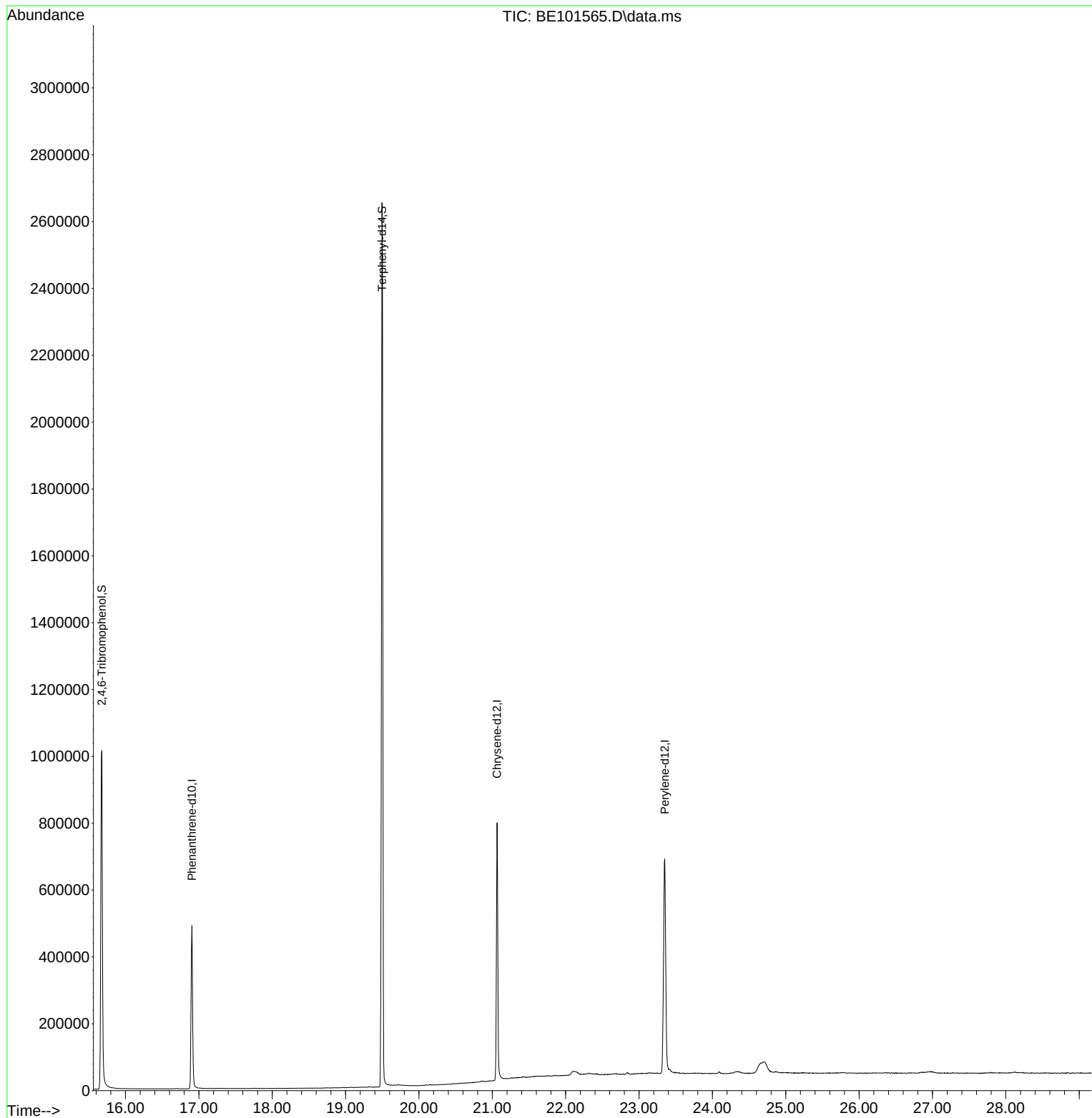
Quant Time: Nov 11 11:10:51 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 07 00:01:20 2024
Response via : Initial Calibration

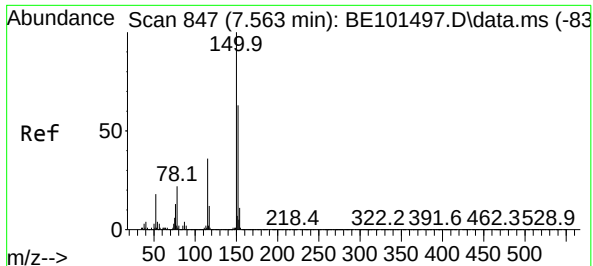


Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
Data File : BE101565.D
Acq On : 11 Nov 2024 10:55
Operator : RC/JU
Sample : PB164845BL
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
PB164845BL

Quant Time: Nov 11 11:10:51 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 07 00:01:20 2024
Response via : Initial Calibration

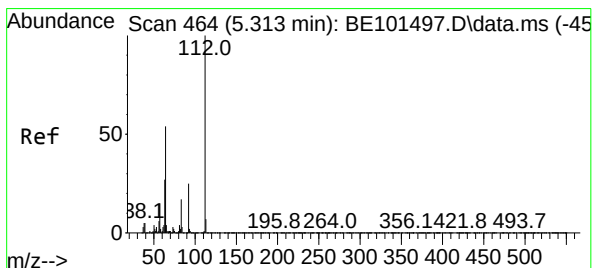
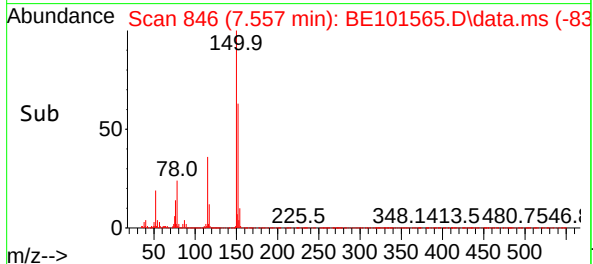
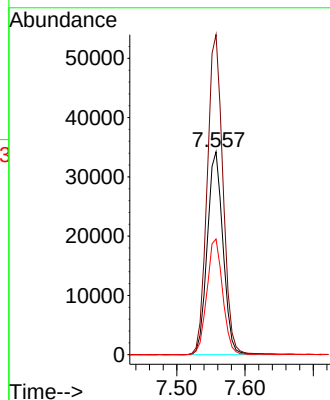
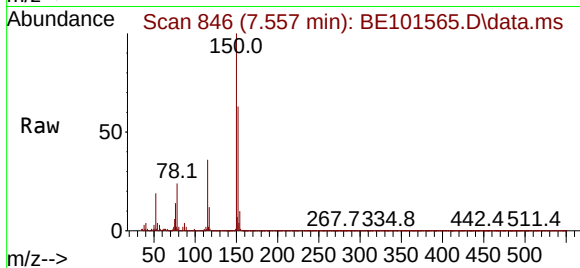




#1
1,4-Dichlorobenzene-d4
Concen: 20.000 ng
RT: 7.557 min Scan# 84
Delta R.T. -0.006 min
Lab File: BE101565.D
Acq: 11 Nov 2024 10:55

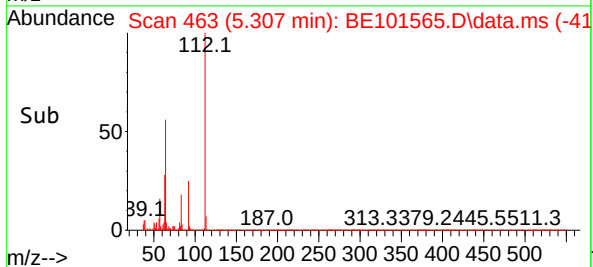
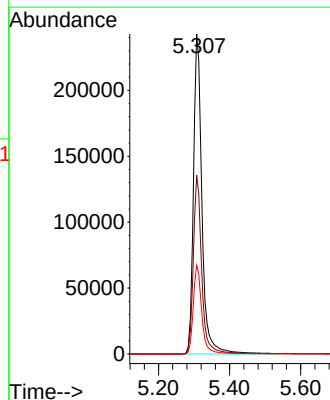
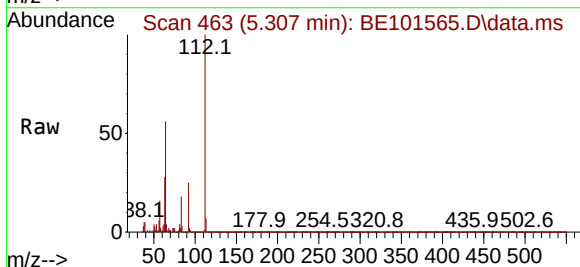
Instrument :
BNA_E
ClientSampleId :
PB164845BL

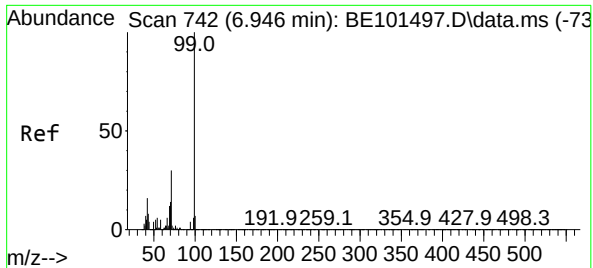
Tgt Ion	Ratio	Lower	Upper
152	100		
150	157.8	126.3	189.5
115	57.1	45.0	67.4



#5
2-Fluorophenol
Concen: 130.145 ng
RT: 5.307 min Scan# 463
Delta R.T. -0.006 min
Lab File: BE101565.D
Acq: 11 Nov 2024 10:55

Tgt Ion	Ratio	Lower	Upper
112	100		
64	55.9	43.2	64.8
63	27.7	21.8	32.6

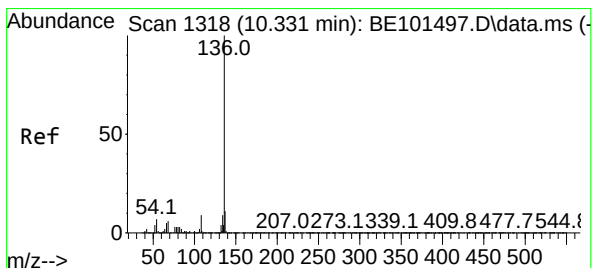
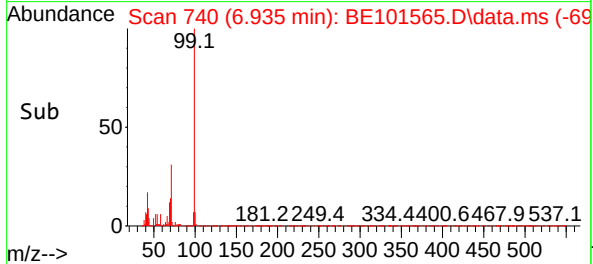
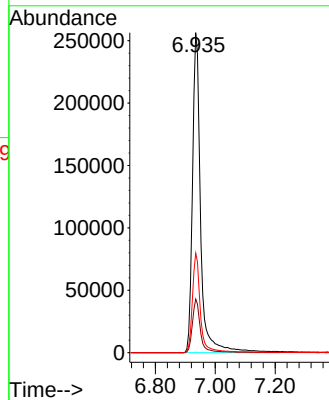
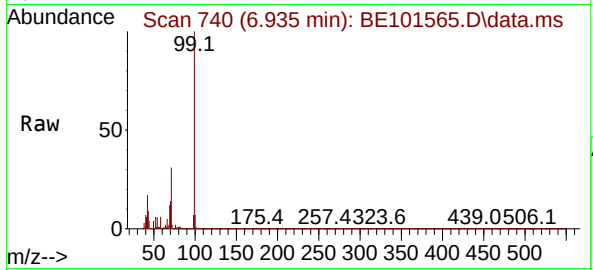




#7
Phenol-d6
Concen: 114.494 ng
RT: 6.935 min Scan# 742
Delta R.T. -0.012 min
Lab File: BE101565.D
Acq: 11 Nov 2024 10:55

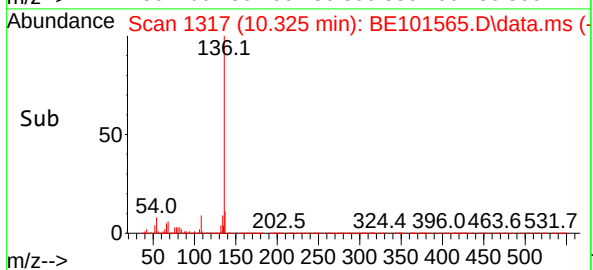
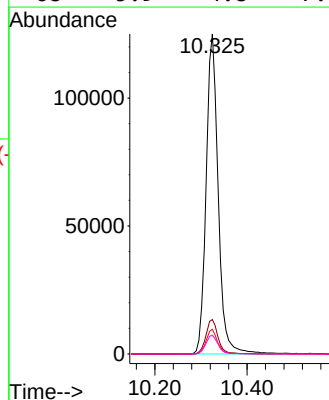
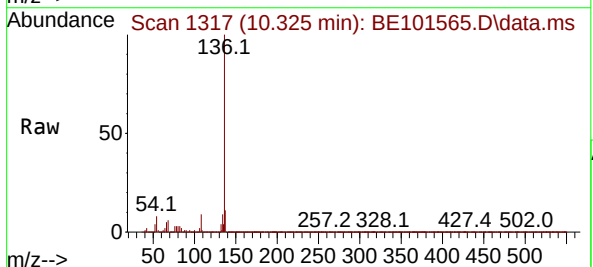
Instrument :
BNA_E
ClientSampleId :
PB164845BL

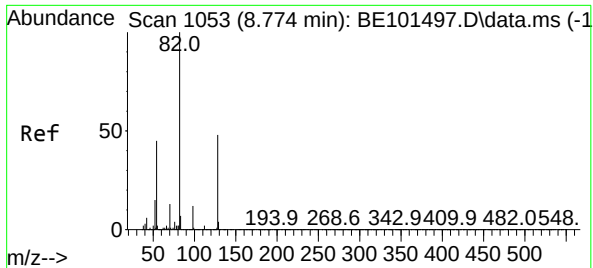
Tgt Ion: 99 Resp: 487008
Ion Ratio Lower Upper
99 100
42 16.7 12.5 18.7
71 31.1 24.2 36.2



#21
Naphthalene-d8
Concen: 20.000 ng
RT: 10.325 min Scan# 1317
Delta R.T. -0.006 min
Lab File: BE101565.D
Acq: 11 Nov 2024 10:55

Tgt Ion: 136 Resp: 227680
Ion Ratio Lower Upper
136 100
137 10.7 8.6 13.0
54 7.7 5.6 8.4
68 5.9 4.8 7.2

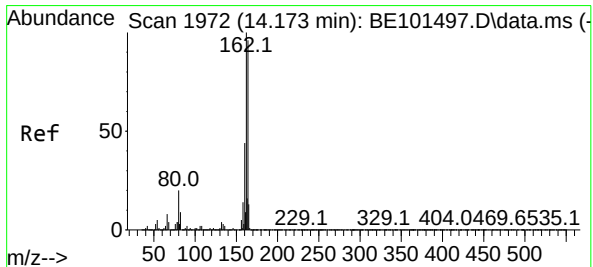
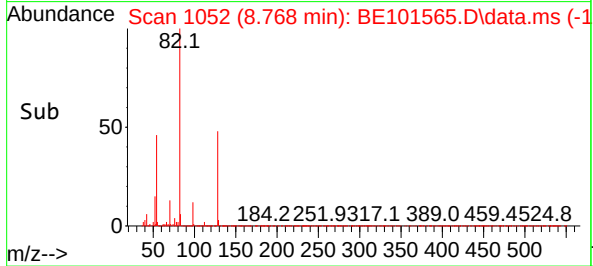
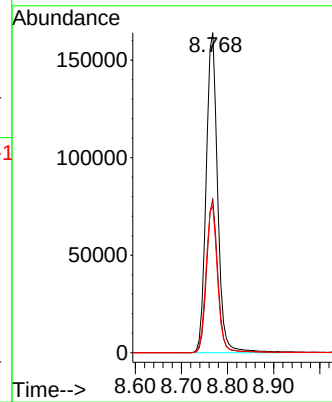
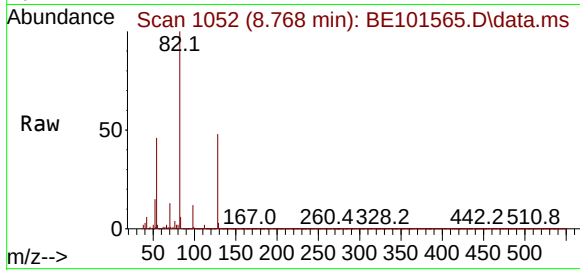




#23
Nitrobenzene-d5
Concen: 79.287 ng
RT: 8.768 min Scan# 1052
Delta R.T. -0.006 min
Lab File: BE101565.D
Acq: 11 Nov 2024 10:55

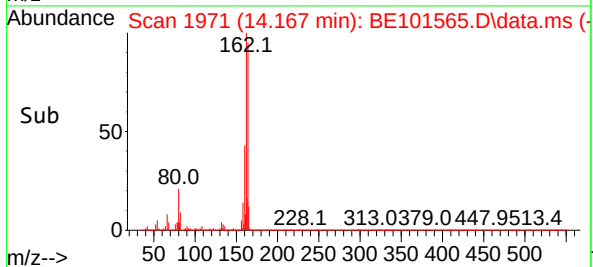
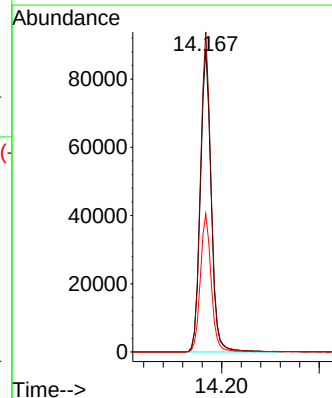
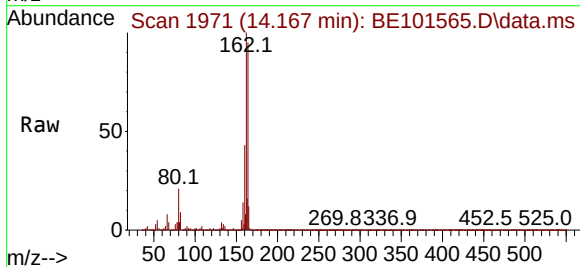
Instrument :
BNA_E
ClientSampleId :
PB164845BL

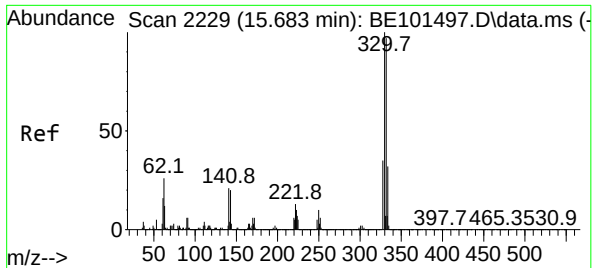
Tgt Ion: 82 Resp: 285793
Ion Ratio Lower Upper
82 100
128 47.9 38.6 58.0
54 45.9 36.3 54.5



#39
Acenaphthene-d10
Concen: 20.000 ng
RT: 14.167 min Scan# 1971
Delta R.T. -0.006 min
Lab File: BE101565.D
Acq: 11 Nov 2024 10:55

Tgt Ion: 164 Resp: 136558
Ion Ratio Lower Upper
164 100
162 105.5 83.7 125.5
160 45.5 37.1 55.7

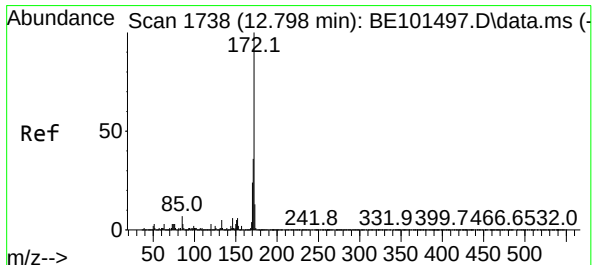
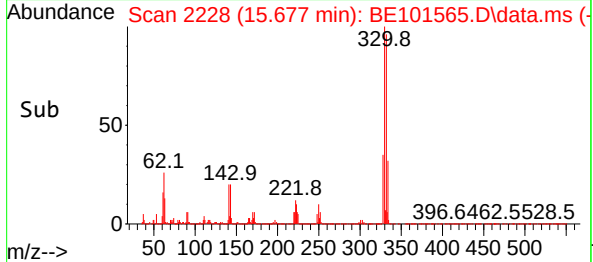
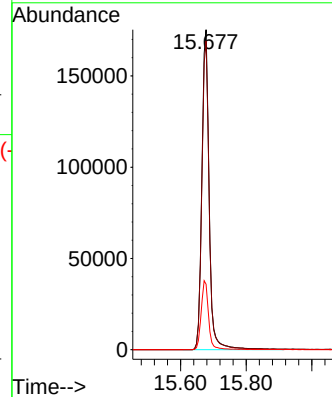
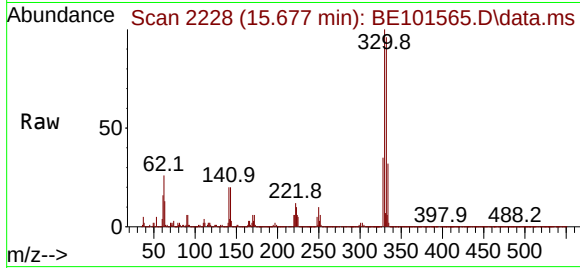




#42
2,4,6-Tribromophenol
Concen: 105.664 ng
RT: 15.677 min Scan# 21
Delta R.T. -0.006 min
Lab File: BE101565.D
Acq: 11 Nov 2024 10:55

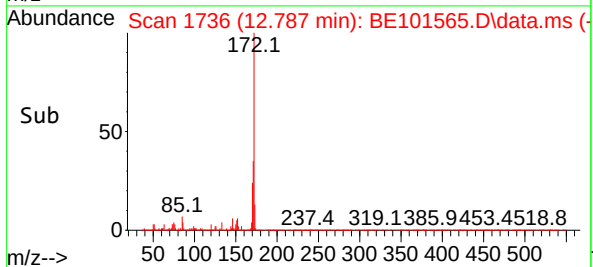
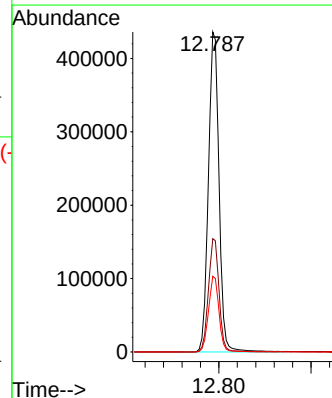
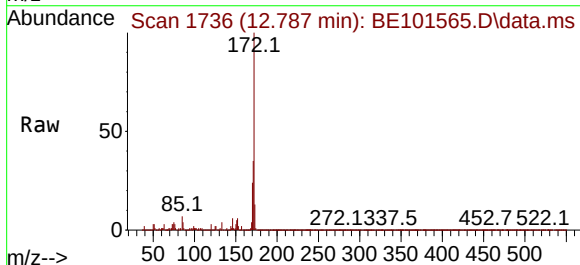
Instrument :
BNA_E
ClientSampleId :
PB164845BL

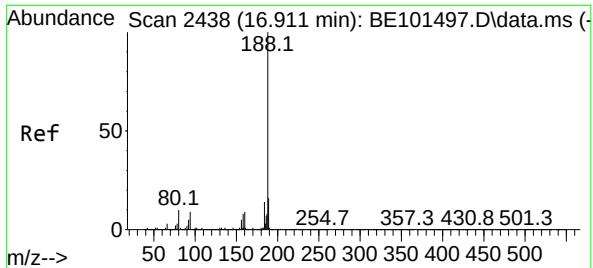
Tgt Ion	330	Resp	271514
Ion Ratio	Lower	Upper	
330	100		
332	96.3	77.7	116.5
141	21.9	17.0	25.4



#45
2-Fluorobiphenyl
Concen: 83.953 ng
RT: 12.787 min Scan# 1736
Delta R.T. -0.012 min
Lab File: BE101565.D
Acq: 11 Nov 2024 10:55

Tgt Ion	172	Resp	702132
Ion Ratio	Lower	Upper	
172	100		
171	35.4	28.6	43.0
170	23.7	18.9	28.3

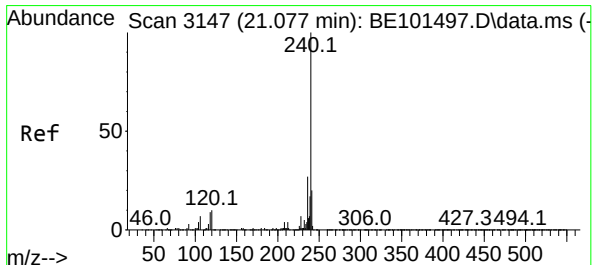
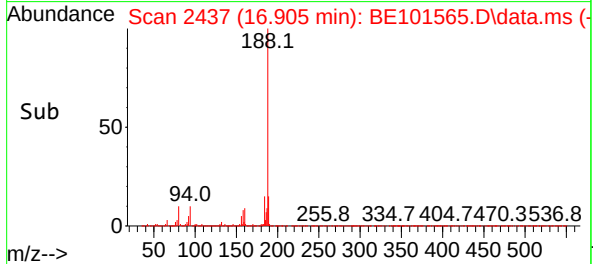
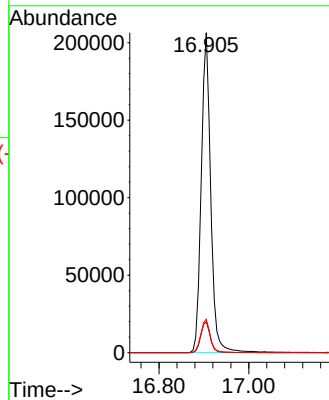
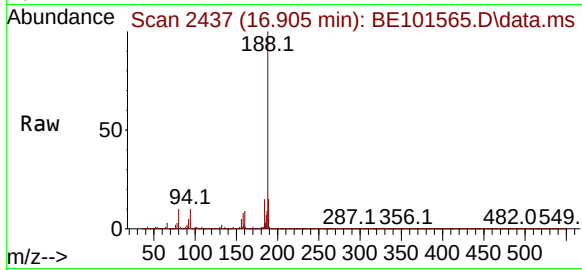




#64
Phenanthrene-d10
Concen: 20.000 ng
RT: 16.905 min Scan# 2438
Delta R.T. -0.006 min
Lab File: BE101565.D
Acq: 11 Nov 2024 10:55

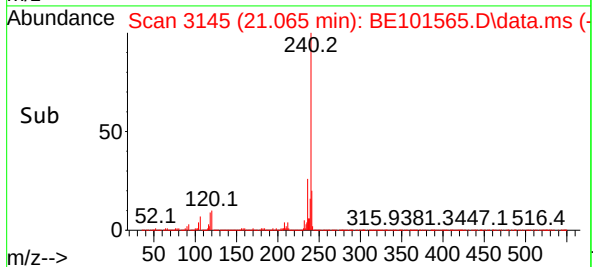
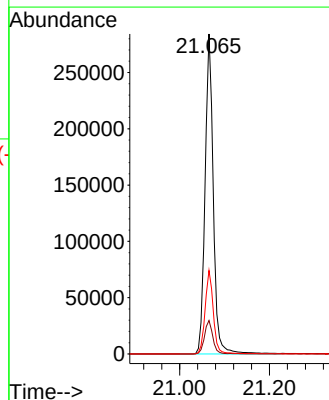
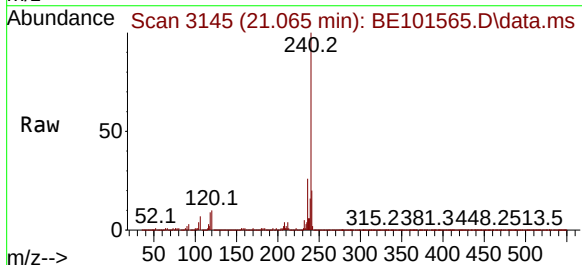
Instrument :
BNA_E
ClientSampleId :
PB164845BL

