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

Cover Page

Order ID : Q1901

Project ID : Amtrak Sawtooth Bridges 2025

Client : Portal Partners Tri-Venture

Lab Sample Number	Client Sample Number
Q1901-01	B-170-SB00
Q1901-02	B-167-SB01
Q1901-03	B-170-SB01
Q1901-04	B-167-SB02
Q1901-05	B-170-SB02
Q1901-06	FB04262025
Q1901-07	TB04262025
Q1901-08	B-167-SB01
Q1901-09	B-170-SB01
Q1901-10	B-167-SB02
Q1901-11	B-170-SB02

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: 5/10/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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

DATA REPORTING QUALIFIERS- ORGANIC

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

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

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: **Q1901**

	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:** **05/10/2025**

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

LAB CHRONICLE

OrderID:	Q1901	**OrderDate:**	4/28/2025 10:24:00 AM
Client:	Portal Partners Tri-Venture	**Project:**	Amtrak Sawtooth Bridges 2025
Contact:	Joseph Krupansky	**Location:**	L51,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1901-02	**B-167-SB01**	**SOIL**			**04/26/25**			**04/28/25**
			PCB	8082A		04/29/25	04/29/25	
			TPH GC	8015D		04/29/25	04/29/25	
			EPH	NJEPH		05/07/25	05/08/25	
Q1901-03	**B-170-SB01**	**SOIL**			**04/26/25**			**04/28/25**
			PCB	8082A		04/30/25	04/30/25	
			TPH GC	8015D		04/29/25	04/29/25	
			EPH	NJEPH		05/07/25	05/08/25	
Q1901-04	**B-167-SB02**	**SOIL**			**04/26/25**			**04/28/25**
			PCB	8082A		04/29/25	04/29/25	
			TPH GC	8015D		04/29/25	04/29/25	
			EPH	NJEPH		05/07/25	05/08/25	
Q1901-05	**B-170-SB02**	**SOIL**			**04/26/25**			**04/28/25**
			PCB	8082A		04/29/25	04/29/25	
			TPH GC	8015D		04/29/25	04/29/25	
			EPH	NJEPH		05/07/25	05/08/25	
Q1901-06	**FB04262025**	**Water**			**04/26/25**			**04/28/25**
			EPH	NJEPH		05/01/25	05/02/25	
			PCB	8082A		04/29/25	04/29/25	
Q1901-08	**B-167-SB01**	**TCLP**			**04/26/25**			**04/28/25**
			TCLP Herbicide	8151A		05/05/25	05/06/25	
			TCLP Pesticide	8081B		05/01/25	05/01/25	
Q1901-09	**B-170-SB01**	**TCLP**			**04/26/25**			**04/28/25**
			TCLP Herbicide	8151A		05/05/25	05/06/25	
			TCLP Pesticide	8081B		05/01/25	05/01/25	

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

LAB CHRONICLE

Q1901-10	**B-167-SB02**	**TCLP**			**04/26/25**		**04/28/25**
			TCLP Herbicide	8151A		05/05/25	05/06/25
			TCLP Pesticide	8081B		05/01/25	05/01/25
Q1901-11	**B-170-SB02**	**TCLP**			**04/26/25**		**04/28/25**
			TCLP Herbicide	8151A		05/05/25	05/06/25
			TCLP Pesticide	8081B		05/01/25	05/01/25



QC SUMMARY

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

SOIL EPH SURROGATE RECOVERY

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM CASE No.: Q1901 SAS No.: Q1901 SDG No.: Q1901

Run Number: FC050225AL

Client SAMPLE NO.	1-chlorooctadecane (SURR)			TOT OUT
PB167840BL	78			0
PB167840BS	80			0
PB167840BSD	77			0
FB04262025	86			0

	QC LIMITS
1-chlorooctadecane (SURR)	(40-140)

Column to be used to flag recovery values
* Values outside of contract required QC Limits
D Surrogate diluted out

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

SOIL EPH SURROGATE RECOVERY

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM CASE No.: Q1901 SAS No.: Q1901 SDG No.: Q1901

Run Number: FC050825AL

Client SAMPLE NO.	1-chlorooctadecane (SURR)			TOT OUT
PB167903BL	90			0
PB167903BS	87			0
PB167903BSD	90			0
B-167-SB01	118			0
B-170-SB01	78			0
B-167-SB02	125			0
B-167-SB02MS	69			0
B-167-SB02MSD	74			0
B-170-SB02	61			0

	QC LIMITS
1-chlorooctadecane (SURR)	(40-140)

Column to be used to flag recovery values
* Values outside of contract required QC Limits
D Surrogate diluted out

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

SOIL EPH SURROGATE RECOVERY

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM CASE No.: Q1901 SAS No.: Q1901 SDG No.: Q1901

Run Number: FD050225AR

Client SAMPLE NO.	2-Bromonaphthalene (SURR)	2-Flurobiphenyl (SURR)	ortho-Terphenyl (SURR)	TOT OUT
PB167840BL	106	102	108	0
PB167840BS	125	131	111	0
PB167840BSD	130	136	115	0
FB04262025	131	135	124	0

	QC LIMITS
2-Bromonaphthalene (SURR)	(40-140)
2-Flurobiphenyl (SURR)	(40-140)
ortho-Terphenyl (SURR)	(40-140)

Column to be used to flag recovery values
* Values outside of contract required QC Limits
D Surrogate diluted out

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

SOIL EPH SURROGATE RECOVERY

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM CASE No.: Q1901 SAS No.: Q1901 SDG No.: Q1901

Run Number: FD050825AR

Client SAMPLE NO.	2-Bromonaphthalene (SURR)	2-Flurobiphenyl (SURR)	ortho-Terphenyl (SURR)	TOT OUT
PB167903BL	122	115	102	0
PB167903BS	123	127	105	0
PB167903BSD	129	132	109	0
B-167-SB01	100	100	114	0
B-170-SB01	123	127	85	0
B-167-SB02	107	74	81	0
B-167-SB02MS	120	115	77	0
B-167-SB02MSD	120	115	77	0
B-170-SB02	114	108	58	0

	QC LIMITS
2-Bromonaphthalene (SURR)	(40-140)
2-Flurobiphenyl (SURR)	(40-140)
ortho-Terphenyl (SURR)	(40-140)

Column to be used to flag recovery values
* Values outside of contract required QC Limits
D Surrogate diluted out

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

SOIL EPH SURROGATE RECOVERY

	QC LIMITS
2-Bromonaphthalene (SURR)	(40-140)
2-Flurobiphenyl (SURR)	(40-140)
ortho-Terphenyl (SURR)	(40-140)

Column to be used to flag recovery values
* Values outside of contract required QC Limits
D Surrogate diluted out

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

SOLID EPH MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture

Lab Code: CHEM **Cas No:** Q1901 **SAS No :** Q1901 **SDG No:** Q1901

Sample No : Q1901-04MS **Datafile:** FC068804.D

Client ID : B-167-SB02MS

COMPOUND	SPIKE ADDED mg/kg	SAMPLE CONCENTRATION mg/kg	MS/MSD CONCENTRATION mg/kg	% REC	Qual	QC LIMITS
Aliphatic C9-C12	18.7	0	9.53	51		(40-140)
Aliphatic C12-C16	12.5	2.11	9.38	58		(40-140)
Aliphatic C16-C21	18.7	0	14.8	79		(40-140)
Aliphatic C21-C28	25.0	0	19.3	77		(40-140)
Aliphatic C28-C40	37.5	0	26.3	70		(40-140)

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

SOLID EPH MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture

Lab Code: CHEM **Cas No:** Q1901 **SAS No :** Q1901 **SDG No:** Q1901

Sample No : Q1901-04MSD **Datafile:** FC068805.D

Client ID : B-167-SB02MSD

COMPOUND	SPIKE ADDED mg/kg	SAMPLE CONCENTRATION mg/kg	MS/MSD CONCENTRATION mg/kg	% REC	Qual	RPD | QC LIMITS	QC Limit Of RPD
Aliphatic C9-C12	18.8	0	9.57	51		0.2 | (40-140)	25
Aliphatic C12-C16	12.5	2.11	9.36	58		0.34 | (40-140)	25
Aliphatic C16-C21	18.8	0	14.6	78		1.4 | (40-140)	25
Aliphatic C21-C28	25.0	0	19.2	77		0.52 | (40-140)	25
Aliphatic C28-C40	37.5	0	26.4	70		0.28 | (40-140)	25

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

SOLID EPH MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture

Lab Code: CHEM **Cas No:** Q1901 **SAS No :** Q1901 **SDG No:** Q1901

Sample No : Q1901-04MS **Datafile:** FD049330.D

Client ID : B-167-SB02MS

COMPOUND	SPIKE ADDED mg/kg	SAMPLE CONCENTRATION mg/kg	MS/MSD CONCENTRATION mg/kg	% REC	Qual	QC LIMITS
Aromatic C10-C12	12.5	0.51	9.38	71		(40-140)
Aromatic C12-C16	18.7	0.65	16.8	86		(40-140)
Aromatic C16-C21	31.2	3.65	35.0	100		(40-140)
Aromatic C21-C36	50.0	3.46	51.3	96		(40-140)

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

SOLID EPH MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture

Lab Code: CHEM **Cas No:** Q1901 **SAS No :** Q1901 **SDG No:** Q1901

Sample No : Q1901-04MSD **Datafile:** FD049331.D

Client ID : B-167-SB02MSD

COMPOUND	SPIKE ADDED mg/kg	SAMPLE CONCENTRATION mg/kg	MS/MSD CONCENTRATION mg/kg	% REC	Qual	RPD |	QC LIMITS	QC Limit Of RPD
Aromatic C10-C12	12.5	0.51	9.49	72		1.12 |	(40-140)	25
Aromatic C12-C16	18.8	0.65	16.9	87		0.46 |	(40-140)	25
Aromatic C16-C21	31.3	3.65	35.0	100		0 |	(40-140)	25
Aromatic C21-C36	50.0	3.46	53.4	100		4.29 |	(40-140)	25

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

WATER EPH LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture

Lab Code: CHEM **Cas No:** Q1901 **SAS No :** Q1901 **SDG No:** Q1901

Sample No : PB167840BS **Datafile:** FC068744.D

Client ID : PB167840BS

COMPOUND	SPIKE ADDED ug/l	LCS/LCSD CONCENTRATION ug/l	% REC	Qual	QC LIMITS
Aliphatic C9-C12	300	185	62		(40-140)
Aliphatic C12-C16	200	178	89		(40-140)
Aliphatic C16-C21	300	318	106		(40-140)
Aliphatic C21-C28	400	426	106		(40-140)
Aliphatic C28-C40	600	637	106		(40-140)

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

WATER EPH LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture

Lab Code: CHEM **Cas No:** Q1901 **SAS No :** Q1901 **SDG No:** Q1901

Sample No : PB167840BSD **Datafile:** FC068745.D

Client ID : PB167840BSD

COMPOUND	SPIKE ADDED ug/l	LCS/LCSD CONCENTRATION ug/l	% REC	Qual	RPD |	QC LIMITS	QC Limit Of RPD
Aliphatic C9-C12	300	182	61		1.7|	(40-140)	50
Aliphatic C12-C16	200	172	86		3.4|	(40-140)	50
Aliphatic C16-C21	300	307	102		3.5|	(40-140)	50
Aliphatic C21-C28	400	417	104		1.7|	(40-140)	50
Aliphatic C28-C40	600	637	106		0.15|	(40-140)	50

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

SOLID EPH LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture

Lab Code: CHEM **Cas No:** Q1901 **SAS No :** Q1901 **SDG No:** Q1901

Sample No : PB167903BS **Datafile:** FC068793.D

Client ID : PB167903BS

COMPOUND	SPIKE ADDED mg/kg	LCS/LCSD CONCENTRATION mg/kg	% REC	Qual	QC LIMITS
Aliphatic C9-C12	10	6.17	62		(40-140)
Aliphatic C12-C16	6.7	6.23	94		(40-140)
Aliphatic C16-C21	10	11.4	114		(40-140)
Aliphatic C21-C28	13.3	15.5	116		(40-140)
Aliphatic C28-C40	20.0	21.7	108		(40-140)

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

SOLID EPH LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture

Lab Code: CHEM **Cas No:** Q1901 **SAS No :** Q1901 **SDG No:** Q1901

Sample No : PB167903BSD **Datafile:** FC068794.D

Client ID : PB167903BSD

COMPOUND	SPIKE ADDED mg/kg	LCS/LCSD CONCENTRATION mg/kg	% REC	Qual	RPD |	QC LIMITS	QC Limit Of RPD
Aliphatic C9-C12	10	6.44	64		4.2|	(40-140)	50
Aliphatic C12-C16	6.7	6.51	98		4.4|	(40-140)	50
Aliphatic C16-C21	10	11.9	119		4.4|	(40-140)	50
Aliphatic C21-C28	13.3	15.9	119		2.8|	(40-140)	50
Aliphatic C28-C40	20.0	22.3	111		3.3|	(40-140)	50

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

WATER EPH LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture

Lab Code: CHEM **Cas No:** Q1901 **SAS No :** Q1901 **SDG No:** Q1901

Sample No : PB167840BS **Datafile:** FD049311.D

Client ID : PB167840BS

COMPOUND	SPIKE ADDED ug/l	LCS/LCSD CONCENTRATION ug/l	% REC	Qual	QC LIMITS
Aromatic C10-C12	200	157	78		(40-140)
Aromatic C12-C16	300	279	93		(40-140)
Aromatic C16-C21	500	597	119		(40-140)
Aromatic C21-C36	800	986	123		(40-140)

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

WATER EPH LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture

Lab Code: CHEM **Cas No:** Q1901 **SAS No :** Q1901 **SDG No:** Q1901

Sample No : PB167840BSD **Datafile:** FD049312.D

Client ID : PB167840BSD

COMPOUND	SPIKE ADDED ug/l	LCS/LCSD CONCENTRATION ug/l	% REC	Qual	RPD |	QC LIMITS	QC Limit Of RPD
Aromatic C10-C12	200	163	82		3.8|	(40-140)	50
Aromatic C12-C16	300	289	96		3.5|	(40-140)	50
Aromatic C16-C21	500	624	124		4.8|	(40-140)	50
Aromatic C21-C36	800	1040	129		5.1|	(40-140)	50

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

SOLID EPH LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture

Lab Code: CHEM **Cas No:** Q1901 **SAS No :** Q1901 **SDG No:** Q1901

Sample No : PB167903BS **Datafile:** FD049320.D

Client ID : PB167903BS

COMPOUND	SPIKE ADDED mg/kg	LCS/LCSD CONCENTRATION mg/kg	% REC	Qual	QC LIMITS
Aromatic C10-C12	6.7	5.23	78		(40-140)
Aromatic C12-C16	10	9.09	91		(40-140)
Aromatic C16-C21	16.7	18.9	113		(40-140)
Aromatic C21-C36	26.6	31.4	117		(40-140)

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

SOLID EPH LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture

Lab Code: CHEM **Cas No:** Q1901 **SAS No :** Q1901 **SDG No:** Q1901

Sample No : PB167903BSD **Datafile:** FD049321.D

Client ID : PB167903BSD

COMPOUND	SPIKE ADDED mg/kg	LCS/LCSD CONCENTRATION mg/kg	% REC	Qual	RPD |	QC LIMITS	QC Limit Of RPD
Aromatic C10-C12	6.7	5.47	82		4.5|	(40-140)	50
Aromatic C12-C16	10	9.48	95		4.2|	(40-140)	50
Aromatic C16-C21	16.7	19.6	117		4.1|	(40-140)	50
Aromatic C21-C36	26.6	32.8	123		5.1|	(40-140)	50

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

4B

METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB167840BL

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: Q1901 SAS No.: Q1901 SDG NO.: Q1901

Instrument ID: FID_C Lab Sample ID: PB167840BL

Matrix: (soil/water) Water Date Extracted: 5/1/2025 9:40:00 AM

Level: (low/med) low

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

EPA SAMPLE NO.	LAB SAMPLE ID
PB167840BS	PB167840BS
PB167840BSD	PB167840BSD
FB04262025	Q1901-06

COMMENTS:

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

4B

METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB167903BL

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: Q1901 SAS No.: Q1901 SDG NO.: Q1901

Instrument ID: FID_C Lab Sample ID: PB167903BL

Matrix: (soil/water) Solid Date Extracted: 5/7/2025 1:37:00 PM

Level: (low/med) low

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

EPA SAMPLE NO.	LAB SAMPLE ID
PB167903BS	PB167903BS
PB167903BSD	PB167903BSD
B-167-SB01	Q1901-02
B-170-SB01	Q1901-03
B-167-SB02	Q1901-04
B-167-SB02MS	Q1901-04MS
B-167-SB02MSD	Q1901-04MSD
B-170-SB02	Q1901-05

COMMENTS:



SAMPLE DATA

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/26/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/28/25
Client Sample ID:	B-167-SB01	SDG No.:	Q1901
Lab Sample ID:	Q1901-02	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	82.6
Sample Wt/Vol:	30.08 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
05/07/25 13:37	05/08/25 18:31	PB167903

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	Datafile
TARGETS								
Aliphatic C9-C12	Aliphatic C9-C12	0.17	U	1	0.17	1.21	mg/kg	FC068800.D
Aliphatic C12-C16	Aliphatic C12-C16	0.17	J	1	0.13	0.81	mg/kg	FC068800.D
Aliphatic C16-C21	Aliphatic C16-C21	0.16	U	1	0.16	1.21	mg/kg	FC068800.D
Aliphatic C21-C28	Aliphatic C21-C28	0.64	U	1	0.64	1.61	mg/kg	FC068800.D
Aliphatic C28-C40	Aliphatic C28-C40	1.42	U	1	1.42	2.41	mg/kg	FC068800.D
Aromatic C10-C12	Aromatic C10-C12	0.37	J	1	0.14	0.81	mg/kg	FD049326.D
Aromatic C12-C16	Aromatic C12-C16	0.63	J	1	0.28	1.21	mg/kg	FD049326.D
Aromatic C16-C21	Aromatic C16-C21	5.47		1	0.48	2.01	mg/kg	FD049326.D
Aromatic C21-C36	Aromatic C21-C36	3.76		1	1.44	3.22	mg/kg	FD049326.D
Total AliphaticEPH	Total AliphaticEPH	2.52	U		2.52	7.25	mg/kg	
Total AromaticEPH	Total AromaticEPH	10.2			2.35	7.25	mg/kg	
Total EPH	Total EPH	10.4	J		4.87	14.5	mg/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

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/26/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/28/25
Client Sample ID:	B-167-SB01	SDG No.:	Q1901
Lab Sample ID:	Q1901-02	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	82.6
Sample Wt/Vol:	30.08 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC068800.D	1	05/07/25	05/08/25	PB167903

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	0.17	U	0.17	1.21	mg/kg
Aliphatic C12-C16	Aliphatic C12-C16	0.17	J	0.13	0.81	mg/kg
Aliphatic C16-C21	Aliphatic C16-C21	0.16	U	0.16	1.21	mg/kg
Aliphatic C21-C28	Aliphatic C21-C28	0.64	U	0.64	1.61	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	1.42	U	1.42	2.41	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	59.2		40 - 140	118%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	0.00		40 - 140	0%	SPK: 50

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

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	Q1901-02	Acq On:	08 May 2025 18:31
Client Sample ID:	B-167-SB01	Operator:	YP/AJ
Data file:	FC068800.D	Misc:	
Instrument:	FID_C	ALS Vial:	17
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.342	6.642	120888	1.219	300	ug/ml
Aliphatic C12-C16	6.643	10.042	195175	2.145	200	ug/ml
Aliphatic C16-C21	10.043	13.408	0	0	300	ug/ml
Aliphatic C21-C28	13.409	17.072	0	0	400	ug/ml
Aliphatic C28-C40	17.073	22.071	0	0	600	ug/ml
Aliphatic EPH	3.342	22.071	316063	3.365		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	13.145	13.145	4752739	59.24		ug/ml
Aliphatic C9-C28	3.342	17.072	316063	3.364	1200	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068800.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 18:31
Operator : YP/AJ
Sample : Q1901-02
Misc :
ALS Vial : 17 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
B-167-SB01

Integration File: autoint1.e
Quant Time: May 09 09:08:53 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
12) S 1-chlorooctadecane (S...	13.145	4752739	59.242 ug/ml
Spiked Amount 50.000		Recovery = 118.48%	
Target Compounds			

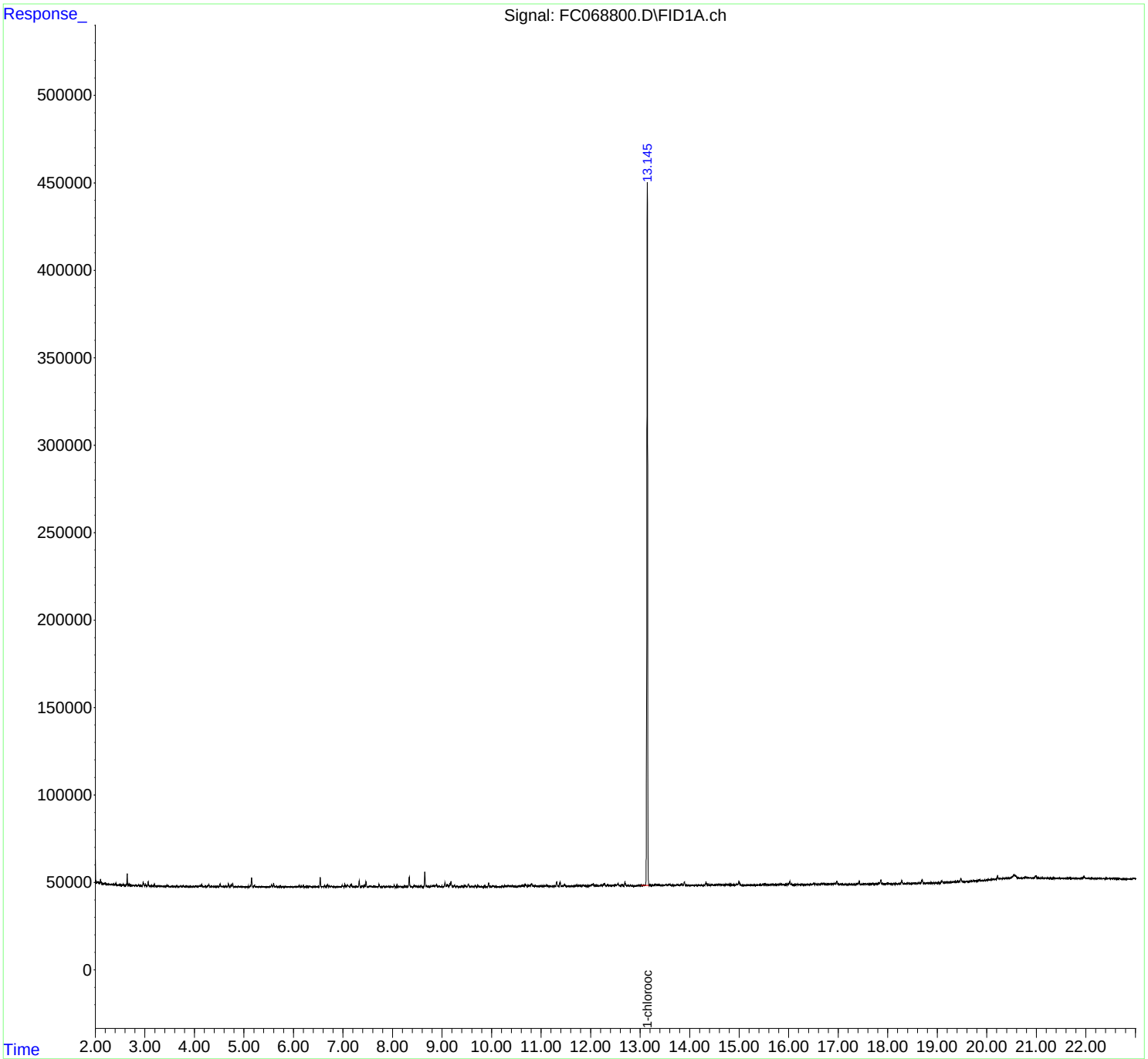
(f)=RT Delta > 1/2 Window (m)=manual int.

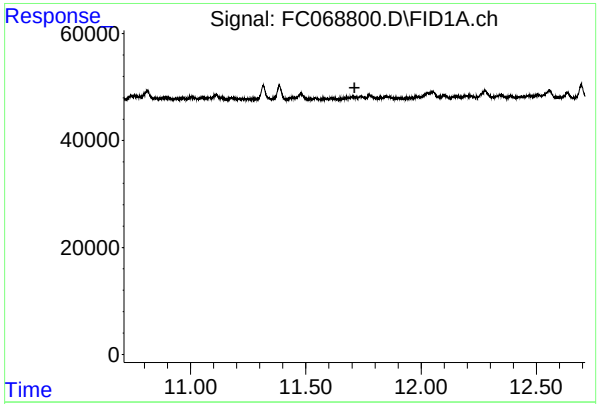
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068800.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 18:31
Operator : YP/AJ
Sample : Q1901-02
Misc :
ALS Vial : 17 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
B-167-SB01

Integration File: autoint1.e
Quant Time: May 09 09:08:53 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

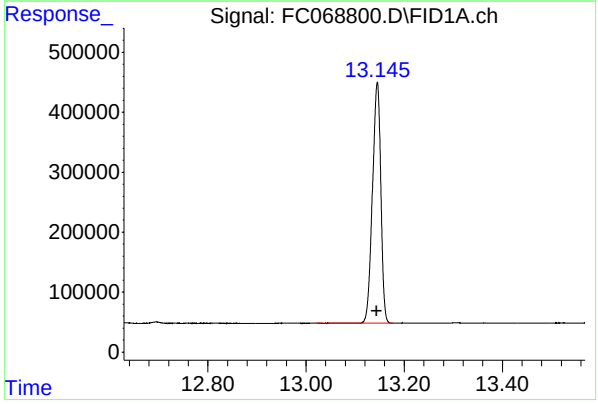




#9 ortho-Terphenyl (SURR)

R.T.: 0.000 min
Exp R.T. : 11.711 min
Response: 0
Conc: N.D.

Instrument :
FID_C
ClientSampleId :
B-167-SB01



#12 1-chlorooctadecane (SURR)

R.T.: 13.145 min
Delta R.T.: 0.001 min
Response: 4752739
Conc: 59.24 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068800.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 18:31
Sample : Q1901-02
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	5.155	5.040	5.189	BV	5424	69238	1.46%	1.366%
2	6.541	6.495	6.567	BB	5392	51650	1.09%	1.019%
3	7.328	7.297	7.365	BB	3517	37381	0.79%	0.737%
4	8.339	8.220	8.364	BB	5593	66747	1.40%	1.317%
5	8.653	8.599	8.707	BB	8566	91047	1.92%	1.796%
6	13.145	13.020	13.177	BB	402441	4752739	100.00%	93.765%

Sum of corrected areas: 5068802

Aliphatic EPH 050625.M Fri May 09 09:32:58 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/26/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/28/25
Client Sample ID:	B-167-SB01	SDG No.:	Q1901
Lab Sample ID:	Q1901-02	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	82.6
Sample Wt/Vol:	30.08 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD049326.D	1	05/07/25	05/08/25	PB167903

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aromatic C10-C12	Aromatic C10-C12	0.37	J	0.14	0.81	mg/kg
Aromatic C12-C16	Aromatic C12-C16	0.63	J	0.28	1.21	mg/kg
Aromatic C16-C21	Aromatic C16-C21	5.47		0.48	2.01	mg/kg
Aromatic C21-C36	Aromatic C21-C36	3.76		1.44	3.22	mg/kg
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	49.9		40 - 140	100%	SPK: 50
321-60-8	2-Flurobiphenyl (SURR)	50.0		40 - 140	100%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	57.2		40 - 140	114%	SPK: 50

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

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	Q1901-02	Acq On:	08 May 2025 17:53
Client Sample ID:	B-167-SB01	Operator:	YP/AJ
Data file:	FD049326.D	Misc:	
Instrument:	FID_D	ALS Vial:	66
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.431	6.176	587495	4.571	200	ug/ml
Aromatic C12-C16	6.177	8.805	1056316	7.783	300	ug/ml
Aromatic C16-C21	8.806	13.095	8915470	67.995	500	ug/ml
Aromatic C21-C36	13.0956	18.515	5479238	46.69	800	ug/ml
Aromatic EPH	4.431	18.515	16038519	127.038		ug/ml
2-Bromonaphthalene (SURR)	7.741	7.741	5920352	49.93		ug/ml
2-Flurobiphenyl (SURR)	8.606	8.606	3946659	49.98		ug/ml
ortho-Terphenyl (SURR)	11.653	11.653	7896457	57.21		ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049326.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 17:53
Operator : YP/AJ
Sample : Q1901-02
Misc :
ALS Vial : 66 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
B-167-SB01

Integration File: autoint1.e
Quant Time: May 09 09:19:46 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.741	5920352	49.931 ug/ml
Spiked Amount 50.000		Recovery = 99.86%	
6) S 2-Flurobiphenyl (SURR)	8.606	3946659	49.975 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery = 99.95%	
11) S ortho-Terphenyl (SURR)	11.653	7896457	57.212 ug/ml
Spiked Amount 50.000		Recovery = 114.42%	
Target Compounds			

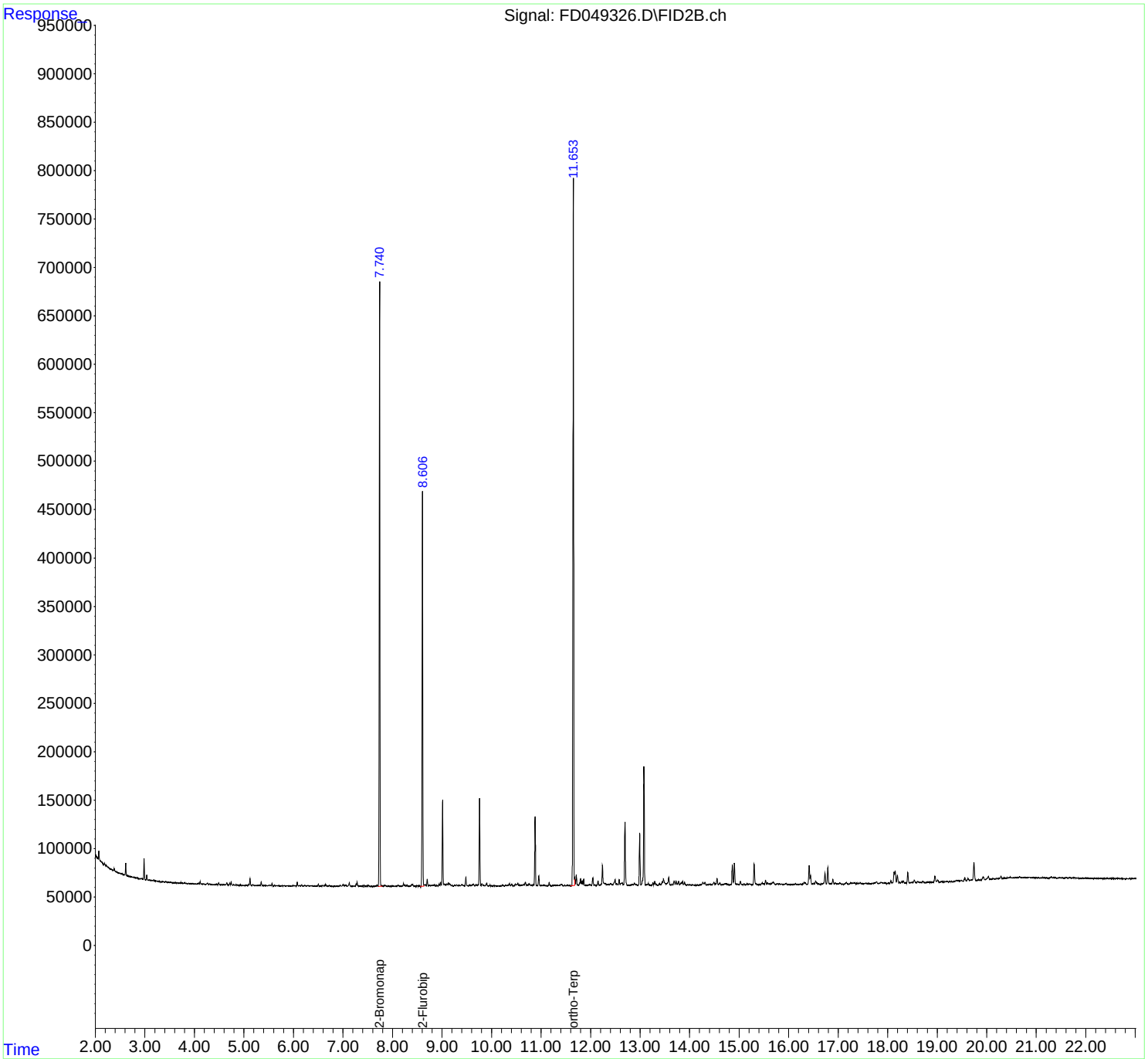
(f)=RT Delta > 1/2 Window (m)=manual int.

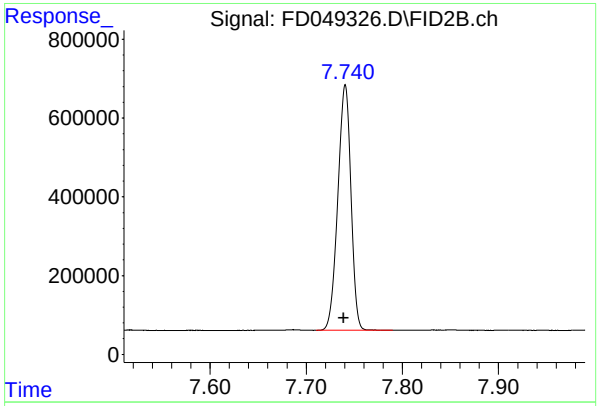
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049326.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 17:53
Operator : YP/AJ
Sample : Q1901-02
Misc :
ALS Vial : 66 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
B-167-SB01

Integration File: autoint1.e
Quant Time: May 09 09:19:46 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

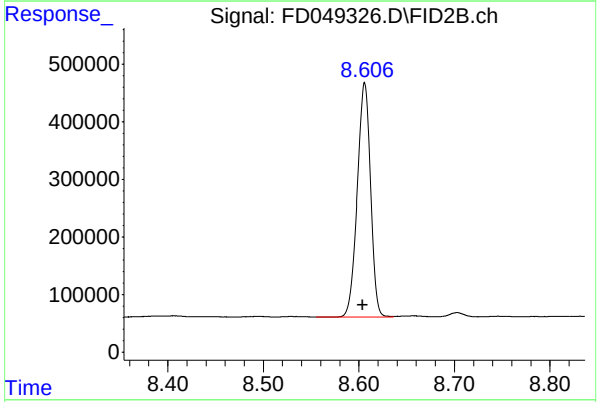




#4 2-Bromonaphthalene (SURR)

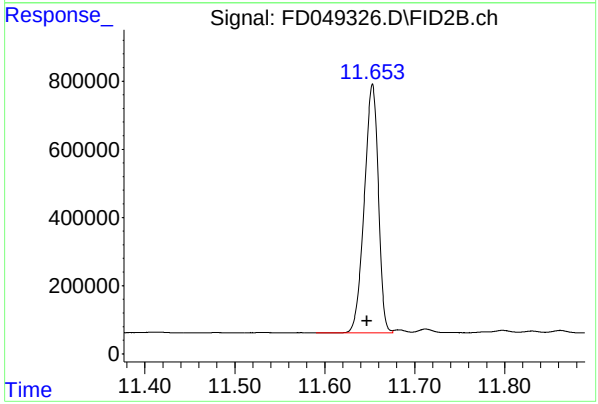
R.T.: 7.741 min
Delta R.T.: 0.002 min
Response: 5920352
Conc: 49.93 ug/ml

Instrument :
FID_D
ClientSampleId :
B-167-SB01



#6 2-Flurobiphenyl (SURR)

R.T.: 8.606 min
Delta R.T.: 0.003 min
Response: 3946659
Conc: 49.98 ug/ml



#11 ortho-Terphenyl (SURR)

R.T.: 11.653 min
Delta R.T.: 0.006 min
Response: 7896457
Conc: 57.21 ug/ml

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049326.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 17:53
Sample : Q1901-02
Misc :
ALS Vial : 66 Sample Multiplier: 1

Integration File: sample.E

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.264	4.252	4.286	PH	1376	14260	0.18%	0.042%
2	4.305	4.286	4.342	PV	519	6499	0.08%	0.019%
3	4.355	4.350	4.371	VV	210	1600	0.02%	0.005%
4	4.380	4.371	4.399	VV	183	1369	0.02%	0.004%
5	4.410	4.399	4.422	PV	220	1572	0.02%	0.005%
6	4.449	4.422	4.465	VV	566	8031	0.10%	0.024%
7	4.489	4.465	4.527	VV	2237	26841	0.34%	0.079%
8	4.533	4.527	4.550	VV	401	3101	0.04%	0.009%
9	4.557	4.550	4.562	VV	260	1349	0.02%	0.004%
10	4.569	4.562	4.592	VV	389	4454	0.06%	0.013%
11	4.605	4.592	4.628	VV	625	8009	0.10%	0.023%
12	4.656	4.628	4.682	VV	2469	32945	0.42%	0.097%
13	4.690	4.682	4.697	VV	306	1784	0.02%	0.005%
14	4.713	4.697	4.730	VV	2259	23469	0.30%	0.069%
15	4.743	4.730	4.774	VV	3405	32564	0.41%	0.095%
16	4.796	4.774	4.818	VV	724	8623	0.11%	0.025%
17	4.839	4.818	4.853	VV	564	6742	0.09%	0.020%
18	4.862	4.853	4.882	VV	617	6755	0.09%	0.020%
19	4.889	4.882	4.908	VV	246	2064	0.03%	0.006%
20	4.935	4.908	4.960	VV	663	8287	0.10%	0.024%
21	5.002	4.998	5.011	VV	309	1679	0.02%	0.005%
22	5.015	5.011	5.021	VV	207	1097	0.01%	0.003%
23	5.046	5.021	5.068	VV	591	8108	0.10%	0.024%
24	5.098	5.068	5.106	VV	1474	15691	0.20%	0.046%
25	5.123	5.106	5.153	VV	7399	79528	1.00%	0.233%
26	5.180	5.153	5.222	VV	1335	20908	0.26%	0.061%
27	5.233	5.222	5.280	VV	477	9002	0.11%	0.026%
28	5.283	5.280	5.295	VV	233	1682	0.02%	0.005%
29	5.314	5.295	5.333	VV	586	9183	0.12%	0.027%
30	5.349	5.333	5.391	VV	3997	44588	0.56%	0.131%
31	5.407	5.391	5.439	VV	455	7302	0.09%	0.021%
32	5.446	5.439	5.462	VV	338	3548	0.04%	0.010%
33	5.467	5.462	5.477	VV	328	2115	0.03%	0.006%
34	5.495	5.477	5.510	VV	701	8645	0.11%	0.025%
35	5.525	5.510	5.549	VV	1130	13987	0.18%	0.041%
36	5.568	5.549	5.585	VV	2834	26708	0.34%	0.078%

rteres

37	5.623	5.585	5.639	VV	904	13271	0.17%	0.039%
38	5.662	5.639	5.670	VV	393	5739	0.07%	0.017%
39	5.686	5.670	5.695	VV	455	5406	0.07%	0.016%
40	5.706	5.695	5.729	VV	459	5402	0.07%	0.016%
41	5.739	5.729	5.748	VV	211	1311	0.02%	0.004%
42	5.778	5.748	5.792	VV	504	7802	0.10%	0.023%
43	5.815	5.792	5.840	VV	659	10009	0.13%	0.029%
44	5.846	5.840	5.853	VV	268	1781	0.02%	0.005%
45	5.861	5.853	5.867	VV	437	2415	0.03%	0.007%
46	5.879	5.867	5.924	VV	411	7461	0.09%	0.022%
47	5.947	5.934	5.955	PV	167	1246	0.02%	0.004%
48	5.985	5.963	6.004	VV	986	12795	0.16%	0.038%
49	6.015	6.004	6.022	VV	552	3767	0.05%	0.011%
50	6.034	6.022	6.056	VV	438	6773	0.09%	0.020%
51	6.077	6.056	6.107	VV	4125	44068	0.56%	0.129%
52	6.123	6.107	6.147	VV	762	9736	0.12%	0.029%
53	6.164	6.147	6.197	VV	1674	19724	0.25%	0.058%
54	6.202	6.197	6.206	VV	340	1482	0.02%	0.004%
55	6.223	6.206	6.239	VV	1014	12117	0.15%	0.036%
56	6.247	6.239	6.261	VV	480	4716	0.06%	0.014%
57	6.298	6.261	6.327	VV	878	18141	0.23%	0.053%
58	6.334	6.327	6.340	VV	398	2359	0.03%	0.007%
59	6.356	6.340	6.381	VV	674	11686	0.15%	0.034%
60	6.385	6.381	6.398	VV	286	2197	0.03%	0.006%
61	6.407	6.398	6.415	VV	210	1305	0.02%	0.004%
62	6.432	6.423	6.462	VV	290	5282	0.07%	0.015%
63	6.470	6.462	6.480	VV	360	2917	0.04%	0.009%
64	6.503	6.480	6.531	VV	2363	27418	0.35%	0.080%
65	6.542	6.531	6.560	VV	457	6016	0.08%	0.018%
66	6.567	6.560	6.571	VV	464	2280	0.03%	0.007%
67	6.587	6.571	6.612	VV	1161	12953	0.16%	0.038%
68	6.624	6.612	6.638	VV	973	10428	0.13%	0.031%
69	6.652	6.638	6.674	VV	2132	23264	0.29%	0.068%
70	6.688	6.674	6.703	VV	690	7930	0.10%	0.023%
71	6.725	6.703	6.743	VV	1193	13340	0.17%	0.039%
72	6.753	6.743	6.802	VV	280	8479	0.11%	0.025%
73	6.826	6.802	6.849	PV	540	7703	0.10%	0.023%
74	6.863	6.849	6.870	VV	302	2430	0.03%	0.007%
75	6.880	6.870	6.887	VV	411	2941	0.04%	0.009%
76	6.889	6.887	6.912	VV	378	3082	0.04%	0.009%
77	6.946	6.921	6.978	VV	1348	19435	0.25%	0.057%
78	6.998	6.978	7.034	VV	1936	37530	0.47%	0.110%
79	7.047	7.034	7.096	VV	1463	32471	0.41%	0.095%
80	7.128	7.096	7.175	VV	3811	57886	0.73%	0.170%
81	7.180	7.175	7.185	VV	340	1872	0.02%	0.005%
82	7.195	7.185	7.203	VV	365	3536	0.04%	0.010%
83	7.208	7.203	7.218	VV	417	3227	0.04%	0.009%
84	7.233	7.218	7.248	VV	478	6803	0.09%	0.020%
85	7.265	7.248	7.274	VV	2765	25528	0.32%	0.075%
86	7.286	7.274	7.322	VV	4622	54031	0.68%	0.158%
87	7.341	7.322	7.356	VV	686	8242	0.10%	0.024%
88	7.366	7.356	7.378	VV	630	6403	0.08%	0.019%
89	7.391	7.378	7.405	VV	1008	10793	0.14%	0.032%

rteres

90	7.423	7.405	7.443	VV	1355	18823	0.24%	0.055%
91	7.459	7.443	7.473	VV	626	7711	0.10%	0.023%
92	7.491	7.473	7.503	VV	950	11846	0.15%	0.035%
93	7.517	7.503	7.549	VV	1167	16520	0.21%	0.048%
94	7.554	7.549	7.572	VV	293	2150	0.03%	0.006%
95	7.579	7.572	7.583	VV	388	1941	0.02%	0.006%
96	7.587	7.583	7.616	VV	383	2806	0.04%	0.008%
97	7.657	7.616	7.670	PV	705	11901	0.15%	0.035%
98	7.687	7.670	7.709	VV	1956	24684	0.31%	0.072%
99	7.741	7.709	7.795	VV	623537	5944875	75.11%	17.429%
100	7.799	7.795	7.818	VV	803	8490	0.11%	0.025%
101	7.832	7.818	7.843	VV	1224	13604	0.17%	0.040%
102	7.854	7.843	7.879	VV	1340	17847	0.23%	0.052%
103	7.883	7.879	7.893	VV	482	3019	0.04%	0.009%
104	7.907	7.893	7.938	VV	720	12982	0.16%	0.038%
105	7.946	7.938	7.972	VV	645	6342	0.08%	0.019%
106	7.989	7.972	8.035	VV	881	21524	0.27%	0.063%
107	8.045	8.035	8.050	VV	440	3644	0.05%	0.011%
108	8.055	8.050	8.065	VV	489	3421	0.04%	0.010%
109	8.104	8.065	8.113	VV	1235	20494	0.26%	0.060%
110	8.122	8.113	8.168	VV	1239	17757	0.22%	0.052%
111	8.197	8.168	8.207	VV	950	14078	0.18%	0.041%
112	8.223	8.207	8.240	VV	3013	33660	0.43%	0.099%
113	8.252	8.240	8.278	VV	1938	24458	0.31%	0.072%
114	8.293	8.278	8.311	VV	2056	21572	0.27%	0.063%
115	8.325	8.311	8.340	VV	381	5995	0.08%	0.018%
116	8.346	8.340	8.351	VV	376	2116	0.03%	0.006%
117	8.390	8.351	8.395	VV	1853	27198	0.34%	0.080%
118	8.407	8.395	8.428	VV	2183	30100	0.38%	0.088%
119	8.442	8.428	8.470	VV	847	13669	0.17%	0.040%
120	8.495	8.470	8.512	VV	1116	16591	0.21%	0.049%
121	8.529	8.512	8.562	VV	1103	15995	0.20%	0.047%
122	8.606	8.562	8.636	PV	406801	3955191	49.97%	11.596%
123	8.657	8.636	8.680	VV	2147	39609	0.50%	0.116%
124	8.703	8.680	8.725	VV	7793	87713	1.11%	0.257%
125	8.747	8.725	8.770	VV	1499	26383	0.33%	0.077%
126	8.782	8.770	8.791	VV	1140	11450	0.14%	0.034%
127	8.809	8.791	8.820	VV	1253	18312	0.23%	0.054%
128	8.833	8.820	8.840	VV	1395	15578	0.20%	0.046%
129	8.851	8.840	8.878	VV	1758	26492	0.33%	0.078%
130	8.894	8.878	8.915	VV	1011	16327	0.21%	0.048%
131	8.945	8.915	8.960	VV	2418	36510	0.46%	0.107%
132	8.974	8.960	8.990	VV	4383	47456	0.60%	0.139%
133	9.013	8.990	9.036	VV	89386	877386	11.09%	2.572%
134	9.044	9.036	9.063	VV	2412	32876	0.42%	0.096%
135	9.068	9.063	9.082	VV	1839	17732	0.22%	0.052%
136	9.099	9.082	9.118	VV	2822	47172	0.60%	0.138%
137	9.132	9.118	9.158	VV	3893	64982	0.82%	0.191%
138	9.166	9.158	9.187	VV	2188	27062	0.34%	0.079%
139	9.202	9.187	9.219	VV	1401	18622	0.24%	0.055%
140	9.223	9.219	9.227	VV	418	1785	0.02%	0.005%
141	9.265	9.227	9.281	VV	1399	29016	0.37%	0.085%

rteres

142	9.298	9.281	9.318	VV	1913	26694	0.34%	0.078%
143	9.338	9.318	9.383	VV	1169	33732	0.43%	0.099%
144	9.402	9.383	9.432	VV	1979	40088	0.51%	0.118%
145	9.444	9.432	9.456	VV	967	11621	0.15%	0.034%
146	9.483	9.456	9.535	VV	9436	123483	1.56%	0.362%
147	9.561	9.535	9.593	VV	1566	35287	0.45%	0.103%
148	9.606	9.593	9.617	VV	1564	18455	0.23%	0.054%
149	9.635	9.617	9.657	VV	2514	38728	0.49%	0.114%
150	9.667	9.657	9.674	VV	931	8317	0.11%	0.024%
151	9.694	9.674	9.712	VV	2023	29739	0.38%	0.087%
152	9.729	9.712	9.737	VV	1928	21741	0.27%	0.064%
153	9.760	9.737	9.787	VV	90935	925959	11.70%	2.715%
154	9.806	9.787	9.822	VV	2668	38971	0.49%	0.114%
155	9.829	9.822	9.854	VV	1505	18801	0.24%	0.055%
156	9.860	9.854	9.872	VV	544	5272	0.07%	0.015%
157	9.904	9.872	9.949	VV	3121	57613	0.73%	0.169%
158	9.967	9.949	9.989	VV	1149	17730	0.22%	0.052%
159	9.996	9.989	10.025	VV	626	9408	0.12%	0.028%
160	10.044	10.025	10.056	VV	574	8520	0.11%	0.025%
161	10.074	10.056	10.108	VV	740	14618	0.18%	0.043%
162	10.114	10.108	10.126	PV	157	1350	0.02%	0.004%
163	10.167	10.126	10.185	VV	493	8803	0.11%	0.026%
164	10.220	10.185	10.227	VV	964	17576	0.22%	0.052%
165	10.230	10.227	10.261	VV	921	12546	0.16%	0.037%
166	10.283	10.261	10.302	VV	1030	16996	0.21%	0.050%
167	10.317	10.302	10.325	VV	1070	12084	0.15%	0.035%
168	10.327	10.325	10.340	VV	1133	8776	0.11%	0.026%
169	10.362	10.340	10.387	VV	2783	43382	0.55%	0.127%
170	10.404	10.387	10.451	VV	2224	42313	0.53%	0.124%
171	10.481	10.451	10.498	VV	2178	35862	0.45%	0.105%
172	10.503	10.498	10.512	VV	1458	11518	0.15%	0.034%
173	10.531	10.512	10.550	VV	3454	46269	0.58%	0.136%
174	10.559	10.550	10.570	VV	1234	12822	0.16%	0.038%
175	10.576	10.570	10.592	VV	1151	12143	0.15%	0.036%
176	10.613	10.592	10.632	VV	1151	23781	0.30%	0.070%
177	10.648	10.632	10.661	VV	2060	25078	0.32%	0.074%
178	10.684	10.661	10.704	VV	4040	62844	0.79%	0.184%
179	10.714	10.704	10.732	VV	1545	20834	0.26%	0.061%
180	10.758	10.732	10.797	VV	2402	56233	0.71%	0.165%
181	10.814	10.797	10.832	VV	1008	16009	0.20%	0.047%
182	10.850	10.832	10.858	VV	1675	17649	0.22%	0.052%
183	10.881	10.858	10.919	VV	71890	748861	9.46%	2.195%
184	10.924	10.919	10.930	VV	490	3010	0.04%	0.009%
185	10.955	10.930	10.980	VV	10764	123537	1.56%	0.362%
186	10.993	10.980	11.017	VV	634	11038	0.14%	0.032%
187	11.028	11.017	11.037	VV	760	6284	0.08%	0.018%
188	11.054	11.037	11.095	VV	1139	23776	0.30%	0.070%
189	11.101	11.095	11.108	VV	343	1873	0.02%	0.005%
190	11.114	11.108	11.122	VV	284	1821	0.02%	0.005%
191	11.132	11.122	11.145	VV	337	3808	0.05%	0.011%
192	11.164	11.145	11.213	VV	3610	45813	0.58%	0.134%
193	11.256	11.213	11.261	VV	875	15520	0.20%	0.046%
194	11.264	11.261	11.272	VV	899	5710	0.07%	0.017%

rteres

195	11.276	11.272	11.297	VV	917	10847	0.14%	0.032%
196	11.304	11.297	11.311	VV	677	5223	0.07%	0.015%
197	11.328	11.311	11.354	VV	1203	18375	0.23%	0.054%
198	11.416	11.354	11.449	VV	2020	55496	0.70%	0.163%
199	11.479	11.449	11.499	VV	1019	14116	0.18%	0.041%
200	11.532	11.499	11.555	PV	1290	20956	0.26%	0.061%
201	11.573	11.555	11.590	VV	864	10324	0.13%	0.030%
202	11.606	11.590	11.612	VV	396	4219	0.05%	0.012%
203	11.653	11.612	11.676	VV	731199	7914551	100.00%	23.203%
204	11.682	11.676	11.697	VV	9204	82553	1.04%	0.242%
205	11.712	11.697	11.736	VV	11299	128257	1.62%	0.376%
206	11.743	11.736	11.758	VV	1306	12914	0.16%	0.038%
207	11.798	11.758	11.816	VV	7435	122782	1.55%	0.360%
208	11.831	11.816	11.845	VV	5529	64016	0.81%	0.188%
209	11.862	11.845	11.888	VV	7344	84777	1.07%	0.249%
210	11.900	11.888	11.910	VV	633	5779	0.07%	0.017%
211	11.930	11.910	11.952	VV	851	15190	0.19%	0.045%
212	11.985	11.952	12.011	VV	1441	34824	0.44%	0.102%
213	12.045	12.011	12.072	VV	8507	120882	1.53%	0.354%
214	12.084	12.072	12.107	VV	1120	15792	0.20%	0.046%
215	12.151	12.107	12.183	VV	5143	73916	0.93%	0.217%
216	12.238	12.183	12.279	VV	21506	313026	3.96%	0.918%
217	12.292	12.279	12.318	VV	2459	47407	0.60%	0.139%
218	12.324	12.318	12.341	VV	1464	18113	0.23%	0.053%
219	12.356	12.341	12.382	VV	1594	33308	0.42%	0.098%
220	12.401	12.382	12.412	VV	2212	32107	0.41%	0.094%
221	12.423	12.412	12.451	VV	1863	32091	0.41%	0.094%
222	12.495	12.451	12.515	VV	6597	127840	1.62%	0.375%
223	12.525	12.515	12.557	VV	2518	39757	0.50%	0.117%
224	12.578	12.557	12.596	VV	6508	83551	1.06%	0.245%
225	12.615	12.596	12.623	VV	2625	33509	0.42%	0.098%
226	12.639	12.623	12.658	VV	3053	46664	0.59%	0.137%
227	12.694	12.658	12.747	VV	65734	761880	9.63%	2.234%
228	12.754	12.747	12.777	VV	716	9130	0.12%	0.027%
229	12.829	12.777	12.836	VV	1261	26269	0.33%	0.077%
230	12.848	12.836	12.864	VV	1505	20314	0.26%	0.060%
231	12.883	12.864	12.898	VV	2932	38213	0.48%	0.112%
232	12.903	12.898	12.944	VV	1500	27682	0.35%	0.081%
233	12.957	12.944	12.965	VV	773	7464	0.09%	0.022%
234	12.991	12.965	13.016	VV	54579	582104	7.35%	1.707%
235	13.078	13.016	13.108	VV	123381	1475799	18.65%	4.327%
236	13.129	13.108	13.146	VV	1095	18906	0.24%	0.055%
237	13.164	13.146	13.185	VV	2397	31688	0.40%	0.093%
238	13.200	13.185	13.220	VV	821	10158	0.13%	0.030%
239	13.258	13.220	13.277	PV	2887	44057	0.56%	0.129%
240	13.296	13.277	13.318	VV	4480	63694	0.80%	0.187%
241	13.326	13.318	13.349	VV	1611	18764	0.24%	0.055%
242	13.358	13.349	13.363	VV	411	2987	0.04%	0.009%
243	13.387	13.363	13.403	VV	2025	27585	0.35%	0.081%
244	13.411	13.403	13.428	VV	1218	16585	0.21%	0.049%
245	13.450	13.428	13.459	VV	4224	55301	0.70%	0.162%
246	13.472	13.459	13.537	VV	6962	152983	1.93%	0.449%

rteres

247	13.577	13.537	13.616	VV	8451	156298	1.97%	0.458%
248	13.621	13.616	13.623	VV	591	2358	0.03%	0.007%
249	13.647	13.623	13.663	VV	1669	24970	0.32%	0.073%
250	13.687	13.663	13.708	VV	4573	71917	0.91%	0.211%
251	13.726	13.708	13.752	VV	4618	64845	0.82%	0.190%
252	13.778	13.752	13.800	VV	4436	71160	0.90%	0.209%
253	13.832	13.800	13.839	VV	2473	42407	0.54%	0.124%
254	13.855	13.839	13.875	VV	4365	58742	0.74%	0.172%
255	13.896	13.875	13.940	VV	3558	57472	0.73%	0.168%
256	13.969	13.940	13.987	VV	799	15329	0.19%	0.045%
257	14.008	13.987	14.019	VV	782	10164	0.13%	0.030%
258	14.024	14.019	14.042	VV	433	5098	0.06%	0.015%
259	14.057	14.042	14.072	VV	587	9062	0.11%	0.027%
260	14.079	14.072	14.092	VV	577	5442	0.07%	0.016%
261	14.100	14.092	14.123	VV	451	4960	0.06%	0.015%
262	14.133	14.123	14.147	VV	256	1830	0.02%	0.005%
263	14.168	14.147	14.185	VV	589	7959	0.10%	0.023%
264	14.220	14.185	14.235	VV	1030	15951	0.20%	0.047%
265	14.264	14.235	14.289	VV	3200	60581	0.77%	0.178%
266	14.308	14.289	14.349	VV	3212	55985	0.71%	0.164%
267	14.393	14.349	14.399	VV	984	21069	0.27%	0.062%
268	14.416	14.399	14.452	VV	1247	26395	0.33%	0.077%
269	14.491	14.452	14.512	VV	3129	62669	0.79%	0.184%
270	14.516	14.512	14.532	VV	1336	15361	0.19%	0.045%
271	14.553	14.532	14.576	VV	7068	92042	1.16%	0.270%
272	14.581	14.576	14.592	VV	1089	9851	0.12%	0.029%
273	14.610	14.592	14.643	VV	2685	42731	0.54%	0.125%
274	14.648	14.643	14.653	VV	542	2751	0.03%	0.008%
275	14.679	14.653	14.687	VV	1074	14907	0.19%	0.044%
276	14.707	14.687	14.719	VV	1328	20820	0.26%	0.061%
277	14.738	14.719	14.751	VV	1596	26018	0.33%	0.076%
278	14.758	14.751	14.803	VV	1236	22414	0.28%	0.066%
279	14.818	14.803	14.833	VV	602	6521	0.08%	0.019%
280	14.861	14.833	14.881	VV	21164	254118	3.21%	0.745%
281	14.902	14.881	14.940	VV	22748	295340	3.73%	0.866%
282	14.945	14.940	14.960	VV	1114	12013	0.15%	0.035%
283	14.967	14.960	14.990	VV	1174	14269	0.18%	0.042%
284	14.997	14.990	15.001	VV	690	3653	0.05%	0.011%
285	15.025	15.001	15.055	VV	4052	57743	0.73%	0.169%
286	15.062	15.055	15.074	VV	780	7348	0.09%	0.022%
287	15.098	15.074	15.130	VV	1443	24192	0.31%	0.071%
288	15.159	15.130	15.186	PV	1727	29644	0.37%	0.087%
289	15.201	15.186	15.213	VV	1363	17556	0.22%	0.051%
290	15.224	15.213	15.255	VV	1135	18171	0.23%	0.053%
291	15.260	15.255	15.265	VV	418	1923	0.02%	0.006%
292	15.301	15.265	15.388	VV	21908	320079	4.04%	0.938%
293	15.394	15.388	15.417	VV	628	8416	0.11%	0.025%
294	15.424	15.417	15.430	VV	771	5044	0.06%	0.015%
295	15.463	15.430	15.483	VV	2225	44030	0.56%	0.129%
296	15.493	15.483	15.511	VV	1564	21450	0.27%	0.063%
297	15.533	15.511	15.554	VV	4939	68788	0.87%	0.202%
298	15.570	15.554	15.589	VV	2690	36017	0.46%	0.106%
299	15.615	15.589	15.633	VV	1295	27866	0.35%	0.082%

300	15.671	15.633	15.683	VV	2493	49256	0.62%	0.144%
301	15.697	15.683	15.727	VV	2645	45585	0.58%	0.134%
302	15.771	15.727	15.798	VV	1538	37341	0.47%	0.109%
303	15.816	15.798	15.840	VV	1292	20610	0.26%	0.060%
304	15.857	15.840	15.881	VV	1129	17580	0.22%	0.052%
305	15.890	15.881	15.900	VV	516	5200	0.07%	0.015%
306	15.905	15.900	15.915	VV	621	4174	0.05%	0.012%
307	15.945	15.915	15.982	VV	1411	32213	0.41%	0.094%
308	15.999	15.982	16.021	VV	680	11937	0.15%	0.035%
309	16.029	16.021	16.047	VV	356	3966	0.05%	0.012%
310	16.053	16.047	16.075	VV	263	2817	0.04%	0.008%
311	16.088	16.075	16.107	VV	532	7300	0.09%	0.021%
312	16.140	16.107	16.160	VV	1308	23412	0.30%	0.069%
313	16.166	16.160	16.196	VV	561	6708	0.08%	0.020%
314	16.206	16.196	16.212	VV	364	2427	0.03%	0.007%
315	16.219	16.212	16.225	VV	539	3362	0.04%	0.010%
316	16.239	16.225	16.267	VV	831	13925	0.18%	0.041%
317	16.281	16.267	16.287	VV	693	6345	0.08%	0.019%
318	16.312	16.287	16.330	VV	2732	43887	0.55%	0.129%
319	16.339	16.330	16.364	VV	1920	23221	0.29%	0.068%
320	16.413	16.364	16.430	VV	19865	277737	3.51%	0.814%
321	16.441	16.430	16.482	VV	9393	119155	1.51%	0.349%
322	16.508	16.482	16.524	VV	1625	27781	0.35%	0.081%
323	16.544	16.524	16.632	VV	3682	95409	1.21%	0.280%
324	16.635	16.632	16.648	VV	675	4704	0.06%	0.014%
325	16.662	16.648	16.673	VV	926	10791	0.14%	0.032%
326	16.732	16.673	16.759	VV	11975	185452	2.34%	0.544%
327	16.789	16.759	16.840	VV	17869	240591	3.04%	0.705%
328	16.892	16.840	16.920	VV	5575	92756	1.17%	0.272%
329	16.942	16.920	16.974	VV	1830	35416	0.45%	0.104%
330	16.980	16.974	16.985	VV	717	4261	0.05%	0.012%
331	17.032	16.985	17.082	VV	1450	50832	0.64%	0.149%
332	17.097	17.082	17.115	VV	677	7816	0.10%	0.023%
333	17.128	17.115	17.131	PV	592	3318	0.04%	0.010%
334	17.161	17.131	17.189	VV	2032	44894	0.57%	0.132%
335	17.196	17.189	17.214	VV	945	8894	0.11%	0.026%
336	17.252	17.214	17.270	VV	1855	29855	0.38%	0.088%
337	17.290	17.270	17.302	VV	1389	22359	0.28%	0.066%
338	17.317	17.302	17.323	VV	1461	14803	0.19%	0.043%
339	17.336	17.323	17.355	VV	1531	22487	0.28%	0.066%
340	17.375	17.355	17.392	VV	1287	19081	0.24%	0.056%
341	17.403	17.392	17.420	VV	943	12712	0.16%	0.037%
342	17.424	17.420	17.427	VV	776	2754	0.03%	0.008%
343	17.446	17.427	17.475	VV	1635	28863	0.36%	0.085%
344	17.491	17.475	17.507	VV	681	8318	0.11%	0.024%
345	17.519	17.507	17.525	VV	439	3999	0.05%	0.012%
346	17.561	17.525	17.577	VV	879	19219	0.24%	0.056%
347	17.580	17.577	17.591	VV	544	4015	0.05%	0.012%
348	17.597	17.591	17.605	VV	457	2991	0.04%	0.009%
349	17.614	17.605	17.640	VV	434	8154	0.10%	0.024%
350	17.660	17.654	17.679	VV	378	2575	0.03%	0.008%
351	17.701	17.679	17.715	VV	717	11107	0.14%	0.033%

rteres

352	17.747	17.715	17.753	VV	1163	18815	0.24%	0.055%
353	17.777	17.753	17.804	VV	2217	39099	0.49%	0.115%
354	17.867	17.804	17.875	VV	1412	29941	0.38%	0.088%
355	17.880	17.875	17.902	VV	1249	12518	0.16%	0.037%
356	17.921	17.902	17.929	VV	798	10097	0.13%	0.030%
357	17.941	17.929	17.973	VV	953	15636	0.20%	0.046%
358	17.992	17.973	18.007	VV	503	6566	0.08%	0.019%
359	18.021	18.007	18.039	VV	429	5115	0.06%	0.015%
360	18.063	18.039	18.085	PV	2779	38002	0.48%	0.111%
361	18.093	18.085	18.102	VV	710	7085	0.09%	0.021%
362	18.128	18.102	18.138	VV	11631	148047	1.87%	0.434%
363	18.150	18.138	18.174	VV	12675	179587	2.27%	0.526%
364	18.194	18.174	18.225	VV	8333	124600	1.57%	0.365%
365	18.237	18.225	18.262	VV	962	14156	0.18%	0.042%
366	18.286	18.262	18.300	VV	2283	32141	0.41%	0.094%
367	18.317	18.300	18.342	VV	2233	32053	0.40%	0.094%
368	18.352	18.342	18.370	VV	535	5293	0.07%	0.016%
369	18.405	18.370	18.441	VV	11153	142857	1.80%	0.419%
370	18.446	18.441	18.457	VV	417	3388	0.04%	0.010%
371	18.463	18.457	18.468	VV	238	1536	0.02%	0.005%
372	18.491	18.468	18.508	VV	815	11894	0.15%	0.035%
373	18.537	18.508	18.583	VV	3131	51310	0.65%	0.150%
374	18.606	18.583	18.630	VV	1719	25508	0.32%	0.075%
375	18.634	18.630	18.653	VV	558	5416	0.07%	0.016%
376	18.660	18.653	18.672	VV	284	2103	0.03%	0.006%
377	18.712	18.672	18.742	VV	1251	24138	0.30%	0.071%
378	18.745	18.742	18.758	VV	255	2163	0.03%	0.006%
379	18.777	18.758	18.793	VV	305	4559	0.06%	0.013%
380	18.805	18.793	18.818	VV	422	4593	0.06%	0.013%
381	18.839	18.818	18.863	VV	658	11094	0.14%	0.033%
382	18.878	18.863	18.885	VV	459	4376	0.06%	0.013%
383	18.889	18.885	18.898	VV	362	1474	0.02%	0.004%
384	18.918	18.898	18.923	PV	423	4364	0.06%	0.013%
385	18.953	18.923	18.983	VV	6097	90180	1.14%	0.264%

Sum of corrected areas: 34109697

Aromatic EPH 050125.M Fri May 09 09:49:23 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/26/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/28/25
Client Sample ID:	B-170-SB01	SDG No.:	Q1901
Lab Sample ID:	Q1901-03	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	83
Sample Wt/Vol:	30.05 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
05/07/25 13:37	05/08/25 19:09	PB167903

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	Datafile
TARGETS								
Aliphatic C9-C12	Aliphatic C9-C12	0.17	U	1	0.17	1.20	mg/kg	FC068801.D
Aliphatic C12-C16	Aliphatic C12-C16	0.13	U	1	0.13	0.80	mg/kg	FC068801.D
Aliphatic C16-C21	Aliphatic C16-C21	0.16	U	1	0.16	1.20	mg/kg	FC068801.D
Aliphatic C21-C28	Aliphatic C21-C28	0.64	U	1	0.64	1.60	mg/kg	FC068801.D
Aliphatic C28-C40	Aliphatic C28-C40	1.42	U	1	1.42	2.41	mg/kg	FC068801.D
Aromatic C10-C12	Aromatic C10-C12	0.61	J	1	0.14	0.80	mg/kg	FD049327.D
Aromatic C12-C16	Aromatic C12-C16	1.45		1	0.28	1.20	mg/kg	FD049327.D
Aromatic C16-C21	Aromatic C16-C21	20.1		1	0.48	2.00	mg/kg	FD049327.D
Aromatic C21-C36	Aromatic C21-C36	19.0		1	1.43	3.21	mg/kg	FD049327.D
Total AliphaticEPH	Total AliphaticEPH	2.51	U		2.51	7.21	mg/kg	
Total AromaticEPH	Total AromaticEPH	41.2			2.33	7.21	mg/kg	
Total EPH	Total EPH	41.2			4.84	14.4	mg/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

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/26/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/28/25
Client Sample ID:	B-170-SB01	SDG No.:	Q1901
Lab Sample ID:	Q1901-03	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	83
Sample Wt/Vol:	30.05 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC068801.D	1	05/07/25	05/08/25	PB167903

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	0.17	U	0.17	1.20	mg/kg
Aliphatic C12-C16	Aliphatic C12-C16	0.13	U	0.13	0.80	mg/kg
Aliphatic C16-C21	Aliphatic C16-C21	0.16	U	0.16	1.20	mg/kg
Aliphatic C21-C28	Aliphatic C21-C28	0.64	U	0.64	1.60	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	1.42	U	1.42	2.41	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	39.2		40 - 140	78%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	0.00		40 - 140	0%	SPK: 50

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

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	Q1901-03	Acq On:	08 May 2025 19:09
Client Sample ID:	B-170-SB01	Operator:	YP/AJ
Data file:	FC068801.D	Misc:	
Instrument:	FID_C	ALS Vial:	18
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.342	6.642	76596	0.773	300	ug/ml
Aliphatic C12-C16	6.643	10.042	44047	0.484	200	ug/ml
Aliphatic C16-C21	10.043	13.408	85783	1	300	ug/ml
Aliphatic C21-C28	13.409	17.072	201349	2.423	400	ug/ml
Aliphatic C28-C40	17.073	22.071	0	0	600	ug/ml
Aliphatic EPH	3.342	22.071	407775	4.68		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	13.143	13.143	3145610	39.21		ug/ml
Aliphatic C9-C28	3.342	17.072	407775	4.68	1200	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068801.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 19:09
Operator : YP/AJ
Sample : Q1901-03
Misc :
ALS Vial : 18 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
B-170-SB01

Integration File: autoint1.e
Quant Time: May 09 09:09:03 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
12) S 1-chlorooctadecane (S...	13.143	3145610	39.209 ug/ml
Spiked Amount 50.000		Recovery = 78.42%	
Target Compounds			

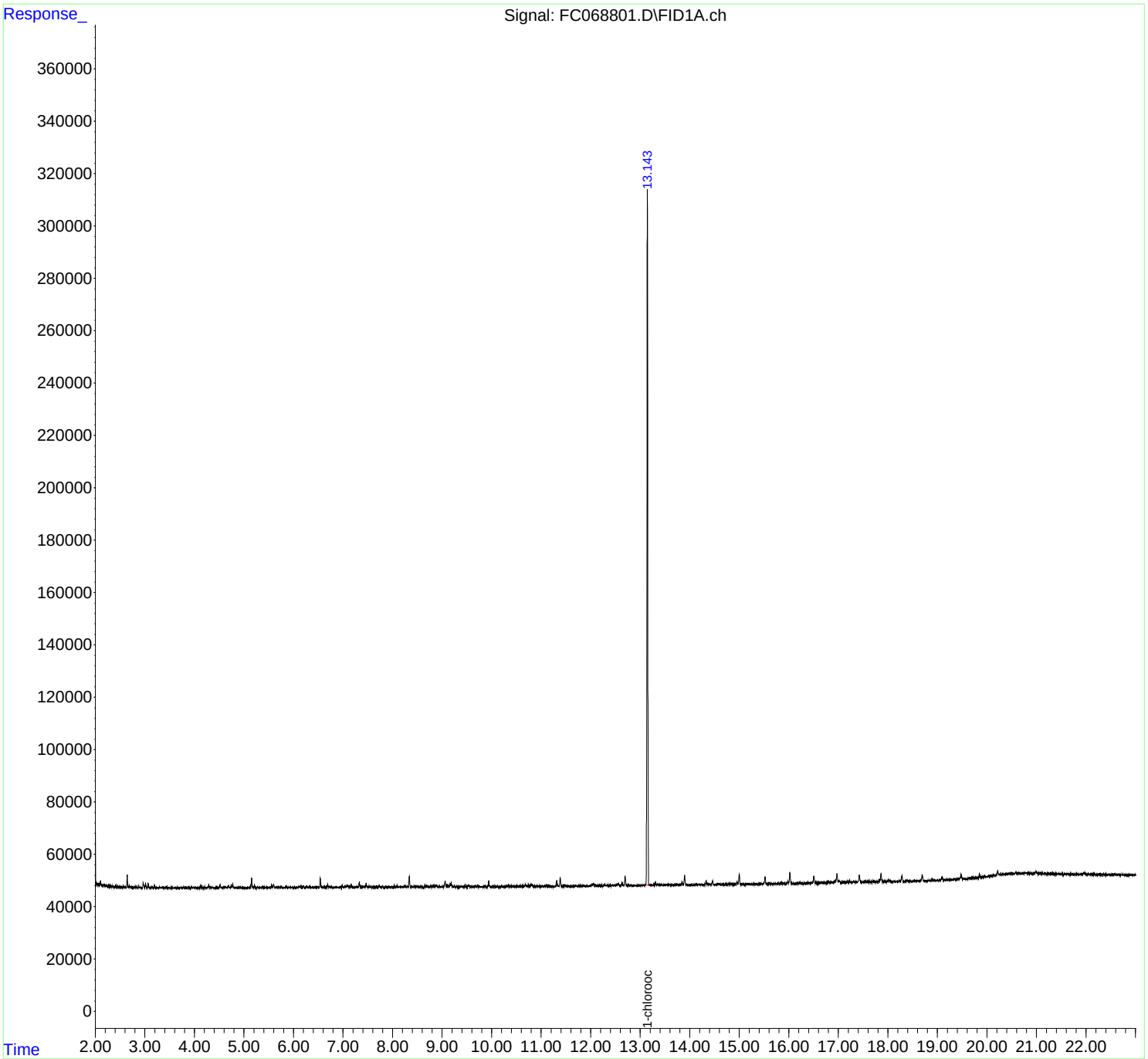
(f)=RT Delta > 1/2 Window (m)=manual int.

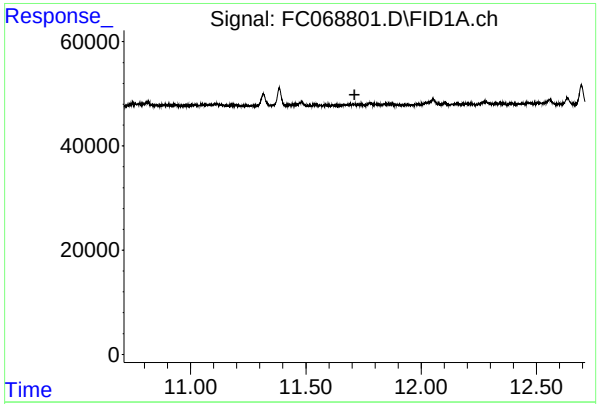
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068801.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 19:09
Operator : YP/AJ
Sample : Q1901-03
Misc :
ALS Vial : 18 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
B-170-SB01

Integration File: autoint1.e
Quant Time: May 09 09:09:03 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

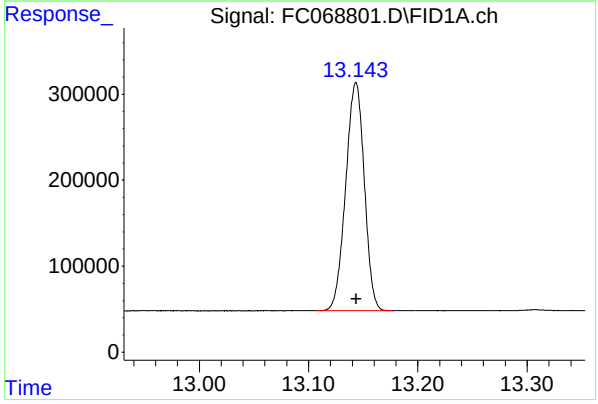




#9 ortho-Terphenyl (SURR)

R.T.: 0.000 min
Exp R.T. : 11.711 min
Response: 0
Conc: N.D.