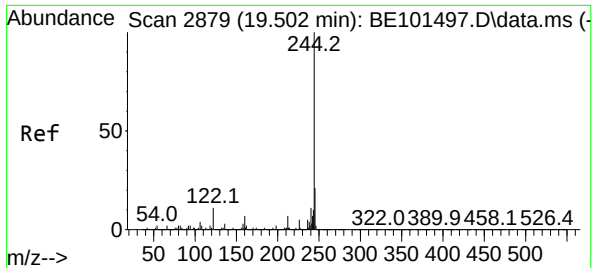
Tgt Ion:188 Resp: 302614
Ion Ratio Lower Upper
188 100
94 9.7 7.4 11.2
80 10.5 8.0 12.0



#76
Chrysene-d12
Concen: 20.000 ng
RT: 21.065 min Scan# 3145
Delta R.T. -0.012 min
Lab File: BE101565.D
Acq: 11 Nov 2024 10:55

Tgt Ion:240 Resp: 361556
Ion Ratio Lower Upper
240 100
120 10.5 8.2 12.4
236 26.1 21.4 32.2

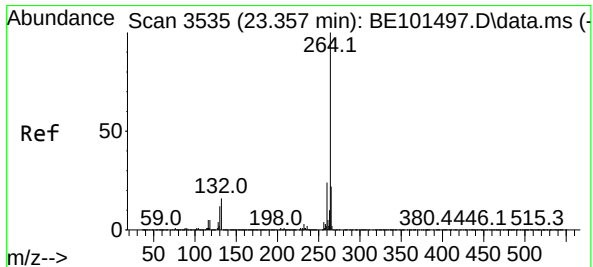
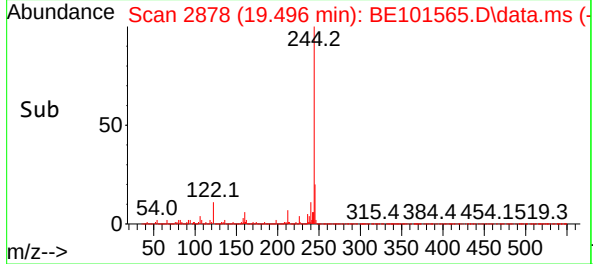
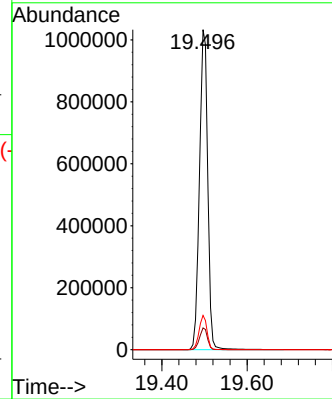
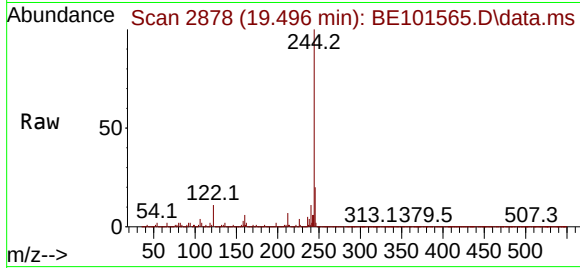




#79
 Terphenyl-d14
 Concen: 84.682 ng
 RT: 19.496 min Scan# 21
 Delta R.T. -0.006 min
 Lab File: BE101565.D
 Acq: 11 Nov 2024 10:55

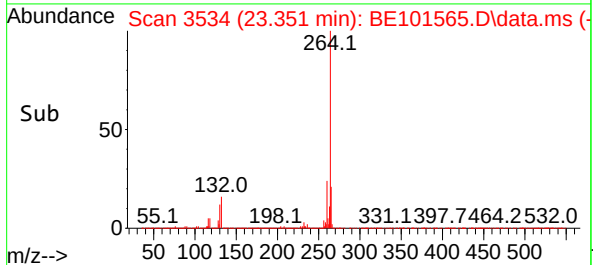
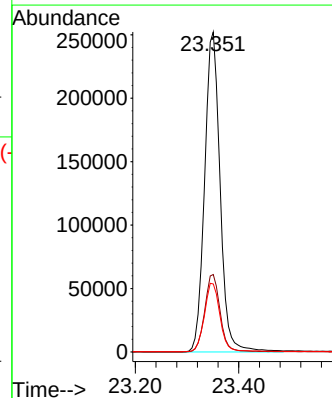
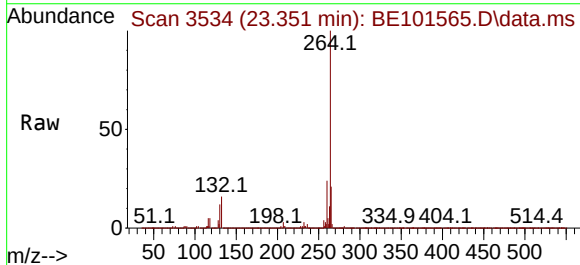
Instrument :
 BNA_E
 ClientSampleId :
 PB164845BL

Tgt Ion:244 Resp: 1383175
 Ion Ratio Lower Upper
 244 100
 212 6.8 5.8 8.8
 122 10.7 8.4 12.6



#86
 Perylene-d12
 Concen: 20.000 ng
 RT: 23.351 min Scan# 3534
 Delta R.T. -0.006 min
 Lab File: BE101565.D
 Acq: 11 Nov 2024 10:55

Tgt Ion:264 Resp: 524875
 Ion Ratio Lower Upper
 264 100
 260 24.2 19.4 29.2
 265 21.3 17.4 26.2



Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
Data File : BE101565.D
Acq On : 11 Nov 2024 10:55
Operator : RC/JU
Sample : PB164845BL
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
PB164845BL

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_E\Methods\8270-BE110624.M

Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

Signal : TIC: BE101565.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.681	11	16	28	rVB	594292	714605	20.49%	4.562%
2	4.784	370	374	393	rBV	36393	65708	1.88%	0.419%
3	5.307	457	463	496	rBV	799143	1316493	37.75%	8.404%
4	6.935	733	740	767	rBV	683781	1286246	36.88%	8.211%
5	7.557	839	846	854	rBV	192319	308530	8.85%	1.969%
6	8.768	1044	1052	1073	rBV	462256	810396	23.24%	5.173%
7	10.325	1308	1317	1337	rBV	244083	446842	12.81%	2.852%
8	12.787	1728	1736	1758	rBV	1239127	1980984	56.80%	12.645%
9	14.167	1964	1971	1988	rBV	374135	583647	16.73%	3.726%
10	15.677	2220	2228	2255	rBV	1013531	1639996	47.02%	10.469%
11	16.905	2430	2437	2452	rBV	488707	714655	20.49%	4.562%
12	19.496	2872	2878	2892	rBV	2645660	3487644	100.00%	22.263%
13	21.065	3139	3145	3160	rBV	771133	996744	28.58%	6.363%
14	23.351	3526	3534	3543	rBV	640641	1313087	37.65%	8.382%

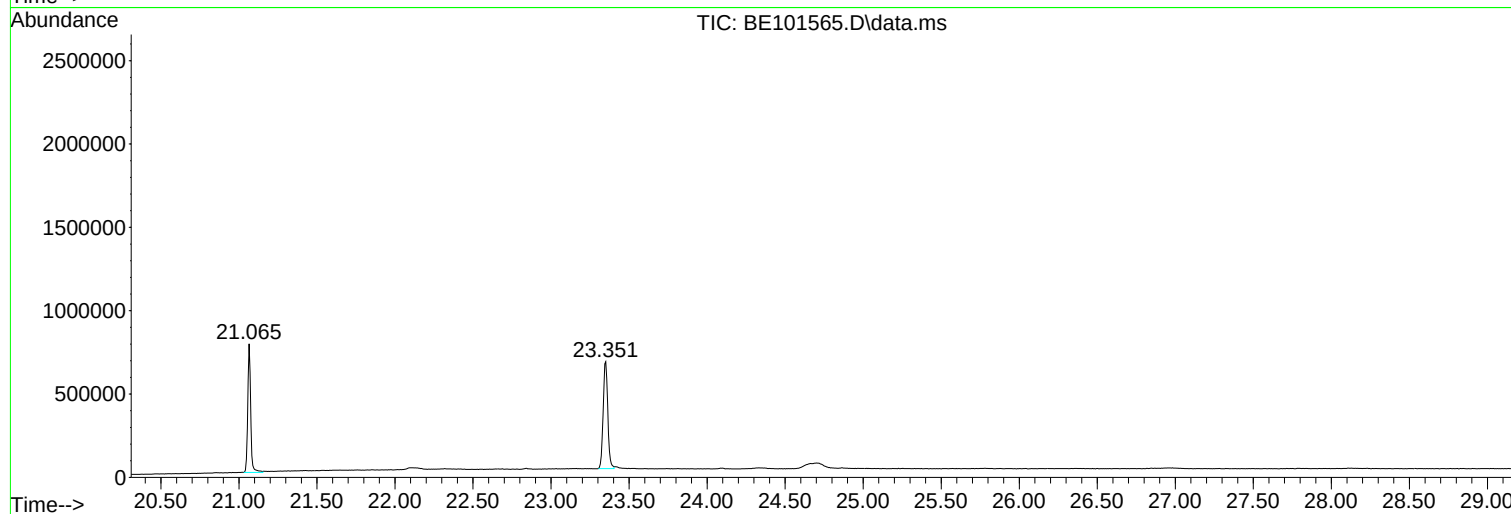
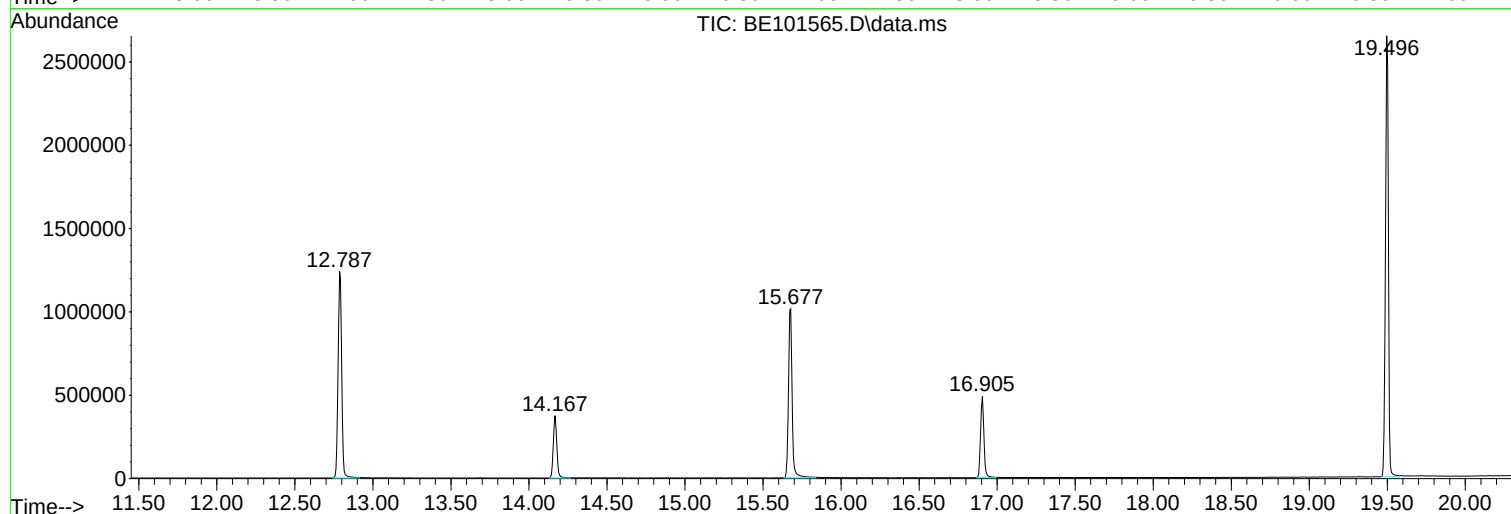
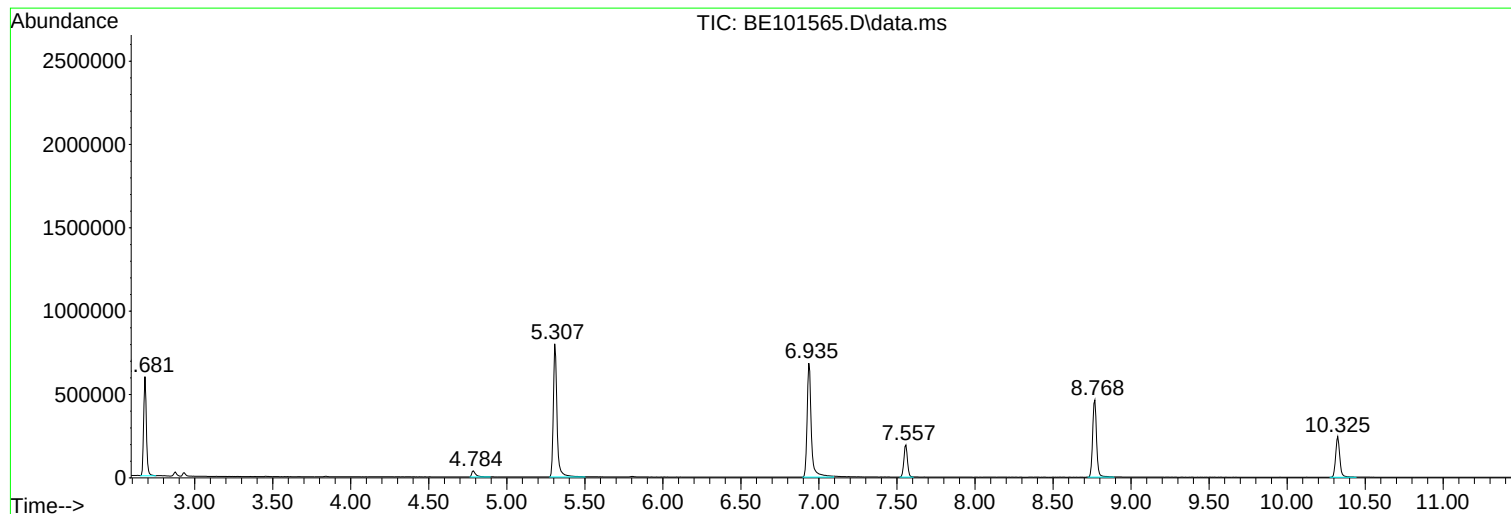
Sum of corrected areas: 15665577

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
Data File : BE101565.D
Acq On : 11 Nov 2024 10:55
Operator : RC/JU
Sample : PB164845BL
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
PB164845BL

Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.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_E\Data\BE111124\
Data File : BE101565.D
Acq On : 11 Nov 2024 10:55
Operator : RC/JU
Sample : PB164845BL
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
PB164845BL

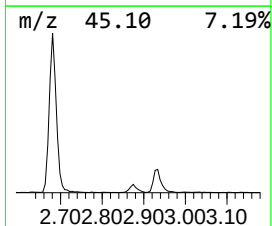
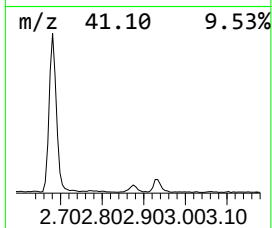
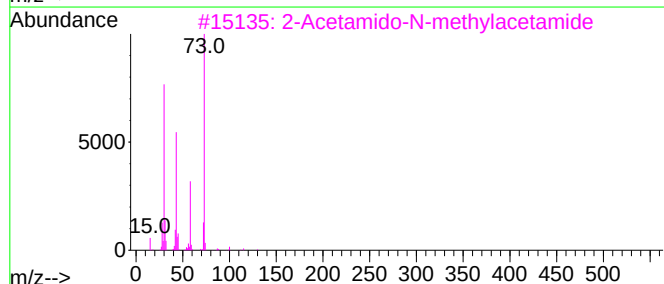
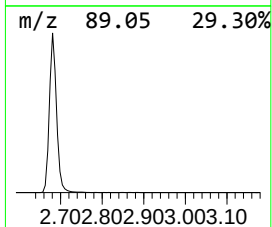
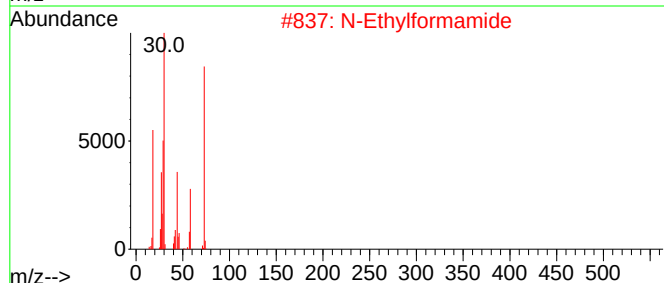
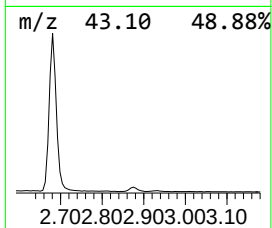
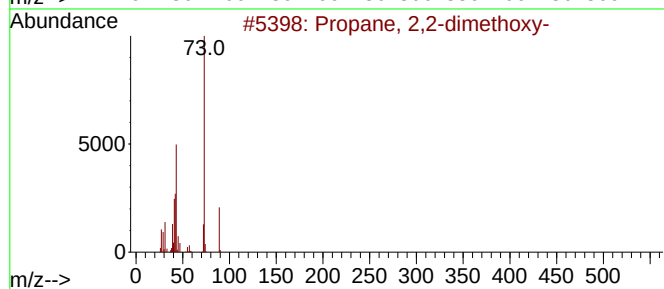
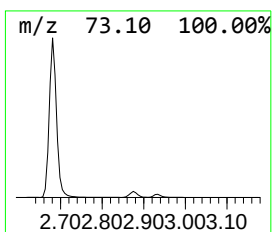
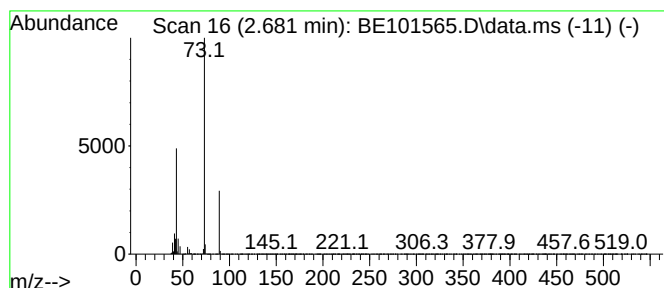
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

Peak Number 1 Propane, 2,2-dimethoxy- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.681	46.32 ng	714605	1,4-Dichlorobenzene-d4	7.557

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Propane, 2,2-dimethoxy-	104	C5H12O2	000077-76-9	50
2			N-Ethylformamide	73	C3H7NO	000627-45-2	9
3			2-Acetamido-N-methylacetamide	130	C5H10N2O2	007606-79-3	9
4			Propane, 2-methoxy-2-methyl-	88	C5H12O	001634-04-4	9
5			1,3-Dioxolane, 2-hexyl-	158	C9H18O2	001708-34-5	9



Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
Data File : BE101565.D
Acq On : 11 Nov 2024 10:55
Operator : RC/JU
Sample : PB164845BL
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
PB164845BL

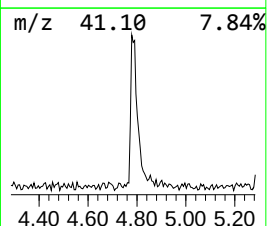
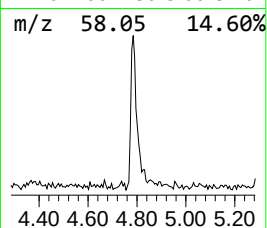
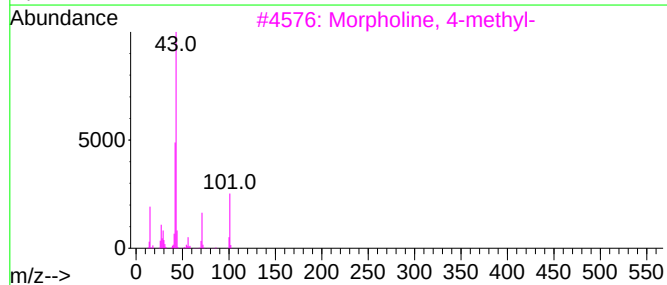
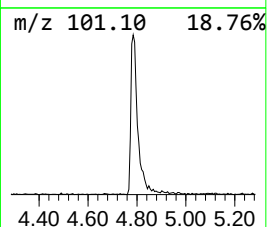
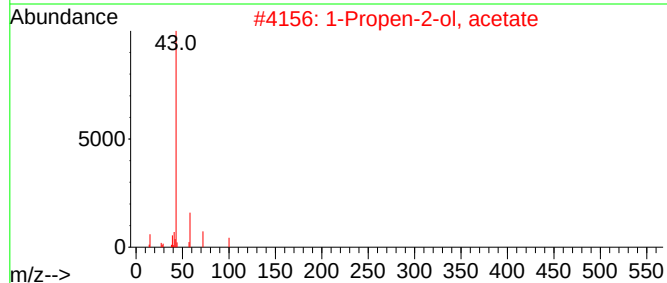
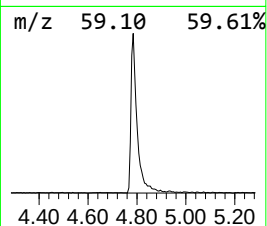
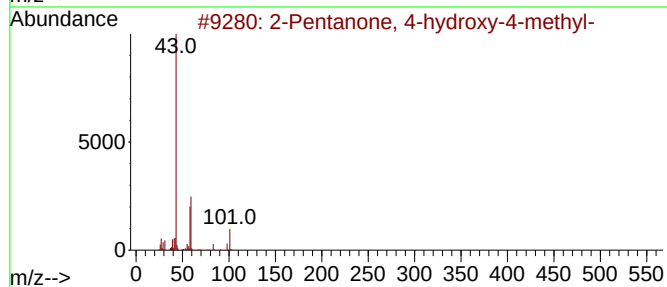
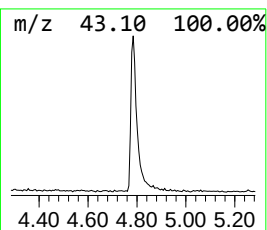
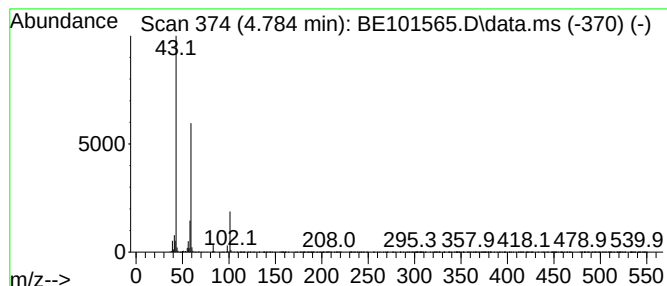
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

Peak Number 2 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.784	4.26 ng	65708	1,4-Dichlorobenzene-d4	7.557

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	50
2			1-Propen-2-ol, acetate	100	C5H8O2	000108-22-5	10
3			Morpholine, 4-methyl-	101	C5H11NO	000109-02-4	9
4			Guanidine	59	CH5N3	000113-00-8	9
5			2,3-Butanedione, monooxime	101	C4H7NO2	000057-71-6	9



Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
Data File : BE101565.D
Acq On : 11 Nov 2024 10:55
Operator : RC/JU
Sample : PB164845BL
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
PB164845BL

Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
Propane, 2,2-di...	2.681	46.3	ng	714605	1	7.557	308530	20.0
2-Pentanone, 4-...	4.784	4.3	ng	65708	1	7.557	308530	20.0

Report of Analysis

Client:	CHA Companies, Inc.	Date Collected:	
Project:	HRPC	Date Received:	
Client Sample ID:	PB164845BS	SDG No.:	P4779
Lab Sample ID:	PB164845BS	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
BE101566.D	1	11/10/24 09:10	11/11/24 11:31	PB164845

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	230	J	180	330	ug/Kg
108-95-2	Phenol	1300		82.8	170	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1200		83.6	170	ug/Kg
95-57-8	2-Chlorophenol	1300		83.4	170	ug/Kg
95-48-7	2-Methylphenol	1300		80.5	170	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1300		90.8	170	ug/Kg
98-86-2	Acetophenone	1200		86.8	170	ug/Kg
65794-96-9	3+4-Methylphenols	1200		79.7	330	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	1200		40.3	79.9	ug/Kg
67-72-1	Hexachloroethane	1300		82.9	170	ug/Kg
98-95-3	Nitrobenzene	1300		90.7	170	ug/Kg
78-59-1	Isophorone	1200		84.5	170	ug/Kg
88-75-5	2-Nitrophenol	1300		94.4	170	ug/Kg
105-67-9	2,4-Dimethylphenol	1600		93.1	170	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1200		85.7	170	ug/Kg
120-83-2	2,4-Dichlorophenol	1300		75.4	170	ug/Kg
91-20-3	Naphthalene	1200		82.5	170	ug/Kg
106-47-8	4-Chloroaniline	500		82.5	170	ug/Kg
87-68-3	Hexachlorobutadiene	1200		83.2	170	ug/Kg
105-60-2	Caprolactam	1000		86.7	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1100		77.4	170	ug/Kg
91-57-6	2-Methylnaphthalene	1200		82.4	170	ug/Kg
77-47-4	Hexachlorocyclopentadiene	6300	E	160	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1300		71.4	170	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1300		74.0	170	ug/Kg
92-52-4	1,1-Biphenyl	1300		87.3	170	ug/Kg
91-58-7	2-Chloronaphthalene	1300		83.2	170	ug/Kg
88-74-4	2-Nitroaniline	1300		94.9	170	ug/Kg
131-11-3	Dimethylphthalate	1200		81.6	170	ug/Kg

Report of Analysis

Client:	CHA Companies, Inc.	Date Collected:	
Project:	HRPC	Date Received:	
Client Sample ID:	PB164845BS	SDG No.:	P4779
Lab Sample ID:	PB164845BS	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
BE101566.D	1	11/10/24 09:10	11/11/24 11:31	PB164845