Instrument :
FID_C
ClientSampleId :
B-170-SB01



#12 1-chlorooctadecane (SURR)

R.T.: 13.143 min
Delta R.T.: 0.000 min
Response: 3145610
Conc: 39.21 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068801.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 19:09
Sample : Q1901-03
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	5.155	5.083	5.187	BV	3765	41105	1.31%	1.157%
2	6.542	6.492	6.577	BB	3535	35491	1.13%	0.999%
3	8.339	8.293	8.385	BB	4028	44047	1.40%	1.240%
4	11.385	11.340	11.413	BB	3355	40300	1.28%	1.134%
5	12.695	12.665	12.738	BB	3665	45483	1.45%	1.280%
6	13.143	13.107	13.177	BB	266217	3145610	100.00%	88.524%
7	13.894	13.867	13.940	PB	3727	47931	1.52%	1.349%
8	14.997	14.970	15.025	VB	3990	52517	1.67%	1.478%
9	16.020	15.997	16.055	VB	4078	51959	1.65%	1.462%
10	16.970	16.903	16.998	BV	3299	48942	1.56%	1.377%

Sum of corrected areas: 3553385

Aliphatic EPH 050625.M Fri May 09 09:33:12 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/26/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/28/25
Client Sample ID:	B-170-SB01	SDG No.:	Q1901
Lab Sample ID:	Q1901-03	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	83
Sample Wt/Vol:	30.05 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD049327.D	1	05/07/25	05/08/25	PB167903

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aromatic C10-C12	Aromatic C10-C12	0.61	J	0.14	0.80	mg/kg
Aromatic C12-C16	Aromatic C12-C16	1.45		0.28	1.20	mg/kg
Aromatic C16-C21	Aromatic C16-C21	20.1		0.48	2.00	mg/kg
Aromatic C21-C36	Aromatic C21-C36	19.0		1.43	3.21	mg/kg
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	61.5		40 - 140	123%	SPK: 50
321-60-8	2-Flurobiphenyl (SURR)	63.6		40 - 140	127%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	42.4		40 - 140	85%	SPK: 50

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

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	Q1901-03	Acq On:	08 May 2025 18:31
Client Sample ID:	B-170-SB01	Operator:	YP/AJ
Data file:	FD049327.D	Misc:	
Instrument:	FID_D	ALS Vial:	67
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.431	6.176	976606	7.598	200	ug/ml
Aromatic C12-C16	6.177	8.805	2452944	18.073	300	ug/ml
Aromatic C16-C21	8.806	13.095	32947919	251.28	500	ug/ml
Aromatic C21-C36	13.0956	18.515	27860467	237.406	800	ug/ml
Aromatic EPH	4.431	18.515	64237936	514.356		ug/ml
2-Bromonaphthalene (SURR)	7.742	7.742	7294212	61.52		ug/ml
2-Flurobiphenyl (SURR)	8.608	8.608	5025132	63.63		ug/ml
ortho-Terphenyl (SURR)	11.652	11.652	5845951	42.36		ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049327.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 18:31
Operator : YP/AJ
Sample : Q1901-03
Misc :
ALS Vial : 67 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
B-170-SB01

Integration File: autoint1.e
Quant Time: May 09 09:20:09 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.742	7294212	61.518 ug/ml
Spiked Amount 50.000		Recovery = 123.04%	
6) S 2-Flurobiphenyl (SURR)	8.608	5025132	63.632 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery = 127.26%	
11) S ortho-Terphenyl (SURR)	11.652	5845951	42.356 ug/ml
Spiked Amount 50.000		Recovery = 84.71%	
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

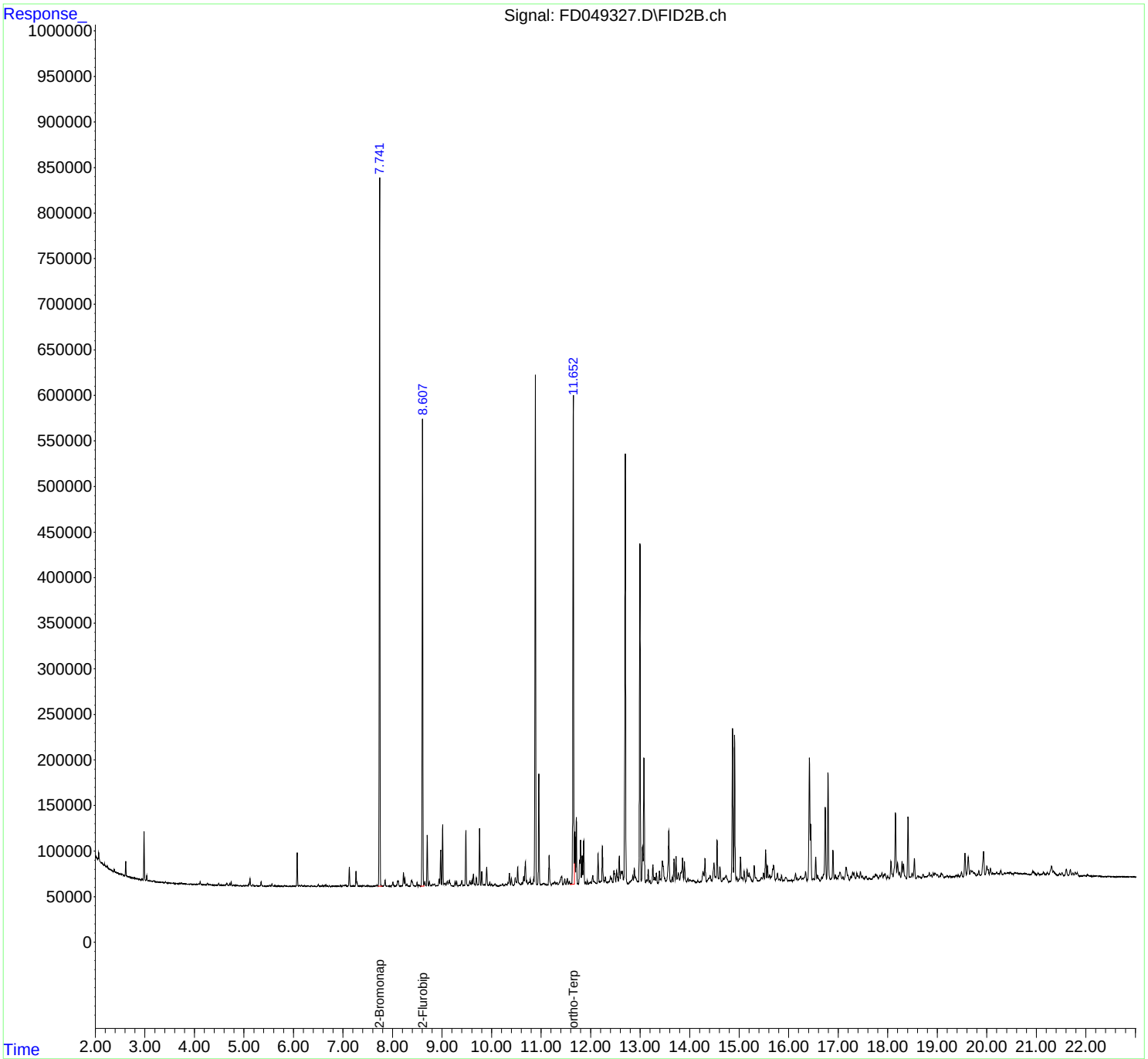
Quantitation Report (QT Reviewed)

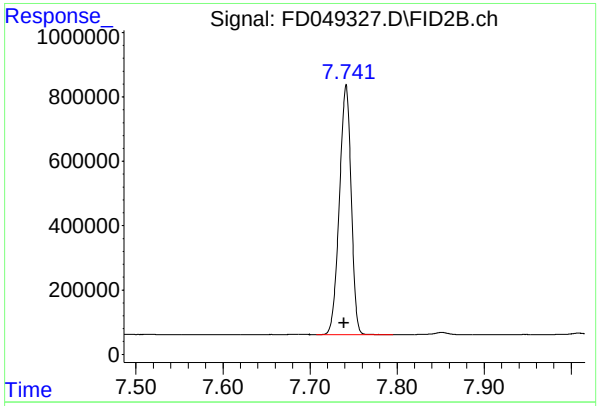
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049327.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 18:31
Operator : YP/AJ
Sample : Q1901-03
Misc :
ALS Vial : 67 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
B-170-SB01

Integration File: autoint1.e
Quant Time: May 09 09:20:09 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

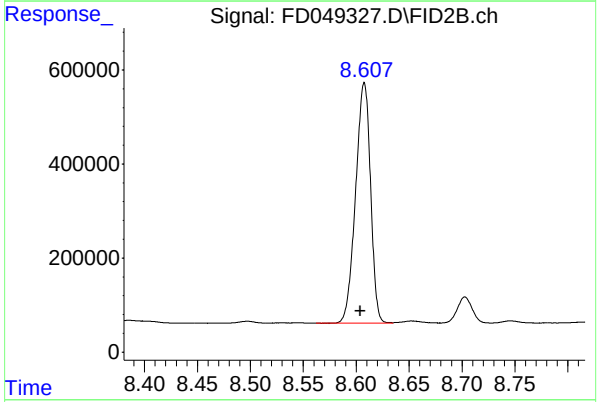




#4 2-Bromonaphthalene (SURR)

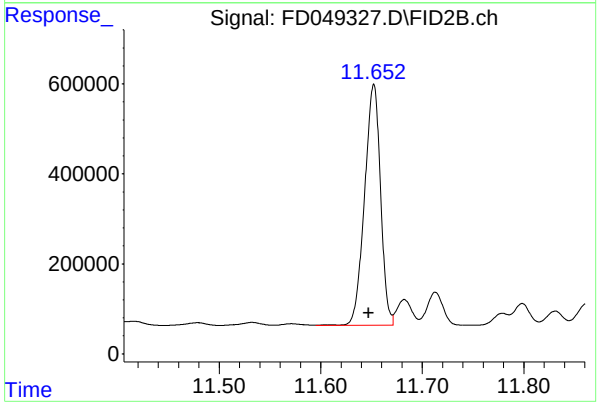
R.T.: 7.742 min
Delta R.T.: 0.003 min
Response: 7294212
Conc: 61.52 ug/ml

Instrument :
FID_D
ClientSampleId :
B-170-SB01



#6 2-Flurobiphenyl (SURR)

R.T.: 8.608 min
Delta R.T.: 0.004 min
Response: 5025132
Conc: 63.63 ug/ml



#11 ortho-Terphenyl (SURR)

R.T.: 11.652 min
Delta R.T.: 0.005 min
Response: 5845951
Conc: 42.36 ug/ml

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049327.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 18:31
Sample : Q1901-03
Misc :
ALS Vial : 67 Sample Multiplier: 1

Integration File: sample.E

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.265	4.252	4.286	PH	1791	18305	0.25%	0.022%
2	4.298	4.286	4.321	PV	654	7458	0.10%	0.009%
3	4.325	4.321	4.342	VV	325	2468	0.03%	0.003%
4	4.349	4.342	4.415	VV	135	4758	0.07%	0.006%
5	4.424	4.415	4.429	VV	191	1264	0.02%	0.002%
6	4.448	4.429	4.465	VV	395	4494	0.06%	0.005%
7	4.489	4.465	4.517	PV	2319	25675	0.35%	0.031%
8	4.534	4.517	4.549	VV	502	6431	0.09%	0.008%
9	4.575	4.549	4.582	VV	396	5131	0.07%	0.006%
10	4.589	4.582	4.595	VV	376	2664	0.04%	0.003%
11	4.602	4.595	4.624	VV	521	5798	0.08%	0.007%
12	4.656	4.624	4.678	VV	2987	41801	0.57%	0.050%
13	4.712	4.678	4.727	VV	2335	27457	0.38%	0.033%
14	4.743	4.727	4.784	VV	4504	45162	0.62%	0.054%
15	4.795	4.784	4.824	VV	1209	12408	0.17%	0.015%
16	4.834	4.824	4.850	VV	665	7178	0.10%	0.009%
17	4.860	4.850	4.883	VV	535	6768	0.09%	0.008%
18	4.889	4.883	4.912	VV	343	2902	0.04%	0.003%
19	4.934	4.912	4.970	PV	481	7650	0.10%	0.009%
20	4.973	4.970	4.991	VV	204	2035	0.03%	0.002%
21	4.999	4.991	5.028	VV	300	4908	0.07%	0.006%
22	5.043	5.028	5.082	VV	610	11240	0.15%	0.014%
23	5.097	5.082	5.105	VV	1818	16175	0.22%	0.019%
24	5.123	5.105	5.156	VV	8480	92084	1.26%	0.111%
25	5.180	5.156	5.228	VV	1779	28725	0.39%	0.035%
26	5.234	5.228	5.240	VV	379	2330	0.03%	0.003%
27	5.259	5.240	5.280	VV	436	7638	0.10%	0.009%
28	5.284	5.280	5.300	VV	300	2767	0.04%	0.003%
29	5.314	5.300	5.330	VV	504	6855	0.09%	0.008%
30	5.346	5.330	5.398	VV	4971	54732	0.75%	0.066%
31	5.411	5.398	5.450	VV	353	6558	0.09%	0.008%
32	5.476	5.460	5.480	VV	430	3213	0.04%	0.004%
33	5.488	5.480	5.503	VV	531	5162	0.07%	0.006%
34	5.525	5.503	5.547	VV	1585	18157	0.25%	0.022%
35	5.566	5.547	5.600	VV	2967	32364	0.44%	0.039%
36	5.625	5.600	5.647	VV	1010	13107	0.18%	0.016%

rteres

37	5.653	5.647	5.671	VV	363	3777	0.05%	0.005%
38	5.686	5.671	5.702	VV	669	7861	0.11%	0.009%
39	5.713	5.702	5.745	VV	536	8366	0.11%	0.010%
40	5.765	5.745	5.790	VV	570	7120	0.10%	0.009%
41	5.815	5.790	5.832	VV	989	13503	0.18%	0.016%
42	5.848	5.832	5.855	VV	742	7037	0.10%	0.008%
43	5.863	5.855	5.883	VV	611	6869	0.09%	0.008%
44	5.901	5.892	5.922	PV	270	3138	0.04%	0.004%
45	5.931	5.922	5.941	VV	199	1856	0.03%	0.002%
46	5.952	5.941	5.967	VV	280	3094	0.04%	0.004%
47	5.986	5.967	6.017	VV	516	10362	0.14%	0.012%
48	6.027	6.017	6.036	VV	388	3379	0.05%	0.004%
49	6.076	6.036	6.102	VV	37196	346550	4.74%	0.416%
50	6.124	6.102	6.144	VV	1527	20159	0.28%	0.024%
51	6.163	6.144	6.195	VV	1846	23966	0.33%	0.029%
52	6.223	6.195	6.265	VV	977	21334	0.29%	0.026%
53	6.296	6.265	6.319	VV	876	17236	0.24%	0.021%
54	6.326	6.319	6.334	VV	307	2244	0.03%	0.003%
55	6.358	6.334	6.379	VV	1150	14953	0.20%	0.018%
56	6.384	6.379	6.404	VV	365	4035	0.06%	0.005%
57	6.437	6.404	6.464	VV	438	9159	0.13%	0.011%
58	6.503	6.477	6.535	VV	2430	29566	0.40%	0.036%
59	6.537	6.535	6.541	VV	402	1030	0.01%	0.001%
60	6.547	6.541	6.568	VV	396	4429	0.06%	0.005%
61	6.588	6.568	6.605	VV	1173	13128	0.18%	0.016%
62	6.624	6.605	6.640	VV	1122	12501	0.17%	0.015%
63	6.653	6.640	6.671	VV	2230	22030	0.30%	0.026%
64	6.691	6.671	6.705	VV	672	8156	0.11%	0.010%
65	6.726	6.705	6.747	VV	1185	12378	0.17%	0.015%
66	6.789	6.756	6.815	PV	562	10993	0.15%	0.013%
67	6.827	6.815	6.834	VV	408	2947	0.04%	0.004%
68	6.838	6.834	6.846	VV	330	2007	0.03%	0.002%
69	6.850	6.846	6.855	VV	344	1144	0.02%	0.001%
70	6.869	6.855	6.887	VV	417	4933	0.07%	0.006%
71	6.905	6.887	6.924	VV	630	8159	0.11%	0.010%
72	6.946	6.924	6.976	VV	1407	18513	0.25%	0.022%
73	6.999	6.976	7.021	VV	1584	26472	0.36%	0.032%
74	7.027	7.021	7.030	VV	1075	5244	0.07%	0.006%
75	7.046	7.030	7.092	VV	1547	36419	0.50%	0.044%
76	7.129	7.092	7.159	VV	21396	217886	2.98%	0.262%
77	7.173	7.159	7.177	VV	476	4262	0.06%	0.005%
78	7.182	7.177	7.194	VV	419	3484	0.05%	0.004%
79	7.217	7.194	7.243	VV	772	15906	0.22%	0.019%
80	7.264	7.243	7.279	VV	16877	164291	2.25%	0.197%
81	7.285	7.279	7.327	VV	4676	49046	0.67%	0.059%
82	7.344	7.327	7.360	VV	736	9466	0.13%	0.011%
83	7.364	7.360	7.378	VV	577	5174	0.07%	0.006%
84	7.393	7.378	7.406	VV	864	9356	0.13%	0.011%
85	7.425	7.406	7.446	VV	1493	20017	0.27%	0.024%
86	7.453	7.446	7.455	VV	371	1701	0.02%	0.002%
87	7.467	7.455	7.477	VV	548	5213	0.07%	0.006%
88	7.491	7.477	7.506	VV	915	13010	0.18%	0.016%
89	7.516	7.506	7.546	VV	1084	13216	0.18%	0.016%

rteres

90	7.553	7.546	7.577	VV	362	5081	0.07%	0.006%
91	7.600	7.577	7.606	VV	431	5906	0.08%	0.007%
92	7.616	7.606	7.620	VV	358	2430	0.03%	0.003%
93	7.633	7.620	7.643	VV	469	5086	0.07%	0.006%
94	7.656	7.643	7.668	VV	763	8406	0.11%	0.010%
95	7.687	7.668	7.707	VV	1656	22761	0.31%	0.027%
96	7.742	7.707	7.799	VV	777879	7310983	100.00%	8.783%
97	7.852	7.799	7.874	VV	6958	91927	1.26%	0.110%
98	7.880	7.874	7.894	VV	426	4629	0.06%	0.006%
99	7.907	7.894	7.912	VV	529	3987	0.05%	0.005%
100	7.919	7.912	7.938	VV	446	4765	0.07%	0.006%
101	7.947	7.938	7.968	VV	744	8274	0.11%	0.010%
102	8.008	7.968	8.041	VV	4846	74965	1.03%	0.090%
103	8.053	8.041	8.065	VV	546	6305	0.09%	0.008%
104	8.105	8.065	8.112	VV	6235	74079	1.01%	0.089%
105	8.119	8.112	8.143	VV	5953	56079	0.77%	0.067%
106	8.150	8.143	8.169	VV	667	6228	0.09%	0.007%
107	8.223	8.169	8.239	VV	15151	175285	2.40%	0.211%
108	8.251	8.239	8.275	VV	9213	96189	1.32%	0.116%
109	8.292	8.275	8.317	VV	2776	34733	0.48%	0.042%
110	8.326	8.317	8.335	VV	648	4852	0.07%	0.006%
111	8.341	8.335	8.347	VV	417	2207	0.03%	0.003%
112	8.385	8.347	8.430	VV	6674	151138	2.07%	0.182%
113	8.440	8.430	8.461	VV	736	10192	0.14%	0.012%
114	8.498	8.461	8.517	VV	4546	53219	0.73%	0.064%
115	8.530	8.517	8.537	VV	955	9968	0.14%	0.012%
116	8.544	8.537	8.573	VV	1072	12241	0.17%	0.015%
117	8.608	8.573	8.635	VV	511273	5038053	68.91%	6.052%
118	8.653	8.635	8.680	VV	5079	72328	0.99%	0.087%
119	8.703	8.680	8.728	VV	56310	553626	7.57%	0.665%
120	8.746	8.728	8.775	VV	5347	67473	0.92%	0.081%
121	8.779	8.775	8.790	VV	987	7547	0.10%	0.009%
122	8.815	8.790	8.832	VV	2570	42643	0.58%	0.051%
123	8.848	8.832	8.878	VV	2527	42716	0.58%	0.051%
124	8.894	8.878	8.907	VV	1032	13096	0.18%	0.016%
125	8.942	8.907	8.955	VV	8094	101103	1.38%	0.121%
126	8.973	8.955	8.992	VV	40129	402358	5.50%	0.483%
127	9.013	8.992	9.035	VV	67265	673120	9.21%	0.809%
128	9.045	9.035	9.053	VV	2814	29515	0.40%	0.035%
129	9.065	9.053	9.081	VV	3577	43597	0.60%	0.052%
130	9.108	9.081	9.122	VV	5922	90677	1.24%	0.109%
131	9.149	9.122	9.188	VV	6588	137630	1.88%	0.165%
132	9.204	9.188	9.222	VV	906	10700	0.15%	0.013%
133	9.224	9.222	9.234	VV	324	1202	0.02%	0.001%
134	9.265	9.234	9.281	PV	5514	63504	0.87%	0.076%
135	9.297	9.281	9.325	VV	5581	62726	0.86%	0.075%
136	9.350	9.325	9.367	VV	1339	22185	0.30%	0.027%
137	9.401	9.367	9.425	VV	6240	96910	1.33%	0.116%
138	9.439	9.425	9.454	VV	1578	18721	0.26%	0.022%
139	9.483	9.454	9.539	VV	61484	640625	8.76%	0.770%
140	9.562	9.539	9.589	VV	6073	97600	1.33%	0.117%
141	9.604	9.589	9.616	VV	6102	64851	0.89%	0.078%

rteres

142	9.635	9.616	9.673	VV	13259	192640	2.63%	0.231%
143	9.695	9.673	9.717	VV	9391	117619	1.61%	0.141%
144	9.729	9.717	9.737	VV	1626	16660	0.23%	0.020%
145	9.760	9.737	9.785	VV	63205	642778	8.79%	0.772%
146	9.805	9.785	9.840	VV	15963	186423	2.55%	0.224%
147	9.856	9.840	9.871	VV	2017	28142	0.38%	0.034%
148	9.903	9.871	9.947	VV	20727	275219	3.76%	0.331%
149	9.966	9.947	9.986	VV	4368	52608	0.72%	0.063%
150	10.001	9.986	10.027	VV	1829	24607	0.34%	0.030%
151	10.041	10.027	10.047	VV	848	7515	0.10%	0.009%
152	10.070	10.047	10.098	VV	1932	38942	0.53%	0.047%
153	10.105	10.098	10.125	VV	368	3995	0.05%	0.005%
154	10.172	10.152	10.179	PV	749	6803	0.09%	0.008%
155	10.180	10.179	10.187	VV	607	2386	0.03%	0.003%
156	10.196	10.187	10.203	VV	681	5120	0.07%	0.006%
157	10.224	10.203	10.247	VV	2370	33074	0.45%	0.040%
158	10.253	10.247	10.259	VV	470	2937	0.04%	0.004%
159	10.281	10.259	10.298	VV	2422	31947	0.44%	0.038%
160	10.301	10.298	10.315	VV	1241	11947	0.16%	0.014%
161	10.333	10.315	10.341	VV	3332	37176	0.51%	0.045%
162	10.362	10.341	10.385	VV	13924	179135	2.45%	0.215%
163	10.402	10.385	10.434	VV	8236	108046	1.48%	0.130%
164	10.479	10.434	10.497	VV	8681	133181	1.82%	0.160%
165	10.502	10.497	10.512	VV	4304	36296	0.50%	0.044%
166	10.529	10.512	10.570	VV	20618	268698	3.68%	0.323%
167	10.576	10.570	10.592	VV	2192	21251	0.29%	0.026%
168	10.615	10.592	10.628	VV	3621	47056	0.64%	0.057%
169	10.650	10.628	10.661	VV	9974	120041	1.64%	0.144%
170	10.685	10.661	10.705	VV	26196	387172	5.30%	0.465%
171	10.714	10.705	10.732	VV	5251	59857	0.82%	0.072%
172	10.757	10.732	10.768	VV	3973	65785	0.90%	0.079%
173	10.782	10.768	10.802	VV	7064	85664	1.17%	0.103%
174	10.821	10.802	10.834	VV	2679	38839	0.53%	0.047%
175	10.850	10.834	10.859	VV	7347	71143	0.97%	0.085%
176	10.887	10.859	10.927	VV	560420	5878518	80.41%	7.062%
177	10.956	10.927	10.995	VV	122557	1265332	17.31%	1.520%
178	11.009	10.995	11.022	VV	1434	18066	0.25%	0.022%
179	11.034	11.022	11.044	VV	1905	20682	0.28%	0.025%
180	11.059	11.044	11.079	VV	2433	39124	0.54%	0.047%
181	11.094	11.079	11.119	VV	1474	22413	0.31%	0.027%
182	11.164	11.119	11.211	VV	33131	390347	5.34%	0.469%
183	11.240	11.211	11.255	PV	2552	43837	0.60%	0.053%
184	11.278	11.255	11.300	VV	3554	68624	0.94%	0.082%
185	11.323	11.300	11.344	VV	3015	51414	0.70%	0.062%
186	11.416	11.344	11.445	VV	9957	270283	3.70%	0.325%
187	11.479	11.445	11.504	VV	6591	100819	1.38%	0.121%
188	11.533	11.504	11.554	VV	7235	104686	1.43%	0.126%
189	11.571	11.554	11.597	VV	4302	61866	0.85%	0.074%
190	11.608	11.597	11.618	VV	1597	18316	0.25%	0.022%
191	11.652	11.618	11.671	VV	537139	5856682	80.11%	7.036%
192	11.682	11.671	11.697	VV	58100	595128	8.14%	0.715%
193	11.713	11.697	11.752	VV	74072	818153	11.19%	0.983%
194	11.779	11.752	11.785	VV	27517	265148	3.63%	0.319%

rteres

195	11.799	11.785	11.815	VV	49292	547023	7.48%	0.657%
196	11.831	11.815	11.845	VV	32008	364852	4.99%	0.438%
197	11.861	11.845	11.886	VV	48705	560315	7.66%	0.673%
198	11.899	11.886	11.914	VV	3427	33392	0.46%	0.040%
199	11.934	11.914	11.955	VV	4756	54373	0.74%	0.065%
200	11.975	11.955	11.985	VV	2026	26819	0.37%	0.032%
201	11.999	11.985	12.012	VV	3403	40271	0.55%	0.048%
202	12.045	12.012	12.062	VV	9943	163299	2.23%	0.196%
203	12.069	12.062	12.107	VV	3750	71423	0.98%	0.086%
204	12.115	12.107	12.125	VV	1659	15199	0.21%	0.018%
205	12.151	12.125	12.172	VV	33882	379355	5.19%	0.456%
206	12.180	12.172	12.192	VV	3446	36241	0.50%	0.044%
207	12.212	12.192	12.220	VV	4023	53966	0.74%	0.065%
208	12.238	12.220	12.275	VV	42503	519750	7.11%	0.624%
209	12.298	12.275	12.318	VV	8340	128328	1.76%	0.154%
210	12.329	12.318	12.341	VV	2484	30471	0.42%	0.037%
211	12.356	12.341	12.369	VV	2817	38146	0.52%	0.046%
212	12.400	12.369	12.414	VV	8927	146839	2.01%	0.176%
213	12.423	12.414	12.450	VV	6875	94664	1.29%	0.114%
214	12.470	12.450	12.481	VV	15097	173306	2.37%	0.208%
215	12.488	12.481	12.510	VV	11664	140297	1.92%	0.169%
216	12.527	12.510	12.559	VV	15535	252074	3.45%	0.303%
217	12.580	12.559	12.599	VV	31012	401936	5.50%	0.483%
218	12.617	12.599	12.632	VV	14134	228569	3.13%	0.275%
219	12.643	12.632	12.664	VV	14160	194930	2.67%	0.234%
220	12.701	12.664	12.770	VV	472074	5339483	73.03%	6.414%
221	12.792	12.770	12.801	VV	2707	30650	0.42%	0.037%
222	12.852	12.801	12.866	VV	8809	189376	2.59%	0.227%
223	12.883	12.866	12.901	VV	17754	228298	3.12%	0.274%
224	12.910	12.901	12.944	VV	7568	134140	1.83%	0.161%
225	12.956	12.944	12.967	VV	2941	38170	0.52%	0.046%
226	12.997	12.967	13.022	VV	372846	4167559	57.00%	5.007%
227	13.049	13.022	13.060	VV	40760	447545	6.12%	0.538%
228	13.077	13.060	13.109	VV	137746	1647923	22.54%	1.980%
229	13.131	13.109	13.145	VV	4418	66603	0.91%	0.080%
230	13.164	13.145	13.185	VV	15525	186957	2.56%	0.225%
231	13.198	13.185	13.217	VV	3460	37989	0.52%	0.046%
232	13.258	13.217	13.279	VV	20763	266756	3.65%	0.320%
233	13.295	13.279	13.309	VV	7149	97883	1.34%	0.118%
234	13.328	13.309	13.359	VV	11493	158768	2.17%	0.191%
235	13.388	13.359	13.405	PV	13696	162089	2.22%	0.195%
236	13.417	13.405	13.426	VV	5208	59498	0.81%	0.071%
237	13.450	13.426	13.518	VV	25082	630274	8.62%	0.757%
238	13.578	13.518	13.617	VV	57597	959740	13.13%	1.153%
239	13.646	13.617	13.663	VV	6715	101032	1.38%	0.121%
240	13.686	13.663	13.707	VV	26847	361359	4.94%	0.434%
241	13.726	13.707	13.746	VV	29449	347372	4.75%	0.417%
242	13.772	13.746	13.797	VV	11314	216411	2.96%	0.260%
243	13.855	13.797	13.877	VV	27613	594171	8.13%	0.714%
244	13.896	13.877	13.936	VV	23304	319973	4.38%	0.384%
245	13.967	13.936	13.985	VV	5262	91436	1.25%	0.110%
246	14.001	13.985	14.047	VV	3524	97195	1.33%	0.117%

247	14.060	14.047	14.074	VV	2998	41851	0.57%	0.050%
248	14.077	14.074	14.096	VV	2744	31367	0.43%	0.038%
249	14.102	14.096	14.120	VV	2129	20252	0.28%	0.024%
250	14.132	14.120	14.140	VV	740	6885	0.09%	0.008%
251	14.162	14.140	14.200	VV	2679	47580	0.65%	0.057%
252	14.217	14.200	14.232	VV	1661	20145	0.28%	0.024%
253	14.268	14.232	14.290	VV	12203	253015	3.46%	0.304%
254	14.309	14.290	14.344	VV	26622	366611	5.01%	0.440%
255	14.413	14.344	14.448	VV	7669	252189	3.45%	0.303%
256	14.490	14.448	14.511	VV	21531	416470	5.70%	0.500%
257	14.520	14.511	14.531	VV	6624	73947	1.01%	0.089%
258	14.554	14.531	14.576	VV	46290	584515	8.00%	0.702%
259	14.580	14.576	14.590	VV	4685	36288	0.50%	0.044%
260	14.611	14.590	14.648	VV	17059	254976	3.49%	0.306%
261	14.677	14.648	14.694	VV	4852	85660	1.17%	0.103%
262	14.736	14.694	14.789	VV	7845	241518	3.30%	0.290%
263	14.794	14.789	14.800	VV	713	3589	0.05%	0.004%
264	14.816	14.800	14.825	VV	1258	14395	0.20%	0.017%
265	14.865	14.825	14.885	VV	168830	2058864	28.16%	2.473%
266	14.907	14.885	14.935	VV	161094	1866159	25.53%	2.242%
267	14.951	14.935	14.978	VV	5488	86641	1.19%	0.104%
268	14.998	14.978	15.003	VV	3286	34816	0.48%	0.042%
269	15.026	15.003	15.047	VV	27689	356222	4.87%	0.428%
270	15.057	15.047	15.078	VV	5132	77745	1.06%	0.093%
271	15.098	15.078	15.133	VV	11992	172206	2.36%	0.207%
272	15.159	15.133	15.186	VV	13672	227461	3.11%	0.273%
273	15.200	15.186	15.215	VV	9979	139895	1.91%	0.168%
274	15.221	15.215	15.260	VV	6053	85512	1.17%	0.103%
275	15.303	15.260	15.327	VV	17921	267148	3.65%	0.321%
276	15.332	15.327	15.337	VV	4601	28572	0.39%	0.034%
277	15.343	15.337	15.370	VV	4551	58621	0.80%	0.070%
278	15.373	15.370	15.390	VV	1409	11379	0.16%	0.014%
279	15.404	15.390	15.415	VV	1293	16781	0.23%	0.020%
280	15.451	15.415	15.468	VV	4667	99787	1.36%	0.120%
281	15.490	15.468	15.510	VV	9353	149615	2.05%	0.180%
282	15.533	15.510	15.554	VV	35058	450498	6.16%	0.541%
283	15.570	15.554	15.590	VV	17634	222925	3.05%	0.268%
284	15.614	15.590	15.630	VV	7571	132499	1.81%	0.159%
285	15.676	15.630	15.682	VV	14004	245319	3.36%	0.295%
286	15.695	15.682	15.729	VV	17560	301456	4.12%	0.362%
287	15.772	15.729	15.795	VV	9070	175029	2.39%	0.210%
288	15.811	15.795	15.834	VV	2670	46417	0.63%	0.056%
289	15.855	15.834	15.878	VV	6822	89280	1.22%	0.107%
290	15.893	15.878	15.909	VV	1150	17880	0.24%	0.021%
291	15.936	15.909	15.985	VV	4405	119985	1.64%	0.144%
292	16.002	15.985	16.017	VV	966	14532	0.20%	0.017%
293	16.029	16.017	16.046	VV	1200	17510	0.24%	0.021%
294	16.058	16.046	16.075	VV	1249	13996	0.19%	0.017%
295	16.088	16.075	16.104	VV	1203	14741	0.20%	0.018%
296	16.138	16.104	16.156	VV	8265	137071	1.87%	0.165%
297	16.168	16.156	16.185	VV	3757	44674	0.61%	0.054%
298	16.240	16.185	16.264	VV	5136	138781	1.90%	0.167%
299	16.277	16.264	16.287	VV	2980	36368	0.50%	0.044%

300	16.307	16.287	16.313	VV	3768	50991	0.70%	0.061%
301	16.340	16.313	16.366	VV	10443	171856	2.35%	0.206%
302	16.417	16.366	16.435	VV	134865	1933186	26.44%	2.322%
303	16.444	16.435	16.483	VV	62369	672286	9.20%	0.808%
304	16.497	16.483	16.520	VV	2621	43887	0.60%	0.053%
305	16.544	16.520	16.567	VV	26270	331360	4.53%	0.398%
306	16.582	16.567	16.640	VV	5992	105590	1.44%	0.127%
307	16.666	16.640	16.679	VV	4439	57907	0.79%	0.070%
308	16.701	16.679	16.706	VV	7027	83634	1.14%	0.100%
309	16.737	16.706	16.763	VV	80540	1087823	14.88%	1.307%
310	16.794	16.763	16.841	VV	118692	1499434	20.51%	1.801%
311	16.863	16.841	16.870	VV	2888	34851	0.48%	0.042%
312	16.893	16.870	16.922	VV	33285	415559	5.68%	0.499%
313	16.942	16.922	16.984	VV	6361	130865	1.79%	0.157%
314	17.034	16.984	17.075	VV	9181	287198	3.93%	0.345%
315	17.095	17.075	17.115	VV	4316	63340	0.87%	0.076%
316	17.159	17.115	17.188	VV	14564	337880	4.62%	0.406%
317	17.195	17.188	17.224	VV	5824	68719	0.94%	0.083%
318	17.254	17.224	17.267	PV	4664	62058	0.85%	0.075%
319	17.289	17.267	17.304	VV	8849	138539	1.89%	0.166%
320	17.317	17.304	17.352	VV	7643	134646	1.84%	0.162%
321	17.375	17.352	17.394	VV	7869	123343	1.69%	0.148%
322	17.401	17.394	17.424	VV	4901	64991	0.89%	0.078%
323	17.447	17.424	17.472	VV	9369	157458	2.15%	0.189%
324	17.488	17.472	17.510	VV	4532	71210	0.97%	0.086%
325	17.516	17.510	17.528	VV	2095	18715	0.26%	0.022%
326	17.563	17.528	17.590	VV	3894	94250	1.29%	0.113%
327	17.597	17.590	17.615	VV	1136	14868	0.20%	0.018%
328	17.631	17.615	17.650	VV	1818	27775	0.38%	0.033%
329	17.663	17.650	17.676	VV	926	9881	0.14%	0.012%
330	17.707	17.676	17.724	VV	3191	55011	0.75%	0.066%
331	17.757	17.724	17.768	VV	5283	112368	1.54%	0.135%
332	17.780	17.768	17.809	VV	5297	87317	1.19%	0.105%
333	17.840	17.809	17.854	VV	4385	78678	1.08%	0.095%
334	17.882	17.854	17.904	VV	7163	138019	1.89%	0.166%
335	17.921	17.904	17.931	VV	5332	69338	0.95%	0.083%
336	17.945	17.931	17.975	VV	6225	105762	1.45%	0.127%
337	17.996	17.975	18.033	VV	3691	72120	0.99%	0.087%
338	18.065	18.033	18.108	VV	19836	356726	4.88%	0.429%
339	18.156	18.108	18.180	VV	72753	1112660	15.22%	1.337%
340	18.197	18.180	18.225	VV	17808	309999	4.24%	0.372%
341	18.239	18.225	18.262	VV	7662	112706	1.54%	0.135%
342	18.288	18.262	18.303	VV	19378	254627	3.48%	0.306%
343	18.318	18.303	18.378	VV	16543	265800	3.64%	0.319%
344	18.409	18.378	18.435	PV	68048	839033	11.48%	1.008%
345	18.443	18.435	18.463	VV	2139	31709	0.43%	0.038%
346	18.491	18.463	18.508	VV	6135	101350	1.39%	0.122%
347	18.538	18.508	18.570	VV	22491	310175	4.24%	0.373%
348	18.606	18.570	18.627	PV	2976	56602	0.77%	0.068%
349	18.635	18.627	18.652	VV	2189	25669	0.35%	0.031%
350	18.660	18.652	18.682	VV	1250	13797	0.19%	0.017%
351	18.715	18.682	18.739	PV	4132	71978	0.98%	0.086%

					rteres			
352	18.753	18.739	18.764	VV	1465	17338	0.24%	0.021%
353	18.772	18.764	18.779	VV	1308	10924	0.15%	0.013%
354	18.839	18.779	18.857	VV	5289	113101	1.55%	0.136%
355	18.877	18.857	18.897	VV	2273	34871	0.48%	0.042%
356	18.918	18.897	18.935	PV	4154	50920	0.70%	0.061%
357	18.951	18.935	18.967	VV	3405	43421	0.59%	0.052%
358	18.974	18.967	18.995	VV	1654	15810	0.22%	0.019%
			Sum of corrected areas:			83242516		

Aromatic EPH 050125.M Fri May 09 09:49:58 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/26/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/28/25
Client Sample ID:	B-167-SB02	SDG No.:	Q1901
Lab Sample ID:	Q1901-04	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	53.2
Sample Wt/Vol:	30.02 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
05/07/25 13:37	05/08/25 19:47	PB167903

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	Datafile
TARGETS								
Aliphatic C9-C12	Aliphatic C9-C12	0.26	U	1	0.26	1.88	mg/kg	FC068802.D
Aliphatic C12-C16	Aliphatic C12-C16	2.11		1	0.21	1.25	mg/kg	FC068802.D
Aliphatic C16-C21	Aliphatic C16-C21	0.24	U	1	0.24	1.88	mg/kg	FC068802.D
Aliphatic C21-C28	Aliphatic C21-C28	1.00	U	1	1.00	2.50	mg/kg	FC068802.D
Aliphatic C28-C40	Aliphatic C28-C40	2.22	U	1	2.22	3.76	mg/kg	FC068802.D
Aromatic C10-C12	Aromatic C10-C12	0.51	J	1	0.23	1.25	mg/kg	FD049328.D
Aromatic C12-C16	Aromatic C12-C16	0.65	J	1	0.43	1.88	mg/kg	FD049328.D
Aromatic C16-C21	Aromatic C16-C21	3.65		1	0.75	3.13	mg/kg	FD049328.D
Aromatic C21-C36	Aromatic C21-C36	3.46	J	1	2.24	5.01	mg/kg	FD049328.D
Total AliphaticEPH	Total AliphaticEPH	3.93	U		3.93	11.3	mg/kg	
Total AromaticEPH	Total AromaticEPH	8.27	J		3.65	11.3	mg/kg	
Total EPH	Total EPH	10.4	J		7.58	22.5	mg/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

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/26/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/28/25
Client Sample ID:	B-167-SB02	SDG No.:	Q1901
Lab Sample ID:	Q1901-04	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	53.2
Sample Wt/Vol:	30.02 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC068802.D	1	05/07/25	05/08/25	PB167903

CAS Number	Parameter		Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS							
Aliphatic C9-C12	Aliphatic C9-C12		0.26	U	0.26	1.88	mg/kg
Aliphatic C12-C16	Aliphatic C12-C16		2.11		0.21	1.25	mg/kg
Aliphatic C16-C21	Aliphatic C16-C21		0.24	U	0.24	1.88	mg/kg
Aliphatic C21-C28	Aliphatic C21-C28		1.00	U	1.00	2.50	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40		2.22	U	2.22	3.76	mg/kg
SURROGATES							
3383-33-2	1-chlorooctadecane (SURR)		62.7		40 - 140	125%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)		0.00		40 - 140	0%	SPK: 50

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

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	Q1901-04	Acq On:	08 May 2025 19:47
Client Sample ID:	B-167-SB02	Operator:	YP/AJ
Data file:	FC068802.D	Misc:	
Instrument:	FID_C	ALS Vial:	19
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.342	6.642	41529	0.419	300	ug/ml
Aliphatic C12-C16	6.643	10.042	1532288	16.841	200	ug/ml
Aliphatic C16-C21	10.043	13.408	0	0	300	ug/ml
Aliphatic C21-C28	13.409	17.072	53201	0.64	400	ug/ml
Aliphatic C28-C40	17.073	22.071	113958	1.347	600	ug/ml
Aliphatic EPH	3.342	22.071	1740976	19.247		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	13.145	13.145	5032167	62.72		ug/ml
Aliphatic C9-C28	3.342	17.072	1627018	17.9	1200	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068802.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 19:47
Operator : YP/AJ
Sample : Q1901-04
Misc :
ALS Vial : 19 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
B-167-SB02

Integration File: autoint1.e
Quant Time: May 09 09:09:13 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
12) S 1-chlorooctadecane (S...	13.145	5032167	62.725 ug/ml
Spiked Amount 50.000		Recovery = 125.45%	
Target Compounds			

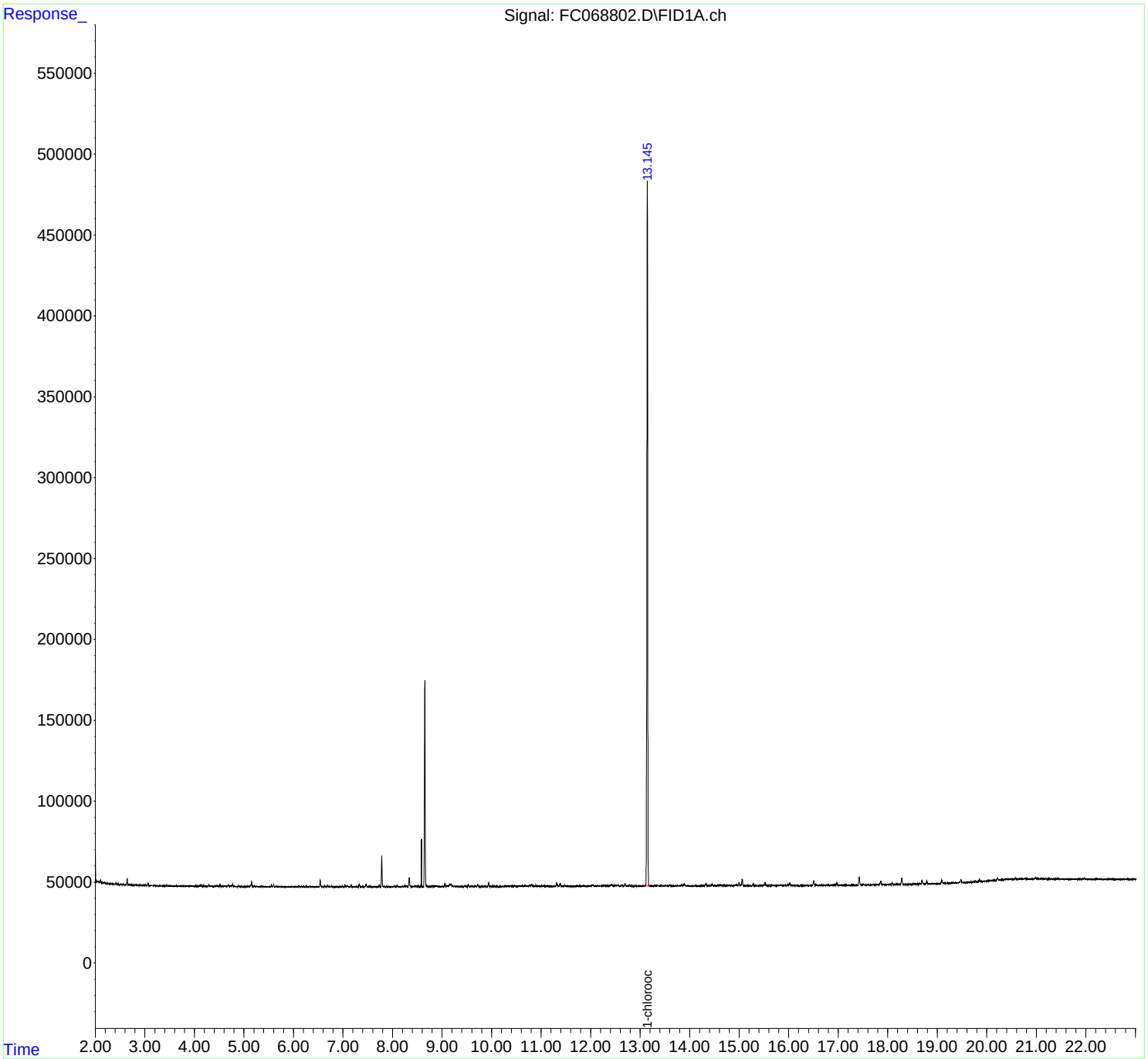
(f)=RT Delta > 1/2 Window (m)=manual int.

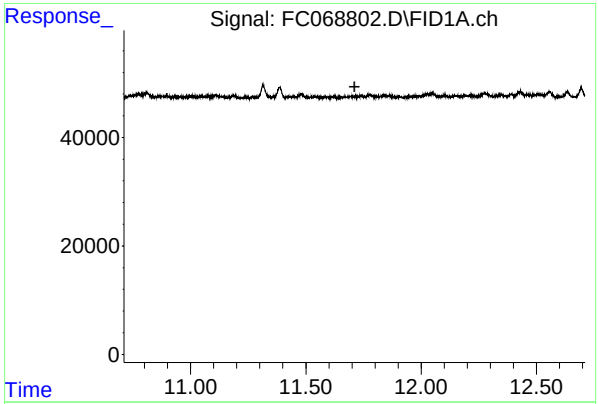
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068802.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 19:47
Operator : YP/AJ
Sample : Q1901-04
Misc :
ALS Vial : 19 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
B-167-SB02

Integration File: autoint1.e
Quant Time: May 09 09:09:13 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

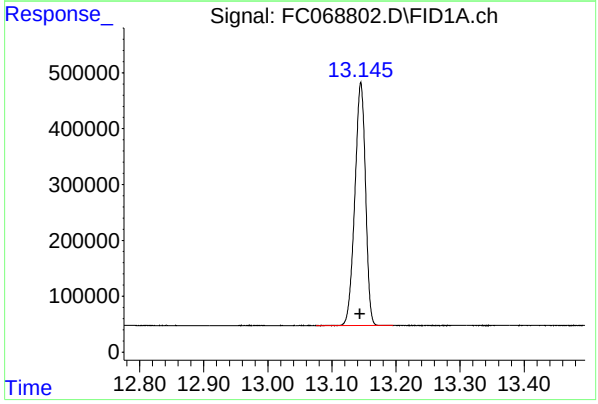




#9 ortho-Terphenyl (SURR)

R.T.: 0.000 min
Exp R.T. : 11.711 min
Response: 0
Conc: N.D.

Instrument :
FID_C
ClientSampleId :
B-167-SB02



#12 1-chlorooctadecane (SURR)

R.T.: 13.145 min
Delta R.T.: 0.001 min
Response: 5032167
Conc: 62.72 ug/ml

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068802.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 19:47
Sample : Q1901-04
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	6.542	6.498	6.579	BB	4077	41529	0.83%	0.613%
2	7.784	7.755	7.810	BB	19202	176765	3.51%	2.610%
3	8.339	8.292	8.382	BB	5414	56052	1.11%	0.828%
4	8.653	8.539	8.715	BB	127243	1299471	25.82%	19.186%
5	13.145	13.075	13.195	BB	435483	5032167	100.00%	74.296%
6	15.059	15.032	15.100	BB	4144	53201	1.06%	0.785%
7	17.422	17.365	17.467	BB	4742	61763	1.23%	0.912%
8	18.282	18.225	18.310	BB	3892	52195	1.04%	0.771%
			Sum of corrected areas:			6773143		

Aliphatic EPH 050625.M Fri May 09 09:33:25 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/26/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/28/25
Client Sample ID:	B-167-SB02	SDG No.:	Q1901
Lab Sample ID:	Q1901-04	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	53.2
Sample Wt/Vol:	30.02 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD049328.D	1	05/07/25	05/08/25	PB167903

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aromatic C10-C12	Aromatic C10-C12	0.51	J	0.23	1.25	mg/kg
Aromatic C12-C16	Aromatic C12-C16	0.65	J	0.43	1.88	mg/kg
Aromatic C16-C21	Aromatic C16-C21	3.65		0.75	3.13	mg/kg
Aromatic C21-C36	Aromatic C21-C36	3.46	J	2.24	5.01	mg/kg
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	53.7		40 - 140	107%	SPK: 50
321-60-8	2-Flurobiphenyl (SURR)	36.9		40 - 140	74%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	40.7		40 - 140	81%	SPK: 50

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

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	Q1901-04	Acq On:	08 May 2025 19:09
Client Sample ID:	B-167-SB02	Operator:	YP/AJ
Data file:	FD049328.D	Misc:	
Instrument:	FID_D	ALS Vial:	68
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.431	6.176	522195	4.063	200	ug/ml
Aromatic C12-C16	6.177	8.805	708194	5.218	300	ug/ml
Aromatic C16-C21	8.806	13.095	3817305	29.113	500	ug/ml
Aromatic C21-C36	13.0956	18.515	3237785	27.59	800	ug/ml
Aromatic EPH	4.431	18.515	8285479	65.983		ug/ml
2-Bromonaphthalene (SURR)	7.742	7.742	6364997	53.68		ug/ml
2-Flurobiphenyl (SURR)	8.605	8.605	2914629	36.91		ug/ml
ortho-Terphenyl (SURR)	11.651	11.651	5613078	40.67		ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049328.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 19:09
Operator : YP/AJ
Sample : Q1901-04
Misc :
ALS Vial : 68 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
B-167-SB02

Integration File: autoint1.e
Quant Time: May 09 09:20:30 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.742	6364997	53.681 ug/ml
Spiked Amount 50.000		Recovery = 107.36%	
6) S 2-Flurobiphenyl (SURR)	8.605	2914629	36.907 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery = 73.81%	
11) S ortho-Terphenyl (SURR)	11.651	5613078	40.668 ug/ml
Spiked Amount 50.000		Recovery = 81.34%	
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

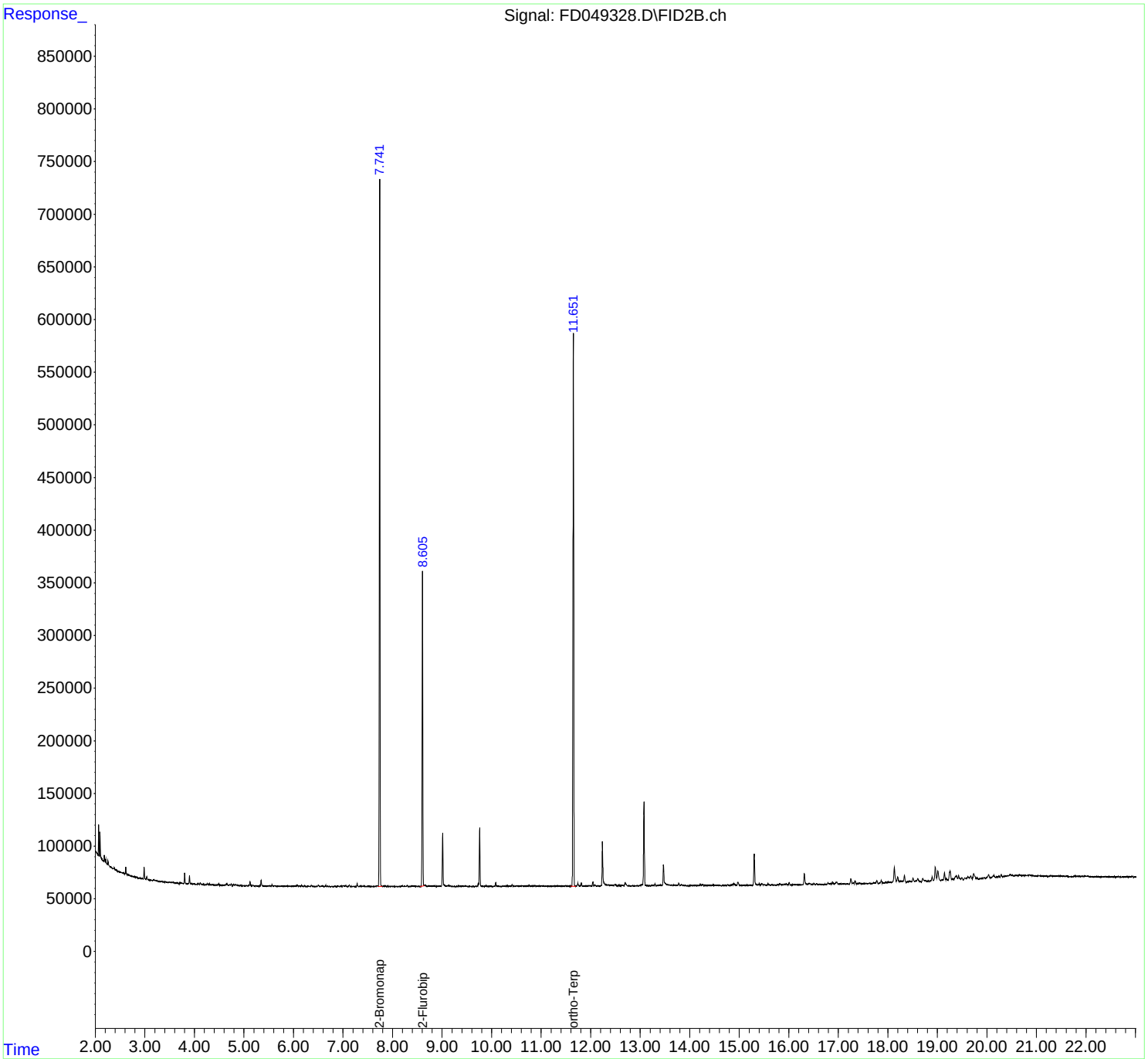
Quantitation Report (QT Reviewed)

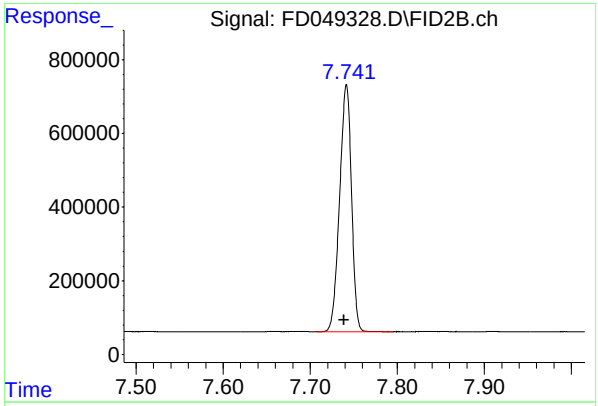
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049328.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 19:09
Operator : YP/AJ
Sample : Q1901-04
Misc :
ALS Vial : 68 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
B-167-SB02

Integration File: autoint1.e
Quant Time: May 09 09:20:30 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

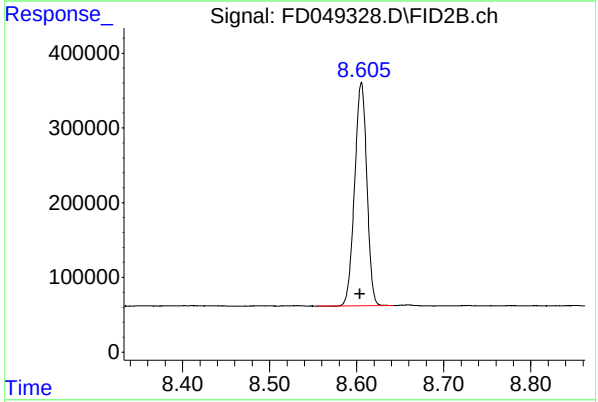




#4 2-Bromonaphthalene (SURR)

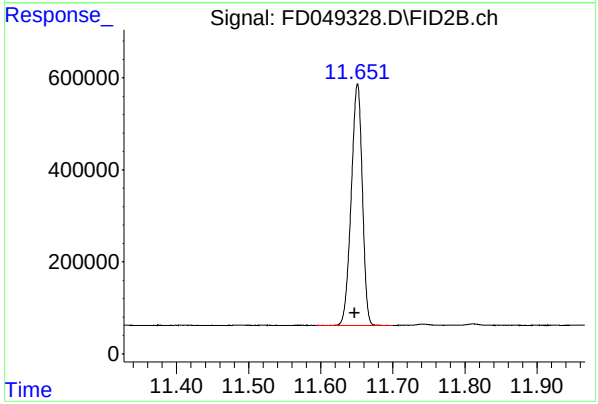
R.T.: 7.742 min
Delta R.T.: 0.003 min
Response: 6364997
Conc: 53.68 ug/ml

Instrument :
FID_D
ClientSampleId :
B-167-SB02



#6 2-Flurobiphenyl (SURR)

R.T.: 8.605 min
Delta R.T.: 0.002 min
Response: 2914629
Conc: 36.91 ug/ml



#11 ortho-Terphenyl (SURR)

R.T.: 11.651 min
Delta R.T.: 0.004 min
Response: 5613078
Conc: 40.67 ug/ml

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049328.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 19:09
Sample : Q1901-04
Misc :
ALS Vial : 68 Sample Multiplier: 1

Integration File: sample.E

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.266	4.252	4.284	BV	649	5313	0.08%	0.022%
2	4.298	4.284	4.335	PV	911	7951	0.12%	0.034%
3	4.342	4.335	4.378	PV	249	4685	0.07%	0.020%
4	4.385	4.378	4.397	VV	398	2556	0.04%	0.011%
5	4.400	4.397	4.414	VV	193	1090	0.02%	0.005%
6	4.447	4.414	4.467	PV	491	7646	0.12%	0.032%
7	4.489	4.467	4.517	VV	1630	20006	0.31%	0.084%
8	4.528	4.517	4.549	VV	426	4097	0.06%	0.017%
9	4.564	4.549	4.587	VV	333	4862	0.08%	0.021%
10	4.604	4.587	4.623	VV	442	6892	0.11%	0.029%
11	4.638	4.623	4.645	VV	1583	13141	0.21%	0.055%
12	4.656	4.645	4.684	VV	1883	23368	0.37%	0.099%
13	4.689	4.684	4.698	VV	326	2036	0.03%	0.009%
14	4.714	4.698	4.728	VV	1188	12424	0.19%	0.052%
15	4.743	4.728	4.765	VV	1953	20007	0.31%	0.084%
16	4.774	4.765	4.782	VV	370	3108	0.05%	0.013%
17	4.796	4.782	4.814	VV	1359	14464	0.23%	0.061%
18	4.829	4.814	4.852	VV	1462	19220	0.30%	0.081%
19	4.859	4.852	4.874	VV	689	7010	0.11%	0.030%
20	4.879	4.874	4.912	VV	512	7521	0.12%	0.032%
21	4.931	4.912	4.963	VV	722	10926	0.17%	0.046%
22	4.995	4.978	5.014	VV	265	3363	0.05%	0.014%
23	5.021	5.014	5.027	VV	223	1272	0.02%	0.005%
24	5.040	5.027	5.062	VV	585	7078	0.11%	0.030%
25	5.097	5.062	5.107	VV	1044	14018	0.22%	0.059%
26	5.123	5.107	5.158	VV	4251	48775	0.76%	0.206%
27	5.181	5.158	5.209	VV	961	16567	0.26%	0.070%
28	5.213	5.209	5.227	VV	252	1947	0.03%	0.008%
29	5.242	5.227	5.249	VV	526	5083	0.08%	0.021%
30	5.253	5.249	5.274	VV	499	3439	0.05%	0.015%
31	5.281	5.274	5.297	VV	261	1732	0.03%	0.007%
32	5.308	5.297	5.313	PV	303	2299	0.04%	0.010%
33	5.321	5.313	5.327	VV	419	2670	0.04%	0.011%
34	5.346	5.327	5.413	VV	5796	68045	1.07%	0.287%
35	5.416	5.413	5.430	VV	320	2054	0.03%	0.009%
36	5.437	5.430	5.455	VV	336	2461	0.04%	0.010%

rteres

37	5.465	5.455	5.474	VV	244	2113	0.03%	0.009%
38	5.486	5.474	5.508	VV	531	7232	0.11%	0.031%
39	5.523	5.508	5.542	VV	733	8389	0.13%	0.035%
40	5.567	5.542	5.586	VV	1638	18085	0.28%	0.076%
41	5.592	5.586	5.600	VV	368	2549	0.04%	0.011%
42	5.605	5.600	5.608	VV	385	1589	0.02%	0.007%
43	5.623	5.608	5.645	VV	647	8055	0.13%	0.034%
44	5.650	5.645	5.655	VV	299	1331	0.02%	0.006%
45	5.661	5.655	5.703	VV	310	5927	0.09%	0.025%
46	5.712	5.703	5.731	VV	244	2689	0.04%	0.011%
47	5.738	5.731	5.749	VV	246	1267	0.02%	0.005%
48	5.766	5.749	5.793	VV	487	7034	0.11%	0.030%
49	5.816	5.793	5.836	VV	366	6597	0.10%	0.028%
50	5.874	5.836	5.922	VV	393	11978	0.19%	0.051%
51	5.987	5.922	6.000	VV	554	15166	0.24%	0.064%
52	6.007	6.000	6.022	VV	549	5503	0.09%	0.023%
53	6.024	6.022	6.042	VV	496	4573	0.07%	0.019%
54	6.053	6.042	6.059	VV	688	5302	0.08%	0.022%
55	6.079	6.059	6.107	VV	1481	22509	0.35%	0.095%
56	6.121	6.107	6.144	VV	743	9936	0.16%	0.042%
57	6.165	6.144	6.207	VV	1071	16840	0.26%	0.071%
58	6.223	6.207	6.260	VV	1049	15188	0.24%	0.064%
59	6.294	6.260	6.310	VV	575	9859	0.15%	0.042%
60	6.315	6.310	6.322	VV	405	2166	0.03%	0.009%
61	6.326	6.322	6.338	VV	333	1663	0.03%	0.007%
62	6.355	6.338	6.403	VV	1172	20900	0.33%	0.088%
63	6.409	6.403	6.426	VV	341	3038	0.05%	0.013%
64	6.448	6.426	6.478	VV	361	7924	0.12%	0.033%
65	6.503	6.478	6.534	VV	1738	24744	0.39%	0.104%
66	6.544	6.534	6.555	VV	522	5004	0.08%	0.021%
67	6.570	6.555	6.576	VV	481	5089	0.08%	0.021%
68	6.589	6.576	6.611	VV	737	9481	0.15%	0.040%
69	6.624	6.611	6.636	VV	689	6673	0.10%	0.028%
70	6.654	6.636	6.676	VV	1349	16276	0.25%	0.069%
71	6.686	6.676	6.712	VV	706	8151	0.13%	0.034%
72	6.725	6.712	6.754	VV	782	9956	0.16%	0.042%
73	6.772	6.754	6.783	PV	482	4120	0.06%	0.017%
74	6.787	6.783	6.800	VV	352	1857	0.03%	0.008%
75	6.832	6.800	6.864	VV	534	11740	0.18%	0.050%
76	6.900	6.864	6.924	VV	1193	19115	0.30%	0.081%
77	6.947	6.924	6.981	VV	986	19715	0.31%	0.083%
78	7.000	6.981	7.033	VV	1199	24936	0.39%	0.105%
79	7.047	7.033	7.075	VV	1070	19215	0.30%	0.081%
80	7.080	7.075	7.094	VV	380	3505	0.05%	0.015%
81	7.126	7.094	7.153	VV	1359	23973	0.38%	0.101%
82	7.163	7.153	7.172	VV	511	3752	0.06%	0.016%
83	7.187	7.172	7.200	VV	412	5846	0.09%	0.025%
84	7.207	7.200	7.220	VV	504	4814	0.08%	0.020%
85	7.235	7.220	7.256	VV	483	6151	0.10%	0.026%
86	7.287	7.256	7.322	VV	2375	32856	0.51%	0.139%
87	7.344	7.322	7.352	VV	786	9409	0.15%	0.040%
88	7.365	7.352	7.386	VV	667	10670	0.17%	0.045%
89	7.395	7.386	7.407	VV	638	5774	0.09%	0.024%

rteres

90	7.429	7.407	7.453	VV	968	15673	0.25%	0.066%
91	7.462	7.453	7.478	VV	574	5890	0.09%	0.025%
92	7.493	7.478	7.503	VV	606	7674	0.12%	0.032%
93	7.515	7.503	7.537	VV	769	10233	0.16%	0.043%
94	7.542	7.537	7.578	VV	368	6865	0.11%	0.029%
95	7.582	7.578	7.587	VV	350	1478	0.02%	0.006%
96	7.598	7.587	7.622	VV	373	5302	0.08%	0.022%
97	7.631	7.622	7.644	VV	396	4022	0.06%	0.017%
98	7.657	7.644	7.669	VV	761	8735	0.14%	0.037%
99	7.688	7.669	7.704	VV	1161	15907	0.25%	0.067%
100	7.742	7.704	7.795	VV	672534	6385216	100.00%	26.957%
101	7.801	7.795	7.818	VV	491	6061	0.09%	0.026%
102	7.835	7.818	7.847	VV	1101	13061	0.20%	0.055%
103	7.853	7.847	7.874	VV	661	7786	0.12%	0.033%
104	7.878	7.874	7.893	VV	364	2866	0.04%	0.012%
105	7.910	7.893	7.925	VV	818	9406	0.15%	0.040%
106	7.943	7.925	7.961	VV	405	6549	0.10%	0.028%
107	7.966	7.961	7.978	VV	315	2327	0.04%	0.010%
108	7.992	7.978	8.006	VV	522	6053	0.09%	0.026%
109	8.016	8.006	8.032	VV	287	2560	0.04%	0.011%
110	8.040	8.032	8.057	VV	497	3737	0.06%	0.016%
111	8.086	8.057	8.108	VV	421	7365	0.12%	0.031%
112	8.122	8.108	8.135	VV	363	3191	0.05%	0.013%
113	8.140	8.135	8.157	VV	365	2730	0.04%	0.012%
114	8.173	8.157	8.179	VV	649	5897	0.09%	0.025%
115	8.194	8.179	8.224	VV	1085	16931	0.27%	0.071%
116	8.241	8.224	8.268	VV	607	12511	0.20%	0.053%
117	8.294	8.268	8.318	VV	1549	22630	0.35%	0.096%
118	8.324	8.318	8.343	VV	455	5087	0.08%	0.021%
119	8.357	8.343	8.373	VV	584	8561	0.13%	0.036%
120	8.389	8.373	8.395	VV	648	6467	0.10%	0.027%
121	8.411	8.395	8.426	VV	812	12318	0.19%	0.052%
122	8.436	8.426	8.464	VV	600	8436	0.13%	0.036%
123	8.486	8.464	8.495	VV	509	6286	0.10%	0.027%
124	8.500	8.495	8.510	VV	575	3618	0.06%	0.015%
125	8.532	8.510	8.562	VV	770	12832	0.20%	0.054%
126	8.605	8.562	8.642	VV	298555	2946009	46.14%	12.437%
127	8.659	8.642	8.689	VV	1672	28835	0.45%	0.122%
128	8.702	8.689	8.710	VV	659	6564	0.10%	0.028%
129	8.729	8.710	8.750	VV	933	15792	0.25%	0.067%
130	8.775	8.750	8.786	VV	829	14220	0.22%	0.060%
131	8.793	8.786	8.798	VV	665	4250	0.07%	0.018%
132	8.805	8.798	8.818	VV	724	7928	0.12%	0.033%
133	8.853	8.818	8.870	VV	889	19749	0.31%	0.083%
134	8.880	8.870	8.890	VV	344	4219	0.07%	0.018%
135	8.896	8.890	8.907	VV	642	5476	0.09%	0.023%
136	8.914	8.907	8.922	VV	541	4074	0.06%	0.017%
137	8.925	8.922	8.931	VV	540	2456	0.04%	0.010%
138	8.949	8.931	8.962	VV	528	7627	0.12%	0.032%
139	8.980	8.962	8.985	VV	553	6002	0.09%	0.025%
140	9.013	8.985	9.037	VV	51224	515583	8.07%	2.177%
141	9.042	9.037	9.086	VV	1743	30262	0.47%	0.128%

rteres

142	9.100	9.086	9.113	VV	1095	14721	0.23%	0.062%
143	9.132	9.113	9.154	VV	1763	28687	0.45%	0.121%
144	9.167	9.154	9.190	VV	941	12743	0.20%	0.054%
145	9.204	9.190	9.218	VV	489	5885	0.09%	0.025%
146	9.225	9.218	9.232	VV	397	2092	0.03%	0.009%
147	9.247	9.232	9.279	VV	444	8638	0.14%	0.036%
148	9.304	9.279	9.317	VV	716	10683	0.17%	0.045%
149	9.336	9.317	9.375	VV	881	18298	0.29%	0.077%
150	9.397	9.375	9.409	VV	675	9301	0.15%	0.039%
151	9.414	9.409	9.433	VV	574	5750	0.09%	0.024%
152	9.478	9.433	9.515	VV	1092	23688	0.37%	0.100%
153	9.531	9.515	9.540	PV	348	2836	0.04%	0.012%
154	9.559	9.540	9.581	VV	464	8398	0.13%	0.035%
155	9.588	9.581	9.598	VV	323	2103	0.03%	0.009%
156	9.616	9.598	9.635	VV	591	7642	0.12%	0.032%
157	9.642	9.635	9.653	VV	287	2065	0.03%	0.009%
158	9.671	9.653	9.690	VV	483	7942	0.12%	0.034%
159	9.730	9.690	9.739	VV	3208	38651	0.61%	0.163%
160	9.760	9.739	9.794	VV	56020	565865	8.86%	2.389%
161	9.807	9.794	9.815	VV	436	4635	0.07%	0.020%
162	9.829	9.815	9.854	VV	712	8616	0.13%	0.036%
163	9.889	9.854	9.928	VV	1064	17291	0.27%	0.073%
164	9.962	9.928	9.967	VV	489	6948	0.11%	0.029%
165	9.970	9.967	9.998	VV	412	5169	0.08%	0.022%
166	10.003	9.998	10.018	VV	248	1996	0.03%	0.008%
167	10.045	10.018	10.058	VV	295	4818	0.08%	0.020%
168	10.084	10.058	10.113	VV	3856	44844	0.70%	0.189%
169	10.124	10.113	10.128	VV	365	2550	0.04%	0.011%
170	10.132	10.128	10.180	VV	423	6847	0.11%	0.029%
171	10.192	10.180	10.203	VV	239	2568	0.04%	0.011%
172	10.216	10.203	10.220	VV	430	3547	0.06%	0.015%
173	10.235	10.220	10.250	VV	562	7965	0.12%	0.034%
174	10.254	10.250	10.269	VV	346	3344	0.05%	0.014%
175	10.281	10.269	10.298	VV	583	6685	0.10%	0.028%
176	10.318	10.298	10.341	VV	795	13467	0.21%	0.057%
177	10.352	10.341	10.362	VV	555	5646	0.09%	0.024%
178	10.366	10.362	10.388	VV	553	6652	0.10%	0.028%
179	10.413	10.388	10.435	VV	1826	24248	0.38%	0.102%
180	10.440	10.435	10.464	VV	619	6060	0.09%	0.026%
181	10.478	10.464	10.485	VV	513	3897	0.06%	0.016%
182	10.510	10.485	10.548	VV	712	15909	0.25%	0.067%
183	10.552	10.548	10.563	VV	547	3892	0.06%	0.016%
184	10.571	10.563	10.577	VV	559	3898	0.06%	0.016%
185	10.582	10.577	10.592	VV	562	4198	0.07%	0.018%
186	10.623	10.592	10.645	VV	788	17466	0.27%	0.074%
187	10.649	10.645	10.667	VV	504	4919	0.08%	0.021%
188	10.681	10.667	10.700	VV	580	8406	0.13%	0.035%
189	10.724	10.700	10.734	VV	718	10705	0.17%	0.045%
190	10.739	10.734	10.743	VV	604	3004	0.05%	0.013%
191	10.758	10.743	10.784	VV	989	15352	0.24%	0.065%
192	10.790	10.784	10.797	VV	293	1719	0.03%	0.007%
193	10.815	10.797	10.826	VV	760	8045	0.13%	0.034%
194	10.829	10.826	10.836	VV	499	2783	0.04%	0.012%

rteres

195	10.849	10.836	10.863	VV	818	9423	0.15%	0.040%
196	10.879	10.863	10.917	VV	990	16377	0.26%	0.069%
197	10.953	10.917	10.975	VV	776	12994	0.20%	0.055%
198	10.980	10.975	10.988	VV	343	2065	0.03%	0.009%
199	11.002	10.988	11.012	VV	450	5311	0.08%	0.022%
200	11.027	11.012	11.037	VV	450	5691	0.09%	0.024%
201	11.054	11.037	11.096	VV	608	10964	0.17%	0.046%
202	11.132	11.096	11.150	VV	353	5351	0.08%	0.023%
203	11.174	11.150	11.181	VV	296	2977	0.05%	0.013%
204	11.191	11.181	11.196	VV	228	1482	0.02%	0.006%
205	11.202	11.196	11.206	VV	210	1155	0.02%	0.005%
206	11.214	11.206	11.224	VV	260	1513	0.02%	0.006%
207	11.258	11.224	11.284	PV	531	8771	0.14%	0.037%
208	11.306	11.284	11.314	VV	428	6067	0.10%	0.026%
209	11.327	11.314	11.365	VV	754	9611	0.15%	0.041%
210	11.376	11.365	11.384	VV	349	2887	0.05%	0.012%
211	11.413	11.384	11.432	VV	527	9486	0.15%	0.040%
212	11.437	11.432	11.447	VV	291	1560	0.02%	0.007%
213	11.450	11.447	11.463	VV	285	1685	0.03%	0.007%
214	11.488	11.463	11.507	VV	765	10465	0.16%	0.044%
215	11.521	11.507	11.552	VV	516	7044	0.11%	0.030%
216	11.581	11.552	11.615	VV	447	8386	0.13%	0.035%
217	11.651	11.615	11.687	VV	526695	5616852	87.97%	23.713%
218	11.692	11.687	11.700	VV	262	1114	0.02%	0.005%
219	11.742	11.700	11.770	VV	2929	41806	0.65%	0.176%
220	11.811	11.770	11.841	VV	3312	46968	0.74%	0.198%
221	11.850	11.841	11.865	VV	424	4703	0.07%	0.020%
222	11.869	11.865	11.888	VV	431	3650	0.06%	0.015%
223	11.902	11.888	11.913	VV	466	4500	0.07%	0.019%
224	11.927	11.913	11.935	VV	457	3857	0.06%	0.016%
225	11.959	11.935	11.965	VV	581	6637	0.10%	0.028%
226	11.985	11.965	12.010	VV	808	14382	0.23%	0.061%
227	12.016	12.010	12.022	VV	423	2318	0.04%	0.010%
228	12.045	12.022	12.067	VV	4191	50878	0.80%	0.215%
229	12.086	12.067	12.117	VV	1454	19957	0.31%	0.084%
230	12.146	12.117	12.170	VV	428	7961	0.12%	0.034%
231	12.237	12.170	12.340	VV	42490	578233	9.06%	2.441%
232	12.356	12.340	12.397	VV	1505	37712	0.59%	0.159%
233	12.404	12.397	12.415	VV	868	8821	0.14%	0.037%
234	12.420	12.415	12.429	VV	864	6438	0.10%	0.027%
235	12.431	12.429	12.458	VV	836	12042	0.19%	0.051%
236	12.495	12.458	12.515	VV	2054	39329	0.62%	0.166%
237	12.520	12.515	12.545	VV	665	7865	0.12%	0.033%
238	12.549	12.545	12.552	VV	558	1886	0.03%	0.008%
239	12.570	12.552	12.605	VV	1170	23414	0.37%	0.099%
240	12.630	12.605	12.670	VV	1229	25289	0.40%	0.107%
241	12.696	12.670	12.745	VV	3504	69451	1.09%	0.293%
242	12.760	12.745	12.765	VV	523	5215	0.08%	0.022%
243	12.769	12.765	12.810	VV	479	7331	0.11%	0.031%
244	12.815	12.810	12.824	VV	250	1609	0.03%	0.007%
245	12.837	12.824	12.844	VV	317	2493	0.04%	0.011%
246	12.849	12.844	12.873	VV	218	3760	0.06%	0.016%

rteres

247	12.901	12.873	12.905	VV	511	6772	0.11%	0.029%
248	12.917	12.905	12.938	VV	515	7656	0.12%	0.032%
249	12.949	12.938	12.971	VV	299	4154	0.07%	0.018%
250	12.993	12.971	13.010	VV	724	9208	0.14%	0.039%
251	13.032	13.010	13.047	VV	1717	24254	0.38%	0.102%
252	13.076	13.047	13.105	VV	79931	924852	14.48%	3.904%
253	13.112	13.105	13.118	VV	588	4050	0.06%	0.017%
254	13.120	13.118	13.147	VV	613	7474	0.12%	0.032%
255	13.152	13.147	13.185	VV	353	5737	0.09%	0.024%
256	13.199	13.185	13.213	VV	440	5294	0.08%	0.022%
257	13.246	13.213	13.275	VV	642	16371	0.26%	0.069%
258	13.296	13.275	13.334	VV	2174	32096	0.50%	0.136%
259	13.376	13.334	13.441	VV	788	38227	0.60%	0.161%
260	13.467	13.441	13.568	VV	20380	331573	5.19%	1.400%
261	13.573	13.568	13.603	VV	1033	18920	0.30%	0.080%
262	13.611	13.603	13.621	VV	740	7318	0.11%	0.031%
263	13.649	13.621	13.667	VV	908	20990	0.33%	0.089%
264	13.672	13.667	13.680	VV	828	5794	0.09%	0.024%
265	13.694	13.680	13.723	VV	1038	18827	0.29%	0.079%
266	13.734	13.723	13.742	VV	628	6070	0.10%	0.026%
267	13.778	13.742	13.810	VV	2874	47572	0.75%	0.201%
268	13.827	13.810	13.874	VV	1015	27740	0.43%	0.117%
269	13.890	13.874	13.907	VV	507	7428	0.12%	0.031%
270	13.921	13.907	13.957	VV	387	6922	0.11%	0.029%
271	13.994	13.957	14.015	PV	313	6972	0.11%	0.029%
272	14.019	14.015	14.028	VV	432	2200	0.03%	0.009%
273	14.036	14.028	14.045	VV	372	2791	0.04%	0.012%
274	14.061	14.045	14.083	VV	480	8161	0.13%	0.034%
275	14.091	14.083	14.128	VV	444	7164	0.11%	0.030%
276	14.143	14.128	14.188	VV	337	7339	0.11%	0.031%
277	14.214	14.188	14.242	VV	1619	24804	0.39%	0.105%
278	14.260	14.242	14.287	VV	1564	23650	0.37%	0.100%
279	14.319	14.287	14.327	VV	519	8572	0.13%	0.036%
280	14.340	14.327	14.374	VV	583	10037	0.16%	0.042%
281	14.390	14.374	14.408	VV	506	7726	0.12%	0.033%
282	14.422	14.408	14.443	VV	599	7683	0.12%	0.032%
283	14.492	14.443	14.513	VV	790	21532	0.34%	0.091%
284	14.553	14.513	14.590	VV	675	19819	0.31%	0.084%
285	14.603	14.590	14.637	VV	369	5567	0.09%	0.024%
286	14.702	14.637	14.724	PV	320	9070	0.14%	0.038%
287	14.732	14.724	14.748	VV	369	3125	0.05%	0.013%
288	14.768	14.748	14.807	VV	1044	17644	0.28%	0.074%
289	14.860	14.807	14.872	VV	1108	20364	0.32%	0.086%
290	14.888	14.872	14.917	VV	1751	35130	0.55%	0.148%
291	14.927	14.917	14.947	VV	880	11782	0.18%	0.050%
292	14.972	14.947	15.011	VV	3526	58711	0.92%	0.248%
293	15.023	15.011	15.055	VV	450	6077	0.10%	0.026%
294	15.065	15.055	15.077	VV	298	1894	0.03%	0.008%
295	15.097	15.077	15.134	VV	409	7154	0.11%	0.030%
296	15.151	15.134	15.167	VV	421	5387	0.08%	0.023%
297	15.206	15.167	15.237	VV	504	10781	0.17%	0.046%
298	15.245	15.237	15.270	PV	199	2563	0.04%	0.011%
299	15.300	15.270	15.379	VV	29916	402222	6.30%	1.698%

rteres

300	15.402	15.379	15.424	VV	1761	24996	0.39%	0.106%
301	15.463	15.424	15.485	VV	1632	32592	0.51%	0.138%
302	15.499	15.485	15.555	VV	563	14374	0.23%	0.061%
303	15.577	15.555	15.618	VV	1217	23421	0.37%	0.099%
304	15.625	15.618	15.645	VV	418	4666	0.07%	0.020%
305	15.661	15.645	15.697	VV	533	10260	0.16%	0.043%
306	15.713	15.697	15.741	VV	246	5402	0.08%	0.023%
307	15.771	15.741	15.787	VV	413	7492	0.12%	0.032%
308	15.820	15.787	15.862	VV	1343	27343	0.43%	0.115%
309	15.874	15.862	15.883	VV	418	4323	0.07%	0.018%
310	15.909	15.883	15.925	VV	1063	16383	0.26%	0.069%
311	15.945	15.925	15.980	VV	1269	23648	0.37%	0.100%
312	16.005	15.980	16.045	VV	2414	33968	0.53%	0.143%
313	16.064	16.045	16.102	VV	243	4996	0.08%	0.021%
314	16.138	16.102	16.154	VV	314	6993	0.11%	0.030%
315	16.193	16.154	16.219	VV	331	8119	0.13%	0.034%
316	16.225	16.219	16.244	VV	264	2201	0.03%	0.009%
317	16.256	16.244	16.270	PV	219	1275	0.02%	0.005%
318	16.312	16.270	16.387	VV	10849	178506	2.80%	0.754%
319	16.406	16.387	16.475	VV	1541	48887	0.77%	0.206%
320	16.507	16.475	16.529	VV	1447	23189	0.36%	0.098%
321	16.561	16.529	16.597	VV	828	19361	0.30%	0.082%
322	16.612	16.597	16.668	VV	527	12229	0.19%	0.052%
323	16.675	16.668	16.685	VV	370	1866	0.03%	0.008%
324	16.734	16.685	16.747	PV	453	10819	0.17%	0.046%
325	16.792	16.747	16.838	VV	1470	37466	0.59%	0.158%
326	16.861	16.838	16.870	VV	993	13948	0.22%	0.059%
327	16.891	16.870	16.920	VV	2084	33930	0.53%	0.143%
328	16.967	16.920	16.995	VV	2488	57422	0.90%	0.242%
329	17.005	16.995	17.079	VV	470	18348	0.29%	0.077%
330	17.095	17.079	17.105	VV	380	4563	0.07%	0.019%
331	17.131	17.105	17.188	VV	503	13333	0.21%	0.056%
332	17.199	17.188	17.210	VV	376	2240	0.04%	0.009%
333	17.252	17.210	17.313	VV	5112	108242	1.70%	0.457%
334	17.337	17.313	17.391	VV	3144	60058	0.94%	0.254%
335	17.426	17.391	17.479	VV	963	29951	0.47%	0.126%
336	17.508	17.479	17.532	VV	469	10832	0.17%	0.046%
337	17.564	17.532	17.575	VV	604	11088	0.17%	0.047%
338	17.627	17.575	17.653	VV	607	20179	0.32%	0.085%
339	17.661	17.653	17.673	VV	266	2043	0.03%	0.009%
340	17.734	17.673	17.752	PV	959	30280	0.47%	0.128%
341	17.777	17.752	17.803	VV	3016	44454	0.70%	0.188%
342	17.864	17.803	17.892	VV	2962	51476	0.81%	0.217%
343	17.913	17.892	17.925	VV	687	12540	0.20%	0.053%
344	17.959	17.925	17.975	VV	936	20509	0.32%	0.087%
345	18.005	17.975	18.037	VV	1380	34142	0.53%	0.144%
346	18.064	18.037	18.077	VV	888	18706	0.29%	0.079%
347	18.130	18.077	18.172	VV	14843	281163	4.40%	1.187%
348	18.198	18.172	18.245	VV	5777	124809	1.95%	0.527%
349	18.288	18.245	18.308	VV	1689	54838	0.86%	0.232%
350	18.333	18.308	18.372	VV	7029	107834	1.69%	0.455%
351	18.405	18.372	18.422	VV	1186	20445	0.32%	0.086%

rteres

352	18.448	18.422	18.479	VV	1172	32236	0.50%	0.136%
353	18.506	18.479	18.536	VV	3904	69077	1.08%	0.292%
354	18.554	18.536	18.562	VV	1115	15553	0.24%	0.066%
355	18.604	18.562	18.668	VV	3432	92197	1.44%	0.389%
356	18.704	18.668	18.738	PV	3201	65724	1.03%	0.277%
357	18.748	18.738	18.796	VV	1243	28484	0.45%	0.120%
358	18.816	18.796	18.835	VV	424	5630	0.09%	0.024%
359	18.893	18.835	18.918	PV	3792	59784	0.94%	0.252%
360	18.957	18.918	18.985	PV	11218	164300	2.57%	0.694%

Sum of corrected areas: 23686822

Aromatic EPH 050125.M Fri May 09 09:50:23 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/26/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/28/25
Client Sample ID:	B-170-SB02	SDG No.:	Q1901
Lab Sample ID:	Q1901-05	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	75.1
Sample Wt/Vol:	30.04 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
05/07/25 13:37	05/08/25 22:19	PB167903

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	Datafile
TARGETS								
Aliphatic C9-C12	Aliphatic C9-C12	0.19	U	1	0.19	1.33	mg/kg	FC068806.D
Aliphatic C12-C16	Aliphatic C12-C16	0.25	J	1	0.15	0.89	mg/kg	FC068806.D
Aliphatic C16-C21	Aliphatic C16-C21	0.17	U	1	0.17	1.33	mg/kg	FC068806.D
Aliphatic C21-C28	Aliphatic C21-C28	0.71	U	1	0.71	1.77	mg/kg	FC068806.D
Aliphatic C28-C40	Aliphatic C28-C40	1.57	U	1	1.57	2.66	mg/kg	FC068806.D
Aromatic C10-C12	Aromatic C10-C12	0.31	J	1	0.16	0.89	mg/kg	FD049332.D
Aromatic C12-C16	Aromatic C12-C16	0.42	J	1	0.31	1.33	mg/kg	FD049332.D
Aromatic C16-C21	Aromatic C16-C21	2.40		1	0.53	2.22	mg/kg	FD049332.D
Aromatic C21-C36	Aromatic C21-C36	1.80	J	1	1.58	3.55	mg/kg	FD049332.D
Total AliphaticEPH	Total AliphaticEPH	2.78	U		2.78	7.98	mg/kg	
Total AromaticEPH	Total AromaticEPH	4.93	J		2.58	7.99	mg/kg	
Total EPH	Total EPH	5.36	U		5.36	16.0	mg/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

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/26/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/28/25
Client Sample ID:	B-170-SB02	SDG No.:	Q1901
Lab Sample ID:	Q1901-05	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	75.1
Sample Wt/Vol:	30.04 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC068806.D	1	05/07/25	05/08/25	PB167903

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	0.19	U	0.19	1.33	mg/kg
Aliphatic C12-C16	Aliphatic C12-C16	0.25	J	0.15	0.89	mg/kg
Aliphatic C16-C21	Aliphatic C16-C21	0.17	U	0.17	1.33	mg/kg
Aliphatic C21-C28	Aliphatic C21-C28	0.71	U	0.71	1.77	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	1.57	U	1.57	2.66	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	30.7		40 - 140	61%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	0.00		40 - 140	0%	SPK: 50

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

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	Q1901-05	Acq On:	08 May 2025 22:19
Client Sample ID:	B-170-SB02	Operator:	YP/AJ
Data file:	FC068806.D	Misc:	
Instrument:	FID_C	ALS Vial:	23
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.342	6.642	0	0	300	ug/ml
Aliphatic C12-C16	6.643	10.042	257978	2.835	200	ug/ml
Aliphatic C16-C21	10.043	13.408	0	0	300	ug/ml
Aliphatic C21-C28	13.409	17.072	0	0	400	ug/ml
Aliphatic C28-C40	17.073	22.071	0	0	600	ug/ml
Aliphatic EPH	3.342	22.071	257978	2.835		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	13.142	13.142	2465882	30.74		ug/ml
Aliphatic C9-C28	3.342	17.072	257978	2.835	1200	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068806.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 22:19
Operator : YP/AJ
Sample : Q1901-05
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
B-170-SB02

Integration File: autoint1.e
Quant Time: May 09 09:09:59 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
12) S 1-chlorooctadecane (S...	13.142	2465882	30.737 ug/ml
Spiked Amount 50.000		Recovery = 61.47%	
Target Compounds			

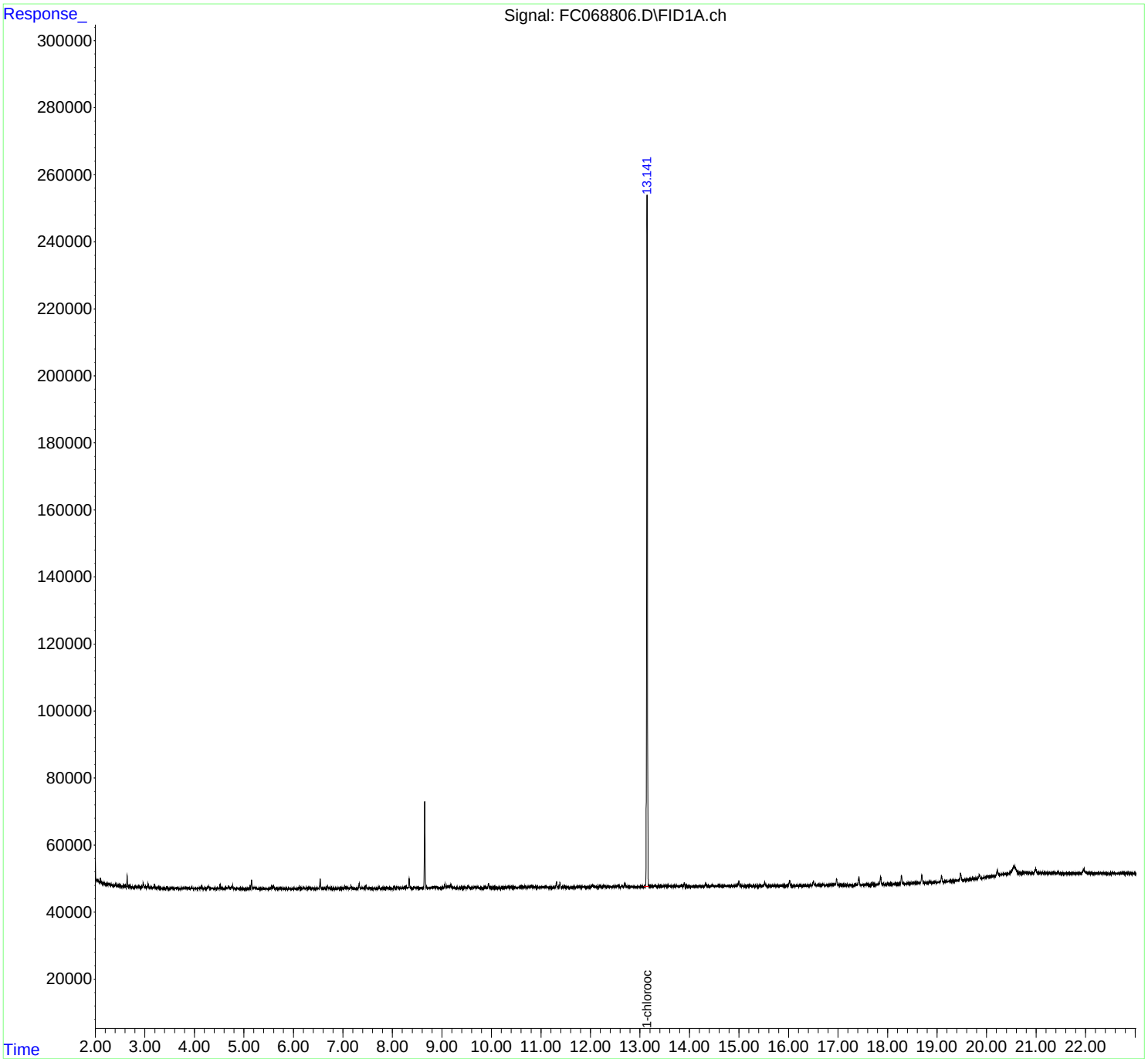
(f)=RT Delta > 1/2 Window (m)=manual int.

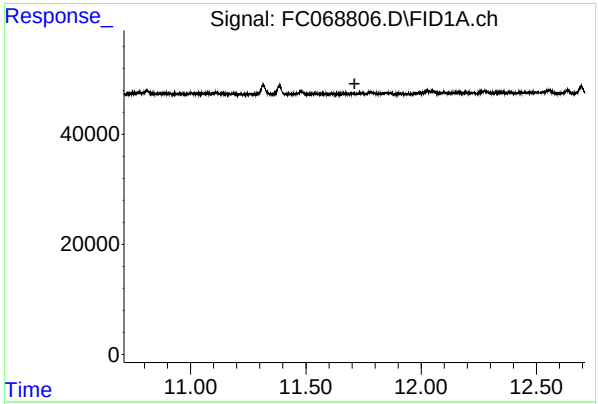
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068806.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 22:19
Operator : YP/AJ
Sample : Q1901-05
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
B-170-SB02

Integration File: autoint1.e
Quant Time: May 09 09:09:59 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

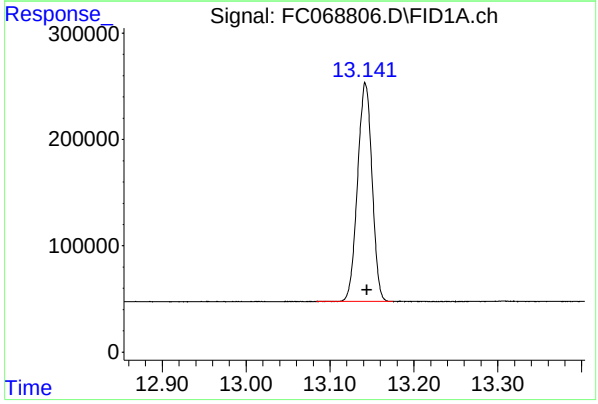




#9 ortho-Terphenyl (SURR)

R.T.: 0.000 min
Exp R.T. : 11.711 min
Response: 0
Conc: N.D.