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	1400		86.4	170	ug/Kg
606-20-2	2,6-Dinitrotoluene	1200		83.1	170	ug/Kg
99-09-2	3-Nitroaniline	700		89.1	170	ug/Kg
83-32-9	Acenaphthene	1300		81.0	170	ug/Kg
51-28-5	2,4-Dinitrophenol	2400		240	330	ug/Kg
100-02-7	4-Nitrophenol	2500		120	330	ug/Kg
132-64-9	Dibenzofuran	1300		84.3	170	ug/Kg
121-14-2	2,4-Dinitrotoluene	1200		86.1	170	ug/Kg
84-66-2	Diethylphthalate	1200		80.0	170	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1200		85.5	170	ug/Kg
86-73-7	Fluorene	1200		85.4	170	ug/Kg
100-01-6	4-Nitroaniline	1100		110	170	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1300		120	330	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1400		81.5	170	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1300		78.8	170	ug/Kg
118-74-1	Hexachlorobenzene	1300		84.9	170	ug/Kg
1912-24-9	Atrazine	1600		91.3	170	ug/Kg
87-86-5	Pentachlorophenol	2500		77.2	330	ug/Kg
85-01-8	Phenanthrene	1300		83.9	170	ug/Kg
120-12-7	Anthracene	1400		84.3	170	ug/Kg
86-74-8	Carbazole	1300		80.2	170	ug/Kg
84-74-2	Di-n-butylphthalate	1300		84.2	170	ug/Kg
206-44-0	Fluoranthene	1200		81.6	170	ug/Kg
129-00-0	Pyrene	1200		82.9	170	ug/Kg
85-68-7	Butylbenzylphthalate	1200		96.7	170	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1000		98.5	330	ug/Kg
56-55-3	Benzo(a)anthracene	1300		80.6	170	ug/Kg
218-01-9	Chrysene	1300		79.4	170	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	1200		90.9	170	ug/Kg
117-84-0	Di-n-octyl phthalate	1300		110	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	1200		81.0	170	ug/Kg

Report of Analysis

Client:	CHA Companies, Inc.	Date Collected:	
Project:	HRPC	Date Received:	
Client Sample ID:	PB164845BS	SDG No.:	P4779
Lab Sample ID:	PB164845BS	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
BE101566.D	1	11/10/24 09:10	11/11/24 11:31	PB164845

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1300		82.5	170	ug/Kg
50-32-8	Benzo(a)pyrene	1400		92.9	170	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1400		78.0	170	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1400		81.1	170	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1200		80.0	170	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1400		86.7	170	ug/Kg
123-91-1	1,4-Dioxane	1100		110	170	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1200		74.7	170	ug/Kg

SURROGATES

367-12-4	2-Fluorophenol	122		18 - 112	81%	SPK: 150
13127-88-3	Phenol-d6	108		15 - 107	72%	SPK: 150
4165-60-0	Nitrobenzene-d5	76.4		18 - 107	76%	SPK: 100
321-60-8	2-Fluorobiphenyl	80.2		20 - 109	80%	SPK: 100
118-79-6	2,4,6-Tribromophenol	99.3		10 - 116	66%	SPK: 150
1718-51-0	Terphenyl-d14	78.0		10 - 105	78%	SPK: 100

INTERNAL STANDARDS

3855-82-1	1,4-Dichlorobenzene-d4	62800	7.56
1146-65-2	Naphthalene-d8	267000	10.322
15067-26-2	Acenaphthene-d10	161000	14.17
1517-22-2	Phenanthrene-d10	329000	16.908
1719-03-5	Chrysene-d12	379000	21.068
1520-96-3	Perylene-d12	572000	23.348

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_E\Data\BE111124\
 Data File : BE101566.D
 Acq On : 11 Nov 2024 11:31
 Operator : RC/JU
 Sample : PB164845BS
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

PB164845BS

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/12/2024

Supervised By :mohammad ahmed 11/12/2024

Quant Time: Nov 11 11:20:16 2024

Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Thu Nov 07 00:01:20 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards

1) 1,4-Dichlorobenzene-d4	7.560	152	62806	20.000	ng	0.00
21) Naphthalene-d8	10.322	136	266549	20.000	ng	0.00
39) Acenaphthene-d10	14.170	164	161238	20.000	ng	0.00
64) Phenanthrene-d10	16.908	188	328735	20.000	ng	0.00
76) Chrysene-d12	21.068	240	379308	20.000	ng	0.00
86) Perylene-d12	23.348	264	572361	20.000	ng	0.00

11/12/2024

Supervised By :mohammad
ahmed

11/12/2024

System Monitoring Compounds

5) 2-Fluorophenol	5.310	112	432741	121.829	ng	0.00
7) Phenol-d6	6.943	99	524670	107.733	ng	0.00
23) Nitrobenzene-d5	8.771	82	322302	76.377	ng	0.00
42) 2,4,6-Tribromophenol	15.680	330	301345	99.322	ng	0.00
45) 2-Fluorobiphenyl	12.789	172	792056	80.209	ng	0.00
79) Terphenyl-d14	19.499	244	1337302	78.042	ng	0.00

Target Compounds

						Qvalue
2) 1,4-Dioxane	3.195	88	43353	32.797	ng	98
3) Pyridine	3.606	79	113720	30.762	ng	98
4) n-Nitrosodimethylamine	3.541	42	59230	40.460	ng	99
6) Aniline	6.996	93	164509	45.007	ng	96
8) 2-Chlorophenol	7.202	128	166067	39.462	ng	98
9) Benzaldehyde	6.767	77	16776	7.042	ng	96
10) Phenol	6.967	94	208914	39.409	ng	99
11) bis(2-Chloroethyl)ether	7.026	93	154640m	35.238	ng	
12) 1,3-Dichlorobenzene	7.443	146	172009	37.440	ng	98
13) 1,4-Dichlorobenzene	7.590	146	174956	37.598	ng	98
14) 1,2-Dichlorobenzene	7.919	146	169000	36.998	ng	99
15) Benzyl Alcohol	7.895	79	107197	37.681	ng	96
16) 2,2'-oxybis(1-Chloropr...	8.054	45	209349	40.300	ng	96
17) 2-Methylphenol	8.142	107	131342	38.269	ng	99
18) Hexachloroethane	8.612	117	59424	37.814	ng	99
19) n-Nitroso-di-n-propyla...	8.359	70	113228	35.261	ng	99
20) 3+4-Methylphenols	8.477	107	173279	36.412	ng	99
22) Acetophenone	8.406	105	225768	37.401	ng	99
24) Nitrobenzene	8.812	77	165457	37.697	ng	98
25) Isophorone	9.258	82	301565	36.721	ng	98
26) 2-Nitrophenol	9.493	139	89337	38.247	ng	97
27) 2,4-Dimethylphenol	9.611	122	127295	47.100	ng	97
28) bis(2-Chloroethoxy)met...	9.758	93	188511	37.500	ng	99
29) 2,4-Dichlorophenol	10.051	162	147847	38.535	ng	99
30) 1,2,4-Trichlorobenzene	10.169	180	154788	36.140	ng	99
31) Naphthalene	10.375	128	504859	37.518	ng	100
32) Benzoic acid	9.887	122	64645	28.788	ng	97
33) 4-Chloroaniline	10.598	127	71036	15.012	ng	99
34) Hexachlorobutadiene	10.621	225	96763	36.654	ng	98
35) Caprolactam	11.373	113	43915m	31.169	ng	
36) 4-Chloro-3-methylphenol	11.779	107	141926	33.875	ng	98
37) 2-Methylnaphthalene	11.961	142	347611	36.370	ng	99
38) 1-Methylnaphthalene	12.190	142	324197	34.013	ng	100
40) 1,2,4,5-Tetrachloroben...	12.325	216	173261	40.758	ng	98
41) Hexachlorocyclopentadiene	12.302	237	232871	187.720	ng	99
43) 2,4,6-Trichlorophenol	12.643	196	116037	39.746	ng	99

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
 Data File : BE101566.D
 Acq On : 11 Nov 2024 11:31
 Operator : RC/JU
 Sample : PB164845BS
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

PB164845BS

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/12/2024

Supervised By :mohammad ahmed 11/12/2024

Quant Time: Nov 11 11:20:16 2024

Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Thu Nov 07 00:01:20 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	12.754	196	123893	38.092	ng	99
46) 1,1'-Biphenyl	12.995	154	435864	39.189	ng	99
47) 2-Chloronaphthalene	13.042	162	338050	38.536	ng	100
48) 2-Nitroaniline	13.371	65	92209	39.710	ng	97
49) Acenaphthylene	13.900	152	535084	40.932	ng	99
50) Dimethylphthalate	13.671	163	420502	36.624	ng	100
51) 2,6-Dinitrotoluene	13.812	165	91886	34.673	ng	98
52) Acenaphthene	14.229	154	325826	39.059	ng	99
53) 3-Nitroaniline	14.217	138	53852	20.932	ng	96
54) 2,4-Dinitrophenol	14.364	184	112204	72.251	ng	98
55) Dibenzofuran	14.576	168	506916	37.736	ng	100
56) 4-Nitrophenol	14.652	139	156939	73.875	ng	95
57) 2,4-Dinitrotoluene	14.599	165	129452	34.771	ng	99
58) Fluorene	15.210	166	413109	36.849	ng	99
59) 2,3,4,6-Tetrachlorophenol	14.846	232	112073	37.239	ng	100
60) Diethylphthalate	14.999	149	424935	35.100	ng	99
61) 4-Chlorophenyl-phenyle...	15.198	204	204136	35.858	ng	99
62) 4-Nitroaniline	15.410	138	88756	32.021	ng	99
63) Azobenzene	15.492	77	374308	37.898	ng	98
65) 4,6-Dinitro-2-methylph...	15.339	198	74237	38.043	ng	95
66) n-Nitrosodiphenylamine	15.451	169	358035	41.040	ng	99
67) 4-Bromophenyl-phenylether	16.086	248	139213	38.396	ng	99
68) Hexachlorobenzene	16.191	284	179523	37.622	ng	99
69) Atrazine	16.385	200	127114	49.352	ng	98
70) Pentachlorophenol	16.603	266	195316	75.439	ng	99
71) Phenanthrene	16.949	178	635450	39.744	ng	99
72) Anthracene	17.037	178	654716	41.466	ng	99
73) Carbazole	17.366	167	597949	37.764	ng	100
74) Di-n-butylphthalate	17.807	149	734442	37.560	ng	100
75) Fluoranthene	18.953	202	741947	36.193	ng	100
77) Benzidine	19.205	184	363073	44.560	ng	100
78) Pyrene	19.323	202	798285	36.988	ng	99
80) Butylbenzylphthalate	20.169	149	352085	36.301	ng	96
81) Benzo(a)anthracene	21.050	228	900199	39.960	ng	99
82) 3,3'-Dichlorobenzidine	21.021	252	270688	30.524	ng	98
83) Chrysene	21.103	228	862764	40.293	ng	99
84) Bis(2-ethylhexyl)phtha...	20.868	149	523990	35.734	ng	99
85) Di-n-octyl phthalate	21.714	149	972863	39.217	ng	99
87) Indeno(1,2,3-cd)pyrene	25.686	276	1616141	41.089	ng	99
88) Benzo(b)fluoranthene	22.648	252	1134197	36.119	ng	99
89) Benzo(k)fluoranthene	22.690	252	1144516	40.150	ng	99
90) Benzo(a)pyrene	23.248	252	1115251	41.137	ng	100
91) Dibenzo(a,h)anthracene	25.674	278	1339988	40.907	ng	99
92) Benzo(g,h,i)perylene	26.426	276	1209888	36.355	ng	99

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

Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
 Data File : BE101566.D
 Acq On : 11 Nov 2024 11:31
 Operator : RC/JU
 Sample : PB164845BS
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Instrument :

BNA_E

ClientSampleId :

PB164845BS

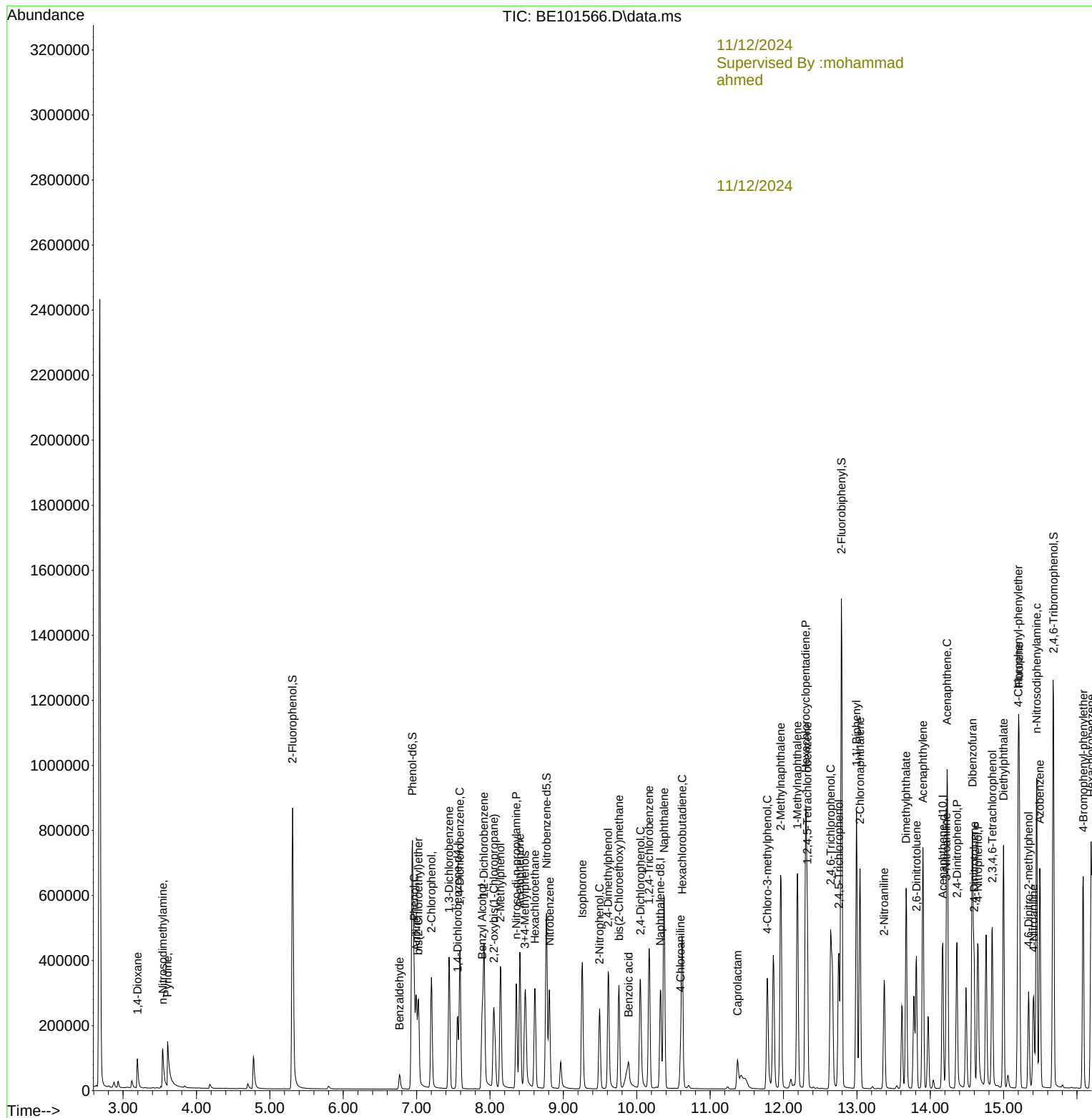
Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/12/2024

Supervised By :mohammad ahmed 11/12/2024

Quant Time: Nov 11 11:20:16 2024
 Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Thu Nov 07 00:01:20 2024
 Response via : Initial Calibration



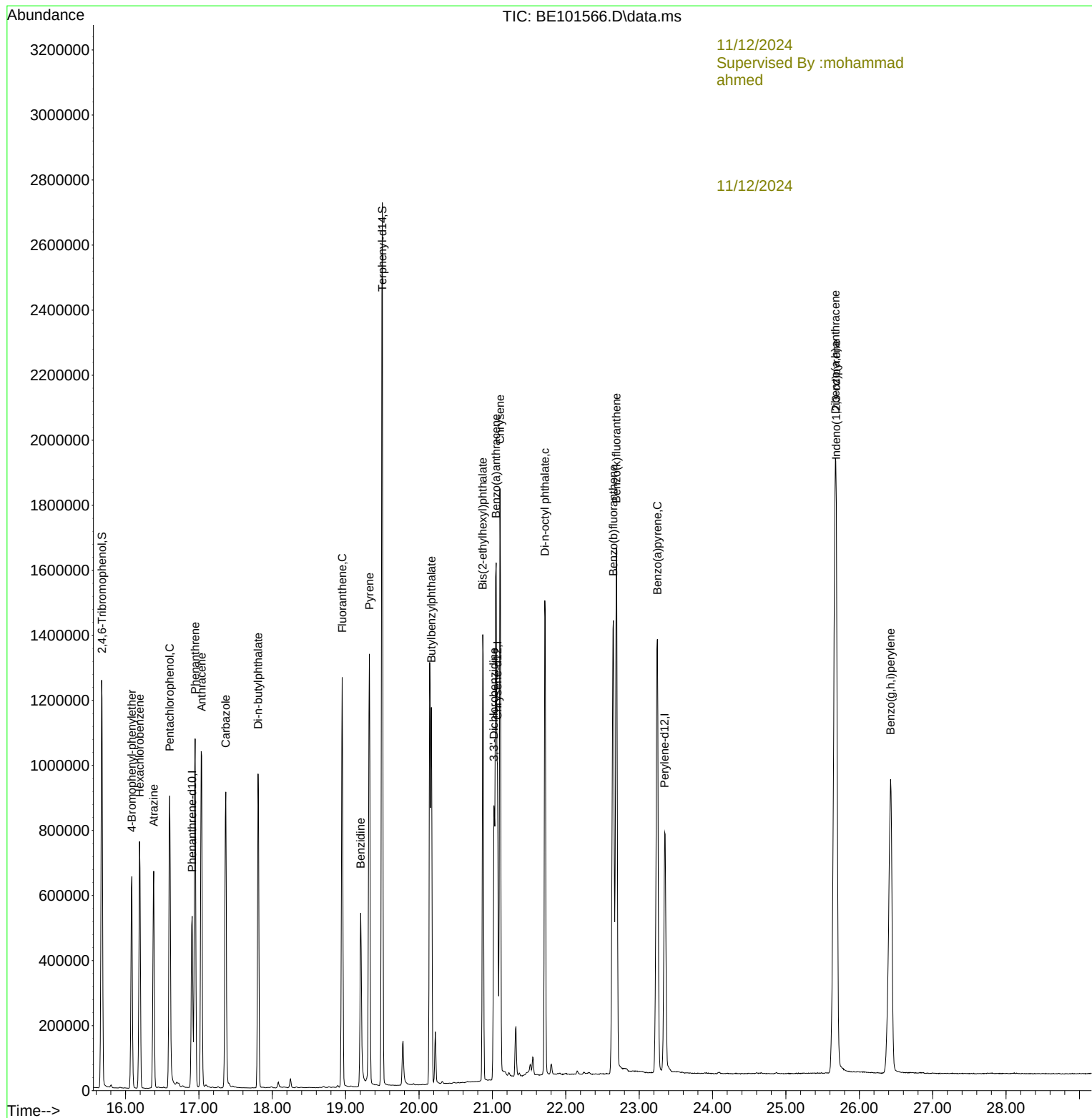
Data Path : Z:\svoasrv\HPCHEM1\BNA_E\Data\BE111124\
Data File : BE101566.D
Acq On : 11 Nov 2024 11:31
Operator : RC/JU
Sample : PB164845BS
Misc :
ALS Vial : 4 Sample Multiplier: 1

Instrument :
BNA_E
ClientSampleId :
PB164845BS

Quant Time: Nov 11 11:20:16 2024
Quant Method : Z:\svoasrv\HPCHEM1\BNA_E\Methods\8270-BE110624.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Nov 07 00:01:20 2024
Response via : Initial Calibration

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/12/2024
Supervised By :mohammad ahmed 11/12/2024



Report of Analysis

Client:	CHA Companies, Inc.	Date Collected:	11/08/24
Project:	HRPC	Date Received:	11/08/24
Client Sample ID:	BP-G3MS	SDG No.:	P4779
Lab Sample ID:	P4788-01MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	91
Sample Wt/Vol:	50.07 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
BF140373.D	1	11/10/24 09:10	11/14/24 20:09	PB164845

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	210	J	120	220	ug/Kg
108-95-2	Phenol	1100		54.6	110	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1200		55.1	110	ug/Kg
95-57-8	2-Chlorophenol	1200		55.0	110	ug/Kg
95-48-7	2-Methylphenol	1100		53.1	110	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1100		59.9	110	ug/Kg
98-86-2	Acetophenone	1200		57.2	110	ug/Kg
65794-96-9	3+4-Methylphenols	1100		52.5	220	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	1100		26.5	52.7	ug/Kg
67-72-1	Hexachloroethane	1100		54.6	110	ug/Kg
98-95-3	Nitrobenzene	1100		59.8	110	ug/Kg
78-59-1	Isophorone	1100		55.7	110	ug/Kg
88-75-5	2-Nitrophenol	1200		62.2	110	ug/Kg
105-67-9	2,4-Dimethylphenol	1300		61.4	110	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1100		56.5	110	ug/Kg
120-83-2	2,4-Dichlorophenol	1100		49.7	110	ug/Kg
91-20-3	Naphthalene	1100		54.4	110	ug/Kg
106-47-8	4-Chloroaniline	300		54.4	110	ug/Kg
87-68-3	Hexachlorobutadiene	1100		54.8	110	ug/Kg
105-60-2	Caprolactam	1100		57.2	220	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1100		51.0	110	ug/Kg
91-57-6	2-Methylnaphthalene	1100		54.3	110	ug/Kg
77-47-4	Hexachlorocyclopentadiene	1700		100	220	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1200		47.0	110	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1100		48.7	110	ug/Kg
92-52-4	1,1-Biphenyl	1200		57.5	110	ug/Kg
91-58-7	2-Chloronaphthalene	1200		54.8	110	ug/Kg
88-74-4	2-Nitroaniline	1200		62.5	110	ug/Kg
131-11-3	Dimethylphthalate	1200		53.8	110	ug/Kg

Report of Analysis

Client:	CHA Companies, Inc.	Date Collected:	11/08/24
Project:	HRPC	Date Received:	11/08/24
Client Sample ID:	BP-G3MS	SDG No.:	P4779
Lab Sample ID:	P4788-01MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	91
Sample Wt/Vol:	50.07 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
BF140373.D	1	11/10/24 09:10	11/14/24 20:09	PB164845

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	1200		57.0	110	ug/Kg
606-20-2	2,6-Dinitrotoluene	1100		54.8	110	ug/Kg
99-09-2	3-Nitroaniline	820		58.7	110	ug/Kg
83-32-9	Acenaphthene	1200		53.4	110	ug/Kg
51-28-5	2,4-Dinitrophenol	1400		160	220	ug/Kg
100-02-7	4-Nitrophenol	1800	E	76.4	220	ug/Kg
132-64-9	Dibenzofuran	1200		55.6	110	ug/Kg
121-14-2	2,4-Dinitrotoluene	1100		56.8	110	ug/Kg
84-66-2	Diethylphthalate	1100		52.7	110	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1100		56.4	110	ug/Kg
86-73-7	Fluorene	1100		56.3	110	ug/Kg
100-01-6	4-Nitroaniline	880		70.5	110	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1100		77.0	220	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1300		53.7	110	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1300		51.9	110	ug/Kg
118-74-1	Hexachlorobenzene	1200		56.0	110	ug/Kg
1912-24-9	Atrazine	1300		60.2	110	ug/Kg
87-86-5	Pentachlorophenol	2100	E	50.9	220	ug/Kg
85-01-8	Phenanthrene	1200		55.3	110	ug/Kg
120-12-7	Anthracene	1200		55.6	110	ug/Kg
86-74-8	Carbazole	1100		52.9	110	ug/Kg
84-74-2	Di-n-butylphthalate	1200		55.5	110	ug/Kg
206-44-0	Fluoranthene	1100		53.8	110	ug/Kg
129-00-0	Pyrene	1000		54.6	110	ug/Kg
85-68-7	Butylbenzylphthalate	1100		63.7	110	ug/Kg
91-94-1	3,3-Dichlorobenzidine	750		64.9	220	ug/Kg
56-55-3	Benzo(a)anthracene	1200		53.1	110	ug/Kg
218-01-9	Chrysene	1200		52.3	110	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	1200		59.9	110	ug/Kg
117-84-0	Di-n-octyl phthalate	1200		72.4	220	ug/Kg
205-99-2	Benzo(b)fluoranthene	1200		53.4	110	ug/Kg

Report of Analysis

Client:	CHA Companies, Inc.	Date Collected:	11/08/24
Project:	HRPC	Date Received:	11/08/24
Client Sample ID:	BP-G3MS	SDG No.:	P4779
Lab Sample ID:	P4788-01MS	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	91
Sample Wt/Vol:	50.07 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
BF140373.D	1	11/10/24 09:10	11/14/24 20:09	PB164845

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1300		54.4	110	ug/Kg
50-32-8	Benzo(a)pyrene	1300		61.2	110	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1100		51.4	110	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1100		53.5	110	ug/Kg
191-24-2	Benzo(g,h,i)perylene	970		52.7	110	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1200		57.2	110	ug/Kg
123-91-1	1,4-Dioxane	1100		72.4	110	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1100		49.2	110	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	103		18 - 112	69%	SPK: 150
13127-88-3	Phenol-d6	103		15 - 107	68%	SPK: 150
4165-60-0	Nitrobenzene-d5	72.2		18 - 107	72%	SPK: 100
321-60-8	2-Fluorobiphenyl	80.0		20 - 109	80%	SPK: 100
118-79-6	2,4,6-Tribromophenol	92.1		10 - 116	61%	SPK: 150
1718-51-0	Terphenyl-d14	65.4		10 - 105	65%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	111000	6.875			
1146-65-2	Naphthalene-d8	410000	8.157			
15067-26-2	Acenaphthene-d10	199000	9.91			
1517-22-2	Phenanthrene-d10	300000	11.398			
1719-03-5	Chrysene-d12	210000	14.051			
1520-96-3	Perylene-d12	152000	15.545			

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\BF111424\
 Data File : BF140373.D
 Acq On : 14 Nov 2024 20:09
 Operator : RC/JU
 Sample : P4788-01MS
 Misc :
 ALS Vial : 9 Sample Multiplier: 1