Instrument :
FID_C
ClientSampleId :
B-170-SB02



#12 1-chlorooctadecane (SURR)

R.T.: 13.142 min
Delta R.T.: -0.002 min
Response: 2465882
Conc: 30.74 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068806.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 22:19
Sample : Q1901-05
Misc :
ALS Vial : 23 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.642	2.603	2.663	BV	3430	25633	1.04%	0.932%
2	8.653	8.600	8.703	BB	25857	257978	10.46%	9.383%
3	13.142	13.083	13.175	BB	206234	2465882	100.00%	89.685%

Sum of corrected areas: 2749493

Aliphatic EPH 050625.M Fri May 09 09:42:11 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/26/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/28/25
Client Sample ID:	B-170-SB02	SDG No.:	Q1901
Lab Sample ID:	Q1901-05	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	75.1
Sample Wt/Vol:	30.04 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD049332.D	1	05/07/25	05/08/25	PB167903

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aromatic C10-C12	Aromatic C10-C12	0.31	J	0.16	0.89	mg/kg
Aromatic C12-C16	Aromatic C12-C16	0.42	J	0.31	1.33	mg/kg
Aromatic C16-C21	Aromatic C16-C21	2.40		0.53	2.22	mg/kg
Aromatic C21-C36	Aromatic C21-C36	1.80	J	1.58	3.55	mg/kg
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	56.9		40 - 140	114%	SPK: 50
321-60-8	2-Flurobiphenyl (SURR)	54.0		40 - 140	108%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	29.1		40 - 140	58%	SPK: 50

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

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	Q1901-05	Acq On:	08 May 2025 21:41
Client Sample ID:	B-170-SB02	Operator:	YP/AJ
Data file:	FD049332.D	Misc:	
Instrument:	FID_D	ALS Vial:	72
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.431	6.176	446581	3.474	200	ug/ml
Aromatic C12-C16	6.177	8.805	643402	4.74	300	ug/ml
Aromatic C16-C21	8.806	13.095	3552725	27.095	500	ug/ml
Aromatic C21-C36	13.0956	18.515	2378123	20.265	800	ug/ml
Aromatic EPH	4.431	18.515	7020831	55.575		ug/ml
2-Bromonaphthalene (SURR)	7.741	7.741	6746093	56.9		ug/ml
2-Flurobiphenyl (SURR)	8.607	8.607	4263173	53.98		ug/ml
ortho-Terphenyl (SURR)	11.650	11.650	4011652	29.07		ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049332.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 21:41
Operator : YP/AJ
Sample : Q1901-05
Misc :
ALS Vial : 72 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
B-170-SB02

Integration File: autoint1.e
Quant Time: May 09 09:21:54 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.741	6746093	56.895 ug/ml
Spiked Amount 50.000		Recovery = 113.79%	
6) S 2-Flurobiphenyl (SURR)	8.607	4263173	53.983 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery = 107.97%	
11) S ortho-Terphenyl (SURR)	11.650	4011652	29.066 ug/ml
Spiked Amount 50.000		Recovery = 58.13%	
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

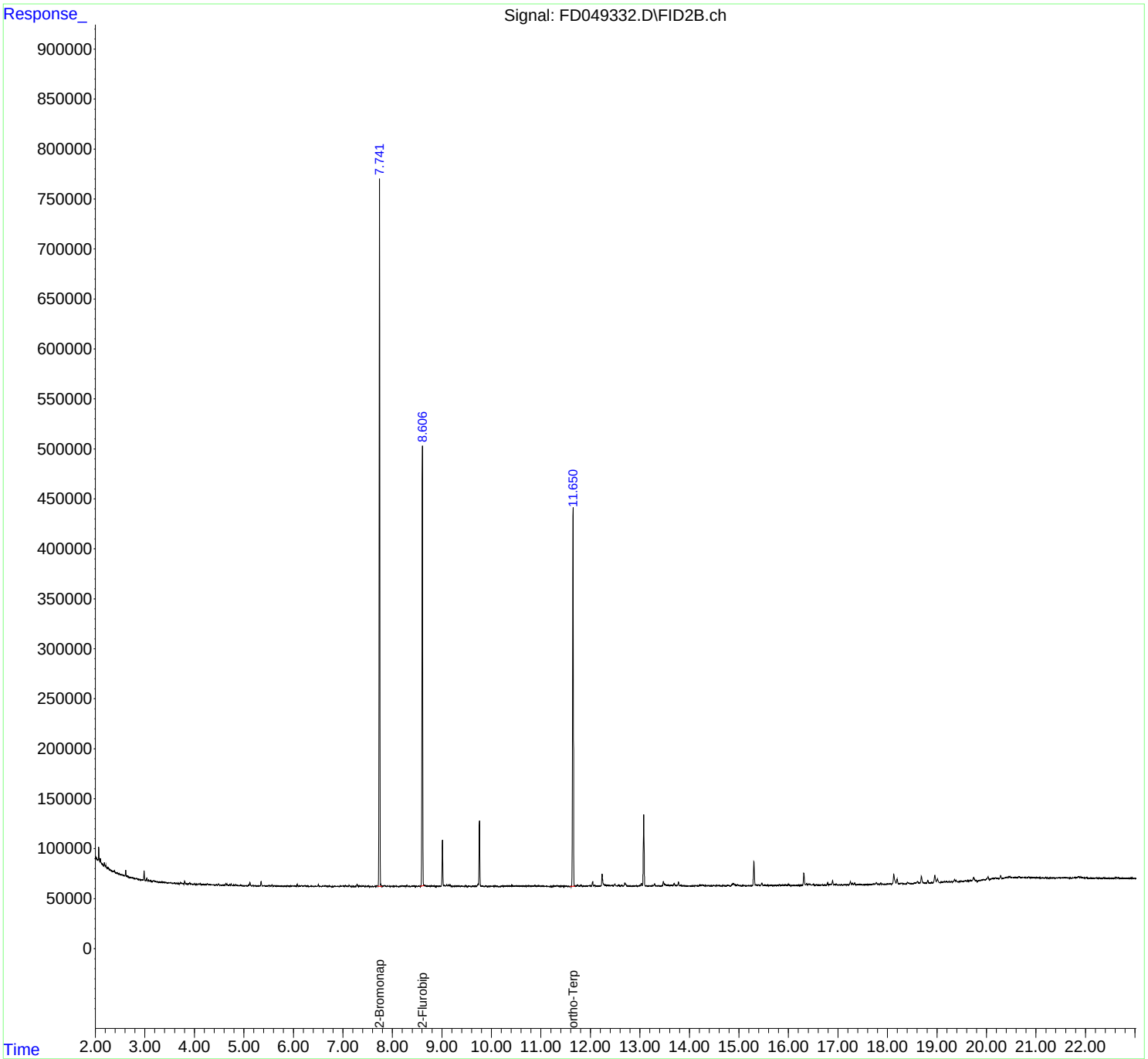
Quantitation Report (QT Reviewed)

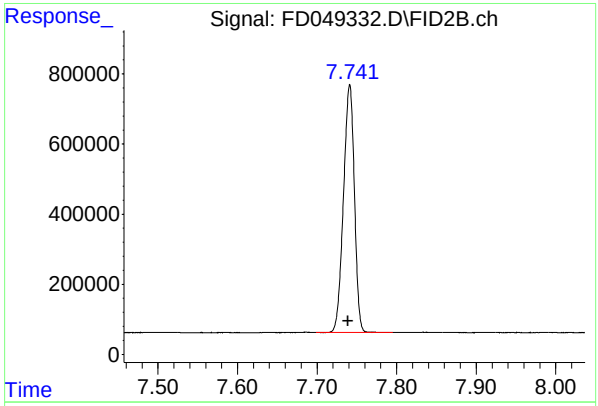
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049332.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 21:41
Operator : YP/AJ
Sample : Q1901-05
Misc :
ALS Vial : 72 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
B-170-SB02

Integration File: autoint1.e
Quant Time: May 09 09:21:54 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

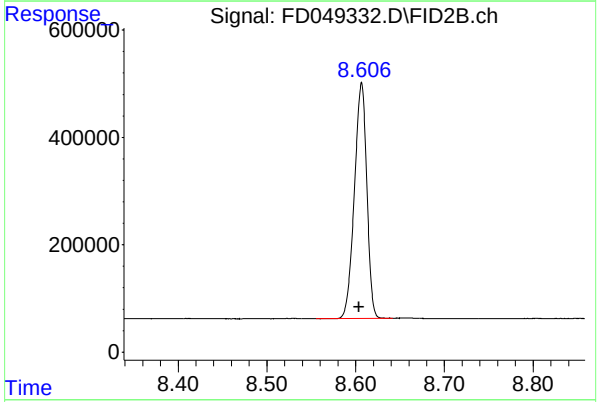




#4 2-Bromonaphthalene (SURR)

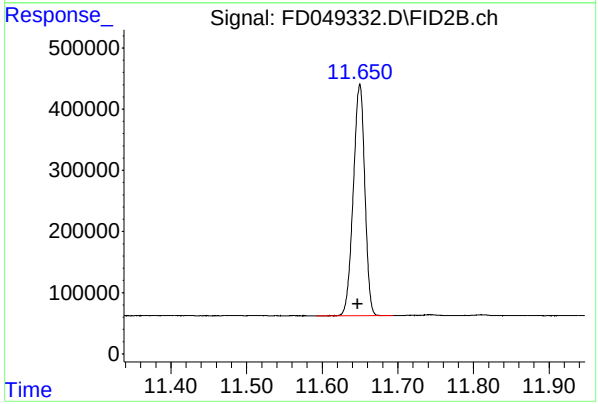
R.T.: 7.741 min
Delta R.T.: 0.002 min
Response: 6746093
Conc: 56.90 ug/ml

Instrument :
FID_D
ClientSampleId :
B-170-SB02



#6 2-Flurobiphenyl (SURR)

R.T.: 8.607 min
Delta R.T.: 0.003 min
Response: 4263173
Conc: 53.98 ug/ml



#11 ortho-Terphenyl (SURR)

R.T.: 11.650 min
Delta R.T.: 0.003 min
Response: 4011652
Conc: 29.07 ug/ml

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049332.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 21:41
Sample : Q1901-05
Misc :
ALS Vial : 72 Sample Multiplier: 1

Integration File: sample.E

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.264	4.252	4.283	PH	783	9391	0.14%	0.042%
2	4.294	4.283	4.321	PV	656	7745	0.11%	0.034%
3	4.384	4.376	4.402	VV	168	1683	0.02%	0.007%
4	4.430	4.419	4.437	PV	203	1294	0.02%	0.006%
5	4.451	4.437	4.464	VV	515	4408	0.07%	0.020%
6	4.490	4.464	4.517	VV	1417	17023	0.25%	0.076%
7	4.529	4.517	4.557	VV	320	4849	0.07%	0.022%
8	4.588	4.557	4.620	VV	467	12206	0.18%	0.054%
9	4.637	4.620	4.649	VV	1882	18823	0.28%	0.084%
10	4.656	4.649	4.685	VV	1352	15194	0.22%	0.068%
11	4.714	4.685	4.727	VV	1045	10922	0.16%	0.049%
12	4.744	4.727	4.760	VV	1871	16594	0.24%	0.074%
13	4.795	4.769	4.811	VV	848	9583	0.14%	0.043%
14	4.832	4.811	4.889	VV	1012	18246	0.27%	0.081%
15	4.898	4.889	4.903	PV	192	1085	0.02%	0.005%
16	4.911	4.903	4.920	VV	209	1395	0.02%	0.006%
17	4.933	4.920	4.955	VV	717	7221	0.11%	0.032%
18	4.965	4.955	4.976	VV	278	1561	0.02%	0.007%
19	5.019	4.976	5.042	VV	262	4574	0.07%	0.020%
20	5.053	5.048	5.066	VV	324	2215	0.03%	0.010%
21	5.098	5.075	5.107	VV	869	8004	0.12%	0.036%
22	5.123	5.107	5.159	VV	3776	42483	0.63%	0.189%
23	5.183	5.166	5.205	VV	834	10345	0.15%	0.046%
24	5.211	5.205	5.220	VV	246	1456	0.02%	0.006%
25	5.241	5.220	5.266	VV	630	6791	0.10%	0.030%
26	5.279	5.266	5.291	PV	267	1843	0.03%	0.008%
27	5.307	5.291	5.323	VV	348	4994	0.07%	0.022%
28	5.329	5.323	5.332	VV	319	1260	0.02%	0.006%
29	5.347	5.332	5.383	VV	4730	52119	0.77%	0.232%
30	5.394	5.383	5.450	VV	441	10025	0.15%	0.045%
31	5.467	5.450	5.472	VV	219	2122	0.03%	0.009%
32	5.487	5.472	5.509	VV	791	8592	0.13%	0.038%
33	5.525	5.509	5.544	VV	686	8049	0.12%	0.036%
34	5.566	5.544	5.586	VV	1444	15712	0.23%	0.070%
35	5.604	5.586	5.608	VV	471	3824	0.06%	0.017%
36	5.620	5.608	5.642	VV	490	6190	0.09%	0.028%

rteres

37	5.654	5.642	5.659	VV	267	1885	0.03%	0.008%
38	5.683	5.659	5.702	VV	433	6182	0.09%	0.027%
39	5.708	5.702	5.735	VV	421	4672	0.07%	0.021%
40	5.746	5.735	5.755	VV	183	1005	0.01%	0.004%
41	5.769	5.755	5.787	PV	386	4920	0.07%	0.022%
42	5.817	5.787	5.833	VV	342	5321	0.08%	0.024%
43	5.847	5.840	5.856	VV	357	2488	0.04%	0.011%
44	5.872	5.856	5.879	VV	455	4654	0.07%	0.021%
45	5.881	5.879	5.920	VV	476	5683	0.08%	0.025%
46	5.929	5.920	5.933	VV	260	1270	0.02%	0.006%
47	5.938	5.933	5.958	VV	357	3642	0.05%	0.016%
48	5.984	5.958	6.001	VV	788	10835	0.16%	0.048%
49	6.007	6.001	6.012	VV	418	2030	0.03%	0.009%
50	6.023	6.012	6.050	VV	617	10178	0.15%	0.045%
51	6.055	6.050	6.062	VV	494	3050	0.05%	0.014%
52	6.077	6.062	6.100	VV	2099	23085	0.34%	0.103%
53	6.122	6.100	6.142	VV	667	9913	0.15%	0.044%
54	6.164	6.142	6.192	VV	1023	16060	0.24%	0.071%
55	6.223	6.192	6.264	VV	1020	20668	0.31%	0.092%
56	6.277	6.264	6.281	VV	340	2437	0.04%	0.011%
57	6.299	6.281	6.312	VV	459	5056	0.07%	0.022%
58	6.315	6.312	6.325	VV	217	1313	0.02%	0.006%
59	6.332	6.325	6.340	VV	167	1265	0.02%	0.006%
60	6.356	6.340	6.392	VV	1121	16143	0.24%	0.072%
61	6.395	6.392	6.416	VV	272	2347	0.03%	0.010%
62	6.446	6.425	6.458	VV	266	3526	0.05%	0.016%
63	6.472	6.458	6.485	VV	277	2913	0.04%	0.013%
64	6.503	6.485	6.534	VV	1841	23395	0.35%	0.104%
65	6.539	6.534	6.542	VV	315	1362	0.02%	0.006%
66	6.546	6.542	6.557	VV	339	2034	0.03%	0.009%
67	6.590	6.557	6.608	VV	827	10499	0.15%	0.047%
68	6.625	6.608	6.637	VV	833	8223	0.12%	0.037%
69	6.652	6.637	6.674	VV	1190	14601	0.22%	0.065%
70	6.687	6.674	6.703	VV	528	5100	0.08%	0.023%
71	6.728	6.703	6.745	PV	660	8622	0.13%	0.038%
72	6.749	6.745	6.756	VV	256	1097	0.02%	0.005%
73	6.762	6.756	6.777	VV	221	1596	0.02%	0.007%
74	6.781	6.777	6.810	VV	316	2573	0.04%	0.011%
75	6.833	6.810	6.846	VV	438	4991	0.07%	0.022%
76	6.860	6.846	6.875	VV	331	3972	0.06%	0.018%
77	6.880	6.875	6.885	VV	341	1596	0.02%	0.007%
78	6.889	6.885	6.924	VV	368	5279	0.08%	0.023%
79	6.949	6.924	6.967	VV	779	11223	0.17%	0.050%
80	6.970	6.967	6.977	VV	404	1761	0.03%	0.008%
81	7.001	6.977	7.032	VV	1055	21184	0.31%	0.094%
82	7.044	7.032	7.078	VV	946	16979	0.25%	0.075%
83	7.083	7.078	7.095	VV	368	3071	0.05%	0.014%
84	7.127	7.095	7.162	VV	1304	25386	0.37%	0.113%
85	7.167	7.162	7.173	VV	376	1299	0.02%	0.006%
86	7.183	7.173	7.205	VV	501	6022	0.09%	0.027%
87	7.213	7.205	7.225	VV	340	2437	0.04%	0.011%
88	7.234	7.225	7.258	VV	251	2608	0.04%	0.012%
89	7.286	7.258	7.325	VV	2481	34046	0.50%	0.151%

rteres

90	7.346	7.325	7.356	VV	473	6442	0.10%	0.029%
91	7.365	7.356	7.377	VV	552	4634	0.07%	0.021%
92	7.391	7.377	7.409	VV	595	8018	0.12%	0.036%
93	7.424	7.409	7.448	VV	871	10925	0.16%	0.049%
94	7.466	7.448	7.480	VV	382	4957	0.07%	0.022%
95	7.490	7.480	7.505	VV	614	7059	0.10%	0.031%
96	7.513	7.505	7.536	VV	634	7748	0.11%	0.034%
97	7.555	7.536	7.569	VV	229	3144	0.05%	0.014%
98	7.586	7.569	7.623	VV	446	7019	0.10%	0.031%
99	7.643	7.623	7.650	PV	415	4496	0.07%	0.020%
100	7.658	7.650	7.671	VV	438	4431	0.07%	0.020%
101	7.686	7.671	7.706	VV	1220	15795	0.23%	0.070%
102	7.741	7.706	7.809	VV	706624	6775275	100.00%	30.116%
103	7.835	7.809	7.892	VV	1145	31359	0.46%	0.139%
104	7.909	7.892	7.935	VV	1019	14356	0.21%	0.064%
105	7.945	7.935	7.970	VV	412	5404	0.08%	0.024%
106	7.990	7.970	8.005	VV	740	8582	0.13%	0.038%
107	8.019	8.005	8.027	VV	342	3128	0.05%	0.014%
108	8.045	8.027	8.057	VV	460	5574	0.08%	0.025%
109	8.078	8.057	8.110	VV	712	12679	0.19%	0.056%
110	8.116	8.110	8.128	VV	393	2526	0.04%	0.011%
111	8.137	8.128	8.149	VV	321	3182	0.05%	0.014%
112	8.194	8.149	8.224	VV	1000	25831	0.38%	0.115%
113	8.229	8.224	8.237	VV	640	3926	0.06%	0.017%
114	8.240	8.237	8.253	VV	501	3970	0.06%	0.018%
115	8.260	8.253	8.265	VV	488	2970	0.04%	0.013%
116	8.293	8.265	8.316	VV	1692	23738	0.35%	0.106%
117	8.328	8.316	8.352	VV	468	7309	0.11%	0.032%
118	8.358	8.352	8.377	VV	498	5104	0.08%	0.023%
119	8.389	8.377	8.394	VV	588	4468	0.07%	0.020%
120	8.411	8.394	8.471	VV	694	21100	0.31%	0.094%
121	8.489	8.471	8.506	PV	520	6422	0.09%	0.029%
122	8.530	8.506	8.561	VV	816	14715	0.22%	0.065%
123	8.570	8.561	8.575	VV	468	2875	0.04%	0.013%
124	8.607	8.575	8.642	VV	440575	4298654	63.45%	19.107%
125	8.658	8.642	8.687	VV	1727	29619	0.44%	0.132%
126	8.694	8.687	8.714	VV	572	8570	0.13%	0.038%
127	8.720	8.714	8.733	VV	539	5786	0.09%	0.026%
128	8.740	8.733	8.747	VV	605	4245	0.06%	0.019%
129	8.752	8.747	8.757	VV	641	3394	0.05%	0.015%
130	8.761	8.757	8.767	VV	543	2406	0.04%	0.011%
131	8.803	8.767	8.820	VV	797	18872	0.28%	0.084%
132	8.832	8.820	8.839	VV	766	7202	0.11%	0.032%
133	8.852	8.839	8.873	VV	819	10459	0.15%	0.046%
134	8.894	8.873	8.908	VV	536	8244	0.12%	0.037%
135	8.918	8.908	8.930	VV	583	5974	0.09%	0.027%
136	8.940	8.930	8.969	VV	470	8585	0.13%	0.038%
137	8.972	8.969	8.981	VV	441	2671	0.04%	0.012%
138	9.013	8.981	9.037	VV	46602	460785	6.80%	2.048%
139	9.040	9.037	9.044	VV	1217	4949	0.07%	0.022%
140	9.047	9.044	9.084	VV	1134	20736	0.31%	0.092%
141	9.097	9.084	9.116	VV	2095	25802	0.38%	0.115%

rteres

142	9.132	9.116	9.152	VV	1909	27130	0.40%	0.121%
143	9.166	9.152	9.186	VV	1755	22448	0.33%	0.100%
144	9.205	9.186	9.229	VV	857	10103	0.15%	0.045%
145	9.251	9.229	9.279	VV	589	9922	0.15%	0.044%
146	9.303	9.279	9.320	VV	750	12966	0.19%	0.058%
147	9.333	9.320	9.376	VV	880	19257	0.28%	0.086%
148	9.381	9.376	9.387	VV	419	2299	0.03%	0.010%
149	9.397	9.387	9.407	VV	601	5960	0.09%	0.026%
150	9.417	9.407	9.432	VV	570	6000	0.09%	0.027%
151	9.438	9.432	9.455	VV	435	4327	0.06%	0.019%
152	9.479	9.455	9.517	VV	1121	19114	0.28%	0.085%
153	9.532	9.517	9.538	VV	408	3159	0.05%	0.014%
154	9.552	9.538	9.569	VV	575	7198	0.11%	0.032%
155	9.582	9.569	9.588	VV	327	2745	0.04%	0.012%
156	9.618	9.588	9.634	VV	469	7952	0.12%	0.035%
157	9.648	9.634	9.659	VV	418	4611	0.07%	0.020%
158	9.674	9.659	9.701	VV	502	9244	0.14%	0.041%
159	9.729	9.701	9.738	VV	2652	30394	0.45%	0.135%
160	9.760	9.738	9.789	VV	65920	662328	9.78%	2.944%
161	9.792	9.789	9.796	VV	507	1913	0.03%	0.009%
162	9.805	9.796	9.812	VV	574	4807	0.07%	0.021%
163	9.814	9.812	9.820	VV	686	2781	0.04%	0.012%
164	9.830	9.820	9.865	VV	729	10270	0.15%	0.046%
165	9.890	9.865	9.913	VV	1012	15166	0.22%	0.067%
166	9.934	9.913	9.954	VV	280	3574	0.05%	0.016%
167	9.965	9.954	9.996	VV	421	7957	0.12%	0.035%
168	10.002	9.996	10.012	VV	443	3309	0.05%	0.015%
169	10.016	10.012	10.024	VV	402	2311	0.03%	0.010%
170	10.036	10.024	10.070	VV	501	9579	0.14%	0.043%
171	10.087	10.070	10.150	VV	685	13489	0.20%	0.060%
172	10.165	10.150	10.190	VV	317	4957	0.07%	0.022%
173	10.198	10.190	10.204	VV	449	2909	0.04%	0.013%
174	10.220	10.204	10.266	VV	676	17245	0.25%	0.077%
175	10.284	10.266	10.298	VV	537	8119	0.12%	0.036%
176	10.305	10.298	10.322	VV	639	7652	0.11%	0.034%
177	10.326	10.322	10.338	VV	725	5219	0.08%	0.023%
178	10.350	10.338	10.359	VV	745	6835	0.10%	0.030%
179	10.367	10.359	10.394	VV	628	8741	0.13%	0.039%
180	10.413	10.394	10.435	VV	1825	24232	0.36%	0.108%
181	10.440	10.435	10.459	VV	499	6180	0.09%	0.027%
182	10.474	10.459	10.481	VV	659	7098	0.10%	0.032%
183	10.487	10.481	10.497	VV	598	5147	0.08%	0.023%
184	10.514	10.497	10.523	VV	811	10554	0.16%	0.047%
185	10.530	10.523	10.544	VV	739	6964	0.10%	0.031%
186	10.578	10.544	10.591	VV	794	15689	0.23%	0.070%
187	10.602	10.591	10.642	VV	766	18176	0.27%	0.081%
188	10.655	10.642	10.662	VV	734	6964	0.10%	0.031%
189	10.681	10.662	10.693	VV	720	10107	0.15%	0.045%
190	10.723	10.693	10.736	VV	778	15639	0.23%	0.070%
191	10.757	10.736	10.796	VV	1182	23263	0.34%	0.103%
192	10.819	10.796	10.832	VV	788	10701	0.16%	0.048%
193	10.846	10.832	10.859	VV	732	9677	0.14%	0.043%
194	10.878	10.859	10.906	VV	1157	19846	0.29%	0.088%

rteres

195	10.911	10.906	10.929	VV	539	6003	0.09%	0.027%
196	10.954	10.929	10.985	VV	1085	22543	0.33%	0.100%
197	11.001	10.985	11.017	VV	578	8596	0.13%	0.038%
198	11.027	11.017	11.036	VV	540	5012	0.07%	0.022%
199	11.043	11.036	11.071	VV	581	8867	0.13%	0.039%
200	11.079	11.071	11.100	VV	406	4906	0.07%	0.022%
201	11.108	11.100	11.124	VV	475	4188	0.06%	0.019%
202	11.128	11.124	11.140	VV	441	3009	0.04%	0.013%
203	11.144	11.140	11.161	VV	443	3442	0.05%	0.015%
204	11.191	11.161	11.209	PV	346	4717	0.07%	0.021%
205	11.219	11.215	11.230	VV	329	2028	0.03%	0.009%
206	11.261	11.230	11.288	VV	807	14278	0.21%	0.063%
207	11.325	11.288	11.347	VV	1097	18234	0.27%	0.081%
208	11.354	11.347	11.359	VV	383	2134	0.03%	0.009%
209	11.369	11.359	11.417	VV	527	13822	0.20%	0.061%
210	11.423	11.417	11.434	VV	446	3828	0.06%	0.017%
211	11.445	11.434	11.453	VV	381	3001	0.04%	0.013%
212	11.486	11.453	11.498	VV	624	10010	0.15%	0.044%
213	11.518	11.498	11.535	VV	575	8183	0.12%	0.036%
214	11.539	11.535	11.551	VV	337	2051	0.03%	0.009%
215	11.562	11.551	11.585	VV	429	4858	0.07%	0.022%
216	11.599	11.585	11.605	PV	184	1317	0.02%	0.006%
217	11.650	11.605	11.694	VV	379598	4026038	59.42%	17.896%
218	11.719	11.694	11.726	VV	920	12880	0.19%	0.057%
219	11.742	11.726	11.767	VV	1883	27271	0.40%	0.121%
220	11.811	11.767	11.838	VV	1789	33902	0.50%	0.151%
221	11.855	11.838	11.872	VV	530	8074	0.12%	0.036%
222	11.881	11.872	11.904	VV	533	7054	0.10%	0.031%
223	11.906	11.904	11.909	VV	374	1012	0.01%	0.004%
224	11.922	11.909	11.930	VV	477	5199	0.08%	0.023%
225	11.964	11.930	11.969	VV	888	14374	0.21%	0.064%
226	11.985	11.969	12.020	VV	1081	21478	0.32%	0.095%
227	12.045	12.020	12.067	VV	4782	59027	0.87%	0.262%
228	12.086	12.067	12.104	VV	1373	18312	0.27%	0.081%
229	12.110	12.104	12.121	VV	343	3710	0.05%	0.016%
230	12.128	12.121	12.147	VV	533	5944	0.09%	0.026%
231	12.154	12.147	12.159	VV	477	3095	0.05%	0.014%
232	12.162	12.159	12.170	VV	444	2525	0.04%	0.011%
233	12.237	12.170	12.311	VV	12708	221394	3.27%	0.984%
234	12.316	12.311	12.318	VV	1139	4758	0.07%	0.021%
235	12.324	12.318	12.341	VV	1172	14279	0.21%	0.063%
236	12.354	12.341	12.393	VV	1287	29985	0.44%	0.133%
237	12.399	12.393	12.403	VV	832	4668	0.07%	0.021%
238	12.425	12.403	12.432	VV	984	14224	0.21%	0.063%
239	12.436	12.432	12.463	VV	869	14652	0.22%	0.065%
240	12.495	12.463	12.522	VV	2589	47355	0.70%	0.210%
241	12.526	12.522	12.537	VV	610	4662	0.07%	0.021%
242	12.543	12.537	12.545	VV	539	2513	0.04%	0.011%
243	12.572	12.545	12.602	VV	1695	30724	0.45%	0.137%
244	12.606	12.602	12.610	VV	444	1678	0.02%	0.007%
245	12.630	12.610	12.651	VV	1476	21112	0.31%	0.094%
246	12.657	12.651	12.665	VV	549	3548	0.05%	0.016%

rteres

247	12.696	12.665	12.744	VV	3510	73778	1.09%	0.328%
248	12.754	12.744	12.775	VV	547	8232	0.12%	0.037%
249	12.794	12.775	12.824	VV	541	9105	0.13%	0.040%
250	12.846	12.824	12.867	VV	465	7752	0.11%	0.034%
251	12.905	12.867	12.921	VV	599	12874	0.19%	0.057%
252	12.931	12.921	12.972	VV	492	10950	0.16%	0.049%
253	12.993	12.972	13.010	VV	945	13095	0.19%	0.058%
254	13.029	13.010	13.047	VV	2836	36488	0.54%	0.162%
255	13.077	13.047	13.109	VV	71482	836381	12.34%	3.718%
256	13.125	13.109	13.158	VV	548	11775	0.17%	0.052%
257	13.181	13.158	13.227	VV	429	13568	0.20%	0.060%
258	13.242	13.227	13.268	VV	524	10113	0.15%	0.045%
259	13.295	13.268	13.334	VV	2579	38968	0.58%	0.173%
260	13.339	13.334	13.347	VV	462	2934	0.04%	0.013%
261	13.362	13.347	13.397	VV	501	11102	0.16%	0.049%
262	13.409	13.397	13.429	VV	413	5157	0.08%	0.023%
263	13.439	13.429	13.450	VV	450	4466	0.07%	0.020%
264	13.473	13.450	13.555	VV	4677	110284	1.63%	0.490%
265	13.578	13.555	13.599	VV	954	21080	0.31%	0.094%
266	13.616	13.599	13.639	VV	869	16806	0.25%	0.075%
267	13.650	13.639	13.670	VV	785	11800	0.17%	0.052%
268	13.692	13.670	13.721	VV	3038	45228	0.67%	0.201%
269	13.777	13.721	13.806	VV	4398	71384	1.05%	0.317%
270	13.827	13.806	13.884	VV	1120	24512	0.36%	0.109%
271	13.901	13.884	13.933	VV	363	9015	0.13%	0.040%
272	13.942	13.933	13.964	VV	300	3623	0.05%	0.016%
273	13.991	13.964	14.030	VV	335	7144	0.11%	0.032%
274	14.072	14.030	14.085	VV	309	7611	0.11%	0.034%
275	14.134	14.085	14.142	VV	364	7443	0.11%	0.033%
276	14.173	14.142	14.187	VV	383	6972	0.10%	0.031%
277	14.215	14.187	14.239	VV	1198	20905	0.31%	0.093%
278	14.260	14.239	14.307	VV	1423	31570	0.47%	0.140%
279	14.321	14.307	14.365	VV	540	12778	0.19%	0.057%
280	14.382	14.365	14.412	VV	497	9679	0.14%	0.043%
281	14.418	14.412	14.465	VV	354	9459	0.14%	0.042%
282	14.489	14.465	14.509	VV	500	10090	0.15%	0.045%
283	14.519	14.509	14.531	VV	558	5196	0.08%	0.023%
284	14.555	14.531	14.570	VV	656	8851	0.13%	0.039%
285	14.585	14.570	14.616	VV	479	8202	0.12%	0.036%
286	14.645	14.616	14.660	VV	351	5626	0.08%	0.025%
287	14.685	14.660	14.737	VV	397	11440	0.17%	0.051%
288	14.769	14.737	14.801	VV	564	13144	0.19%	0.058%
289	14.859	14.801	14.869	VV	1606	24218	0.36%	0.108%
290	14.888	14.869	14.919	VV	2247	49871	0.74%	0.222%
291	14.925	14.919	14.952	VV	1105	14918	0.22%	0.066%
292	14.971	14.952	14.999	VV	1429	21351	0.32%	0.095%
293	15.003	14.999	15.014	VV	356	2726	0.04%	0.012%
294	15.021	15.014	15.072	VV	377	8522	0.13%	0.038%
295	15.104	15.072	15.154	PV	365	9553	0.14%	0.042%
296	15.179	15.154	15.190	VV	330	4277	0.06%	0.019%
297	15.197	15.190	15.223	VV	286	4380	0.06%	0.019%
298	15.237	15.223	15.269	VV	389	5380	0.08%	0.024%
299	15.301	15.269	15.381	VV	24479	332051	4.90%	1.476%

300	15.399	15.381	15.422	VV	1087	17343	0.26%	0.077%
301	15.463	15.422	15.502	VV	2907	50573	0.75%	0.225%
302	15.525	15.502	15.552	VV	711	12434	0.18%	0.055%
303	15.579	15.552	15.605	VV	442	8332	0.12%	0.037%
304	15.620	15.605	15.632	VV	398	4811	0.07%	0.021%
305	15.659	15.632	15.697	VV	591	15483	0.23%	0.069%
306	15.714	15.697	15.745	VV	356	7535	0.11%	0.033%
307	15.759	15.745	15.791	VV	382	6012	0.09%	0.027%
308	15.817	15.791	15.851	VV	1255	21303	0.31%	0.095%
309	15.874	15.851	15.892	VV	544	9752	0.14%	0.043%
310	15.906	15.892	15.925	VV	851	11134	0.16%	0.049%
311	15.943	15.925	15.976	VV	927	16352	0.24%	0.073%
312	16.004	15.976	16.063	VV	1478	22392	0.33%	0.100%
313	16.087	16.063	16.108	PV	374	4828	0.07%	0.021%
314	16.129	16.108	16.140	VV	203	2269	0.03%	0.010%
315	16.181	16.140	16.190	VV	281	4398	0.06%	0.020%
316	16.202	16.190	16.221	VV	316	3701	0.05%	0.016%
317	16.255	16.221	16.263	PV	259	4375	0.06%	0.019%
318	16.311	16.263	16.345	VV	12499	169764	2.51%	0.755%
319	16.364	16.345	16.389	VV	1897	30541	0.45%	0.136%
320	16.407	16.389	16.427	VV	1510	27201	0.40%	0.121%
321	16.439	16.427	16.463	VV	1317	18725	0.28%	0.083%
322	16.506	16.463	16.537	VV	1211	24869	0.37%	0.111%
323	16.561	16.537	16.592	VV	826	15410	0.23%	0.068%
324	16.625	16.592	16.643	VV	495	7862	0.12%	0.035%
325	16.681	16.643	16.695	VV	557	10766	0.16%	0.048%
326	16.703	16.695	16.730	VV	299	5606	0.08%	0.025%
327	16.735	16.730	16.754	VV	334	3223	0.05%	0.014%
328	16.790	16.754	16.822	VV	2031	34493	0.51%	0.153%
329	16.848	16.822	16.865	VV	929	19925	0.29%	0.089%
330	16.890	16.865	16.918	VV	4667	65097	0.96%	0.289%
331	16.941	16.918	16.952	VV	974	13103	0.19%	0.058%
332	16.968	16.952	16.999	VV	1122	17302	0.26%	0.077%
333	17.006	16.999	17.016	VV	312	2090	0.03%	0.009%
334	17.038	17.016	17.055	VV	285	4426	0.07%	0.020%
335	17.074	17.055	17.105	VV	310	5407	0.08%	0.024%
336	17.136	17.105	17.175	VV	547	11443	0.17%	0.051%
337	17.182	17.175	17.215	VV	327	4223	0.06%	0.019%
338	17.250	17.215	17.277	VV	3471	55853	0.82%	0.248%
339	17.293	17.277	17.315	VV	1302	23738	0.35%	0.106%
340	17.336	17.315	17.379	VV	1662	27703	0.41%	0.123%
341	17.392	17.379	17.400	PV	204	1706	0.03%	0.008%
342	17.420	17.400	17.462	VV	523	11212	0.17%	0.050%
343	17.469	17.462	17.502	VV	223	2550	0.04%	0.011%
344	17.511	17.502	17.532	PV	172	1315	0.02%	0.006%
345	17.566	17.532	17.600	VV	354	7260	0.11%	0.032%
346	17.622	17.600	17.632	PV	230	3683	0.05%	0.016%
347	17.645	17.632	17.680	VV	341	5663	0.08%	0.025%
348	17.702	17.680	17.711	VV	525	6639	0.10%	0.030%
349	17.739	17.711	17.754	VV	934	16705	0.25%	0.074%
350	17.774	17.754	17.801	VV	2120	31815	0.47%	0.141%
351	17.826	17.801	17.834	VV	414	6951	0.10%	0.031%

					rteres			
352	17.865	17.834	17.891	VV	1401	23440	0.35%	0.104%
353	17.905	17.891	17.920	VV	391	5220	0.08%	0.023%
354	17.931	17.920	17.970	VV	269	5295	0.08%	0.024%
355	17.999	17.970	18.036	VV	479	11075	0.16%	0.049%
356	18.061	18.036	18.080	VV	455	8259	0.12%	0.037%
357	18.128	18.080	18.171	VV	9982	192036	2.83%	0.854%
358	18.193	18.171	18.230	VV	4903	81335	1.20%	0.362%
359	18.289	18.230	18.315	VV	964	26796	0.40%	0.119%
360	18.324	18.315	18.357	VV	335	5115	0.08%	0.023%
361	18.369	18.357	18.380	PV	195	2155	0.03%	0.010%
362	18.405	18.380	18.424	VV	1506	21701	0.32%	0.096%
363	18.441	18.424	18.462	VV	488	9038	0.13%	0.040%
364	18.468	18.462	18.488	VV	363	4190	0.06%	0.019%
365	18.552	18.488	18.561	VV	738	15894	0.23%	0.071%
366	18.603	18.561	18.657	VV	2159	56938	0.84%	0.253%
367	18.685	18.657	18.747	VV	7332	121752	1.80%	0.541%
368	18.773	18.747	18.787	VV	408	6410	0.09%	0.028%
369	18.813	18.787	18.852	VV	2672	38531	0.57%	0.171%
370	18.891	18.852	18.922	PV	545	10004	0.15%	0.044%
371	18.956	18.922	18.984	PV	6923	106898	1.58%	0.475%
			Sum of corrected areas:			22497334		

Aromatic EPH 050125.M Fri May 09 09:53:33 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/26/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/28/25
Client Sample ID:	FB04262025	SDG No.:	Q1901
Lab Sample ID:	Q1901-06	Matrix:	Water
Analytical Method:	NJEPH	% Solid:	0
Sample Wt/Vol:	940 Units: mL	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :	SW3510		

Prep Date :	Date Analyzed :	Prep Batch ID
05/01/25 09:40	05/02/25 14:40	PB167840

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units	Datafile
TARGETS								
Aliphatic C9-C12	Aliphatic C9-C12	8.81	U	1	8.81	31.9	ug/l	FC068746.D
Aliphatic C12-C16	Aliphatic C12-C16	14.4	U	1	14.4	21.3	ug/l	FC068746.D
Aliphatic C16-C21	Aliphatic C16-C21	8.87	U	1	8.87	31.9	ug/l	FC068746.D
Aliphatic C21-C28	Aliphatic C21-C28	13.3	U	1	13.3	42.6	ug/l	FC068746.D
Aliphatic C28-C40	Aliphatic C28-C40	25.3	U	1	25.3	63.8	ug/l	FC068746.D
Aromatic C10-C12	Aromatic C10-C12	3.18	J	1	2.20	21.3	ug/l	FD049313.D
Aromatic C12-C16	Aromatic C12-C16	4.53	U	1	4.53	31.9	ug/l	FD049313.D
Aromatic C16-C21	Aromatic C16-C21	49.7	J	1	8.80	53.2	ug/l	FD049313.D
Aromatic C21-C36	Aromatic C21-C36	25.3	U	1	25.3	85.1	ug/l	FD049313.D
Total AliphaticEPH	Total AliphaticEPH	70.7	U		70.7	192	ug/l	
Total AromaticEPH	Total AromaticEPH	52.9	J		40.8	192	ug/l	
Total EPH	Total EPH	112	U		112	383	ug/l	

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

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/26/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/28/25
Client Sample ID:	FB04262025	SDG No.:	Q1901
Lab Sample ID:	Q1901-06	Matrix:	Water
Analytical Method:	NJEPH	% Solid:	0
Sample Wt/Vol:	940 Units: mL	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :	SW3510		

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC068746.D	1	05/01/25	05/02/25	PB167840

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	8.81	U	8.81	31.9	ug/l
Aliphatic C12-C16	Aliphatic C12-C16	14.4	U	14.4	21.3	ug/l
Aliphatic C16-C21	Aliphatic C16-C21	8.87	U	8.87	31.9	ug/l
Aliphatic C21-C28	Aliphatic C21-C28	13.3	U	13.3	42.6	ug/l
Aliphatic C28-C40	Aliphatic C28-C40	25.3	U	25.3	63.8	ug/l
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	42.9		40 - 140	86%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	0.00		40 - 140	0%	SPK: 50

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

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	Q1901-06	Acq On:	02 May 2025 14:40
Client Sample ID:	FB04262025	Operator:	YP/AJ
Data file:	FC068746.D	Misc:	
Instrument:	FID_C	ALS Vial:	14
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.343	6.645	95984	0.912	300	ug/ml
Aliphatic C12-C16	6.646	10.046	38904	0.38	200	ug/ml
Aliphatic C16-C21	10.047	13.415	43108	0.436	300	ug/ml
Aliphatic C21-C28	13.416	17.079	0	0	400	ug/ml
Aliphatic C28-C40	17.080	22.085	0	0	600	ug/ml
Aliphatic EPH	3.343	22.085	177996	1.728		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	13.149	13.149	3985386	42.9		ug/ml
Aliphatic C9-C28	3.343	17.079	177996	1.728	1200	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050225AL\
Data File : FC068746.D
Signal(s) : FID1A.ch
Acq On : 02 May 2025 14:40
Operator : YP/AJ
Sample : Q1901-06
Misc :
ALS Vial : 14 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
FB04262025

Integration File: sample.E
Quant Time: May 03 00:41:10 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 17:31:27 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
12) S 1-chlorooctadecane (S...	13.149	3985386	42.903 ug/ml
Spiked Amount 50.000		Recovery = 85.81%	
Target Compounds			

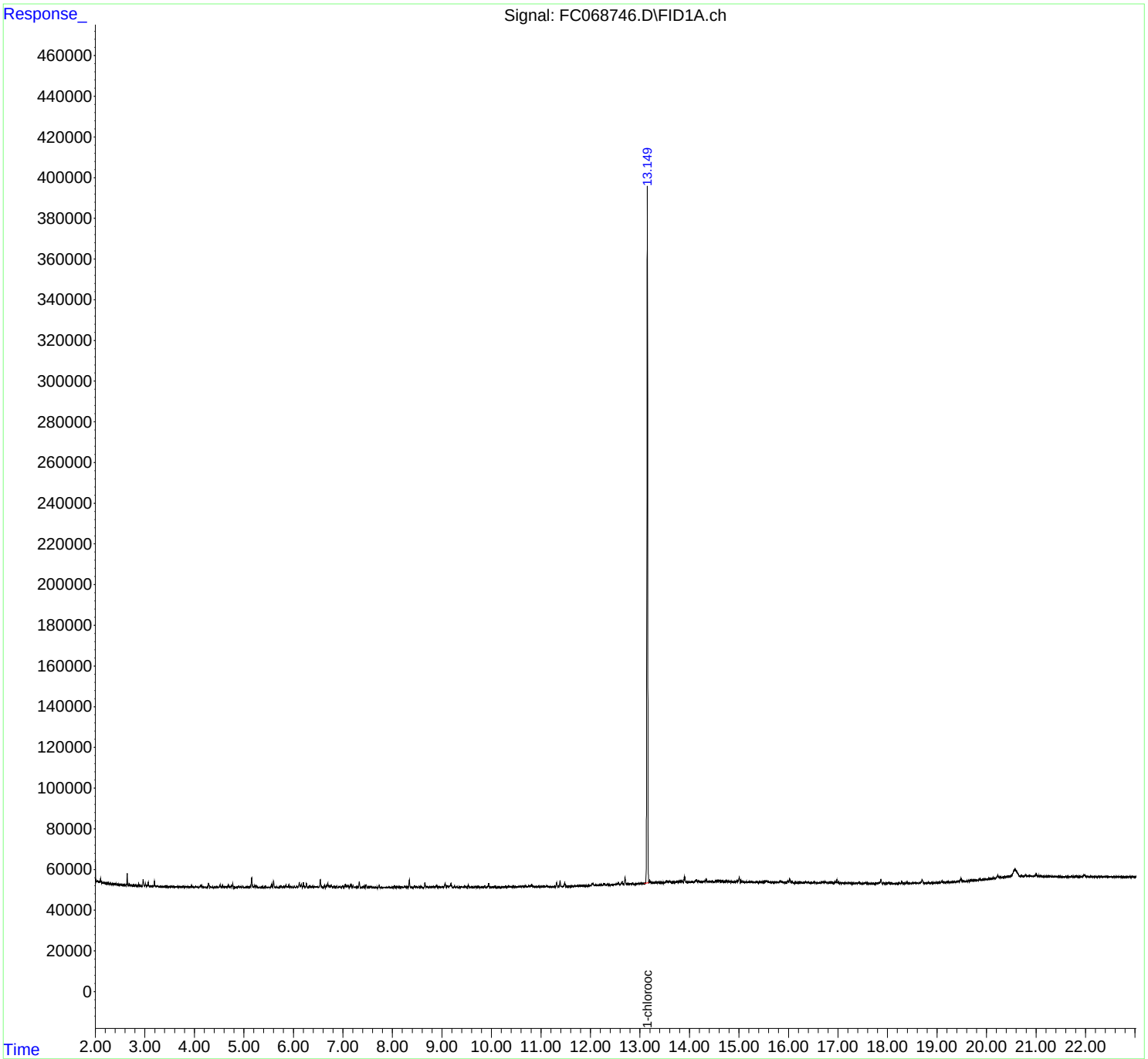
(f)=RT Delta > 1/2 Window (m)=manual int.

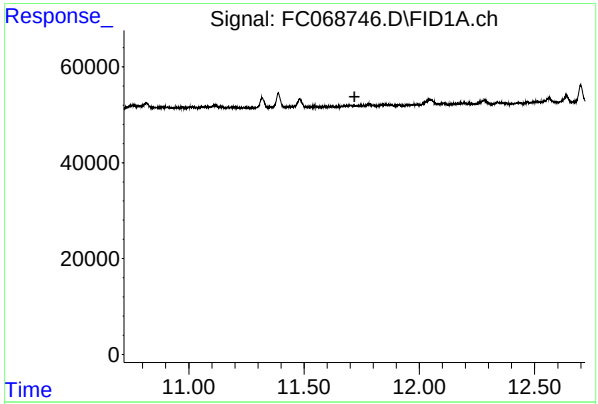
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050225AL\
Data File : FC068746.D
Signal(s) : FID1A.ch
Acq On : 02 May 2025 14:40
Operator : YP/AJ
Sample : Q1901-06
Misc :
ALS Vial : 14 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
FB04262025

Integration File: sample.E
Quant Time: May 03 00:41:10 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 17:31:27 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

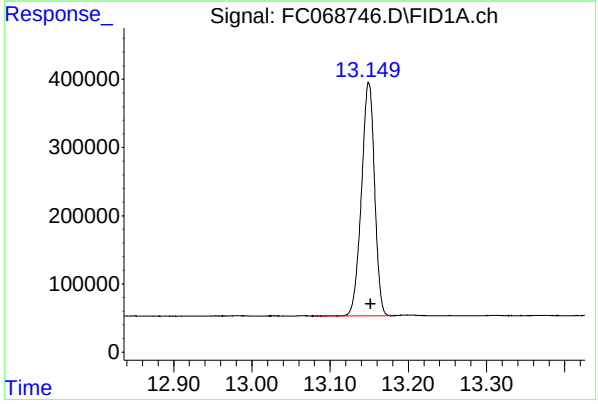




#9 ortho-Terphenyl (SURR)

R.T.: 0.000 min
Exp R.T. : 11.719 min
Response: 0
Conc: N.D.

Instrument :
FID_C
ClientSampleId :
FB04262025



#12 1-chlorooctadecane (SURR)

R.T.: 13.149 min
Delta R.T.: -0.003 min
Response: 3985386
Conc: 42.90 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050225AL\
Data File : FC068746.D
Signal(s) : FID1A.ch
Acq On : 02 May 2025 14:40
Sample : Q1901-06
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.643	2.624	2.660	BV	5892	45056	1.13%	1.071%
2	5.157	5.084	5.192	BV	4716	56810	1.43%	1.350%
3	6.544	6.492	6.590	BB	3719	39174	0.98%	0.931%
4	8.342	8.299	8.389	BB	3674	38904	0.98%	0.924%
5	12.700	12.670	12.744	BB	3537	43108	1.08%	1.024%
6	13.149	13.082	13.180	BV	342804	3985386	100.00%	94.700%

Sum of corrected areas: 4208437

Aliphatic EPH 040925.M Sat May 03 03:29:23 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/26/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/28/25
Client Sample ID:	FB04262025	SDG No.:	Q1901
Lab Sample ID:	Q1901-06	Matrix:	Water
Analytical Method:	NJEPH	% Solid:	0
Sample Wt/Vol:	940 Units: mL	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :	SW3510		

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD049313.D	1	05/01/25	05/02/25	PB167840

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aromatic C10-C12	Aromatic C10-C12	3.18	J	2.20	21.3	ug/l
Aromatic C12-C16	Aromatic C12-C16	4.53	U	4.53	31.9	ug/l
Aromatic C16-C21	Aromatic C16-C21	49.7	J	8.80	53.2	ug/l
Aromatic C21-C36	Aromatic C21-C36	25.3	U	25.3	85.1	ug/l
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	65.7		40 - 140	131%	SPK: 50
321-60-8	2-Flurobiphenyl (SURR)	67.3		40 - 140	135%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	62.1		40 - 140	124%	SPK: 50

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

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	Q1901-06	Acq On:	02 May 2025 14:40
Client Sample ID:	FB04262025	Operator:	YP/AJ
Data file:	FD049313.D	Misc:	
Instrument:	FID_D	ALS Vial:	64
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.431	6.176	191868	1.493	200	ug/ml
Aromatic C12-C16	6.177	8.805	0	0	300	ug/ml
Aromatic C16-C21	8.806	13.095	3063364	23.363	500	ug/ml
Aromatic C21-C36	13.096	18.516	240602	2.05	800	ug/ml
Aromatic EPH	4.431	18.516	3495834	26.906		ug/ml
ortho-Terphenyl (SURR)	11.654	11.654	8573546	62.12		ug/ml
2-Bromonaphthalene (SURR)	7.742	7.742	7791580	65.71		ug/ml
2-Flurobiphenyl (SURR)	8.608	8.608	5316724	67.32		ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050225AR\
Data File : FD049313.D
Signal(s) : FID2B.ch
Acq On : 02 May 2025 14:40
Operator : YP/AJ
Sample : Q1901-06
Misc :
ALS Vial : 64 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
FB04262025

Integration File: autoint1.e
Quant Time: May 03 00:34:53 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.742	7791580	65.713 ug/ml
Spiked Amount 50.000		Recovery = 131.43%	
6) S 2-Flurobiphenyl (SURR)	8.608	5316724	67.324 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery = 134.65%#	
11) S ortho-Terphenyl (SURR)	11.654	8573546	62.118 ug/ml
Spiked Amount 50.000		Recovery = 124.24%	
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

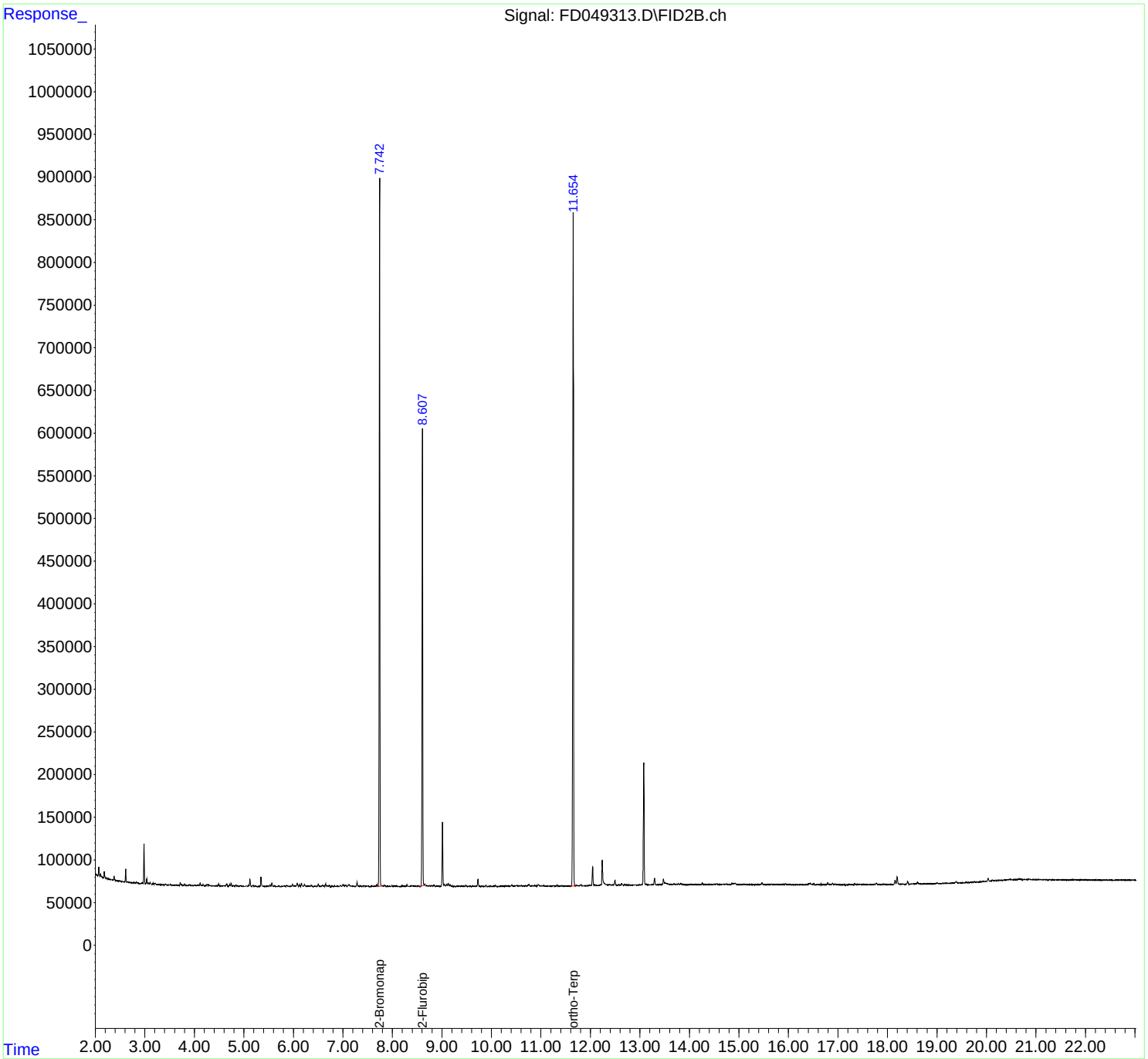
Quantitation Report (QT Reviewed)

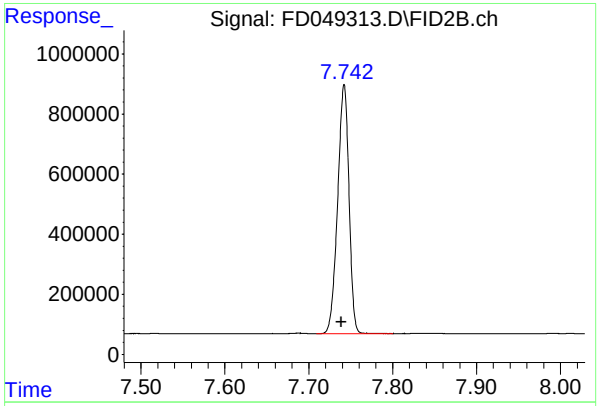
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050225AR\
Data File : FD049313.D
Signal(s) : FID2B.ch
Acq On : 02 May 2025 14:40
Operator : YP/AJ
Sample : Q1901-06
Misc :
ALS Vial : 64 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
FB04262025

Integration File: autoint1.e
Quant Time: May 03 00:34:53 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

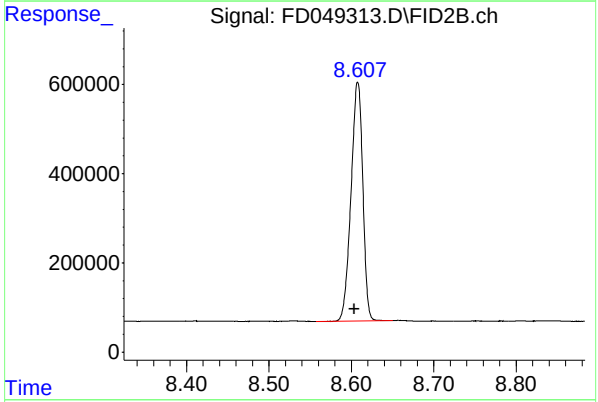




#4 2-Bromonaphthalene (SURR)

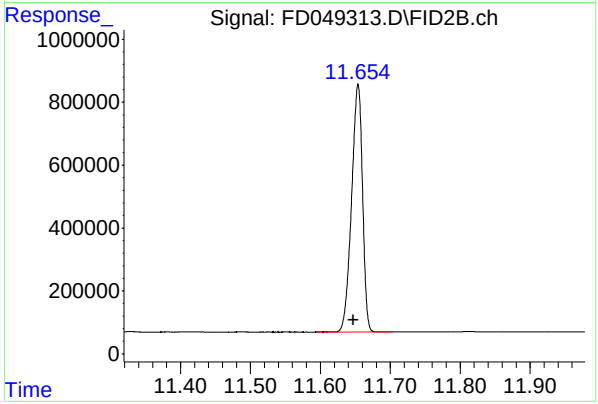
R.T.: 7.742 min
Delta R.T.: 0.003 min
Response: 7791580
Conc: 65.71 ug/ml

Instrument :
FID_D
ClientSampleId :
FB04262025



#6 2-Flurobiphenyl (SURR)

R.T.: 8.608 min
Delta R.T.: 0.004 min
Response: 5316724
Conc: 67.32 ug/ml



#11 ortho-Terphenyl (SURR)

R.T.: 11.654 min
Delta R.T.: 0.007 min
Response: 8573546
Conc: 62.12 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050225AR\
Data File : FD049313.D
Signal(s) : FID2B.ch
Acq On : 02 May 2025 14:40
Sample : Q1901-06
Misc :
ALS Vial : 64 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.069	2.052	2.095	BV	10628	88223	1.03%	0.342%
2	2.179	2.142	2.209	BV	7453	53643	0.63%	0.208%
3	2.613	2.565	2.642	BV	15548	120404	1.40%	0.467%
4	2.982	2.949	3.006	BV	46337	368410	4.30%	1.427%
5	5.123	5.107	5.157	BB	7936	77170	0.90%	0.299%
6	5.345	5.287	5.387	BB	11290	114698	1.34%	0.444%
7	7.742	7.709	7.800	BB	829882	7791580	90.88%	30.190%
8	8.608	8.557	8.650	BV	537549	5316724	62.01%	20.601%
9	9.013	8.964	9.035	BV	74363	716590	8.36%	2.777%
10	9.730	9.687	9.767	BB	8269	90755	1.06%	0.352%
11	11.654	11.594	11.704	BB	788466	8573546	100.00%	33.220%
12	12.046	12.010	12.070	BV	21737	241631	2.82%	0.936%
13	12.239	12.165	12.320	BB	29270	369883	4.31%	1.433%
14	13.078	13.044	13.108	BV	142892	1644505	19.18%	6.372%
15	13.296	13.255	13.339	BB	7682	90489	1.06%	0.351%
16	13.474	13.385	13.504	BB	5225	33920	0.40%	0.131%
17	18.195	18.172	18.228	VB	8809	116193	1.36%	0.450%

Sum of corrected areas: 25808364

Aromatic EPH 050125.M Sat May 03 02:56:57 2025

CALIBRATION SUMMARY

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

Inital Calibration Report for SequenceID : FC040925AL

AreaCount

Parameter Range	FC068515.D	FC068516.D	FC068517.D	FC068518.D	FC068519.D	
Aliphatic C9-C12	28917690.000	15222657.000	6286032.000	3422392.000	1645296.000	
Aliphatic C12-C16	18431489.000	9897338.000	4088590.000	2253140.000	1056103.000	
Aliphatic C16-C21	26693561.000	14380121.000	5937795.000	3290227.000	1508988.000	
Aliphatic C21-C28	34681529.000	18246305.000	7529133.000	4137443.000	1908822.000	
Aliphatic C28-C40	51686216.000	25852842.000	10689091.000	5728785.000	2776165.000	
Aliphatic EPH	160410485.000	83599263.000	34530641.000	18831987.000	8895374.000	

AVG Response Factor

Parameter Range	AVG RF	% RSD				
Aliphatic C9-C12	105282.0026666	6.555				
Aliphatic C12-C16	102322.575	7.446				
Aliphatic C16-C21	98816.5386664	7.616				
Aliphatic C21-C28	94185.337	6.542				
Aliphatic C28-C40	89882.8349998	4.545				
Aliphatic EPH	96276.6184442	6.125				

Concentration

Parameter Range	FC068515.D	FC068516.D	FC068517.D	FC068518.D	FC068519.D	
Aliphatic C9-C12	300.000	150.000	60.000	30.000	15.000	
Aliphatic C12-C16	200.000	100.000	40.000	20.000	10.000	
Aliphatic C16-C21	300.000	150.000	60.000	30.000	15.000	
Aliphatic C21-C28	400.000	200.000	80.000	40.000	20.000	
Aliphatic C28-C40	600.000	300.000	120.000	60.000	30.000	
Aliphatic EPH	1800.000	900.000	360.000	180.000	90.000	

Response Factor

Parameter Range	FC068515.D	FC068516.D	FC068517.D	FC068518.D	FC068519.D	
Aliphatic C9-C12	96392.300000	101484.380000	104767.200000	114079.733333	109686.400000	
Aliphatic C12-C16	92157.445000	98973.380000	102214.750000	112657.000000	105610.300000	
Aliphatic C16-C21	88978.536666	95867.473333	98963.250000	109674.233333	100599.200000	

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

Inital Calibration Report for SequenceID : FC040925AL

Aliphatic C21-C28	86703.822500	91231.525000	94114.162500	103436.075000	95441.100000	
Aliphatic C28-C40	86143.693333	86176.140000	89075.758333	95479.750000	92538.833333	
Aliphatic EPH	89116.936111	92888.070000	95918.447222	104622.150000	98837.488888	

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC040925AL\
Data File : FC068515.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 14:19
Operator : YP/AJ
Sample : 100 PPM ALIPHATIC HC STD1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1

Integration File: autoint1.e
Quant Time: Apr 08 16:11:35 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 16:09:32 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9)	S ortho-Terphenyl (SURR)	11.728	11630513	95.399 ug/ml
Spiked Amount	50.000		Recovery =	190.80%
12)	S 1-chlorooctadecane (S...	13.158	8442696	95.111 ug/ml
Spiked Amount	50.000		Recovery =	190.22%
	Target Compounds			
1)	T n-Nonane (C9)	3.453	9676433	96.008 ug/ml
2)	T n-Decane (C10)	4.529	9659989	95.940 ug/ml
3)	T A~Naphthalene (C11.7)	6.128	10706854	96.012 ug/ml
4)	T n-Dodecane (C12)	6.555	9581268	95.561 ug/ml
5)	T A~2-methylnaphthalene...	7.187	10590076	95.557 ug/ml
6)	T n-Tetradecane (C14)	8.352	9286080	95.024 ug/ml
7)	T n-Hexadecane (C16)	9.956	9145409	94.626 ug/ml
8)	T n-Octadecane (C18)	11.401	9035245	94.602 ug/ml
10)	T n-Eicosane (C20)	12.711	8860913	94.629 ug/ml
11)	T n-Heneicosane (C21)	13.324	8797403	94.833 ug/ml
13)	T n-Docosane (C22)	13.911	8749331	94.989 ug/ml
14)	T n-Tetracosane (C24)	15.015	8697977	95.532 ug/ml
15)	T n-Hexacosane (C26)	16.037	8653533	96.207 ug/ml
16)	T n-Octacosane (C28)	16.989	8580688	96.922 ug/ml
17)	T n-Tricontane (C30)	17.879	8693384	97.557 ug/ml
18)	T n-Dotriacontane (C32)	18.714	8726742	98.108 ug/ml
19)	T n-Tetratriacontane (C34)	19.499	8562598	98.394 ug/ml
20)	T n-Hexatriacontane (C36)	20.240	8639575	98.692 ug/ml
21)	T n-Octatriacontane (C38)	21.019	8521663	98.543 ug/ml
22)	T n-Tetracontane (C40)	22.004	8542254	98.690 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

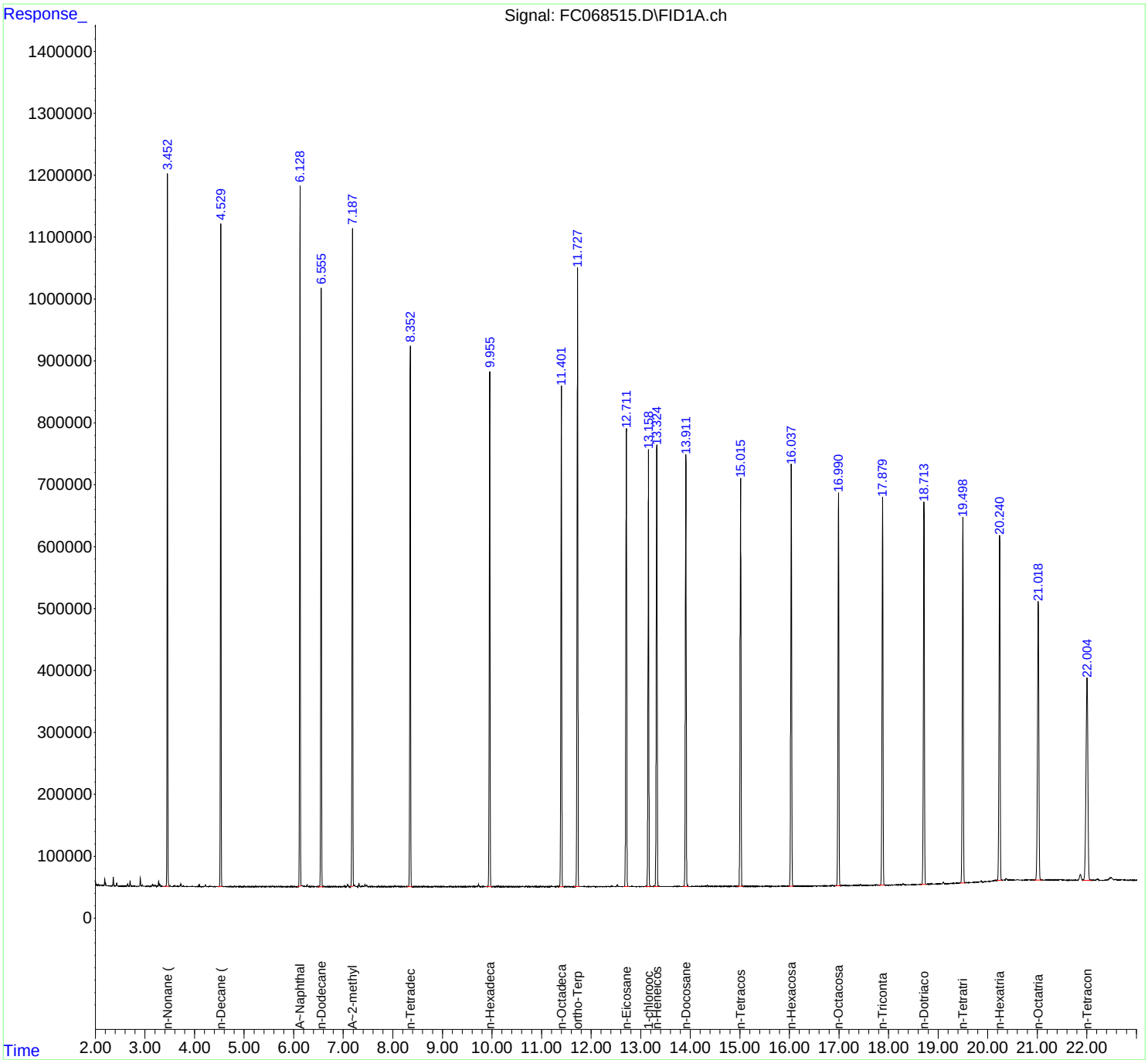
Quantitation Report (QT Reviewed)

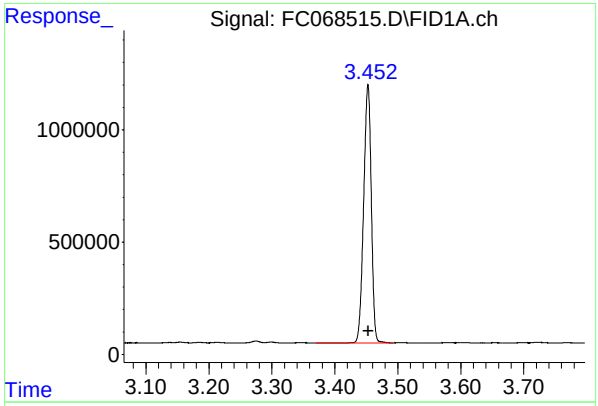
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC040925AL\
Data File : FC068515.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 14:19
Operator : YP/AJ
Sample : 100 PPM ALIPHATIC HC STD1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1

Integration File: autoint1.e
Quant Time: Apr 08 16:11:35 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 16:09:32 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

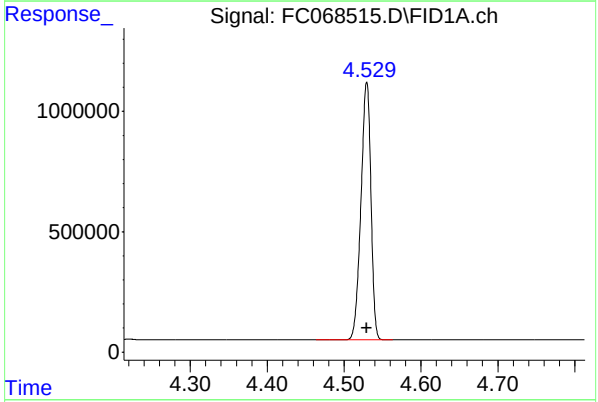




#1 n-Nonane (C9)

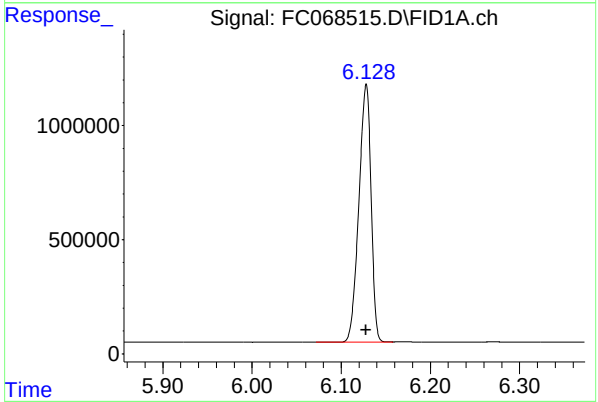
R.T.: 3.453 min
Delta R.T.: 0.000 min
Response: 9676433
Conc: 96.01 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



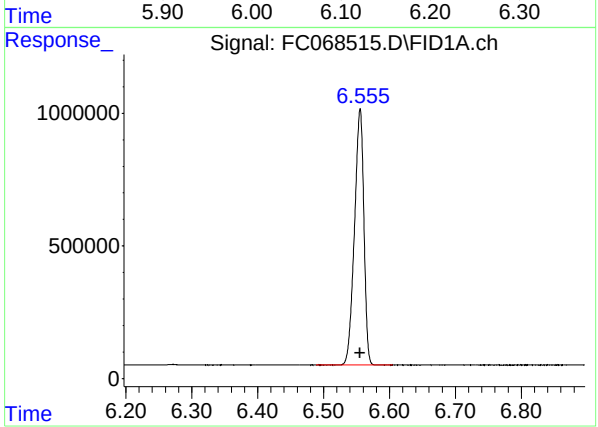
#2 n-Decane (C10)

R.T.: 4.529 min
Delta R.T.: 0.000 min
Response: 9659989
Conc: 95.94 ug/ml



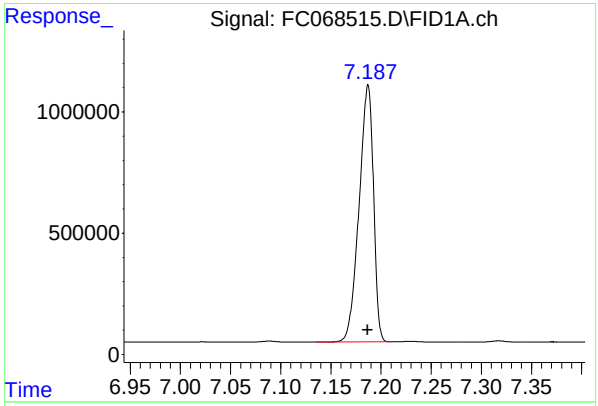
#3 A~Naphthalene (C11.7)

R.T.: 6.128 min
Delta R.T.: 0.000 min
Response: 10706854
Conc: 96.01 ug/ml



#4 n-Dodecane (C12)

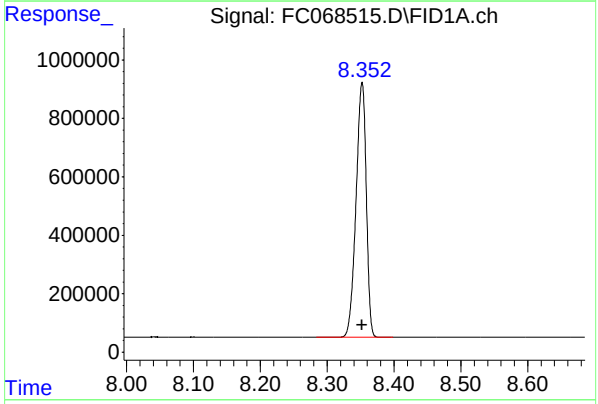
R.T.: 6.555 min
Delta R.T.: 0.000 min
Response: 9581268
Conc: 95.56 ug/ml



#5 A~2-methylnaphthalene (C12.89)

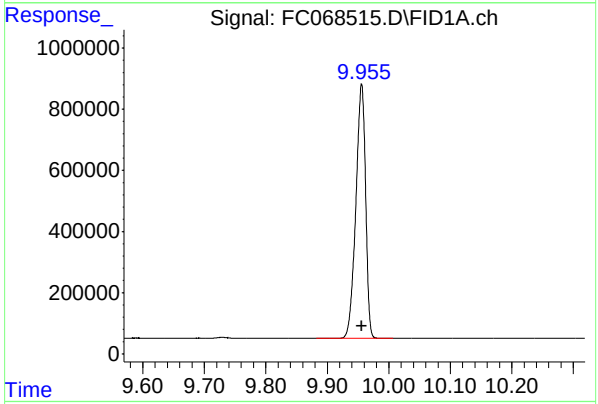
R.T.: 7.187 min
Delta R.T.: 0.000 min
Response: 10590076
Conc: 95.56 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



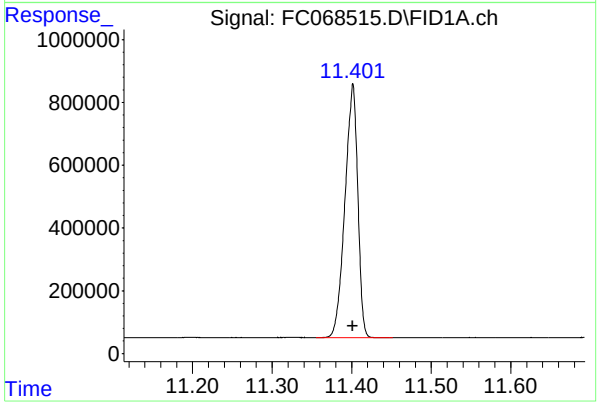
#6 n-Tetradecane (C14)

R.T.: 8.352 min
Delta R.T.: 0.000 min
Response: 9286080
Conc: 95.02 ug/ml



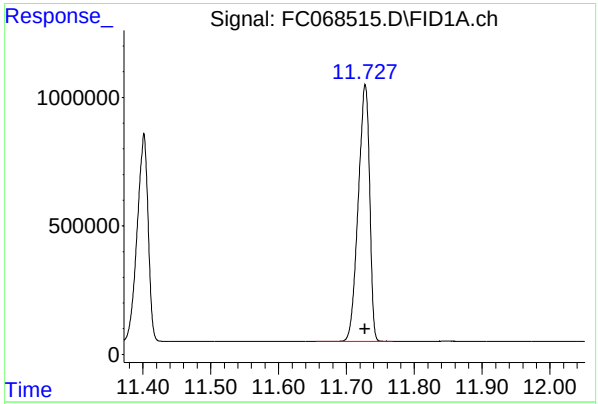
#7 n-Hexadecane (C16)

R.T.: 9.956 min
Delta R.T.: 0.000 min
Response: 9145409
Conc: 94.63 ug/ml



#8 n-Octadecane (C18)

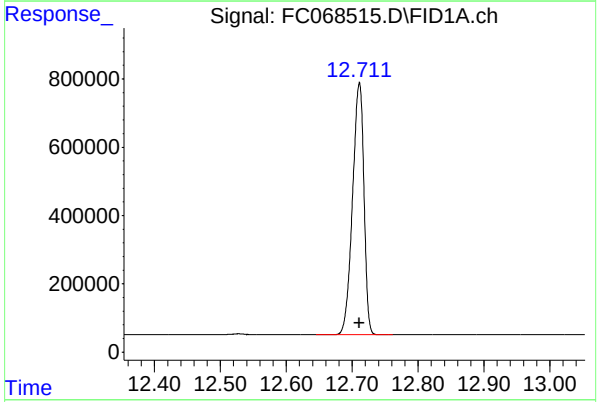
R.T.: 11.401 min
Delta R.T.: 0.000 min
Response: 9035245
Conc: 94.60 ug/ml



#9 ortho-Terphenyl (SURR)

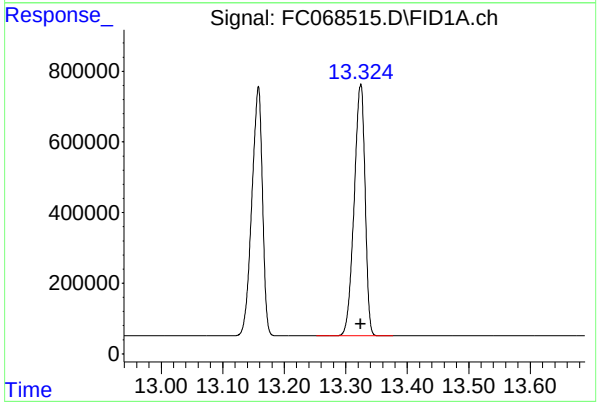
R.T.: 11.728 min
Delta R.T.: 0.000 min
Response: 11630513
Conc: 95.40 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



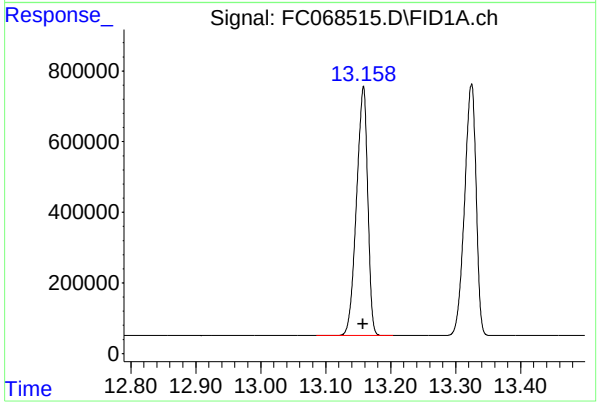
#10 n-Eicosane (C20)

R.T.: 12.711 min
Delta R.T.: 0.000 min
Response: 8860913
Conc: 94.63 ug/ml



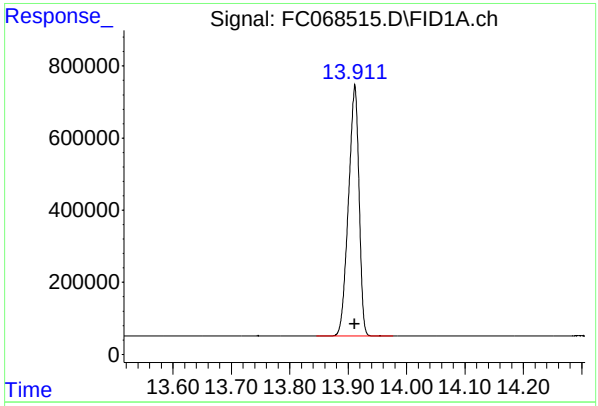
#11 n-Heneicosane (C21)

R.T.: 13.324 min
Delta R.T.: 0.000 min
Response: 8797403
Conc: 94.83 ug/ml



#12 1-chlorooctadecane (SURR)

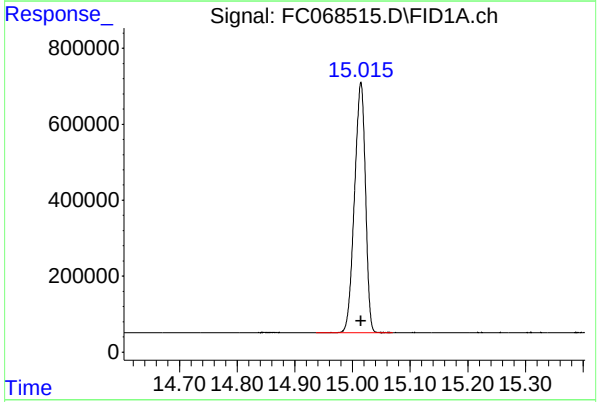
R.T.: 13.158 min
Delta R.T.: 0.000 min
Response: 8442696
Conc: 95.11 ug/ml



#13 n-Docosane (C22)

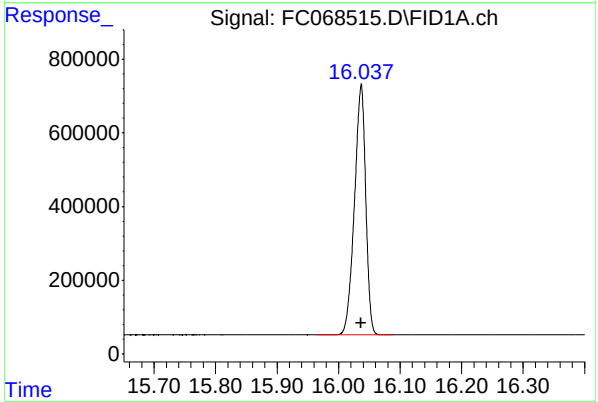
R.T.: 13.911 min
Delta R.T.: 0.000 min
Response: 8749331
Conc: 94.99 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



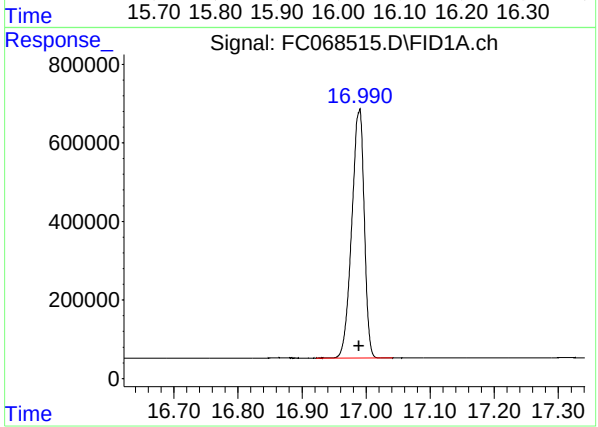
#14 n-Tetracosane (C24)

R.T.: 15.015 min
Delta R.T.: 0.000 min
Response: 8697977
Conc: 95.53 ug/ml



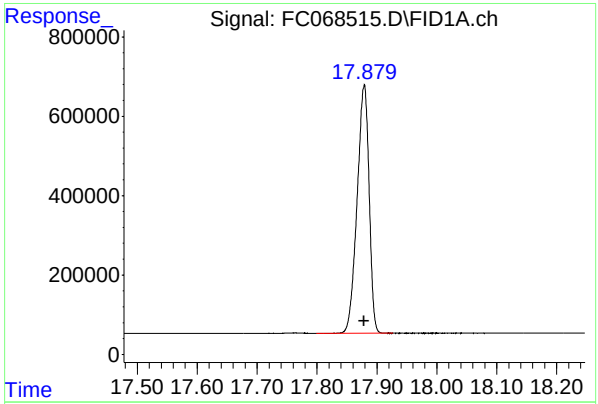
#15 n-Hexacosane (C26)

R.T.: 16.037 min
Delta R.T.: 0.000 min
Response: 8653533
Conc: 96.21 ug/ml



#16 n-Octacosane (C28)

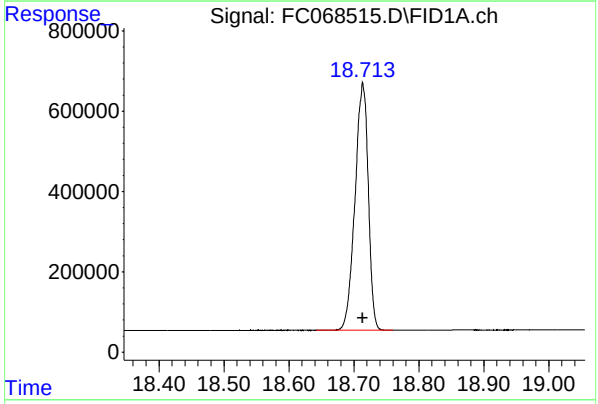
R.T.: 16.989 min
Delta R.T.: 0.000 min
Response: 8580688
Conc: 96.92 ug/ml



#17 n-Tricontane (C30)

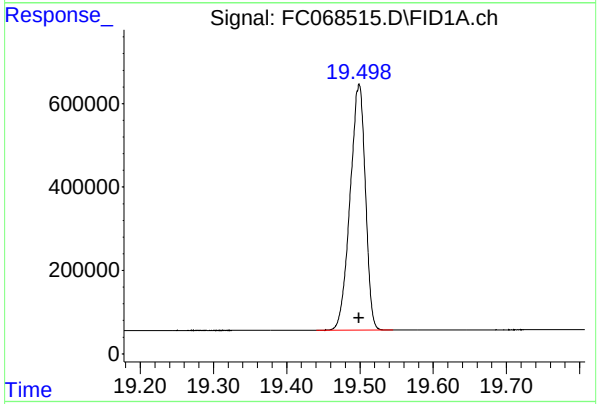
R.T.: 17.879 min
Delta R.T.: 0.000 min
Response: 8693384
Conc: 97.56 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



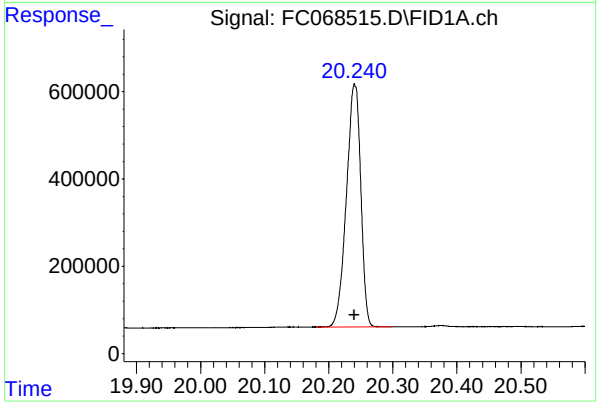
#18 n-Dotriacontane (C32)

R.T.: 18.714 min
Delta R.T.: 0.000 min
Response: 8726742
Conc: 98.11 ug/ml



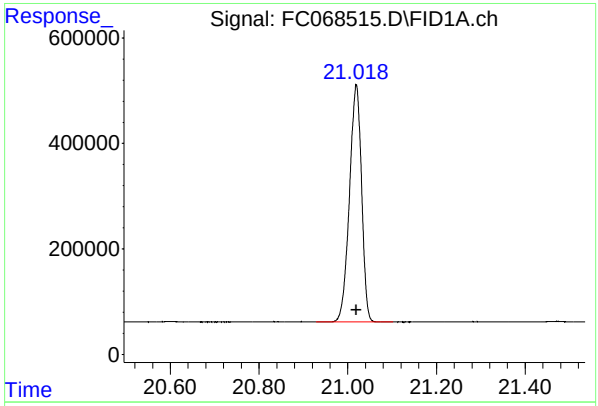
#19 n-Tetratriacontane (C34)

R.T.: 19.499 min
Delta R.T.: 0.000 min
Response: 8562598
Conc: 98.39 ug/ml



#20 n-Hexatriacontane (C36)

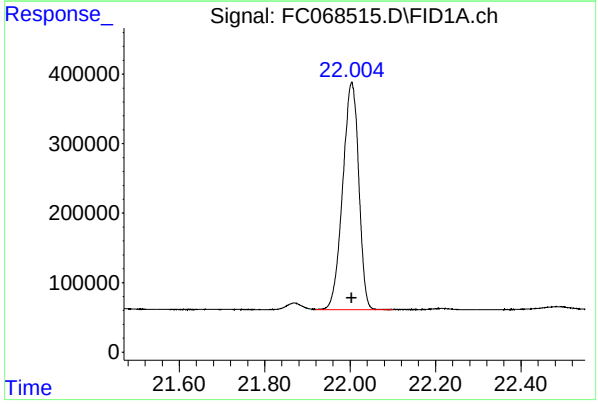
R.T.: 20.240 min
Delta R.T.: 0.000 min
Response: 8639575
Conc: 98.69 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 21.019 min
Delta R.T.: 0.000 min
Response: 8521663
Conc: 98.54 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



#22 n-Tetracontane (C40)

R.T.: 22.004 min
Delta R.T.: 0.000 min
Response: 8542254
Conc: 98.69 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC040925AL\
Data File : FC068515.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 14:19
Sample : 100 PPM ALIPHATIC HC STD1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.453	3.370	3.492	BV	1145582	9676433	83.20%	4.796%
2	4.529	4.463	4.563	BB	1078376	9659989	83.06%	4.787%
3	6.128	6.072	6.158	BV	1138205	10706854	92.06%	5.306%
4	6.555	6.488	6.605	BB	967686	9581268	82.38%	4.748%
5	7.187	7.135	7.212	BV	1064531	10590076	91.05%	5.248%
6	8.352	8.283	8.398	BB	872245	9286080	79.84%	4.602%
7	9.956	9.882	10.007	BB	832904	9145409	78.63%	4.532%
8	11.401	11.355	11.452	BB	815335	9035245	77.69%	4.478%
9	11.728	11.655	11.768	BB	999215	11630513	100.00%	5.764%
10	12.711	12.645	12.762	BB	736232	8860913	76.19%	4.391%
11	13.158	13.085	13.203	BB	702214	8442696	72.59%	4.184%
12	13.324	13.252	13.377	BB	710181	8797403	75.64%	4.360%
13	13.911	13.845	13.977	BB	699886	8749331	75.23%	4.336%
14	15.015	14.937	15.070	BB	660889	8697977	74.79%	4.311%
15	16.037	15.990	16.088	BB	681330	8649133	74.37%	4.286%
16	16.989	16.922	17.042	BB	627588	8580688	73.78%	4.253%
17	17.879	17.798	17.927	BB	624317	8693384	74.75%	4.308%
18	18.714	18.642	18.760	BB	617422	8726742	75.03%	4.325%
19	19.499	19.440	19.545	BB	589437	8562598	73.62%	4.244%
20	20.240	20.180	20.300	BB	556281	8639575	74.28%	4.282%
21	21.019	20.928	21.102	BB	451075	8521663	73.27%	4.223%
22	22.004	21.920	22.100	VB	327316	8542254	73.45%	4.234%

Sum of corrected areas: 201776225

Aliphatic EPH 040925.M Wed Apr 09 02:01:57 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC040925AL\
Data File : FC068516.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 14:56
Operator : YP/AJ
Sample : 50 PPM ALIPHATIC HC STD2
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2

Integration File: autoint1.e
Quant Time: Apr 08 16:13:04 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 16:09:32 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	ortho-Terphenyl (SURR)	11.725	6161100	50.356 ug/ml
Spiked Amount	50.000		Recovery =	100.71%
12) S	1-chlorooctadecane (S...	13.157	4514187	50.566 ug/ml
Spiked Amount	50.000		Recovery =	101.13%
	Target Compounds			
1) T	n-Nonane (C9)	3.450	5067341	50.185 ug/ml
2) T	n-Decane (C10)	4.527	5076375	50.277 ug/ml
3) T	A~Naphthalene (C11.7)	6.125	5619945	50.263 ug/ml
4) T	n-Dodecane (C12)	6.553	5078941	50.435 ug/ml
5) T	A~2-methylnaphthalene...	7.185	5572356	50.187 ug/ml
6) T	n-Tetradecane (C14)	8.351	4969100	50.562 ug/ml
7) T	n-Hexadecane (C16)	9.955	4928238	50.657 ug/ml
8) T	n-Octadecane (C18)	11.400	4878449	50.714 ug/ml
10) T	n-Eicosane (C20)	12.711	4775746	50.664 ug/ml
11) T	n-Heneicosane (C21)	13.324	4725926	50.625 ug/ml
13) T	n-Docosane (C22)	13.910	4681649	50.548 ug/ml
14) T	n-Tetracosane (C24)	15.015	4612534	50.438 ug/ml
15) T	n-Hexacosane (C26)	16.037	4527712	50.224 ug/ml
16) T	n-Octacosane (C28)	16.988	4424410	49.984 ug/ml
17) T	n-Tricontane (C30)	17.878	4424204	49.765 ug/ml
18) T	n-Dotriacontane (C32)	18.712	4393250	49.592 ug/ml
19) T	n-Tetratriacontane (C34)	19.496	4277762	49.434 ug/ml
20) T	n-Hexatriacontane (C36)	20.237	4294870	49.370 ug/ml
21) T	n-Octatriacontane (C38)	21.016	4234644	49.308 ug/ml
22) T	n-Tetracontane (C40)	22.000	4228112	49.226 ug/ml

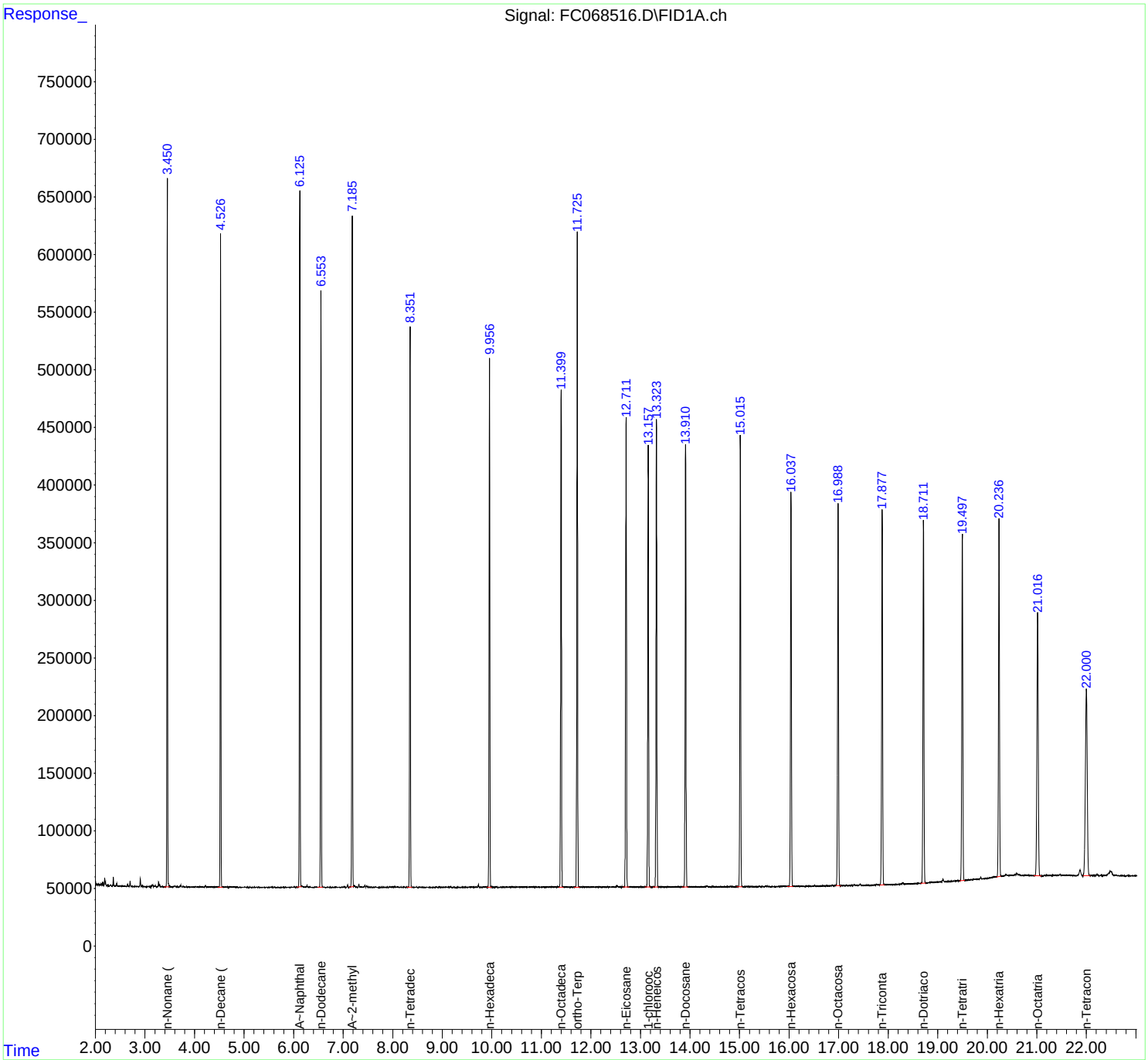
(f)=RT Delta > 1/2 Window (m)=manual int.

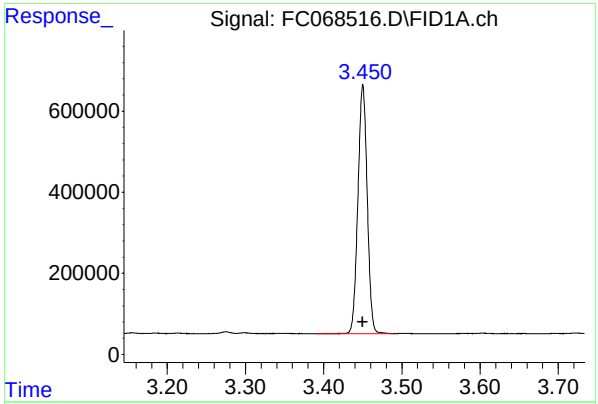
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC040925AL\
Data File : FC068516.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 14:56
Operator : YP/AJ
Sample : 50 PPM ALIPHATIC HC STD2
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2

Integration File: autoint1.e
Quant Time: Apr 08 16:13:04 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 16:09:32 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

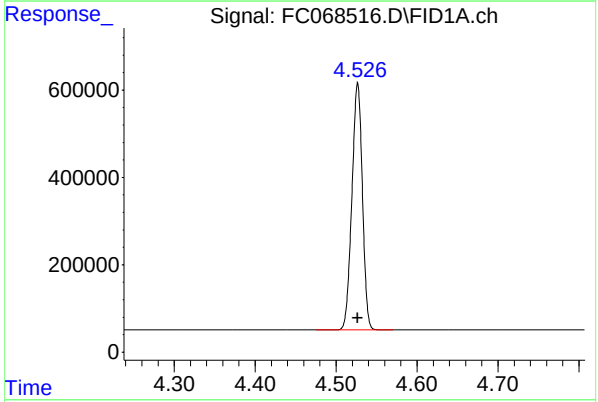




#1 n-Nonane (C9)

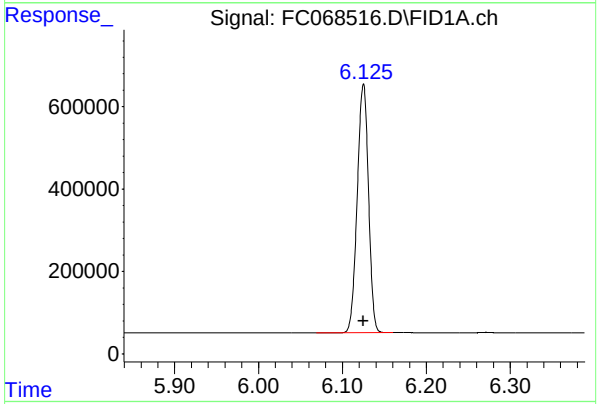
R.T.: 3.450 min
Delta R.T.: 0.000 min
Response: 5067341
Conc: 50.18 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



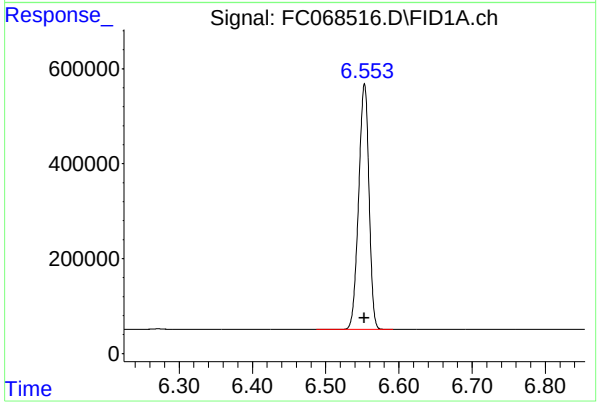
#2 n-Decane (C10)

R.T.: 4.527 min
Delta R.T.: 0.000 min
Response: 5076375
Conc: 50.28 ug/ml



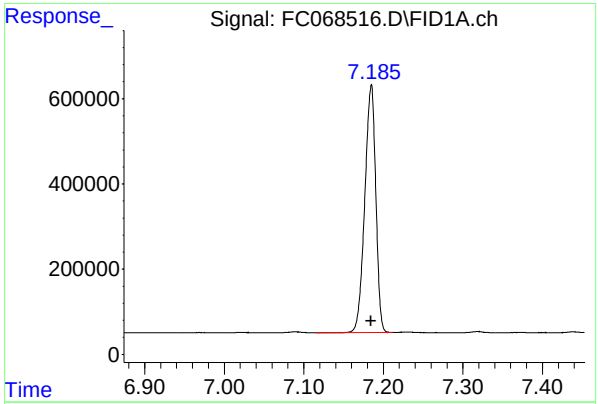
#3 A~Naphthalene (C11.7)

R.T.: 6.125 min
Delta R.T.: 0.000 min
Response: 5619945
Conc: 50.26 ug/ml



#4 n-Dodecane (C12)

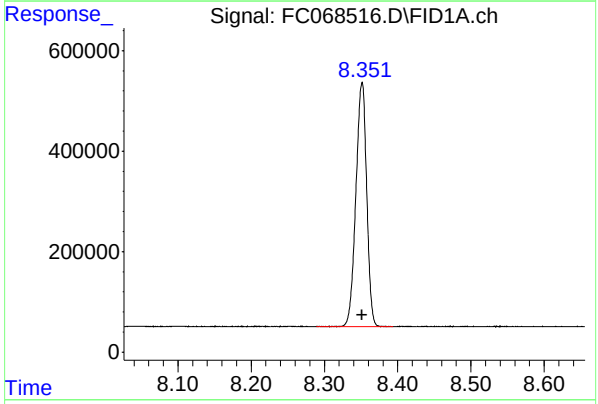
R.T.: 6.553 min
Delta R.T.: 0.000 min
Response: 5078941
Conc: 50.44 ug/ml



#5 A~2-methylnaphthalene (C12.89)

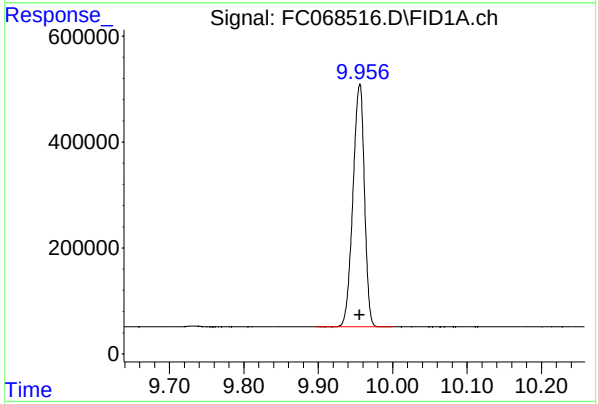
R.T.: 7.185 min
Delta R.T.: 0.000 min
Response: 5572356
Conc: 50.19 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



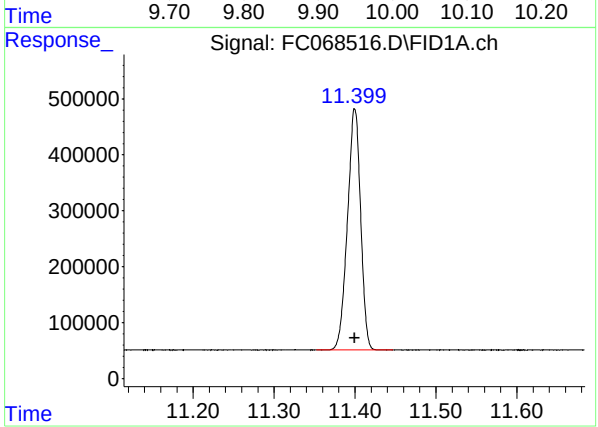
#6 n-Tetradecane (C14)

R.T.: 8.351 min
Delta R.T.: 0.000 min
Response: 4969100
Conc: 50.56 ug/ml



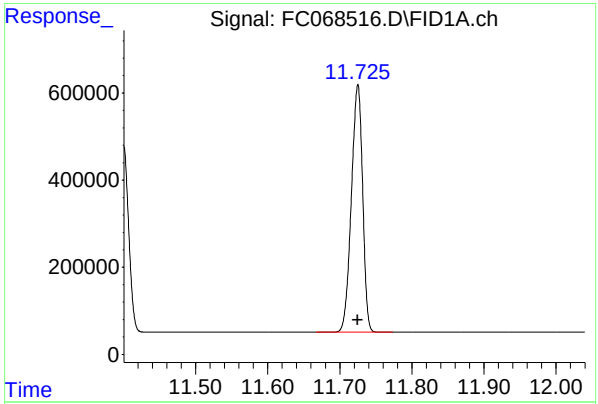
#7 n-Hexadecane (C16)

R.T.: 9.955 min
Delta R.T.: 0.000 min
Response: 4928238
Conc: 50.66 ug/ml



#8 n-Octadecane (C18)

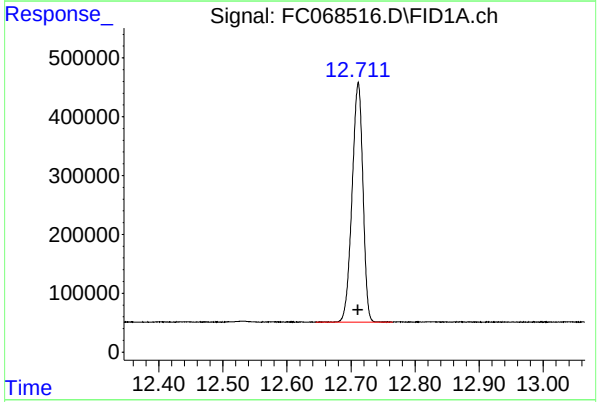
R.T.: 11.400 min
Delta R.T.: 0.000 min
Response: 4878449
Conc: 50.71 ug/ml



#9 ortho-Terphenyl (SURR)

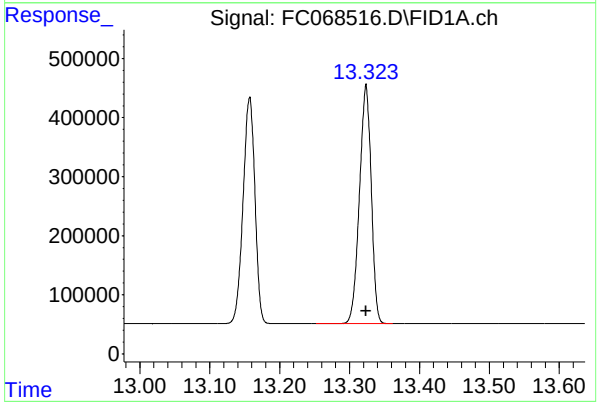
R.T.: 11.725 min
Delta R.T.: 0.000 min
Response: 6161100
Conc: 50.36 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



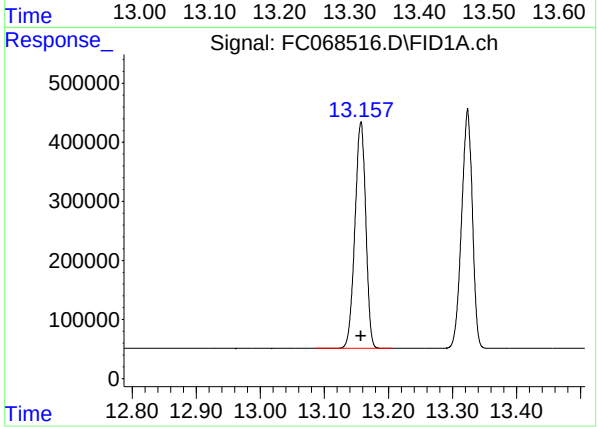
#10 n-Eicosane (C20)

R.T.: 12.711 min
Delta R.T.: 0.000 min
Response: 4775746
Conc: 50.66 ug/ml



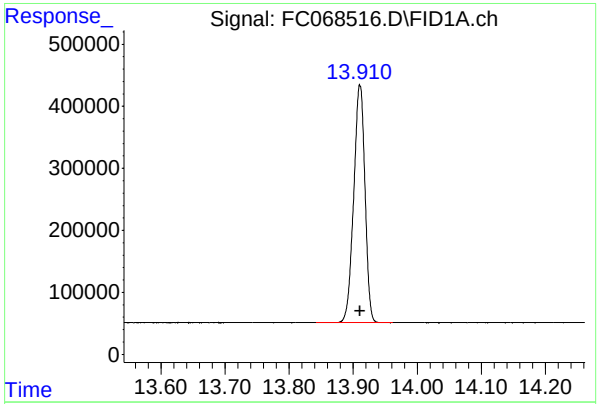
#11 n-Heneicosane (C21)

R.T.: 13.324 min
Delta R.T.: 0.000 min
Response: 4725926
Conc: 50.63 ug/ml



#12 1-chlorooctadecane (SURR)

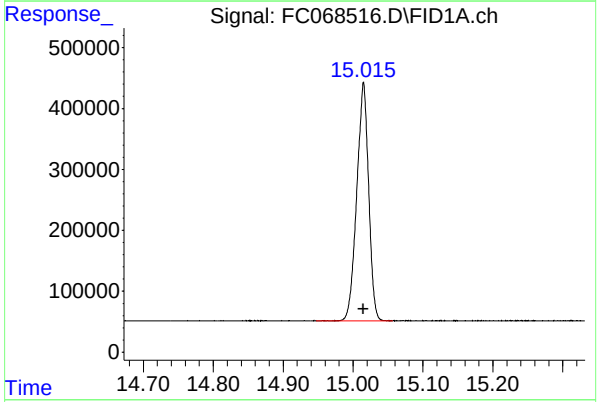
R.T.: 13.157 min
Delta R.T.: 0.000 min
Response: 4514187
Conc: 50.57 ug/ml



#13 n-Docosane (C22)

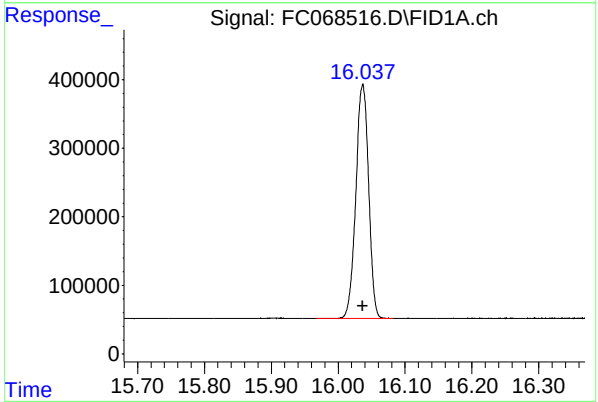
R.T.: 13.910 min
Delta R.T.: 0.000 min
Response: 4681649
Conc: 50.55 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



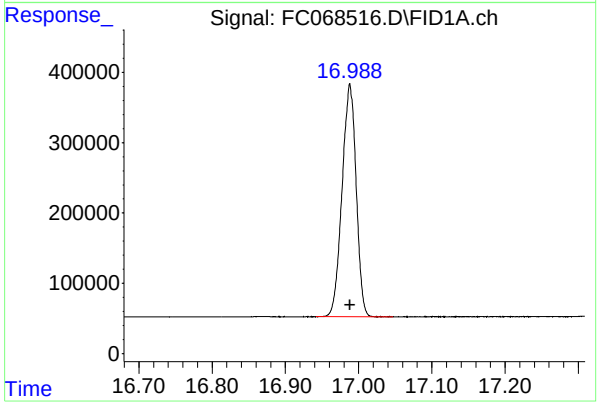
#14 n-Tetracosane (C24)

R.T.: 15.015 min
Delta R.T.: 0.000 min
Response: 4612534
Conc: 50.44 ug/ml



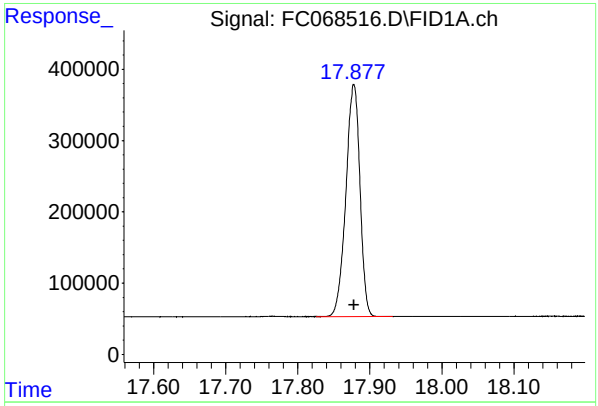
#15 n-Hexacosane (C26)

R.T.: 16.037 min
Delta R.T.: 0.000 min
Response: 4527712
Conc: 50.22 ug/ml



#16 n-Octacosane (C28)

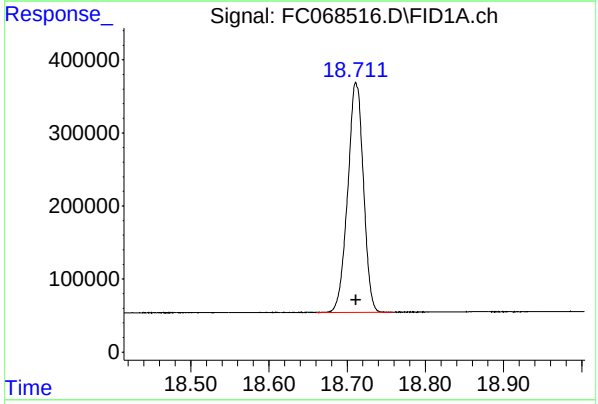
R.T.: 16.988 min
Delta R.T.: 0.000 min
Response: 4424410
Conc: 49.98 ug/ml



#17 n-Tricontane (C30)

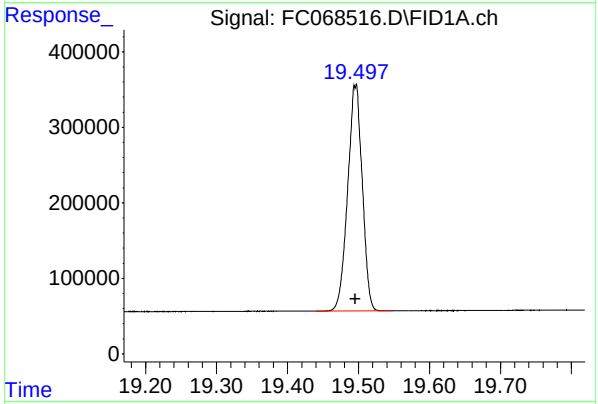
R.T.: 17.878 min
Delta R.T.: 0.000 min
Response: 4424204
Conc: 49.77 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



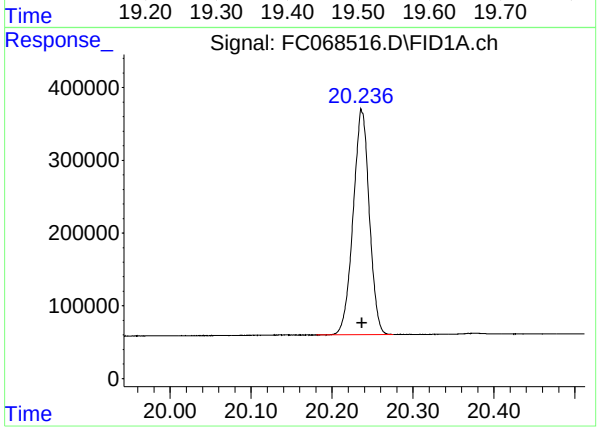
#18 n-Dotriacontane (C32)

R.T.: 18.712 min
Delta R.T.: 0.000 min
Response: 4393250
Conc: 49.59 ug/ml



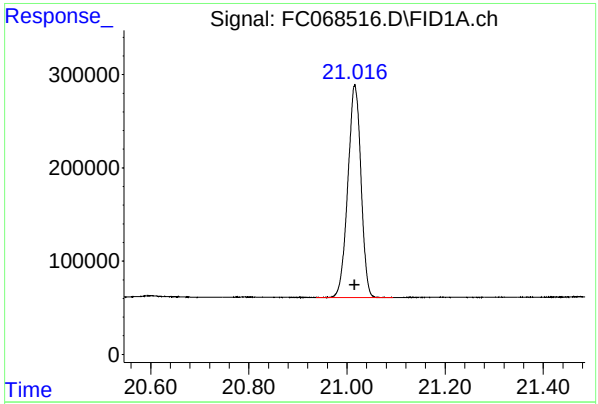
#19 n-Tetratriacontane (C34)

R.T.: 19.496 min
Delta R.T.: 0.000 min
Response: 4277762
Conc: 49.43 ug/ml



#20 n-Hexatriacontane (C36)

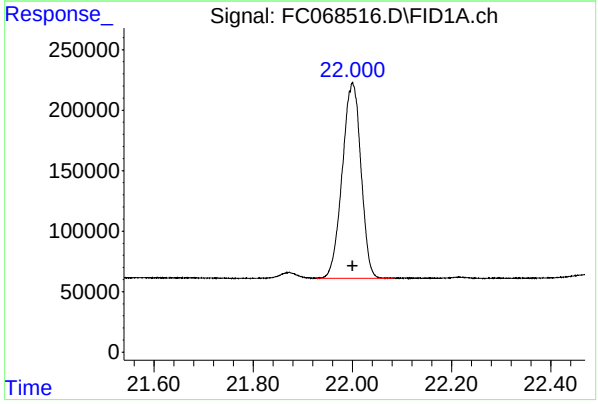
R.T.: 20.237 min
Delta R.T.: 0.000 min
Response: 4294870
Conc: 49.37 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 21.016 min
Delta R.T.: 0.000 min
Response: 4234644
Conc: 49.31 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



#22 n-Tetracontane (C40)

R.T.: 22.000 min
Delta R.T.: 0.000 min
Response: 4228112
Conc: 49.23 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC040925AL\
Data File : FC068516.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 14:56
Sample : 50 PPM ALIPHATIC HC STD2
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.450	3.390	3.489	BV	614195	5067341	82.25%	4.805%
2	4.527	4.475	4.570	BB	566581	5076375	82.39%	4.813%
3	6.125	6.069	6.160	BV	605260	5619945	91.22%	5.329%
4	6.553	6.487	6.592	BB	518970	5078941	82.44%	4.816%
5	7.185	7.115	7.212	BV	587046	5572356	90.44%	5.284%
6	8.351	8.289	8.394	BB	488782	4969100	80.65%	4.712%
7	9.955	9.897	10.000	BB	457482	4928238	79.99%	4.673%
8	11.400	11.352	11.447	BB	430140	4878449	79.18%	4.626%
9	11.725	11.667	11.774	BB	570322	6161100	100.00%	5.842%
10	12.711	12.645	12.765	BB	404785	4775746	77.51%	4.528%
11	13.157	13.087	13.207	BB	383072	4514187	73.27%	4.280%
12	13.324	13.252	13.362	BB	405122	4725926	76.71%	4.481%
13	13.910	13.842	13.962	BB	383565	4681649	75.99%	4.439%
14	15.015	14.947	15.057	BB	393040	4612534	74.87%	4.373%
15	16.037	15.990	16.082	BB	342528	4526622	73.47%	4.292%
16	16.988	16.942	17.047	BB	330582	4424410	71.81%	4.195%
17	17.878	17.825	17.932	BB	326941	4424204	71.81%	4.195%
18	18.712	18.660	18.759	BB	312516	4393250	71.31%	4.166%
19	19.496	19.440	19.549	BB	296964	4277762	69.43%	4.056%
20	20.237	20.180	20.275	BB	306583	4294870	69.71%	4.072%
21	21.016	20.937	21.094	BB	228457	4234644	68.73%	4.015%
22	22.000	21.927	22.082	VB	161807	4228112	68.63%	4.009%

Sum of corrected areas: 105465761

Aliphatic EPH 040925.M Wed Apr 09 02:02:27 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC040925AL\
Data File : FC068517.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 15:34
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD3
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3

Integration File: autoint1.e
Quant Time: Apr 08 16:09:48 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 16:09:32 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	ortho-Terphenyl (SURR)	11.722	2550464	20.000 ug/ml
Spiked Amount	50.000		Recovery =	40.00%
12) S	1-chlorooctadecane (S...	13.154	1862131	20.000 ug/ml
Spiked Amount	50.000		Recovery =	40.00%
	Target Compounds			
1) T	n-Nonane (C9)	3.449	2096221	20.000 ug/ml
2) T	n-Decane (C10)	4.526	2095530	20.000 ug/ml
3) T	A~Naphthalene (C11.7)	6.124	2319276	20.000 ug/ml
4) T	n-Dodecane (C12)	6.551	2094281	20.000 ug/ml
5) T	A~2-methylnaphthalene...	7.183	2314991	20.000 ug/ml
6) T	n-Tetradecane (C14)	8.350	2051743	20.000 ug/ml
7) T	n-Hexadecane (C16)	9.953	2036847	20.000 ug/ml
8) T	n-Octadecane (C18)	11.397	2013255	20.000 ug/ml
10) T	n-Eicosane (C20)	12.708	1973342	20.000 ug/ml
11) T	n-Heneicosane (C21)	13.320	1951198	20.000 ug/ml
13) T	n-Docosane (C22)	13.907	1934500	20.000 ug/ml
14) T	n-Tetracosane (C24)	15.012	1902333	20.000 ug/ml
15) T	n-Hexacosane (C26)	16.034	1867179	20.000 ug/ml
16) T	n-Octacosane (C28)	16.985	1825121	20.000 ug/ml
17) T	n-Tricontane (C30)	17.874	1825746	20.000 ug/ml
18) T	n-Dotriacontane (C32)	18.708	1812670	20.000 ug/ml
19) T	n-Tetratriacontane (C34)	19.492	1768427	20.000 ug/ml
20) T	n-Hexatriacontane (C36)	20.234	1773721	20.000 ug/ml
21) T	n-Octatriacontane (C38)	21.012	1754719	20.000 ug/ml
22) T	n-Tetracontane (C40)	21.991	1753808	20.000 ug/ml

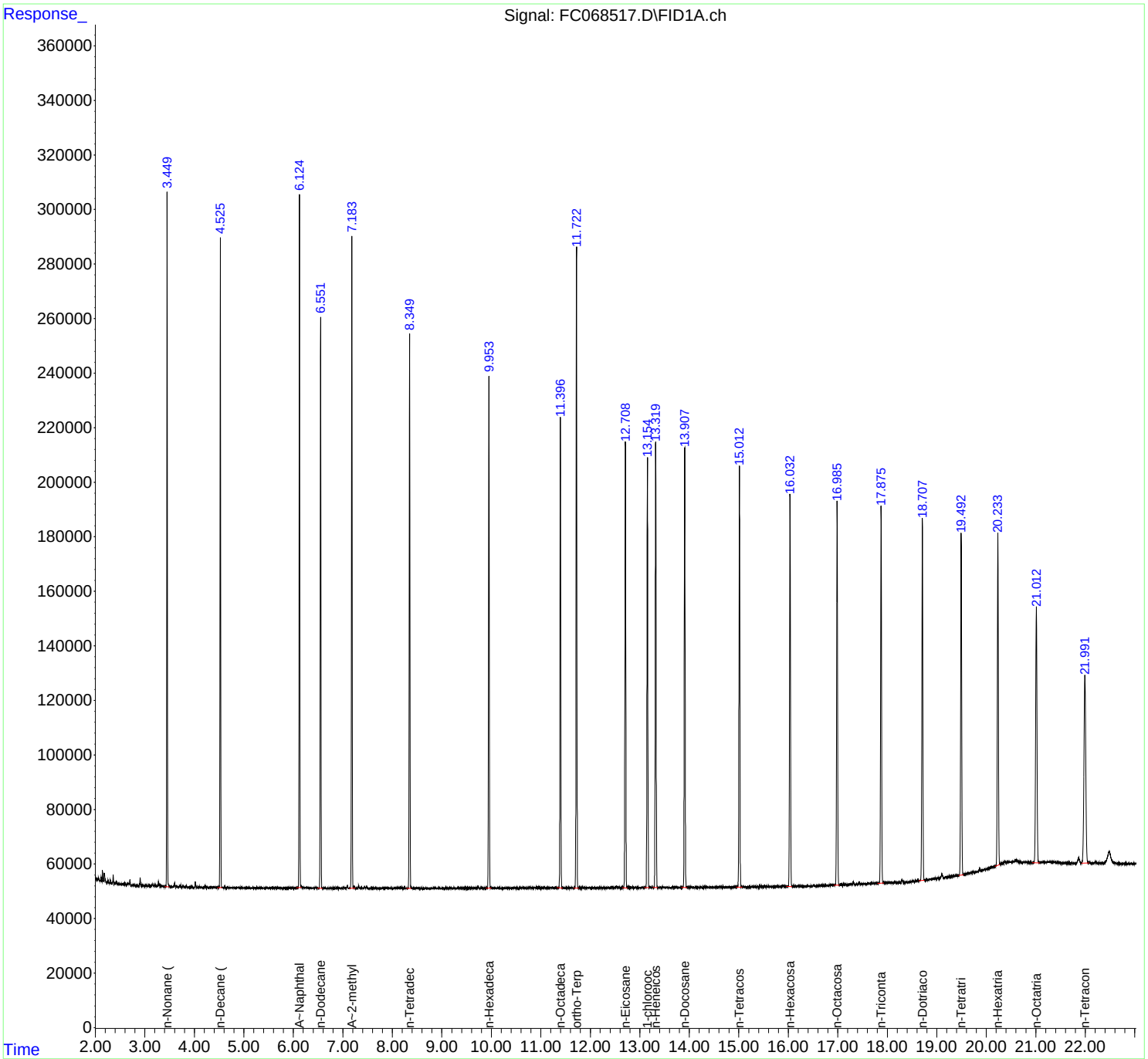
(f)=RT Delta > 1/2 Window (m)=manual int.

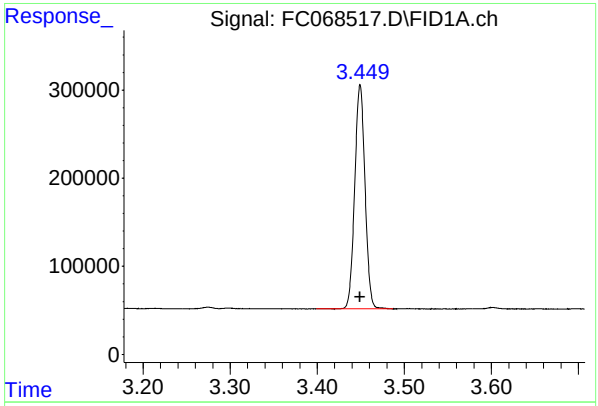
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC040925AL\
Data File : FC068517.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 15:34
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD3
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3

Integration File: autoint1.e
Quant Time: Apr 08 16:09:48 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 16:09:32 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

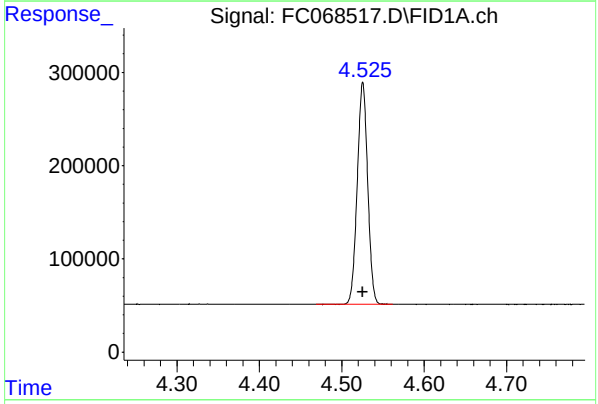




#1 n-Nonane (C9)

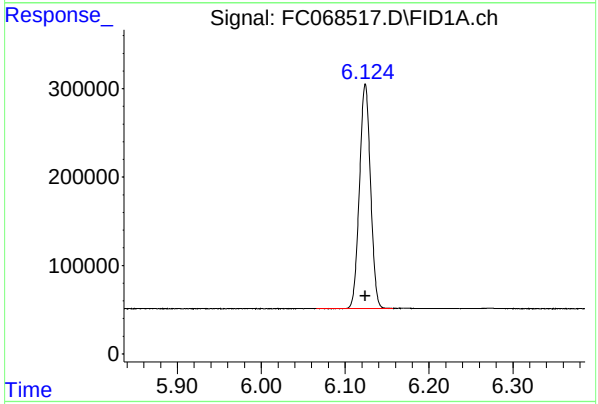
R.T.: 3.449 min
Delta R.T.: 0.000 min
Response: 2096221
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



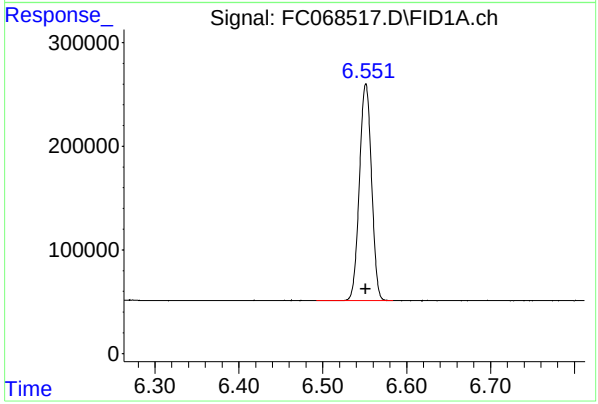
#2 n-Decane (C10)

R.T.: 4.526 min
Delta R.T.: 0.000 min
Response: 2095530
Conc: 20.00 ug/ml



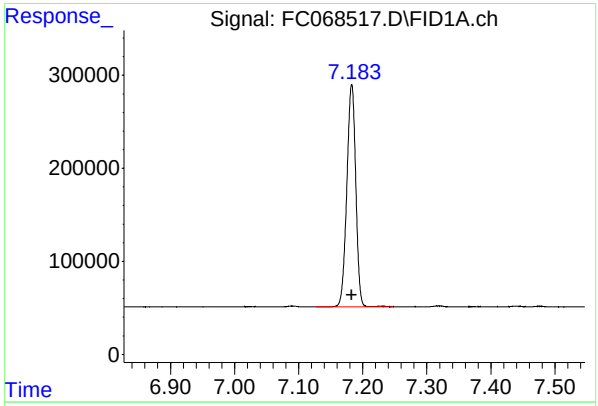
#3 A~Naphthalene (C11.7)

R.T.: 6.124 min
Delta R.T.: 0.000 min
Response: 2319276
Conc: 20.00 ug/ml



#4 n-Dodecane (C12)

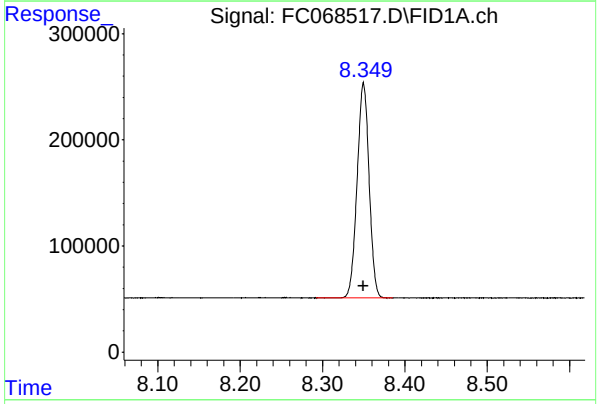
R.T.: 6.551 min
Delta R.T.: 0.000 min
Response: 2094281
Conc: 20.00 ug/ml



#5 A~2-methylnaphthalene (C12.89)

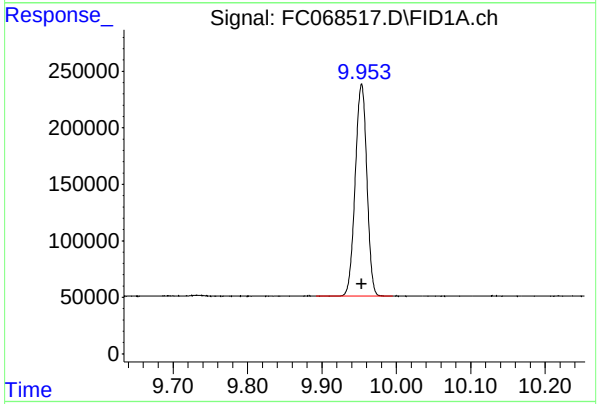
R.T.: 7.183 min
Delta R.T.: 0.000 min
Response: 2314991
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



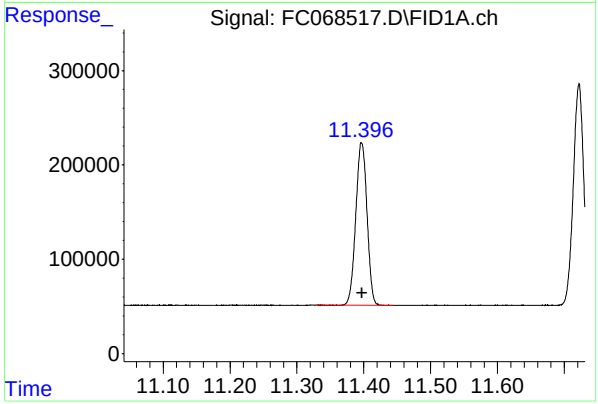
#6 n-Tetradecane (C14)

R.T.: 8.350 min
Delta R.T.: 0.000 min
Response: 2051743
Conc: 20.00 ug/ml



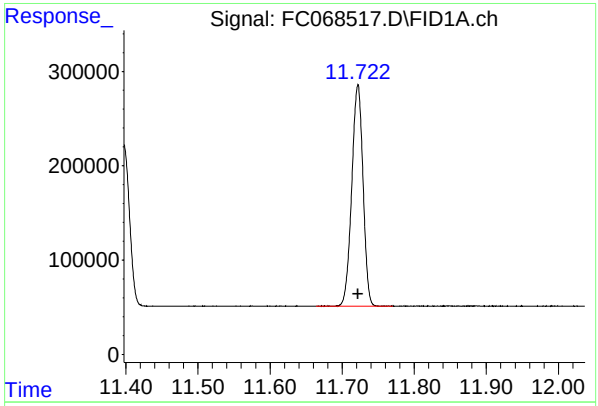
#7 n-Hexadecane (C16)

R.T.: 9.953 min
Delta R.T.: 0.000 min
Response: 2036847
Conc: 20.00 ug/ml



#8 n-Octadecane (C18)

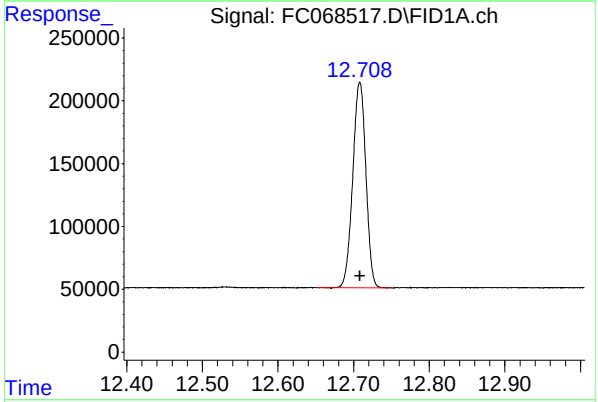
R.T.: 11.397 min
Delta R.T.: 0.000 min
Response: 2013255
Conc: 20.00 ug/ml



#9 ortho-Terphenyl (SURR)

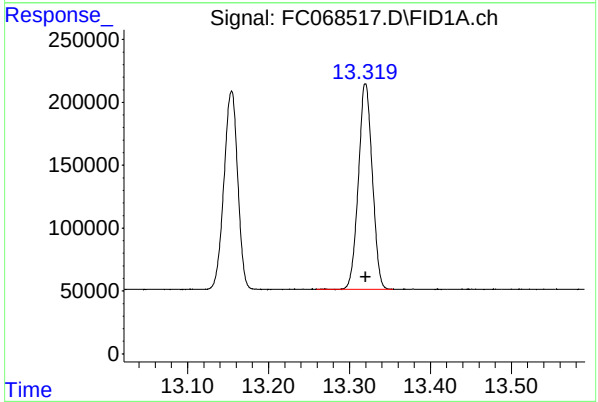
R.T.: 11.722 min
Delta R.T.: 0.000 min
Response: 2550464
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



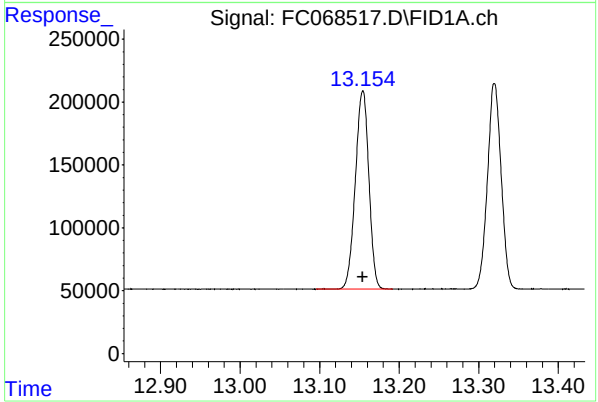
#10 n-Eicosane (C20)

R.T.: 12.708 min
Delta R.T.: 0.000 min
Response: 1973342
Conc: 20.00 ug/ml



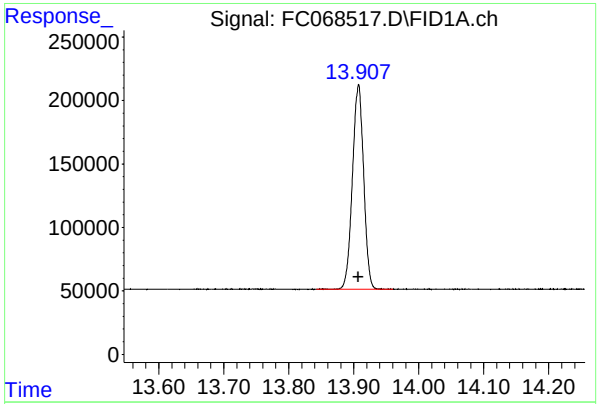
#11 n-Heneicosane (C21)

R.T.: 13.320 min
Delta R.T.: 0.000 min
Response: 1951198
Conc: 20.00 ug/ml



#12 1-chlorooctadecane (SURR)

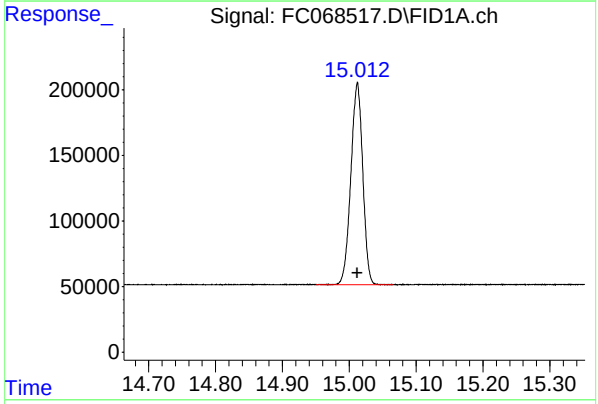
R.T.: 13.154 min
Delta R.T.: 0.000 min
Response: 1862131
Conc: 20.00 ug/ml



#13 n-Docosane (C22)

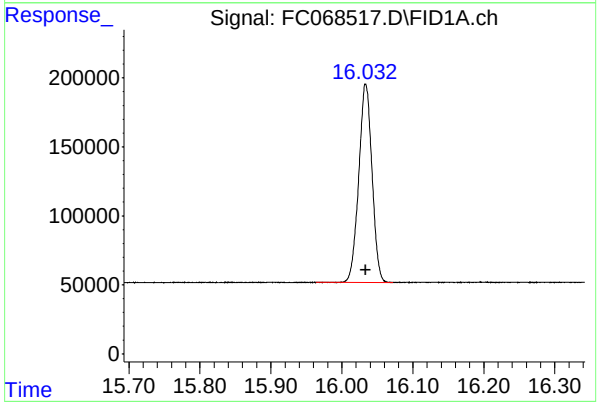
R.T.: 13.907 min
Delta R.T.: 0.000 min
Response: 1934500
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



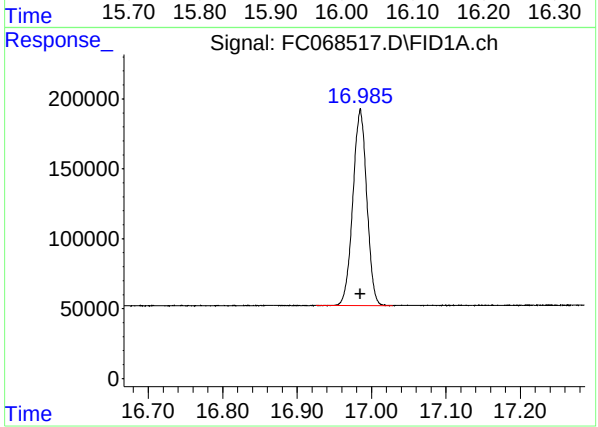
#14 n-Tetracosane (C24)

R.T.: 15.012 min
Delta R.T.: 0.000 min
Response: 1902333
Conc: 20.00 ug/ml



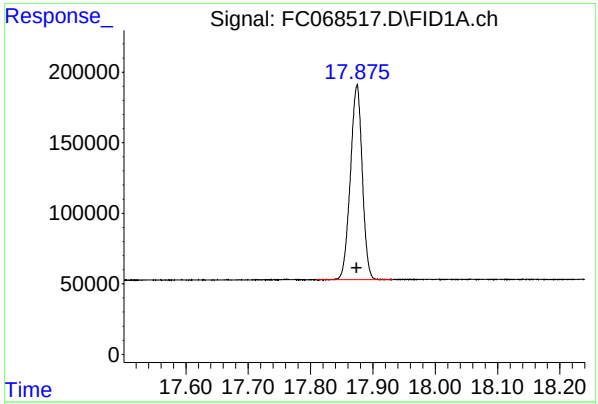
#15 n-Hexacosane (C26)

R.T.: 16.034 min
Delta R.T.: 0.000 min
Response: 1867179
Conc: 20.00 ug/ml



#16 n-Octacosane (C28)

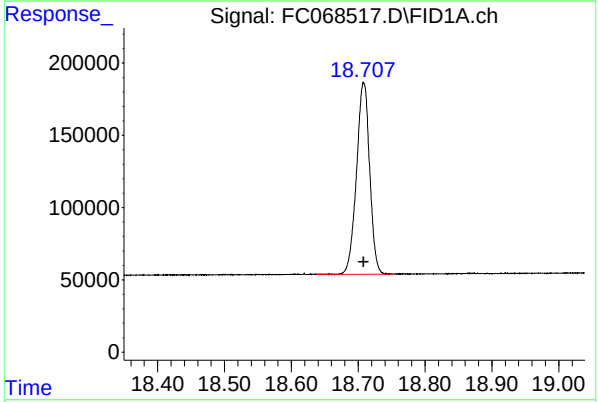
R.T.: 16.985 min
Delta R.T.: 0.000 min
Response: 1825121
Conc: 20.00 ug/ml



#17 n-Tricontane (C30)

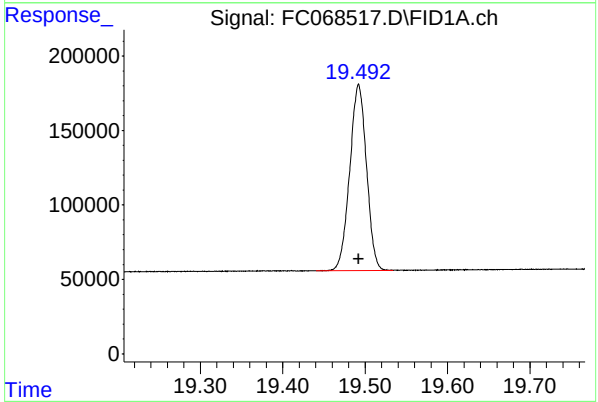
R.T.: 17.874 min
Delta R.T.: 0.000 min
Response: 1825746
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



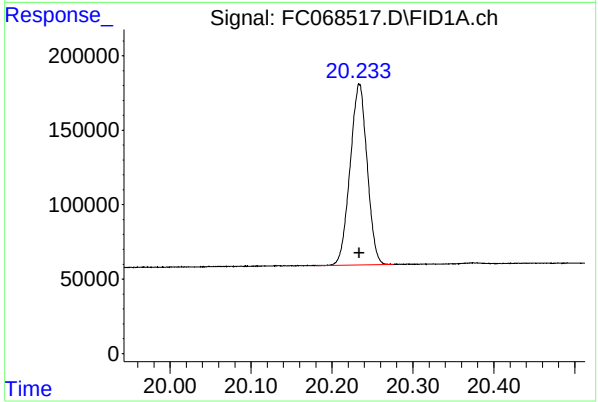
#18 n-Dotriacontane (C32)

R.T.: 18.708 min
Delta R.T.: 0.000 min
Response: 1812670
Conc: 20.00 ug/ml



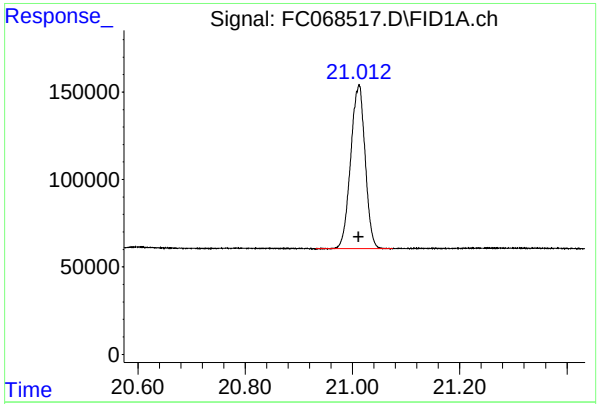
#19 n-Tetratriacontane (C34)

R.T.: 19.492 min
Delta R.T.: 0.000 min
Response: 1768427
Conc: 20.00 ug/ml



#20 n-Hexatriacontane (C36)

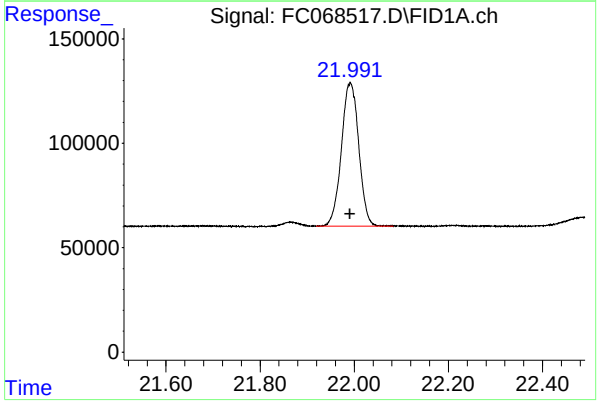
R.T.: 20.234 min
Delta R.T.: 0.000 min
Response: 1773721
Conc: 20.00 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 21.012 min
Delta R.T.: 0.000 min
Response: 1754719
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



#22 n-Tetracontane (C40)

R.T.: 21.991 min
Delta R.T.: 0.000 min
Response: 1753808
Conc: 20.00 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC040925AL\
Data File : FC068517.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 15:34
Sample : 20 PPM ALIPHATIC HC STD3
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.449	3.399	3.487	BV	253958	2096221	82.19%	4.810%
2	4.526	4.469	4.562	BB	238340	2095530	82.16%	4.809%
3	6.124	6.065	6.157	BB	253815	2319276	90.94%	5.322%
4	6.551	6.492	6.584	BB	209737	2094281	82.11%	4.806%
5	7.183	7.127	7.247	BB	239201	2314991	90.77%	5.312%
6	8.350	8.292	8.385	BB	201953	2051743	80.45%	4.708%
7	9.953	9.892	9.995	BB	188220	2036847	79.86%	4.674%
8	11.397	11.329	11.444	BB	171872	2013255	78.94%	4.620%
9	11.722	11.664	11.770	BB	235078	2550464	100.00%	5.853%
10	12.708	12.650	12.752	BB	163857	1973342	77.37%	4.528%
11	13.154	13.095	13.192	BB	157485	1862131	73.01%	4.273%
12	13.320	13.259	13.354	BB	163602	1951198	76.50%	4.478%
13	13.907	13.842	13.960	BB	161073	1934500	75.85%	4.439%
14	15.012	14.950	15.065	BB	154219	1902333	74.59%	4.365%
15	16.034	15.990	16.072	BB	143647	1867249	73.21%	4.285%
16	16.985	16.925	17.029	BB	140633	1825121	71.56%	4.188%
17	17.874	17.809	17.932	BB	137283	1825746	71.58%	4.190%
18	18.708	18.637	18.752	BB	132106	1812670	71.07%	4.160%
19	19.492	19.440	19.534	BB	125064	1768427	69.34%	4.058%
20	20.234	20.180	20.275	BB	121667	1773721	69.55%	4.070%
21	21.012	20.932	21.075	BB	93948	1754719	68.80%	4.027%
22	21.991	21.919	22.082	BB	68732	1753808	68.76%	4.025%
			Sum of corrected areas:			43577572		

Aliphatic EPH 040925.M Wed Apr 09 02:02:52 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC040925AL\
Data File : FC068518.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 16:12
Operator : YP/AJ
Sample : 10 PPM ALIPHATIC HC STD4
Misc :
ALS Vial : 14 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4

Integration File: autoint1.e
Quant Time: Apr 08 17:03:34 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 17:03:20 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	ortho-Terphenyl (SURR)	11.720	1388282	10.977 ug/ml
Spiked Amount	50.000		Recovery =	21.95%
12) S	1-chlorooctadecane (S...	13.154	1026505	11.083 ug/ml
Spiked Amount	50.000		Recovery =	22.17%
	Target Compounds			
1) T	n-Nonane (C9)	3.450	1136561	10.913 ug/ml
2) T	n-Decane (C10)	4.525	1140863	10.944 ug/ml
3) T	A~Naphthalene (C11.7)	6.124	1256563	10.901 ug/ml
4) T	n-Dodecane (C12)	6.551	1144968	10.993 ug/ml
5) T	A~2-methylnaphthalene...	7.181	1247891	10.901 ug/ml
6) T	n-Tetradecane (C14)	8.348	1128652	11.073 ug/ml
7) T	n-Hexadecane (C16)	9.952	1124488	11.125 ug/ml
8) T	n-Octadecane (C18)	11.396	1115425	11.151 ug/ml
10) T	n-Eicosane (C20)	12.707	1092518	11.147 ug/ml
11) T	n-Heneicosane (C21)	13.320	1082284	11.149 ug/ml
13) T	n-Docosane (C22)	13.907	1070404	11.124 ug/ml
14) T	n-Tetracosane (C24)	15.011	1051523	11.083 ug/ml
15) T	n-Hexacosane (C26)	16.034	1022441	10.974 ug/ml
16) T	n-Octacosane (C28)	16.985	993075	10.887 ug/ml
17) T	n-Tricontane (C30)	17.873	990582	10.833 ug/ml
18) T	n-Dotriacontane (C32)	18.707	985052	10.817 ug/ml
19) T	n-Tetratriacontane (C34)	19.492	949339	10.711 ug/ml
20) T	n-Hexatriacontane (C36)	20.233	947135	10.651 ug/ml
21) T	n-Octatriacontane (C38)	21.009	932368	10.629 ug/ml
22) T	n-Tetracontane (C40)	21.991	924309	10.560 ug/ml

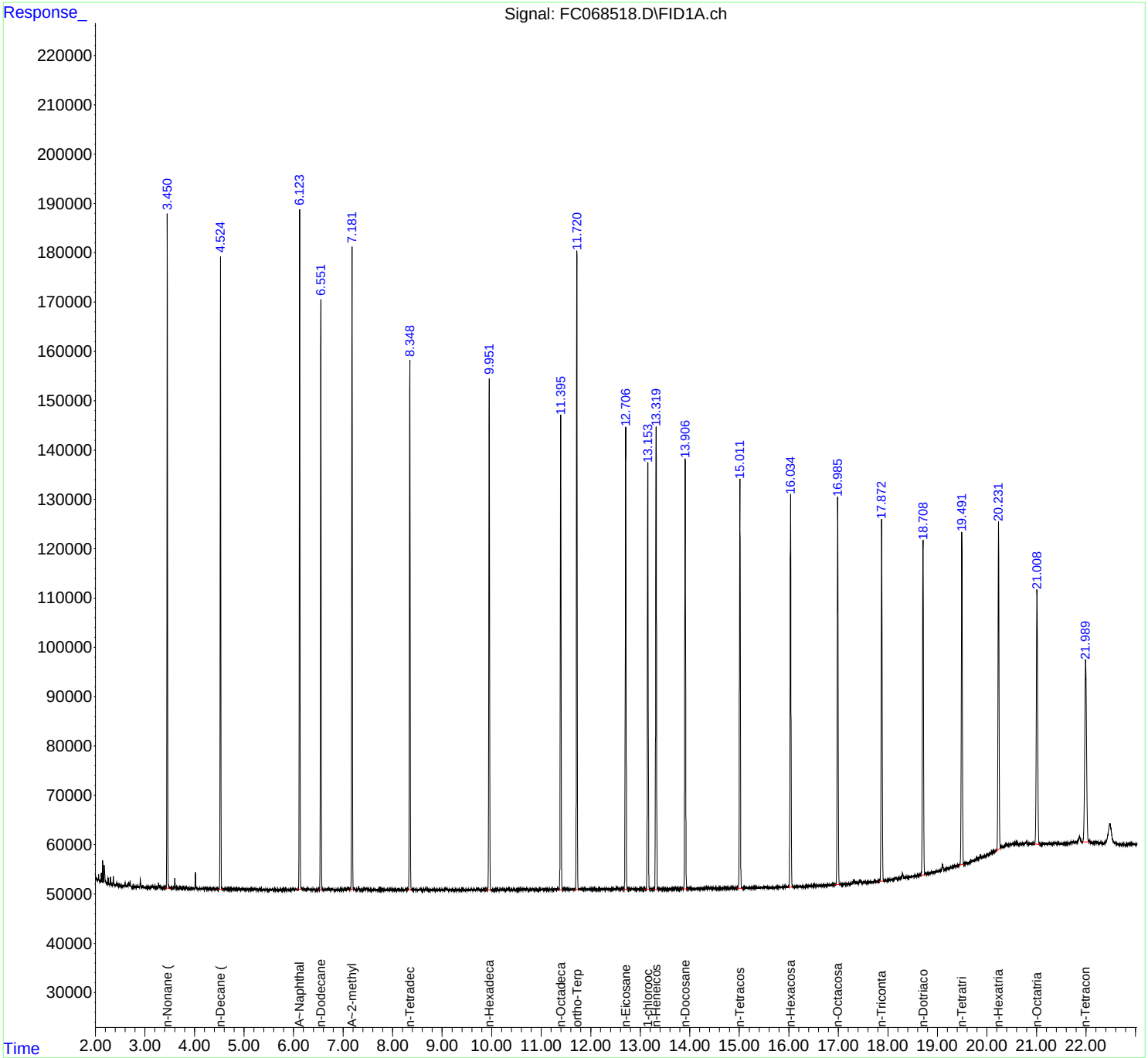
(f)=RT Delta > 1/2 Window (m)=manual int.

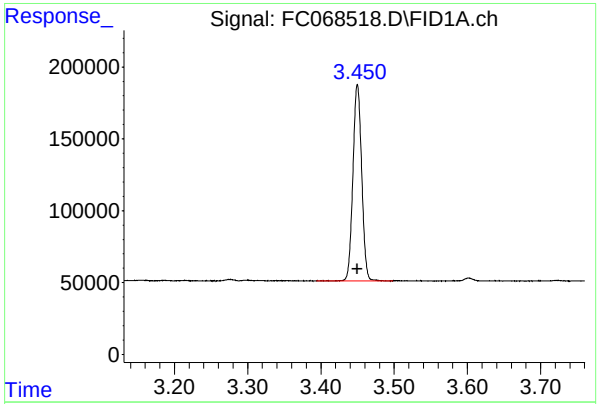
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC040925AL\
Data File : FC068518.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 16:12
Operator : YP/AJ
Sample : 10 PPM ALIPHATIC HC STD4
Misc :
ALS Vial : 14 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4

Integration File: autoint1.e
Quant Time: Apr 08 17:03:34 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 17:03:20 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

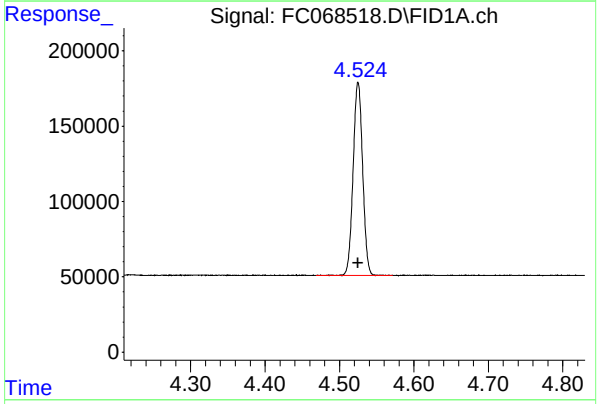




#1 n-Nonane (C9)

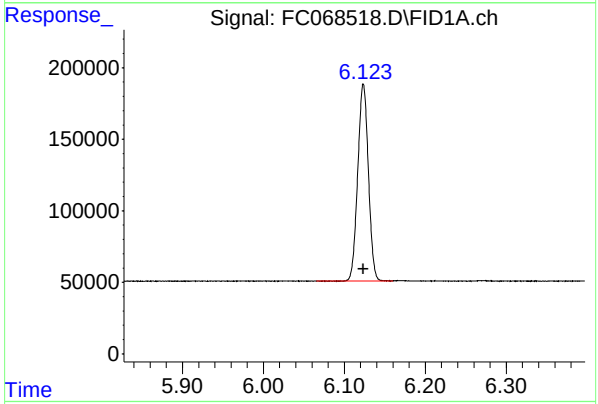
R.T.: 3.450 min
Delta R.T.: 0.000 min
Response: 1136561
Conc: 10.91 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



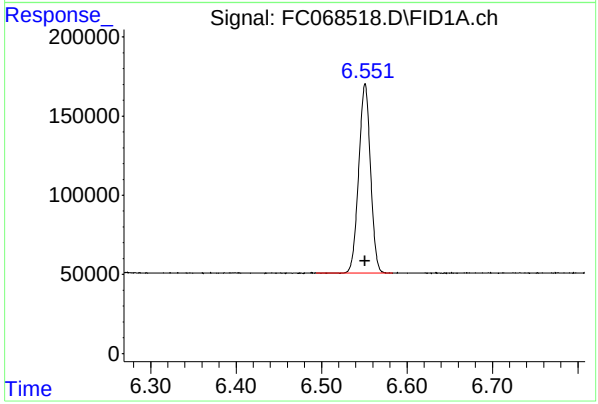
#2 n-Decane (C10)

R.T.: 4.525 min
Delta R.T.: 0.000 min
Response: 1140863
Conc: 10.94 ug/ml



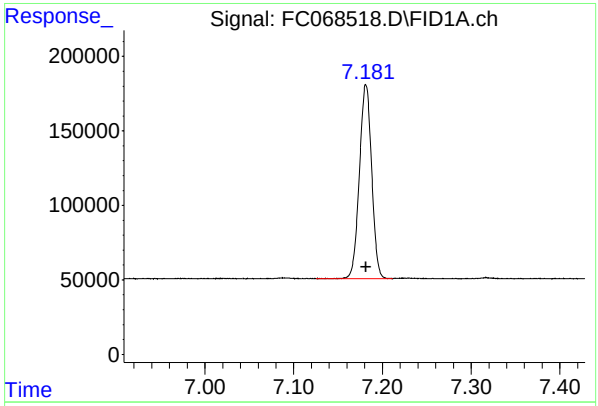
#3 A~Naphthalene (C11.7)

R.T.: 6.124 min
Delta R.T.: 0.000 min
Response: 1256563
Conc: 10.90 ug/ml



#4 n-Dodecane (C12)

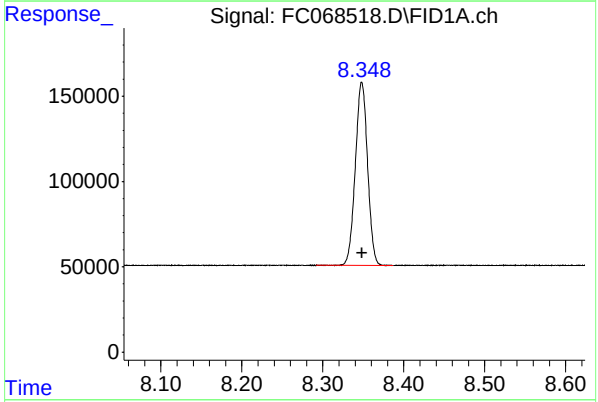
R.T.: 6.551 min
Delta R.T.: 0.000 min
Response: 1144968
Conc: 10.99 ug/ml



#5 A~2-methylnaphthalene (C12.89)

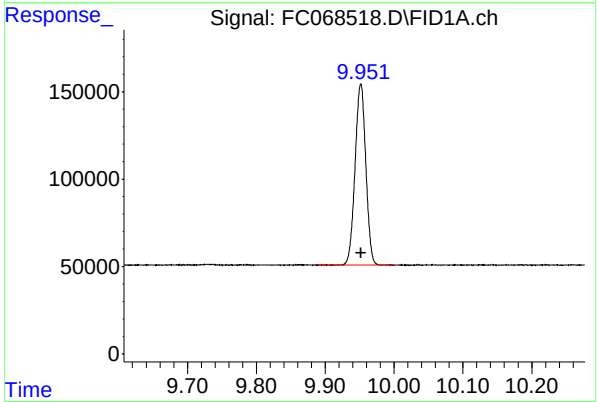
R.T.: 7.181 min
Delta R.T.: 0.000 min
Response: 1247891
Conc: 10.90 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



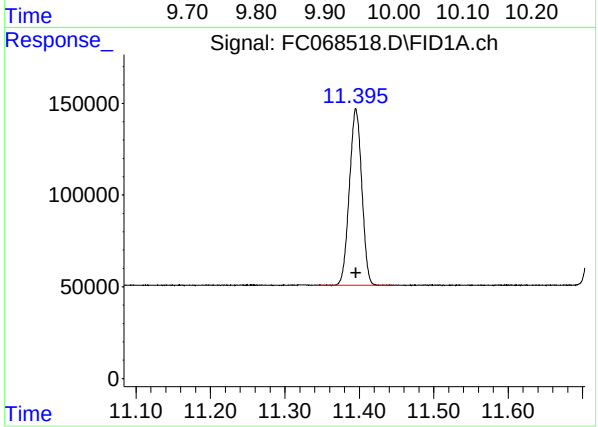
#6 n-Tetradecane (C14)

R.T.: 8.348 min
Delta R.T.: 0.000 min
Response: 1128652
Conc: 11.07 ug/ml



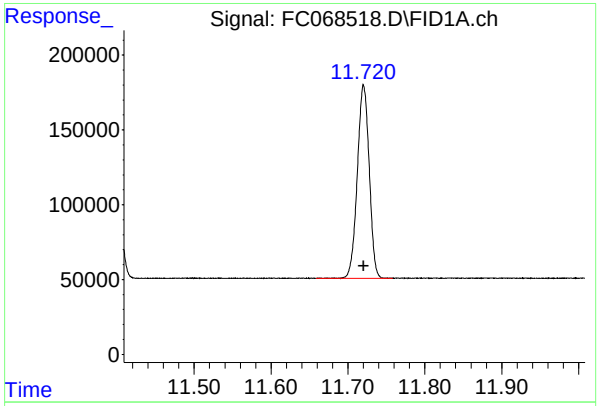
#7 n-Hexadecane (C16)

R.T.: 9.952 min
Delta R.T.: 0.000 min
Response: 1124488
Conc: 11.13 ug/ml



#8 n-Octadecane (C18)

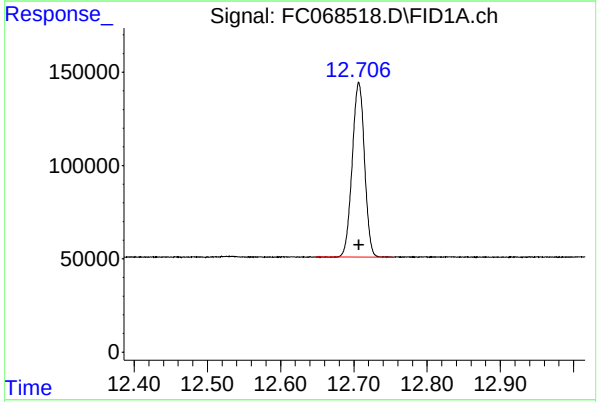
R.T.: 11.396 min
Delta R.T.: 0.000 min
Response: 1115425
Conc: 11.15 ug/ml



#9 ortho-Terphenyl (SURR)

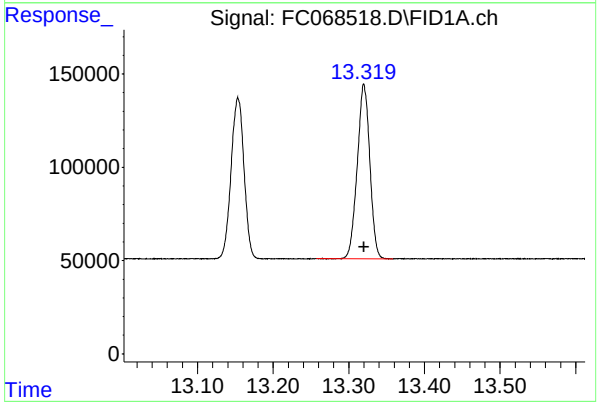
R.T.: 11.720 min
Delta R.T.: 0.000 min
Response: 1388282
Conc: 10.98 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



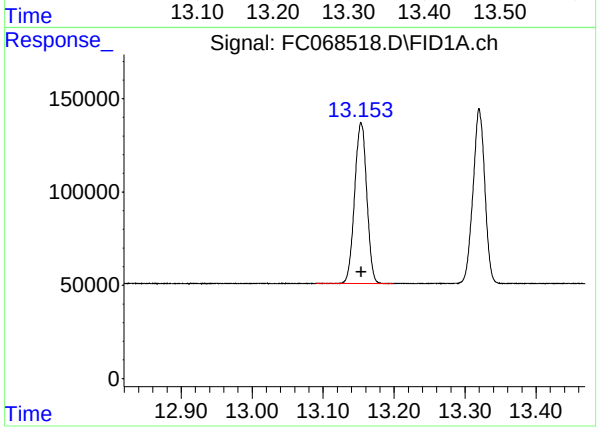
#10 n-Eicosane (C20)

R.T.: 12.707 min
Delta R.T.: 0.000 min
Response: 1092518
Conc: 11.15 ug/ml



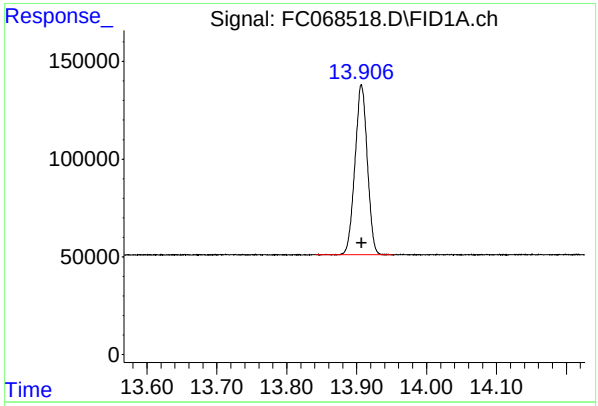
#11 n-Heneicosane (C21)

R.T.: 13.320 min
Delta R.T.: 0.000 min
Response: 1082284
Conc: 11.15 ug/ml



#12 1-chlorooctadecane (SURR)

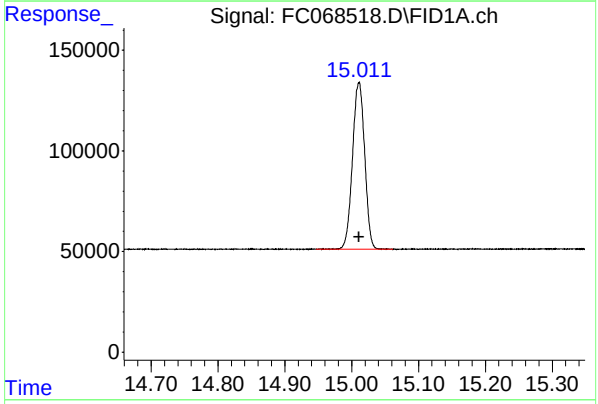
R.T.: 13.154 min
Delta R.T.: 0.000 min
Response: 1026505
Conc: 11.08 ug/ml



#13 n-Docosane (C22)

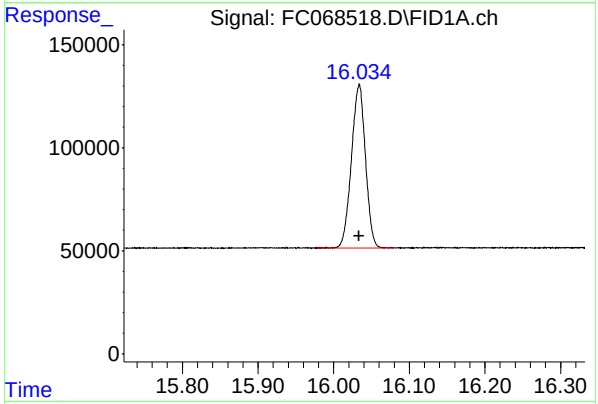
R.T.: 13.907 min
Delta R.T.: 0.000 min
Response: 1070404
Conc: 11.12 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



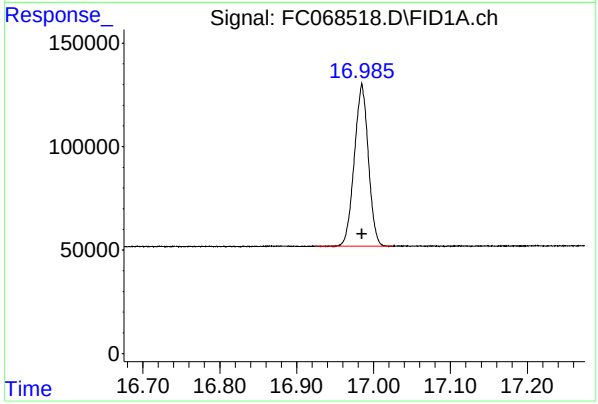
#14 n-Tetracosane (C24)

R.T.: 15.011 min
Delta R.T.: 0.000 min
Response: 1051523
Conc: 11.08 ug/ml



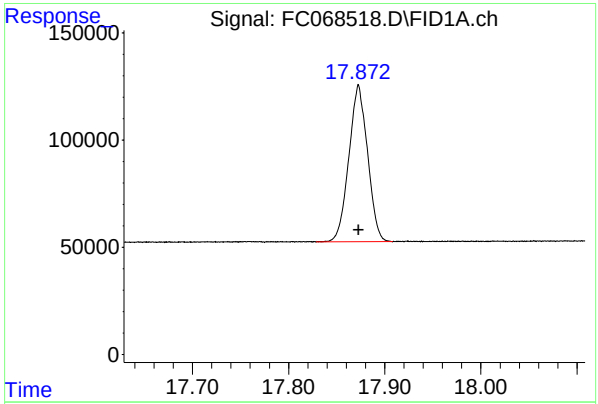
#15 n-Hexacosane (C26)

R.T.: 16.034 min
Delta R.T.: 0.000 min
Response: 1022441
Conc: 10.97 ug/ml



#16 n-Octacosane (C28)

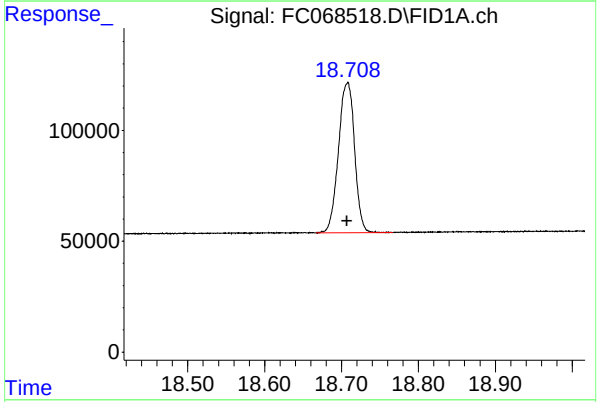
R.T.: 16.985 min
Delta R.T.: 0.000 min
Response: 993075
Conc: 10.89 ug/ml



#17 n-Tricontane (C30)

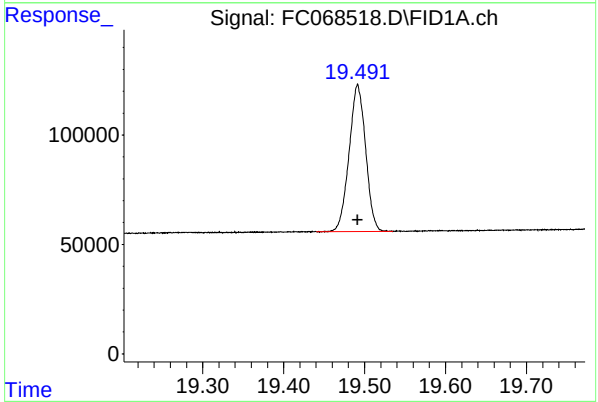
R.T.: 17.873 min
Delta R.T.: 0.000 min
Response: 990582
Conc: 10.83 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



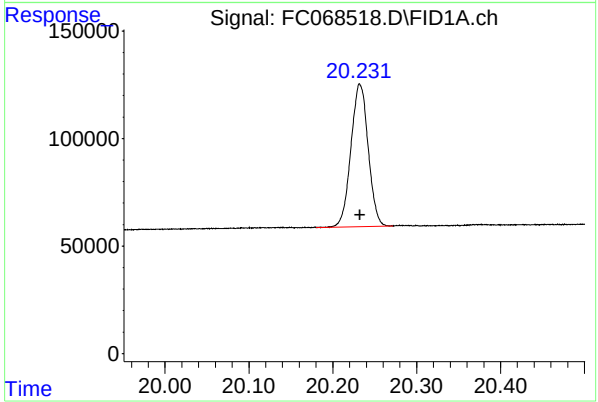
#18 n-Dotriacontane (C32)

R.T.: 18.707 min
Delta R.T.: 0.000 min
Response: 985052
Conc: 10.82 ug/ml



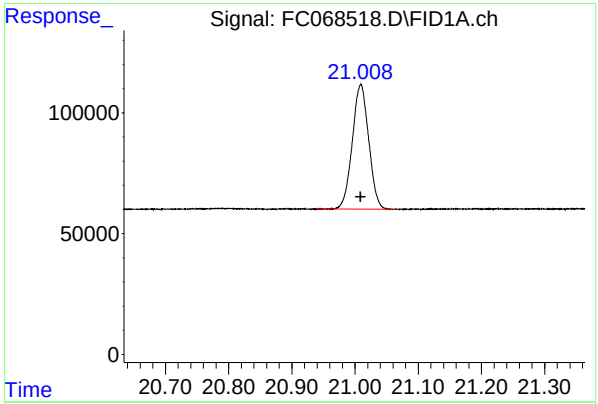
#19 n-Tetratriacontane (C34)

R.T.: 19.492 min
Delta R.T.: 0.000 min
Response: 949339
Conc: 10.71 ug/ml



#20 n-Hexatriacontane (C36)

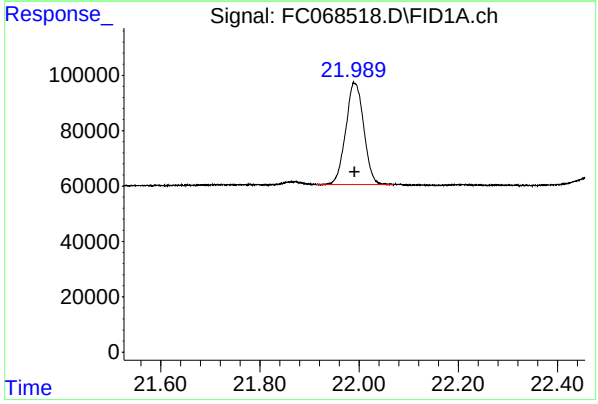
R.T.: 20.233 min
Delta R.T.: 0.000 min
Response: 947135
Conc: 10.65 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 21.009 min
Delta R.T.: 0.000 min
Response: 932368
Conc: 10.63 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



#22 n-Tetracontane (C40)

R.T.: 21.991 min
Delta R.T.: 0.000 min
Response: 924309
Conc: 10.56 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC040925AL\
Data File : FC068518.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 16:12
Sample : 10 PPM ALIPHATIC HC STD4
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.450	3.393	3.498	BB	136592	1136561	81.87%	4.786%
2	4.525	4.468	4.572	BB	128280	1140863	82.18%	4.804%
3	6.124	6.065	6.160	BB	137899	1256563	90.51%	5.291%
4	6.551	6.493	6.583	BB	119252	1144968	82.47%	4.821%
5	7.181	7.125	7.212	BB	129998	1247891	89.89%	5.255%
6	8.348	8.292	8.387	BB	107295	1128652	81.30%	4.752%
7	9.952	9.887	9.998	BB	103764	1124488	81.00%	4.735%
8	11.396	11.342	11.445	BB	96197	1115425	80.35%	4.697%
9	11.720	11.658	11.758	BB	129278	1388282	100.00%	5.846%
10	12.707	12.648	12.753	BB	93709	1092518	78.70%	4.600%
11	13.154	13.090	13.198	BB	86387	1026505	73.94%	4.322%
12	13.320	13.257	13.358	BB	93486	1082284	77.96%	4.557%
13	13.907	13.842	13.952	BB	86937	1070404	77.10%	4.507%
14	15.011	14.947	15.062	BB	82738	1051523	75.74%	4.428%
15	16.034	15.990	16.078	BB	79228	1020144	73.48%	4.296%
16	16.985	16.925	17.025	BB	78376	993075	71.53%	4.182%
17	17.873	17.828	17.908	BB	73117	990582	71.35%	4.171%
18	18.707	18.667	18.767	BB	67397	985052	70.95%	4.148%
19	19.492	19.440	19.535	BB	67160	949339	68.38%	3.997%
20	20.233	20.180	20.272	BB	66319	947135	68.22%	3.988%
21	21.009	20.938	21.060	BB	51593	932368	67.16%	3.926%
22	21.991	21.913	22.068	BB	36350	924309	66.58%	3.892%
			Sum of corrected areas:			23748929		

Aliphatic EPH 040925.M Wed Apr 09 02:03:17 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC040925AL\
Data File : FC068519.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 16:48
Operator : YP/AJ
Sample : 5 PPM ALIPHATIC HC STD5
Misc :
ALS Vial : 15 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5

Integration File: autoint1.e
Quant Time: Apr 08 17:30:54 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 17:30:46 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	ortho-Terphenyl (SURR)	11.719	654057	5.136 ug/ml
Spiked Amount	50.000		Recovery =	10.27%
12) S	1-chlorooctadecane (S...	13.152	470010	5.060 ug/ml
Spiked Amount	50.000		Recovery =	10.12%
	Target Compounds			
1) T	n-Nonane (C9)	3.449	550187	5.224 ug/ml
2) T	n-Decane (C10)	4.525	549045	5.211 ug/ml
3) T	A~Naphthalene (C11.7)	6.124	606085	5.204 ug/ml
4) T	n-Dodecane (C12)	6.550	546064	5.193 ug/ml
5) T	A~2-methylnaphthalene...	7.181	598007	5.178 ug/ml
6) T	n-Tetradecane (C14)	8.348	531626	5.171 ug/ml
7) T	n-Hexadecane (C16)	9.951	524477	5.150 ug/ml
8) T	n-Octadecane (C18)	11.395	515183	5.119 ug/ml
10) T	n-Eicosane (C20)	12.706	498787	5.071 ug/ml
11) T	n-Heneicosane (C21)	13.318	495018	5.079 ug/ml
13) T	n-Docosane (C22)	13.905	490416	5.077 ug/ml
14) T	n-Tetracosane (C24)	15.010	482111	5.065 ug/ml
15) T	n-Hexacosane (C26)	16.032	471652	5.050 ug/ml
16) T	n-Octacosane (C28)	16.984	464643	5.075 ug/ml
17) T	n-Tricontane (C30)	17.871	469479	5.107 ug/ml
18) T	n-Dotriacontane (C32)	18.706	471859	5.144 ug/ml
19) T	n-Tetratriacontane (C34)	19.492	460798	5.158 ug/ml
20) T	n-Hexatriacontane (C36)	20.232	461012	5.146 ug/ml
21) T	n-Octatriacontane (C38)	21.009	455897	5.156 ug/ml
22) T	n-Tetracontane (C40)	21.989	457120	5.177 ug/ml

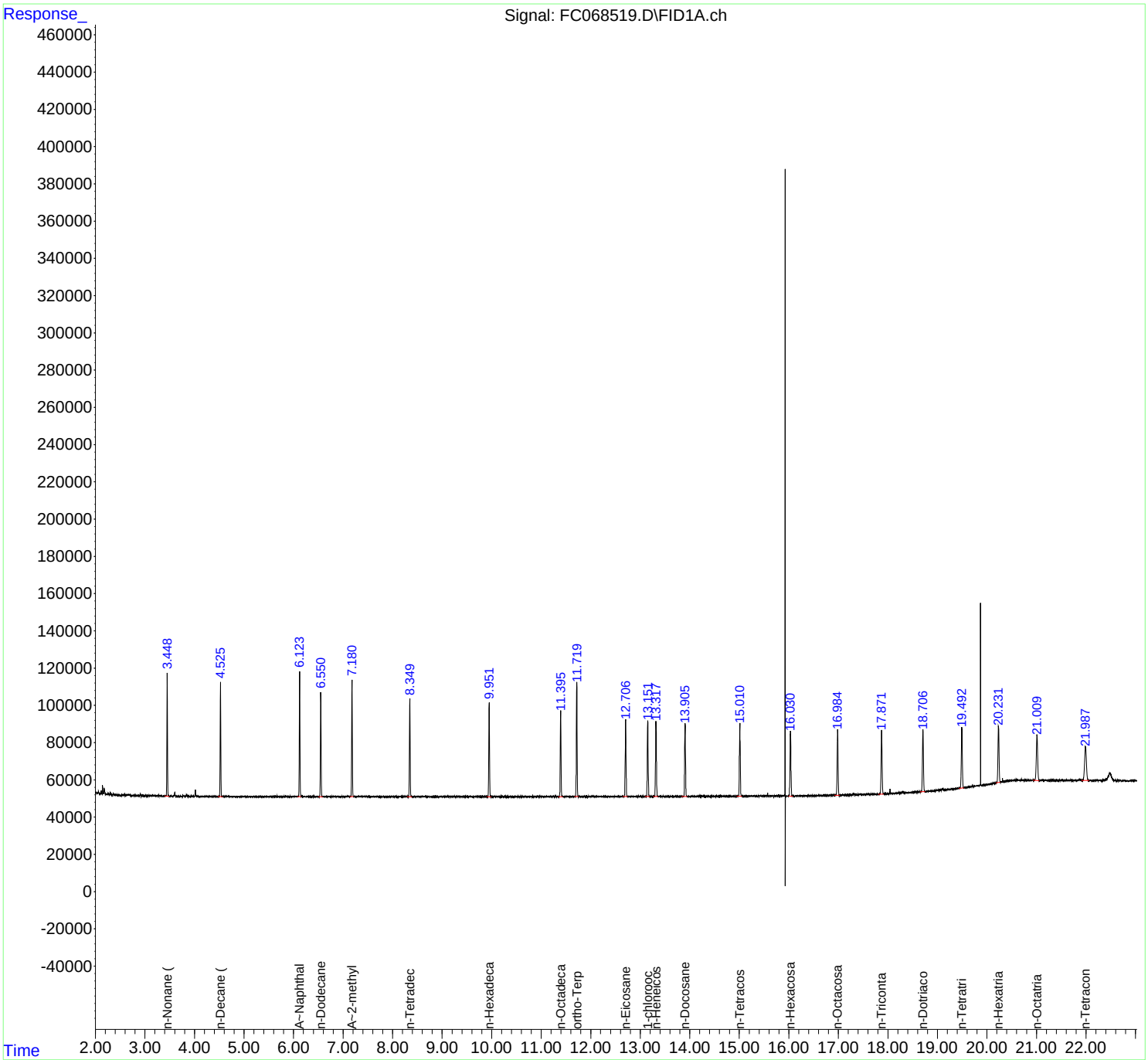
(f)=RT Delta > 1/2 Window (m)=manual int.