Instrument :
 BNA_F
 ClientSampleId :
 BP-G3MS

Quant Time: Nov 15 00:28:43 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	111295	20.000	ng	0.00
21) Naphthalene-d8	8.157	136	409660	20.000	ng	0.00
39) Acenaphthene-d10	9.910	164	199456	20.000	ng	0.00
64) Phenanthrene-d10	11.398	188	299656	20.000	ng	0.00
76) Chrysene-d12	14.051	240	210493	20.000	ng	0.00
86) Perylene-d12	15.545	264	152385	20.000	ng	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	5.510	112	670111	102.802	ng	0.02
7) Phenol-d6	6.516	99	906517	102.646	ng	0.01
23) Nitrobenzene-d5	7.434	82	567436	72.170	ng	0.00
42) 2,4,6-Tribromophenol	10.704	330	182656	92.091	ng	0.00
45) 2-Fluorobiphenyl	9.228	172	992308	79.977	ng	0.00
79) Terphenyl-d14	12.980	244	793395	65.426	ng	0.00
Target Compounds						
						Qvalue
2) 1,4-Dioxane	2.704	88	147108	50.635	ng	99
3) Pyridine	3.469	79	360501	50.474	ng	99
4) n-Nitrosodimethylamine	3.416	42	190334	52.727	ng	99
6) Aniline	6.540	93	239160	31.130	ng	# 15
8) 2-Chlorophenol	6.663	128	374433	53.475	ng	98
9) Benzaldehyde	6.422	77	49544	9.360	ng	96
10) Phenol	6.534	94	479050	51.436	ng	83
11) bis(2-Chloroethyl)ether	6.604	93	374384	53.053	ng	99
12) 1,3-Dichlorobenzene	6.816	146	394686	51.088	ng	100
13) 1,4-Dichlorobenzene	6.892	146	397536	50.747	ng	99
14) 1,2-Dichlorobenzene	7.045	146	374796	51.537	ng	100
15) Benzyl Alcohol	7.022	79	343579	53.998	ng	99
16) 2,2'-oxybis(1-Chloropr...	7.145	45	491953	50.470	ng	54
17) 2-Methylphenol	7.139	107	290189	50.379	ng	# 89
18) Hexachloroethane	7.387	117	144889	50.031	ng	99
19) n-Nitroso-di-n-propyla...	7.287	70	268756	50.387	ng	99
20) 3+4-Methylphenols	7.292	107	375407	52.114	ng	# 83
22) Acetophenone	7.281	105	504068	52.905	ng	97
24) Nitrobenzene	7.457	77	417659	51.020	ng	99
25) Isophorone	7.692	82	720366	51.696	ng	100
26) 2-Nitrophenol	7.769	139	190880	52.545	ng	97
27) 2,4-Dimethylphenol	7.810	122	278274	59.834	ng	99
28) bis(2-Chloroethoxy)met...	7.898	93	440051	51.501	ng	100
29) 2,4-Dichlorophenol	8.016	162	299866	52.171	ng	98
30) 1,2,4-Trichlorobenzene	8.098	180	317828	49.667	ng	100
31) Naphthalene	8.175	128	1056407	50.834	ng	100
32) Benzoic acid	7.928	122	182285	44.542	ng	98
33) 4-Chloroaniline	8.228	127	98690	13.655	ng	98
34) Hexachlorobutadiene	8.292	225	202903	49.765	ng	99
35) Caprolactam	8.598	113	95111	49.786	ng	99
36) 4-Chloro-3-methylphenol	8.716	107	310591	48.761	ng	99
37) 2-Methylnaphthalene	8.869	142	673867	50.570	ng	100
38) 1-Methylnaphthalene	8.969	142	621362	47.618	ng	99
40) 1,2,4,5-Tetrachloroben...	9.033	216	312411	56.641	ng	99
41) Hexachlorocyclopentadiene	9.016	237	111447	78.697	ng	99
43) 2,4,6-Trichlorophenol	9.151	196	201664	55.713	ng	99

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
 Data File : BF140373.D
 Acq On : 14 Nov 2024 20:09
 Operator : RC/JU
 Sample : P4788-01MS
 Misc :
 ALS Vial : 9 Sample Multiplier: 1

Instrument :
 BNA_F
 ClientSampleId :
 BP-G3MS

Quant Time: Nov 15 00:28:43 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	203090	51.318	ng	98
46) 1,1'-Biphenyl	9.333	154	801766	55.255	ng	99
47) 2-Chloronaphthalene	9.357	162	598493	54.145	ng	99
48) 2-Nitroaniline	9.457	65	196415	53.581	ng	98
49) Acenaphthylene	9.775	152	943274	56.403	ng	100
50) Dimethylphthalate	9.633	163	716461	55.109	ng	100
51) 2,6-Dinitrotoluene	9.692	165	152360	51.406	ng	98
52) Acenaphthene	9.945	154	620030	54.891	ng	99
53) 3-Nitroaniline	9.863	138	116941	37.570	ng	99
54) 2,4-Dinitrophenol	9.975	184	98591	64.506	ng	98
55) Dibenzofuran	10.116	168	846764	52.955	ng	99
56) 4-Nitrophenol	10.039	139	190172	83.763	ng	98
57) 2,4-Dinitrotoluene	10.098	165	194086	49.757	ng	99
58) Fluorene	10.463	166	615625	48.735	ng	98
59) 2,3,4,6-Tetrachlorophenol	10.239	232	151199	48.387	ng	99
60) Diethylphthalate	10.328	149	682684	51.353	ng	100
61) 4-Chlorophenyl-phenyle...	10.451	204	309749	49.668	ng	98
62) 4-Nitroaniline	10.480	138	126935	39.884	ng	99
63) Azobenzene	10.610	77	715955	54.507	ng	98
65) 4,6-Dinitro-2-methylph...	10.510	198	77820	48.269	ng	94
66) n-Nitrosodiphenylamine	10.569	169	528666	61.060	ng	100
67) 4-Bromophenyl-phenylether	10.939	248	171336	57.200	ng	97
68) Hexachlorobenzene	11.010	284	186016	55.194	ng	98
69) Atrazine	11.098	200	159165	60.762	ng	100
70) Pentachlorophenol	11.210	266	173345	95.484	ng	99
71) Phenanthrene	11.422	178	767151	54.499	ng	100
72) Anthracene	11.474	178	781067	56.616	ng	99
73) Carbazole	11.633	167	691206	50.742	ng	99
74) Di-n-butylphthalate	11.957	149	864649	52.885	ng	100
75) Fluoranthene	12.616	202	800968	50.718	ng	99
77) Benzidine	12.733	184	191708	23.730	ng	99
78) Pyrene	12.845	202	837892	46.537	ng	100
80) Butylbenzylphthalate	13.457	149	357112	51.631	ng	99
81) Benzo(a)anthracene	14.039	228	738067	53.351	ng	100
82) 3,3'-Dichlorobenzidine	13.998	252	149526	34.005	ng	99
83) Chrysene	14.074	228	671767	53.220	ng	99
84) Bis(2-ethylhexyl)phtha...	14.021	149	486442	52.690	ng	99
85) Di-n-octyl phthalate	14.657	149	732257	56.317	ng	100
87) Indeno(1,2,3-cd)pyrene	17.051	276	466869	49.597	ng	99
88) Benzo(b)fluoranthene	15.110	252	555255	55.702	ng	99
89) Benzo(k)fluoranthene	15.139	252	480296	58.980	ng	98
90) Benzo(a)pyrene	15.486	252	451921	58.380	ng	99
91) Dibenzo(a,h)anthracene	17.068	278	382832	49.201	ng	99
92) Benzo(g,h,i)perylene	17.503	276	349847	43.980	ng	99

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

Instrument :
BNA_F
ClientSampleId :
BP-G3MS

Abundance

TIC: BF140373.D\data.ms

Time-->

1,4-Dioxane

n-Nitrosodimethylaniline

Benzaldehyde

bis(2-chloroethyl)ether

Aniline

Chlorophenol

1,3-dichlorobenzene

Dichlorobenzene

Benzyl Alcohol

Hexachlorocyclopentadiene

Isophthalic acid

bis(2-chloroethyl)amine

Naphthalene

Hexachlorobutadiene

Caprolactam

4-Chloro-3-methylphenol

Hexachlorocyclopentadiene

2,3,6-trichlorophenol

2-Nitroaniline

2,6-Dinitrotoluene

Dimethylphthalate

Acenaphthylene

Dibenzofuran

Diethylphthalate

Phthalic anhydride

2,4,6-Trinitrofluorobenzene

Hexachlorocyclopentadiene

Pentafluorophenol

Carbazole

Di-n-butylphthalate

Fluoranthene

Pyrene

Terphenyl-d14,S

Butylbenzylphthalate

Chrysene

Bis(2-ethylhexyloxy)phthalate

Di-n-octyl phthalate,c

Benzo(b)fluoranthene

Benzo(a)pyrene,C

Perylene-d12,I

Dibenz(a,h,i)anthracene

Benzo(g,h,i)perylene

Report of Analysis

Client:	CHA Companies, Inc.		Date Collected:	11/08/24
Project:	HRPC		Date Received:	11/08/24
Client Sample ID:	BP-G3MSD		SDG No.:	P4779
Lab Sample ID:	P4788-01MSD		Matrix:	SOIL
Analytical Method:	SW8270		% Solid:	91
Sample Wt/Vol:	50.04	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
BF140374.D	1	11/10/24 09:10	11/14/24 20:35	PB164845

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	200	J	120	220	ug/Kg
108-95-2	Phenol	1100		54.6	110	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1100		55.1	110	ug/Kg
95-57-8	2-Chlorophenol	1200		55.0	110	ug/Kg
95-48-7	2-Methylphenol	1100		53.1	110	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1100		59.9	110	ug/Kg
98-86-2	Acetophenone	1100		57.3	110	ug/Kg
65794-96-9	3+4-Methylphenols	1100		52.6	220	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	1100		26.6	52.7	ug/Kg
67-72-1	Hexachloroethane	1100		54.7	110	ug/Kg
98-95-3	Nitrobenzene	1100		59.8	110	ug/Kg
78-59-1	Isophorone	1100		55.7	110	ug/Kg
88-75-5	2-Nitrophenol	1100		62.3	110	ug/Kg
105-67-9	2,4-Dimethylphenol	1300		61.4	110	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1100		56.5	110	ug/Kg
120-83-2	2,4-Dichlorophenol	1100		49.7	110	ug/Kg
91-20-3	Naphthalene	1100		54.4	110	ug/Kg
106-47-8	4-Chloroaniline	310		54.4	110	ug/Kg
87-68-3	Hexachlorobutadiene	1100		54.9	110	ug/Kg
105-60-2	Caprolactam	1100		57.2	220	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1100		51.1	110	ug/Kg
91-57-6	2-Methylnaphthalene	1100		54.4	110	ug/Kg
77-47-4	Hexachlorocyclopentadiene	1700		100	220	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1200		47.0	110	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1100		48.8	110	ug/Kg
92-52-4	1,1-Biphenyl	1200		57.6	110	ug/Kg
91-58-7	2-Chloronaphthalene	1200		54.9	110	ug/Kg
88-74-4	2-Nitroaniline	1200		62.6	110	ug/Kg
131-11-3	Dimethylphthalate	1200		53.8	110	ug/Kg

Report of Analysis

Client:	CHA Companies, Inc.	Date Collected:	11/08/24
Project:	HRPC	Date Received:	11/08/24
Client Sample ID:	BP-G3MSD	SDG No.:	P4779
Lab Sample ID:	P4788-01MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	91
Sample Wt/Vol:	50.04 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
BF140374.D	1	11/10/24 09:10	11/14/24 20:35	PB164845

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	1200		57.0	110	ug/Kg
606-20-2	2,6-Dinitrotoluene	1100		54.8	110	ug/Kg
99-09-2	3-Nitroaniline	800		58.8	110	ug/Kg
83-32-9	Acenaphthene	1200		53.4	110	ug/Kg
51-28-5	2,4-Dinitrophenol	1400		160	220	ug/Kg
100-02-7	4-Nitrophenol	1800	E	76.4	220	ug/Kg
132-64-9	Dibenzofuran	1100		55.6	110	ug/Kg
121-14-2	2,4-Dinitrotoluene	1100		56.8	110	ug/Kg
84-66-2	Diethylphthalate	1100		52.8	110	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1100		56.4	110	ug/Kg
86-73-7	Fluorene	1000		56.3	110	ug/Kg
100-01-6	4-Nitroaniline	840		70.5	110	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1000		77.1	220	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1300		53.8	110	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1200		52.0	110	ug/Kg
118-74-1	Hexachlorobenzene	1200		56.0	110	ug/Kg
1912-24-9	Atrazine	1300		60.2	110	ug/Kg
87-86-5	Pentachlorophenol	2000	E	50.9	220	ug/Kg
85-01-8	Phenanthrene	1200		55.3	110	ug/Kg
120-12-7	Anthracene	1200		55.6	110	ug/Kg
86-74-8	Carbazole	1100		52.9	110	ug/Kg
84-74-2	Di-n-butylphthalate	1100		55.5	110	ug/Kg
206-44-0	Fluoranthene	1100		53.8	110	ug/Kg
129-00-0	Pyrene	1000		54.7	110	ug/Kg
85-68-7	Butylbenzylphthalate	1100		63.8	110	ug/Kg
91-94-1	3,3-Dichlorobenzidine	740		65.0	220	ug/Kg
56-55-3	Benzo(a)anthracene	1200		53.2	110	ug/Kg
218-01-9	Chrysene	1200		52.4	110	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	1200		60.0	110	ug/Kg
117-84-0	Di-n-octyl phthalate	1200		72.5	220	ug/Kg
205-99-2	Benzo(b)fluoranthene	1200		53.4	110	ug/Kg

Report of Analysis

Client:	CHA Companies, Inc.	Date Collected:	11/08/24
Project:	HRPC	Date Received:	11/08/24
Client Sample ID:	BP-G3MSD	SDG No.:	P4779
Lab Sample ID:	P4788-01MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Solid:	91
Sample Wt/Vol:	50.04 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
BF140374.D	1	11/10/24 09:10	11/14/24 20:35	PB164845

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1300		54.4	110	ug/Kg
50-32-8	Benzo(a)pyrene	1300		61.3	110	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1100		51.5	110	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1100		53.5	110	ug/Kg
191-24-2	Benzo(g,h,i)perylene	980		52.8	110	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1200		57.2	110	ug/Kg
123-91-1	1,4-Dioxane	1100		72.5	110	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1100		49.2	110	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	102		18 - 112	68%	SPK: 150
13127-88-3	Phenol-d6	100		15 - 107	67%	SPK: 150
4165-60-0	Nitrobenzene-d5	70.1		18 - 107	70%	SPK: 100
321-60-8	2-Fluorobiphenyl	77.6		20 - 109	78%	SPK: 100
118-79-6	2,4,6-Tribromophenol	87.6		10 - 116	58%	SPK: 150
1718-51-0	Terphenyl-d14	65.3		10 - 105	65%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	117000	6.875			
1146-65-2	Naphthalene-d8	430000	8.157			
15067-26-2	Acenaphthene-d10	210000	9.91			
1517-22-2	Phenanthrene-d10	315000	11.398			
1719-03-5	Chrysene-d12	216000	14.045			
1520-96-3	Perylene-d12	157000	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\BF111424\
 Data File : BF140374.D
 Acq On : 14 Nov 2024 20:35
 Operator : RC/JU
 Sample : P4788-01MSD
 Misc :
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 BNA_F
 ClientSampleId :
 BP-G3MSD

Quant Time: Nov 15 00:29:11 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

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.875	152	117020	20.000	ng	0.00
21) Naphthalene-d8	8.157	136	430461	20.000	ng	0.00
39) Acenaphthene-d10	9.910	164	210055	20.000	ng	0.00
64) Phenanthrene-d10	11.398	188	315364	20.000	ng	0.00
76) Chrysene-d12	14.045	240	215698	20.000	ng	0.00
86) Perylene-d12	15.539	264	157230	20.000	ng	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	5.510	112	696099	101.565	ng	0.02
7) Phenol-d6	6.522	99	932013	100.370	ng	0.02
23) Nitrobenzene-d5	7.434	82	579259	70.113	ng	0.00
42) 2,4,6-Tribromophenol	10.704	330	183059	87.637	ng	0.00
45) 2-Fluorobiphenyl	9.228	172	1014066	77.606	ng	0.00
79) Terphenyl-d14	12.986	244	811282	65.287	ng	0.00
Target Compounds						
						Qvalue
2) 1,4-Dioxane	2.710	88	149390	48.905	ng	99
3) Pyridine	3.469	79	377240	50.234	ng	99
4) n-Nitrosodimethylamine	3.422	42	197686	52.085	ng	97
6) Aniline	6.540	93	252024	31.200	ng	# 6
8) 2-Chlorophenol	6.669	128	388046	52.708	ng	96
9) Benzaldehyde	6.422	77	50548	9.083	ng	97
10) Phenol	6.534	94	487773	49.811	ng	83
11) bis(2-Chloroethyl)ether	6.610	93	380418	51.271	ng	100
12) 1,3-Dichlorobenzene	6.816	146	401938	49.481	ng	99
13) 1,4-Dichlorobenzene	6.892	146	404985	49.169	ng	99
14) 1,2-Dichlorobenzene	7.045	146	386738	50.578	ng	99
15) Benzyl Alcohol	7.022	79	348425	52.081	ng	98
16) 2,2'-oxybis(1-Chloropr...	7.145	45	496540	48.449	ng	# 46
17) 2-Methylphenol	7.139	107	296584	48.970	ng	# 89
18) Hexachloroethane	7.386	117	149337	49.044	ng	99
19) n-Nitroso-di-n-propyla...	7.287	70	278290	49.622	ng	99
20) 3+4-Methylphenols	7.292	107	386479	51.026	ng	# 85
22) Acetophenone	7.281	105	518570	51.797	ng	96
24) Nitrobenzene	7.457	77	424227	49.318	ng	100
25) Isophorone	7.698	82	753030	51.428	ng	100
26) 2-Nitrophenol	7.775	139	198229	51.931	ng	99
27) 2,4-Dimethylphenol	7.816	122	284214	58.158	ng	98
28) bis(2-Chloroethoxy)met...	7.904	93	448108	49.910	ng	99
29) 2,4-Dichlorophenol	8.022	162	309331	51.217	ng	97
30) 1,2,4-Trichlorobenzene	8.098	180	322847	48.013	ng	99
31) Naphthalene	8.181	128	1075050	49.232	ng	100
32) Benzoic acid	7.934	122	188385	43.809	ng	98
33) 4-Chloroaniline	8.228	127	106563	14.032	ng	99
34) Hexachlorobutadiene	8.292	225	213170	49.757	ng	99
35) Caprolactam	8.598	113	99957	49.795	ng	97
36) 4-Chloro-3-methylphenol	8.716	107	320762	47.924	ng	98
37) 2-Methylnaphthalene	8.869	142	683772	48.834	ng	99
38) 1-Methylnaphthalene	8.969	142	637485	46.493	ng	99
40) 1,2,4,5-Tetrachloroben...	9.033	216	321984	55.431	ng	98
41) Hexachlorocyclopentadiene	9.016	237	114167	76.550	ng	99
43) 2,4,6-Trichlorophenol	9.151	196	205150	53.816	ng	99

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
 Data File : BF140374.D
 Acq On : 14 Nov 2024 20:35
 Operator : RC/JU
 Sample : P4788-01MSD
 Misc :
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 BNA_F
 ClientSampleId :
 BP-G3MSD

Quant Time: Nov 15 00:29:11 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

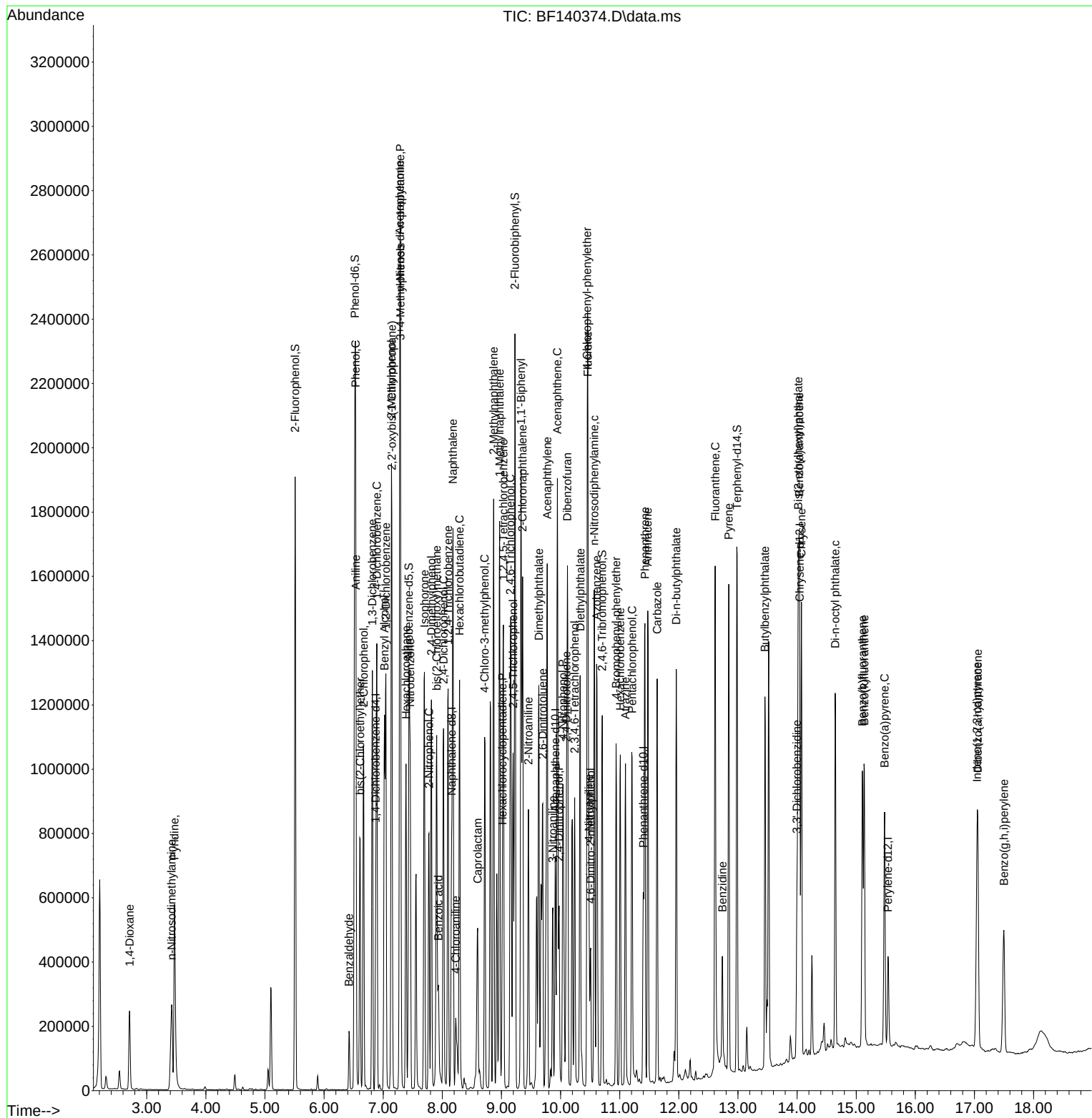
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.198	196	208820	50.103	ng	97
46) 1,1'-Biphenyl	9.333	154	830498	54.347	ng	100
47) 2-Chloronaphthalene	9.357	162	613848	52.732	ng	99
48) 2-Nitroaniline	9.457	65	202396	52.426	ng	99
49) Acenaphthylene	9.775	152	958170	54.403	ng	100
50) Dimethylphthalate	9.633	163	747046	54.562	ng	99
51) 2,6-Dinitrotoluene	9.698	165	156251	50.059	ng	98
52) Acenaphthene	9.945	154	643338	54.081	ng	99
53) 3-Nitroaniline	9.869	138	118867	36.262	ng	100
54) 2,4-Dinitrophenol	9.975	184	101230	62.891	ng	99
55) Dibenzofuran	10.116	168	854197	50.724	ng	100
56) 4-Nitrophenol	10.039	139	196284	82.092	ng	98
57) 2,4-Dinitrotoluene	10.098	165	200795	48.879	ng	99
58) Fluorene	10.463	166	625988	47.055	ng	98
59) 2,3,4,6-Tetrachlorophenol	10.239	232	160267	48.701	ng	97
60) Diethylphthalate	10.333	149	704028	50.287	ng	100
61) 4-Chlorophenyl-phenyle...	10.451	204	319768	48.687	ng	98
62) 4-Nitroaniline	10.480	138	128145	38.233	ng	99
63) Azobenzene	10.610	77	732545	52.956	ng	98
65) 4,6-Dinitro-2-methylph...	10.510	198	79313	46.745	ng	95
66) n-Nitrosodiphenylamine	10.569	169	536187	58.844	ng	100
67) 4-Bromophenyl-phenylether	10.939	248	173102	54.911	ng	97
68) Hexachlorobenzene	11.010	284	194028	54.703	ng	97
69) Atrazine	11.098	200	162067	58.789	ng	99
70) Pentachlorophenol	11.210	266	176381	92.317	ng	98
71) Phenanthrene	11.427	178	778556	52.554	ng	100
72) Anthracene	11.474	178	797734	54.944	ng	99
73) Carbazole	11.633	167	703673	49.084	ng	100
74) Di-n-butylphthalate	11.957	149	891643	51.820	ng	100
75) Fluoranthene	12.616	202	811006	48.796	ng	99
77) Benzidine	12.739	184	216260	26.123	ng	100
78) Pyrene	12.845	202	861991	46.720	ng	99
80) Butylbenzylphthalate	13.457	149	370911	52.332	ng	99
81) Benzo(a)anthracene	14.039	228	765222	53.979	ng	99
82) 3,3'-Dichlorobenzidine	13.998	252	151074	33.528	ng	99
83) Chrysene	14.074	228	677733	52.397	ng	99
84) Bis(2-ethylhexyl)phtha...	14.021	149	501206	52.979	ng	98
85) Di-n-octyl phthalate	14.645	149	745978	55.988	ng	100
87) Indeno(1,2,3-cd)pyrene	17.045	276	475477	48.955	ng	100
88) Benzo(b)fluoranthene	15.104	252	563703	54.807	ng	100
89) Benzo(k)fluoranthene	15.139	252	488878	58.184	ng	100
90) Benzo(a)pyrene	15.480	252	458372	57.389	ng	99
91) Dibenzo(a,h)anthracene	17.056	278	398765	49.670	ng	99
92) Benzo(g,h,i)perylene	17.498	276	365891	44.580	ng	99

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

```
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF111424\
Data File : BF140374.D
Acq On    : 14 Nov 2024   20:35
Operator  : RC/JU
Sample    : P4788-01MSD
Misc      :
ALS Vial  : 10   Sample Multiplier: 1
```

Instrument :
BNA_F
ClientSampleId :
BP-G3MSD

Quant Time: Nov 15 00:29:11 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



Manual Integration Report

Sequence:	BE110624	Instrument	BNA_e

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
SSTDICC005	BE101494.D	Aniline	Jagrut	11/7/2024 10:28:40 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDICC005	BE101494.D	bis(2-Chloroethyl)ether	Jagrut	11/7/2024 10:28:40 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDICC005	BE101494.D	Caprolactam	Jagrut	11/7/2024 10:28:40 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDICC005	BE101494.D	n-Nitrosodimethylamine	Jagrut	11/7/2024 10:28:40 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDICC005	BE101494.D	Pyridine	Jagrut	11/7/2024 10:28:40 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDICC010	BE101495.D	Benzoic acid	Jagrut	11/7/2024 10:28:43 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDICC010	BE101495.D	bis(2-Chloroethyl)ether	Jagrut	11/7/2024 10:28:43 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDICC010	BE101495.D	n-Nitrosodimethylamine	Jagrut	11/7/2024 10:28:43 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDICC010	BE101495.D	Pyridine	Jagrut	11/7/2024 10:28:43 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDICC020	BE101496.D	bis(2-Chloroethyl)ether	Jagrut	11/7/2024 10:28:45 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDICC020	BE101496.D	Pyridine	Jagrut	11/7/2024 10:28:45 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDICCC040	BE101497.D	Caprolactam	Jagrut	11/7/2024 10:28:48 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDICCC040	BE101497.D	Pyridine	Jagrut	11/7/2024 10:28:48 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software

Manual Integration Report

Sequence:	BE110624	Instrument	BNA_e

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
SSTDICC050	BE101498.D	Caprolactam	Jagrut	11/7/2024 10:28:50 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDICC050	BE101498.D	Pyridine	Jagrut	11/7/2024 10:28:50 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDICC060	BE101499.D	Caprolactam	Jagrut	11/7/2024 10:28:52 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDICC060	BE101499.D	Pyridine	Jagrut	11/7/2024 10:28:52 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDICC080	BE101500.D	bis(2-Chloroethyl)ether	Jagrut	11/7/2024 10:28:55 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDICC080	BE101500.D	Caprolactam	Jagrut	11/7/2024 10:28:55 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDICC080	BE101500.D	Pyridine	Jagrut	11/7/2024 10:28:55 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDICV040	BE101501.D	bis(2-Chloroethyl)ether	Jagrut	11/7/2024 10:28:58 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDICV040	BE101501.D	Pyridine	Jagrut	11/7/2024 10:28:58 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDCCC040	BE101504.D	Caprolactam	Jagrut	11/7/2024 10:31:30 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software
SSTDCCC040	BE101504.D	Pyridine	Jagrut	11/7/2024 10:31:30 AM	mohammad	11/8/2024 3:53:54 AM	Peak Integrated by Software

Manual Integration Report

Sequence:

BE111124

Instrument

BNA_e

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
SSTDCCC040	BE101564.D	Pyridine	yogesh	11/12/2024 1:18:56 AM	mohammad	11/12/2024 1:26:15 AM	Peak Integrated by Software
PB164845BS	BE101566.D	bis(2-Chloroethyl)ether	yogesh	11/12/2024 1:18:58 AM	mohammad	11/12/2024 1:26:15 AM	Peak Integrated by Software
PB164845BS	BE101566.D	Caprolactam	yogesh	11/12/2024 1:18:58 AM	mohammad	11/12/2024 1:26:15 AM	Peak Integrated by Software

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-Tetrachlorophen ol	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:

bf111424

Instrument

BNA_f

Sample ID

File ID

Parameter

Review By

Review On

Supervised
By

Supervised On

Reason

Instrument ID: **BNA_E**

Daily Analysis Runlog For Sequence/QC Batch ID # BE110624

Review By	Jagrut	Review On	11/7/2024 11:03:46 AM
Supervise By	mohammad	Supervise On	11/8/2024 3:53:54 AM
SubDirectory	BE110624	HP Acquire Method	BNA_E
		HP Processing Method	be110624
STD. NAME	STD REF.#		
Tune/Reschk	SP6573		
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621		
CCC	SP6624		
Internal Standard/PEM	S12324,10ul/1000ul sample		
ICV/I.BLK	SP6559		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BE101491.D	6 Nov 2024 11:40	RC/JU	Ok
2	SSTDCCC040	BE101492.D	6 Nov 2024 13:15	RC/JU	Not Ok
3	SSTDICC2.5	BE101493.D	6 Nov 2024 13:51	RC/JU	Ok
4	SSTDICC005	BE101494.D	6 Nov 2024 14:27	RC/JU	Ok,M
5	SSTDICC010	BE101495.D	6 Nov 2024 15:03	RC/JU	Ok,M
6	SSTDICC020	BE101496.D	6 Nov 2024 15:39	RC/JU	Ok,M
7	SSTDICCC040	BE101497.D	6 Nov 2024 16:14	RC/JU	Ok,M
8	SSTDICC050	BE101498.D	6 Nov 2024 16:50	RC/JU	Ok,M
9	SSTDICC060	BE101499.D	6 Nov 2024 17:26	RC/JU	Ok,M
10	SSTDICC080	BE101500.D	6 Nov 2024 18:02	RC/JU	Ok,M
11	SSTDICV040	BE101501.D	6 Nov 2024 18:41	RC/JU	Ok,M
12	PB164561BL	BE101502.D	6 Nov 2024 19:16	RC/JU	Ok
13	DFTPP	BE101503.D	6 Nov 2024 19:52	RC/JU	Ok
14	SSTDCCC040	BE101504.D	6 Nov 2024 20:28	RC/JU	Ok,M
15	PB164561TB	BE101505.D	6 Nov 2024 21:04	RC/JU	Ok
16	PB164561BS	BE101506.D	6 Nov 2024 21:40	RC/JU	Ok,M
17	P4660-11	BE101507.D	6 Nov 2024 22:15	RC/JU	Ok
18	P4667-04	BE101508.D	6 Nov 2024 22:51	RC/JU	Ok
19	P4667-08	BE101509.D	6 Nov 2024 23:27	RC/JU	ReRun
20	P4667-12	BE101510.D	7 Nov 2024 00:03	RC/JU	ReRun
21	P4667-16	BE101511.D	7 Nov 2024 00:39	RC/JU	Ok

Instrument ID: **BNA_E**

Daily Analysis Runlog For Sequence/QC Batch ID # BE110624

Review By	Jagrut	Review On	11/7/2024 11:03:46 AM		
Supervise By	mohammad	Supervise On	11/8/2024 3:53:54 AM		
SubDirectory	BE110624	HP Acquire Method	BNA_E	HP Processing Method	be110624
STD. NAME		STD REF.#			
Tune/Reschk		SP6573			
Initial Calibration Stds		SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621			
CCC		SP6624			
Internal Standard/PEM		S12324,10ul/1000ul sample			
ICV/I.BLK		SP6559			
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

22	P4659-04	BE101512.D	7 Nov 2024 1:14	RC/JU	Ok
23	P4679-04	BE101513.D	7 Nov 2024 1:50	RC/JU	Ok
24	P4680-04	BE101514.D	7 Nov 2024 2:26	RC/JU	ReRun
25	P4680-08	BE101515.D	7 Nov 2024 3:02	RC/JU	ReRun
26	P4660-07	BE101516.D	7 Nov 2024 3:38	RC/JU	Ok,M
27	P4711-05	BE101517.D	7 Nov 2024 4:13	RC/JU	ReRun
28	P4711-10	BE101518.D	7 Nov 2024 4:49	RC/JU	ReRun
29	P4711-01	BE101519.D	7 Nov 2024 5:25	RC/JU	Ok,M
30	P4711-06	BE101520.D	7 Nov 2024 6:01	RC/JU	Dilution
31	P4708-01	BE101521.D	7 Nov 2024 6:37	RC/JU	Ok,M
32	P4706-01	BE101522.D	7 Nov 2024 7:13	RC/JU	Ok,M

M : Manual Integration

Instrument ID: **BNA_E**

Daily Analysis Runlog For Sequence/QC Batch ID # BE111124

Review By	yogesh	Review On	11/12/2024 1:19:10 AM
Supervise By	mohammad	Supervise On	11/12/2024 1:26:15 AM
SubDirectory	BE111124	HP Acquire Method	BNA_E
		HP Processing Method	be110624
STD. NAME	STD REF.#		
Tune/Reschk	SP6573		
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621		
CCC	SP6624		
Internal Standard/PEM	S12326,10ul/1000ul sample		
ICV/I.BLK	SP6559		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BE101563.D	11 Nov 2024 9:43	RC/JU	Ok
2	SSTDCCC040	BE101564.D	11 Nov 2024 10:19	RC/JU	Ok,M
3	PB164845BL	BE101565.D	11 Nov 2024 10:55	RC/JU	Ok
4	PB164845BS	BE101566.D	11 Nov 2024 11:31	RC/JU	Ok,M
5	P4756-04	BE101567.D	11 Nov 2024 12:09	RC/JU	Ok
6	P4756-04MS	BE101568.D	11 Nov 2024 12:45	RC/JU	Ok,M
7	P4756-04MSD	BE101569.D	11 Nov 2024 13:21	RC/JU	Ok,M
8	P4793-02	BE101570.D	11 Nov 2024 13:57	RC/JU	Ok
9	P4795-02	BE101571.D	11 Nov 2024 14:33	RC/JU	Ok
10	P4796-07	BE101572.D	11 Nov 2024 15:08	RC/JU	ReRun
11	P4796-03	BE101573.D	11 Nov 2024 15:44	RC/JU	Ok

M : Manual Integration

Instrument ID: **BNA_F**

Daily Analysis Runlog For Sequence/QC Batch 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	SP	BF140349.D	13 Nov 2024 18:39	RC/JU	Ok,M

M : Manual Integration

Instrument ID: **BNA_F**

Daily Analysis Runlog For Sequence/QC Batch ID # BF111424

Review By	yogesh	Review On	11/15/2024 5:15:55 AM
Supervise By	mohammad	Supervise On	11/15/2024 5:49:37 AM
SubDirectory	BF111424	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	BF140350.D	14 Nov 2024 08:47	RC/JU	Ok
2	SSTDCCC040	BF140351.D	14 Nov 2024 09:42	RC/JU	Ok
3	PB164908BL	BF140352.D	14 Nov 2024 10:08	RC/JU	Ok
4	PB164911BS	BF140353.D	14 Nov 2024 10:34	RC/JU	Ok,M
5	PB164911BSD	BF140354.D	14 Nov 2024 11:01	RC/JU	Ok,M
6	PB164911BL	BF140355.D	14 Nov 2024 11:27	RC/JU	Ok
7	P3845-06DL	BF140356.D	14 Nov 2024 11:54	RC/JU	Ok
8	P4762-02	BF140357.D	14 Nov 2024 13:03	RC/JU	Ok
9	P4792-03	BF140358.D	14 Nov 2024 13:29	RC/JU	Ok
10	P4837-03	BF140359.D	14 Nov 2024 13:55	RC/JU	Ok
11	P4834-03	BF140360.D	14 Nov 2024 14:21	RC/JU	Ok
12	P4779-01	BF140361.D	14 Nov 2024 14:47	RC/JU	Ok
13	P4838-03	BF140362.D	14 Nov 2024 15:13	RC/JU	Ok
14	P4718-04	BF140363.D	14 Nov 2024 15:39	RC/JU	Ok
15	P4812-01	BF140364.D	14 Nov 2024 16:04	RC/JU	Ok
16	DFTPP	BF140365.D	14 Nov 2024 16:35	RC/JU	Ok
17	SSTDCCC040	BF140366.D	14 Nov 2024 17:02	RC/JU	Ok
18	PB164846BL	BF140367.D	14 Nov 2024 17:28	RC/JU	Ok
19	P4722-10	BF140368.D	14 Nov 2024 17:59	RC/JU	Ok
20	P4722-15	BF140369.D	14 Nov 2024 18:25	RC/JU	Ok
21	P4791-02	BF140370.D	14 Nov 2024 18:51	RC/JU	Ok

Instrument ID: **BNA_F**

Daily Analysis Runlog For Sequence/QC Batch ID # BF111424

Review By	yogesh	Review On	11/15/2024 5:15:55 AM
Supervise By	mohammad	Supervise On	11/15/2024 5:49:37 AM
SubDirectory	BF111424	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			

22	P4792-04	BF140371.D	14 Nov 2024 19:17	RC/JU	Ok
23	P4788-01	BF140372.D	14 Nov 2024 19:43	RC/JU	Ok
24	P4788-01MS	BF140373.D	14 Nov 2024 20:09	RC/JU	Ok
25	P4788-01MSD	BF140374.D	14 Nov 2024 20:35	RC/JU	Ok
26	P4796-05RE	BF140375.D	14 Nov 2024 21:01	RC/JU	Confirms
27	P4796-01RE	BF140376.D	14 Nov 2024 21:28	RC/JU	Confirms
28	P4722-08DL	BF140377.D	14 Nov 2024 21:54	RC/JU	Ok,M
29	P4768-06DL	BF140378.D	14 Nov 2024 22:20	RC/JU	Ok,M
30	P4739-09DL	BF140379.D	14 Nov 2024 22:47	RC/JU	Ok
31	P4795-01RE	BF140380.D	14 Nov 2024 23:13	RC/JU	Confirms
32	P4811-01RE	BF140381.D	14 Nov 2024 23:39	RC/JU	Confirms
33	P4816-01RE	BF140382.D	15 Nov 2024 00:05	RC/JU	Confirms
34	P4807-05	BF140383.D	15 Nov 2024 00:32	RC/JU	Ok
35	P4807-05MS	BF140384.D	15 Nov 2024 00:58	RC/JU	Ok
36	P4807-05MSD	BF140385.D	15 Nov 2024 01:24	RC/JU	Ok
37	P4807-01	BF140386.D	15 Nov 2024 01:49	RC/JU	Ok
38	P4798-01	BF140387.D	15 Nov 2024 02:16	RC/JU	Dilution
39	P4789-01	BF140388.D	15 Nov 2024 02:42	RC/JU	Ok
40	P4793-01	BF140389.D	15 Nov 2024 03:08	RC/JU	Confirms

M : Manual Integration

Instrument ID: BNA_E

Daily Analysis Runlog For Sequence/QC Batch ID # BE110624

Review By	Jagrut	Review On	11/7/2024 11:03:46 AM
Supervise By	mohammad	Supervise On	11/8/2024 3:53:54 AM
SubDirectory	BE110624	HP Acquire Method	BNA_E
		HP Processing Method	be110624

STD. NAME	STD REF.#
Tune/Reschk	SP6573
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC	SP6624
Internal Standard/PEM	S12324,10ul/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	BE101491.D	6 Nov 2024 11:40		RC/JU	Ok
2	SSTDCCC040	SSTDCCC040	BE101492.D	6 Nov 2024 13:15	A Fresh Calibration is required.	RC/JU	Not Ok
3	SSTDICC2.5	SSTDICC2.5	BE101493.D	6 Nov 2024 13:51		RC/JU	Ok
4	SSTDICC005	SSTDICC005	BE101494.D	6 Nov 2024 14:27	Compound #32,54 removed from 5ppm	RC/JU	Ok,M
5	SSTDICC010	SSTDICC010	BE101495.D	6 Nov 2024 15:03		RC/JU	Ok,M
6	SSTDICC020	SSTDICC020	BE101496.D	6 Nov 2024 15:39	Compound #32 Kept on LR	RC/JU	Ok,M
7	SSTDICCC040	SSTDICCC040	BE101497.D	6 Nov 2024 16:14	The Calibration is Good For 8270 DOD Except com#77 and will NOT be used for 625.1 Method	RC/JU	Ok,M
8	SSTDICC050	SSTDICC050	BE101498.D	6 Nov 2024 16:50	Com#77(Benzidine) Failed in the calibration for both DOD and NON-DOD	RC/JU	Ok,M
9	SSTDICC060	SSTDICC060	BE101499.D	6 Nov 2024 17:26		RC/JU	Ok,M
10	SSTDICC080	SSTDICC080	BE101500.D	6 Nov 2024 18:02		RC/JU	Ok,M
11	SSTDICV040	ICVBE110624	BE101501.D	6 Nov 2024 18:41		RC/JU	Ok,M
12	PB164561BL	PB164561BL	BE101502.D	6 Nov 2024 19:16		RC/JU	Ok
13	DFTPP	DFTPP	BE101503.D	6 Nov 2024 19:52		RC/JU	Ok
14	SSTDCCC040	SSTDCCC040	BE101504.D	6 Nov 2024 20:28		RC/JU	Ok,M
15	PB164561TB	PB164561TB	BE101505.D	6 Nov 2024 21:04		RC/JU	Ok
16	PB164561BS	PB164561BS	BE101506.D	6 Nov 2024 21:40		RC/JU	Ok,M

Instrument ID: BNA_E

Daily Analysis Runlog For Sequence/QC Batch ID # BE110624

Review By	Jagrut	Review On	11/7/2024 11:03:46 AM		
Supervise By	mohammad	Supervise On	11/8/2024 3:53:54 AM		
SubDirectory	BE110624	HP Acquire Method	BNA_E	HP Processing Method	be110624
STD. NAME		STD REF.#			
Tune/Reschk		SP6573			
Initial Calibration Stds		SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621			
CCC		SP6624			
Internal Standard/PEM		S12324,10ul/1000ul sample			
ICV/I.BLK		SP6559			
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

17	P4660-11	WC-CONCRETE-01-C	BE101507.D	6 Nov 2024 22:15		RC/JU	Ok
18	P4667-04	BP-F-6	BE101508.D	6 Nov 2024 22:51		RC/JU	Ok
19	P4667-08	BP-F-5	BE101509.D	6 Nov 2024 23:27	Internal Standard and Surrogate fail	RC/JU	ReRun
20	P4667-12	TP-10	BE101510.D	7 Nov 2024 00:03	Internal Standard Fail	RC/JU	ReRun
21	P4667-16	BP-F-7	BE101511.D	7 Nov 2024 00:39		RC/JU	Ok
22	P4659-04	MH-2	BE101512.D	7 Nov 2024 1:14		RC/JU	Ok
23	P4679-04	MH-1	BE101513.D	7 Nov 2024 1:50		RC/JU	Ok
24	P4680-04	BP-F26	BE101514.D	7 Nov 2024 2:26	Internal Standrad Fail	RC/JU	ReRun
25	P4680-08	BP-F25	BE101515.D	7 Nov 2024 3:02	Internal Standrad Fail	RC/JU	ReRun
26	P4660-07	WC-WOOD-01-C	BE101516.D	7 Nov 2024 3:38		RC/JU	Ok,M
27	P4711-05	CF-613-COMP-16	BE101517.D	7 Nov 2024 4:13	Internal Standrad Fail	RC/JU	ReRun
28	P4711-10	CF-613-COMP-17	BE101518.D	7 Nov 2024 4:49	Internal Standrad Fail	RC/JU	ReRun
29	P4711-01	CF-613-COMP-16	BE101519.D	7 Nov 2024 5:25		RC/JU	Ok,M
30	P4711-06	CF-613-COMP-17	BE101520.D	7 Nov 2024 6:01	Need further 5X Dilution	RC/JU	Dilution
31	P4708-01	OR-02-110424	BE101521.D	7 Nov 2024 6:37		RC/JU	Ok,M
32	P4706-01	TR-04-110424	BE101522.D	7 Nov 2024 7:13		RC/JU	Ok,M

M : Manual Integration

Instrument ID: BNA_E

Daily Analysis Runlog For Sequence/QC Batch ID # BE111124

Review By	yogesh	Review On	11/12/2024 1:19:10 AM
Supervise By	mohammad	Supervise On	11/12/2024 1:26:15 AM
SubDirectory	BE111124	HP Acquire Method	BNA_E
		HP Processing Method	be110624

STD. NAME	STD REF.#
Tune/Reschk	SP6573
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC	SP6624
Internal Standard/PEM	S12326,10ul/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	BE101563.D	11 Nov 2024 9:43		RC/JU	Ok
2	SSTDCCC040	SSTDCCC040	BE101564.D	11 Nov 2024 10:19		RC/JU	Ok,M
3	PB164845BL	PB164845BL	BE101565.D	11 Nov 2024 10:55		RC/JU	Ok
4	PB164845BS	PB164845BS	BE101566.D	11 Nov 2024 11:31		RC/JU	Ok,M
5	P4756-04	BP-B4	BE101567.D	11 Nov 2024 12:09		RC/JU	Ok
6	P4756-04MS	BP-B4MS	BE101568.D	11 Nov 2024 12:45		RC/JU	Ok,M
7	P4756-04MSD	BP-B4MSD	BE101569.D	11 Nov 2024 13:21		RC/JU	Ok,M
8	P4793-02	M00-24-00345	BE101570.D	11 Nov 2024 13:57		RC/JU	Ok
9	P4795-02	LAW-23-00189	BE101571.D	11 Nov 2024 14:33		RC/JU	Ok
10	P4796-07	TP-4	BE101572.D	11 Nov 2024 15:08	Internal Standard Fail	RC/JU	ReRun
11	P4796-03	TP-2	BE101573.D	11 Nov 2024 15:44		RC/JU	Ok

M : Manual Integration

Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QC Batch 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 Initial Calibration Stds	SP6573 SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	SP6624 S12327,10ul/1000ul sample SP6559

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

Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QC Batch 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	SP	SP	BF140349.D	13 Nov 2024 18:39	8270-625.1 SPIKE SOLUTION	RC/JU	Ok,M

M : Manual Integration

Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QC Batch ID # BF111424

Review By	yogesh	Review On	11/15/2024 5:15:55 AM
Supervise By	mohammad	Supervise On	11/15/2024 5:49:37 AM
SubDirectory	BF111424	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	BF140350.D	14 Nov 2024 08:47		RC/JU	Ok
2	SSTDCCC040	SSTDCCC040	BF140351.D	14 Nov 2024 09:42		RC/JU	Ok
3	PB164908BL	PB164908BL	BF140352.D	14 Nov 2024 10:08		RC/JU	Ok
4	PB164911BS	PB164911BS	BF140353.D	14 Nov 2024 10:34		RC/JU	Ok,M
5	PB164911BSD	PB164911BSD	BF140354.D	14 Nov 2024 11:01		RC/JU	Ok,M
6	PB164911BL	PB164911BL	BF140355.D	14 Nov 2024 11:27		RC/JU	Ok
7	P3845-06DL	PT-ACIDS-WPDL	BF140356.D	14 Nov 2024 11:54		RC/JU	Ok
8	P4762-02	EFF-WW	BF140357.D	14 Nov 2024 13:03		RC/JU	Ok
9	P4792-03	OILY-STONE-DRUM	BF140358.D	14 Nov 2024 13:29		RC/JU	Ok
10	P4837-03	3TRK-STONE	BF140359.D	14 Nov 2024 13:55		RC/JU	Ok
11	P4834-03	SLP-1-STONE	BF140360.D	14 Nov 2024 14:21		RC/JU	Ok
12	P4779-01	SOIL-01	BF140361.D	14 Nov 2024 14:47		RC/JU	Ok
13	P4838-03	T1-STONE	BF140362.D	14 Nov 2024 15:13		RC/JU	Ok
14	P4718-04	WB-307-SW	BF140363.D	14 Nov 2024 15:39		RC/JU	Ok
15	P4812-01	RBR200035	BF140364.D	14 Nov 2024 16:04		RC/JU	Ok
16	DFTPP	DFTPP	BF140365.D	14 Nov 2024 16:35		RC/JU	Ok
17	SSTDCCC040	SSTDCCC040	BF140366.D	14 Nov 2024 17:02		RC/JU	Ok
18	PB164846BL	PB164846BL	BF140367.D	14 Nov 2024 17:28		RC/JU	Ok

Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QC Batch ID # BF111424

Review By	yogesh	Review On	11/15/2024 5:15:55 AM		
Supervise By	mohammad	Supervise On	11/15/2024 5:49:37 AM		
SubDirectory	BF111424	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					

19	P4722-10	WC-2(0-6)	BF140368.D	14 Nov 2024 17:59		RC/JU	Ok
20	P4722-15	WC-3(0-6)	BF140369.D	14 Nov 2024 18:25		RC/JU	Ok
21	P4791-02	HINCHMAN-OILY-WAT	BF140370.D	14 Nov 2024 18:51	Internal Standard Fail	RC/JU	Ok
22	P4792-04	MANHOLE-WASTE-DR	BF140371.D	14 Nov 2024 19:17		RC/JU	Ok
23	P4788-01	BP-G3	BF140372.D	14 Nov 2024 19:43		RC/JU	Ok
24	P4788-01MS	BP-G3MS	BF140373.D	14 Nov 2024 20:09		RC/JU	Ok
25	P4788-01MSD	BP-G3MSD	BF140374.D	14 Nov 2024 20:35		RC/JU	Ok
26	P4796-05RE	TP-3RE	BF140375.D	14 Nov 2024 21:01	Fax is already given	RC/JU	Confirms
27	P4796-01RE	TP-1RE	BF140376.D	14 Nov 2024 21:28	Fax is already given	RC/JU	Confirms
28	P4722-08DL	WC-2(0-6)DL	BF140377.D	14 Nov 2024 21:54		RC/JU	Ok,M
29	P4768-06DL	B-6-2DL	BF140378.D	14 Nov 2024 22:20		RC/JU	Ok,M
30	P4739-09DL	BP-B2DL	BF140379.D	14 Nov 2024 22:47		RC/JU	Ok
31	P4795-01RE	LAW-23-00189RE	BF140380.D	14 Nov 2024 23:13	Fax is already given	RC/JU	Confirms
32	P4811-01RE	RB24008RE	BF140381.D	14 Nov 2024 23:39	Internal Standard Fail	RC/JU	Confirms
33	P4816-01RE	331RE	BF140382.D	15 Nov 2024 00:05	Fax is already given	RC/JU	Confirms
34	P4807-05	BF-F14	BF140383.D	15 Nov 2024 00:32		RC/JU	Ok
35	P4807-05MS	BF-F14MS	BF140384.D	15 Nov 2024 00:58		RC/JU	Ok
36	P4807-05MSD	BF-F14MSD	BF140385.D	15 Nov 2024 01:24		RC/JU	Ok
37	P4807-01	TP-7	BF140386.D	15 Nov 2024 01:49		RC/JU	Ok

Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QC Batch ID # BF111424

Review By	yogesh	Review On	11/15/2024 5:15:55 AM
Supervise By	mohammad	Supervise On	11/15/2024 5:49:37 AM
SubDirectory	BF111424	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	

38	P4798-01	MH-6	BF140387.D	15 Nov 2024 02:16	Need 2X Dilution	RC/JU	Dilution
39	P4789-01	BP-F21	BF140388.D	15 Nov 2024 02:42		RC/JU	Ok
40	P4793-01	M00-24-00345	BF140389.D	15 Nov 2024 03:08		RC/JU	Confirms

M : Manual Integration



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 11/11/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 16:40
In Date: 11/08/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:15
Out Date: 11/09/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB133361

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
P4716-01	A0BE3	1	1.15	8.83	9.98	8.14	79.2	
P4716-02	A0BE4	2	1.15	8.41	9.56	8.06	82.2	
P4716-03	A0BE5	3	1.17	8.62	9.79	6.03	56.4	
P4716-04	A0BE5MS	4	1.17	8.62	9.79	6.03	56.4	
P4716-05	A0BE5MSD	5	1.17	8.62	9.79	6.03	56.4	
P4771-05	P-1	6	1.12	8.74	9.86	9.37	94.4	
P4771-07	P-2	7	1.12	8.70	9.82	9.41	95.3	
P4779-01	SOIL-01	8	1.16	8.45	9.61	9.34	96.8	
P4780-05	SVOC-GPC-BLANK	9	1.00	1.00	2.00	2.00	100.0	
P4780-06	PEST-GPC-BLANK	10	1.00	1.00	2.00	2.00	100.0	
P4780-07	PEST-GPC-BLANK-SPIKE	11	1.00	1.00	2.00	2.00	100.0	
P4780-08	PCB-GPC-BLANK	12	1.00	1.00	2.00	2.00	100.0	
P4780-09	PCB-GPC-BLANK-SPIKE	13	1.00	1.00	2.00	2.00	100.0	
P4780-10	SVOC-GPC2-BLANK	14	1.00	1.00	2.00	2.00	100.0	
P4780-11	PEST-GPC2-BLANK	15	1.00	1.00	2.00	2.00	100.0	
P4780-12	PEST-GPC2-BLANK-SPIKE	16	1.00	1.00	2.00	2.00	100.0	
P4780-13	PCB-GPC2-BLANK	17	1.00	1.00	2.00	2.00	100.0	
P4780-14	PCB-GPC2-BLANK-SPIKE	18	1.00	1.00	2.00	2.00	100.0	
P4788-01	BP-G3	19	1.15	8.82	9.97	9.18	91.0	
P4788-02	BP-G3-EPH	20	1.13	8.68	9.81	8.85	88.9	
P4788-03	BP-G3-VOC	21	1.18	8.49	9.67	8.76	89.3	
P4789-01	BP-F21	22	1.13	8.76	9.89	8.98	89.6	
P4789-02	BP-F21-EPH	23	1.17	8.58	9.75	8.74	88.2	
P4789-03	BP-F21-VOC	24	1.17	8.58	9.75	8.74	88.2	
P4791-01	ARS20-0016	25	1.00	1.00	2.00	2.00	100.0	debris
P4792-02	DIESLE-DRUM	26	1.00	1.00	2.00	2.00	100.0	debris
P4792-03	OILY-STONE-DRUM	27	1.00	1.00	2.00	2.00	100.0	oily stone - drum
P4793-01	M00-24-00345	28	1.00	1.00	2.00	2.00	100.0	debris