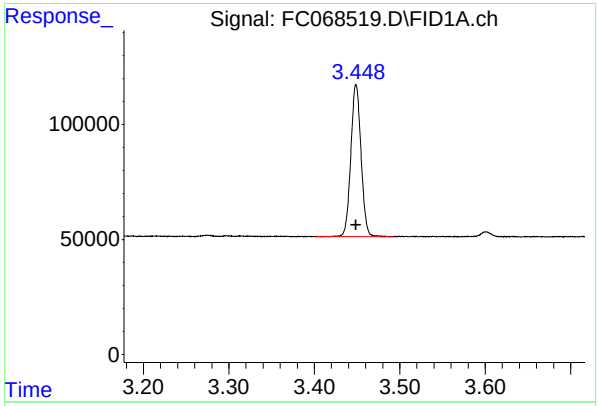
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC040925AL\
Data File : FC068519.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 16:48
Operator : YP/AJ
Sample : 5 PPM ALIPHATIC HC STD5
Misc :
ALS Vial : 15 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5

Integration File: autoint1.e
Quant Time: Apr 08 17:30:54 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 17:30:46 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

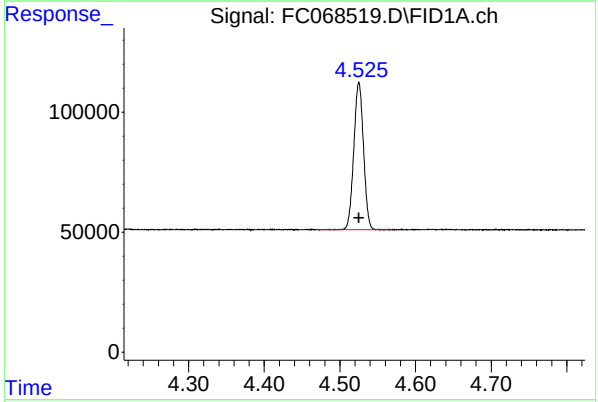




#1 n-Nonane (C9)

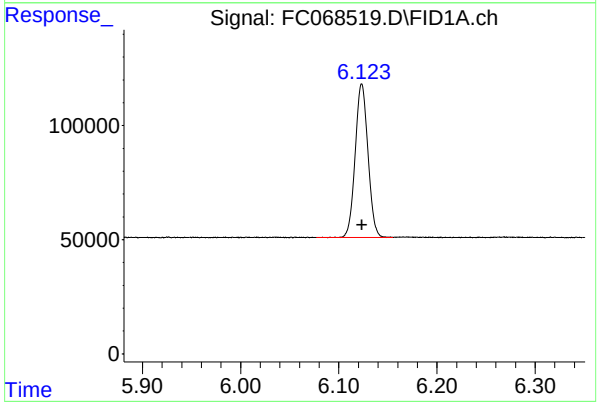
R.T.: 3.449 min
Delta R.T.: 0.000 min
Response: 550187
Conc: 5.22 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



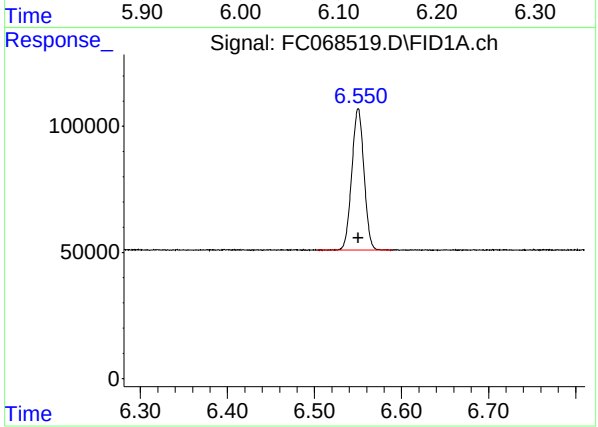
#2 n-Decane (C10)

R.T.: 4.525 min
Delta R.T.: 0.000 min
Response: 549045
Conc: 5.21 ug/ml



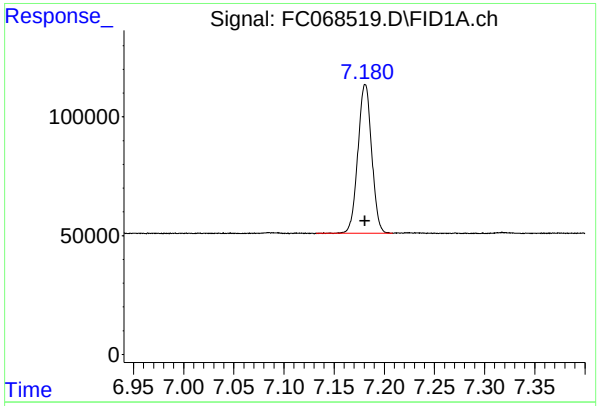
#3 A~Naphthalene (C11.7)

R.T.: 6.124 min
Delta R.T.: 0.000 min
Response: 606085
Conc: 5.20 ug/ml



#4 n-Dodecane (C12)

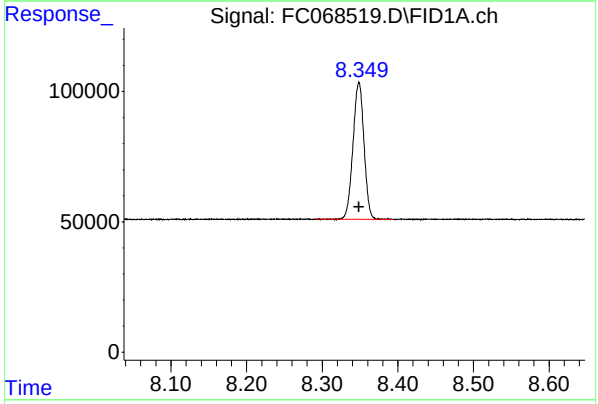
R.T.: 6.550 min
Delta R.T.: 0.000 min
Response: 546064
Conc: 5.19 ug/ml



#5 A~2-methylnaphthalene (C12.89)

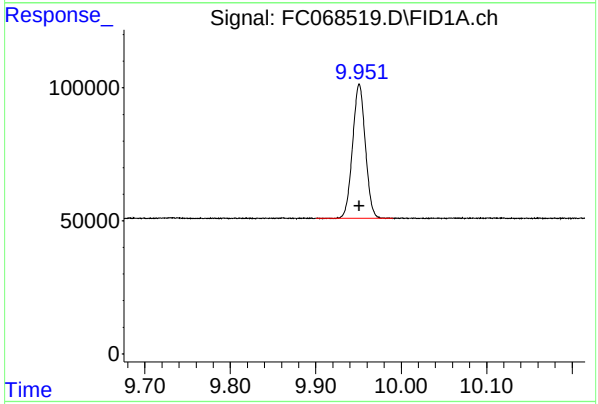
R.T.: 7.181 min
Delta R.T.: 0.000 min
Response: 598007
Conc: 5.18 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



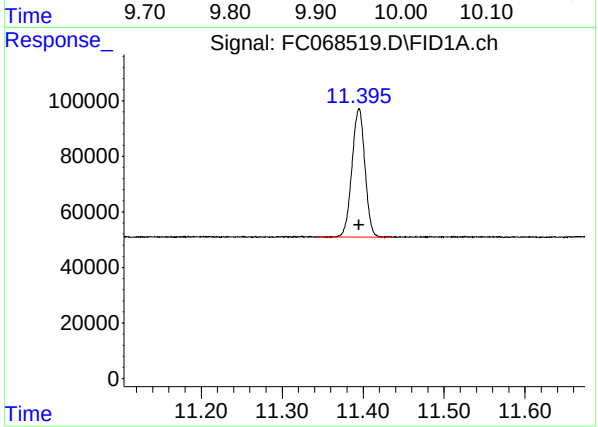
#6 n-Tetradecane (C14)

R.T.: 8.348 min
Delta R.T.: 0.000 min
Response: 531626
Conc: 5.17 ug/ml



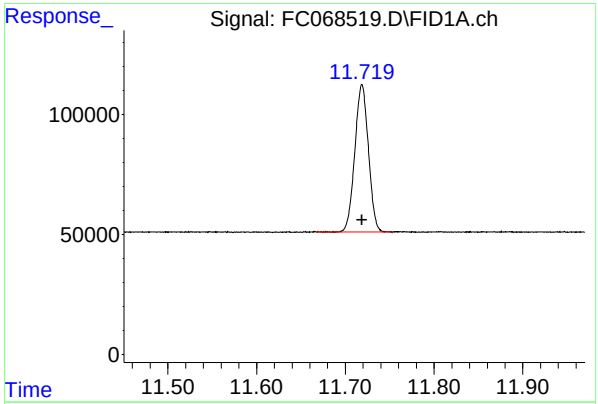
#7 n-Hexadecane (C16)

R.T.: 9.951 min
Delta R.T.: 0.000 min
Response: 524477
Conc: 5.15 ug/ml



#8 n-Octadecane (C18)

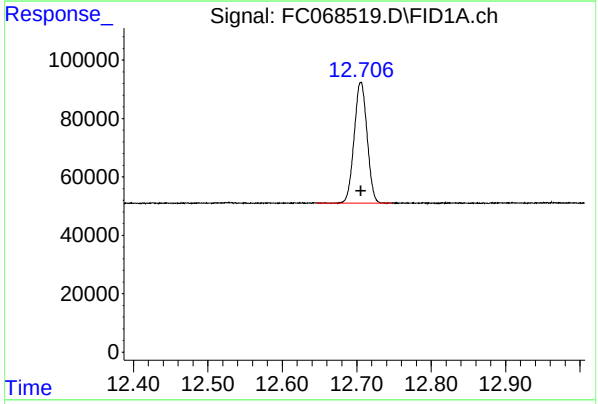
R.T.: 11.395 min
Delta R.T.: 0.000 min
Response: 515183
Conc: 5.12 ug/ml



#9 ortho-Terphenyl (SURR)

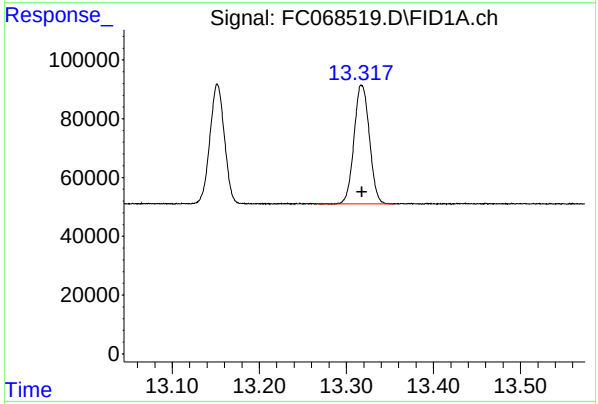
R.T.: 11.719 min
Delta R.T.: 0.000 min
Response: 654057
Conc: 5.14 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



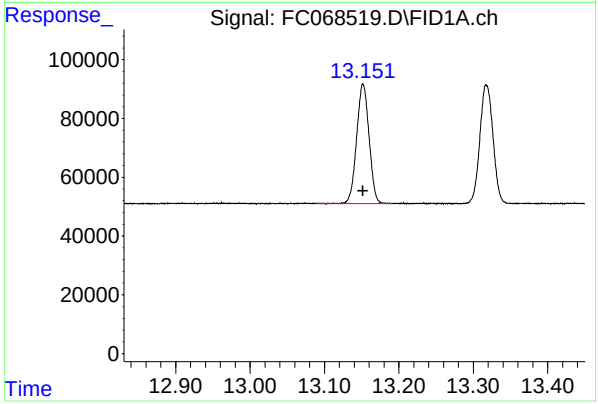
#10 n-Eicosane (C20)

R.T.: 12.706 min
Delta R.T.: 0.000 min
Response: 498787
Conc: 5.07 ug/ml



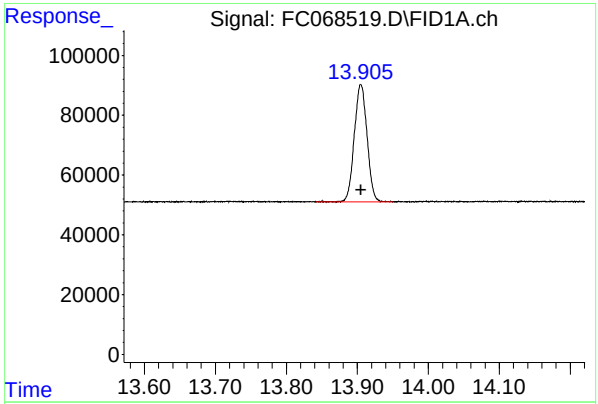
#11 n-Heneicosane (C21)

R.T.: 13.318 min
Delta R.T.: 0.000 min
Response: 495018
Conc: 5.08 ug/ml



#12 1-chlorooctadecane (SURR)

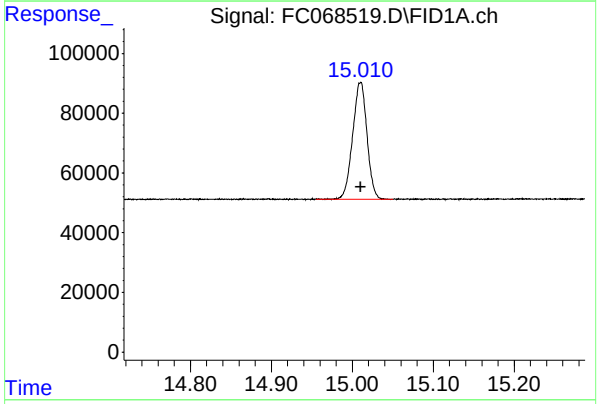
R.T.: 13.152 min
Delta R.T.: 0.000 min
Response: 470010
Conc: 5.06 ug/ml



#13 n-Docosane (C22)

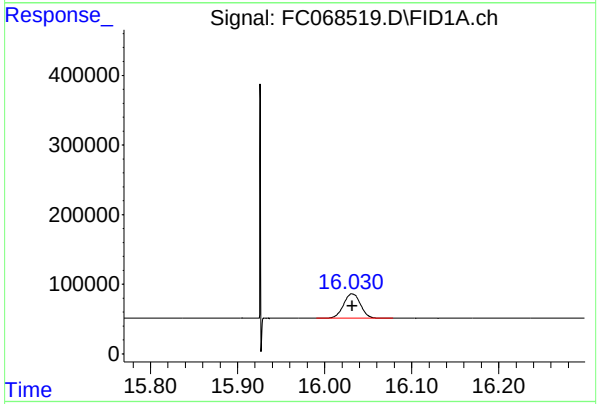
R.T.: 13.905 min
Delta R.T.: 0.000 min
Response: 490416
Conc: 5.08 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



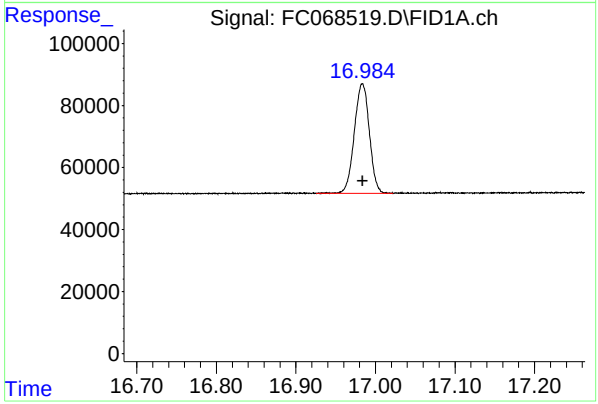
#14 n-Tetracosane (C24)

R.T.: 15.010 min
Delta R.T.: 0.000 min
Response: 482111
Conc: 5.07 ug/ml



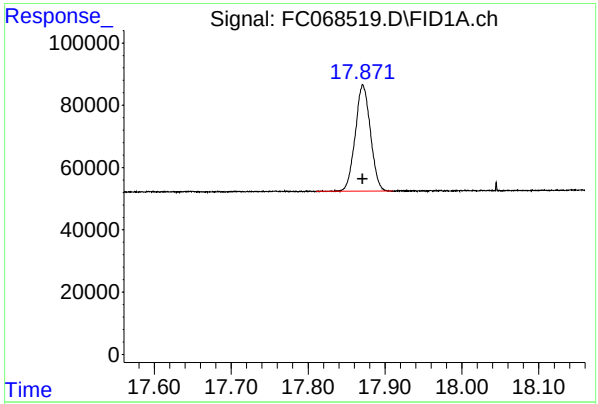
#15 n-Hexacosane (C26)

R.T.: 16.032 min
Delta R.T.: 0.000 min
Response: 471652
Conc: 5.05 ug/ml



#16 n-Octacosane (C28)

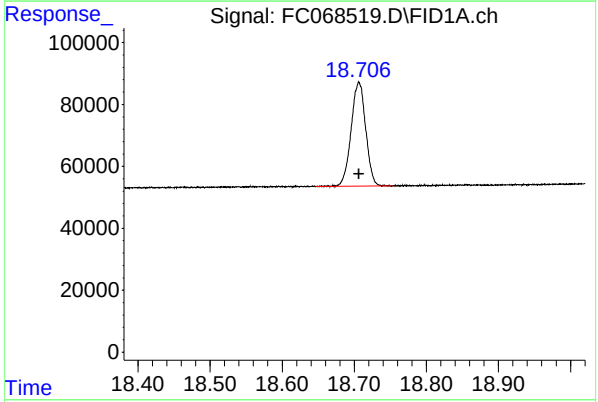
R.T.: 16.984 min
Delta R.T.: 0.000 min
Response: 464643
Conc: 5.07 ug/ml



#17 n-Tricontane (C30)

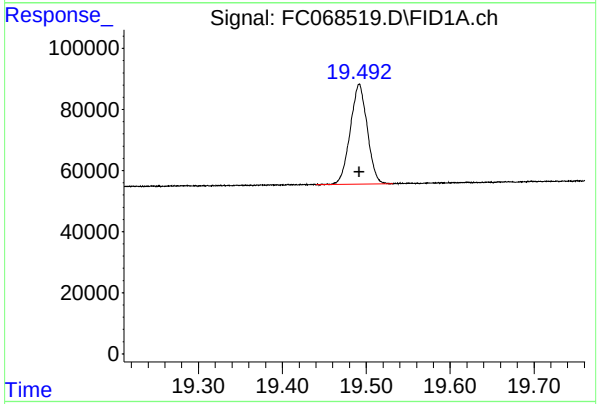
R.T.: 17.871 min
Delta R.T.: 0.000 min
Response: 469479
Conc: 5.11 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



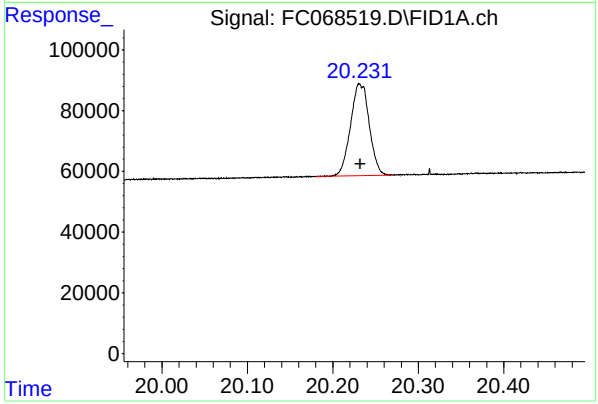
#18 n-Dotriacontane (C32)

R.T.: 18.706 min
Delta R.T.: 0.000 min
Response: 471859
Conc: 5.14 ug/ml



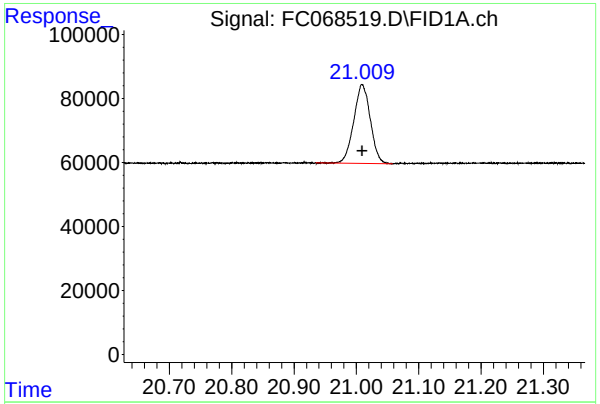
#19 n-Tetratriacontane (C34)

R.T.: 19.492 min
Delta R.T.: 0.000 min
Response: 460798
Conc: 5.16 ug/ml



#20 n-Hexatriacontane (C36)

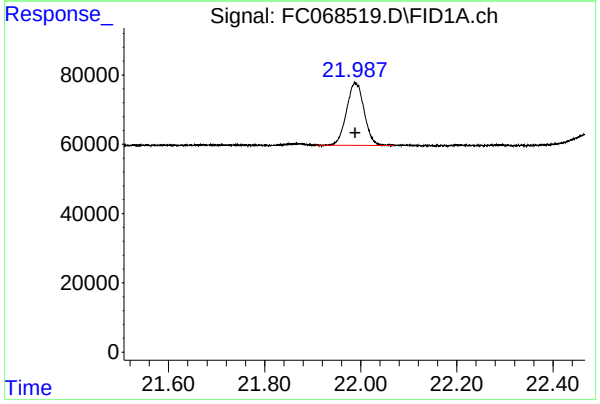
R.T.: 20.232 min
Delta R.T.: 0.000 min
Response: 461012
Conc: 5.15 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 21.009 min
Delta R.T.: 0.000 mi
Response: 455897
Conc: 5.16 ug/m

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



#22 n-Tetracontane (C40)

R.T.: 21.989 min
Delta R.T.: 0.000 min
Response: 457120
Conc: 5.18 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC040925AL\
Data File : FC068519.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 16:48
Sample : 5 PPM ALIPHATIC HC STD5
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.449	3.402	3.492	BB	66232	550187	84.12%	4.902%
2	4.525	4.469	4.570	BB	61433	549045	83.94%	4.892%
3	6.124	6.077	6.155	BB	67157	606085	92.67%	5.400%
4	6.550	6.502	6.590	BB	56117	546064	83.49%	4.865%
5	7.181	7.132	7.209	BB	62637	598007	91.43%	5.328%
6	8.348	8.292	8.394	BB	52506	531626	81.28%	4.737%
7	9.951	9.900	9.990	BB	50448	524477	80.19%	4.673%
8	11.395	11.342	11.437	BB	46359	515183	78.77%	4.590%
9	11.719	11.667	11.754	BB	61429	654057	100.00%	5.828%
10	12.706	12.645	12.749	BB	41337	498787	76.26%	4.444%
11	13.152	13.089	13.192	BB	40685	470010	71.86%	4.188%
12	13.318	13.265	13.354	BB	40194	495018	75.68%	4.411%
13	13.905	13.842	13.950	BB	39220	490416	74.98%	4.370%
14	15.010	14.955	15.050	BB	39129	482111	73.71%	4.296%
15	16.032	15.990	16.079	BB	34767	471652	72.11%	4.202%
16	16.984	16.925	17.022	BB	35366	464643	71.04%	4.140%
17	17.871	17.810	17.910	BB	34125	469479	71.78%	4.183%
18	18.706	18.647	18.754	BB	33576	471859	72.14%	4.204%
19	19.492	19.440	19.532	BB	32784	460798	70.45%	4.106%
20	20.232	20.180	20.270	BB	30000	461012	70.48%	4.108%
21	21.009	20.935	21.059	BB	24672	455897	69.70%	4.062%
22	21.989	21.907	22.067	BB	17907	457120	69.89%	4.073%
			Sum of corrected areas:			11223533		

Aliphatic EPH 040925.M Wed Apr 09 02:04:09 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC040925AL\
Data File : FC068520.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 17:26
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD ICV
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV

Integration File: autoint1.e
Quant Time: Apr 08 18:06:14 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 17:31:27 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	ortho-Terphenyl (SURR)	11.722	2509889	19.710 ug/ml
Spiked Amount	50.000		Recovery =	39.42%
12) S	1-chlorooctadecane (S...	13.154	1813783	19.525 ug/ml
Spiked Amount	50.000		Recovery =	39.05%
	Target Compounds			
1) T	n-Nonane (C9)	3.450	2152986	20.442 ug/ml
2) T	n-Decane (C10)	4.526	2151620	20.422 ug/ml
3) T	A~Naphthalene (C11.7)	6.124	2370053	20.351 ug/ml
4) T	n-Dodecane (C12)	6.551	2138499	20.335 ug/ml
5) T	A~2-methylnaphthalene...	7.182	2340318	20.263 ug/ml
6) T	n-Tetradecane (C14)	8.349	2073539	20.170 ug/ml
7) T	n-Hexadecane (C16)	9.952	2031391	19.947 ug/ml
8) T	n-Octadecane (C18)	11.397	1983646	19.712 ug/ml
10) T	n-Eicosane (C20)	12.708	1924584	19.567 ug/ml
11) T	n-Heneicosane (C21)	13.322	1900069	19.497 ug/ml
13) T	n-Docosane (C22)	13.908	1874678	19.408 ug/ml
14) T	n-Tetracosane (C24)	15.012	1840193	19.333 ug/ml
15) T	n-Hexacosane (C26)	16.035	1805920	19.334 ug/ml
16) T	n-Octacosane (C28)	16.986	1775159	19.388 ug/ml
17) T	n-Tricontane (C30)	17.874	1789949	19.470 ug/ml
18) T	n-Dotriacontane (C32)	18.709	1790701	19.522 ug/ml
19) T	n-Tetratriacontane (C34)	19.494	1754814	19.642 ug/ml
20) T	n-Hexatriacontane (C36)	20.234	1766416	19.719 ug/ml
21) T	n-Octatriacontane (C38)	21.013	1737168	19.648 ug/ml
22) T	n-Tetracontane (C40)	21.995	1737661	19.678 ug/ml

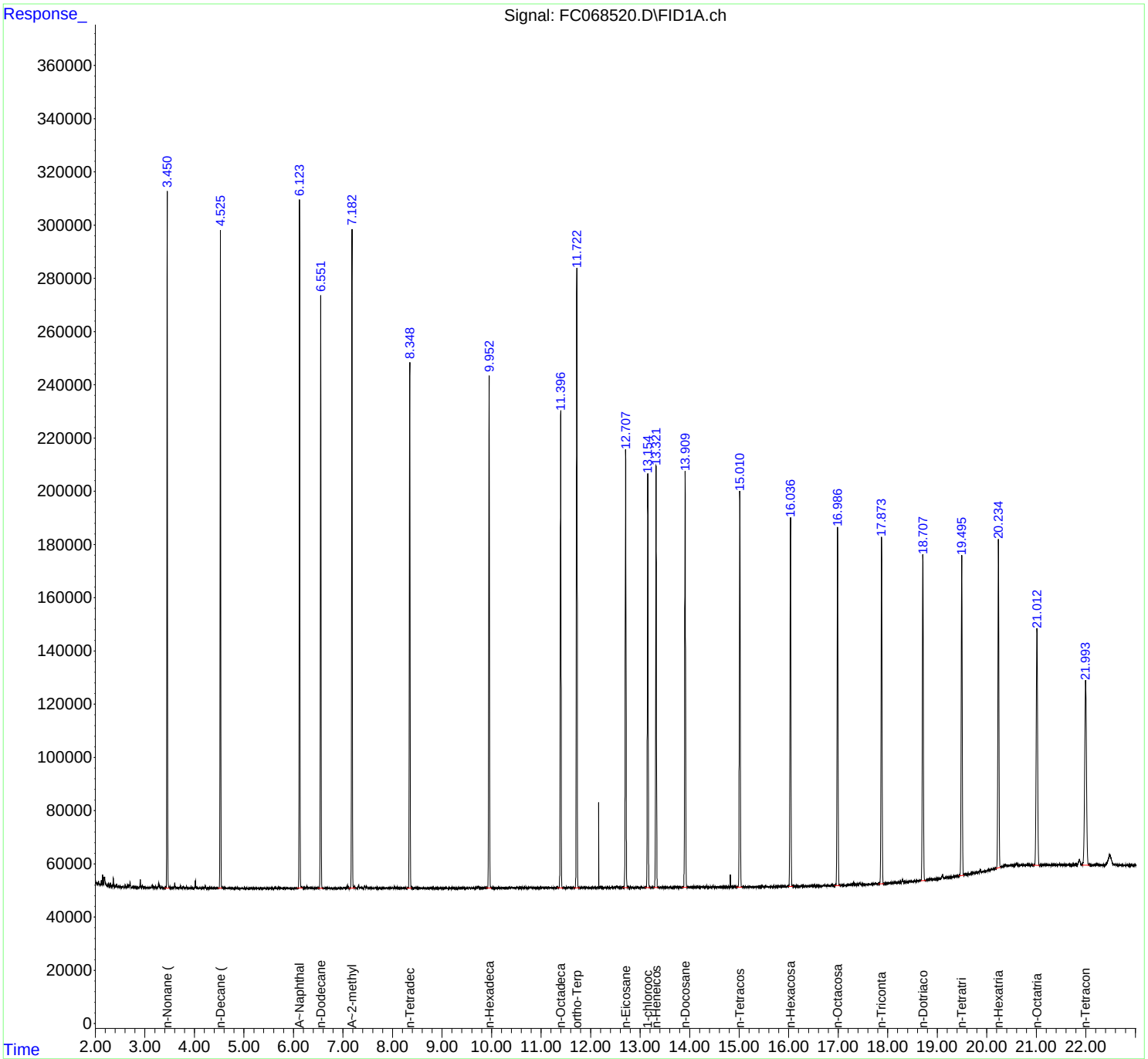
(f)=RT Delta > 1/2 Window (m)=manual int.

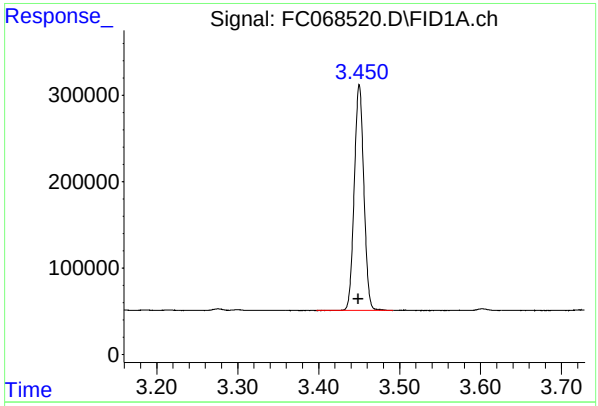
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC040925AL\
Data File : FC068520.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 17:26
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD ICV
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV

Integration File: autoint1.e
Quant Time: Apr 08 18:06:14 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 17:31:27 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

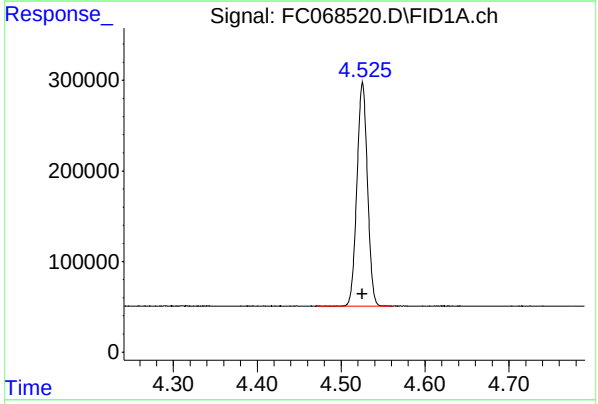




#1 n-Nonane (C9)

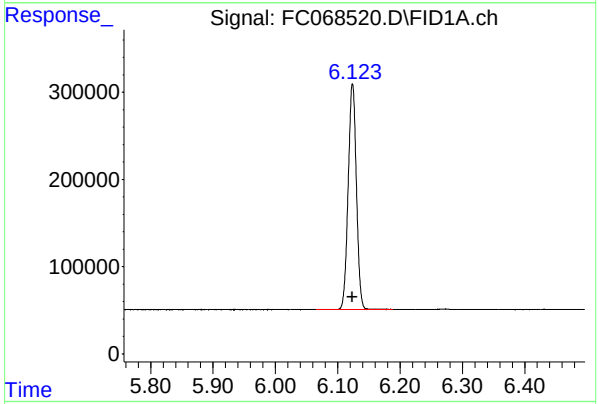
R.T.: 3.450 min
Delta R.T.: 0.001 min
Response: 2152986
Conc: 20.44 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV



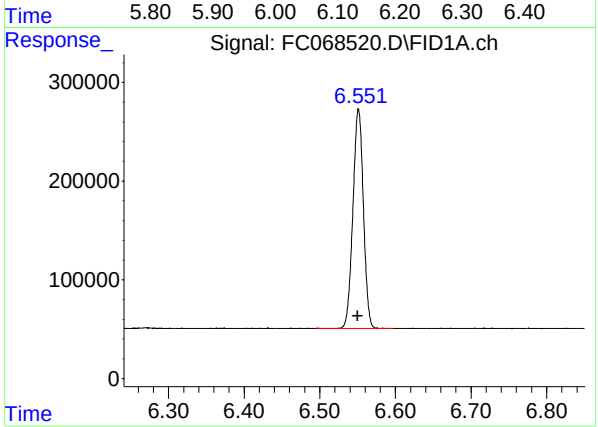
#2 n-Decane (C10)

R.T.: 4.526 min
Delta R.T.: 0.000 min
Response: 2151620
Conc: 20.42 ug/ml



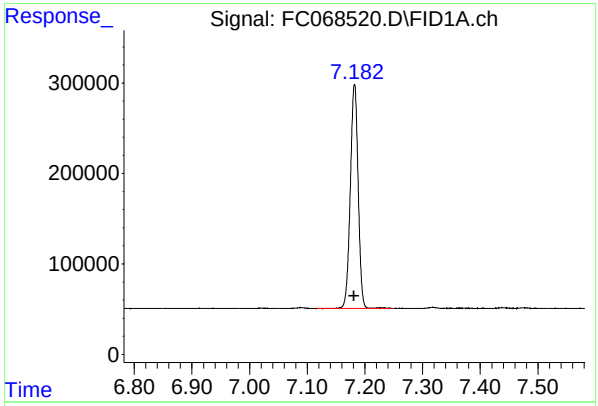
#3 A~Naphthalene (C11.7)

R.T.: 6.124 min
Delta R.T.: 0.000 min
Response: 2370053
Conc: 20.35 ug/ml



#4 n-Dodecane (C12)

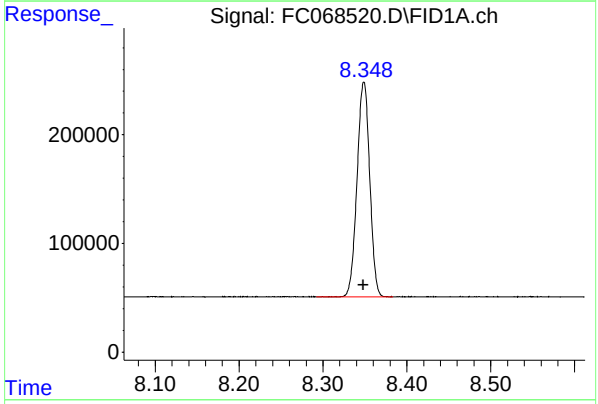
R.T.: 6.551 min
Delta R.T.: 0.000 min
Response: 2138499
Conc: 20.34 ug/ml



#5 A~2-methylnaphthalene (C12.89)

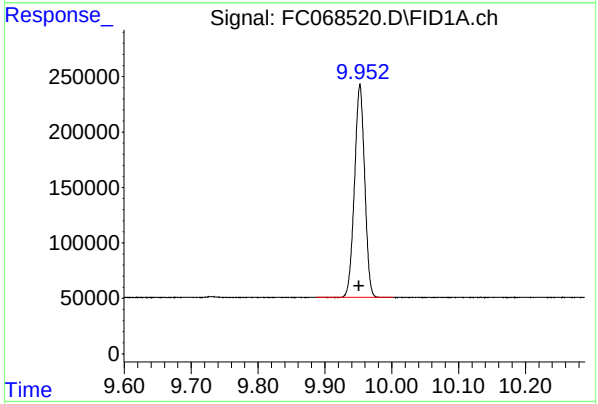
R.T.: 7.182 min
Delta R.T.: 0.001 min
Response: 2340318
Conc: 20.26 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV



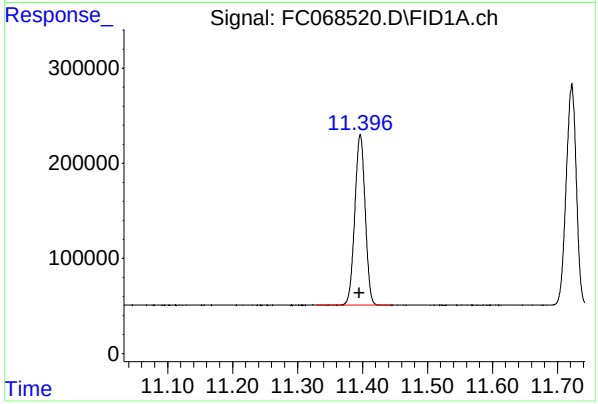
#6 n-Tetradecane (C14)

R.T.: 8.349 min
Delta R.T.: 0.000 min
Response: 2073539
Conc: 20.17 ug/ml



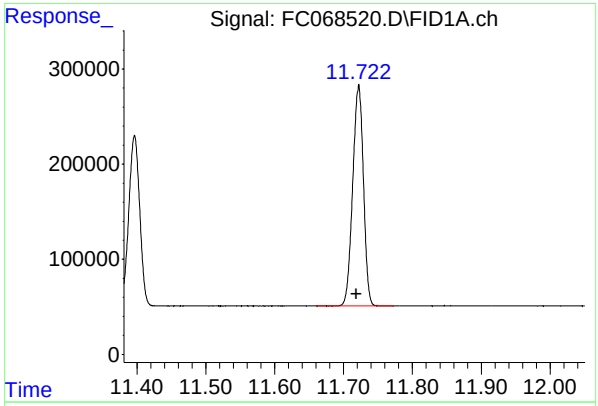
#7 n-Hexadecane (C16)

R.T.: 9.952 min
Delta R.T.: 0.001 min
Response: 2031391
Conc: 19.95 ug/ml



#8 n-Octadecane (C18)

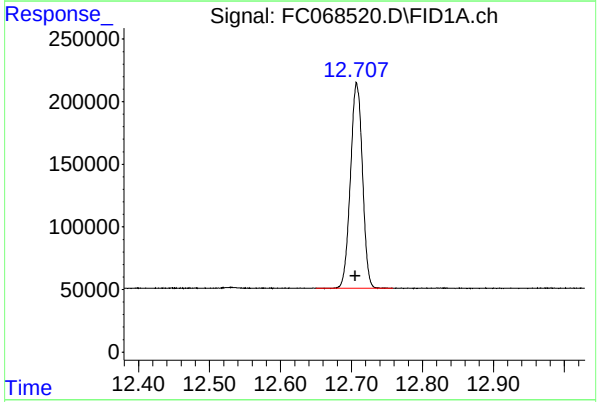
R.T.: 11.397 min
Delta R.T.: 0.002 min
Response: 1983646
Conc: 19.71 ug/ml



#9 ortho-Terphenyl (SURR)

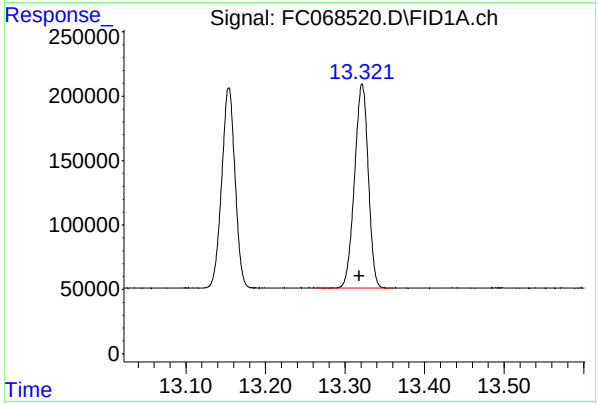
R.T.: 11.722 min
Delta R.T.: 0.003 min
Response: 2509889
Conc: 19.71 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV



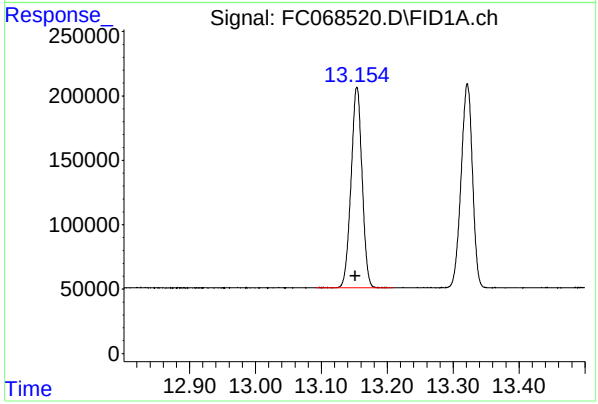
#10 n-Eicosane (C20)

R.T.: 12.708 min
Delta R.T.: 0.002 min
Response: 1924584
Conc: 19.57 ug/ml



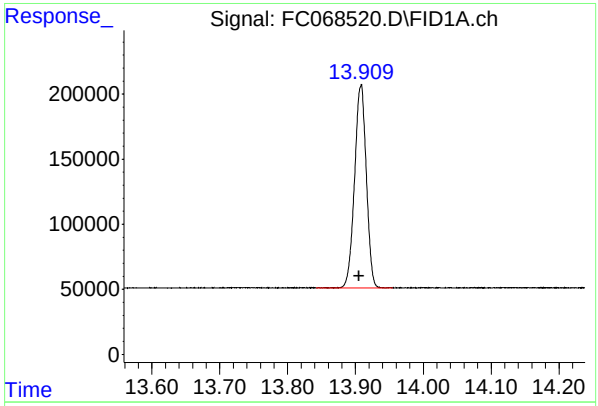
#11 n-Heneicosane (C21)

R.T.: 13.322 min
Delta R.T.: 0.004 min
Response: 1900069
Conc: 19.50 ug/ml



#12 1-chlorooctadecane (SURR)

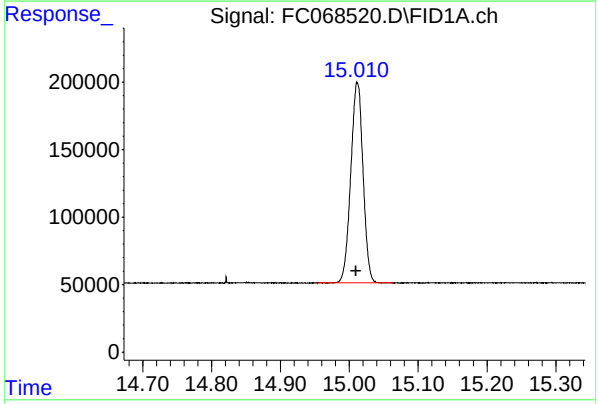
R.T.: 13.154 min
Delta R.T.: 0.002 min
Response: 1813783
Conc: 19.53 ug/ml



#13 n-Docosane (C22)

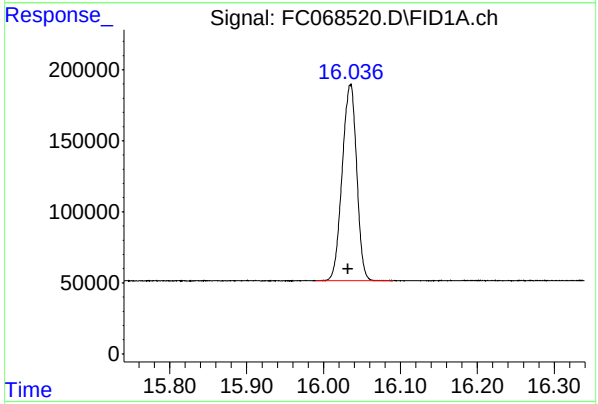
R.T.: 13.908 min
Delta R.T.: 0.003 min
Response: 1874678
Conc: 19.41 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV



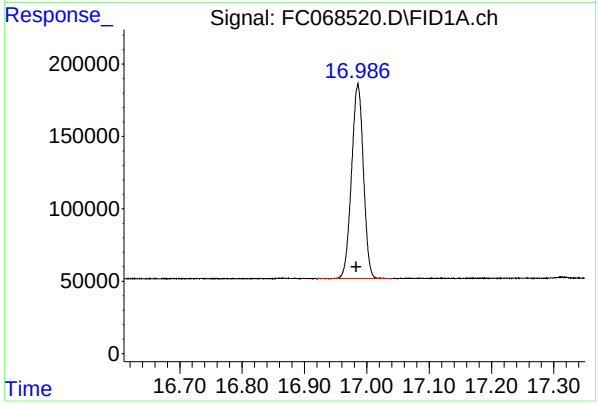
#14 n-Tetracosane (C24)

R.T.: 15.012 min
Delta R.T.: 0.002 min
Response: 1840193
Conc: 19.33 ug/ml



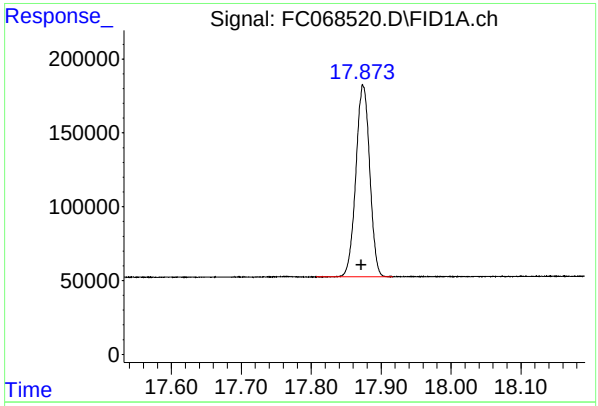
#15 n-Hexacosane (C26)

R.T.: 16.035 min
Delta R.T.: 0.003 min
Response: 1805920
Conc: 19.33 ug/ml



#16 n-Octacosane (C28)

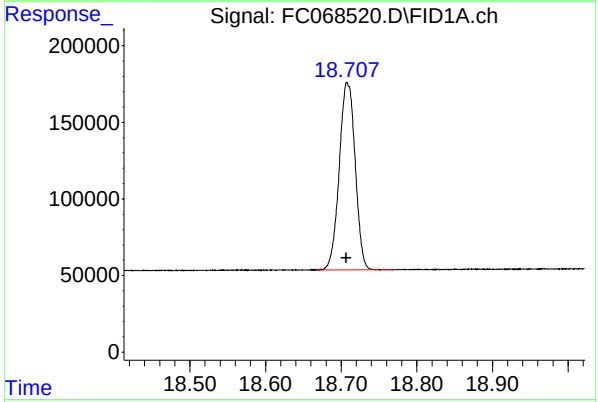
R.T.: 16.986 min
Delta R.T.: 0.002 min
Response: 1775159
Conc: 19.39 ug/ml



#17 n-Tricontane (C30)

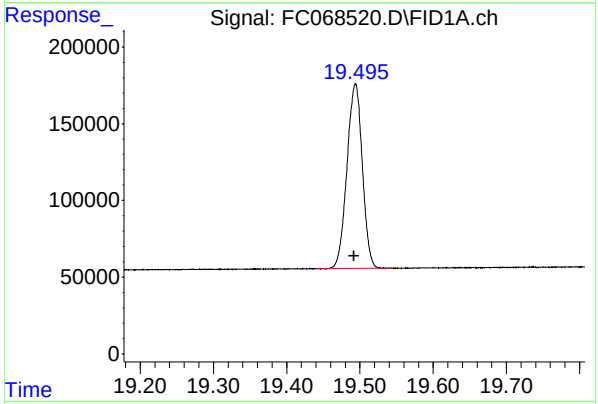
R.T.: 17.874 min
Delta R.T.: 0.003 min
Response: 1789949
Conc: 19.47 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV



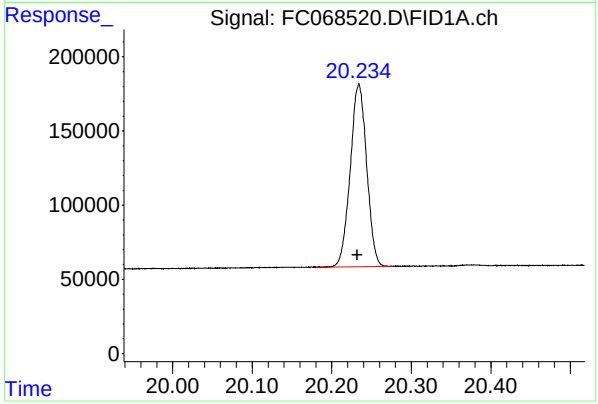
#18 n-Dotriacontane (C32)

R.T.: 18.709 min
Delta R.T.: 0.002 min
Response: 1790701
Conc: 19.52 ug/ml



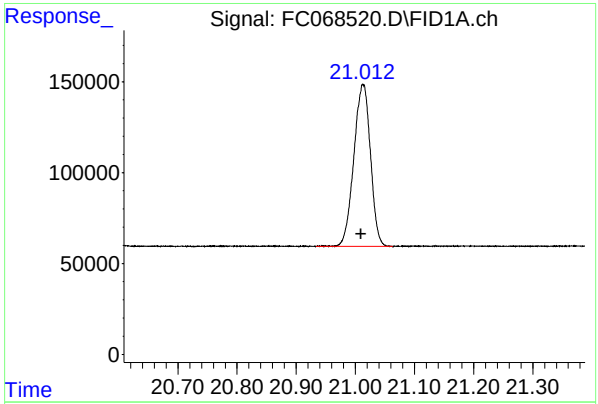
#19 n-Tetratriacontane (C34)

R.T.: 19.494 min
Delta R.T.: 0.002 min
Response: 1754814
Conc: 19.64 ug/ml



#20 n-Hexatriacontane (C36)

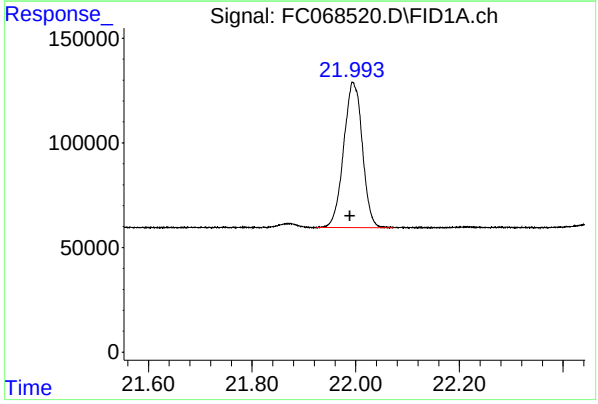
R.T.: 20.234 min
Delta R.T.: 0.002 min
Response: 1766416
Conc: 19.72 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 21.013 min
Delta R.T.: 0.004 min
Response: 1737168
Conc: 19.65 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV



#22 n-Tetracontane (C40)

R.T.: 21.995 min
Delta R.T.: 0.006 min
Response: 1737661
Conc: 19.68 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC040925AL\
Data File : FC068520.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 17:26
Sample : 20 PPM ALIPHATIC HC STD ICV
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.450	3.397	3.492	BV	261815	2152986	85.78%	4.977%
2	4.526	4.470	4.562	BB	246519	2151620	85.73%	4.973%
3	6.124	6.065	6.189	BB	259162	2370053	94.43%	5.478%
4	6.551	6.495	6.597	BB	221869	2138499	85.20%	4.943%
5	7.182	7.115	7.249	BB	248160	2340318	93.24%	5.410%
6	8.349	8.292	8.384	BB	197952	2073539	82.61%	4.793%
7	9.952	9.887	10.002	BB	191548	2031391	80.94%	4.695%
8	11.397	11.329	11.447	BB	179415	1983646	79.03%	4.585%
9	11.722	11.660	11.772	BB	230868	2509889	100.00%	5.801%
10	12.708	12.650	12.759	BB	163927	1924584	76.68%	4.449%
11	13.154	13.092	13.209	BB	155654	1813783	72.27%	4.192%
12	13.322	13.264	13.360	BB	158466	1900069	75.70%	4.392%
13	13.908	13.842	13.955	BB	156193	1874678	74.69%	4.333%
14	15.012	14.952	15.064	BB	148360	1840193	73.32%	4.254%
15	16.035	15.990	16.090	BB	138007	1805920	71.95%	4.174%
16	16.986	16.919	17.042	BB	133594	1775159	70.73%	4.103%
17	17.874	17.807	17.917	BB	130326	1789949	71.32%	4.137%
18	18.709	18.667	18.769	BB	121479	1790701	71.35%	4.139%
19	19.494	19.440	19.545	BB	120222	1754814	69.92%	4.056%
20	20.234	20.180	20.277	BB	122561	1766416	70.38%	4.083%
21	21.013	20.934	21.064	BB	88867	1737168	69.21%	4.015%
22	21.995	21.924	22.072	BB	69207	1737661	69.23%	4.017%
			Sum of corrected areas:			43263036		

Aliphatic EPH 040925.M Wed Apr 09 02:04:39 2025

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

Inital Calibration Report for SequenceID : FC050625AL

AreaCount

Parameter Range	FC068781.D	FC068782.D	FC068783.D	FC068784.D	FC068785.D	
Aliphatic C9-C12	27880831.000	14168342.000	6134963.000	3195282.000	1492730.000	
Aliphatic C12-C16	16912815.000	8652812.000	3764747.000	1956091.000	919066.000	
Aliphatic C16-C21	23844810.000	12210662.000	5322269.000	2761699.000	1307311.000	
Aliphatic C21-C28	31086803.000	15724596.000	6816713.000	3578057.000	1689101.000	
Aliphatic C28-C40	47720501.000	24011560.000	10345705.000	5495913.000	2571840.000	
Aliphatic EPH	147445760.000	74767972.000	32384397.000	16987042.000	7980048.000	

AVG Response Factor

Parameter Range	AVG RF	% RSD				
Aliphatic C9-C12	99133.1666664	5.629				
Aliphatic C12-C16	90984.404	5.976				
Aliphatic C16-C21	85760.459333	6.077				
Aliphatic C21-C28	83091.075	5.885				
Aliphatic C28-C40	84622.6919998	5.889				
Aliphatic EPH	87597.2298886	5.859				

Concentration

Parameter Range	FC068781.D	FC068782.D	FC068783.D	FC068784.D	FC068785.D	
Aliphatic C9-C12	300.000	150.000	60.000	30.000	15.000	
Aliphatic C12-C16	200.000	100.000	40.000	20.000	10.000	
Aliphatic C16-C21	300.000	150.000	60.000	30.000	15.000	
Aliphatic C21-C28	400.000	200.000	80.000	40.000	20.000	
Aliphatic C28-C40	600.000	300.000	120.000	60.000	30.000	
Aliphatic EPH	1800.000	900.000	360.000	180.000	90.000	

Response Factor

Parameter Range	FC068781.D	FC068782.D	FC068783.D	FC068784.D	FC068785.D	
Aliphatic C9-C12	92936.103333	94455.613333	102249.383333	106509.400000	99515.333333	
Aliphatic C12-C16	84564.075000	86528.120000	94118.675000	97804.550000	91906.600000	
Aliphatic C16-C21	79482.700000	81404.413333	88704.483333	92056.633333	87154.066666	

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

Inital Calibration Report for SequenceID : FC050625AL

Aliphatic C21-C28	77717.007500	78622.980000	85208.912500	89451.425000	84455.050000	
Aliphatic C28-C40	79534.168333	80038.533333	86214.208333	91598.550000	85728.000000	
Aliphatic EPH	81914.311111	83075.524444	89956.658333	94372.455555	88667.200000	

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068781.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 15:33
Operator : YP/AJ
Sample : 100 PPM ALIPHATIC HC STD1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1

Integration File: autoint1.e
Quant Time: May 07 08:36:16 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:32:40 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9)	S ortho-Terphenyl (SURR)	11.719	10663591	90.357 ug/ml
Spiked Amount	50.000		Recovery =	180.71%
12)	S 1-chlorooctadecane (S...	13.148	7506812	90.440 ug/ml
Spiked Amount	50.000		Recovery =	180.88%
	Target Compounds			
1)	T n-Nonane (C9)	3.446	9452990	91.096 ug/ml
2)	T n-Decane (C10)	4.522	9350074	91.009 ug/ml
3)	T A~Naphthalene (C11.7)	6.120	10375040	91.117 ug/ml
4)	T n-Dodecane (C12)	6.547	9077767	90.560 ug/ml
5)	T A~2-methylnaphthalene...	7.179	10106516	90.819 ug/ml
6)	T n-Tetradecane (C14)	8.345	8598731	90.089 ug/ml
7)	T n-Hexadecane (C16)	9.948	8314084	89.600 ug/ml
8)	T n-Octadecane (C18)	11.393	8110111	89.374 ug/ml
10)	T n-Eicosane (C20)	12.703	7900541	89.681 ug/ml
11)	T n-Heneicosane (C21)	13.316	7834158	89.765 ug/ml
13)	T n-Docosane (C22)	13.902	7786407	90.161 ug/ml
14)	T n-Tetracosane (C24)	15.007	7763690	90.799 ug/ml
15)	T n-Hexacosane (C26)	16.028	7766538	91.654 ug/ml
16)	T n-Octacosane (C28)	16.979	7770168	92.247 ug/ml
17)	T n-Tricontane (C30)	17.869	7942026	92.146 ug/ml
18)	T n-Dotriacontane (C32)	18.703	8053843	92.130 ug/ml
19)	T n-Tetratriacontane (C34)	19.488	7971732	92.003 ug/ml
20)	T n-Hexatriacontane (C36)	20.229	8070568	92.069 ug/ml
21)	T n-Octatriacontane (C38)	21.005	7905156	92.304 ug/ml
22)	T n-Tetracontane (C40)	21.984	7777176	92.883 ug/ml

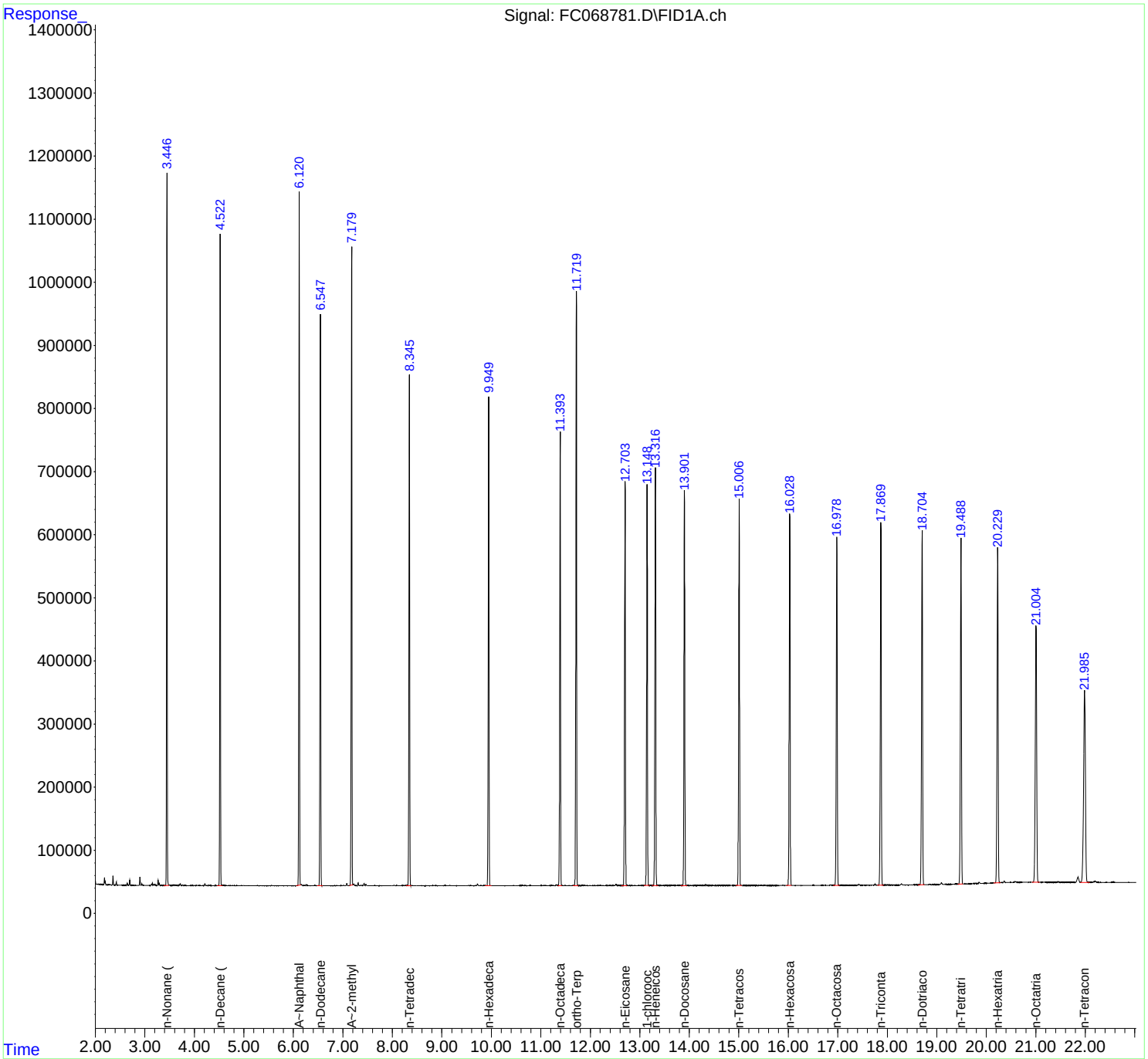
(f)=RT Delta > 1/2 Window (m)=manual int.

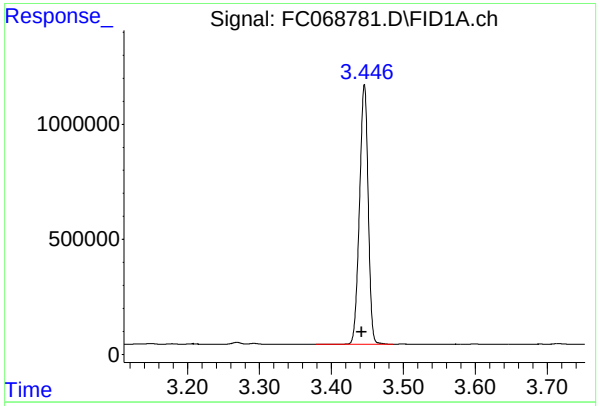
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068781.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 15:33
Operator : YP/AJ
Sample : 100 PPM ALIPHATIC HC STD1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1

Integration File: autoint1.e
Quant Time: May 07 08:36:16 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:32:40 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

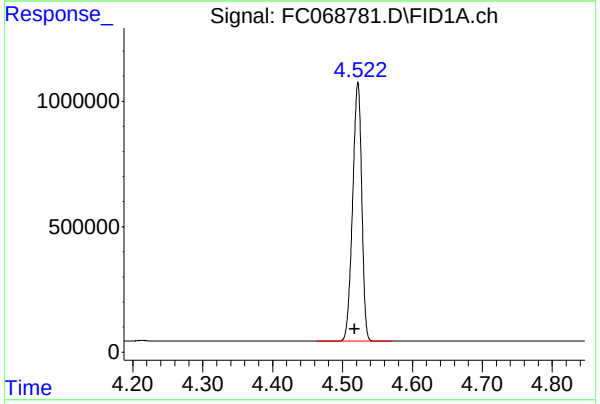




#1 n-Nonane (C9)

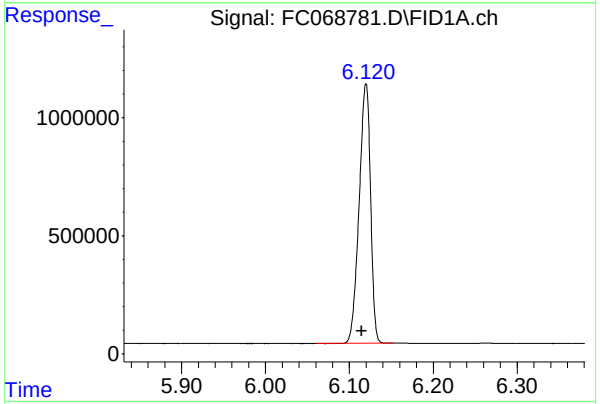
R.T.: 3.446 min
Delta R.T.: 0.004 min
Response: 9452990
Conc: 91.10 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



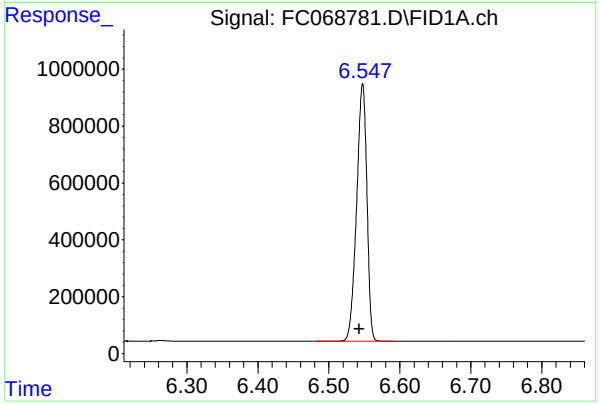
#2 n-Decane (C10)

R.T.: 4.522 min
Delta R.T.: 0.004 min
Response: 9350074
Conc: 91.01 ug/ml



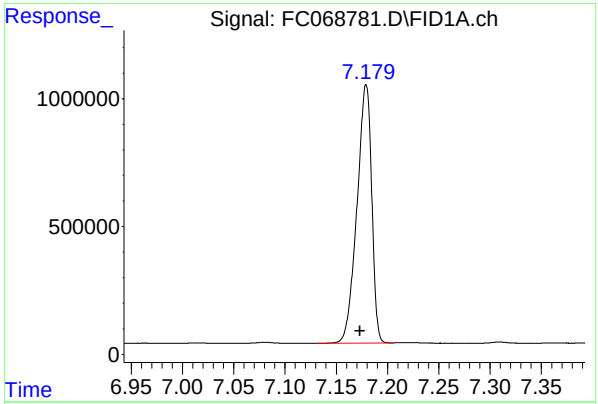
#3 A~Naphthalene (C11.7)

R.T.: 6.120 min
Delta R.T.: 0.005 min
Response: 10375040
Conc: 91.12 ug/ml



#4 n-Dodecane (C12)

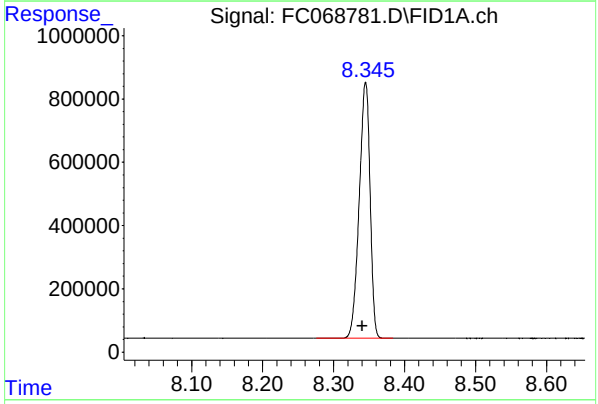
R.T.: 6.547 min
Delta R.T.: 0.004 min
Response: 9077767
Conc: 90.56 ug/ml



#5 A~2-methylnaphthalene (C12.89)

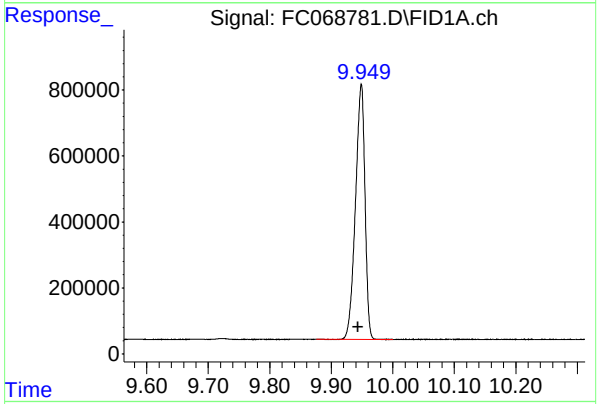
R.T.: 7.179 min
Delta R.T.: 0.006 min
Response: 10106516
Conc: 90.82 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



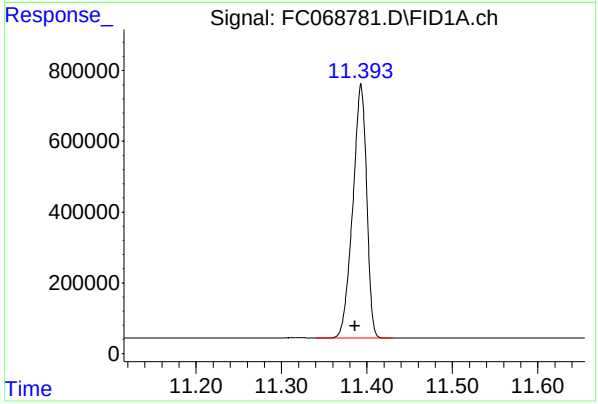
#6 n-Tetradecane (C14)

R.T.: 8.345 min
Delta R.T.: 0.004 min
Response: 8598731
Conc: 90.09 ug/ml



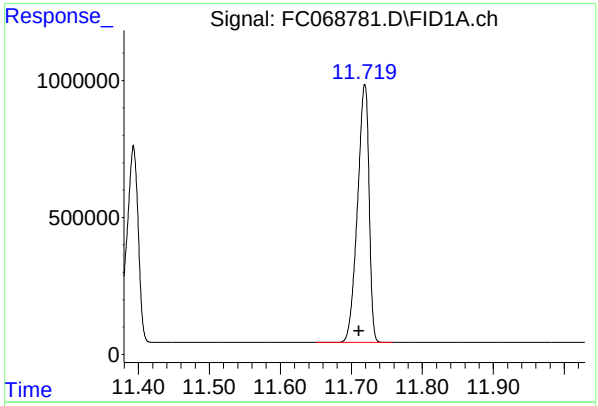
#7 n-Hexadecane (C16)

R.T.: 9.948 min
Delta R.T.: 0.005 min
Response: 8314084
Conc: 89.60 ug/ml



#8 n-Octadecane (C18)

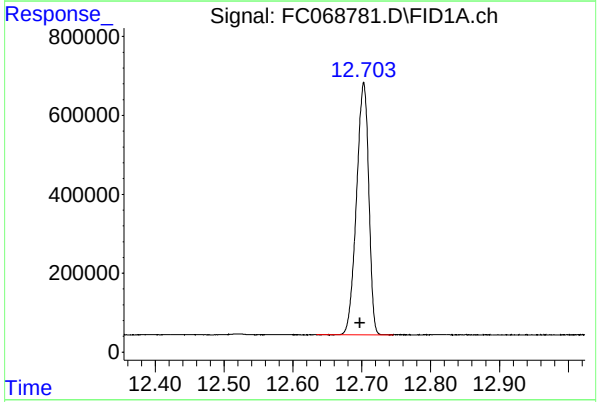
R.T.: 11.393 min
Delta R.T.: 0.007 min
Response: 8110111
Conc: 89.37 ug/ml



#9 ortho-Terphenyl (SURR)

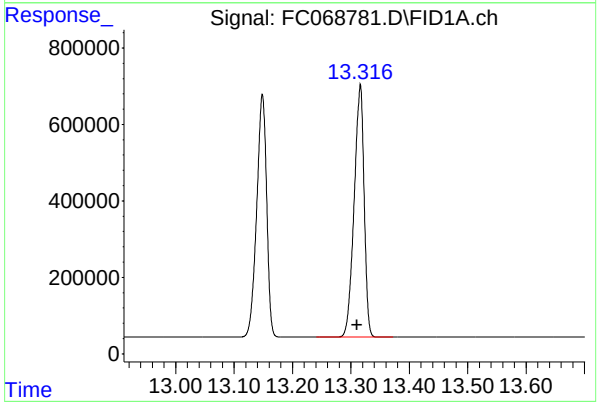
R.T.: 11.719 min
Delta R.T.: 0.008 min
Response: 10663591
Conc: 90.36 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



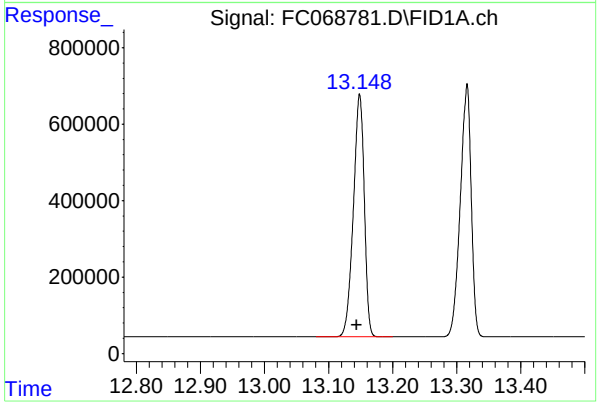
#10 n-Eicosane (C20)

R.T.: 12.703 min
Delta R.T.: 0.005 min
Response: 7900541
Conc: 89.68 ug/ml



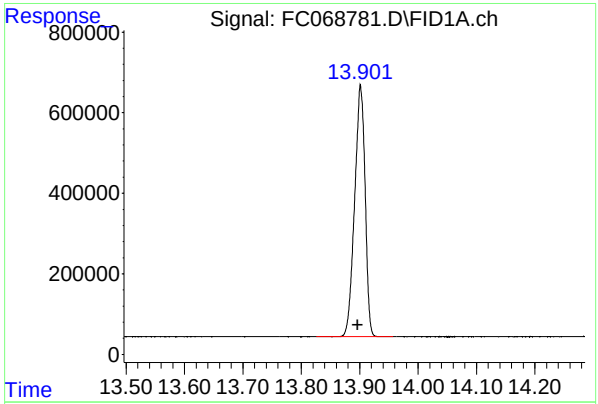
#11 n-Heneicosane (C21)

R.T.: 13.316 min
Delta R.T.: 0.005 min
Response: 7834158
Conc: 89.77 ug/ml



#12 1-chlorooctadecane (SURR)

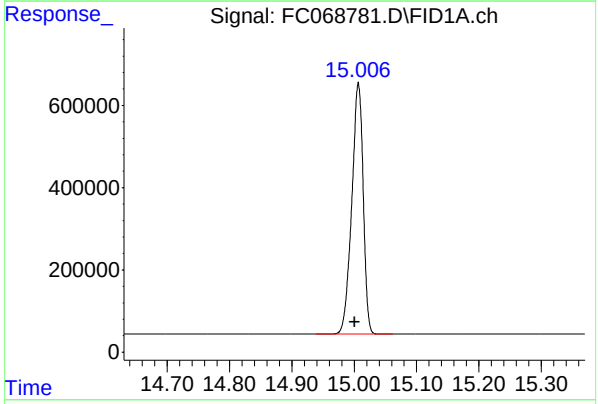
R.T.: 13.148 min
Delta R.T.: 0.004 min
Response: 7506812
Conc: 90.44 ug/ml



#13 n-Docosane (C22)

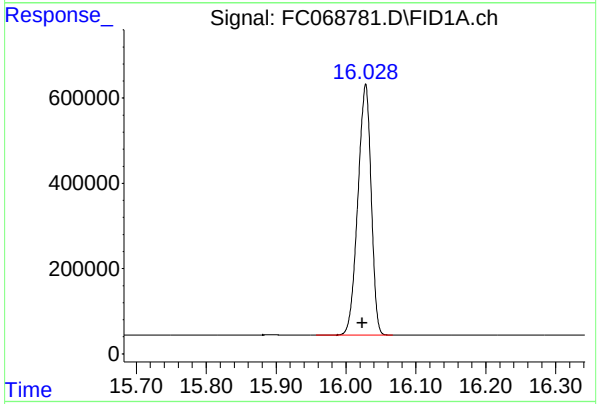
R.T.: 13.902 min
Delta R.T.: 0.005 min
Response: 7786407
Conc: 90.16 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



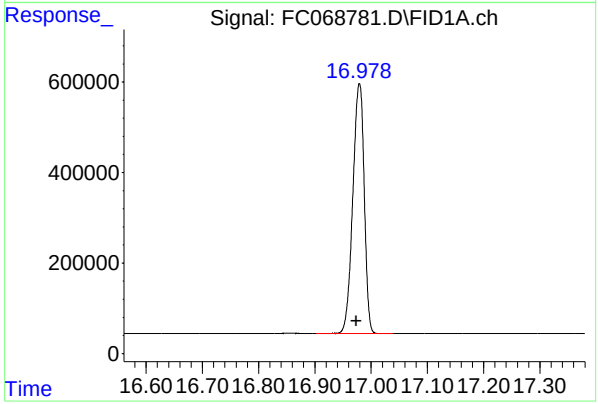
#14 n-Tetracosane (C24)

R.T.: 15.007 min
Delta R.T.: 0.006 min
Response: 7763690
Conc: 90.80 ug/ml



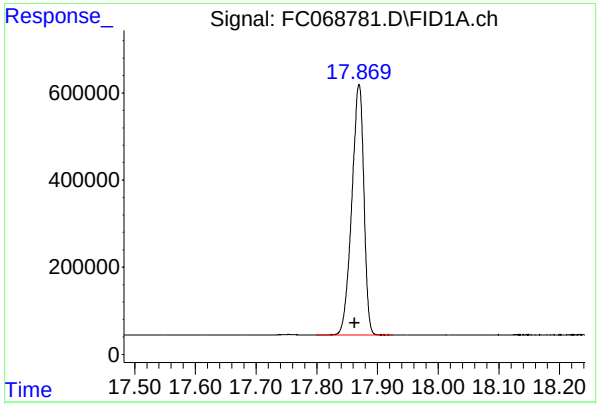
#15 n-Hexacosane (C26)

R.T.: 16.028 min
Delta R.T.: 0.005 min
Response: 7766538
Conc: 91.65 ug/ml



#16 n-Octacosane (C28)

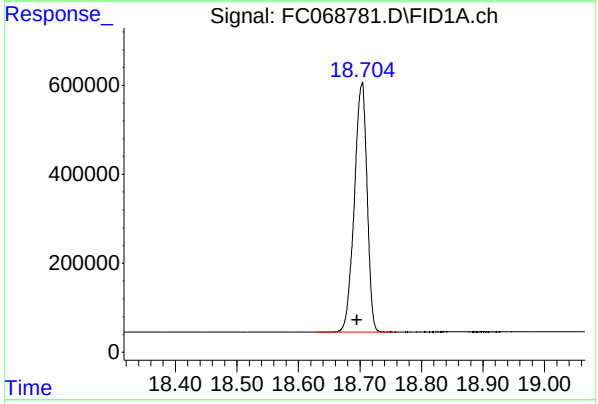
R.T.: 16.979 min
Delta R.T.: 0.005 min
Response: 7770168
Conc: 92.25 ug/ml



#17 n-Tricontane (C30)

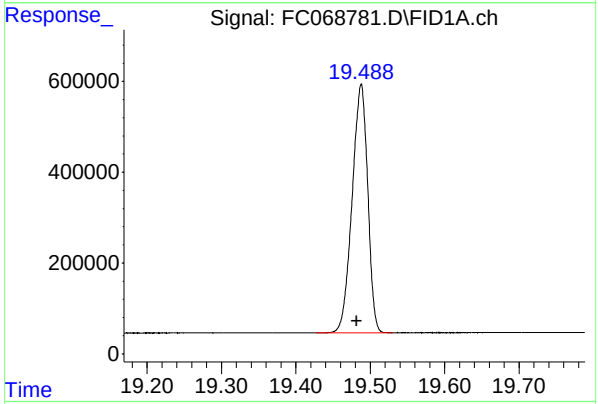
R.T.: 17.869 min
Delta R.T.: 0.007 min
Response: 7942026
Conc: 92.15 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



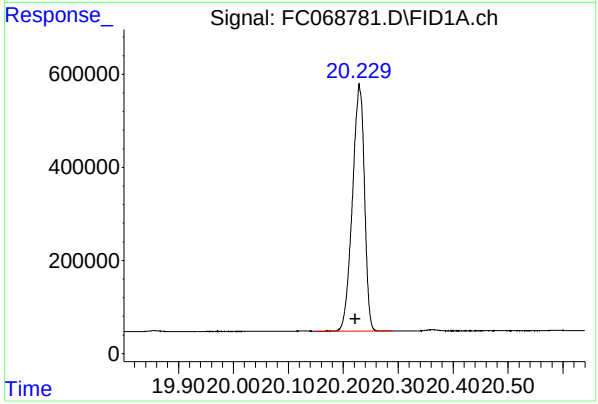
#18 n-Dotriacontane (C32)

R.T.: 18.703 min
Delta R.T.: 0.007 min
Response: 8053843
Conc: 92.13 ug/ml



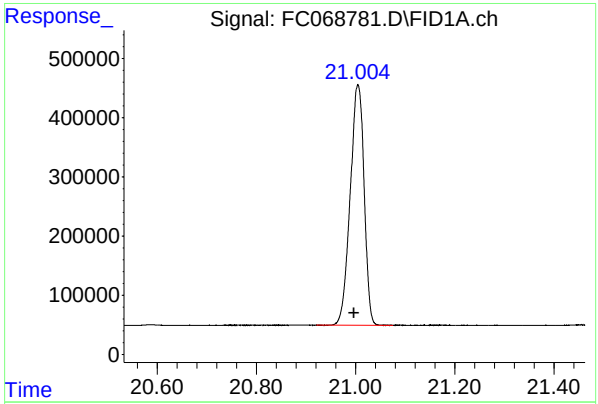
#19 n-Tetratriacontane (C34)

R.T.: 19.488 min
Delta R.T.: 0.006 min
Response: 7971732
Conc: 92.00 ug/ml



#20 n-Hexatriacontane (C36)

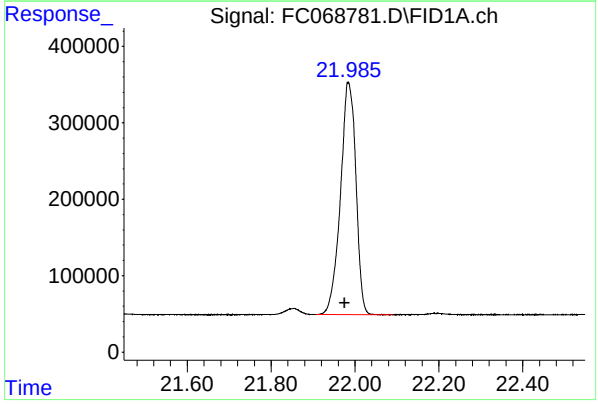
R.T.: 20.229 min
Delta R.T.: 0.007 min
Response: 8070568
Conc: 92.07 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 21.005 min
Delta R.T.: 0.008 min
Response: 7905156
Conc: 92.30 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



#22 n-Tetracontane (C40)

R.T.: 21.984 min
Delta R.T.: 0.009 min
Response: 7777176
Conc: 92.88 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068781.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 15:33
Sample : 100 PPM ALIPHATIC HC STD1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.446	3.379	3.486	BV	1129688	9452990	88.65%	5.080%
2	4.522	4.462	4.572	BB	1035042	9350074	87.68%	5.024%
3	6.120	6.060	6.152	BV	1096833	10375040	97.29%	5.575%
4	6.547	6.482	6.590	BB	904836	9077767	85.13%	4.878%
5	7.179	7.130	7.205	BV	1013537	10106516	94.78%	5.431%
6	8.345	8.275	8.384	BB	810803	8598731	80.64%	4.621%
7	9.948	9.875	10.000	BB	775582	8314084	77.97%	4.468%
8	11.393	11.340	11.430	BB	717485	8110111	76.05%	4.358%
9	11.719	11.650	11.759	BB	944228	10663591	100.00%	5.730%
10	12.703	12.634	12.745	BB	638688	7900541	74.09%	4.245%
11	13.148	13.080	13.200	BB	635291	7506812	70.40%	4.034%
12	13.316	13.240	13.372	BB	656730	7834158	73.47%	4.210%
13	13.902	13.825	13.957	BB	619594	7786407	73.02%	4.184%
14	15.007	14.939	15.062	BB	610530	7763690	72.81%	4.172%
15	16.028	15.957	16.067	BB	591954	7766538	72.83%	4.173%
16	16.979	16.902	17.039	BB	553331	7770168	72.87%	4.175%
17	17.869	17.799	17.925	BB	573859	7942026	74.48%	4.268%
18	18.703	18.629	18.754	BB	555957	8053843	75.53%	4.328%
19	19.488	19.427	19.530	BB	547546	7971732	74.76%	4.284%
20	20.229	20.150	20.290	BB	529354	8070568	75.68%	4.337%
21	21.005	20.920	21.075	BB	406107	7905156	74.13%	4.248%
22	21.984	21.907	22.090	VB	302688	7777176	72.93%	4.179%
			Sum of corrected areas:			186097717		

Aliphatic EPH 050625.M Wed May 07 09:07:08 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068782.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 16:11
Operator : YP/AJ
Sample : 50 PPM ALIPHATIC HC STD2
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2

Integration File: autoint1.e
Quant Time: May 07 08:36:38 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:32:40 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	ortho-Terphenyl (SURR)	11.714	5441207	46.106 ug/ml
Spiked Amount	50.000		Recovery =	92.21%
12) S	1-chlorooctadecane (S...	13.145	3828109	46.120 ug/ml
Spiked Amount	50.000		Recovery =	92.24%
	Target Compounds			
1) T	n-Nonane (C9)	3.444	4793918	46.198 ug/ml
2) T	n-Decane (C10)	4.519	4749857	46.233 ug/ml
3) T	A~Naphthalene (C11.7)	6.116	5278650	46.359 ug/ml
4) T	n-Dodecane (C12)	6.545	4624567	46.135 ug/ml
5) T	A~2-methylnaphthalene...	7.175	5122386	46.031 ug/ml
6) T	n-Tetradecane (C14)	8.342	4394825	46.045 ug/ml
7) T	n-Hexadecane (C16)	9.945	4257987	45.888 ug/ml
8) T	n-Octadecane (C18)	11.389	4159655	45.839 ug/ml
10) T	n-Eicosane (C20)	12.698	4047839	45.948 ug/ml
11) T	n-Heneicosane (C21)	13.312	4003168	45.869 ug/ml
13) T	n-Docosane (C22)	13.898	3969368	45.962 ug/ml
14) T	n-Tetracosane (C24)	15.002	3939821	46.077 ug/ml
15) T	n-Hexacosane (C26)	16.024	3918274	46.240 ug/ml
16) T	n-Octacosane (C28)	16.976	3897133	46.267 ug/ml
17) T	n-Tricontane (C30)	17.865	3988283	46.273 ug/ml
18) T	n-Dotriacontane (C32)	18.698	4044691	46.268 ug/ml
19) T	n-Tetratriacontane (C34)	19.483	4012023	46.303 ug/ml
20) T	n-Hexatriacontane (C36)	20.224	4065667	46.381 ug/ml
21) T	n-Octatriacontane (C38)	21.000	3986154	46.544 ug/ml
22) T	n-Tetracontane (C40)	21.980	3914742	46.754 ug/ml

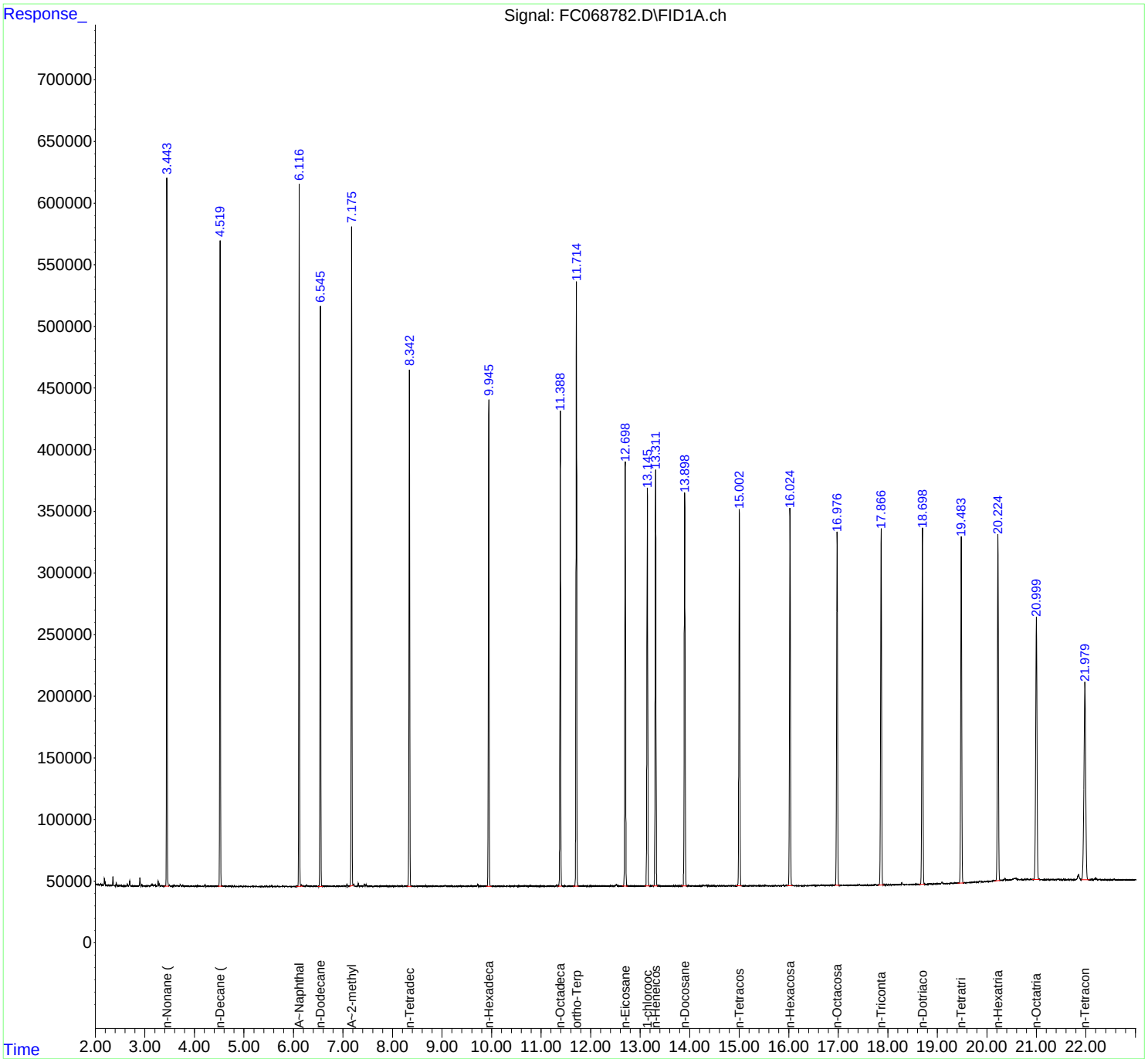
(f)=RT Delta > 1/2 Window (m)=manual int.

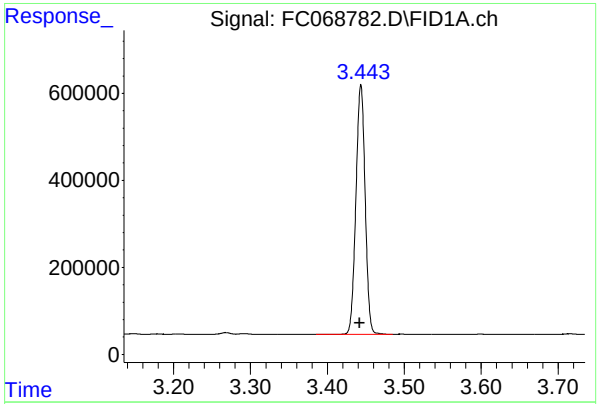
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068782.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 16:11
Operator : YP/AJ
Sample : 50 PPM ALIPHATIC HC STD2
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2

Integration File: autoint1.e
Quant Time: May 07 08:36:38 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:32:40 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

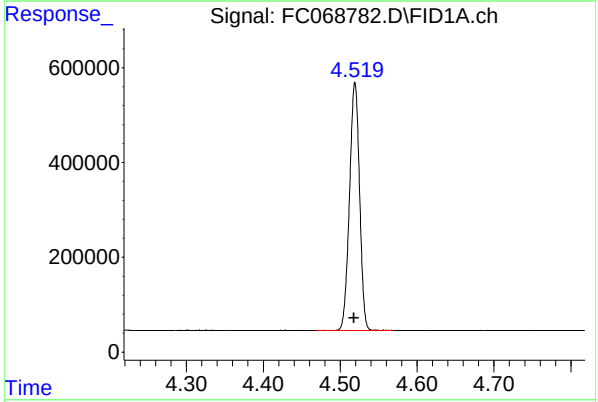




#1 n-Nonane (C9)

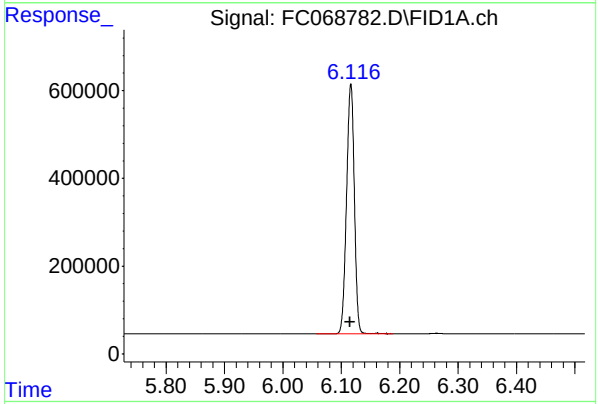
R.T.: 3.444 min
Delta R.T.: 0.002 min
Response: 4793918
Conc: 46.20 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



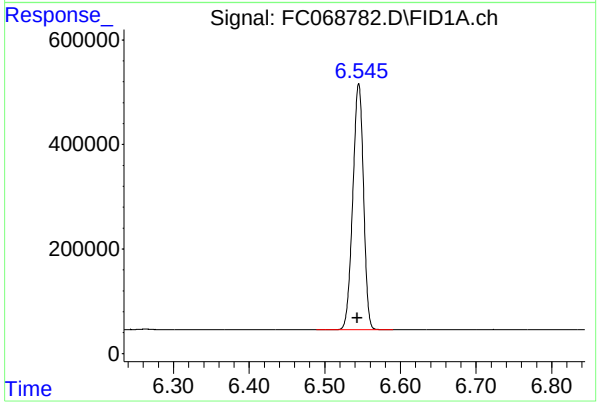
#2 n-Decane (C10)

R.T.: 4.519 min
Delta R.T.: 0.001 min
Response: 4749857
Conc: 46.23 ug/ml



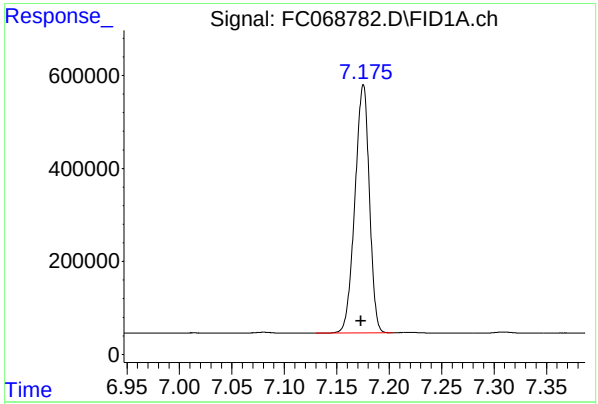
#3 A~Naphthalene (C11.7)

R.T.: 6.116 min
Delta R.T.: 0.002 min
Response: 5278650
Conc: 46.36 ug/ml



#4 n-Dodecane (C12)

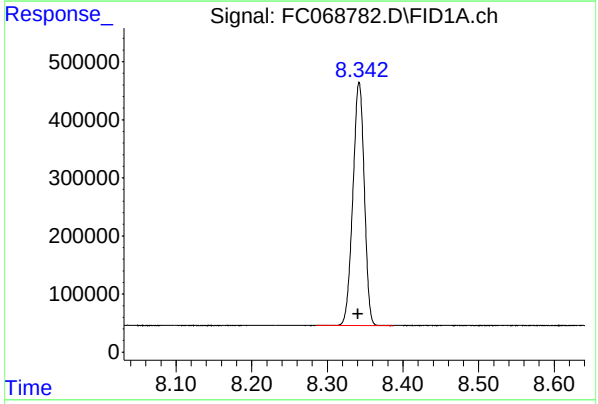
R.T.: 6.545 min
Delta R.T.: 0.002 min
Response: 4624567
Conc: 46.13 ug/ml



#5 A~2-methylnaphthalene (C12.89)

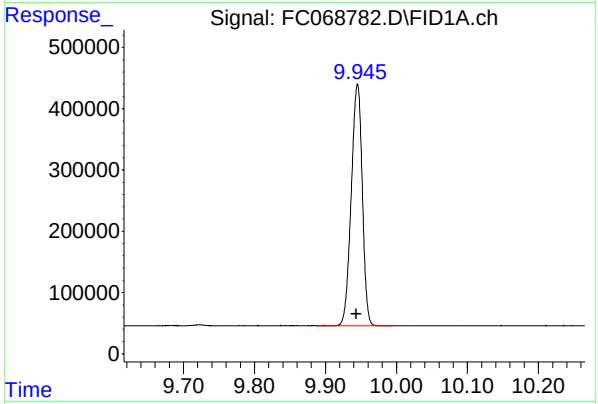
R.T.: 7.175 min
Delta R.T.: 0.002 min
Response: 5122386
Conc: 46.03 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



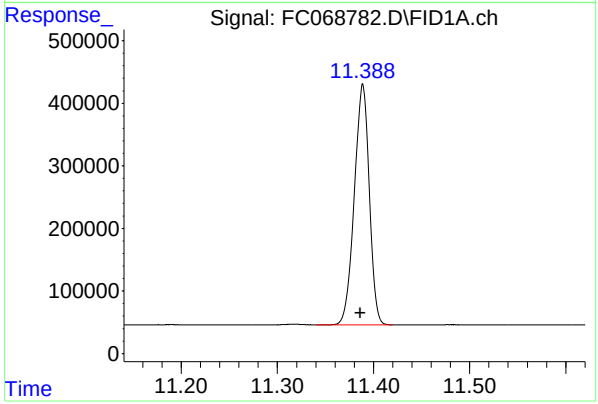
#6 n-Tetradecane (C14)

R.T.: 8.342 min
Delta R.T.: 0.001 min
Response: 4394825
Conc: 46.04 ug/ml



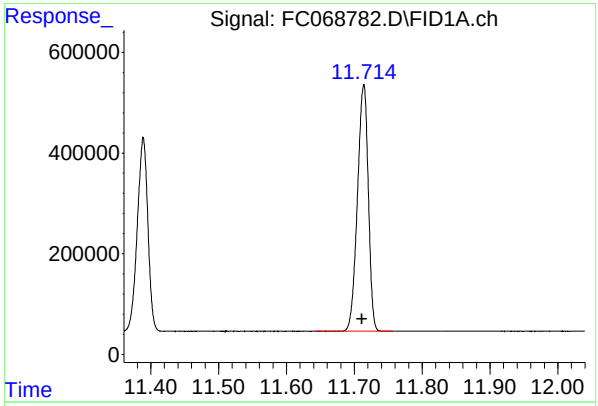
#7 n-Hexadecane (C16)

R.T.: 9.945 min
Delta R.T.: 0.001 min
Response: 4257987
Conc: 45.89 ug/ml



#8 n-Octadecane (C18)

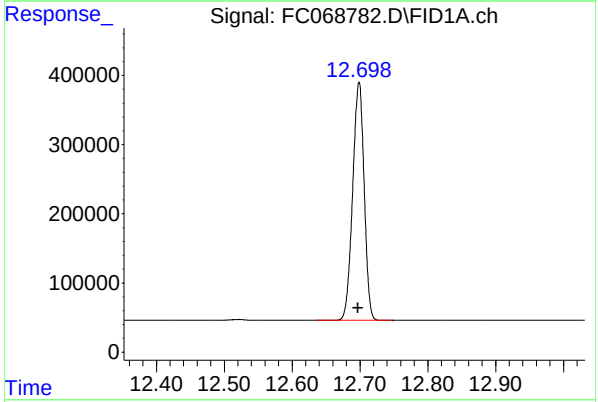
R.T.: 11.389 min
Delta R.T.: 0.003 min
Response: 4159655
Conc: 45.84 ug/ml



#9 ortho-Terphenyl (SURR)

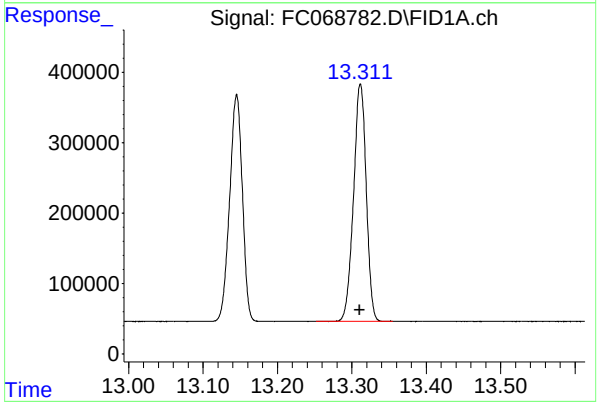
R.T.: 11.714 min
Delta R.T.: 0.003 min
Response: 5441207
Conc: 46.11 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



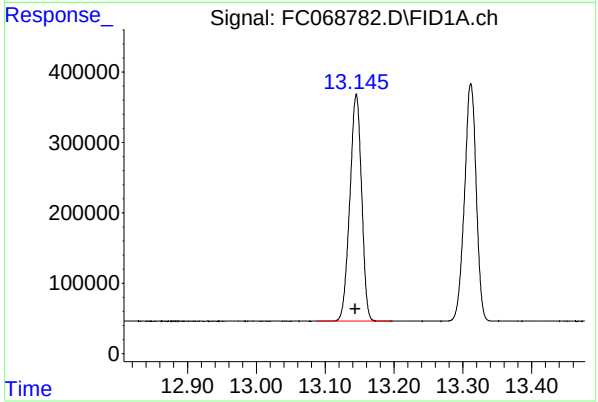
#10 n-Eicosane (C20)

R.T.: 12.698 min
Delta R.T.: 0.001 min
Response: 4047839
Conc: 45.95 ug/ml



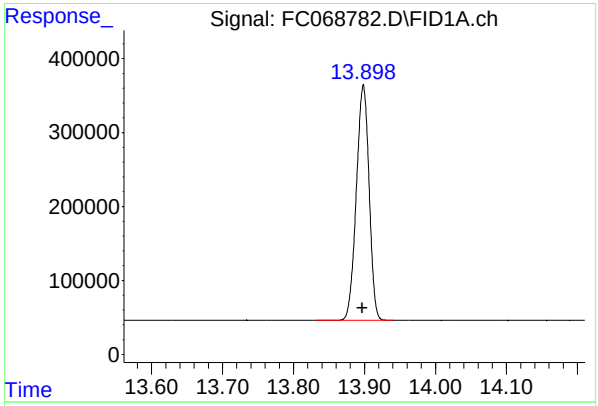
#11 n-Heneicosane (C21)

R.T.: 13.312 min
Delta R.T.: 0.001 min
Response: 4003168
Conc: 45.87 ug/ml



#12 1-chlorooctadecane (SURR)

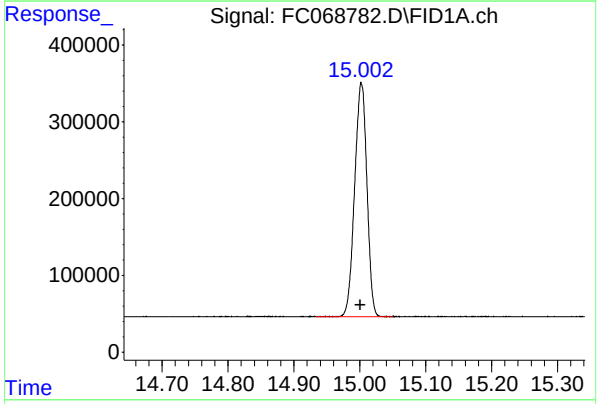
R.T.: 13.145 min
Delta R.T.: 0.001 min
Response: 3828109
Conc: 46.12 ug/ml



#13 n-Docosane (C22)

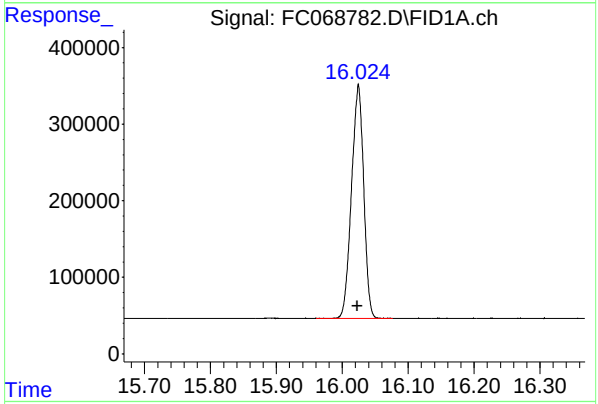
R.T.: 13.898 min
Delta R.T.: 0.002 min
Response: 3969368
Conc: 45.96 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



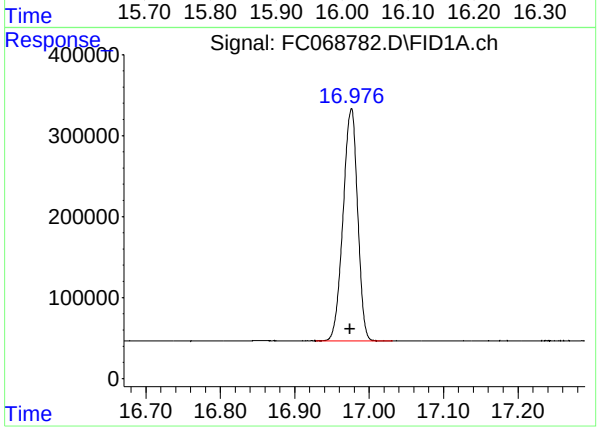
#14 n-Tetracosane (C24)

R.T.: 15.002 min
Delta R.T.: 0.002 min
Response: 3939821
Conc: 46.08 ug/ml



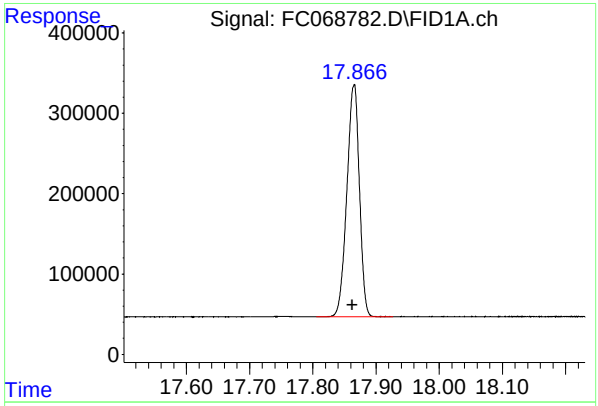
#15 n-Hexacosane (C26)

R.T.: 16.024 min
Delta R.T.: 0.001 min
Response: 3918274
Conc: 46.24 ug/ml



#16 n-Octacosane (C28)

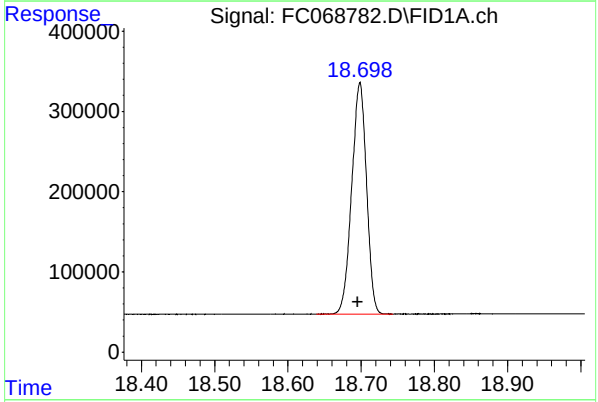
R.T.: 16.976 min
Delta R.T.: 0.002 min
Response: 3897133
Conc: 46.27 ug/ml



#17 n-Tricontane (C30)

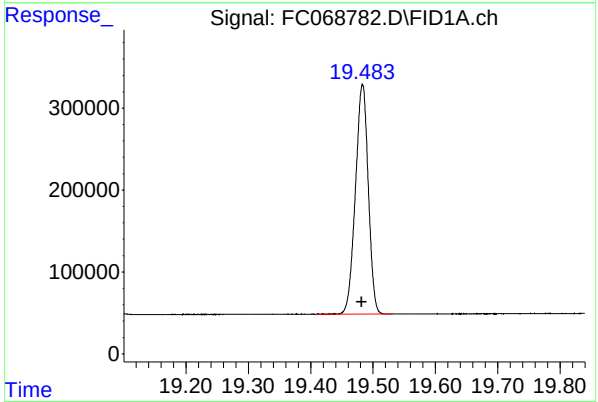
R.T.: 17.865 min
Delta R.T.: 0.003 min
Response: 3988283
Conc: 46.27 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



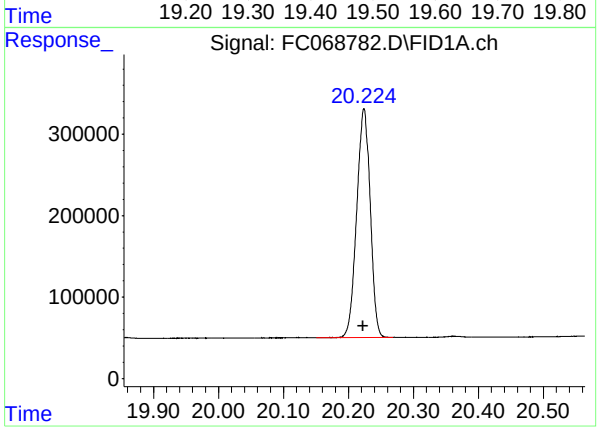
#18 n-Dotriacontane (C32)

R.T.: 18.698 min
Delta R.T.: 0.003 min
Response: 4044691
Conc: 46.27 ug/ml



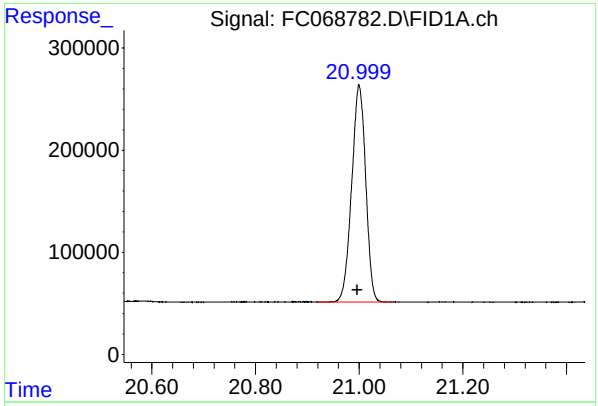
#19 n-Tetratriacontane (C34)

R.T.: 19.483 min
Delta R.T.: 0.001 min
Response: 4012023
Conc: 46.30 ug/ml



#20 n-Hexatriacontane (C36)

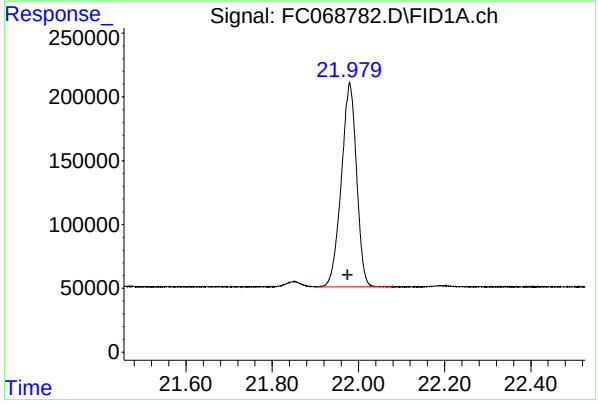
R.T.: 20.224 min
Delta R.T.: 0.001 min
Response: 4065667
Conc: 46.38 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 21.000 min
Delta R.T.: 0.003 min
Response: 3986154
Conc: 46.54 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



#22 n-Tetracontane (C40)

R.T.: 21.980 min
Delta R.T.: 0.005 min
Response: 3914742
Conc: 46.75 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068782.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 16:11
Sample : 50 PPM ALIPHATIC HC STD2
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.444	3.385	3.485	BV	574667	4793918	88.10%	5.076%
2	4.519	4.469	4.569	BB	523128	4749857	87.29%	5.030%
3	6.116	6.057	6.189	BB	572205	5278650	97.01%	5.590%
4	6.545	6.489	6.590	BB	471329	4624567	84.99%	4.897%
5	7.175	7.130	7.204	BV	535416	5122386	94.14%	5.424%
6	8.342	8.285	8.387	BB	418679	4394825	80.77%	4.654%
7	9.945	9.887	9.995	BB	395436	4257987	78.25%	4.509%
8	11.389	11.340	11.420	BB	385218	4159655	76.45%	4.405%
9	11.714	11.644	11.757	BB	488432	5441207	100.00%	5.762%
10	12.699	12.635	12.749	BB	345120	4047839	74.39%	4.286%
11	13.145	13.087	13.199	BB	322558	3828109	70.35%	4.054%
12	13.312	13.252	13.355	BB	337391	4003168	73.57%	4.239%
13	13.898	13.832	13.940	BB	318990	3969368	72.95%	4.203%
14	15.002	14.934	15.050	BB	305123	3939821	72.41%	4.172%
15	16.024	15.960	16.077	BB	306028	3918274	72.01%	4.149%
16	16.976	16.929	17.032	BB	285617	3897133	71.62%	4.127%
17	17.865	17.805	17.927	BB	288468	3988283	73.30%	4.223%
18	18.698	18.639	18.744	BB	289046	4044691	74.33%	4.283%
19	19.483	19.409	19.532	BB	280526	4012023	73.73%	4.248%
20	20.224	20.150	20.269	BB	281259	4065667	74.72%	4.305%
21	21.000	20.917	21.065	BB	212347	3986154	73.26%	4.221%
22	21.980	21.902	22.080	PB	159997	3914742	71.95%	4.145%
			Sum of corrected areas:			94438323		

Aliphatic EPH 050625.M Wed May 07 09:07:49 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068783.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 16:48
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD3
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3

Integration File: autoint1.e
Quant Time: May 07 08:37:02 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:32:40 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9)	S ortho-Terphenyl (SURR)	11.711	2360314	20.000 ug/ml
Spiked Amount	50.000		Recovery =	40.00%
12)	S 1-chlorooctadecane (S...	13.144	1660070	20.000 ug/ml
Spiked Amount	50.000		Recovery =	40.00%
	Target Compounds			
1)	T n-Nonane (C9)	3.442	2075388	20.000 ug/ml
2)	T n-Decane (C10)	4.518	2054768	20.000 ug/ml
3)	T A~Naphthalene (C11.7)	6.115	2277305	20.000 ug/ml
4)	T n-Dodecane (C12)	6.543	2004807	20.000 ug/ml
5)	T A~2-methylnaphthalene...	7.173	2225640	20.000 ug/ml
6)	T n-Tetradecane (C14)	8.341	1908934	20.000 ug/ml
7)	T n-Hexadecane (C16)	9.944	1855813	20.000 ug/ml
8)	T n-Octadecane (C18)	11.386	1814880	20.000 ug/ml
10)	T n-Eicosane (C20)	12.697	1761914	20.000 ug/ml
11)	T n-Heneicosane (C21)	13.310	1745475	20.000 ug/ml
13)	T n-Docosane (C22)	13.897	1727226	20.000 ug/ml
14)	T n-Tetracosane (C24)	15.001	1710088	20.000 ug/ml
15)	T n-Hexacosane (C26)	16.023	1694760	20.000 ug/ml
16)	T n-Octacosane (C28)	16.974	1684639	20.000 ug/ml
17)	T n-Tricontane (C30)	17.862	1723787	20.000 ug/ml
18)	T n-Dotriacontane (C32)	18.695	1748360	20.000 ug/ml
19)	T n-Tetratriacontane (C34)	19.482	1732928	20.000 ug/ml
20)	T n-Hexatriacontane (C36)	20.222	1753150	20.000 ug/ml
21)	T n-Octatriacontane (C38)	20.996	1712858	20.000 ug/ml
22)	T n-Tetracontane (C40)	21.975	1674622	20.000 ug/ml

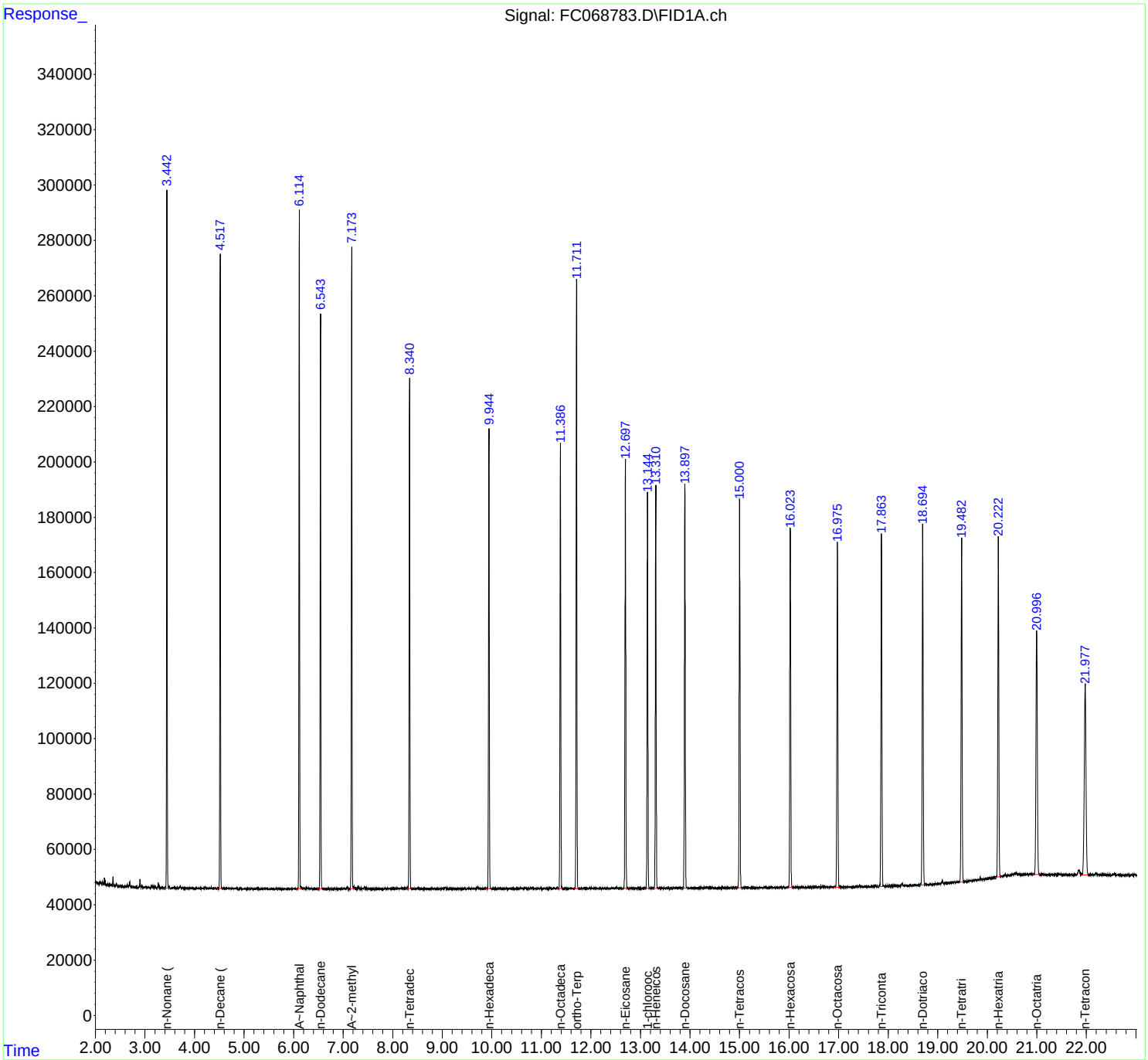
(f)=RT Delta > 1/2 Window (m)=manual int.

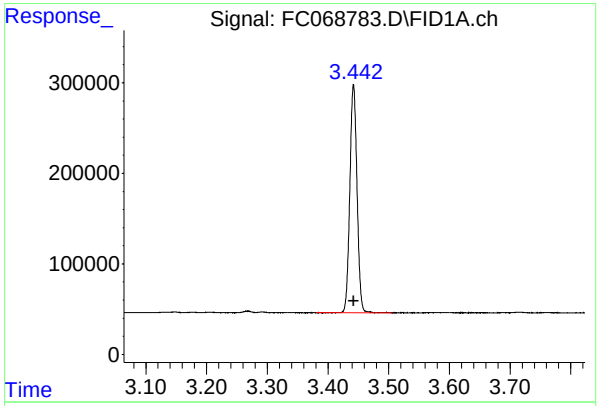
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068783.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 16:48
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD3
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3

Integration File: autoint1.e
Quant Time: May 07 08:37:02 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:32:40 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

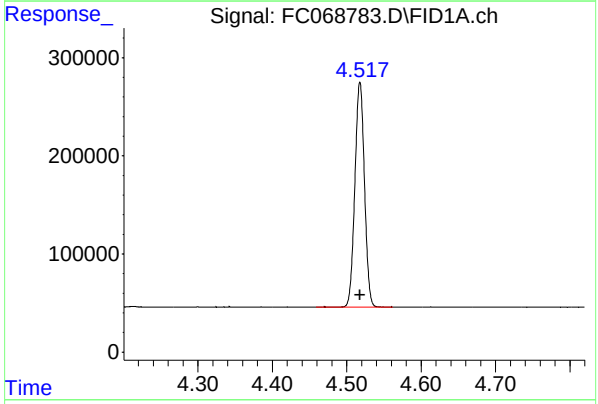




#1 n-Nonane (C9)

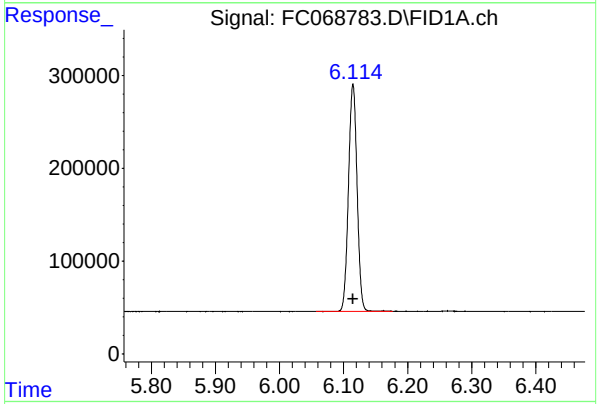
R.T.: 3.442 min
Delta R.T.: 0.000 min
Response: 2075388
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



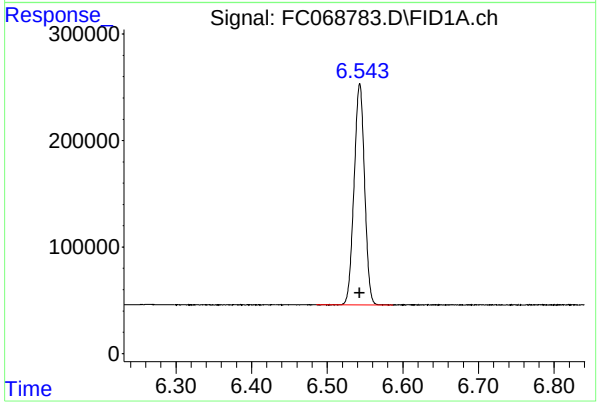
#2 n-Decane (C10)

R.T.: 4.518 min
Delta R.T.: 0.000 min
Response: 2054768
Conc: 20.00 ug/ml



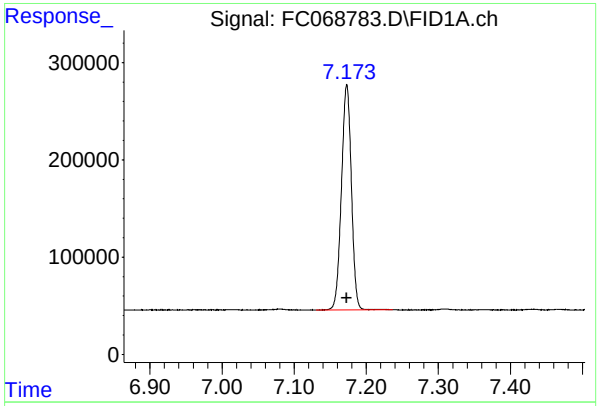
#3 A~Naphthalene (C11.7)

R.T.: 6.115 min
Delta R.T.: 0.000 min
Response: 2277305
Conc: 20.00 ug/ml



#4 n-Dodecane (C12)

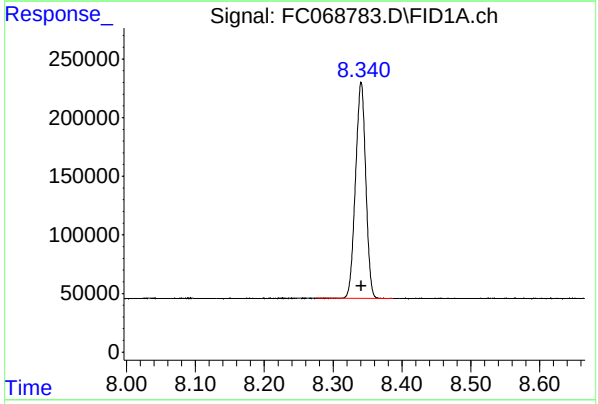
R.T.: 6.543 min
Delta R.T.: 0.000 min
Response: 2004807
Conc: 20.00 ug/ml



#5 A~2-methylnaphthalene (C12.89)

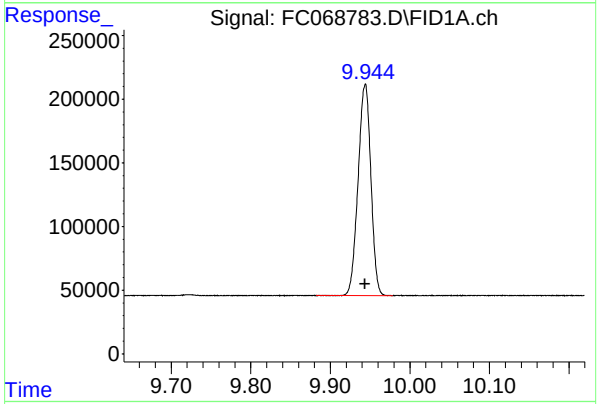
R.T.: 7.173 min
Delta R.T.: 0.000 mi
Response: 2225640
Conc: 20.00 ug/m

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



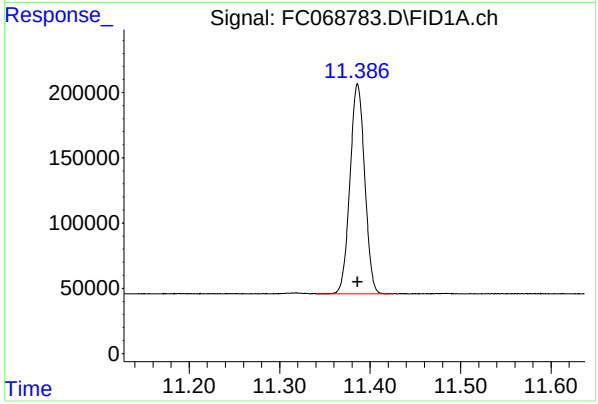
#6 n-Tetradecane (C14)

R.T.: 8.341 min
Delta R.T.: 0.000 min
Response: 1908934
Conc: 20.00 ug/ml



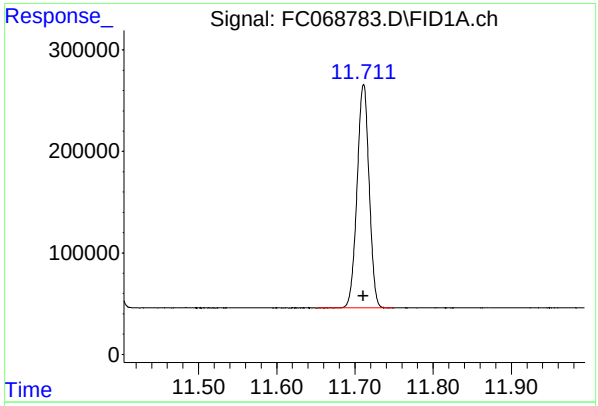
#7 n-Hexadecane (C16)

R.T.: 9.944 min
Delta R.T.: 0.000 min
Response: 1855813
Conc: 20.00 ug/ml



#8 n-Octadecane (C18)

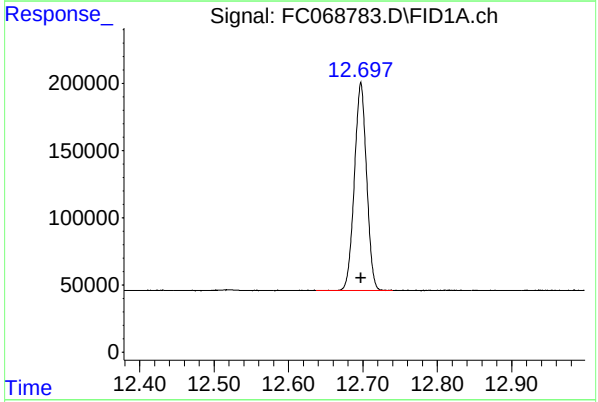
R.T.: 11.386 min
Delta R.T.: 0.000 min
Response: 1814880
Conc: 20.00 ug/ml



#9 ortho-Terphenyl (SURR)

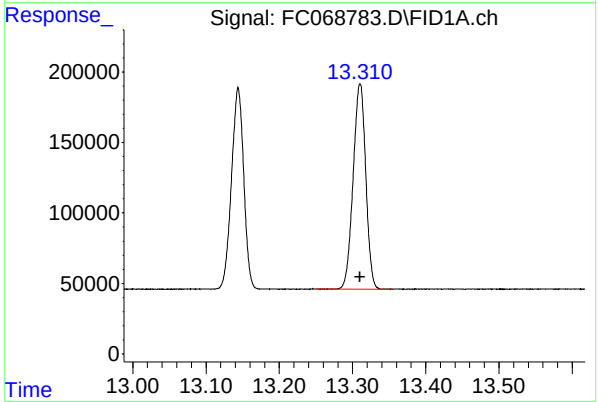
R.T.: 11.711 min
Delta R.T.: 0.000 min
Response: 2360314
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



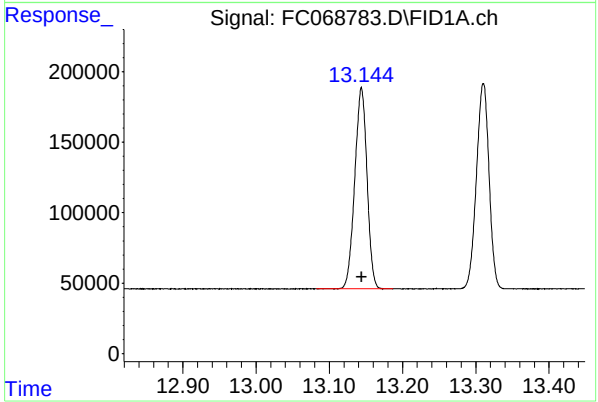
#10 n-Eicosane (C20)

R.T.: 12.697 min
Delta R.T.: 0.000 min
Response: 1761914
Conc: 20.00 ug/ml



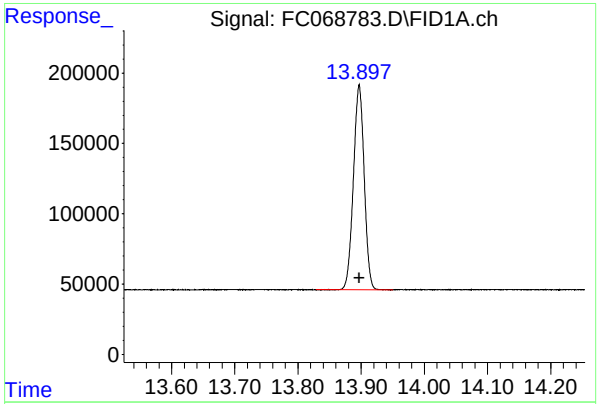
#11 n-Heneicosane (C21)

R.T.: 13.310 min
Delta R.T.: 0.000 min
Response: 1745475
Conc: 20.00 ug/ml



#12 1-chlorooctadecane (SURR)

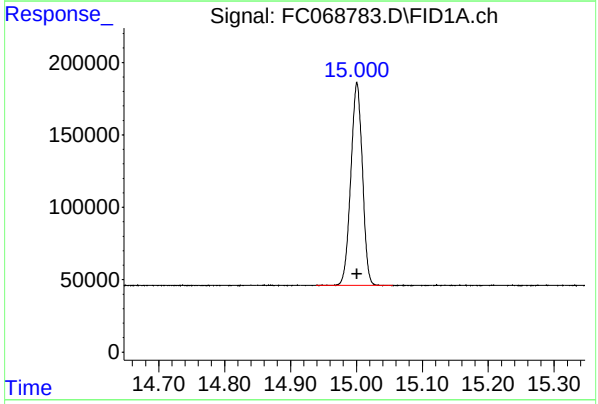
R.T.: 13.144 min
Delta R.T.: 0.000 min
Response: 1660070
Conc: 20.00 ug/ml



#13 n-Docosane (C22)

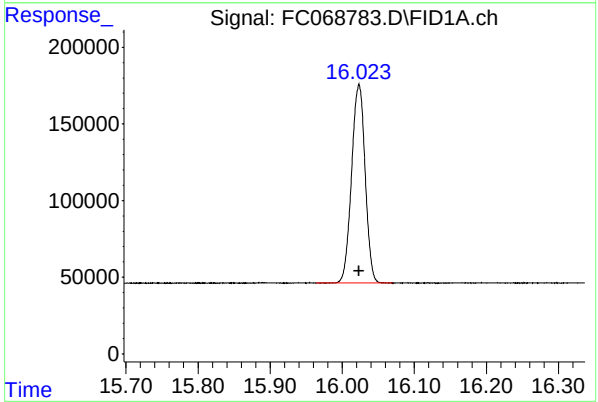
R.T.: 13.897 min
Delta R.T.: 0.000 min
Response: 1727226
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



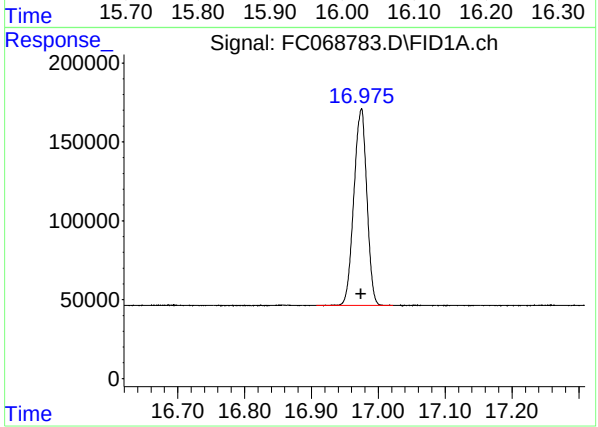
#14 n-Tetracosane (C24)

R.T.: 15.001 min
Delta R.T.: 0.000 min
Response: 1710088
Conc: 20.00 ug/ml



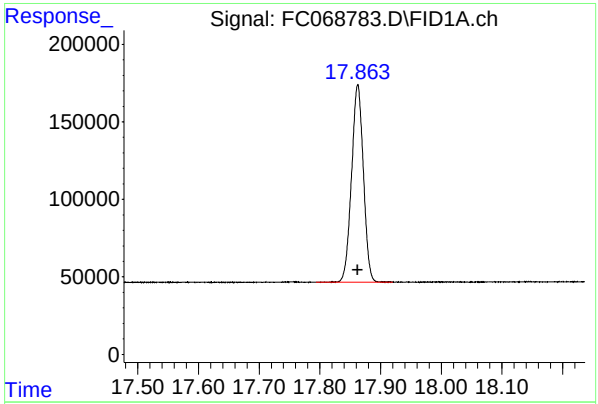
#15 n-Hexacosane (C26)

R.T.: 16.023 min
Delta R.T.: 0.000 min
Response: 1694760
Conc: 20.00 ug/ml



#16 n-Octacosane (C28)

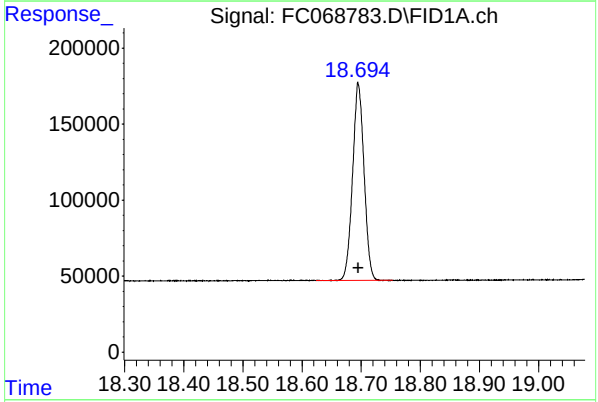
R.T.: 16.974 min
Delta R.T.: 0.000 min
Response: 1684639
Conc: 20.00 ug/ml



#17 n-Tricontane (C30)

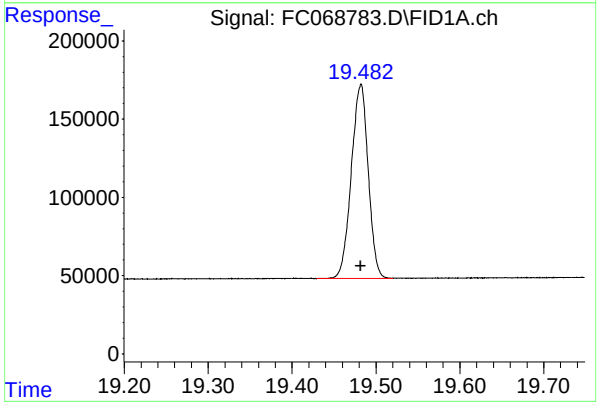
R.T.: 17.862 min
Delta R.T.: 0.000 min
Response: 1723787
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



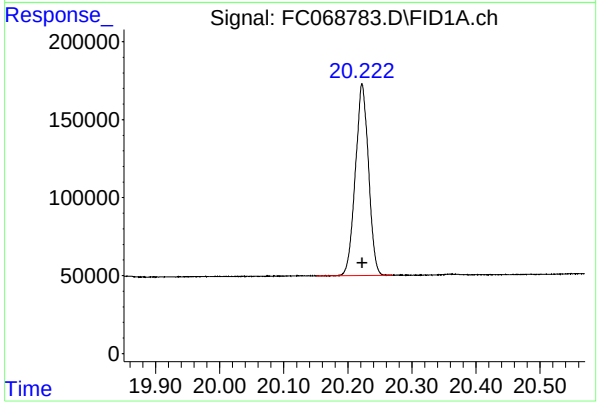
#18 n-Dotriacontane (C32)

R.T.: 18.695 min
Delta R.T.: 0.000 min
Response: 1748360
Conc: 20.00 ug/ml



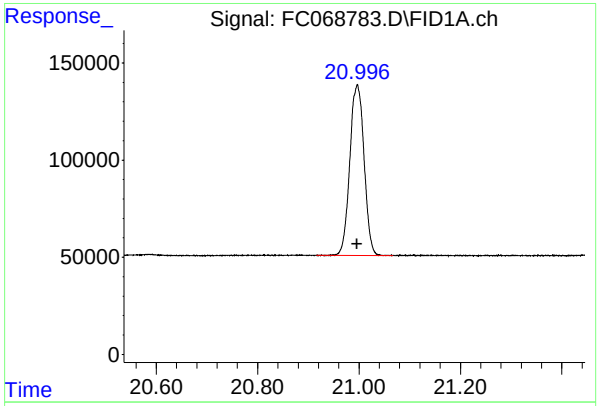
#19 n-Tetratriacontane (C34)

R.T.: 19.482 min
Delta R.T.: 0.000 min
Response: 1732928
Conc: 20.00 ug/ml



#20 n-Hexatriacontane (C36)

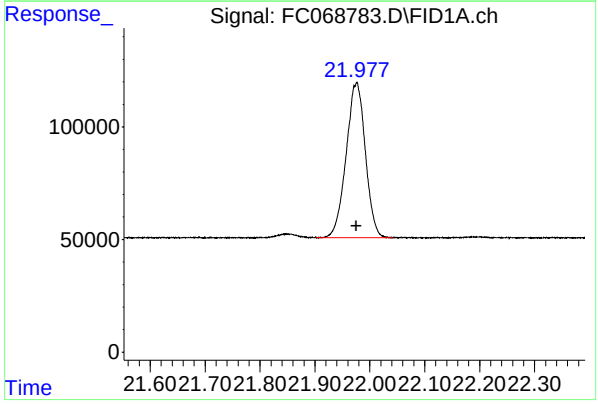
R.T.: 20.222 min
Delta R.T.: 0.000 min
Response: 1753150
Conc: 20.00 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 20.996 min
Delta R.T.: 0.000 min
Response: 1712858
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



#22 n-Tetracontane (C40)

R.T.: 21.975 min
Delta R.T.: 0.000 min
Response: 1674622
Conc: 20.00 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068783.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 16:48
Sample : 20 PPM ALIPHATIC HC STD3
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.442	3.380	3.507	BB	251852	2075388	87.93%	5.073%
2	4.518	4.459	4.562	BB	229508	2054768	87.05%	5.023%
3	6.115	6.057	6.177	BB	245252	2277305	96.48%	5.567%
4	6.543	6.485	6.587	BB	208645	2004807	84.94%	4.901%
5	7.173	7.130	7.237	BB	232123	2225640	94.29%	5.441%
6	8.341	8.275	8.387	BB	184616	1908934	80.88%	4.666%
7	9.944	9.882	9.979	BB	165547	1855813	78.63%	4.537%
8	11.386	11.340	11.425	BB	160482	1814880	76.89%	4.437%
9	11.711	11.650	11.749	BB	220270	2360314	100.00%	5.770%
10	12.697	12.637	12.740	BB	154757	1761914	74.65%	4.307%
11	13.144	13.082	13.187	BB	142866	1660070	70.33%	4.058%
12	13.310	13.250	13.355	BB	145962	1745475	73.95%	4.267%
13	13.897	13.829	13.950	BB	145860	1727226	73.18%	4.222%
14	15.001	14.939	15.055	BB	140132	1710088	72.45%	4.180%
15	16.023	15.964	16.070	BB	129921	1694760	71.80%	4.143%
16	16.974	16.907	17.022	BB	124139	1684639	71.37%	4.118%
17	17.862	17.794	17.920	BB	127255	1723787	73.03%	4.214%
18	18.695	18.624	18.754	BB	129041	1748360	74.07%	4.274%
19	19.482	19.429	19.520	BB	124106	1732928	73.42%	4.236%
20	20.222	20.150	20.270	BB	122758	1753150	74.28%	4.286%
21	20.996	20.915	21.067	BB	88216	1712858	72.57%	4.187%
22	21.975	21.902	22.042	BB	68753	1674622	70.95%	4.094%
			Sum of corrected areas:			40907725		

Aliphatic EPH 050625.M Wed May 07 09:08:12 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068784.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 17:26
Operator : YP/AJ
Sample : 10 PPM ALIPHATIC HC STD4
Misc :
ALS Vial : 14 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4

Integration File: autoint1.e
Quant Time: May 07 08:37:27 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:32:40 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9)	S ortho-Terphenyl (SURR)	11.709	1229812	10.421 ug/ml
Spiked Amount	50.000		Recovery =	20.84%
12)	S 1-chlorooctadecane (S...	13.143	860839	10.371 ug/ml
Spiked Amount	50.000		Recovery =	20.74%
	Target Compounds			
1)	T n-Nonane (C9)	3.442	1080668	10.414 ug/ml
2)	T n-Decane (C10)	4.517	1070751	10.422 ug/ml
3)	T A~Naphthalene (C11.7)	6.115	1184915	10.406 ug/ml
4)	T n-Dodecane (C12)	6.542	1043863	10.414 ug/ml
5)	T A~2-methylnaphthalene...	7.172	1152025	10.352 ug/ml
6)	T n-Tetradecane (C14)	8.340	994145	10.416 ug/ml
7)	T n-Hexadecane (C16)	9.942	961946	10.367 ug/ml
8)	T n-Octadecane (C18)	11.385	941672	10.377 ug/ml
10)	T n-Eicosane (C20)	12.697	914473	10.380 ug/ml
11)	T n-Heneicosane (C21)	13.309	905554	10.376 ug/ml
13)	T n-Docosane (C22)	13.895	899148	10.411 ug/ml
14)	T n-Tetracosane (C24)	15.000	894756	10.464 ug/ml
15)	T n-Hexacosane (C26)	16.022	892257	10.530 ug/ml
16)	T n-Octacosane (C28)	16.973	891896	10.589 ug/ml
17)	T n-Tricontane (C30)	17.862	915267	10.619 ug/ml
18)	T n-Dotriacontane (C32)	18.696	933373	10.677 ug/ml
19)	T n-Tetratriacontane (C34)	19.481	923565	10.659 ug/ml
20)	T n-Hexatriacontane (C36)	20.221	931989	10.632 ug/ml
21)	T n-Octatriacontane (C38)	20.996	908621	10.609 ug/ml
22)	T n-Tetracontane (C40)	21.971	883098	10.547 ug/ml

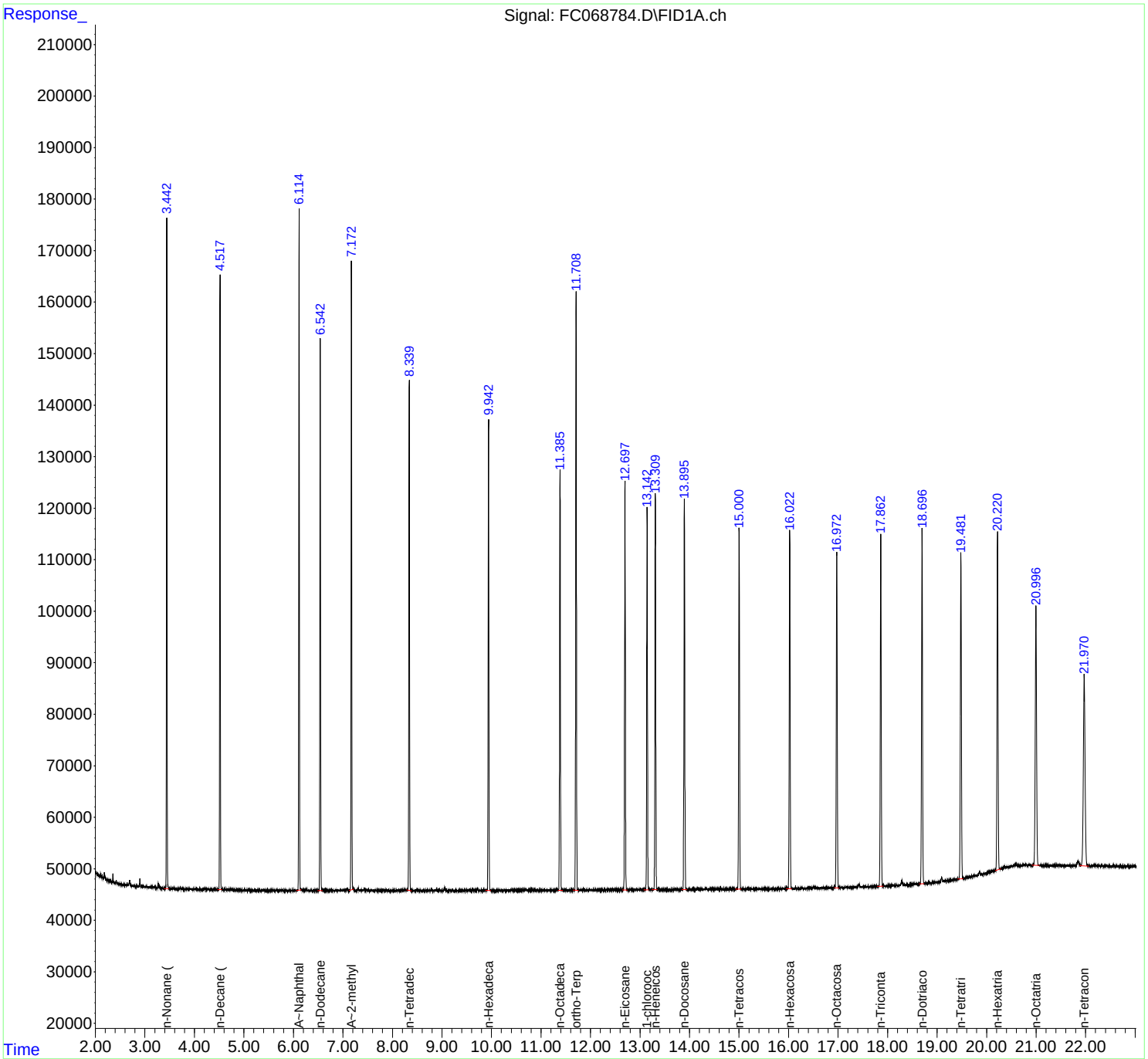
(f)=RT Delta > 1/2 Window (m)=manual int.

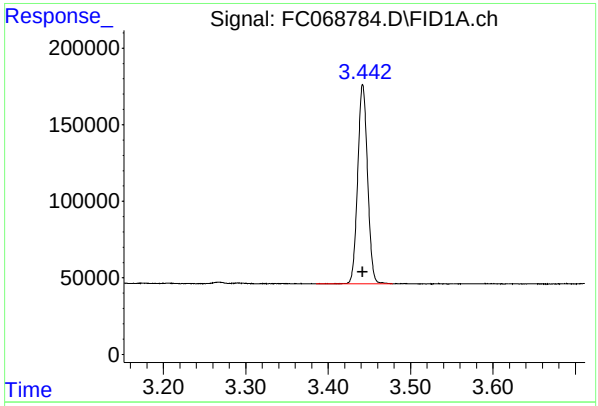
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068784.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 17:26
Operator : YP/AJ
Sample : 10 PPM ALIPHATIC HC STD4
Misc :
ALS Vial : 14 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4

Integration File: autoint1.e
Quant Time: May 07 08:37:27 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:32:40 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

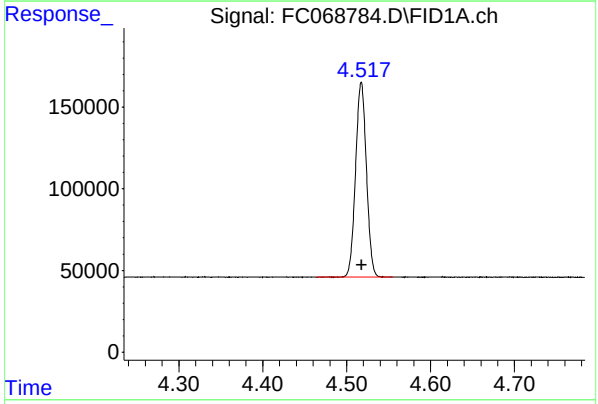




#1 n-Nonane (C9)

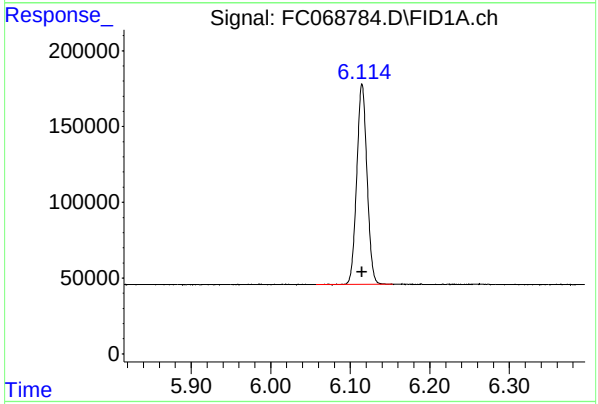
R.T.: 3.442 min
Delta R.T.: 0.000 min
Response: 1080668
Conc: 10.41 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



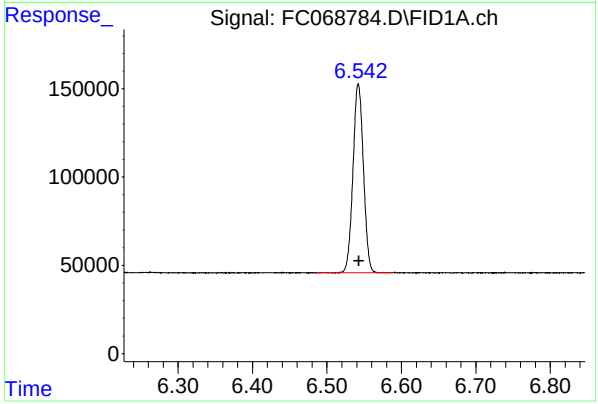
#2 n-Decane (C10)

R.T.: 4.517 min
Delta R.T.: 0.000 min
Response: 1070751
Conc: 10.42 ug/ml



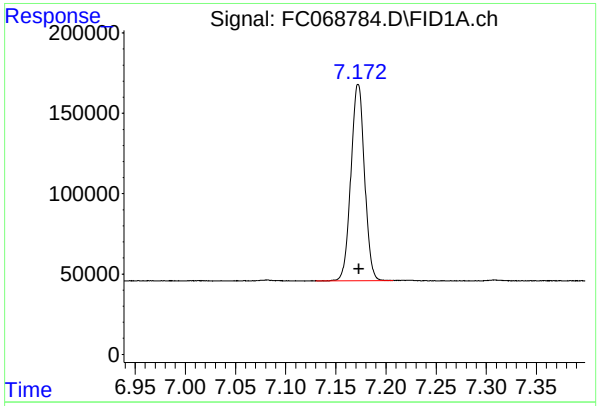
#3 A~Naphthalene (C11.7)

R.T.: 6.115 min
Delta R.T.: 0.000 min
Response: 1184915
Conc: 10.41 ug/ml



#4 n-Dodecane (C12)

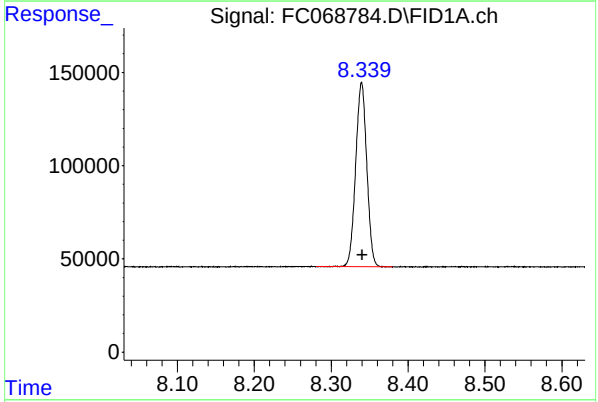
R.T.: 6.542 min
Delta R.T.: 0.000 min
Response: 1043863
Conc: 10.41 ug/ml



#5 A~2-methylnaphthalene (C12.89)

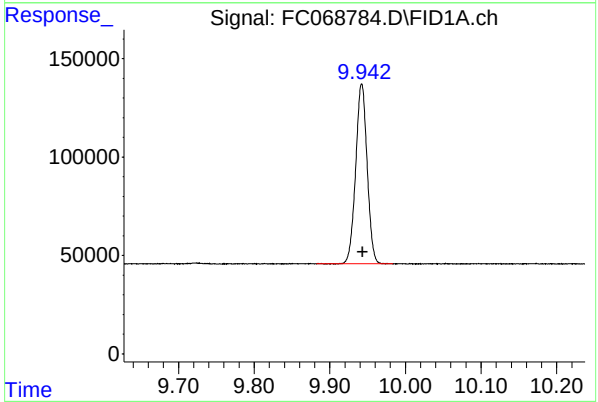
R.T.: 7.172 min
Delta R.T.: 0.000 min
Response: 1152025
Conc: 10.35 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



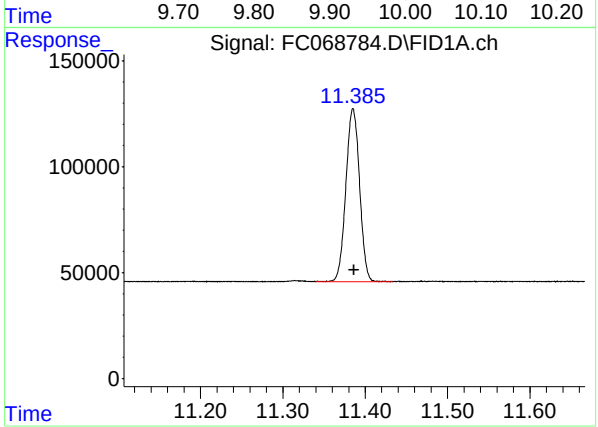
#6 n-Tetradecane (C14)

R.T.: 8.340 min
Delta R.T.: -0.001 min
Response: 994145
Conc: 10.42 ug/ml



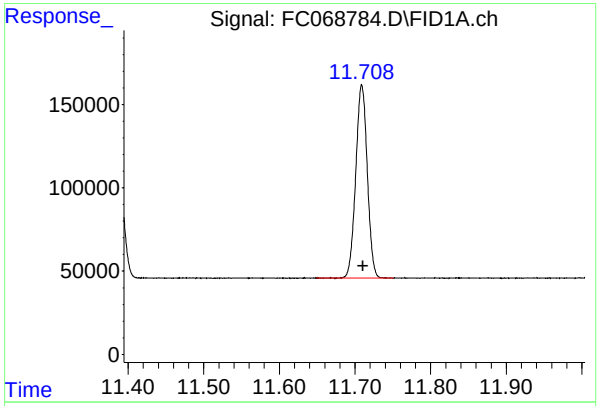
#7 n-Hexadecane (C16)

R.T.: 9.942 min
Delta R.T.: -0.001 min
Response: 961946
Conc: 10.37 ug/ml



#8 n-Octadecane (C18)

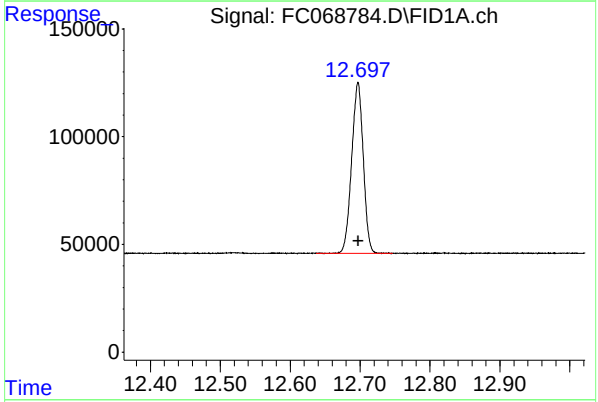
R.T.: 11.385 min
Delta R.T.: 0.000 min
Response: 941672
Conc: 10.38 ug/ml



#9 ortho-Terphenyl (SURR)

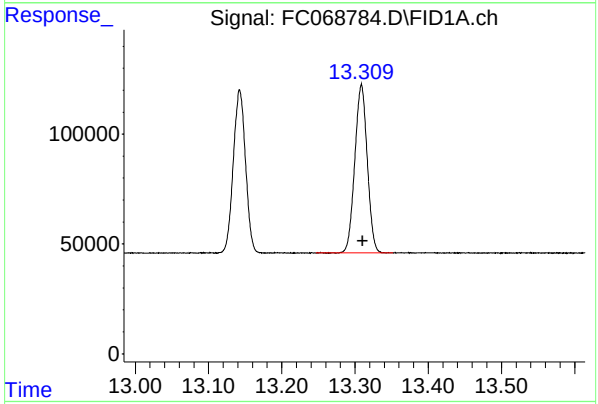
R.T.: 11.709 min
Delta R.T.: -0.002 min
Response: 1229812
Conc: 10.42 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



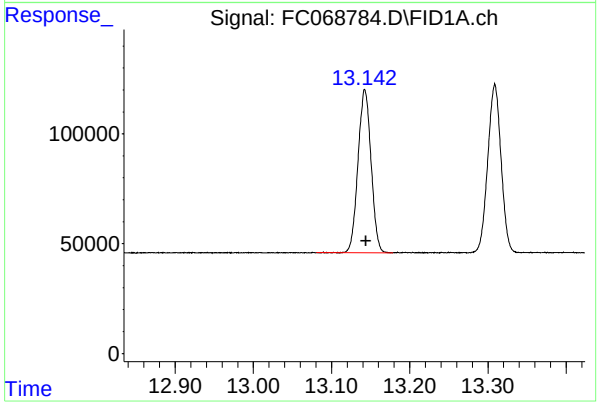
#10 n-Eicosane (C20)

R.T.: 12.697 min
Delta R.T.: 0.000 min
Response: 914473
Conc: 10.38 ug/ml



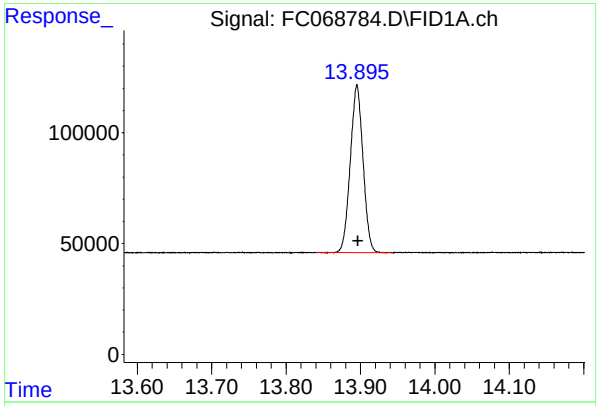
#11 n-Heneicosane (C21)

R.T.: 13.309 min
Delta R.T.: -0.002 min
Response: 905554
Conc: 10.38 ug/ml



#12 1-chlorooctadecane (SURR)

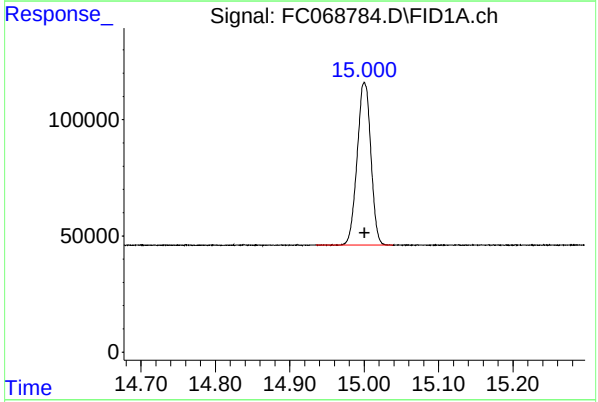
R.T.: 13.143 min
Delta R.T.: -0.001 min
Response: 860839
Conc: 10.37 ug/ml



#13 n-Docosane (C22)

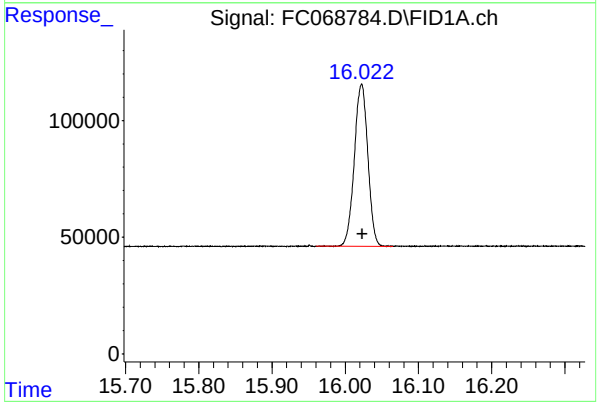
R.T.: 13.895 min
Delta R.T.: -0.001 min
Response: 899148
Conc: 10.41 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



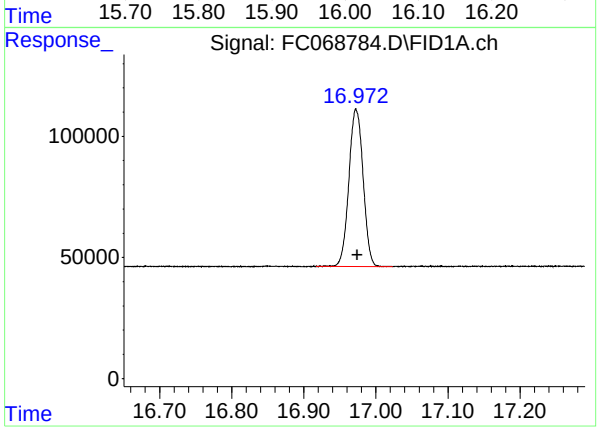
#14 n-Tetracosane (C24)

R.T.: 15.000 min
Delta R.T.: 0.000 min
Response: 894756
Conc: 10.46 ug/ml



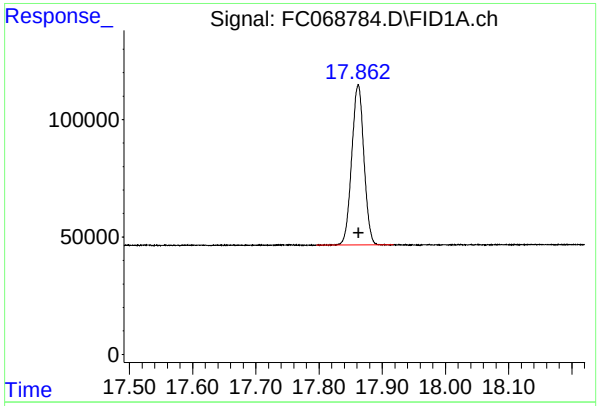
#15 n-Hexacosane (C26)

R.T.: 16.022 min
Delta R.T.: -0.001 min
Response: 892257
Conc: 10.53 ug/ml



#16 n-Octacosane (C28)

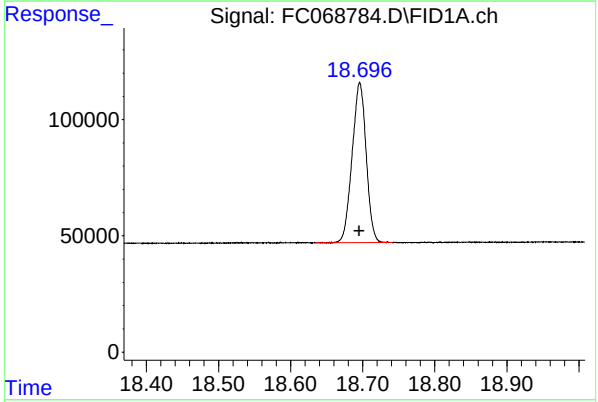
R.T.: 16.973 min
Delta R.T.: -0.001 min
Response: 891896
Conc: 10.59 ug/ml



#17 n-Tricontane (C30)

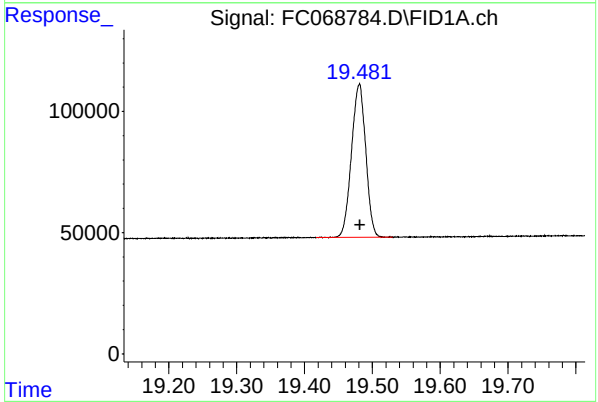
R.T.: 17.862 min
Delta R.T.: 0.000 min
Response: 915267
Conc: 10.62 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



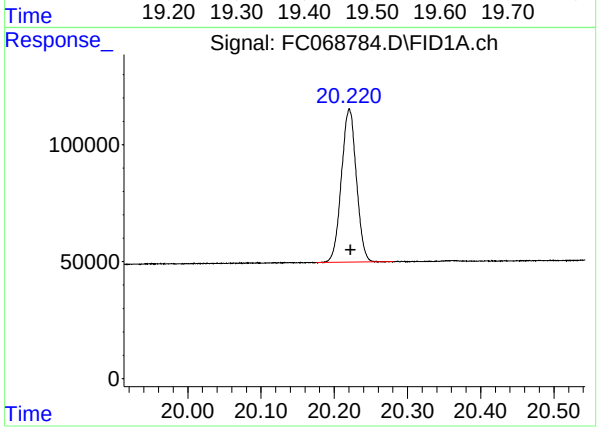
#18 n-Dotriacontane (C32)

R.T.: 18.696 min
Delta R.T.: 0.000 min
Response: 933373
Conc: 10.68 ug/ml



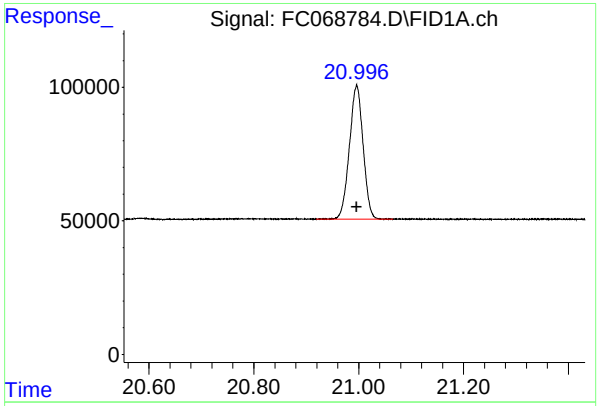
#19 n-Tetratriacontane (C34)

R.T.: 19.481 min
Delta R.T.: -0.001 min
Response: 923565
Conc: 10.66 ug/ml



#20 n-Hexatriacontane (C36)

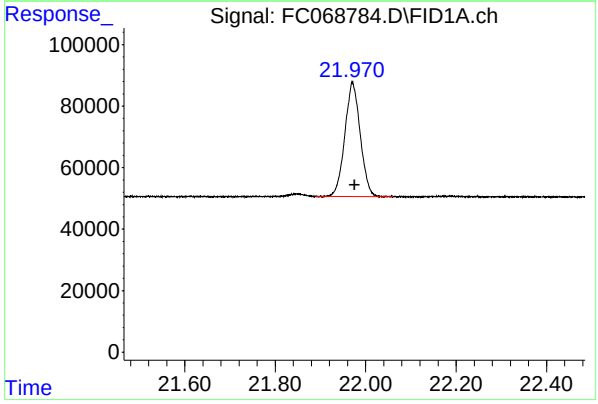
R.T.: 20.221 min
Delta R.T.: -0.002 min
Response: 931989
Conc: 10.63 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 20.996 min
Delta R.T.: 0.000 mi
Response: 908621
Conc: 10.61 ug/m

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



#22 n-Tetracontane (C40)

R.T.: 21.971 min
Delta R.T.: -0.004 min
Response: 883098
Conc: 10.55 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068784.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 17:26
Sample : 10 PPM ALIPHATIC HC STD4
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.442	3.385	3.479	BB	130084	1080668	87.87%	5.046%
2	4.517	4.464	4.555	BB	119114	1070751	87.07%	5.000%
3	6.115	6.057	6.154	BB	132196	1184915	96.35%	5.533%
4	6.542	6.485	6.589	BB	106875	1043863	84.88%	4.875%
5	7.172	7.130	7.207	BB	122451	1152025	93.67%	5.380%
6	8.340	8.280	8.380	BB	99151	994145	80.84%	4.642%
7	9.942	9.882	9.984	BB	91549	961946	78.22%	4.492%
8	11.385	11.340	11.434	BB	81573	941672	76.57%	4.397%
9	11.709	11.649	11.750	BB	116052	1229812	100.00%	5.743%
10	12.697	12.637	12.747	BB	79424	914473	74.36%	4.270%
11	13.143	13.080	13.179	BB	74502	860839	70.00%	4.020%
12	13.309	13.247	13.352	BB	76619	905554	73.63%	4.229%
13	13.895	13.840	13.944	BB	75690	899148	73.11%	4.199%
14	15.000	14.935	15.039	BB	69939	894756	72.76%	4.178%
15	16.022	15.960	16.065	BB	69455	892257	72.55%	4.167%
16	16.973	16.917	17.024	BB	64973	891896	72.52%	4.165%
17	17.862	17.795	17.917	BB	68311	915267	74.42%	4.274%
18	18.696	18.635	18.742	BB	68859	933373	75.90%	4.359%
19	19.481	19.417	19.530	BB	63016	923565	75.10%	4.313%
20	20.221	20.175	20.280	BB	65563	931989	75.78%	4.352%
21	20.996	20.919	21.065	BB	50318	908621	73.88%	4.243%
22	21.971	21.890	22.060	BB	37156	883098	71.81%	4.124%
			Sum of corrected areas:			21414632		

Aliphatic EPH 050625.M Wed May 07 09:08:31 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068785.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 18:03
Operator : YP/AJ
Sample : 5 PPM ALIPHATIC HC STD5
Misc :
ALS Vial : 15 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5

Integration File: autoint1.e
Quant Time: May 07 08:37:53 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:32:40 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	ortho-Terphenyl (SURR)	11.709	571192	4.840 ug/ml
Spiked Amount	50.000		Recovery =	9.68%
12) S	1-chlorooctadecane (S...	13.142	402064	4.844 ug/ml
Spiked Amount	50.000		Recovery =	9.69%
	Target Compounds			
1) T	n-Nonane (C9)	3.442	503286	4.850 ug/ml
2) T	n-Decane (C10)	4.517	499484	4.862 ug/ml
3) T	A~Naphthalene (C11.7)	6.115	548144	4.814 ug/ml
4) T	n-Dodecane (C12)	6.542	489960	4.888 ug/ml
5) T	A~2-methylnaphthalene...	7.172	533329	4.793 ug/ml
6) T	n-Tetradecane (C14)	8.339	466893	4.892 ug/ml
7) T	n-Hexadecane (C16)	9.942	452173	4.873 ug/ml
8) T	n-Octadecane (C18)	11.386	446925	4.925 ug/ml
10) T	n-Eicosane (C20)	12.697	432929	4.914 ug/ml
11) T	n-Heneicosane (C21)	13.309	427457	4.898 ug/ml
13) T	n-Docosane (C22)	13.896	423815	4.907 ug/ml
14) T	n-Tetracosane (C24)	15.000	423107	4.948 ug/ml
15) T	n-Hexacosane (C26)	16.022	421364	4.973 ug/ml
16) T	n-Octacosane (C28)	16.971	420815	4.996 ug/ml
17) T	n-Tricontane (C30)	17.861	430802	4.998 ug/ml
18) T	n-Dotriacontane (C32)	18.695	442453	5.061 ug/ml
19) T	n-Tetratriacontane (C34)	19.479	435198	5.023 ug/ml
20) T	n-Hexatriacontane (C36)	20.220	434336	4.955 ug/ml
21) T	n-Octatriacontane (C38)	20.995	420695	4.912 ug/ml
22) T	n-Tetracontane (C40)	21.970	408356	4.877 ug/ml

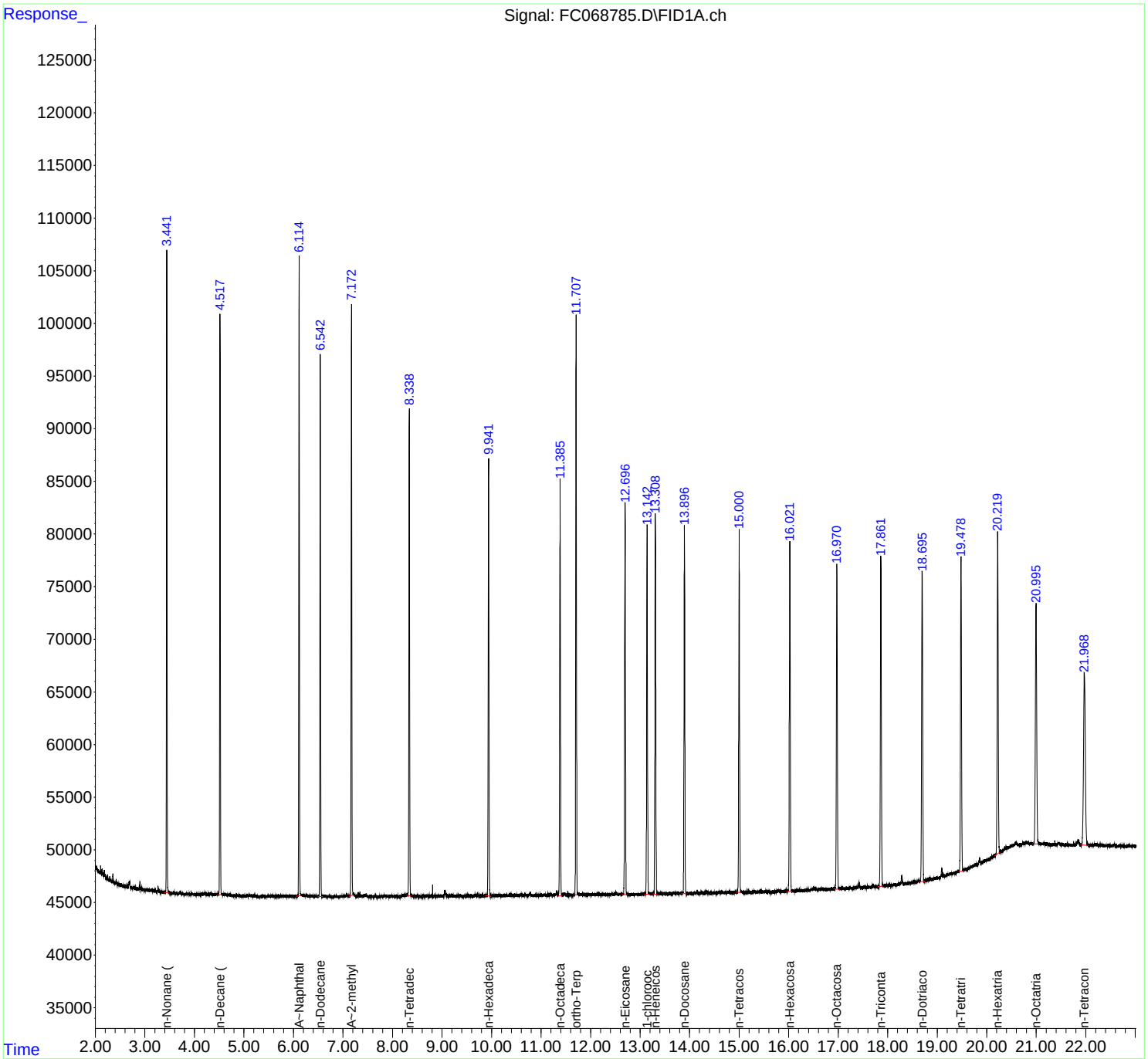
(f)=RT Delta > 1/2 Window (m)=manual int.