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 11/11/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 16:40
In Date: 11/08/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:15
Out Date: 11/09/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB133361

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
P4794-01	KZA443F-END-1-1	29	1.00	1.00	2.00	2.00	100.0	oilc
P4794-02	KZA443F-END-1-2	30	1.00	1.00	2.00	2.00	100.0	oilc
P4795-01	LAW-23-00189	31	1.14	8.59	9.73	9.06	92.2	
P4796-01	TP-1	32	1.18	8.60	9.78	9.34	94.9	
P4796-02	TP-1	33	1.16	8.49	9.65	9.25	95.3	
P4796-03	TP-2	34	1.13	8.70	9.83	9.47	95.9	
P4796-04	TP-2	35	1.19	8.62	9.81	9.44	95.7	
P4796-05	TP-3	36	1.15	8.80	9.95	9.47	94.5	
P4796-06	TP-3	37	1.16	8.56	9.72	9.3	95.1	
P4796-07	TP-4	38	1.17	8.57	9.74	9.43	96.4	
P4796-08	TP-4	39	1.15	8.82	9.97	9.7	96.9	
P4798-01	MH-6	40	1.14	8.81	9.95	9.00	89.2	
P4798-02	MH-6-EPH	41	1.13	8.74	9.87	8.82	88.0	
P4798-03	MH-6-VOC	42	1.16	8.50	9.66	8.66	88.2	

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

WORKLIST(Hardcopy Internal Chain)

133361

WorkList Name : %1-110824

WorkList ID : 185235

Department : Wet-Chemistry

Date : 11-08-2024 07:56:56

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4716-01	A0BE3	Solid	Percent Solids	Cool 4 deg C	USEP04	Q11	10/31/2024	Chemtech -SO
P4716-02	A0BE4	Solid	Percent Solids	Cool 4 deg C	USEP04	Q11	10/31/2024	Chemtech -SO
P4716-03	A0BE5	Solid	Percent Solids	Cool 4 deg C	USEP04	Q11	11/01/2024	Chemtech -SO
P4716-04	A0BE5MS	Solid	Percent Solids	Cool 4 deg C	USEP04	Q11	11/01/2024	Chemtech -SO
P4716-05	A0BE5MSD	Solid	Percent Solids	Cool 4 deg C	USEP04	Q11	11/01/2024	Chemtech -SO
P4771-05	P-1	Solid	Percent Solids	Cool 4 deg C	USEP04	Q11	11/01/2024	Chemtech -SO
P4771-07	P-2	Solid	Percent Solids	Cool 4 deg C	M2AS01	L32	11/07/2024	Chemtech -SO
P4779-01	SOIL-01	Solid	Percent Solids	Cool 4 deg C	M2AS01	L32	11/07/2024	Chemtech -SO
P4780-05	SVOC-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CLOU03	L31	11/07/2024	Chemtech -SO
P4780-06	PEST-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L11	11/08/2024	Chemtech -SO
P4780-07	PEST-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	L11	11/08/2024	Chemtech -SO
P4780-08	PCB-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L11	11/08/2024	Chemtech -SO
P4780-09	PCB-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	L11	11/08/2024	Chemtech -SO
P4780-10	SVOC-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L11	11/08/2024	Chemtech -SO
P4780-11	PEST-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L11	11/08/2024	Chemtech -SO
P4780-12	PEST-GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	L11	11/08/2024	Chemtech -SO
P4780-13	PCB-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L11	11/08/2024	Chemtech -SO
P4780-14	PCB-GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	L11	11/08/2024	Chemtech -SO
P4788-01	BP-G3	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	11/08/2024	Chemtech -SO
P4788-02	BP-G3-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	11/08/2024	Chemtech -SO
P4788-03	BP-G3-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	11/08/2024	Chemtech -SO

Date/Time 11/08/24 15:30

Raw Sample Received by: HWC

Raw Sample Relinquished by: RJ CEST-1060

Date/Time 11/08/24

Raw Sample Received by: RJ CEST-1060

Raw Sample Relinquished by: RJ CEST-1060

WORKLIST(Hardcopy Internal Chain)

133361

WorkList Name : %1-110824

WorkList ID : 185235

Department : Wet-Chemistry

Date : 11-08-2024 07:56:56

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4789-01	BP-F21	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	11/08/2024	Chemtech -SO
P4789-02	BP-F21-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	11/08/2024	Chemtech -SO
P4789-03	BP-F21-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	11/08/2024	Chemtech -SO
P4791-01	ARS20-0016	Solid	Percent Solids	Cool 4 deg C	PSEG03	--Sele	11/08/2024	Chemtech -SO
P4792-02	DIESLE-DRUM	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	11/08/2024	Chemtech -SO
P4792-03	OILY-STONE-DRUM	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	11/08/2024	Chemtech -SO
P4793-01	M00-24-00345	Solid	Percent Solids	Cool 4 deg C	PSEG03	L23	11/08/2024	Chemtech -SO
P4794-01	KZA443F-END-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	L23	11/08/2024	Chemtech -SO
P4794-02	KZA443F-END-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L23	11/08/2024	Chemtech -SO
P4795-01	LAW-23-00189	Solid	Percent Solids	Cool 4 deg C	PSEG03	L23	11/08/2024	Chemtech -SO
P4796-01	TP-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	L23	11/08/2024	Chemtech -SO
P4796-02	TP-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	L23	11/08/2024	Chemtech -SO
P4796-03	TP-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L23	11/08/2024	Chemtech -SO
P4796-04	TP-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L23	11/08/2024	Chemtech -SO
P4796-05	TP-3	Solid	Percent Solids	Cool 4 deg C	PSEG03	L23	11/08/2024	Chemtech -SO
P4796-06	TP-3	Solid	Percent Solids	Cool 4 deg C	PSEG03	L23	11/08/2024	Chemtech -SO
P4796-07	TP-4	Solid	Percent Solids	Cool 4 deg C	PSEG03	L23	11/08/2024	Chemtech -SO
P4796-08	TP-4	Solid	Percent Solids	Cool 4 deg C	PSEG03	L23	11/08/2024	Chemtech -SO
P4798-01	MH-6	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	11/08/2024	Chemtech -SO
P4798-02	MH-6-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	11/08/2024	Chemtech -SO
P4798-03	MH-6-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	11/08/2024	Chemtech -SO

Date/Time 11/08/24 15:30

Raw Sample Received by: RS (Eph-106)

Raw Sample Relinquished by: RS (Eph-106)

Date/Time 11/08/24 17:08

Raw Sample Received by: RS (Eph-106)

Raw Sample Relinquished by: RS (Eph-106)

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 Method: ☐ Separatory Funnel ☐ Continous Liquid/Liquid ☐ Sonication ☐ Waste Dilution ☒ Soxhlet

Extraction By: RJ

Filter By: RJ

pH Meter ID: N/A

Hood ID: 3,7

Extraction Start Date : 11/10/2024

Extraction Start Time : 09:10

Extraction End Date : 11/10/2024

Extraction End Time : 12:10

Concentration By: EH

Supervisor By : rajesh

Standard 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	EP2538
Baked Na2SO4	N/A	EP2556
Sand	N/A	E2865
Methylene Chloride	N/A	E3828
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. P4793-01 Limited volume used as sample is Oily debries.

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
11/10/24	RP (Ext. 1 ch)	Rc/svoc
12:15	Preparation Group	Analysis Group

Analytical Method: M3541-ASE Extraction-14

Concentration Date: 11/10/2024

Sample ID	Client Sample ID	Test	g / mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB164845BL	SBLK845	SVOC-TCL BNA -20	30.01	N/A	ritesh	Evelyn	1			U1-1
PB164845BS	SLCS845	SVOC-TCL BNA -20	30.02	N/A	ritesh	Evelyn	1			2
P4779-01	SOIL-01	SVOC-TCL BNA -20	30.06	N/A	ritesh	Evelyn	1	B		3
P4788-01	BP-G3	SVOC-TCL BNA -20	50.05	N/A	ritesh	Evelyn	1	D		4
P4788-01MS	BP-G3MS	SVOC-TCL BNA -20	50.07	N/A	ritesh	Evelyn	1	D		5
P4788-01MS D	BP-G3MSD	SVOC-TCL BNA -20	50.04	N/A	ritesh	Evelyn	1	D		6
P4789-01	BP-F21	SVOC-TCL BNA -20	50.04	N/A	ritesh	Evelyn	1	D		U5-1
P4792-03	OILY-STONE-DRUM	SVOC-TCL BNA -20	50.06	N/A	ritesh	Evelyn	1	D	Stone	2
P4793-01	M00-24-00345	SVOC-TCL BNA -20	5.06	N/A	ritesh	Evelyn	1	E	Oily Debris	3
P4795-01	LAW-23-00189	SVOC-TCL BNA -20	50.04	N/A	ritesh	Evelyn	1	D		4
P4796-01	TP-1	SVOC-TCL BNA -20	50.07	N/A	ritesh	Evelyn	1	D		5
P4796-03	TP-2	SVOC-TCL BNA -20	50.02	N/A	ritesh	Evelyn	1	D		6
P4796-05	TP-3	SVOC-TCL BNA -20	50.08	N/A	ritesh	Evelyn	1	D		U6-1
P4796-07	TP-4	SVOC-TCL BNA -20	50.09	N/A	ritesh	Evelyn	1	D		2
P4798-01	MH-6	SVOC-TCL BNA -20	50.07	N/A	ritesh	Evelyn	1	D		3

* Extracts relinquished on the same date as received.

[Signature]
11/10/24

1641843
9:10

WORKLIST(Hardcopy Internal Chain)

WorkList Name : P4779

WorkList ID : 185305

Department : Extraction

Date : 11-10-2024 08:22:06

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4779-01	SOIL-01	Solid	SVOC-TCL BNA -20	Cool 4 deg C	CLOU03	L31	11/07/2024	8270E
P4788-01	BP-G3	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG03	L21	11/08/2024	8270E
P4789-01	BP-F21	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG03	L21	11/08/2024	8270E
P4792-03	OILY-STONE-DRUM	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG03	L21	11/08/2024	8270E
P4793-01	M00-24-00345	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG03	L23	11/08/2024	8270E
P4795-01	LAW-23-00189	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG03	L23	11/08/2024	8270E
P4796-01	TP-1	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG03	L23	11/08/2024	8270E
P4796-03	TP-2	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG03	L23	11/08/2024	8270E
P4796-05	TP-3	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG03	L23	11/08/2024	8270E
P4796-07	TP-4	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG03	L23	11/08/2024	8270E
P4798-01	MH-6	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG03	L31	11/08/2024	8270E

Date/Time

11/10/24 9:05

Raw Sample Received by:

RJ (CCL 201)

Raw Sample Relinquished by:

RJ (CCL 201)

Date/Time

11/10/24 9:35

Raw Sample Received by:

RJ (CCL 201)

Raw Sample Relinquished by:

RJ (CCL 201)

Prep Standard - Chemical Standard Summary

Order ID : P4779

Test : SVOC-TCL BNA -20

Prepbatch ID : PB164845,

Sequence ID/Qc Batch ID: BE111124,BE111224,BF111424,BF111524,

Standard ID :

EP2538,EP2556,SP6558,SP6559,SP6573,SP6620,SP6621,SP6622,SP6623,SP6624,SP6625,SP6626,SP6627,SP6628,SP6630,SP6638,

Chemical ID :

10ul/1000ul

sample,E2865,E3551,E3768,E3788,E3791,E3793,E3794,E3815,E3828,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,S12033,S12078,S12097,S12105,S12106,S12107,S12108,S12109,S12110,S12111,S12113,S12117,S12126,S12127,S12128,S12129,S12130,S12131,S12132,S12133,S12134,S12187,S12188,S12189,S12207,S12275,S12314,S12326,S12327,S12453,S12454,S12455,S12456,S12457,S12458,S12459,S12460,S12461,S12509,S12510,

Extractions STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3868	METHELENE CHLORIDE+ACETONE	EP2538	09/17/2024	03/11/2025	Rajesh Parikh	None	None	RUPESHKUMAR SHAH 09/17/2024

FROM 8000.00000ml of E3793 + 8000.00000ml of E3794 = Final Quantity: 1600.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3923	Baked Sodium Sulfate	EP2556	11/03/2024	01/03/2025	Rajesh Parikh	Extraction_SC ALE_2 (EX-SC-2)	None	RUPESHKUMAR SHAH 11/03/2024

FROM 4000.00000gram of E3551 = Final Quantity: 4000.000 gram

[illegible]

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
416	40 ng BNA ICV, 40 PPM	SP6559	07/09/2024	11/30/2024	Jagrut Upadhyay	None	None	mohammad ahmed 07/11/2024
<u>FROM</u>	0.01000ml of S12033 + 0.60000ml of E3768 + 0.40000ml of SP6558 = Final Quantity: 1.010 ml							

SVOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
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

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
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

SVOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
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

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
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

SVOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
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

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
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

SVOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
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

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
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

SVOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
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

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
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

SVOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
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

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
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

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 #
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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	9005-05 / Acetone Ultra (cs/4x4L)	24E0761004	03/11/2025	09/12/2024 / Rajesh	09/11/2024 / Rajesh	E3793

CHEMICAL RECEIPT LOG BOOK

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	03/17/2025	09/17/2024 / Rajesh	09/03/2024 / Rajesh	E3794

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-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 #
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

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

CHEMICAL RECEIPT LOG BOOK

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

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,CH ₂ Cl ₂ ,5ml	A0189418	11/30/2024	05/31/2024 / Jagrut	12/28/2022 / Christian	S11003

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,CH ₂ Cl ₂ ,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,CH ₂ Cl ₂ ,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,CH ₂ Cl ₂ ,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,CH ₂ Cl ₂ ,5ml	A0189418	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S11007

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH ₂ Cl ₂ ,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,CH ₂ Cl ₂ ,5ml	A0189418	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S11009

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,CH ₂ Cl ₂ ,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

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

CHEMICAL RECEIPT LOG BOOK

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]	A0201940	03/13/2025	09/13/2024 / yogesh	09/18/2023 / Kiran	S11541

[CS 4978-1]

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]	A0201940	12/05/2024	06/05/2024 / Rahul	09/18/2023 / Kiran	S11566

[CS 4978-1]

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

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

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	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

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

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

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]	A0207706	01/09/2025	07/09/2024 / Jagrut	02/05/2024 / Rahul	S12097

[CS 4978-2]

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]	A0207706	02/12/2025	08/12/2024 / Rahul	02/05/2024 / Rahul	S12105

[CS 4978-2]

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]	A0207706	03/13/2025	09/13/2024 / anahy	02/05/2024 / Rahul	S12106

[CS 4978-2]

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]	A0207706	03/13/2025	09/13/2024 / anahy	02/05/2024 / Rahul	S12107

[CS 4978-2]

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]	A0207706	03/13/2025	09/13/2024 / anahy	02/05/2024 / Rahul	S12108

[CS 4978-2]

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]	A0207706	03/13/2025	09/13/2024 / anahy	02/05/2024 / Rahul	S12109

[CS 4978-2]

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]	A0207706	03/13/2025	09/13/2024 / anahy	02/05/2024 / Rahul	S12110

[CS 4978-2]

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]	A0207706	03/13/2025	09/13/2024 / anahy	02/05/2024 / Rahul	S12111

[CS 4978-2]

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, CH ₂ Cl ₂ [New Solvent 100% CH ₂ Cl ₂]	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, CH ₂ Cl ₂ [New Solvent 100% CH ₂ Cl ₂]	A0203726	02/12/2025	08/12/2024 / Rahul	03/15/2024 / Rahul	S12126

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, CH ₂ Cl ₂ [New Solvent 100% CH ₂ Cl ₂]	A0203726	03/13/2025	09/13/2024 / anahy	03/15/2024 / Rahul	S12127

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, CH ₂ Cl ₂ [New Solvent 100% CH ₂ Cl ₂]	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, CH ₂ Cl ₂ [New Solvent 100% CH ₂ Cl ₂]	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, CH ₂ Cl ₂ [New Solvent 100% CH ₂ Cl ₂]	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, CH ₂ Cl ₂ [New Solvent 100% CH ₂ Cl ₂]	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, CH ₂ Cl ₂ [New Solvent 100% CH ₂ Cl ₂]	A0203726	03/13/2025	09/13/2024 / anahy	03/15/2024 / Rahul	S12132

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, CH ₂ Cl ₂ [New Solvent 100% CH ₂ Cl ₂]	A0203726	03/13/2025	09/13/2024 / anahy	03/15/2024 / Rahul	S12133

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, CH ₂ Cl ₂ [New Solvent 100% CH ₂ Cl ₂]	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	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

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,CH ₂ Cl ₂ ,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

CHEMICAL RECEIPT LOG BOOK

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, CH ₂ Cl ₂ , 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, CH ₂ Cl ₂ , 1mL	A0206540	05/06/2025	11/06/2024 / anahy	05/30/2024 / Rahul	S12326

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, CH ₂ Cl ₂ , 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	555223 / Custom 8270 Plus Std #1 [2nd lot at \$100 per ampul if requested - contact ARM with Request]	A0214021	02/12/2025	08/12/2024 / Rahul	07/23/2024 / RAHUL	S12453

[CS 4978-1]

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]	A0214021	03/13/2025	09/13/2024 / anahy	07/23/2024 / RAHUL	S12454

[CS 4978-1]

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]	A0214021	03/13/2025	09/13/2024 / anahy	07/23/2024 / RAHUL	S12455

[CS 4978-1]

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]	A0214021	03/13/2025	09/13/2024 / anahy	07/23/2024 / RAHUL	S12456

[CS 4978-1]

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]	A0214021	03/13/2025	09/13/2024 / anahy	07/23/2024 / RAHUL	S12457

[CS 4978-1]

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]	A0214021	03/13/2025	09/13/2024 / anahy	07/23/2024 / RAHUL	S12458

[CS 4978-1]

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]	A0214021	03/13/2025	09/13/2024 / anahy	07/23/2024 / RAHUL	S12459

[CS 4978-1]

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]	A0214021	03/13/2025	09/13/2024 / anahy	07/23/2024 / RAHUL	S12460

[CS 4978-1]

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]	A0214021	03/13/2025	09/13/2024 / anahy	07/23/2024 / RAHUL	S12461

[CS 4978-1]

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]	A0214017	03/13/2025	09/13/2024 / anahy	07/23/2024 / RAHUL	S12509

[CS 4978-2]

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]	A0214017	03/13/2025	09/13/2024 / anahy	07/23/2024 / RAHUL	S12510

[CS 4978-2]



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

Page 1 of 1

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

<u>Compound</u>	<u>CAS No.</u>	<u>Purity (%)</u>	<u>Compound Lot No.</u>	<u>Concentration, mg/L</u>
3,3'-dichlorobenzidine	91-94-1	99.5	74.3.26P	989 ± 7.53

Received on
02/07/23
by
CG
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 gravimetrically.



5580 Skylane Blvd
Santa Rosa, CA 95403

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Page 1 of 1

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

Received on
02/07/23
by
CG
S11089
to
S11093

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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 gravimetrically.



5580 Skylane Blvd
Santa Rosa, CA 95403

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Rev 0

Page 1 of 1

Catalog No.: Lot No.: **Storage:** **Solvent:** **Exp. Date:** **Description:**
Z-112090 440246 $\leq -10^{\circ}\text{C}$ Methylene Chloride 2/16/2026 CLP Acid Surrogate Solution, 7,500 mg/L, 1 mL
-04

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
2-chlorophenol-d ₄	93951-73-6	99.3	248.12.7P	7487 $\pm$ 17.2
2-fluorophenol	367-12-4	99.8	10.7.3.3P	7513 $\pm$ 17.26
phenol-d ₆	13127-88-3	99.9	949.120.8P	7481 $\pm$ 17.19
2,4,6-tribromophenol	118-79-6	99.8	12.1.6P	7469 $\pm$ 17.17

Received on

02/25/21

by
CG

S9236
to

S9240

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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 gravimetrically.

Certified By: _____

Erica Castiglione
Chemist



5580 Skylane Blvd
Santa Rosa, CA 95403

(707)525-5788
(800)878-7654 Toll Free
(707)545-7901 Fax

Receivalon
02/07/23 by CG

Shelf S11096
to
S11099

Manufacturer's Quality System
Audited & Registered
by TUV USA to ISO 9001:2015

Date Received: _____

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Rev 0

Page 1 of 4

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

Brianna Smith

Certified By: _____

Brianna 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 gravimetrically.

Certificate of Analysis

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Catalog No.: Z-110381-01

Lot No.: 495831

Expiration Date: 10/30/2027

<u>Compound</u>	<u>CAS No.</u>	<u>Purity (%)</u>	<u>Compound Lot No.</u>	<u>Concentration, mg/L</u>
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
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 gravimetrically.



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



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.

Received on
03/10/22
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:

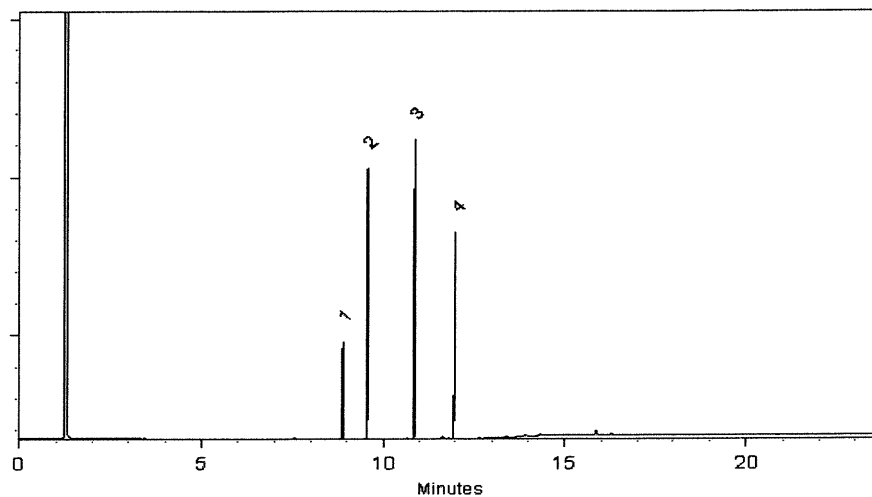
250°C

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

Marlene Cowan - Operations Tech I

Date Passed: 10-Mar-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Gravimetric Certificate



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. : 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

Received by
CG on
05/18/22
S10393
+0
S10402

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		+/- 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:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

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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Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

Gravimetric Certificate



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.