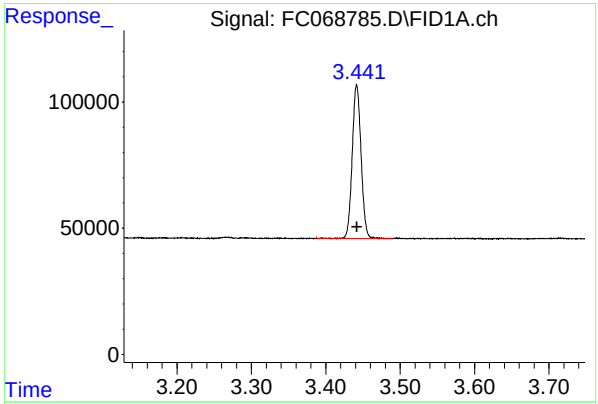
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068785.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 18:03
Operator : YP/AJ
Sample : 5 PPM ALIPHATIC HC STD5
Misc :
ALS Vial : 15 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5

Integration File: autoint1.e
Quant Time: May 07 08:37:53 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:32:40 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

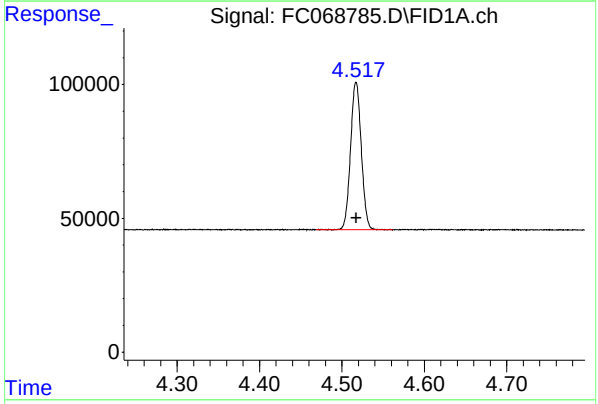




#1 n-Nonane (C9)

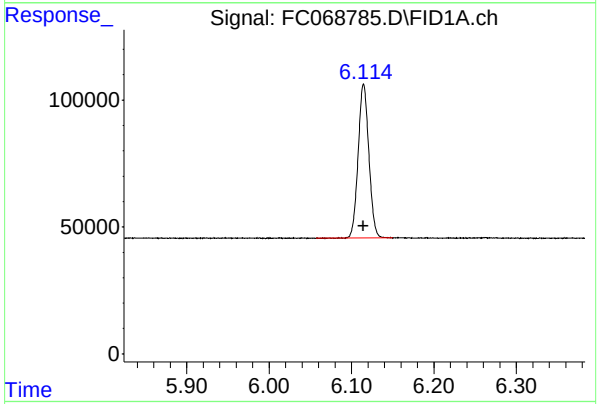
R.T.: 3.442 min
Delta R.T.: 0.000 min
Response: 503286
Conc: 4.85 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



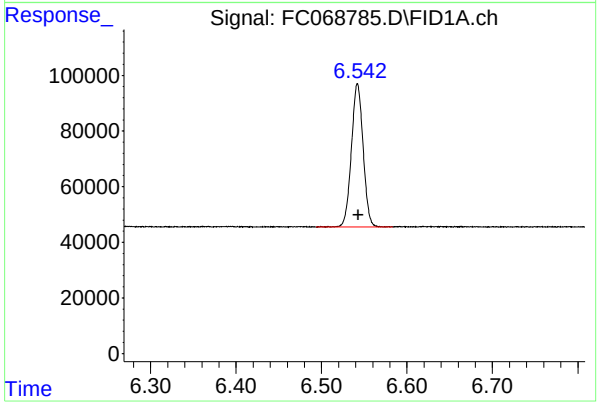
#2 n-Decane (C10)

R.T.: 4.517 min
Delta R.T.: 0.000 min
Response: 499484
Conc: 4.86 ug/ml



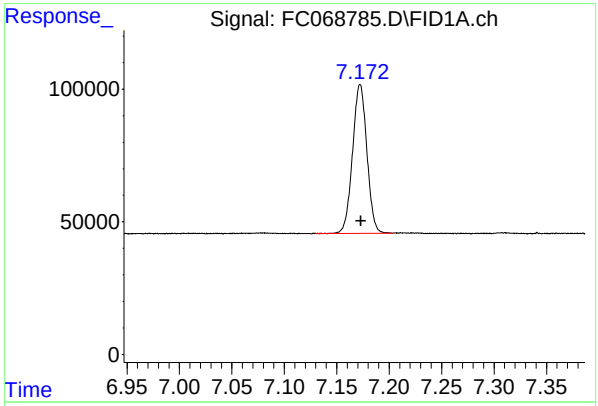
#3 A~Naphthalene (C11.7)

R.T.: 6.115 min
Delta R.T.: 0.000 min
Response: 548144
Conc: 4.81 ug/ml



#4 n-Dodecane (C12)

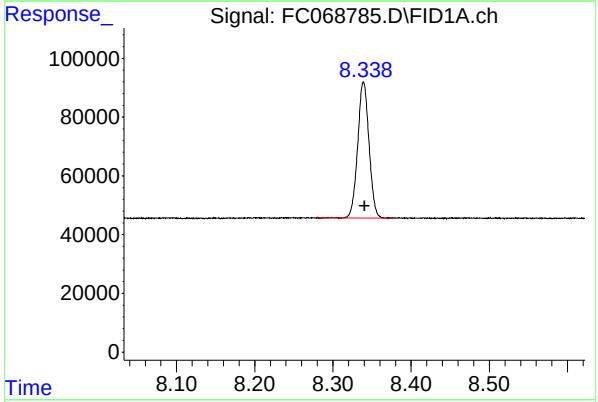
R.T.: 6.542 min
Delta R.T.: 0.000 min
Response: 489960
Conc: 4.89 ug/ml



#5 A~2-methylnaphthalene (C12.89)

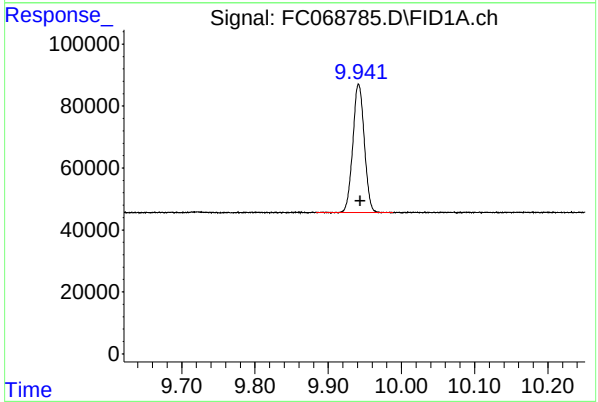
R.T.: 7.172 min
Delta R.T.: 0.000 min
Response: 533329
Conc: 4.79 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



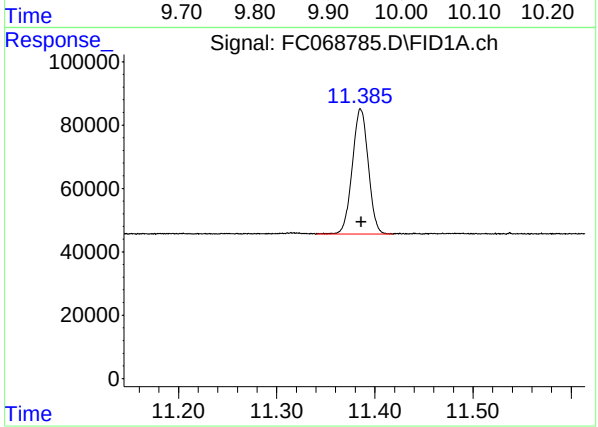
#6 n-Tetradecane (C14)

R.T.: 8.339 min
Delta R.T.: -0.001 min
Response: 466893
Conc: 4.89 ug/ml



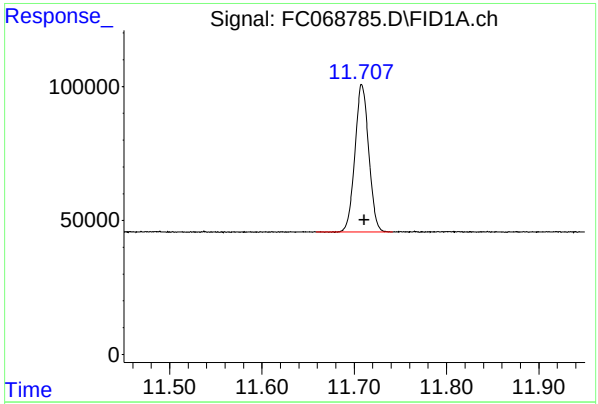
#7 n-Hexadecane (C16)

R.T.: 9.942 min
Delta R.T.: -0.002 min
Response: 452173
Conc: 4.87 ug/ml



#8 n-Octadecane (C18)

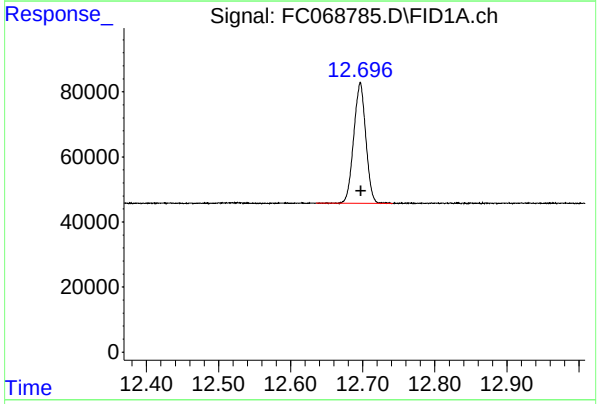
R.T.: 11.386 min
Delta R.T.: 0.000 min
Response: 446925
Conc: 4.93 ug/ml



#9 ortho-Terphenyl (SURR)

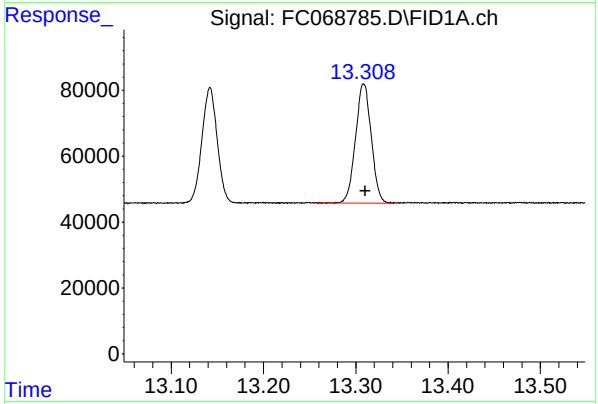
R.T.: 11.709 min
Delta R.T.: -0.002 min
Response: 571192
Conc: 4.84 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



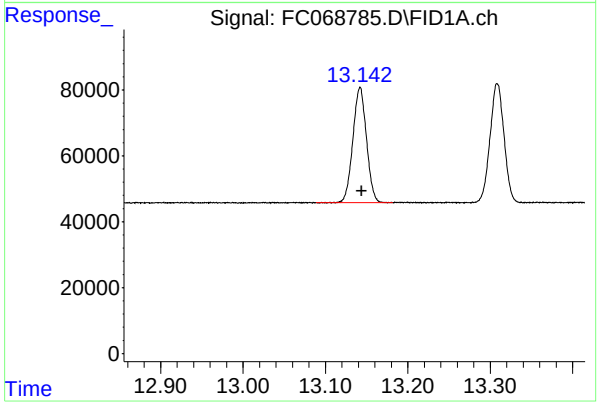
#10 n-Eicosane (C20)

R.T.: 12.697 min
Delta R.T.: 0.000 min
Response: 432929
Conc: 4.91 ug/ml



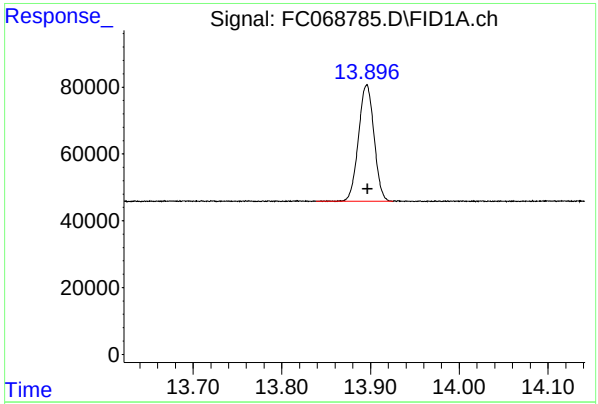
#11 n-Heneicosane (C21)

R.T.: 13.309 min
Delta R.T.: -0.002 min
Response: 427457
Conc: 4.90 ug/ml



#12 1-chlorooctadecane (SURR)

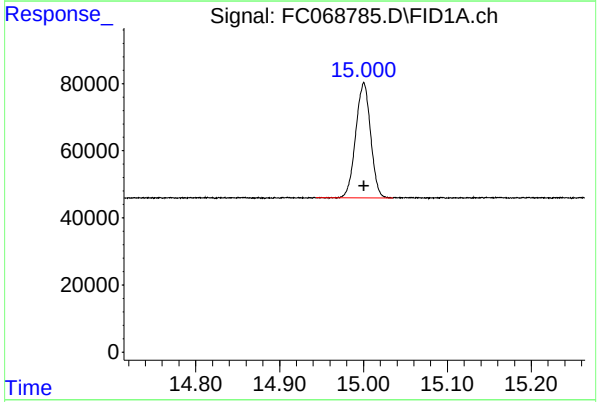
R.T.: 13.142 min
Delta R.T.: -0.002 min
Response: 402064
Conc: 4.84 ug/ml



#13 n-Docosane (C22)

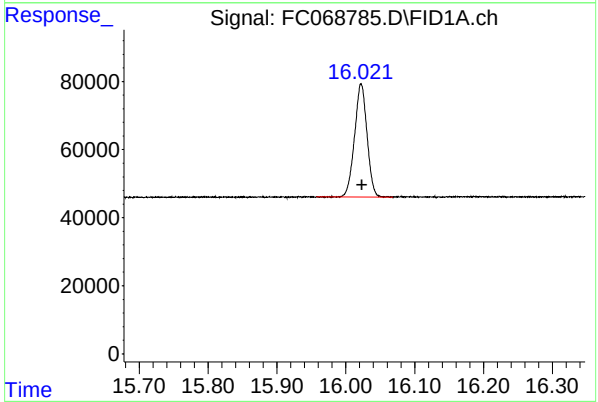
R.T.: 13.896 min
Delta R.T.: -0.001 min
Response: 423815
Conc: 4.91 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



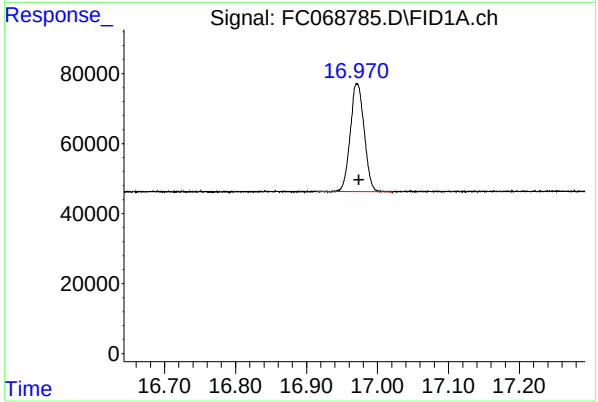
#14 n-Tetracosane (C24)

R.T.: 15.000 min
Delta R.T.: 0.000 min
Response: 423107
Conc: 4.95 ug/ml



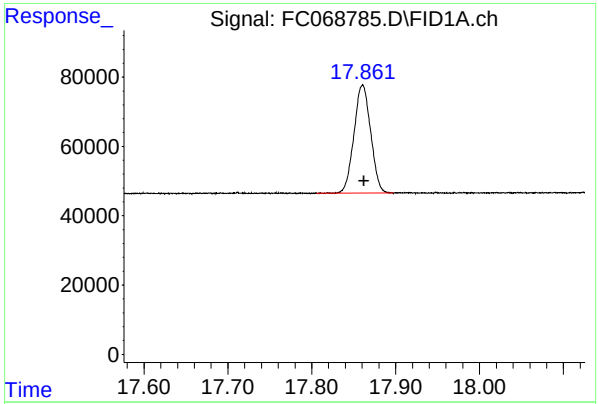
#15 n-Hexacosane (C26)

R.T.: 16.022 min
Delta R.T.: 0.000 min
Response: 421364
Conc: 4.97 ug/ml



#16 n-Octacosane (C28)

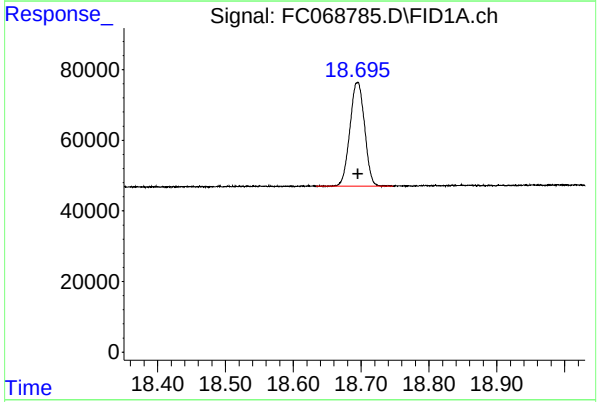
R.T.: 16.971 min
Delta R.T.: -0.003 min
Response: 420815
Conc: 5.00 ug/ml



#17 n-Tricontane (C30)

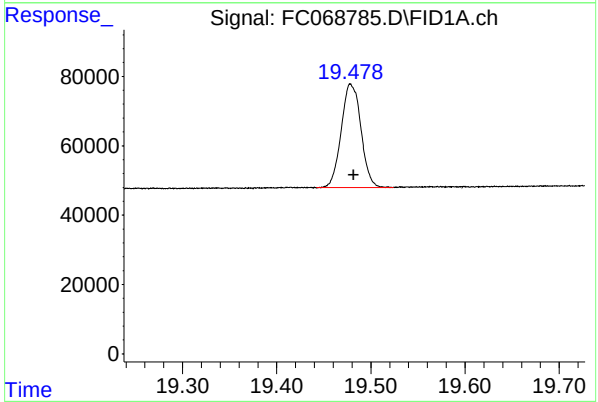
R.T.: 17.861 min
Delta R.T.: -0.002 min
Response: 430802
Conc: 5.00 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



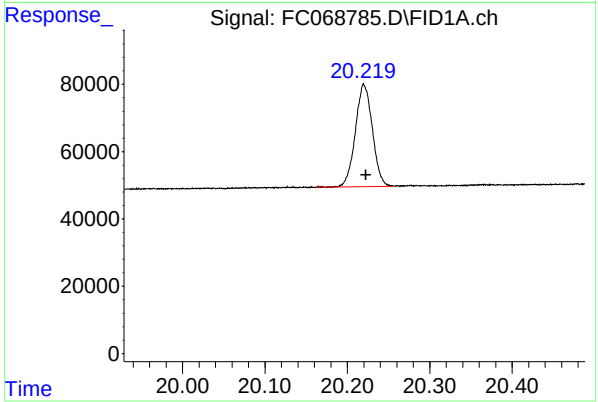
#18 n-Dotriacontane (C32)

R.T.: 18.695 min
Delta R.T.: 0.000 min
Response: 442453
Conc: 5.06 ug/ml



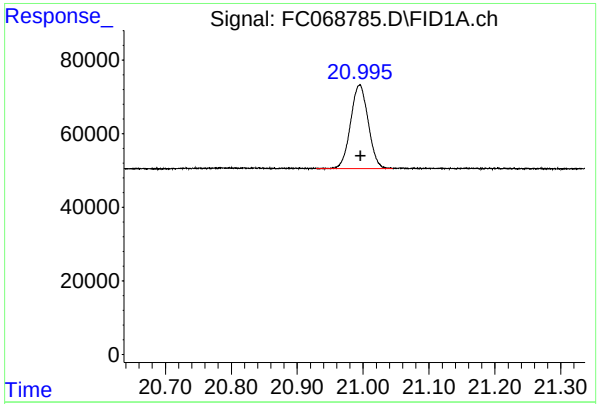
#19 n-Tetratriacontane (C34)

R.T.: 19.479 min
Delta R.T.: -0.003 min
Response: 435198
Conc: 5.02 ug/ml



#20 n-Hexatriacontane (C36)

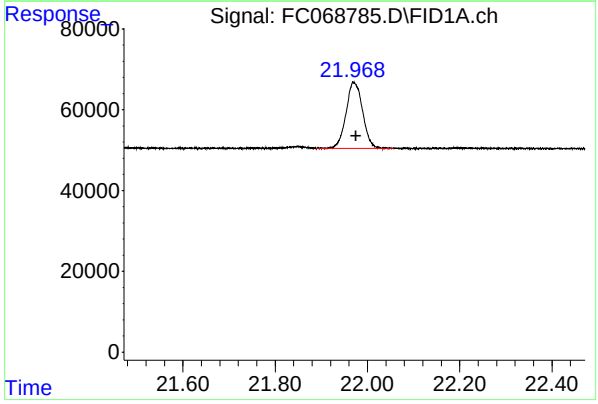
R.T.: 20.220 min
Delta R.T.: -0.002 min
Response: 434336
Conc: 4.95 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 20.995 min
Delta R.T.: -0.002 min
Response: 420695
Conc: 4.91 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



#22 n-Tetracontane (C40)

R.T.: 21.970 min
Delta R.T.: -0.005 min
Response: 408356
Conc: 4.88 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068785.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 18:03
Sample : 5 PPM ALIPHATIC HC STD5
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.442	3.387	3.490	BB	60717	503286	88.11%	5.015%
2	4.517	4.469	4.562	BB	55182	499484	87.45%	4.978%
3	6.115	6.057	6.150	BB	60631	548144	95.96%	5.462%
4	6.542	6.494	6.584	BB	51463	489960	85.78%	4.883%
5	7.172	7.130	7.204	BB	56115	533329	93.37%	5.315%
6	8.339	8.279	8.377	BB	46269	466893	81.74%	4.653%
7	9.942	9.884	9.989	BB	41401	452173	79.16%	4.506%
8	11.386	11.340	11.419	BB	39573	446925	78.24%	4.454%
9	11.709	11.659	11.742	BB	54817	571192	100.00%	5.692%
10	12.697	12.635	12.742	BB	37319	432929	75.79%	4.314%
11	13.142	13.089	13.182	BB	35081	402064	70.39%	4.007%
12	13.309	13.257	13.340	BB	36149	427457	74.84%	4.260%
13	13.896	13.839	13.925	BB	34710	423815	74.20%	4.223%
14	15.000	14.944	15.035	BB	34361	423107	74.07%	4.216%
15	16.022	15.957	16.069	BB	33287	421364	73.77%	4.199%
16	16.971	16.914	17.022	BB	30809	420815	73.67%	4.194%
17	17.861	17.805	17.897	BB	31137	430802	75.42%	4.293%
18	18.695	18.634	18.747	BB	29408	442453	77.46%	4.409%
19	19.479	19.442	19.524	BB	29774	435198	76.19%	4.337%
20	20.220	20.162	20.255	BB	30175	434336	76.04%	4.328%
21	20.995	20.929	21.045	BB	22752	420695	73.65%	4.192%
22	21.970	21.889	22.055	BB	16263	408356	71.49%	4.069%
			Sum of corrected areas:			10034777		

Aliphatic EPH 050625.M Wed May 07 09:09:03 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068786.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 18:40
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD ICV
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV

Integration File: autoint1.e
Quant Time: May 07 08:53:57 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	ortho-Terphenyl (SURR)	11.711	2355158	20.634 ug/ml
Spiked Amount	50.000		Recovery =	41.27%
12) S	1-chlorooctadecane (S...	13.143	1650109	20.568 ug/ml
Spiked Amount	50.000		Recovery =	41.14%
	Target Compounds			
1) T	n-Nonane (C9)	3.442	2081542	20.695 ug/ml
2) T	n-Decane (C10)	4.518	2058071	20.655 ug/ml
3) T	A~Naphthalene (C11.7)	6.115	2278649	20.666 ug/ml
4) T	n-Dodecane (C12)	6.543	2004473	20.627 ug/ml
5) T	A~2-methylnaphthalene...	7.173	2210420	20.594 ug/ml
6) T	n-Tetradecane (C14)	8.340	1902473	20.584 ug/ml
7) T	n-Hexadecane (C16)	9.943	1844094	20.594 ug/ml
8) T	n-Octadecane (C18)	11.387	1800440	20.525 ug/ml
10) T	n-Eicosane (C20)	12.697	1749876	20.534 ug/ml
11) T	n-Heneicosane (C21)	13.310	1732609	20.542 ug/ml
13) T	n-Docosane (C22)	13.896	1718343	20.540 ug/ml
14) T	n-Tetracosane (C24)	15.001	1707173	20.517 ug/ml
15) T	n-Hexacosane (C26)	16.022	1697577	20.489 ug/ml
16) T	n-Octacosane (C28)	16.973	1687805	20.422 ug/ml
17) T	n-Tricontane (C30)	17.863	1728320	20.426 ug/ml
18) T	n-Dotriacontane (C32)	18.696	1757564	20.405 ug/ml
19) T	n-Tetratriacontane (C34)	19.482	1737972	20.399 ug/ml
20) T	n-Hexatriacontane (C36)	20.223	1753728	20.404 ug/ml
21) T	n-Octatriacontane (C38)	20.997	1714449	20.438 ug/ml
22) T	n-Tetracontane (C40)	21.974	1669453	20.370 ug/ml

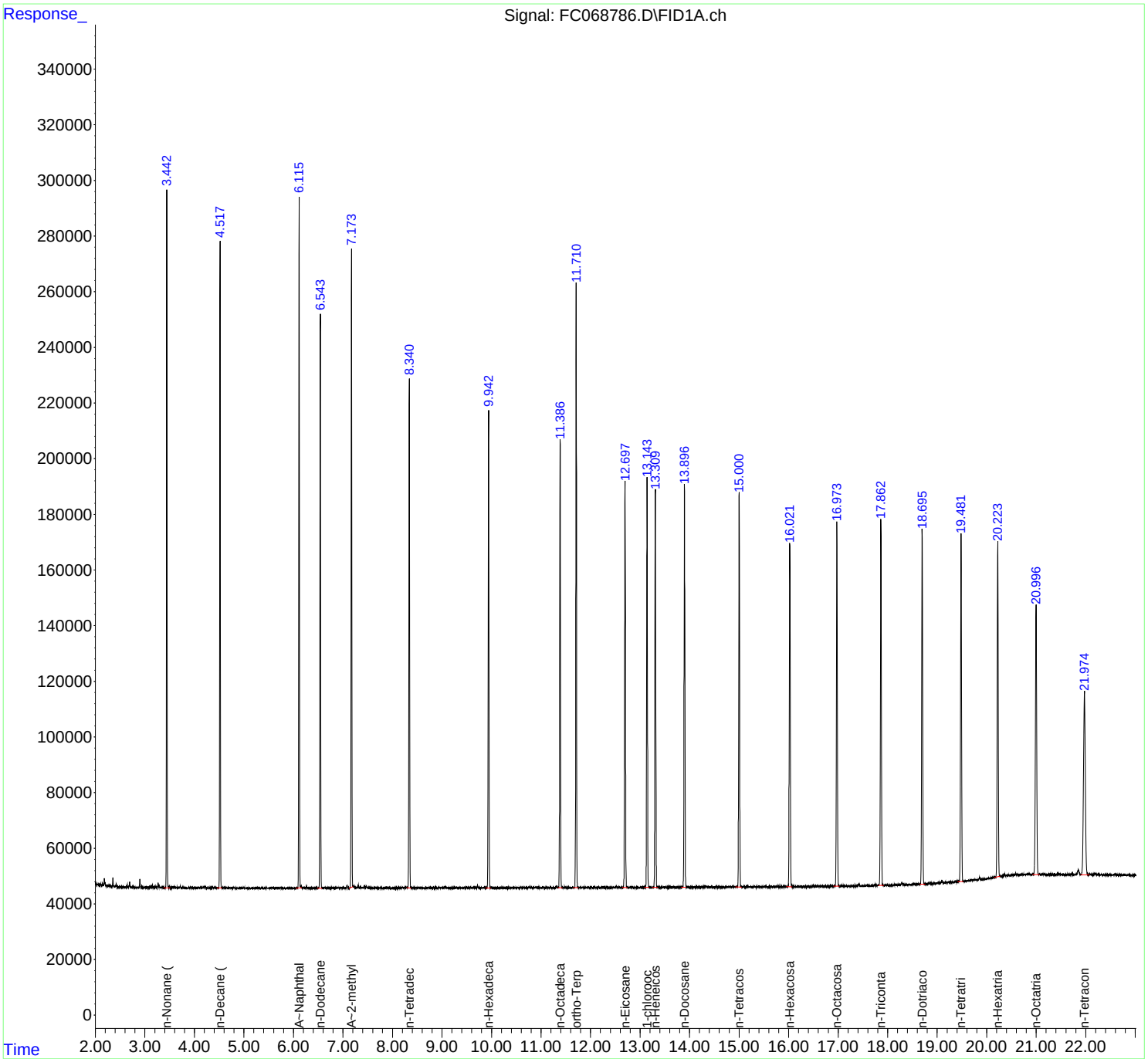
(f)=RT Delta > 1/2 Window (m)=manual int.

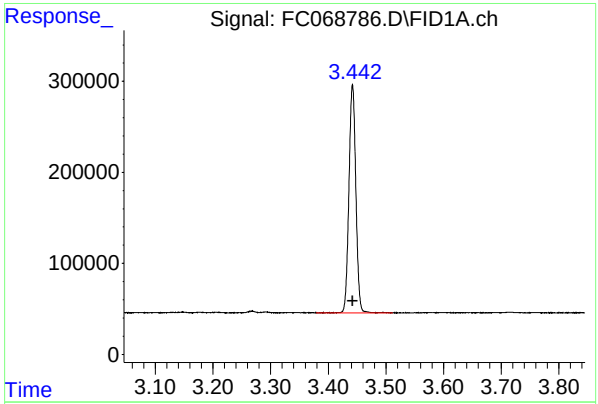
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068786.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 18:40
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD ICV
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV

Integration File: autoint1.e
Quant Time: May 07 08:53:57 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

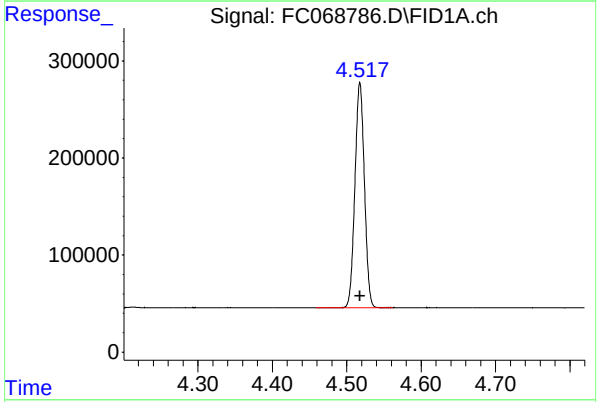




#1 n-Nonane (C9)

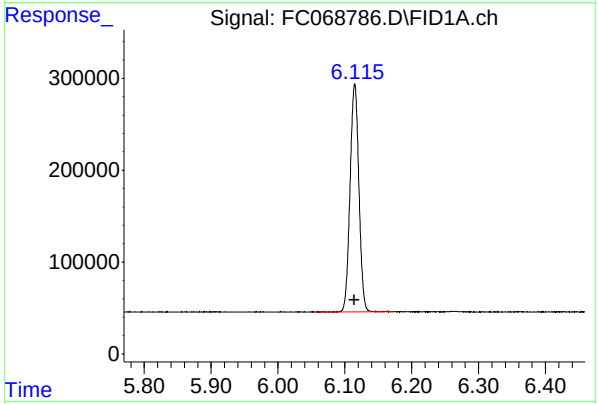
R.T.: 3.442 min
Delta R.T.: 0.000 min
Response: 2081542
Conc: 20.70 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV



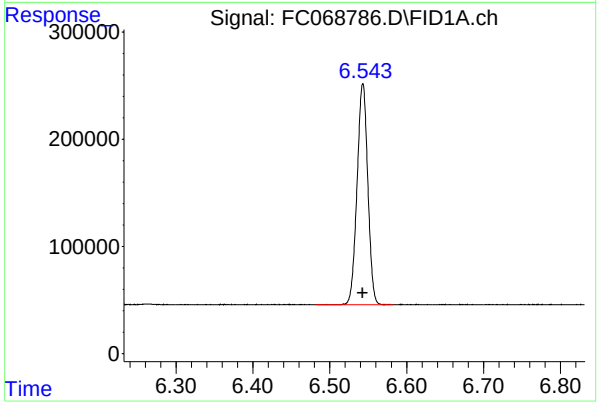
#2 n-Decane (C10)

R.T.: 4.518 min
Delta R.T.: 0.000 min
Response: 2058071
Conc: 20.65 ug/ml



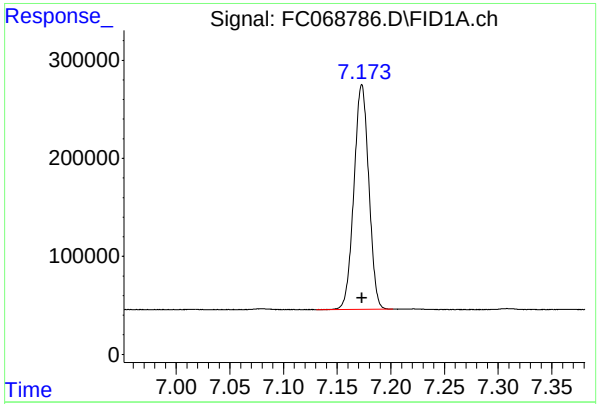
#3 A~Naphthalene (C11.7)

R.T.: 6.115 min
Delta R.T.: 0.000 min
Response: 2278649
Conc: 20.67 ug/ml



#4 n-Dodecane (C12)

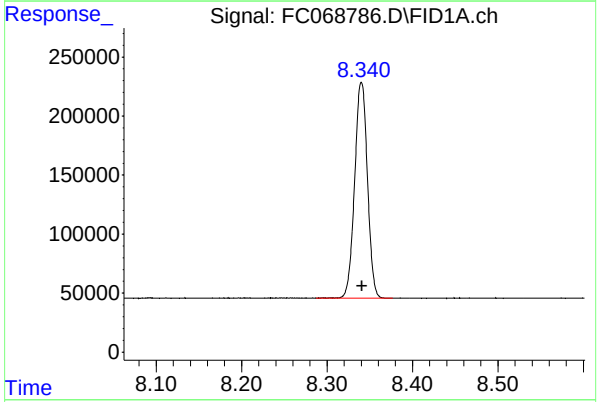
R.T.: 6.543 min
Delta R.T.: 0.000 min
Response: 2004473
Conc: 20.63 ug/ml



#5 A~2-methylnaphthalene (C12.89)

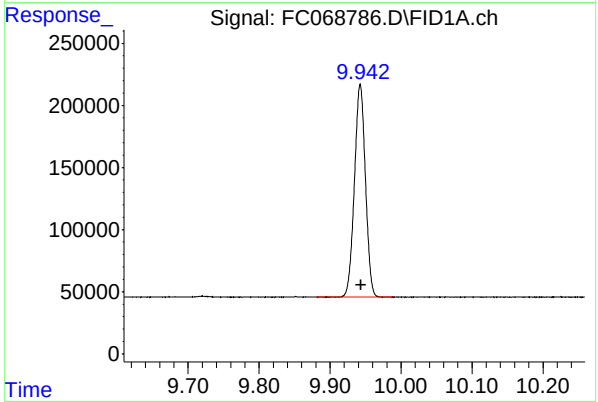
R.T.: 7.173 min
Delta R.T.: 0.000 min
Response: 2210420
Conc: 20.59 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV



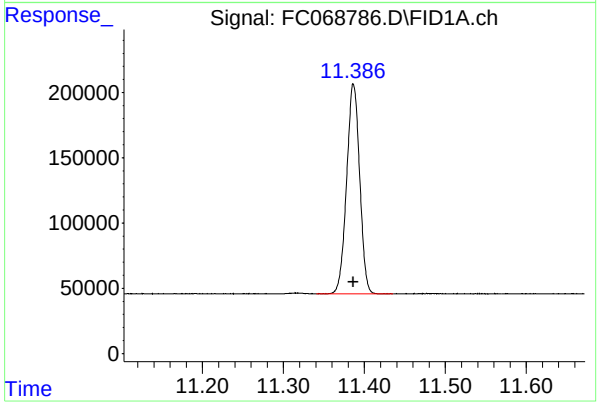
#6 n-Tetradecane (C14)

R.T.: 8.340 min
Delta R.T.: 0.000 min
Response: 1902473
Conc: 20.58 ug/ml



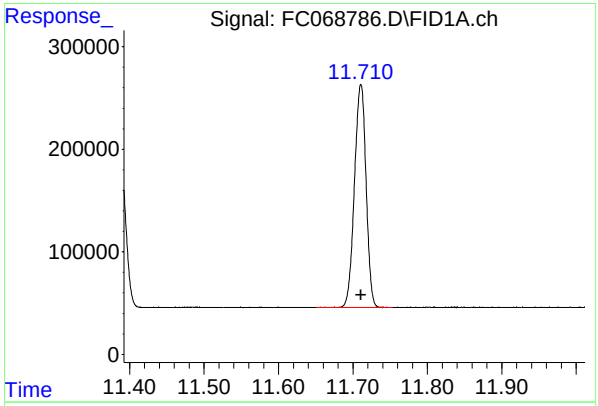
#7 n-Hexadecane (C16)

R.T.: 9.943 min
Delta R.T.: -0.001 min
Response: 1844094
Conc: 20.59 ug/ml



#8 n-Octadecane (C18)

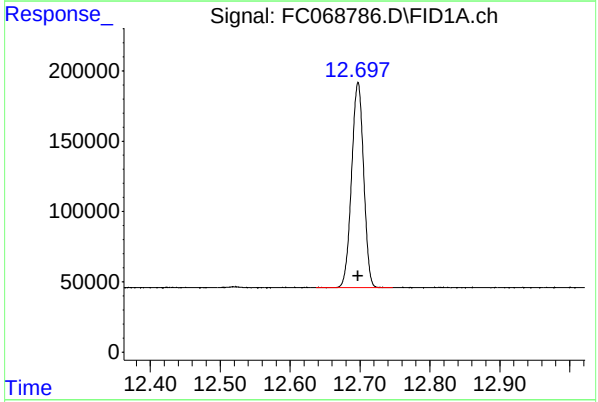
R.T.: 11.387 min
Delta R.T.: 0.000 min
Response: 1800440
Conc: 20.53 ug/ml



#9 ortho-Terphenyl (SURR)

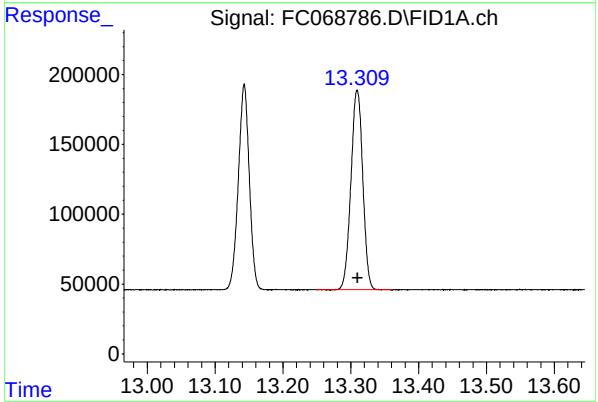
R.T.: 11.711 min
Delta R.T.: 0.000 min
Response: 2355158
Conc: 20.63 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV



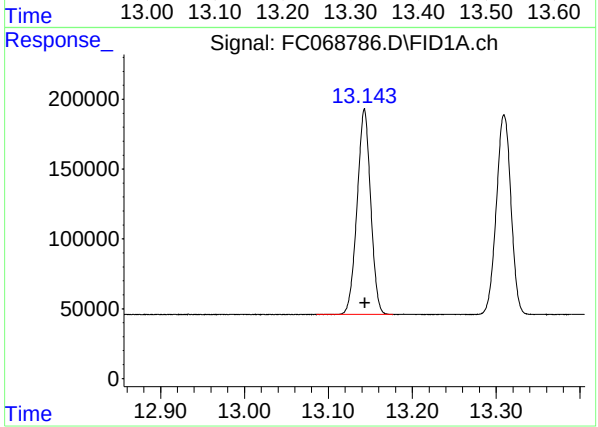
#10 n-Eicosane (C20)

R.T.: 12.697 min
Delta R.T.: 0.000 min
Response: 1749876
Conc: 20.53 ug/ml



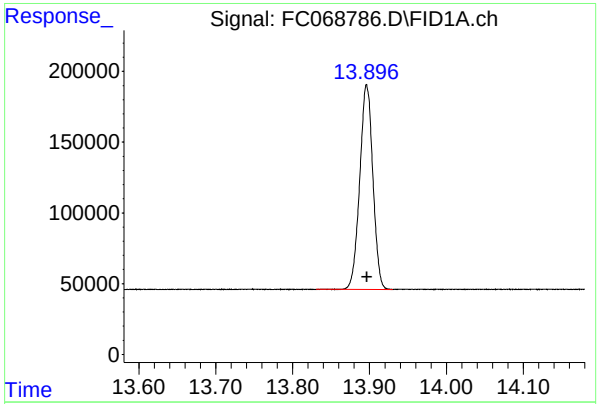
#11 n-Heneicosane (C21)

R.T.: 13.310 min
Delta R.T.: 0.000 min
Response: 1732609
Conc: 20.54 ug/ml



#12 1-chlorooctadecane (SURR)

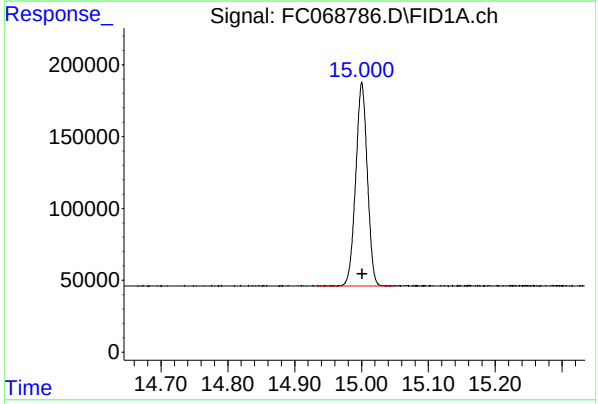
R.T.: 13.143 min
Delta R.T.: 0.000 min
Response: 1650109
Conc: 20.57 ug/ml



#13 n-Docosane (C22)

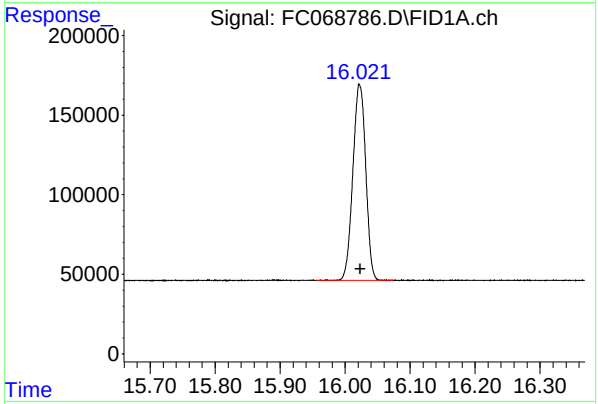
R.T.: 13.896 min
Delta R.T.: 0.000 min
Response: 1718343
Conc: 20.54 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV



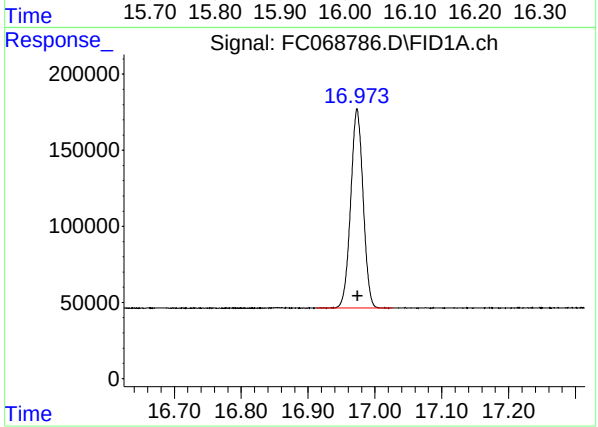
#14 n-Tetracosane (C24)

R.T.: 15.001 min
Delta R.T.: 0.000 min
Response: 1707173
Conc: 20.52 ug/ml



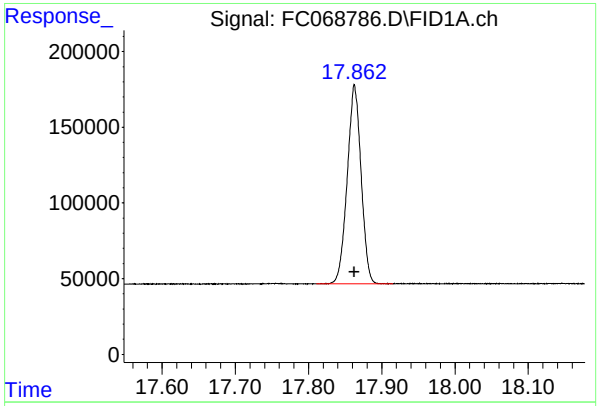
#15 n-Hexacosane (C26)

R.T.: 16.022 min
Delta R.T.: 0.000 min
Response: 1697577
Conc: 20.49 ug/ml



#16 n-Octacosane (C28)

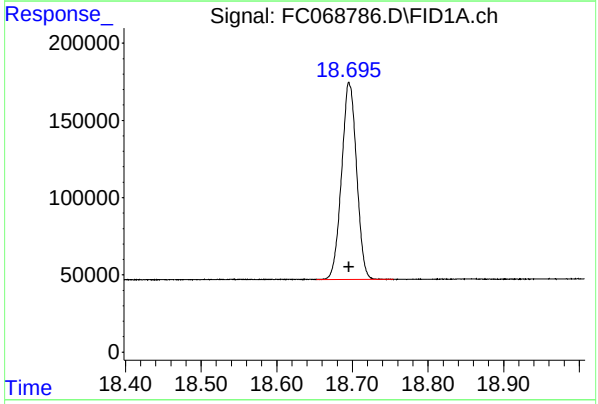
R.T.: 16.973 min
Delta R.T.: 0.000 min
Response: 1687805
Conc: 20.42 ug/ml



#17 n-Tricontane (C30)

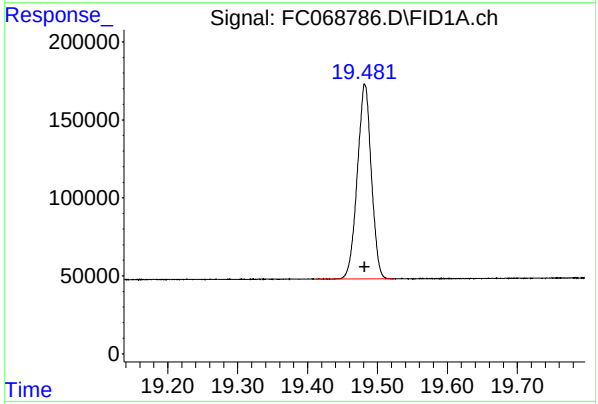
R.T.: 17.863 min
Delta R.T.: 0.000 min
Response: 1728320
Conc: 20.43 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV



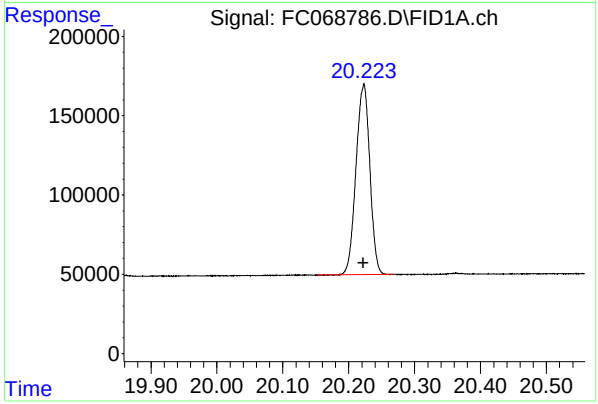
#18 n-Dotriacontane (C32)

R.T.: 18.696 min
Delta R.T.: 0.000 min
Response: 1757564
Conc: 20.40 ug/ml



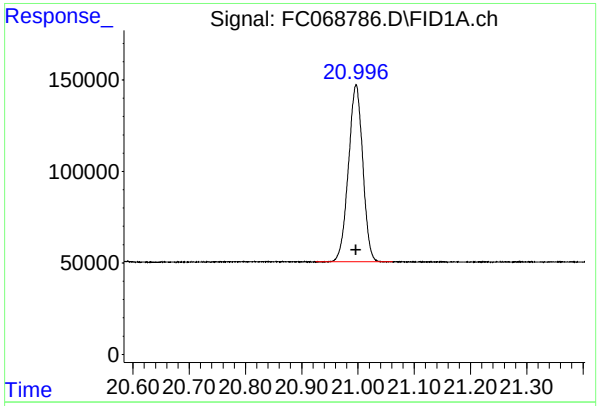
#19 n-Tetratriacontane (C34)

R.T.: 19.482 min
Delta R.T.: 0.000 min
Response: 1737972
Conc: 20.40 ug/ml



#20 n-Hexatriacontane (C36)

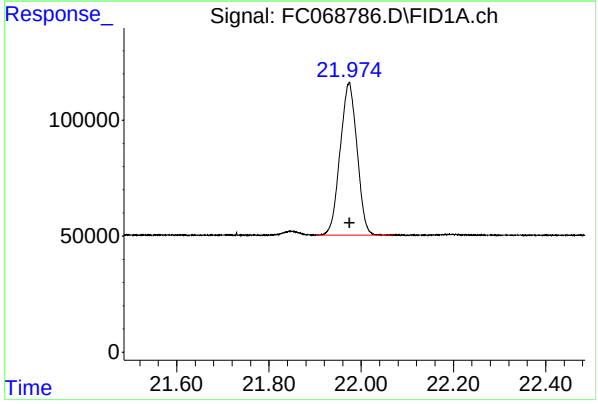
R.T.: 20.223 min
Delta R.T.: 0.000 min
Response: 1753728
Conc: 20.40 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 20.997 min
Delta R.T.: 0.000 mi
Response: 1714449
Conc: 20.44 ug/m

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV



#22 n-Tetracontane (C40)

R.T.: 21.974 min
Delta R.T.: -0.002 min
Response: 1669453
Conc: 20.37 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068786.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 18:40
Sample : 20 PPM ALIPHATIC HC STD ICV
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.442	3.379	3.512	BB	250694	2081542	88.38%	5.097%
2	4.518	4.459	4.562	BB	231932	2058071	87.39%	5.039%
3	6.115	6.057	6.172	BB	249029	2278649	96.75%	5.579%
4	6.543	6.482	6.582	BB	207468	2004473	85.11%	4.908%
5	7.173	7.130	7.202	BB	229639	2210420	93.85%	5.412%
6	8.340	8.287	8.377	BB	182930	1902473	80.78%	4.658%
7	9.943	9.880	9.989	BB	171273	1844094	78.30%	4.515%
8	11.387	11.340	11.435	BB	159991	1800440	76.45%	4.408%
9	11.711	11.650	11.754	BB	217837	2355158	100.00%	5.767%
10	12.697	12.637	12.747	BB	146326	1749876	74.30%	4.285%
11	13.143	13.085	13.177	BB	147670	1650109	70.06%	4.040%
12	13.310	13.249	13.362	BB	142942	1732609	73.57%	4.242%
13	13.896	13.830	13.930	BB	143765	1718343	72.96%	4.207%
14	15.001	14.932	15.047	BB	141597	1707173	72.49%	4.180%
15	16.022	15.955	16.074	BB	123224	1697577	72.08%	4.157%
16	16.973	16.912	17.027	BB	130891	1687805	71.66%	4.133%
17	17.863	17.810	17.915	BB	129951	1728320	73.38%	4.232%
18	18.696	18.652	18.754	BB	127231	1757564	74.63%	4.304%
19	19.482	19.412	19.522	BB	124751	1737972	73.79%	4.256%
20	20.223	20.150	20.267	BB	119167	1753728	74.46%	4.294%
21	20.997	20.925	21.062	BB	96959	1714449	72.80%	4.198%
22	21.974	21.902	22.069	BB	65711	1669453	70.88%	4.088%
			Sum of corrected areas:			40840301		

Aliphatic EPH 050625.M Wed May 07 09:09:22 2025

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

Inital Calibration Report for SequenceID : FD050125AR

AreaCount

Parameter Range	FD049298.D	FD049299.D	FD049300.D	FD049301.D	FD049302.D	
Aromatic C10-C12	24947085.000	13432598.000	5352823.000	2577094.000	1209211.000	
Aromatic C12-C16	39319151.000	21327001.000	8518789.000	4088995.000	1906691.000	
Aromatic C16-C21	51864159.000	28036330.000	11078299.000	5170923.000	2360160.000	
Aromatic C21-C36	105771332.000	55185778.000	22063557.000	10548658.000	4807254.000	
Aromatic EPH	221901727.000	117981707.000	47013468.000	22385670.000	10283316.000	

AVG Response Factor

Parameter Range	AVG RF	% RSD				
Aromatic C10-C12	128531.556	4.503				
Aromatic C12-C16	135727.2453328	4.901				
Aromatic C16-C21	131120.372	6.754				
Aromatic C21-C36	117353.8517774	5.489				
Aromatic EPH	124717.2778884	5.478				

Concentration

Parameter Range	FD049298.D	FD049299.D	FD049300.D	FD049301.D	FD049302.D	
Aromatic C10-C12	200.000	100.000	40.000	20.000	10.000	
Aromatic C12-C16	300.000	150.000	60.000	30.000	15.000	
Aromatic C16-C21	400.000	200.000	80.000	40.000	20.000	
Aromatic C21-C36	900.000	450.000	180.000	90.000	45.000	
Aromatic EPH	1800.000	900.000	360.000	180.000	90.000	

Response Factor

Parameter Range	FD049298.D	FD049299.D	FD049300.D	FD049301.D	FD049302.D	
Aromatic C10-C12	124735.425000	134325.980000	133820.575000	128854.700000	120921.100000	
Aromatic C12-C16	131063.836666	142180.006666	141979.816666	136299.833333	127112.733333	
Aromatic C16-C21	129660.397500	140181.650000	138478.737500	129273.075000	118008.000000	
Aromatic C21-C36	117523.702222	122635.062222	122575.316666	117207.311111	106827.866666	
Aromatic EPH	123278.737222	131090.785555	130592.966666	124364.833333	114259.066666	

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049298.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 10:30
Operator : YP/AJ
Sample : 100 PPM AROMATIC HC STD1
Misc :
ALS Vial : 61 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
100 PPM AROMATIC HC STD1

Integration File: autoint1.e
Quant Time: May 01 12:27:03 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 12:24:43 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) S	2-Bromonaphthalene (S...	7.745	11463954	96.108 ug/ml
Spiked Amount	50.000		Recovery =	192.22%
6) S	2-Flurobiphenyl (SURR)	8.611	7800759	96.832 ug/ml
Spiked Amount	50.000 Range	0 - 131	Recovery =	193.66%#
11) S	ortho-Terphenyl (SURR)	11.657	13203715	95.222 ug/ml
Spiked Amount	50.000		Recovery =	190.44%
	Target Compounds			
1) T	1,2,3-Trimethylbenzen...	4.533	12023424	96.262 ug/ml
2) T	Naphthalene (C11.7)	6.080	12923661	96.696 ug/ml
3) T	2-Methylnaphthalene (...	7.135	12548644	96.359 ug/ml
5) T	Acenaphthylene (C15.06)	8.416	13558134	95.743 ug/ml
7) T	Acenaphthene (C15.5)	8.713	13212373	95.931 ug/ml
8) T	Flouorene (C16.55)	9.494	13224001	95.995 ug/ml
9) T	Phenanthrene (C19.36)	10.894	13198540	96.327 ug/ml
10) T	Anthracene (C19.43)	10.970	11932871	97.422 ug/ml
12) T	Fluoranthene (C21.85)	12.710	13459488	97.026 ug/ml
13) T	Pyrene (C20.8)	13.010	13508747	97.173 ug/ml
14) T	Benzo[a]anthracene (C...	14.880	11905065	99.763 ug/ml
15) T	Chrysene (C27.41)	14.928	11971428	99.233 ug/ml
16) T	benzo[b]fluoranthene ...	16.435	12128915	98.221 ug/ml
17) T	Bnezo[k]fluoranthene ...	16.474	11789554	97.799 ug/ml
18) T	Benzo[a]pyrene (C31.34)	16.817	11413341	97.782 ug/ml
19) T	Indeno[1,2,3-cd]pyren...	18.183	11097989	98.710 ug/ml
20) T	Dibenz[a,h]anthracene...	18.223	10329974	96.013 ug/ml
21) T	Benzo[g,h,i]perylene ...	18.446	11675578	96.897 ug/ml

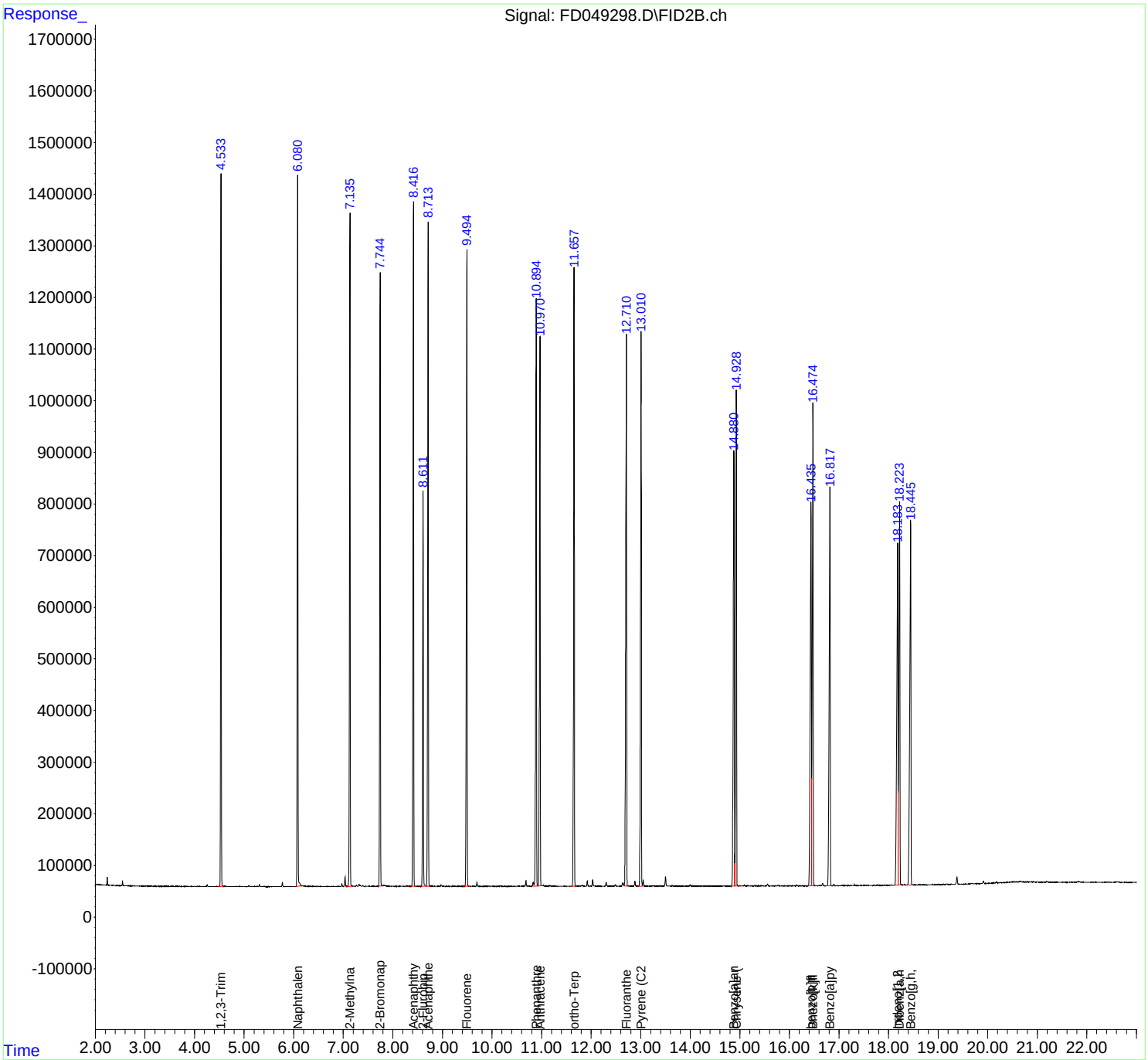
(f)=RT Delta > 1/2 Window (m)=manual int.

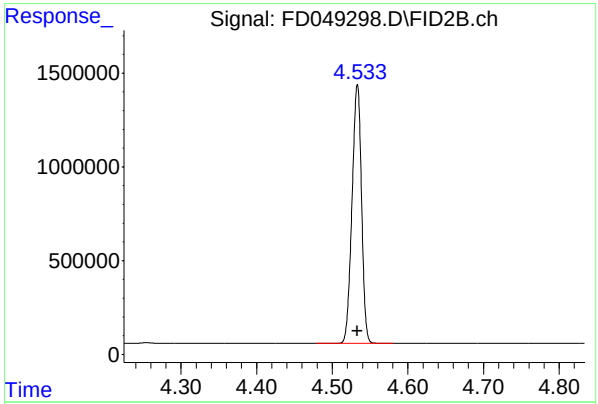
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049298.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 10:30
Operator : YP/AJ
Sample : 100 PPM AROMATIC HC STD1
Misc :
ALS Vial : 61 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
100 PPM AROMATIC HC STD1

Integration File: autoint1.e
Quant Time: May 01 12:27:03 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 12:24:43 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

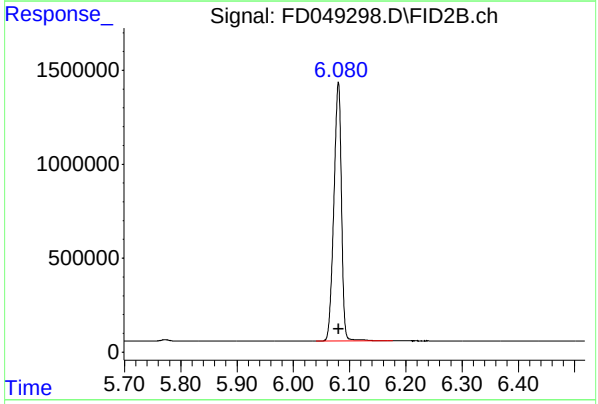




#1 1,2,3-Trimethylbenzene (C10.1)

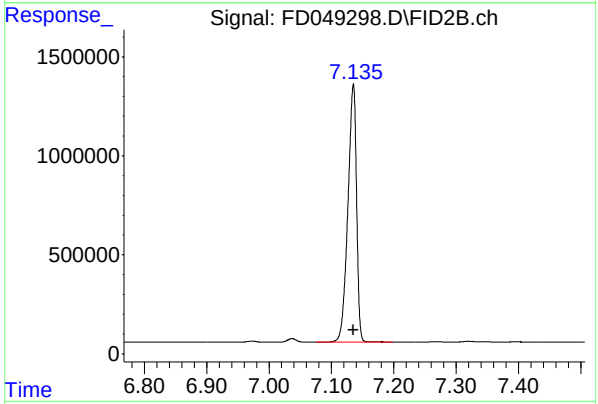
R.T.: 4.533 min
Delta R.T.: 0.000 min
Response: 12023424
Conc: 96.26 ug/ml

Instrument :
FID_D
ClientSampleId :
100 PPM AROMATIC HC STD1



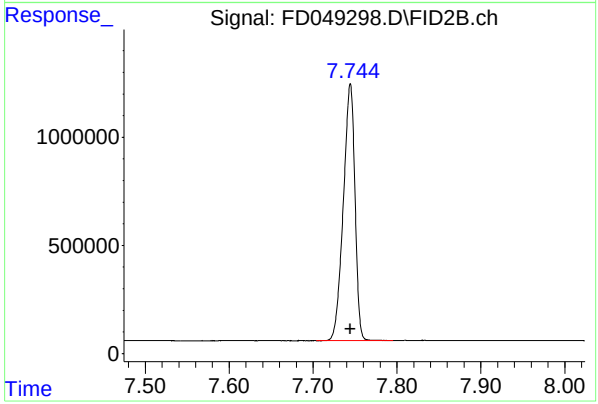
#2 Naphthalene (C11.7)

R.T.: 6.080 min
Delta R.T.: 0.000 min
Response: 12923661
Conc: 96.70 ug/ml



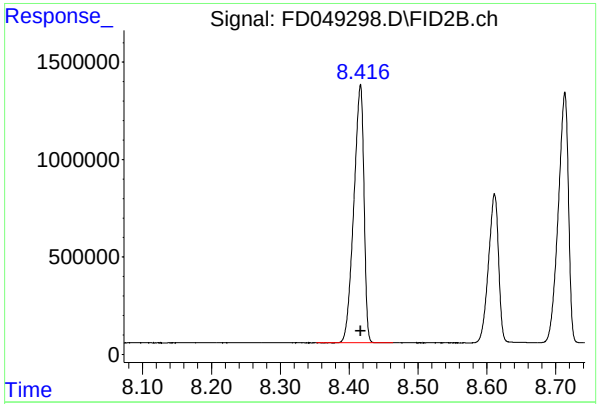
#3 2-Methylnaphthalene (C12.89)

R.T.: 7.135 min
Delta R.T.: 0.000 min
Response: 12548644
Conc: 96.36 ug/ml



#4 2-Bromonaphthalene (SURR)

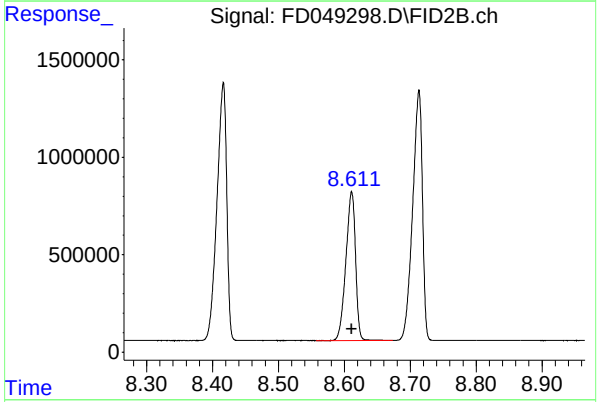
R.T.: 7.745 min
Delta R.T.: 0.000 min
Response: 11463954
Conc: 96.11 ug/ml



#5 Acenaphthylene (C15.06)

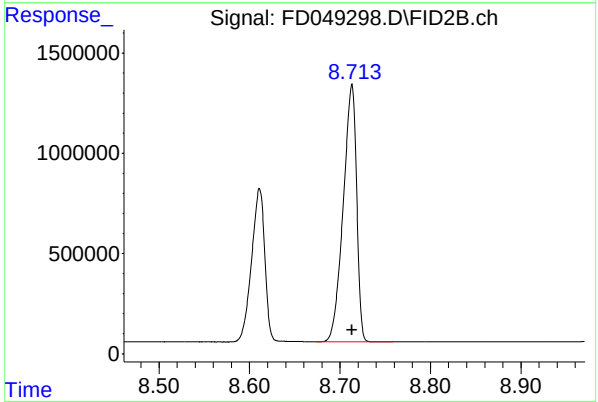
R.T.: 8.416 min
Delta R.T.: 0.000 min
Response: 13558134
Conc: 95.74 ug/ml

Instrument :
FID_D
ClientSampleId :
100 PPM AROMATIC HC STD1



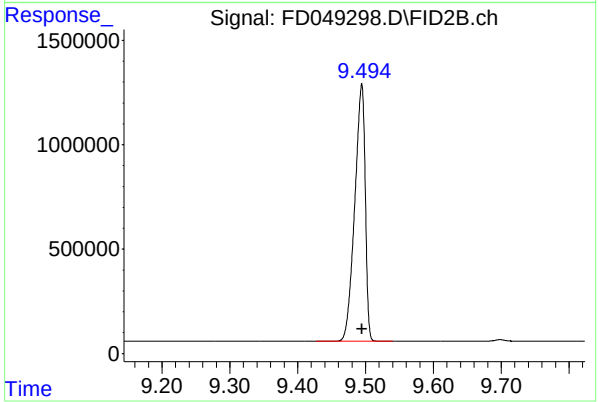
#6 2-Flurobiphenyl (SURR)

R.T.: 8.611 min
Delta R.T.: 0.000 min
Response: 7800759
Conc: 96.83 ug/ml



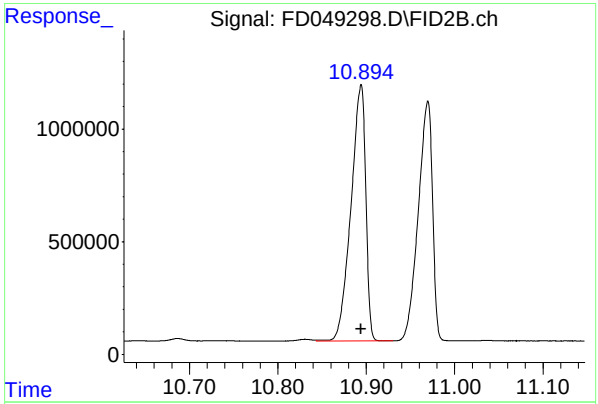
#7 Acenaphthene (C15.5)

R.T.: 8.713 min
Delta R.T.: 0.000 min
Response: 13212373
Conc: 95.93 ug/ml



#8 Flouorene (C16.55)

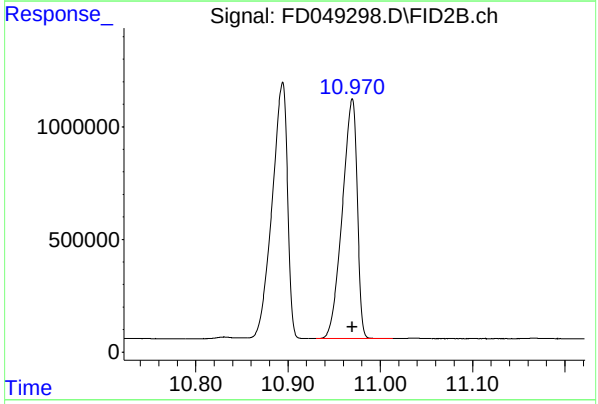
R.T.: 9.494 min
Delta R.T.: 0.000 min
Response: 13224001
Conc: 96.00 ug/ml



#9 Phenanthrene (C19.36)

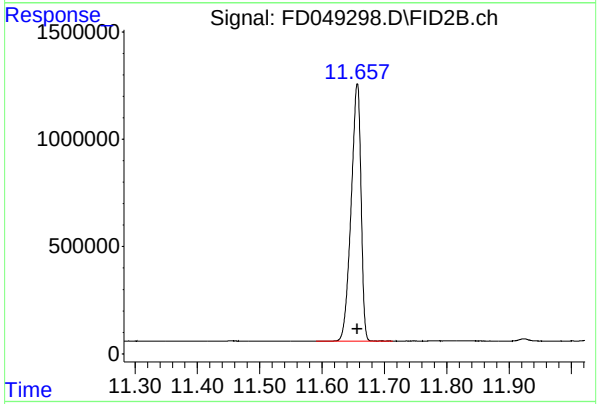
R.T.: 10.894 min
Delta R.T.: 0.000 min
Response: 13198540
Conc: 96.33 ug/ml

Instrument :
FID_D
ClientSampleId :
100 PPM AROMATIC HC STD1



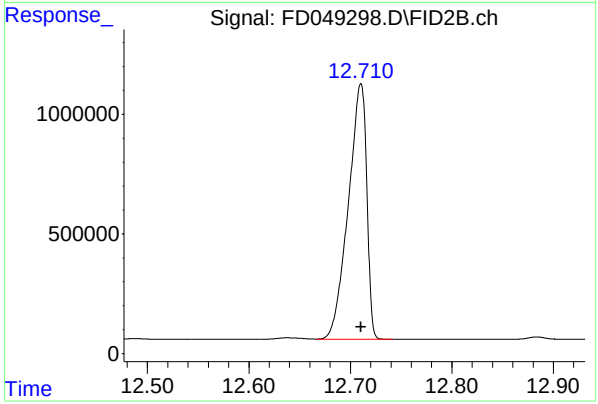
#10 Anthracene (C19.43)

R.T.: 10.970 min
Delta R.T.: 0.000 min
Response: 11932871
Conc: 97.42 ug/ml



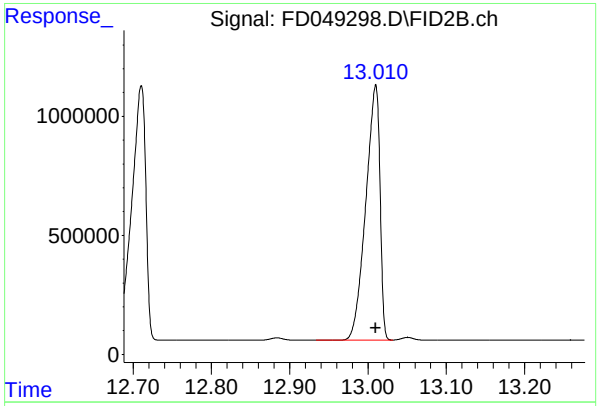
#11 ortho-Terphenyl (SURR)

R.T.: 11.657 min
Delta R.T.: 0.000 min
Response: 13203715
Conc: 95.22 ug/ml



#12 Fluoranthene (C21.85)

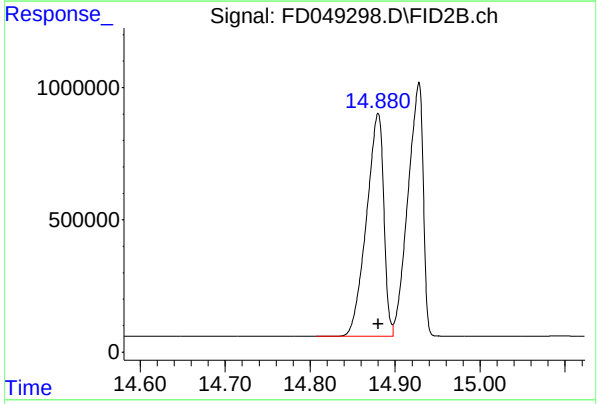
R.T.: 12.710 min
Delta R.T.: 0.000 min
Response: 13459488
Conc: 97.03 ug/ml



#13 Pyrene (C20.8)

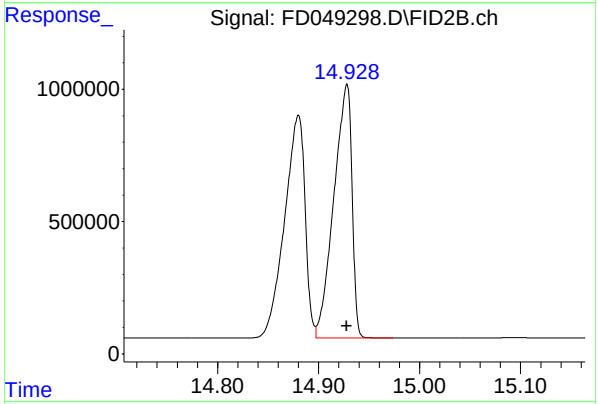
R.T.: 13.010 min
Delta R.T.: 0.000 min
Response: 13508747
Conc: 97.17 ug/ml