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 Suckal - 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:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

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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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis



ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01



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. : 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

Received by
CG on
12/28/22
S10951
FO
S10980

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 Gravimetric +/- 294.4162 µg/mL Unstressed +/- 357.2628 µg/mL Stressed
2	Phenol-d6 CAS # 13127-88-3 Purity 99% (Lot PR-31262)	10,043.3 µg/mL	+/- 58.3923 µg/mL Gravimetric +/- 293.0957 µg/mL Unstressed +/- 355.6603 µg/mL Stressed
3	2,4,6-Tribromophenol CAS # 118-79-6 Purity 99% (Lot MKCJ7664)	10,010.0 µg/mL	+/- 58.1990 µg/mL Gravimetric +/- 292.1253 µg/mL Unstressed +/- 354.4829 µg/mL 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:

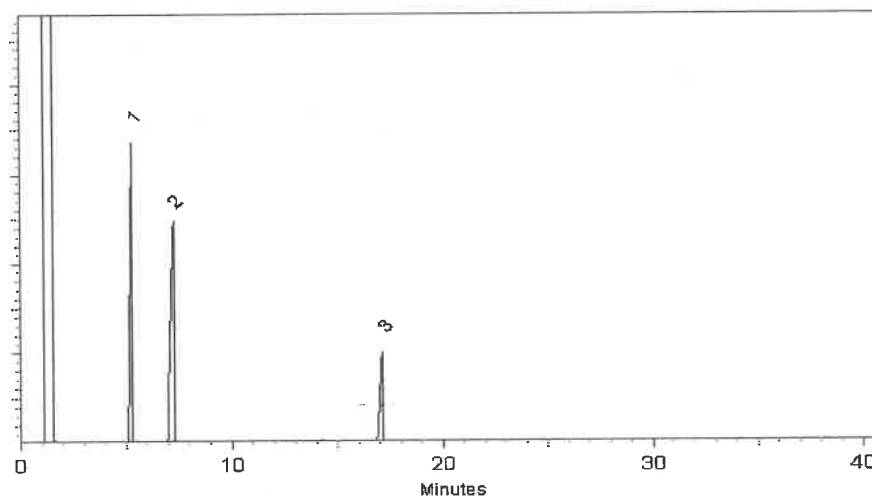
250°C

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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Certificate of Analysis



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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. : 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

Received by
CG on
12/28/22
S10951
FO
S10980

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 Gravimetric +/- 294.4162 µg/mL Unstressed +/- 357.2628 µg/mL Stressed
2	Phenol-d6 CAS # 13127-88-3 Purity 99% (Lot PR-31262)	10,043.3 µg/mL	+/- 58.3923 µg/mL Gravimetric +/- 293.0957 µg/mL Unstressed +/- 355.6603 µg/mL Stressed
3	2,4,6-Tribromophenol CAS # 118-79-6 Purity 99% (Lot MKCJ7664)	10,010.0 µg/mL	+/- 58.1990 µg/mL Gravimetric +/- 292.1253 µg/mL Unstressed +/- 354.4829 µg/mL 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:

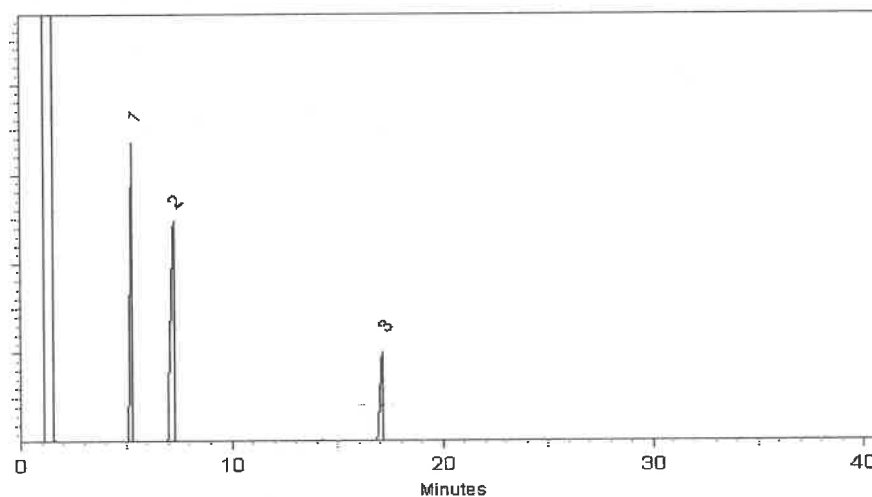
250°C

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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Certificate of Analysis



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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. : 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

Received by
CG on
12/28/22
S10951
to
S10980

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 Gravimetric +/- 294.4162 µg/mL Unstressed +/- 357.2628 µg/mL Stressed
2	Phenol-d6 CAS # 13127-88-3 Purity 99% (Lot PR-31262)	10,043.3 µg/mL	+/- 58.3923 µg/mL Gravimetric +/- 293.0957 µg/mL Unstressed +/- 355.6603 µg/mL Stressed
3	2,4,6-Tribromophenol CAS # 118-79-6 Purity 99% (Lot MKCJ7664)	10,010.0 µg/mL	+/- 58.1990 µg/mL Gravimetric +/- 292.1253 µg/mL Unstressed +/- 354.4829 µg/mL 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:

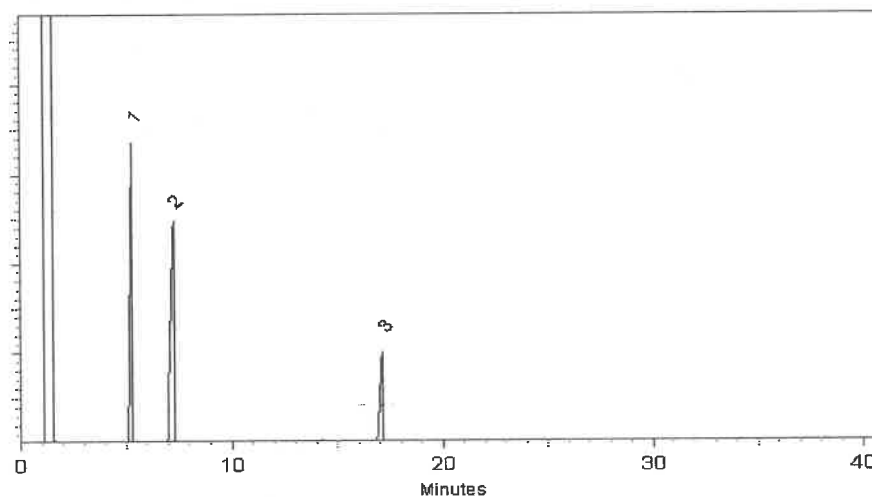
250°C

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
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Certificate of Analysis



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.:** 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

Received by
CG on
12/28/22
S10951
to
S10980

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 Gravimetric +/- 294.4162 µg/mL Unstressed +/- 357.2628 µg/mL Stressed
2	Phenol-d6 CAS # 13127-88-3 Purity 99% (Lot PR-31262)	10,043.3 µg/mL	+/- 58.3923 µg/mL Gravimetric +/- 293.0957 µg/mL Unstressed +/- 355.6603 µg/mL Stressed
3	2,4,6-Tribromophenol CAS # 118-79-6 Purity 99% (Lot MKCJ7664)	10,010.0 µg/mL	+/- 58.1990 µg/mL Gravimetric +/- 292.1253 µg/mL Unstressed +/- 354.4829 µg/mL 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:

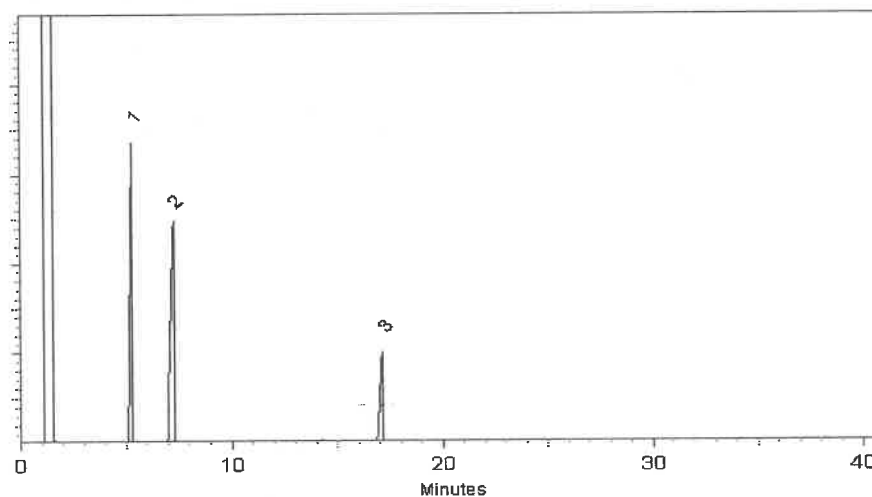
250°C

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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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis



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.:** 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

Received by
CG on
12/28/22
\$10981
to
S11010

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 Gravimetric +/- 225.6421 µg/mL Unstressed +/- 250.3778 µg/mL Stressed
2	2-Fluorobiphenyl CAS # 321-60-8 (Lot 00021384) Purity 99%	5,026.6 µg/mL	+/- 29.2250 µg/mL Gravimetric +/- 226.4003 µg/mL Unstressed +/- 251.2191 µg/mL Stressed
3	p-Terphenyl-d14 CAS # 1718-51-0 (Lot PR-30504) Purity 99%	5,027.3 µg/mL	+/- 29.2289 µg/mL Gravimetric +/- 226.4304 µg/mL Unstressed +/- 251.2524 µg/mL 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:

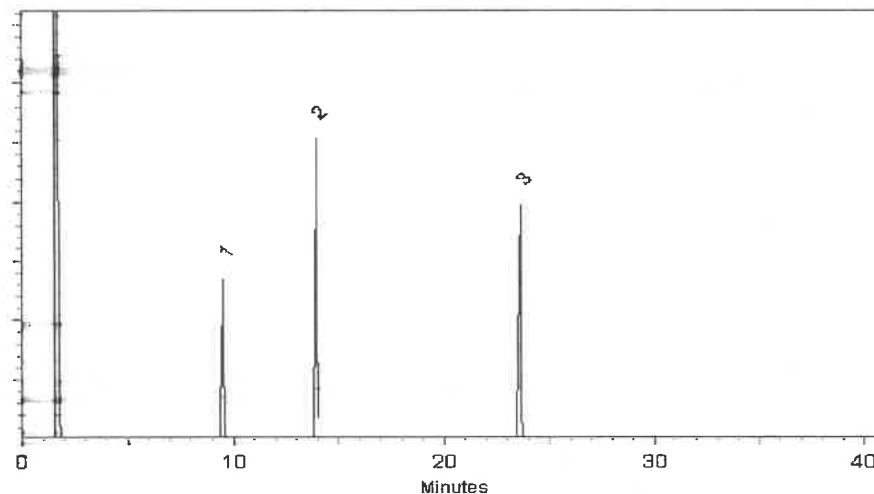
250°C

Det. Temp:

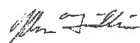
330°C

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



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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis



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.:** 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

Received by
CG on
12/28/22
\$10981
to
S11010

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 Gravimetric +/- 225.6421 µg/mL Unstressed +/- 250.3778 µg/mL Stressed
2	2-Fluorobiphenyl CAS # 321-60-8 (Lot 00021384) Purity 99%	5,026.6 µg/mL	+/- 29.2250 µg/mL Gravimetric +/- 226.4003 µg/mL Unstressed +/- 251.2191 µg/mL Stressed
3	p-Terphenyl-d14 CAS # 1718-51-0 (Lot PR-30504) Purity 99%	5,027.3 µg/mL	+/- 29.2289 µg/mL Gravimetric +/- 226.4304 µg/mL Unstressed +/- 251.2524 µg/mL 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:

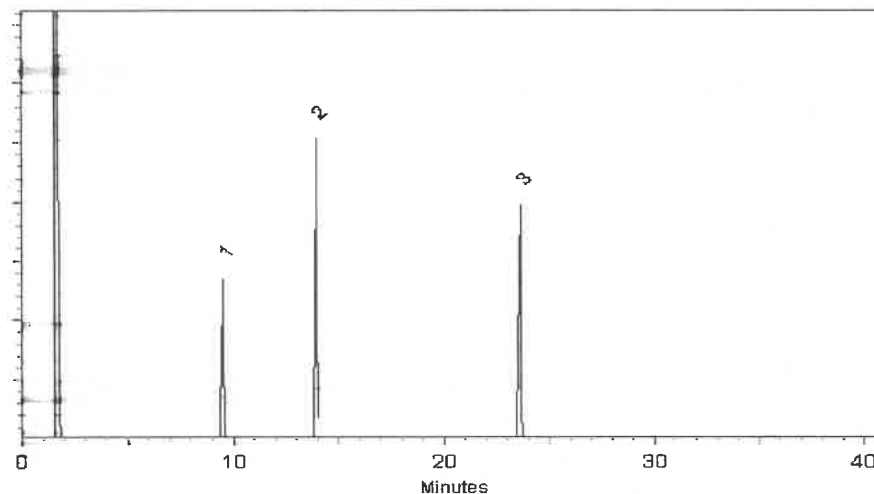
250°C

Det. Temp:

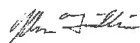
330°C

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



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Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis



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.:** 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

Received by
CG on
12/28/22
\$10981
to
S11010

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 Gravimetric +/- 225.6421 µg/mL Unstressed +/- 250.3778 µg/mL Stressed
2	2-Fluorobiphenyl CAS # 321-60-8 (Lot 00021384) Purity 99%	5,026.6 µg/mL	+/- 29.2250 µg/mL Gravimetric +/- 226.4003 µg/mL Unstressed +/- 251.2191 µg/mL Stressed
3	p-Terphenyl-d14 CAS # 1718-51-0 (Lot PR-30504) Purity 99%	5,027.3 µg/mL	+/- 29.2289 µg/mL Gravimetric +/- 226.4304 µg/mL Unstressed +/- 251.2524 µg/mL 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:

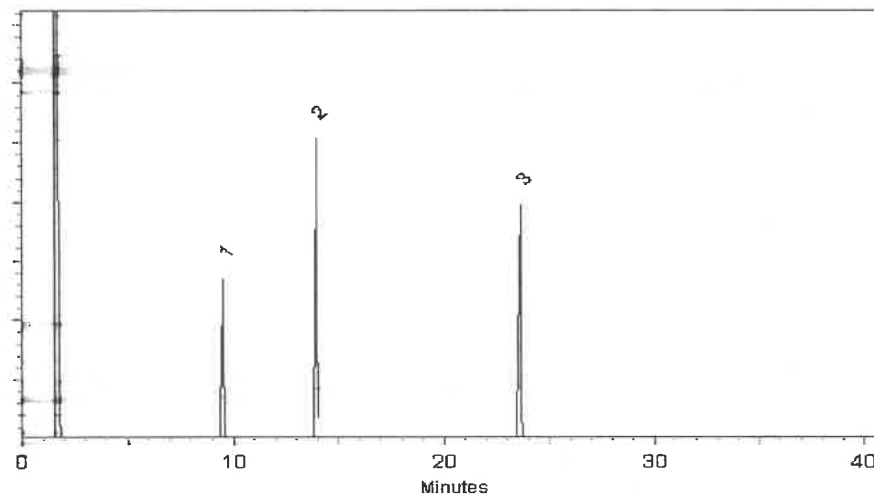
250°C

Det. Temp:

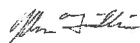
330°C

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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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

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CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
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2	2-Fluorobiphenyl CAS # 321-60-8 (Lot 00021384) Purity 99%	5,026.6 µg/mL	+/- 29.2250 µg/mL Gravimetric +/- 226.4003 µg/mL Unstressed +/- 251.2191 µg/mL Stressed
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Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:

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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
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Inj. Temp:

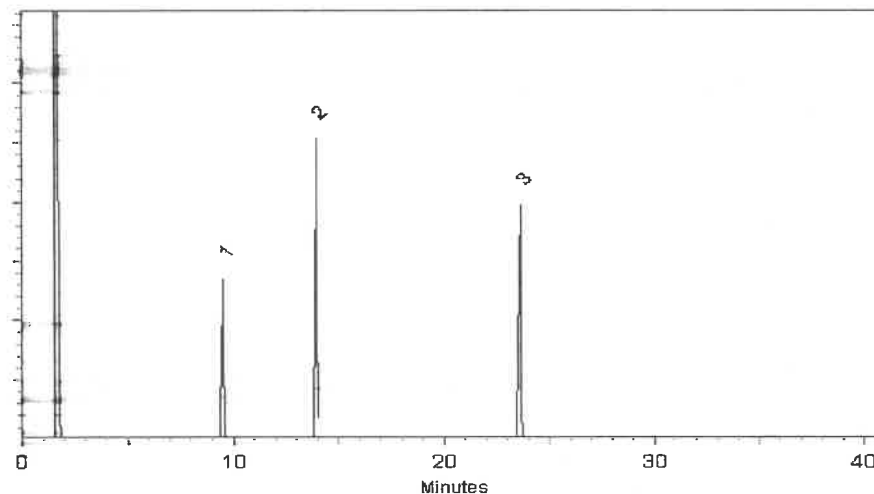
250°C

Det. Temp:

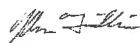
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John Friedline - Operations Technician I

Date Mixed: 09-Sep-2022

Balance: 1128353505


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Sep-2022

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Handling: Sonicate prior to use. **Ship:** Ambient

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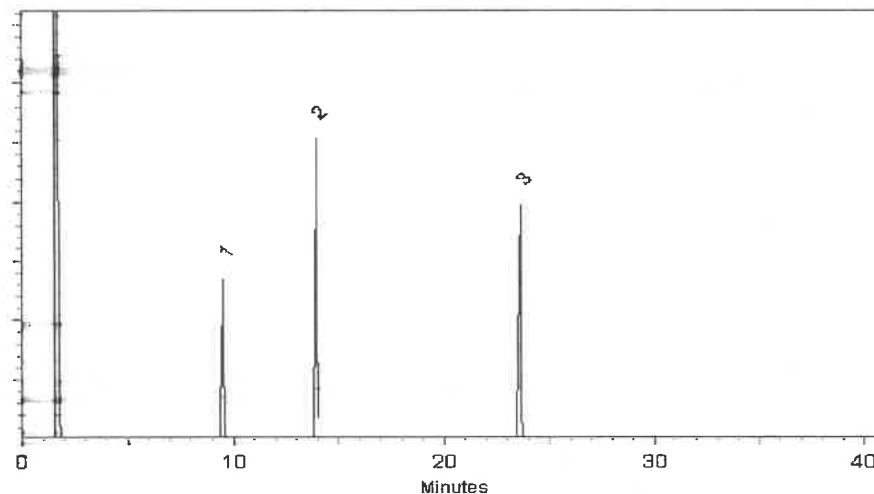
250°C

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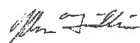
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John Friedline - Operations Technician I

Date Mixed: 09-Sep-2022

Balance: 1128353505


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Sep-2022

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Handling: Sonicate prior to use. **Ship:** Ambient

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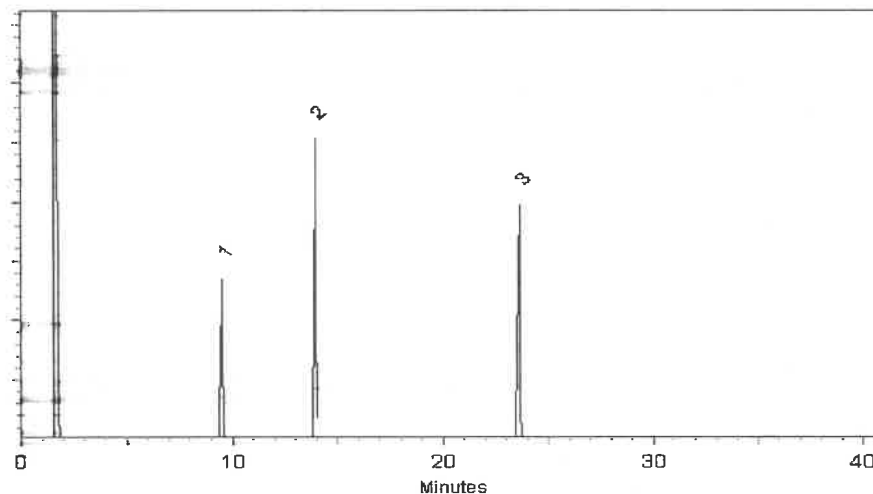
250°C

Det. Temp:

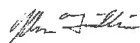
330°C

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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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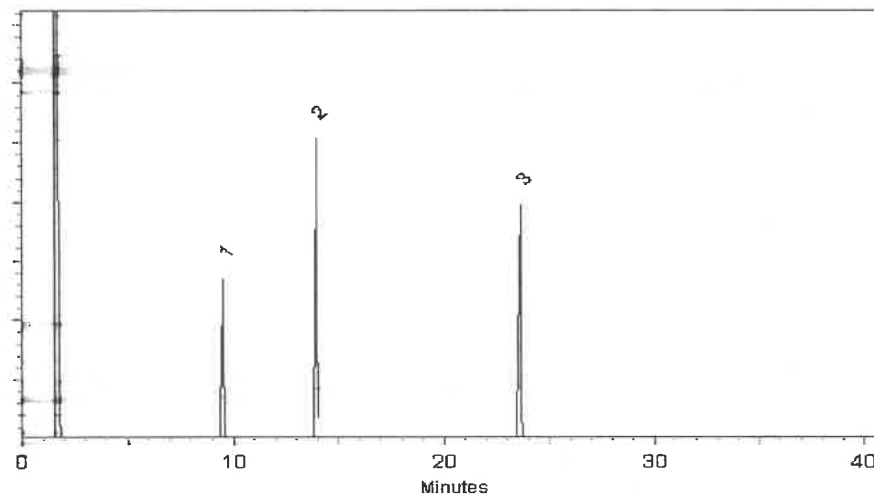
250°C

Det. Temp:

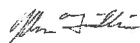
330°C

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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
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Certificate #FM 80397



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Certificate of Analysis



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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

Received by
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12/28/22
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Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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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:

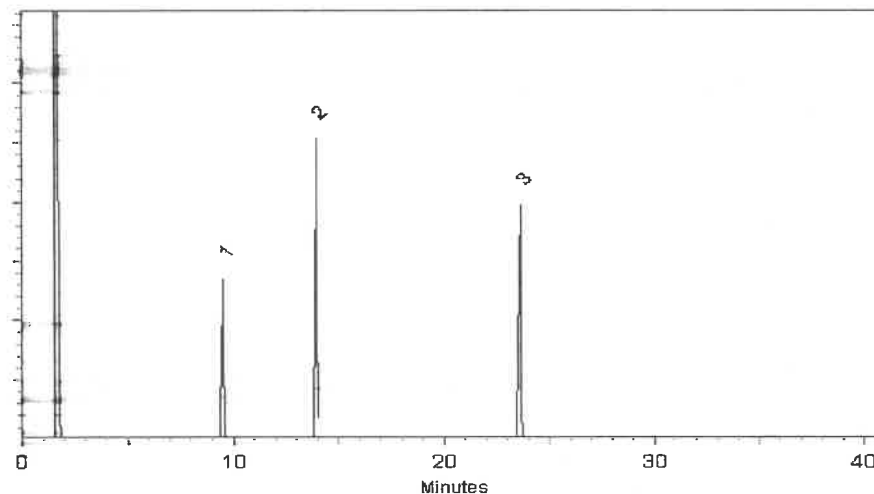
250°C

Det. Temp:

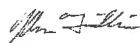
330°C

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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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®
Registered Quality
Certificate #FM 8

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:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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
imum 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
n, 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
tards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom
rm. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861,
ides complete instructions.

ssolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely



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Fax: 1-814-353-1309

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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 #FM1

ified Reference Material Notes

es:

n date valid for unopened ampul stored in compliance with the recommended conditions.
ty, 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,
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Sand
Purified
Washed and Ignited



Material No.: 3382-05
Batch No.: 0000243821
Manufactured Date: 2018/04/09
Retest Date: 2025/04/07
Revision No: 1

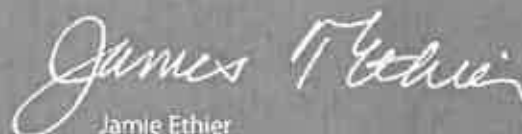
Certificate of Analysis

Test	Specification	Result
Substances Soluble in HCl	$\leq 0.16\%$	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


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
QUÍMICOS
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 ₂ SO ₄
SPECIFICATION NUMBER :	6399	RELEASE DATE:	ABR/21/2023
LOT NUMBER :	313201		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na ₂ SO 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 foreign 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.

Recd. by R3 on 7/24/23 **E 3551**

RC-02-01, Ed. 3

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)



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)	$\geq 99.8 \%$	100.0 %
Color (APHA)	≤ 10	5
Residue after Evaporation	$\leq 1.0 \text{ ppm}$	0.1 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	< 0.1
Chloride (Cl)	$\leq 10 \text{ ppm}$	5 ppm
Water (by KF, coulometric)	$\leq 0.02 \%$	< 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

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

Page 1 of 1

Acetone

BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

Avantor™



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) ₂ CO) (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
Titration Acid (μeq/g)	≤ 0.3	0.1
Titration Base (μeq/g)	≤ 0.6	< 0.1
Water (H ₂ O)	≤ 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

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)



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 ₂ Cl ₂) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8 \%$	100.0 %
Color (APHA)	≤ 10	5
Residue after Evaporation	$\leq 1.0 \text{ ppm}$	0.3 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	< 0.1
Chloride (Cl)	$\leq 10 \text{ ppm}$	< 5 ppm
Water (by KF, coulometric)	$\leq 0.02 \%$	< 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
Page 1 of 1

Acetone
CMOS



Material No.: 9005-05
Batch No.: 24E0761004
Manufactured Date: 2024-05-02
Retest Date: 2029-05-01
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected for water)	≥ 99.5 %	99.8 %
Color (APHA)	≤ 10	< 5
Residue after Evaporation	≤ 5 ppm	< 1 ppm
Titration Acid (μeq/g)	≤ 0.3	0.1
Titration Base (μeq/g)	≤ 0.5	0.1
Water (H ₂ O)	≤ 0.5 %	0.1 %
Solubility in H ₂ O	Passes Test	Passes Test
Chloride (Cl)	≤ 0.2 ppm	< 0.2 ppm
Phosphate (PO ₄)	≤ 0.05 ppm	< 0.05 ppm
Trace Impurities – Aluminum (Al)	≤ 50.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 5.0 ppb
Trace Impurities – Barium (Ba)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Calcium (Ca)	≤ 25.0 ppb	3.6 ppb
Trace Impurities – Chromium (Cr)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Germanium (Ge)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Gold (Au)	≤ 20 ppb	< 5 ppb
Trace Impurities – Iron (Fe)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Lead (Pb)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities – Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb

>>> Continued on page 2 >>>

Recd. by RP on 9/11/24

E3793

Acetone
CMOS



Material No.: 9005-05
Batch No.: 24E0761004

Test	Specification	Result
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Nickel (Ni)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities – Silver (Ag)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Strontium (Sr)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 50.0 ppb	< 5.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	7.9 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater (Rion KS42AF)	≤ 100 par/ml	8 par/ml
Particle Count – 1.0 µm and greater (Rion KS42AF)	≤ 8 par/ml	2 par/ml

>>> Continued on page 3 >>>

Acetone
CMOS



Material No.: 9005-05
Batch No.: 24E0761004

Test	Specification	Result

For Microelectronic Use
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC

Michelle Bales
Sr. Manager, Quality Assurance

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis



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) ₂ CO) (by GC, corrected for water)	>= 99.4 %	99.8 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (µeq/g)	<= 0.3	0.2
Titration Base (µeq/g)	<= 0.6	<0.1
Water (H ₂ O)	<= 0.5 %	0.2 %
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: 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

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)

 **avantor**™



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)	$\geq 99.8\%$	100.0 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	< 0.1
Chloride (Cl)	≤ 10 ppm	< 5 ppm
Water (by KF, coulometric)	$\leq 0.02\%$	$< 0.01\%$

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



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



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

Page 1 of 1

Catalog No.: Lot No.:	Storage:	Solvent:	Exp. Date:	Rev	Description:
Z-110094-02 506889	≤ -10 °C	Methylene Chloride	7/25/2028	0	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 } Y.P.
↓ 08/11/2023
511498

*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 gravimetrically.



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.: 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

Expiration Date:

September 30, 2025

Handling:

This product is photosensitive.

Pkg Amt: > 1 mL

Storage: 10°C or colder

Ship: Ambient

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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	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%

REVIEWED

By Jennifer Pollino at 7:10 am, Sep 13, 2023

Sam Moodler - Operations Tech I

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:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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.



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. : 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



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Y.P.
09/19/

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%

REVIEWED

By Jennifer Pollino at 7:10 am, Sep 13, 2023

Sam Moodler - Operations Tech I

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:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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.



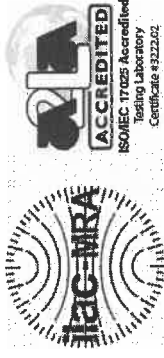
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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.: 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 } Y.P.
↓ 11/13/23
511658 }

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:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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.



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

chromatographic plus



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:

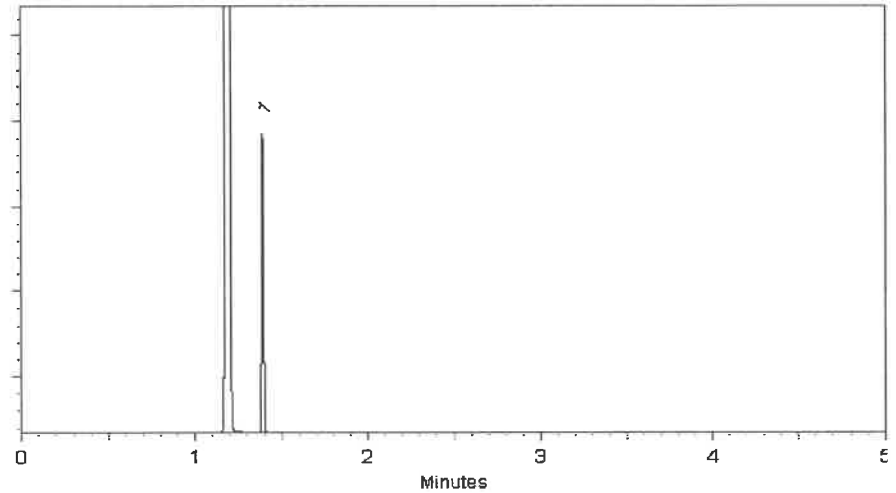
FID

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
Sam Moodler - Operations Tech I

Date Mixed: 30-Mar-2023

Balance Serial # B707717271

Jennifer Pollino
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:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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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:

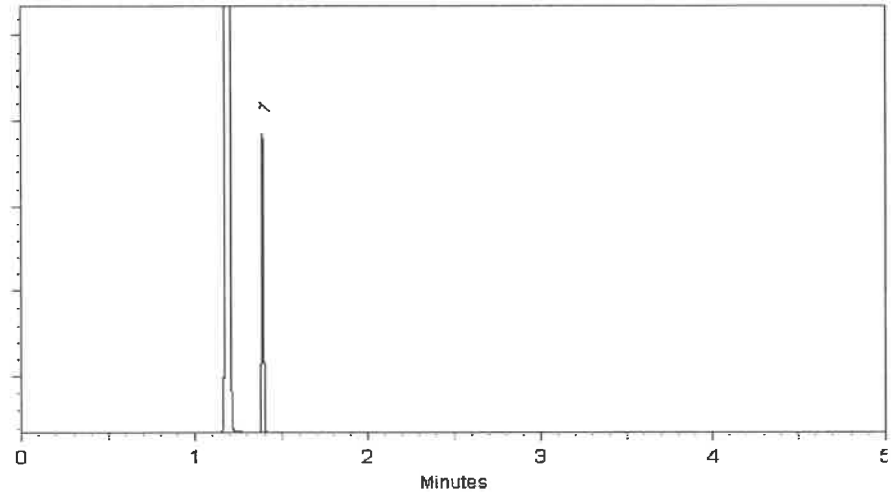
FID

Split Vent:

100 mL/min.

Inj. Vol

1µl



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Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 30-Mar-2023

Balance Serial # B707717271

Jennifer Pollino
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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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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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:

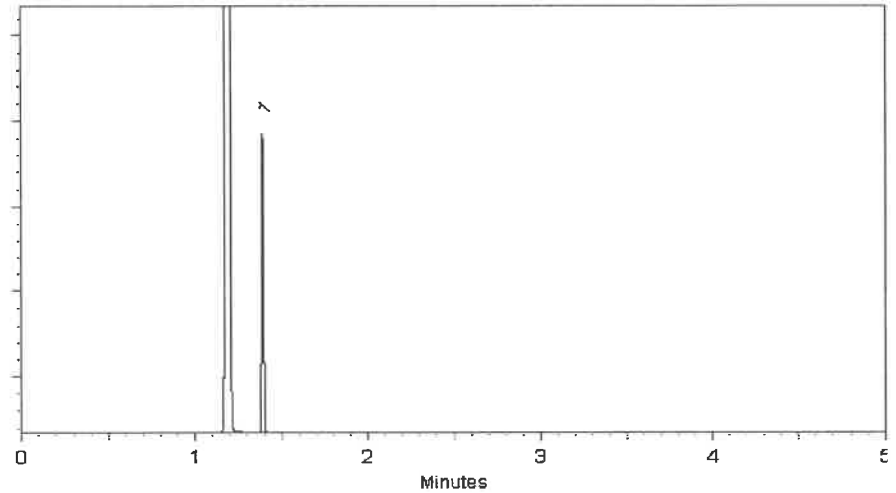
FID

Split Vent:

100 mL/min.

Inj. Vol

1µl



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Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 30-Mar-2023

Balance Serial # B707717271

Jennifer Pollino
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 values are rounded to the nearest whole number.

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Manufacturing 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:

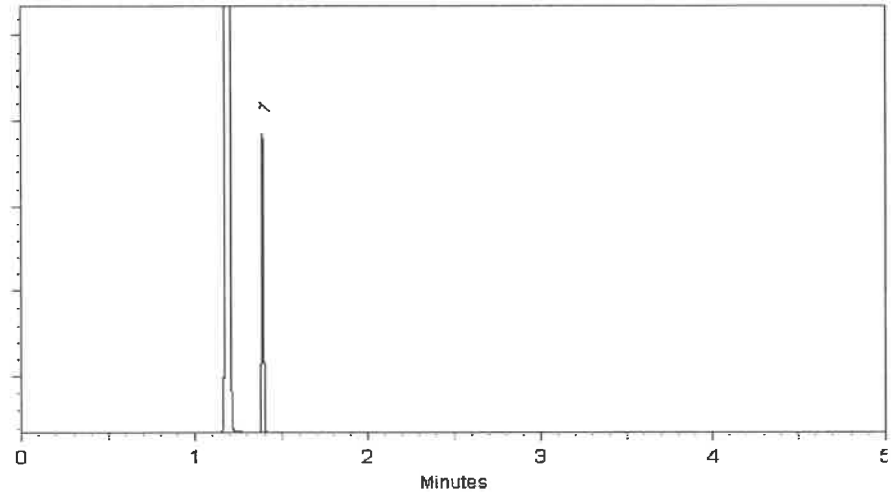
FID

Split Vent:

100 mL/min.

Inj. Vol

1µl



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Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 30-Mar-2023

Balance Serial # B707717271

Jennifer Pollino
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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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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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:

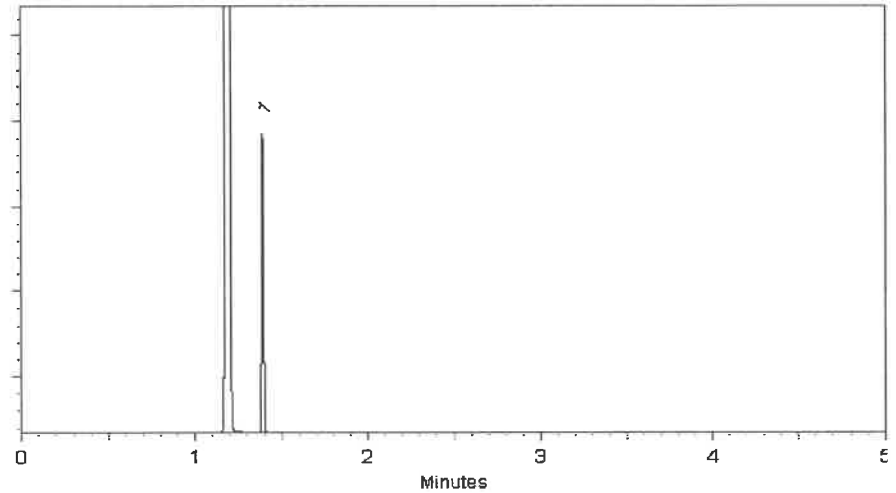
FID

Split Vent:

100 mL/min.

Inj. Vol

1µl



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Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 30-Mar-2023

Balance Serial # B707717271

Jennifer Pollino
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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chromatographic plus



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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

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Solvent: Methylene chloride
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Purity 99%

Quality Confirmation Test

Column:

30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:

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340°C

Det. Type:

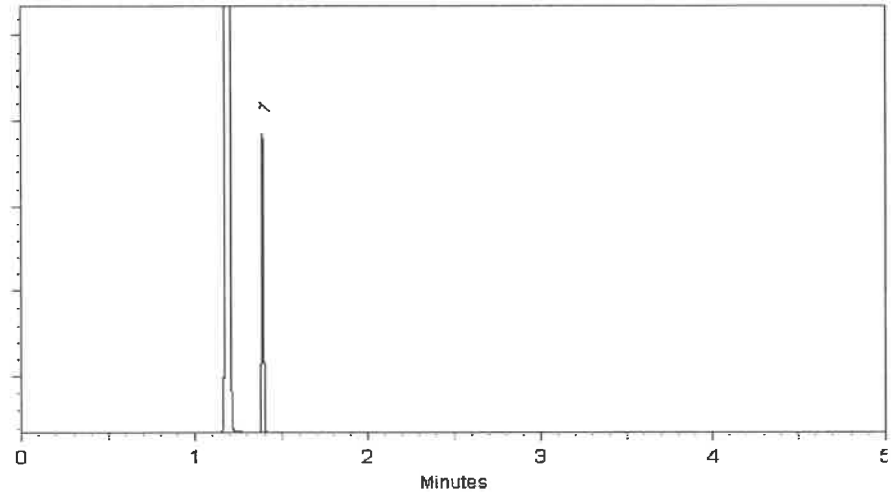
FID

Split Vent:

100 mL/min.

Inj. Vol

1µl



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Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 30-Mar-2023

Balance Serial # B707717271

Jennifer Pollino
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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Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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Catalog No. : 31206 **Lot No.:** A0201320

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

S12013
↓
S12042 } RC
12/26/23

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:

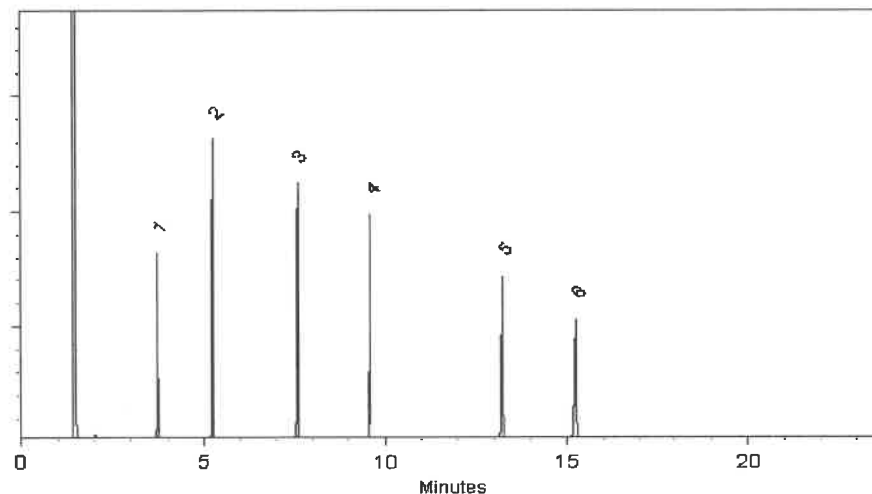
FID

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



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

Page 1 of 1

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

912075 } RC
↓
912079 } 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 gravimetrically.



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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

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2026 **Storage:** 10°C or colder

Ship: Ambient

512082 } RC/
↓
512111 } 02/22/24

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%

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

John Friedline - Operations Technician I

Date Mixed: 12-Feb-2024

Balance: B345965662



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512082 } RC/
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512082 } RC/
↓
512111 } 02/22/24

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John Friedline - Operations Technician I

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512082 } RC/
↓
512111 } 02/22/24

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512082 } RC/
↓
512111 } 02/22/24

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John Friedline - Operations Technician I

Date Mixed: 12-Feb-2024

Balance: B345965662



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512082 } RC/
↓
512111 } 02/22/24

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John Friedline - Operations Technician I

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Expiration Date : February 28, 2026 **Storage:** 10°C or colder

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512082 } RC/
↓
512111 } 02/22/24

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Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Manufactured under Restek's ISO 9001:2015
Registered Quality System
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John Friedline - Operations Technician I

Date Mixed: 12-Feb-2024

Balance: B345965662



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Expiration Date : February 28, 2026 **Storage:** 10°C or colder

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512082 } RC/
↓
512111 } 02/22/24

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Date Mixed: 12-Feb-2024

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Page 1 of 1

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

512112 } RC/
↓
912116 } 03/08/24

*Not a certified value

Certified By: _____

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 gravimetrically.



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chromatographic plus



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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

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

512117 } RC/
↓ 03/18/24
512146 }

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	BCKK0887	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%



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



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

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

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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	BCKK0887	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%



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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

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

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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	BCKK0887	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%



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



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

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

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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	BCKK0887	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%



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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

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

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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	BCKK0887	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%



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



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

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

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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	BCKK0887	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%



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



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

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

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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	BCKK0887	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%



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



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

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

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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	BCKK0887	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%



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



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

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

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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	BCKK0887	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%



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



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

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

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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	BCKK0887	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
Container Size : 5 mL **Pkg Amt:** > 5 mL
Expiration Date : January 31, 2032 **Storage:** 10°C or colder
Ship: Ambient

512187 } RC/
↓ } 03/18/24
512206 }

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:

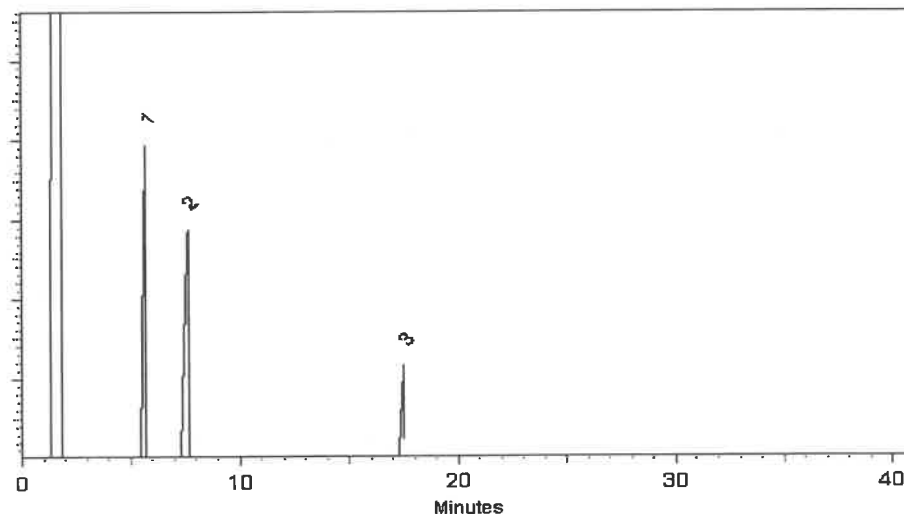
FID

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 B. Riglin

Penelope Riglin - Operations Tech I

Date Mixed: 04-Jan-2024

Balance Serial # 1128360905

Christie Mills

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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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

512187 } RC/
↓ } 03/18/24
512206 }

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:

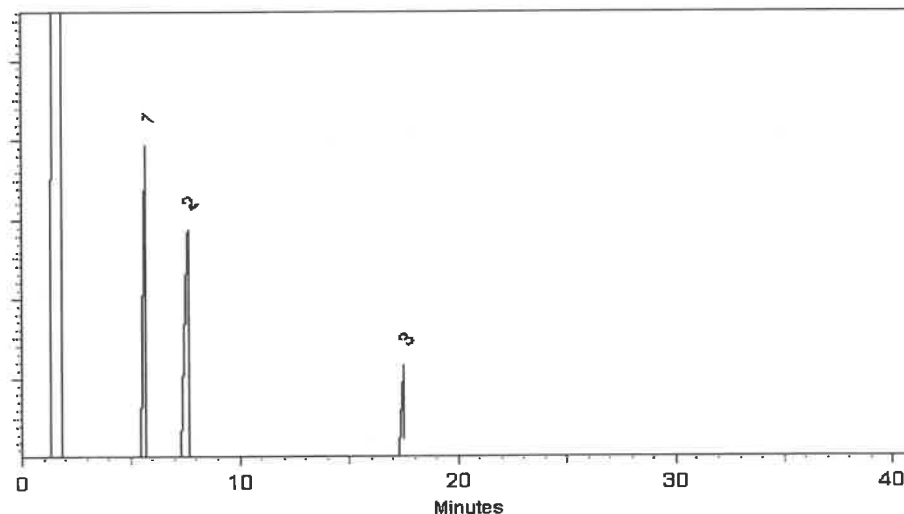
FID

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 S. Riglin

Penelope Riglin - Operations Tech I

Date Mixed: 04-Jan-2024

Balance Serial # 1128360905

Christie Mills

Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 08-Jan-2024

Manufactured under Restek's ISO 9001:2015
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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. : 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

512187 } RC/
↓ } 03/18/24
512206 }

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:

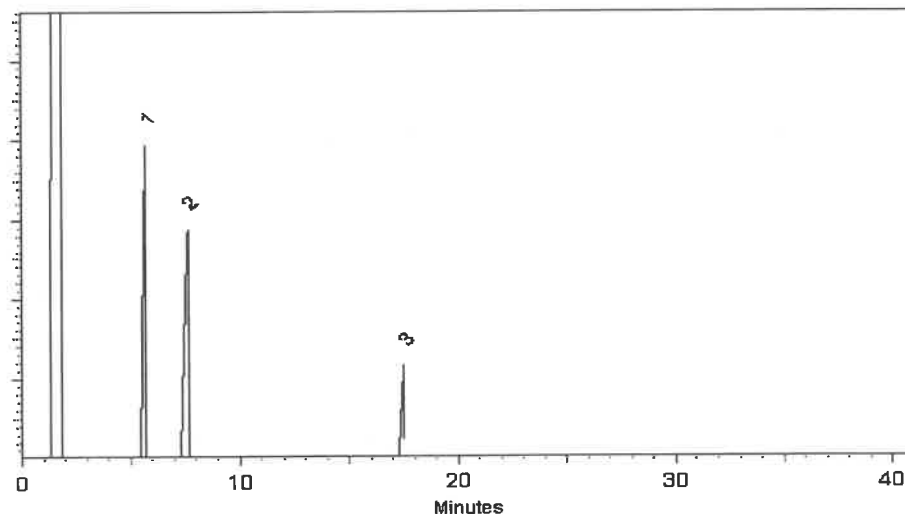
FID

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 S. Riglin

Penelope Riglin - Operations Tech I

Date Mixed: 04-Jan-2024

Balance Serial # 1128360905

Christie Mills

Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 08-Jan-2024

Manufactured under Restek's ISO 9001:2015
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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. : 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 } RC/
↓
S12221 } 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-S (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:

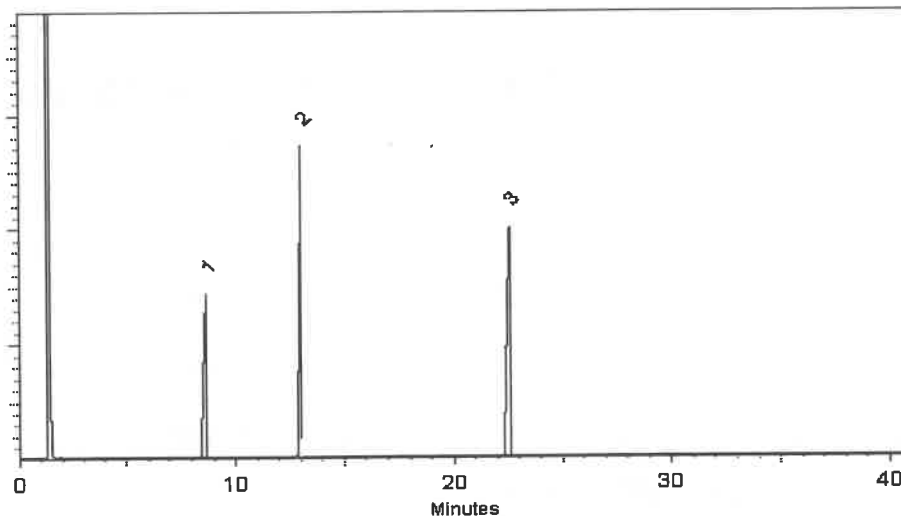
FID

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
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Certificate #FM 80397



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

Page 1 of 1

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

512275 } RC/
↓
512279 } 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 gravimetrically.



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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. : 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

S12312 } RC/
↓ 05/30/24
S12331

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:

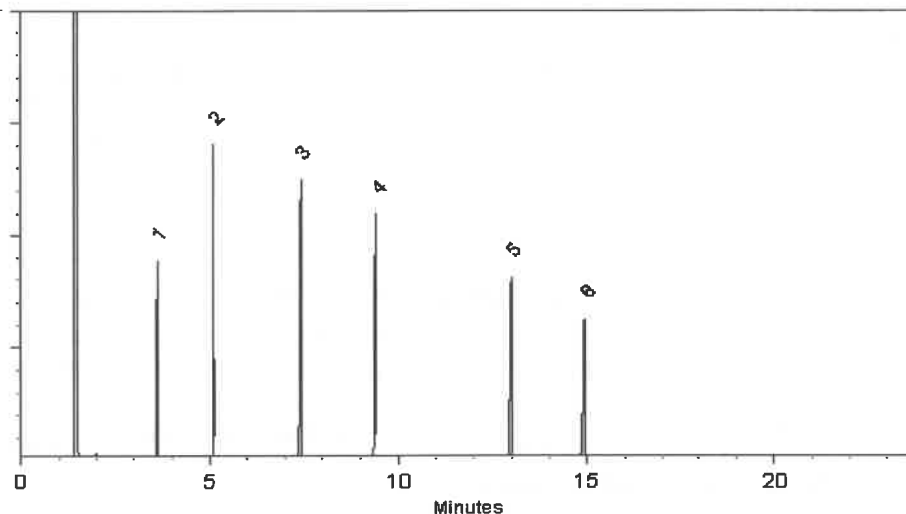
FID

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
Malina Homan - Operations Technician I

Date Mixed: 12-Jan-2024

Balance Serial # 1128360905

Jennifer Pollino
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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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. : 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

S12312 } RC/
↓ 05/30/24
S12331

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:

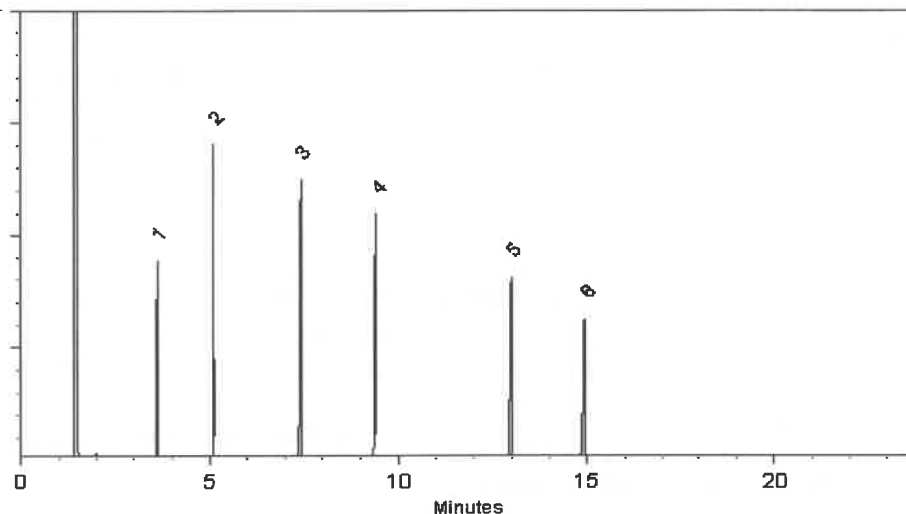
FID

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
Malina Homan - Operations Technician I

Date Mixed: 12-Jan-2024

Balance Serial # 1128360905

Jennifer Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Jan-2024

Manufactured under Restek's ISO 9001:2015
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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. : 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

S12312 } RC/
↓ 05/30/24
S12331

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:

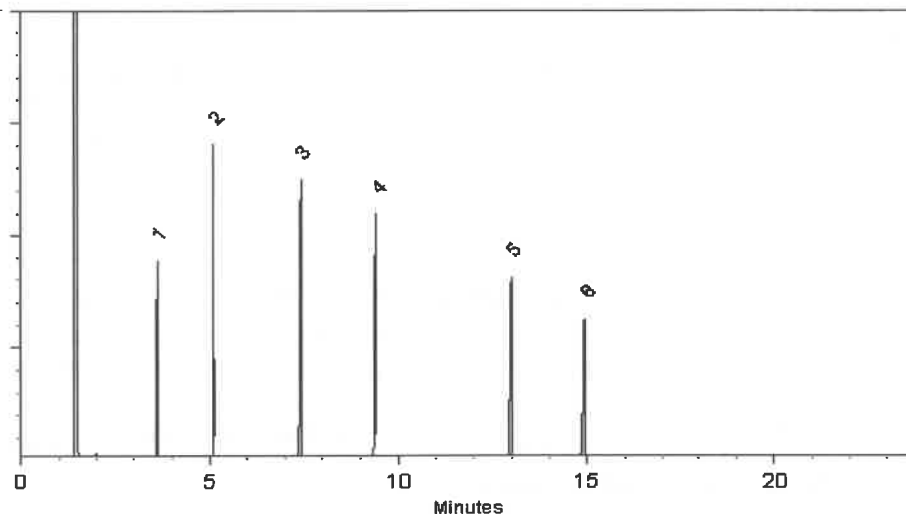
FID

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
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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 } RC/
↓
S12508 } 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:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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



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 } RC/
↓
S12508 } 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.
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- Purity values are rounded to the nearest whole number.

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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
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%

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gravimetric



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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 } RC/
↓
S12508 } 7/24/24

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Date Mixed: 18-Jul-2024

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General Certified Reference Material Notes

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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 } RC/
↓
S12508 } 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024

Balance: 1128353505

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General Certified Reference Material Notes

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Certificate of Analysis

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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 } RC/
↓
S12508 } 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024

Balance: 1128353505

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General Certified Reference Material Notes

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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 } RC/
↓
S12508 } 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024

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Manufactured under Restek's ISO 9001:2015
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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 } RC/
↓
S12508 } 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024

Balance: 1128353505

Manufactured under Restek's ISO 9001:2015
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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.



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. : 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 } RC/
↓
S12508 } 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:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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. : 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 } RC/
↓
S12568 } 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:

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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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k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

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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 } RC/
↓
S12568 } 7/24/24


Jess Hoy - Operations Tech I

Date Mixed: 18-Jul-2024

Balance: 1128360905

Manufactured under Restek's ISO 9001:2015
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SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: **CHA Solutions**
ADDRESS: **300 S. State St Suite 600**
CITY: **Syracuse** STATE: **NY** ZIP: **13202**
ATTENTION: **Scott Smith**
PHONE: **315-257-7250** FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: **HRPC**
PROJECT NO.: **078672** LOCATION: **Poughkeepsie, NY**
PROJECT MANAGER: **Scott Smith**
e-mail: **SSmith@chasolutions.com**
PHONE: **315-427-1033** FAX:

CLIENT BILLING INFORMATION

BILL TO: **CHA solutions** PO#: **07867202**
ADDRESS: **300 S. State St** **Seq#1**
CITY: **Syracuse** STATE: **NY** ZIP: **13202**
ATTENTION: **Scott Smith** PHONE: **315-427-1033**

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) **Standard** DAYS*
HARDCOPY (DATA PACKAGE): DAYS*
EDD: DAYS*

*TO BE APPROVED BY CHEMTECH

STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)
☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP
☐ Level 3 (Results + QC) ☐ NYS ASP A ☐ NYS ASP B
+ Raw Data ☐ Other
☐ EDD FORMAT

1: **VOL 5 8260**
2: **SVOCs 6270/PCB 81672 A**

PRESERVATIVES

COMMENTS

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES										COMMENTS
			COMP	GRAB	DATE	TIME		None	None								
1.	Soil-01	Soil		X	11-7-24	930	2	X	X								
2.																	
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. Andrew Hodgson	DATE/TIME: 11-7-24 1100	RECEIVED BY: 1. [Signature]	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 3.3 °C Comments: Analyze PCBs from Soil in SVOC Jar (confirmed with Yezmen)
RELINQUISHED BY SAMPLER: 2. FedEx	DATE/TIME: 11/8/24 0950	RECEIVED BY: 2. [Signature]	
RELINQUISHED BY SAMPLER: 3.	DATE/TIME:	RECEIVED BY: 3.	

Page **1** of **1**

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete

☐ YES ☐ NO



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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P4779 CLOU03

Order Date : 11/8/2024 10:38:00 AM

Project Mgr :

Client Name : CHA Companies, Inc.

Project Name : HRPC

Report Type : Level 1

Client Contact : Scott Smith

Receive DateTime : 11/8/2024 9:50:00 AM

EDD Type : EXCEL NOCLEANUP

Invoice Name : CHA Companies, Inc.

Purchase Order :

Hard Copy Date :

Invoice Contact : Scott Smith

Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P4779-01	SOIL-01	Solid	11/07/2024	09:30	VOC-TCLVOA-10		8260D		10 Bus. Days

Relinquished By :

Date / Time :

Received By :

Date / Time :

Storage Area : VOA Refridgerator Room