Instrument :
FID_D
ClientSampleId :
100 PPM AROMATIC HC STD1



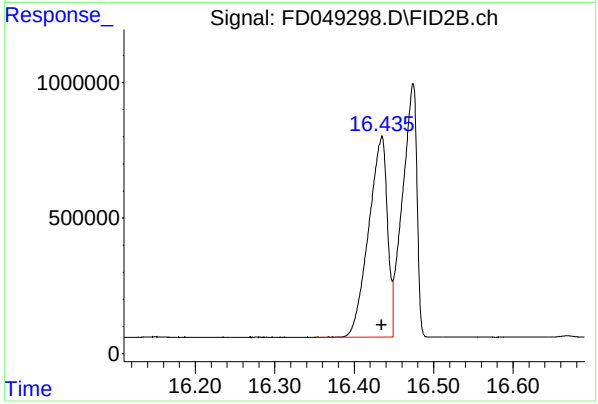
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.880 min
Delta R.T.: 0.000 min
Response: 11905065
Conc: 99.76 ug/ml



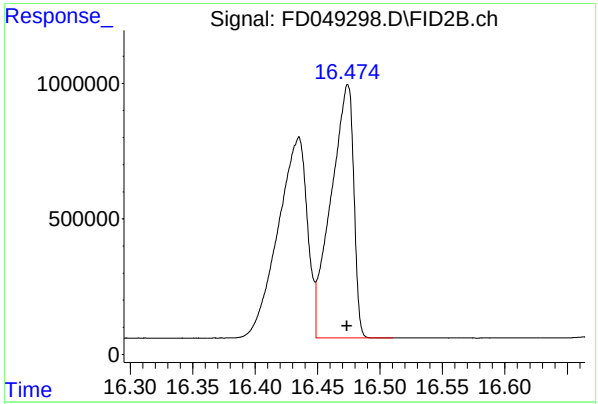
#15 Chrysene (C27.41)

R.T.: 14.928 min
Delta R.T.: 0.000 min
Response: 11971428
Conc: 99.23 ug/ml



#16 benzo[b]fluoranthene (C30.41)

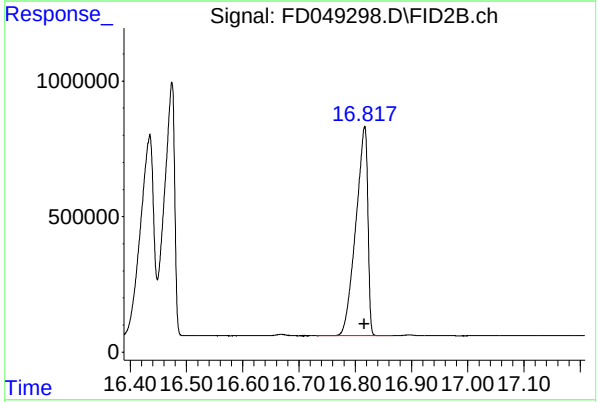
R.T.: 16.435 min
Delta R.T.: 0.000 min
Response: 12128915
Conc: 98.22 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

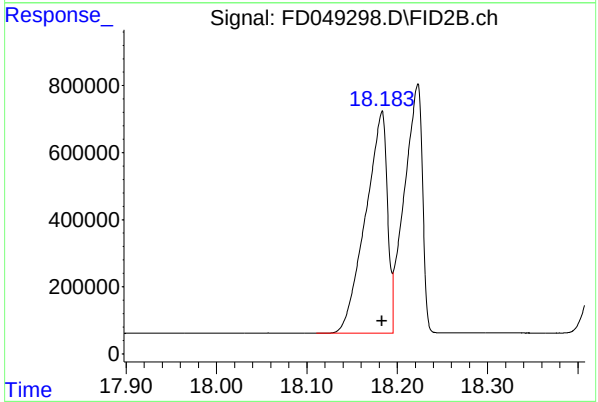
R.T.: 16.474 min
Delta R.T.: 0.000 mi
Response: 11789554
Conc: 97.80 ug/m

Instrument :
FID_D
ClientSampleId :
100 PPM AROMATIC HC STD1



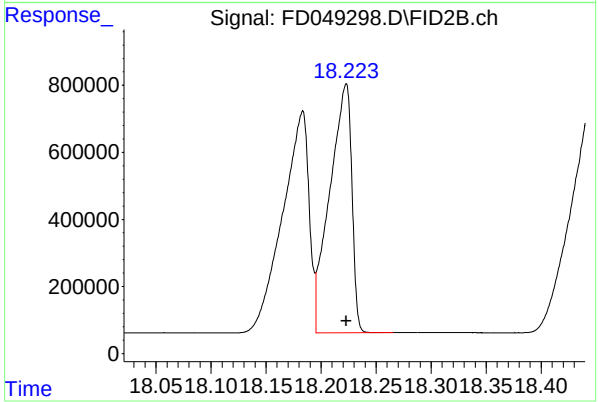
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.817 min
Delta R.T.: 0.000 min
Response: 11413341
Conc: 97.78 ug/ml



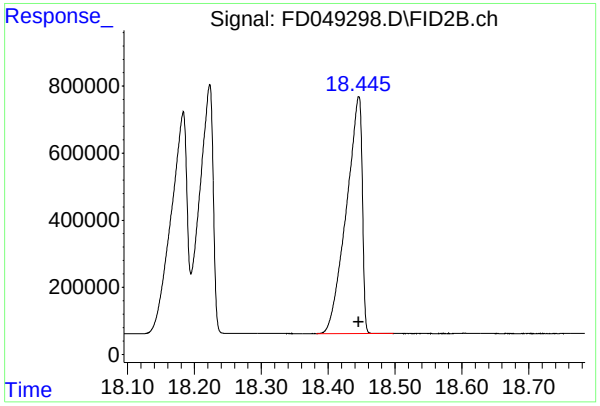
#19 Indeno[1,2,3-cd]pyrene (C35.01)

R.T.: 18.183 min
Delta R.T.: 0.000 min
Response: 11097989
Conc: 98.71 ug/ml



#20 Dibenz[a,h]anthracene (C30.36)

R.T.: 18.223 min
Delta R.T.: 0.000 min
Response: 10329974
Conc: 96.01 ug/ml



#21 Benzo[g,h,i]perylene (C34.01)

R.T.: 18.446 min
Delta R.T.: 0.000 mi
Response: 11675578
Conc: 96.90 ug/m

Instrument :
FID_D
ClientSampleId :
100 PPM AROMATIC HC STD1

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049298.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 10:30
Sample : 100 PPM AROMATIC HC STD1
Misc :
ALS Vial : 61 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.533	4.479	4.580	BB	1383311	12023424	88.68%	4.727%
2	6.080	6.040	6.177	BB	1379616	12923661	95.32%	5.081%
3	7.135	7.075	7.199	BB	1303795	12548644	92.55%	4.933%
4	7.745	7.704	7.795	BB	1189855	11463954	84.55%	4.507%
5	8.416	8.352	8.464	BB	1332074	13558134	100.00%	5.330%
6	8.611	8.557	8.674	BV	761250	7800759	57.54%	3.067%
7	8.713	8.674	8.759	VB	1289143	13212373	97.45%	5.194%
8	9.494	9.427	9.540	BB	1225255	13224001	97.54%	5.199%
9	10.894	10.843	10.930	VV	1132715	13198540	97.35%	5.189%
10	10.970	10.930	11.014	VB	1069036	11932871	88.01%	4.691%
11	11.657	11.590	11.714	BB	1201807	13203715	97.39%	5.191%
12	12.710	12.666	12.742	VB	1069024	13459488	99.27%	5.291%
13	13.010	12.934	13.032	BV	1075502	13508747	99.64%	5.311%
14	14.880	14.807	14.897	BV	843714	11905065	87.81%	4.680%
15	14.928	14.897	14.974	VB	964505	11971428	88.30%	4.706%
16	16.435	16.352	16.449	BV	744080	12128915	89.46%	4.768%
17	16.474	16.449	16.510	VB	936360	11789554	86.96%	4.635%
18	16.817	16.730	16.867	BB	771954	11413341	84.18%	4.487%
19	18.183	18.110	18.195	BV	664336	11097989	81.85%	4.363%
20	18.223	18.195	18.265	VB	739588	10329974	76.19%	4.061%
21	18.446	18.382	18.497	BB	707779	11675578	86.11%	4.590%

Sum of corrected areas: 254370156

Aromatic EPH 050125.M Fri May 02 05:05:46 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049299.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 11:07
Operator : YP/AJ
Sample : 50 PPM AROMATIC HC STD2
Misc :
ALS Vial : 62 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
50 PPM AROMATIC HC STD2

Integration File: autoint1.e
Quant Time: May 01 12:28:58 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 12:24:43 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) S	2-Bromonaphthalene (S...	7.741	6217746	51.398 ug/ml
Spiked Amount	50.000		Recovery =	102.80%
6) S	2-Flurobiphenyl (SURR)	8.607	4216284	51.534 ug/ml
Spiked Amount	50.000 Range	0 - 131	Recovery =	103.07%
11) S	ortho-Terphenyl (SURR)	11.652	7202828	51.280 ug/ml
Spiked Amount	50.000		Recovery =	102.56%
	Target Compounds			
1) T	1,2,3-Trimethylbenzen...	4.531	6477721	51.226 ug/ml
2) T	Naphthalene (C11.7)	6.077	6954877	51.340 ug/ml
3) T	2-Methylnaphthalene (...	7.131	6791095	51.411 ug/ml
5) T	Acenaphthylene (C15.06)	8.411	7372643	51.357 ug/ml
7) T	Acenaphthene (C15.5)	8.708	7163263	51.322 ug/ml
8) T	Flouorene (C16.55)	9.489	7197835	51.478 ug/ml
9) T	Phenanthrene (C19.36)	10.888	7171493	51.536 ug/ml
10) T	Anthracene (C19.43)	10.963	6465378	51.822 ug/ml
12) T	Fluoranthene (C21.85)	12.702	7217122	51.333 ug/ml
13) T	Pyrene (C20.8)	13.001	7201624	51.188 ug/ml
14) T	Benzo[a]anthracene (C...	14.872	6177201	51.163 ug/ml
15) T	Chrysene (C27.41)	14.916	6224941	51.055 ug/ml
16) T	benzo[b]fluoranthene ...	16.424	6243646	50.373 ug/ml
17) T	Bnezo[k]fluoranthene ...	16.459	6132161	50.462 ug/ml
18) T	Benzo[a]pyrene (C31.34)	16.805	5903388	50.383 ug/ml
19) T	Indeno[1,2,3-cd]pyren...	18.170	5669871	50.286 ug/ml
20) T	Dibenz[a,h]anthracene...	18.210	5532200	50.915 ug/ml
21) T	Benzo[g,h,i]perylene ...	18.429	6085248	50.334 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

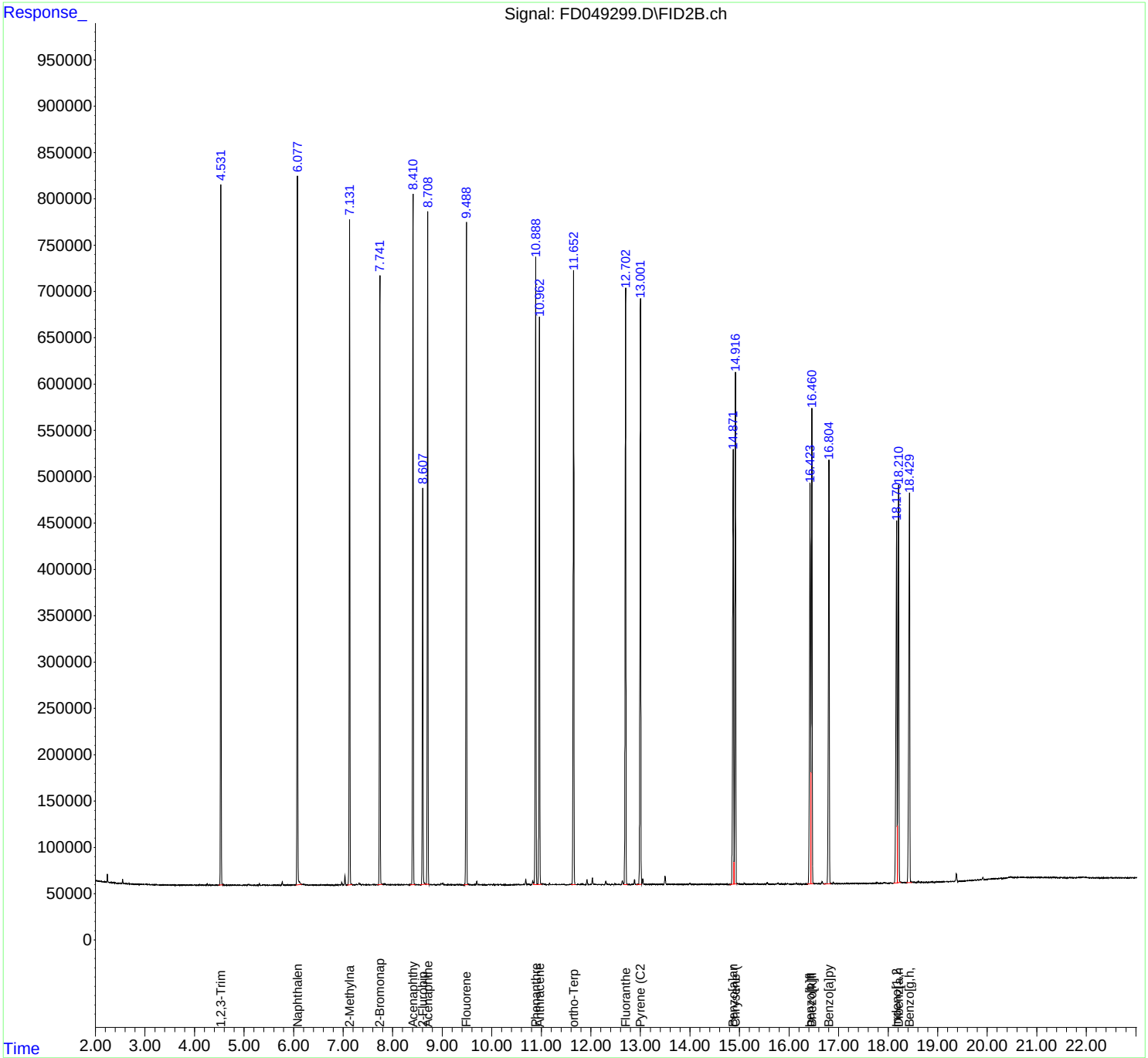
Quantitation Report (QT Reviewed)

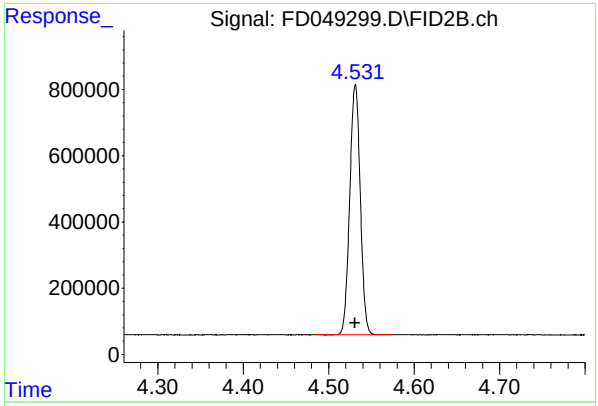
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049299.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 11:07
Operator : YP/AJ
Sample : 50 PPM AROMATIC HC STD2
Misc :
ALS Vial : 62 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
50 PPM AROMATIC HC STD2

Integration File: autoint1.e
Quant Time: May 01 12:28:58 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 12:24:43 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

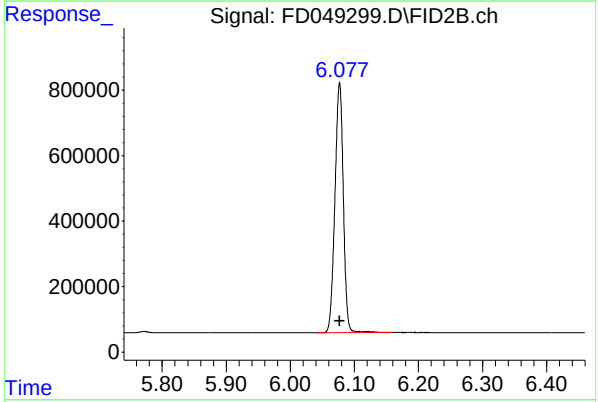




#1 1,2,3-Trimethylbenzene (C10.1)

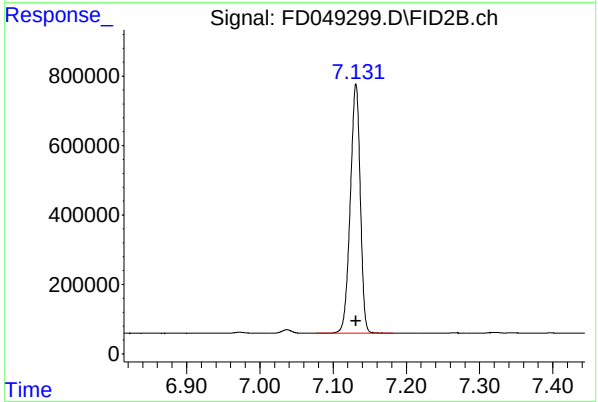
R.T.: 4.531 min
Delta R.T.: 0.000 min
Response: 6477721
Conc: 51.23 ug/ml

Instrument :
FID_D
ClientSampleId :
50 PPM AROMATIC HC STD2



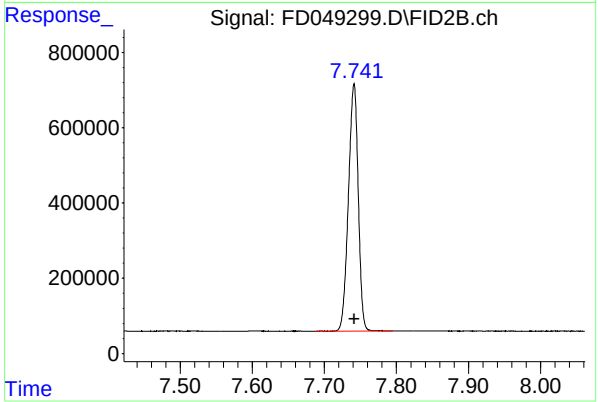
#2 Naphthalene (C11.7)

R.T.: 6.077 min
Delta R.T.: 0.000 min
Response: 6954877
Conc: 51.34 ug/ml



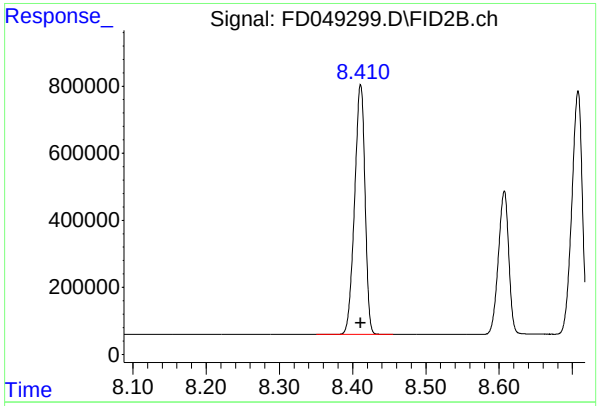
#3 2-Methylnaphthalene (C12.89)

R.T.: 7.131 min
Delta R.T.: 0.000 min
Response: 6791095
Conc: 51.41 ug/ml



#4 2-Bromonaphthalene (SURR)

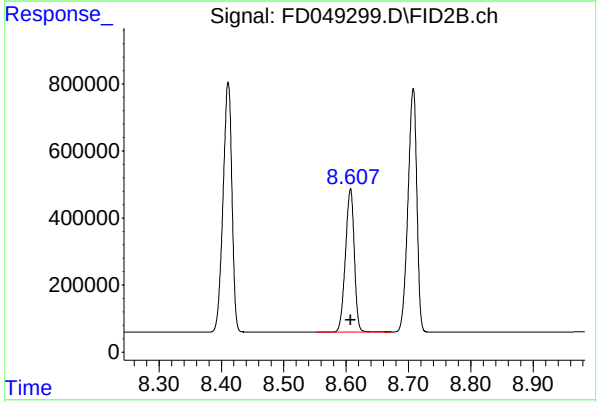
R.T.: 7.741 min
Delta R.T.: 0.000 min
Response: 6217746
Conc: 51.40 ug/ml



#5 Acenaphthylene (C15.06)

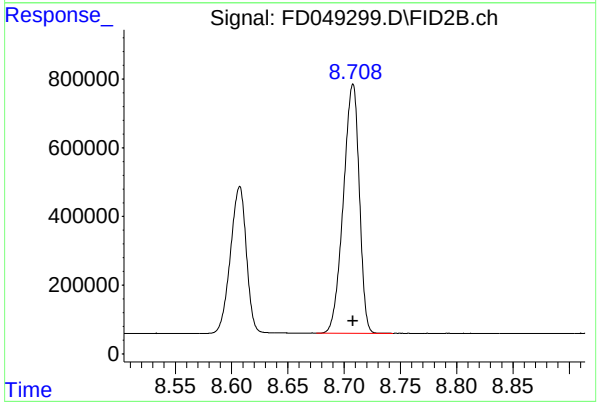
R.T.: 8.411 min
Delta R.T.: 0.000 min
Response: 7372643
Conc: 51.36 ug/ml

Instrument :
FID_D
ClientSampleId :
50 PPM AROMATIC HC STD2



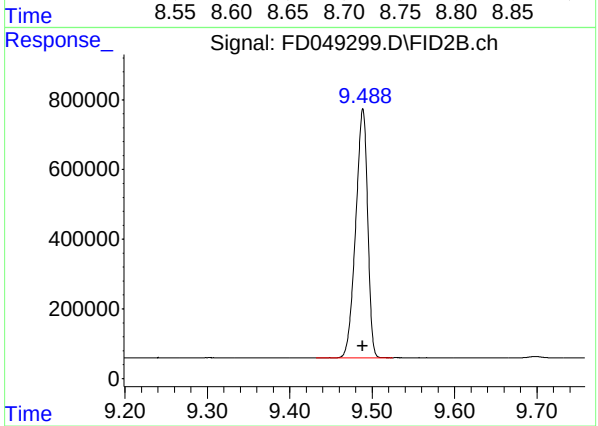
#6 2-Flurobiphenyl (SURR)

R.T.: 8.607 min
Delta R.T.: 0.000 min
Response: 4216284
Conc: 51.53 ug/ml



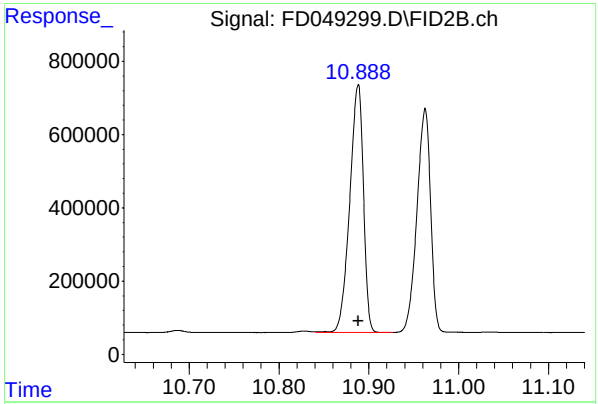
#7 Acenaphthene (C15.5)

R.T.: 8.708 min
Delta R.T.: 0.000 min
Response: 7163263
Conc: 51.32 ug/ml



#8 Flouorene (C16.55)

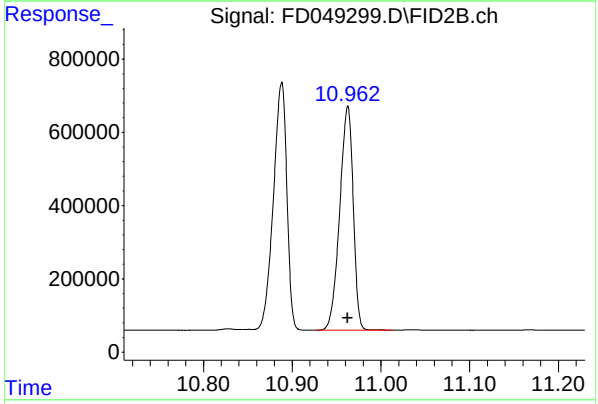
R.T.: 9.489 min
Delta R.T.: 0.000 min
Response: 7197835
Conc: 51.48 ug/ml



#9 Phenanthrene (C19.36)

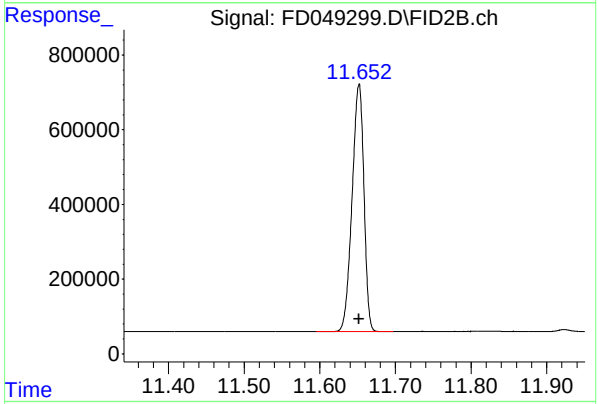
R.T.: 10.888 min
Delta R.T.: 0.000 min
Response: 7171493
Conc: 51.54 ug/ml

Instrument :
FID_D
ClientSampleId :
50 PPM AROMATIC HC STD2



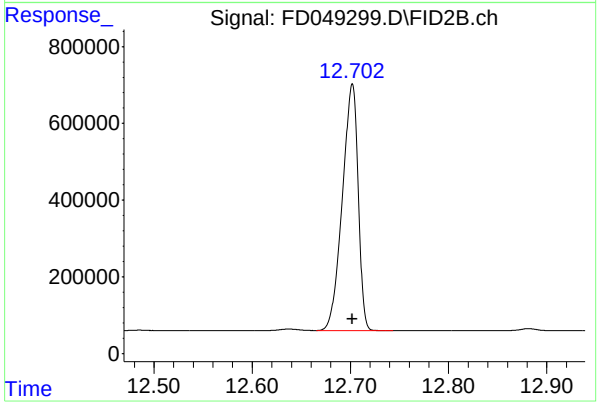
#10 Anthracene (C19.43)

R.T.: 10.963 min
Delta R.T.: 0.000 min
Response: 6465378
Conc: 51.82 ug/ml



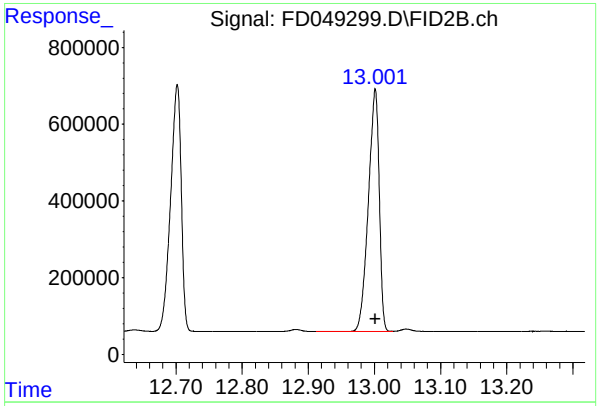
#11 ortho-Terphenyl (SURR)

R.T.: 11.652 min
Delta R.T.: 0.000 min
Response: 7202828
Conc: 51.28 ug/ml



#12 Fluoranthene (C21.85)

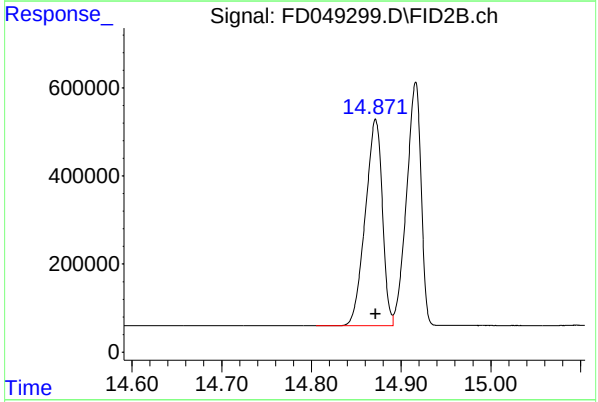
R.T.: 12.702 min
Delta R.T.: 0.000 min
Response: 7217122
Conc: 51.33 ug/ml



#13 Pyrene (C20.8)

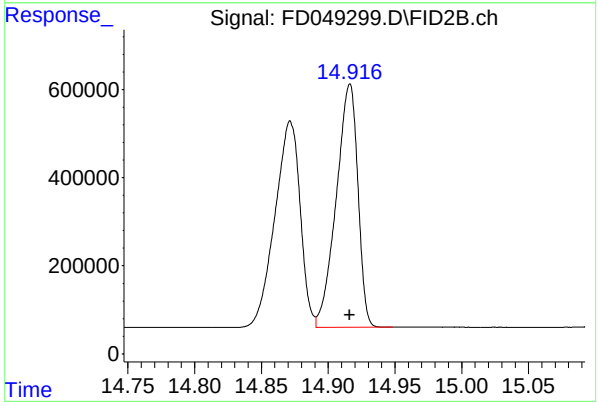
R.T.: 13.001 min
Delta R.T.: 0.000 min
Response: 7201624
Conc: 51.19 ug/ml

Instrument :
FID_D
ClientSampleId :
50 PPM AROMATIC HC STD2



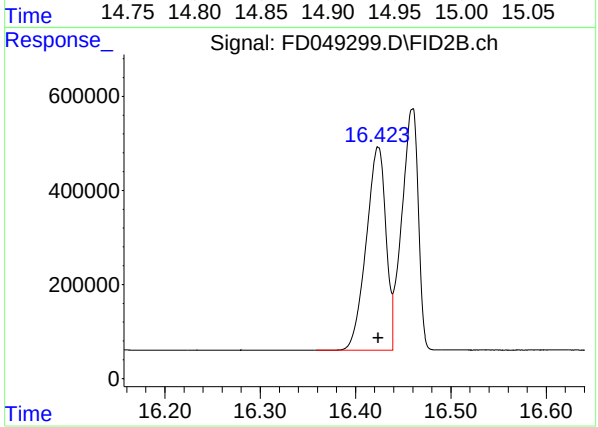
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.872 min
Delta R.T.: 0.000 min
Response: 6177201
Conc: 51.16 ug/ml



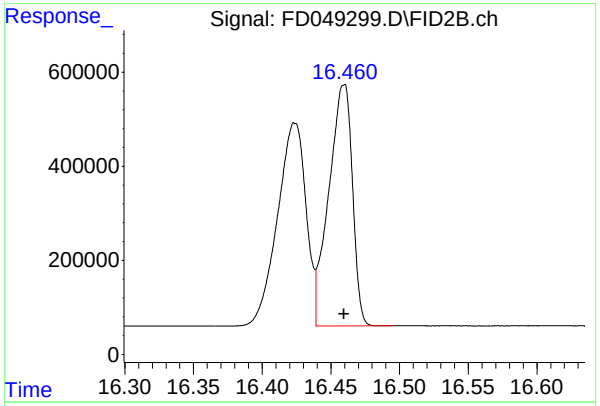
#15 Chrysene (C27.41)

R.T.: 14.916 min
Delta R.T.: 0.000 min
Response: 6224941
Conc: 51.06 ug/ml



#16 benzo[b]fluoranthene (C30.41)

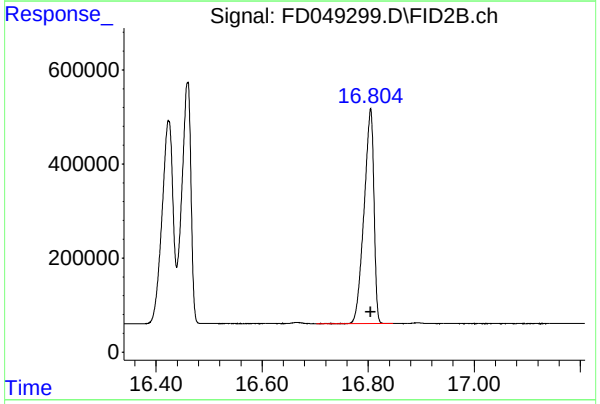
R.T.: 16.424 min
Delta R.T.: 0.000 min
Response: 6243646
Conc: 50.37 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

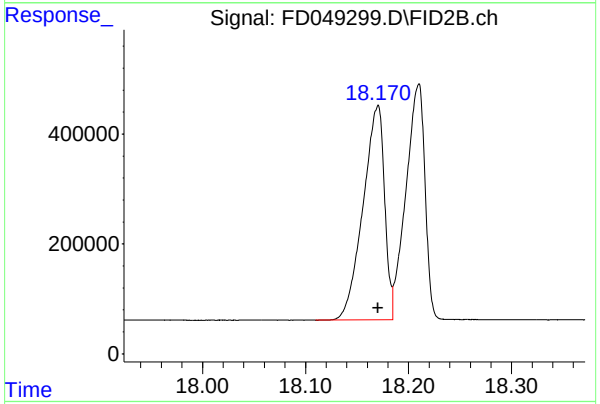
R.T.: 16.459 min
Delta R.T.: 0.000 min
Response: 6132161
Conc: 50.46 ug/ml

Instrument :
FID_D
ClientSampleId :
50 PPM AROMATIC HC STD2



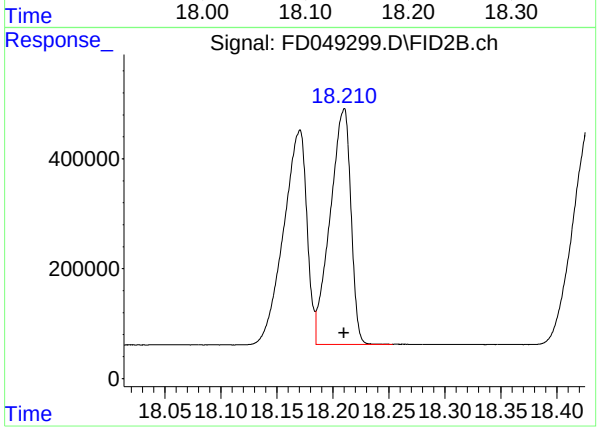
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.805 min
Delta R.T.: 0.000 min
Response: 5903388
Conc: 50.38 ug/ml



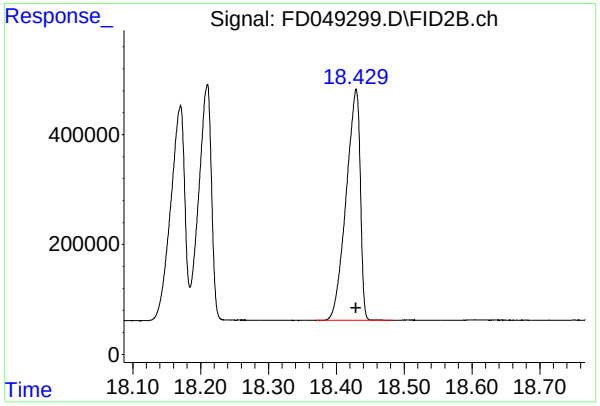
#19 Indeno[1,2,3-cd]pyrene (C35.01)

R.T.: 18.170 min
Delta R.T.: 0.000 min
Response: 5669871
Conc: 50.29 ug/ml



#20 Dibenz[a,h]anthracene (C30.36)

R.T.: 18.210 min
Delta R.T.: 0.000 min
Response: 5532200
Conc: 50.92 ug/ml



#21 Benzo[g,h,i]perylene (C34.01)

R.T.: 18.429 min
Delta R.T.: 0.000 mi
Response: 6085248
Conc: 50.33 ug/m

Instrument :
FID_D
ClientSampleId :
50 PPM AROMATIC HC STD2

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049299.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 11:07
Sample : 50 PPM AROMATIC HC STD2
Misc :
ALS Vial : 62 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.531	4.485	4.575	BB	756920	6477721	87.86%	4.776%
2	6.077	6.040	6.160	BB	763061	6954877	94.33%	5.128%
3	7.131	7.077	7.182	BB	718859	6791095	92.11%	5.007%
4	7.741	7.688	7.795	BV	658308	6217746	84.34%	4.585%
5	8.411	8.350	8.455	BB	745782	7372643	100.00%	5.436%
6	8.607	8.552	8.675	BB	426866	4216284	57.19%	3.109%
7	8.708	8.675	8.743	BB	728156	7163263	97.16%	5.282%
8	9.489	9.432	9.525	BB	714807	7197835	97.63%	5.307%
9	10.888	10.841	10.927	VV	677297	7171493	97.27%	5.288%
10	10.963	10.927	11.013	VV	612463	6465378	87.69%	4.767%
11	11.652	11.595	11.697	BB	661649	7202828	97.70%	5.311%
12	12.702	12.665	12.743	VB	643704	7217122	97.89%	5.322%
13	13.001	12.912	13.028	BV	632786	7201624	97.68%	5.310%
14	14.872	14.805	14.891	BV	468489	6177201	83.79%	4.555%
15	14.916	14.891	14.948	VB	554921	6224941	84.43%	4.590%
16	16.424	16.358	16.439	BV	431975	6243646	84.69%	4.604%
17	16.460	16.439	16.495	VB	514185	6132161	83.17%	4.522%
18	16.805	16.702	16.847	BB	458222	5903388	80.07%	4.353%
19	18.170	18.110	18.185	BV	389782	5669871	76.90%	4.181%
20	18.210	18.185	18.253	VB	429894	5532200	75.04%	4.079%
21	18.429	18.370	18.483	BB	420367	6085248	82.54%	4.487%

Sum of corrected areas: 135618564

Aromatic EPH 050125.M Thu May 01 14:17:46 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049300.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 11:42
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD3
Misc :
ALS Vial : 63 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD3

Integration File: autoint1.e
Quant Time: May 01 12:25:00 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 12:24:43 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) S	2-Bromonaphthalene (S...	7.739	2478491	20.000 ug/ml
Spiked Amount	50.000		Recovery =	40.00%
6) S	2-Flurobiphenyl (SURR)	8.605	1662253	20.000 ug/ml
Spiked Amount	50.000 Range	0 - 131	Recovery =	40.00%
11) S	ortho-Terphenyl (SURR)	11.649	2905771	20.000 ug/ml
Spiked Amount	50.000		Recovery =	40.00%
	Target Compounds			
1) T	1,2,3-Trimethylbenzen...	4.531	2591453	20.000 ug/ml
2) T	Naphthalene (C11.7)	6.075	2761370	20.000 ug/ml
3) T	2-Methylnaphthalene (...	7.129	2699417	20.000 ug/ml
5) T	Acenaphthylene (C15.06)	8.408	2952731	20.000 ug/ml
7) T	Acenaphthene (C15.5)	8.704	2866641	20.000 ug/ml
8) T	Flouorene (C16.55)	9.484	2865462	20.000 ug/ml
9) T	Phenanthrene (C19.36)	10.883	2841016	20.000 ug/ml
10) T	Anthracene (C19.43)	10.957	2512883	20.000 ug/ml
12) T	Fluoranthene (C21.85)	12.696	2856915	20.000 ug/ml
13) T	Pyrene (C20.8)	12.994	2858938	20.000 ug/ml
14) T	Benzo[a]anthracene (C...	14.865	2392302	20.000 ug/ml
15) T	Chrysene (C27.41)	14.908	2431306	20.000 ug/ml
16) T	benzo[b]fluoranthene ...	16.416	2513672	20.000 ug/ml
17) T	Bnezo[k]fluoranthene ...	16.449	2480406	20.000 ug/ml
18) T	Benzo[a]pyrene (C31.34)	16.795	2386233	20.000 ug/ml
19) T	Indeno[1,2,3-cd]pyren...	18.160	2277626	20.000 ug/ml
20) T	Dibenz[a,h]anthracene...	18.199	2240420	20.000 ug/ml
21) T	Benzo[g,h,i]perylene ...	18.414	2484677	20.000 ug/ml

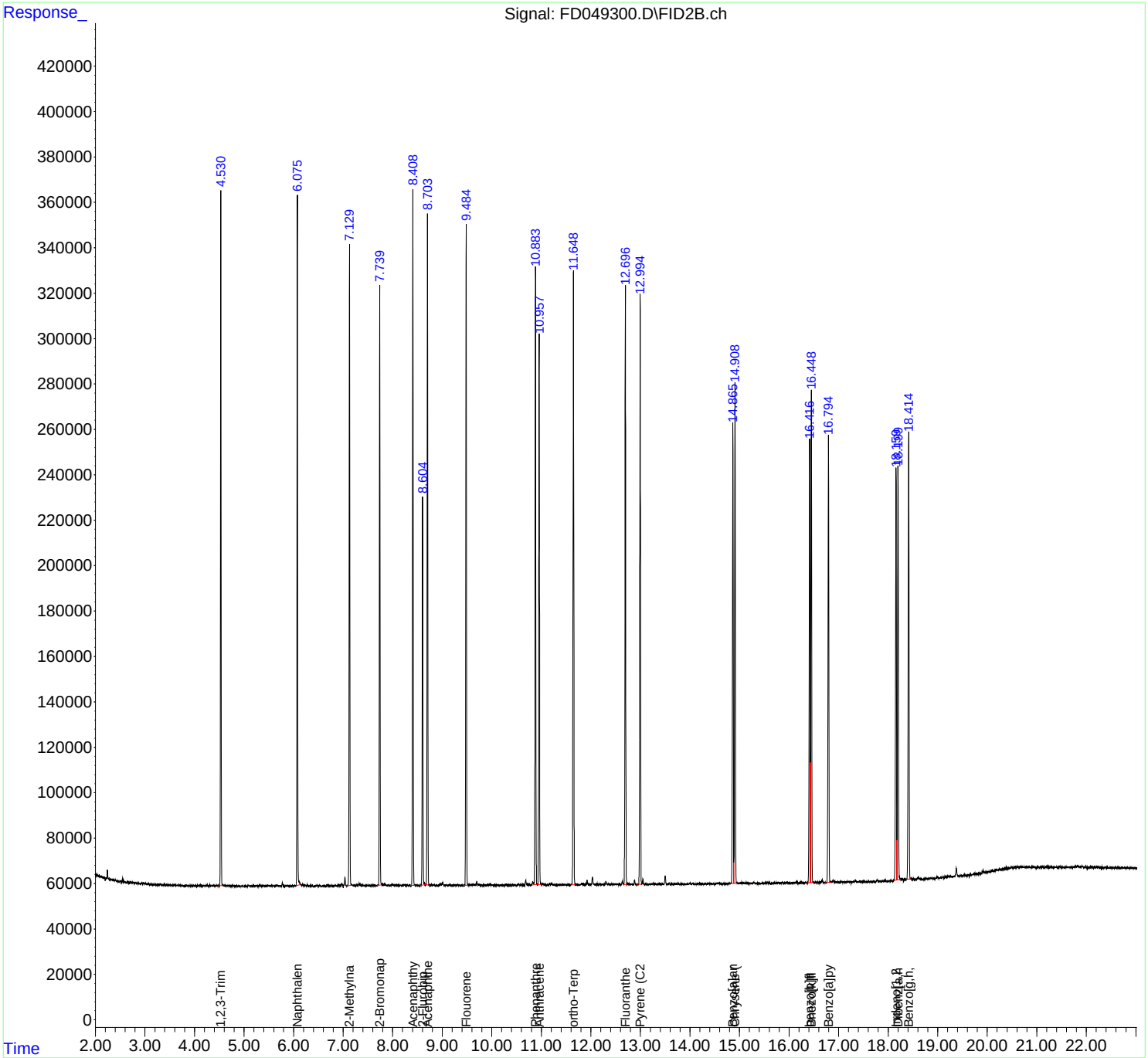
(f)=RT Delta > 1/2 Window (m)=manual int.

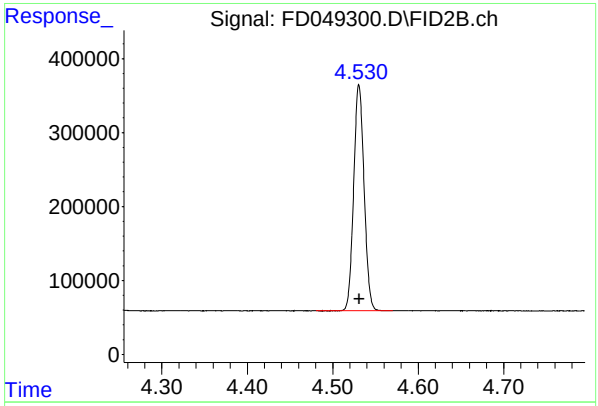
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049300.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 11:42
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD3
Misc :
ALS Vial : 63 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD3

Integration File: autoint1.e
Quant Time: May 01 12:25:00 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 12:24:43 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

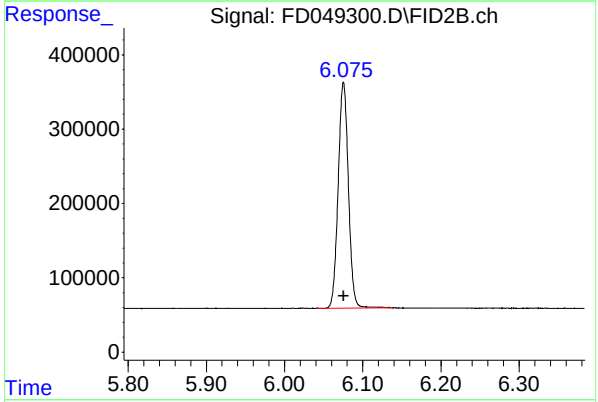




#1 1,2,3-Trimethylbenzene (C10.1)

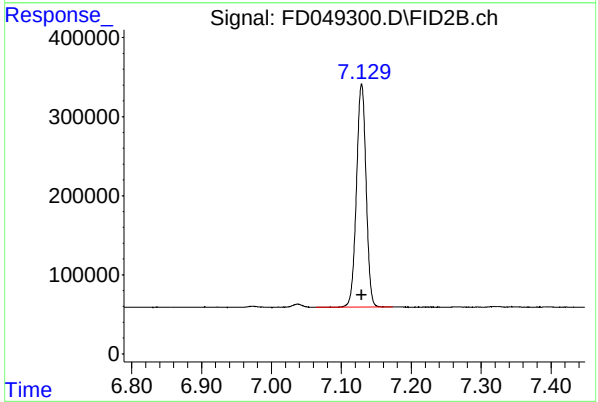
R.T.: 4.531 min
Delta R.T.: 0.000 min
Response: 2591453
Conc: 20.00 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD3



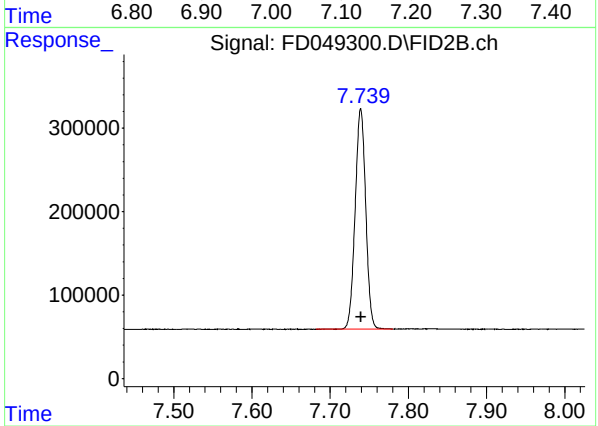
#2 Naphthalene (C11.7)

R.T.: 6.075 min
Delta R.T.: 0.000 min
Response: 2761370
Conc: 20.00 ug/ml



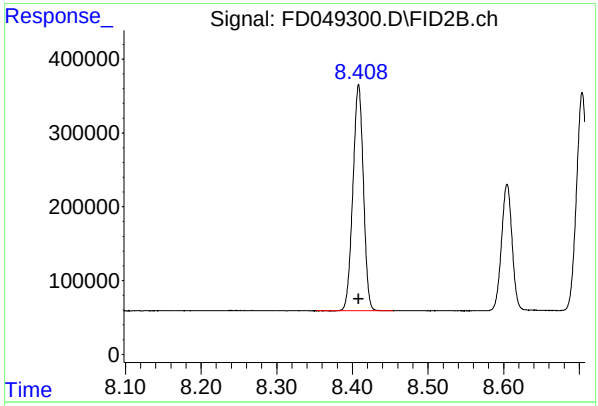
#3 2-Methylnaphthalene (C12.89)

R.T.: 7.129 min
Delta R.T.: 0.000 min
Response: 2699417
Conc: 20.00 ug/ml



#4 2-Bromonaphthalene (SURR)

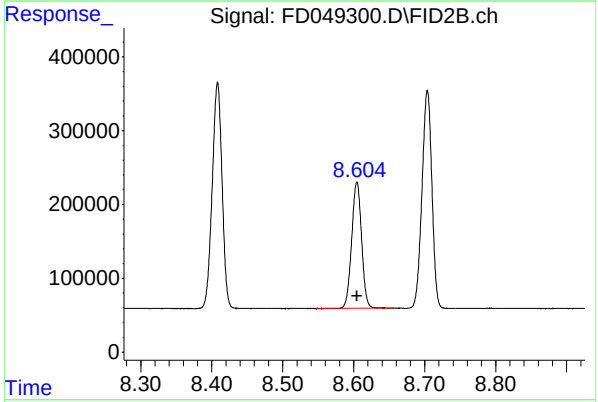
R.T.: 7.739 min
Delta R.T.: 0.000 min
Response: 2478491
Conc: 20.00 ug/ml



#5 Acenaphthylene (C15.06)

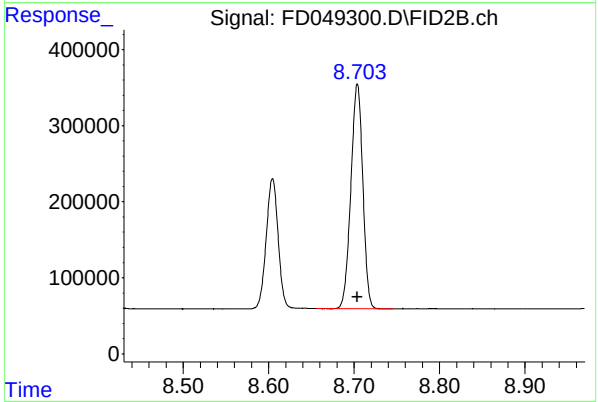
R.T.: 8.408 min
Delta R.T.: 0.000 min
Response: 2952731
Conc: 20.00 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD3



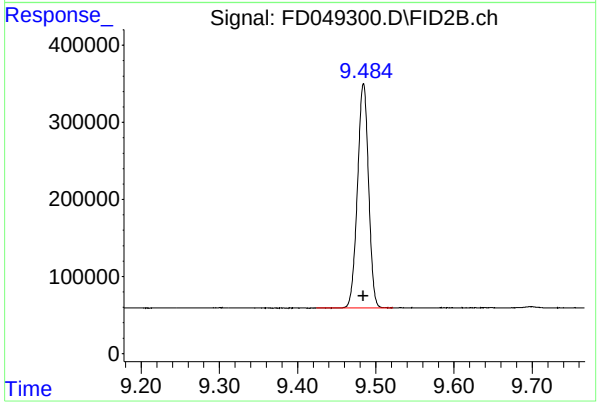
#6 2-Flurobiphenyl (SURR)

R.T.: 8.605 min
Delta R.T.: 0.000 min
Response: 1662253
Conc: 20.00 ug/ml



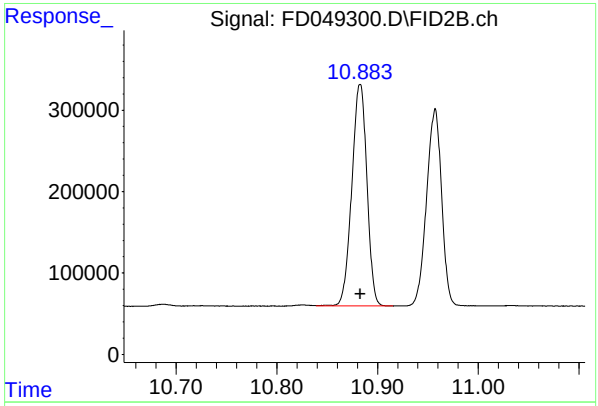
#7 Acenaphthene (C15.5)

R.T.: 8.704 min
Delta R.T.: 0.000 min
Response: 2866641
Conc: 20.00 ug/ml



#8 Flouorene (C16.55)

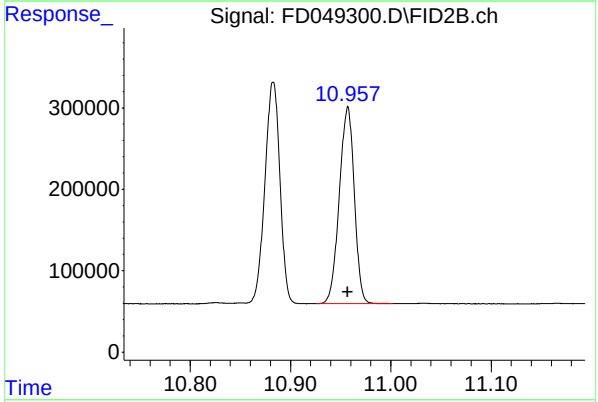
R.T.: 9.484 min
Delta R.T.: 0.000 min
Response: 2865462
Conc: 20.00 ug/ml



#9 Phenanthrene (C19.36)

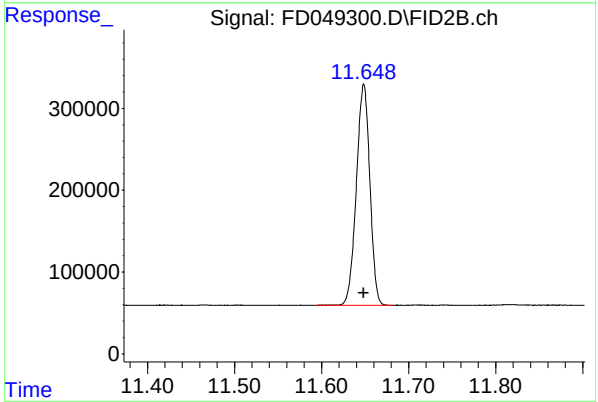
R.T.: 10.883 min
Delta R.T.: 0.000 min
Response: 2841016
Conc: 20.00 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD3



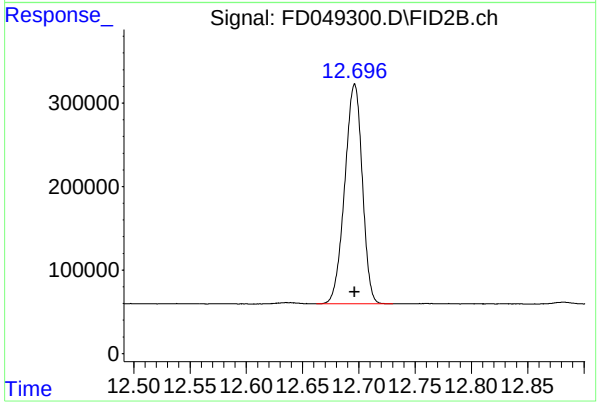
#10 Anthracene (C19.43)

R.T.: 10.957 min
Delta R.T.: 0.000 min
Response: 2512883
Conc: 20.00 ug/ml



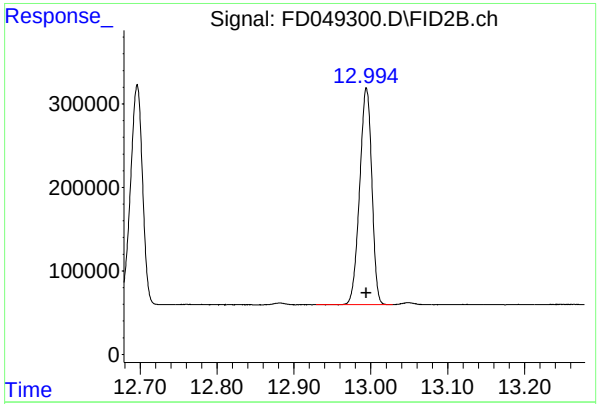
#11 ortho-Terphenyl (SURR)

R.T.: 11.649 min
Delta R.T.: 0.000 min
Response: 2905771
Conc: 20.00 ug/ml



#12 Fluoranthene (C21.85)

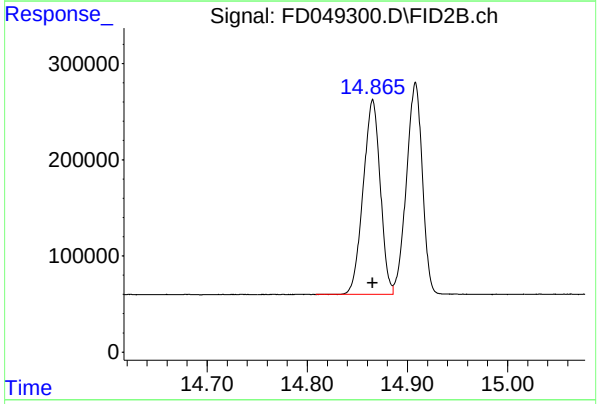
R.T.: 12.696 min
Delta R.T.: 0.000 min
Response: 2856915
Conc: 20.00 ug/ml



#13 Pyrene (C20.8)

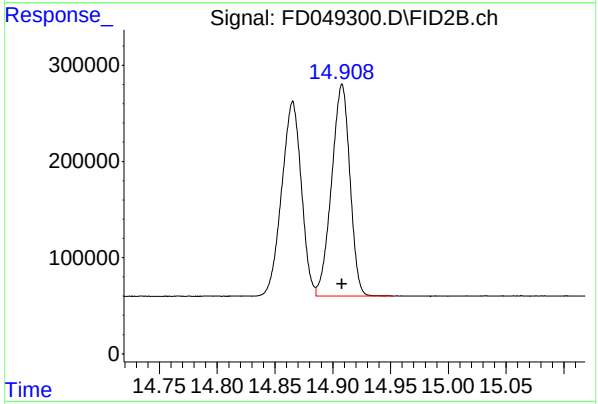
R.T.: 12.994 min
Delta R.T.: 0.000 min
Response: 2858938
Conc: 20.00 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD3



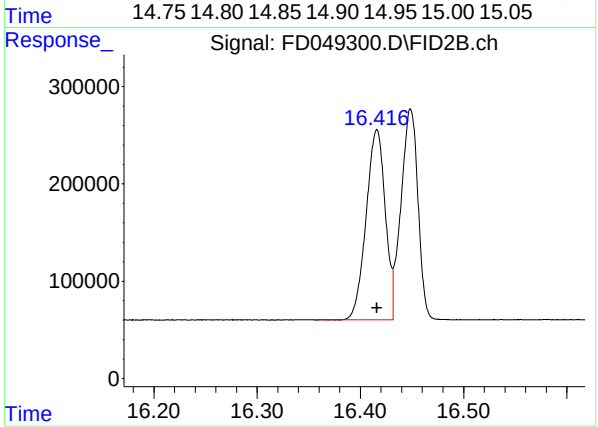
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.865 min
Delta R.T.: 0.000 min
Response: 2392302
Conc: 20.00 ug/ml



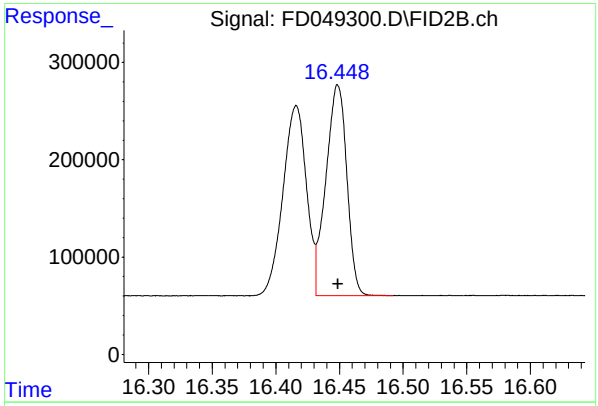
#15 Chrysene (C27.41)

R.T.: 14.908 min
Delta R.T.: 0.000 min
Response: 2431306
Conc: 20.00 ug/ml



#16 benzo[b]fluoranthene (C30.41)

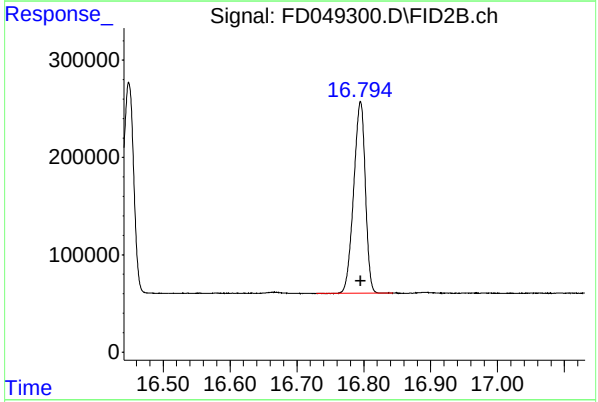
R.T.: 16.416 min
Delta R.T.: 0.000 min
Response: 2513672
Conc: 20.00 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

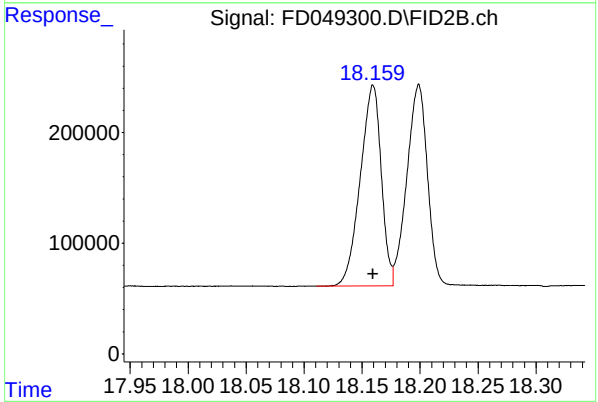
R.T.: 16.449 min
Delta R.T.: 0.000 min
Response: 2480406
Conc: 20.00 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD3



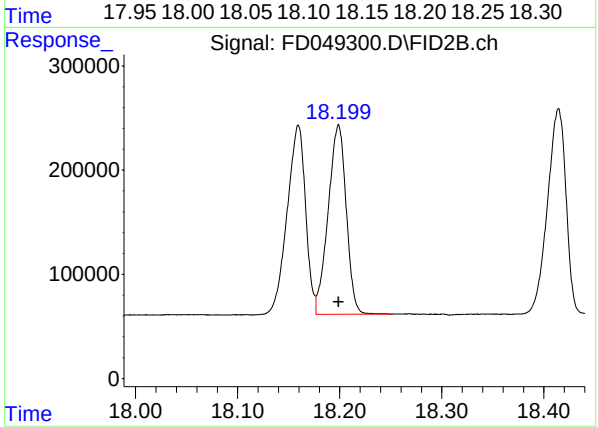
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.795 min
Delta R.T.: 0.000 min
Response: 2386233
Conc: 20.00 ug/ml



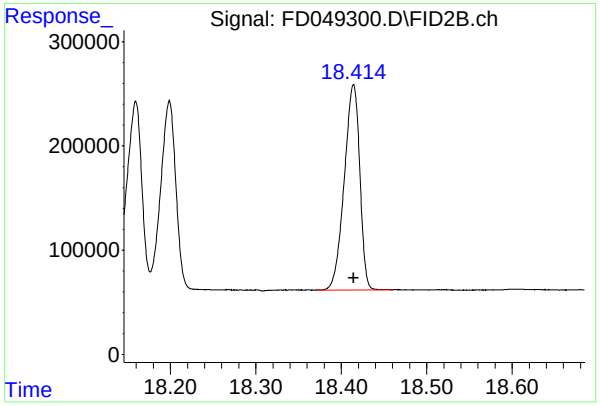
#19 Indeno[1,2,3-cd]pyrene (C35.01)

R.T.: 18.160 min
Delta R.T.: 0.000 min
Response: 2277626
Conc: 20.00 ug/ml



#20 Dibenz[a,h]anthracene (C30.36)

R.T.: 18.199 min
Delta R.T.: 0.000 min
Response: 2240420
Conc: 20.00 ug/ml



#21 Benzo[g,h,i]perylene (C34.01)

R.T.: 18.414 min
Delta R.T.: 0.000 mi
Response: 2484677
Conc: 20.00 ug/m

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD3

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049300.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 11:42
Sample : 20 PPM AROMATIC HC STD3
Misc :
ALS Vial : 63 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.531	4.480	4.570	BB	306314	2591453	87.76%	4.794%
2	6.075	6.040	6.139	BB	303959	2761370	93.52%	5.108%
3	7.129	7.064	7.174	BB	282251	2699417	91.42%	4.993%
4	7.739	7.682	7.780	BB	263919	2478491	83.94%	4.585%
5	8.408	8.352	8.454	BB	306696	2952731	100.00%	5.462%
6	8.605	8.547	8.655	BB	171412	1662253	56.30%	3.075%
7	8.704	8.655	8.745	BB	295677	2866641	97.08%	5.303%
8	9.484	9.424	9.522	BB	290973	2865462	97.04%	5.301%
9	10.883	10.839	10.915	VB	273403	2841016	96.22%	5.255%
10	10.957	10.925	11.002	BB	241811	2512883	85.10%	4.648%
11	11.649	11.594	11.682	BB	270408	2905771	98.41%	5.375%
12	12.696	12.662	12.730	VB	263646	2856915	96.76%	5.285%
13	12.994	12.929	13.029	BV	259917	2858938	96.82%	5.288%
14	14.865	14.809	14.886	BV	202442	2392302	81.02%	4.425%
15	14.908	14.886	14.952	VB	220255	2431306	82.34%	4.497%
16	16.416	16.357	16.432	BV	195143	2513672	85.13%	4.650%
17	16.449	16.432	16.492	VB	216634	2480406	84.00%	4.588%
18	16.795	16.729	16.844	BB	197045	2386233	80.81%	4.414%
19	18.160	18.110	18.177	BV	181565	2277626	77.14%	4.213%
20	18.199	18.177	18.252	VB	181924	2240420	75.88%	4.144%
21	18.414	18.370	18.460	BB	197123	2484677	84.15%	4.596%
			Sum of corrected areas:			54059984		

Aromatic EPH 050125.M Fri May 02 05:07:26 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049301.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 12:18
Operator : YP/AJ
Sample : 10 PPM AROMATIC HC STD4
Misc :
ALS Vial : 64 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
10 PPM AROMATIC HC STD4

Integration File: autoint1.e
Quant Time: May 01 12:57:25 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 12:57:15 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) S	2-Bromonaphthalene (S...	7.740	1190668	9.881 ug/ml
Spiked Amount	50.000		Recovery =	19.76%
6) S	2-Flurobiphenyl (SURR)	8.605	783470	9.679 ug/ml
Spiked Amount	50.000 Range	0 - 131	Recovery =	19.36%
11) S	ortho-Terphenyl (SURR)	11.648	1382865	9.883 ug/ml
Spiked Amount	50.000		Recovery =	19.77%
	Target Compounds			
1) T	1,2,3-Trimethylbenzen...	4.532	1264609	10.000 ug/ml
2) T	Naphthalene (C11.7)	6.076	1312485	9.765 ug/ml
3) T	2-Methylnaphthalene (...	7.129	1291726	9.833 ug/ml
5) T	Acenaphthylene (C15.06)	8.408	1420542	9.921 ug/ml
7) T	Acenaphthene (C15.5)	8.703	1376727	9.898 ug/ml
8) T	Flouorene (C16.55)	9.484	1356227	9.773 ug/ml
9) T	Phenanthrene (C19.36)	10.882	1340476	9.722 ug/ml
10) T	Anthracene (C19.43)	10.956	1146629	9.380 ug/ml
12) T	Fluoranthene (C21.85)	12.695	1317635	9.521 ug/ml
13) T	Pyrene (C20.8)	12.993	1327591	9.571 ug/ml
14) T	Benzo[a]anthracene (C...	14.864	1107794	9.368 ug/ml
15) T	Chrysene (C27.41)	14.905	1139733	9.503 ug/ml
16) T	benzo[b]fluoranthene ...	16.413	1225399	9.915 ug/ml
17) T	Bnezo[k]fluoranthene ...	16.445	1207329	9.951 ug/ml
18) T	Benzo[a]pyrene (C31.34)	16.792	1162010	9.938 ug/ml
19) T	Indeno[1,2,3-cd]pyren...	18.154	1102181	9.830 ug/ml
20) T	Dibenz[a,h]anthracene...	18.195	1061168	9.824 ug/ml
21) T	Benzo[g,h,i]perylene ...	18.410	1225409	10.102 ug/ml

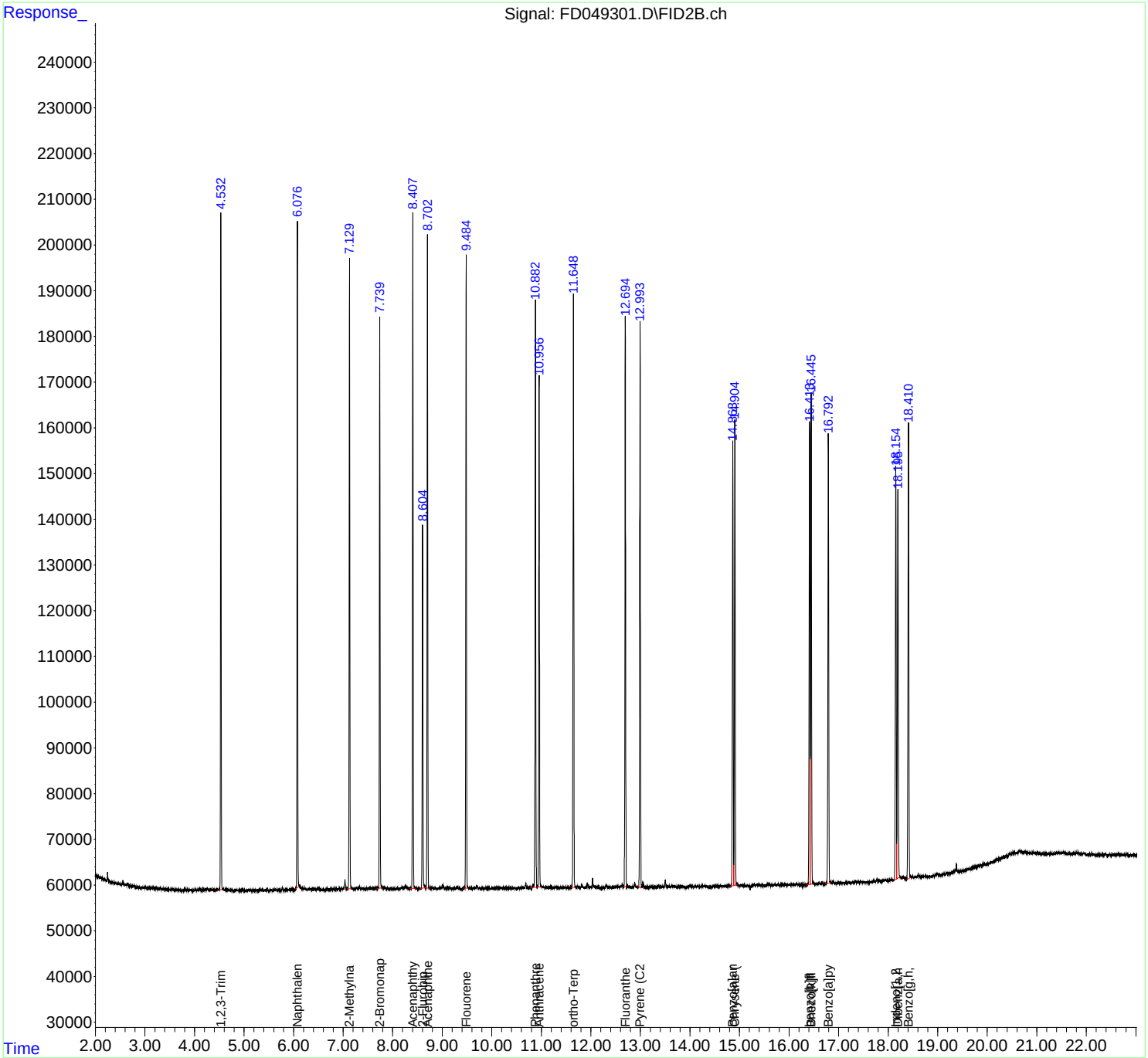
(f)=RT Delta > 1/2 Window (m)=manual int.

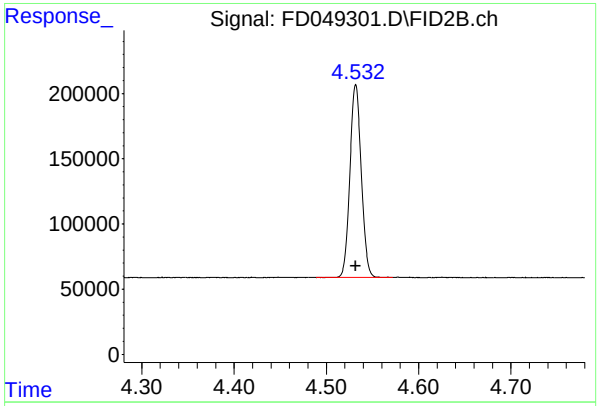
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049301.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 12:18
Operator : YP/AJ
Sample : 10 PPM AROMATIC HC STD4
Misc :
ALS Vial : 64 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
10 PPM AROMATIC HC STD4

Integration File: autoint1.e
Quant Time: May 01 12:57:25 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 12:57:15 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

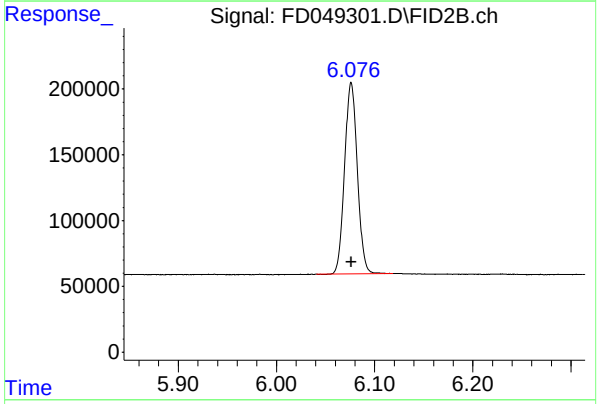




#1 1,2,3-Trimethylbenzene (C10.1)

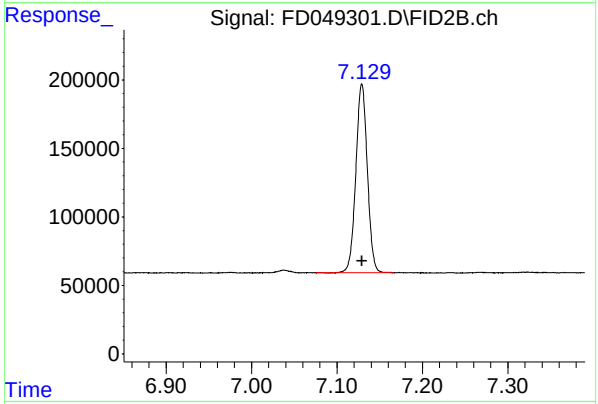
R.T.: 4.532 min
Delta R.T.: 0.000 min
Response: 1264609
Conc: 10.00 ug/ml

Instrument :
FID_D
ClientSampleId :
10 PPM AROMATIC HC STD4



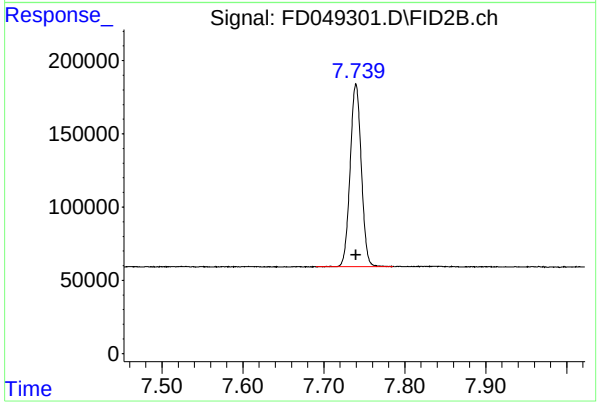
#2 Naphthalene (C11.7)

R.T.: 6.076 min
Delta R.T.: 0.000 min
Response: 1312485
Conc: 9.76 ug/ml



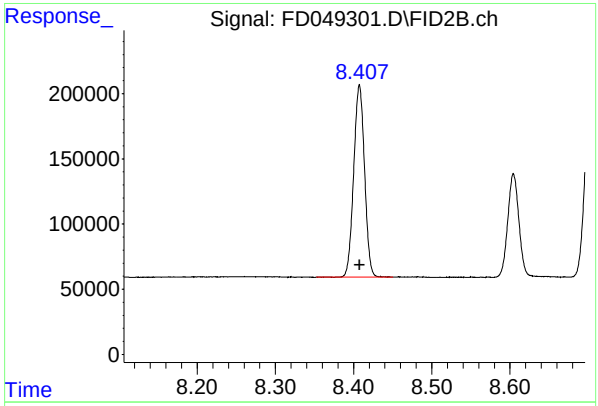
#3 2-Methylnaphthalene (C12.89)

R.T.: 7.129 min
Delta R.T.: 0.000 min
Response: 1291726
Conc: 9.83 ug/ml



#4 2-Bromonaphthalene (SURR)

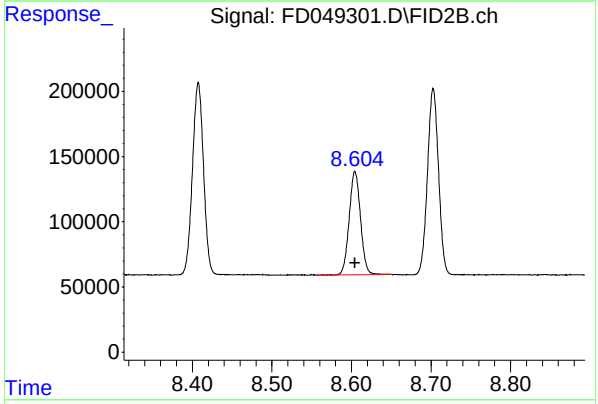
R.T.: 7.740 min
Delta R.T.: 0.000 min
Response: 1190668
Conc: 9.88 ug/ml



#5 Acenaphthylene (C15.06)

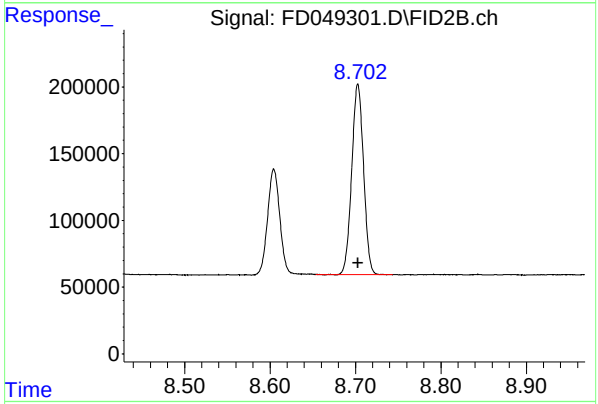
R.T.: 8.408 min
Delta R.T.: 0.000 min
Response: 1420542
Conc: 9.92 ug/ml

Instrument :
FID_D
ClientSampleId :
10 PPM AROMATIC HC STD4



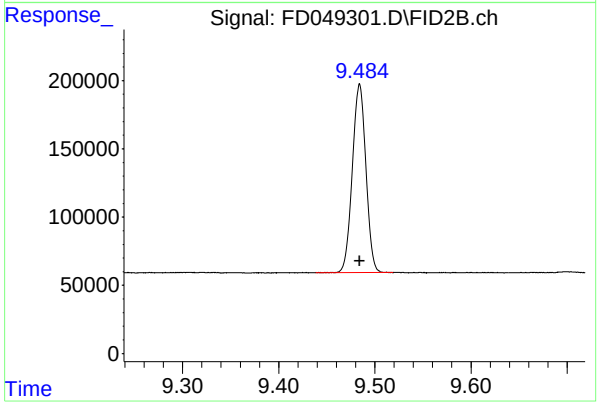
#6 2-Flurobiphenyl (SURR)

R.T.: 8.605 min
Delta R.T.: 0.000 min
Response: 783470
Conc: 9.68 ug/ml



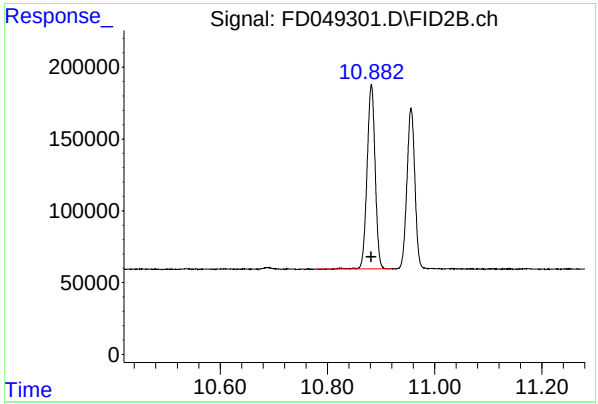
#7 Acenaphthene (C15.5)

R.T.: 8.703 min
Delta R.T.: 0.000 min
Response: 1376727
Conc: 9.90 ug/ml



#8 Flouorene (C16.55)

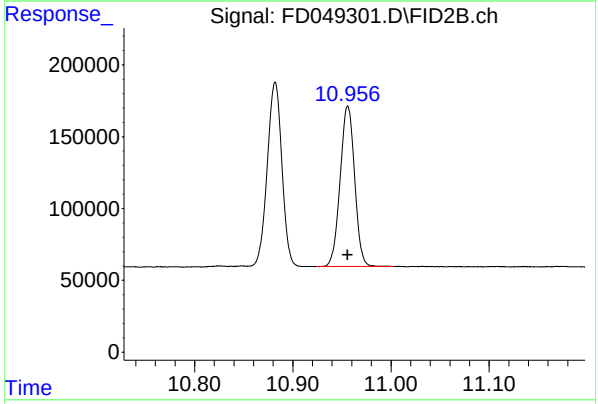
R.T.: 9.484 min
Delta R.T.: 0.000 min
Response: 1356227
Conc: 9.77 ug/ml



#9 Phenanthrene (C19.36)

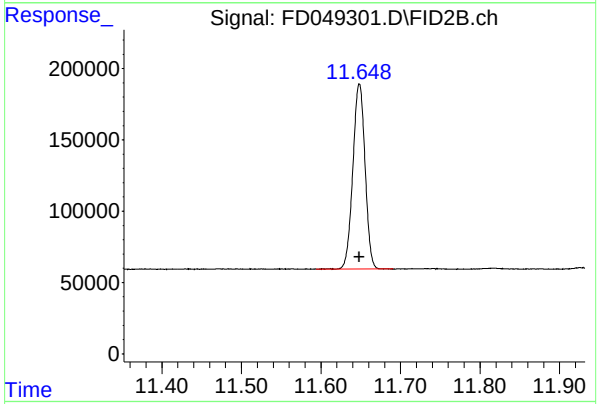
R.T.: 10.882 min
Delta R.T.: 0.000 min
Response: 1340476
Conc: 9.72 ug/ml

Instrument :
FID_D
ClientSampleId :
10 PPM AROMATIC HC STD4



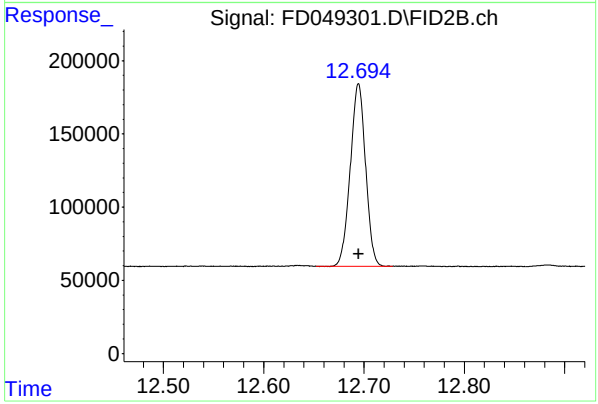
#10 Anthracene (C19.43)

R.T.: 10.956 min
Delta R.T.: 0.000 min
Response: 1146629
Conc: 9.38 ug/ml



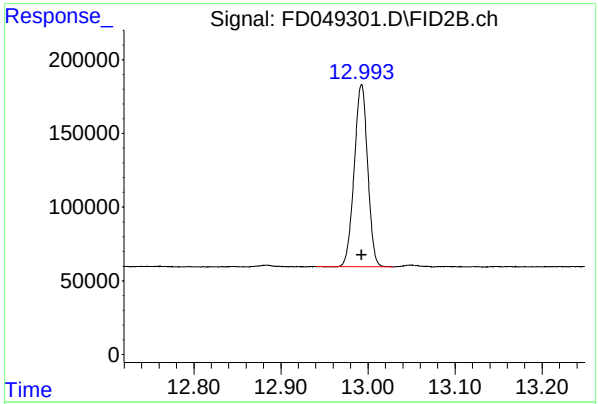
#11 ortho-Terphenyl (SURR)

R.T.: 11.648 min
Delta R.T.: 0.000 min
Response: 1382865
Conc: 9.88 ug/ml



#12 Fluoranthene (C21.85)

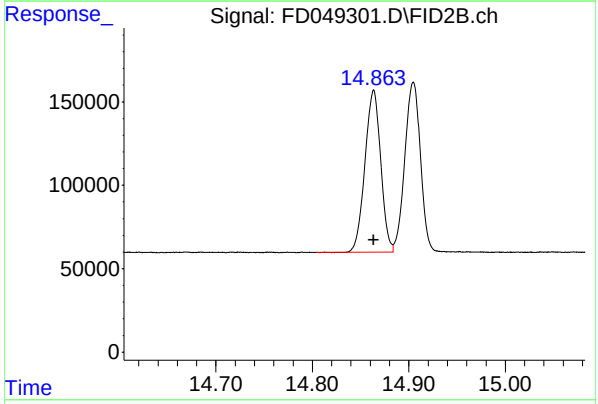
R.T.: 12.695 min
Delta R.T.: 0.000 min
Response: 1317635
Conc: 9.52 ug/ml



#13 Pyrene (C20.8)

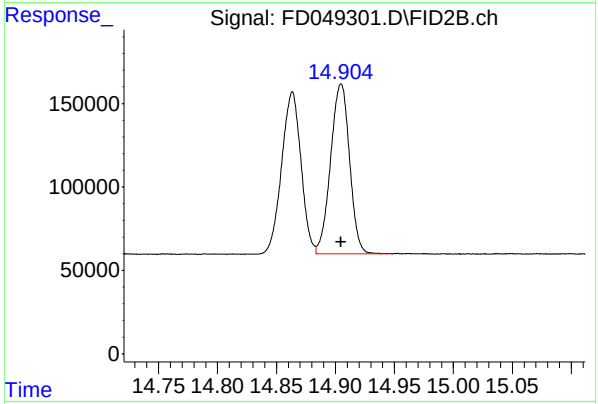
R.T.: 12.993 min
Delta R.T.: 0.000 min
Response: 1327591
Conc: 9.57 ug/ml

Instrument :
FID_D
ClientSampleId :
10 PPM AROMATIC HC STD4



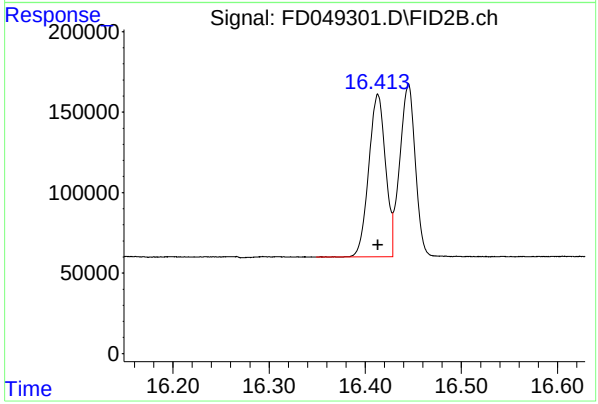
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.864 min
Delta R.T.: 0.000 min
Response: 1107794
Conc: 9.37 ug/ml



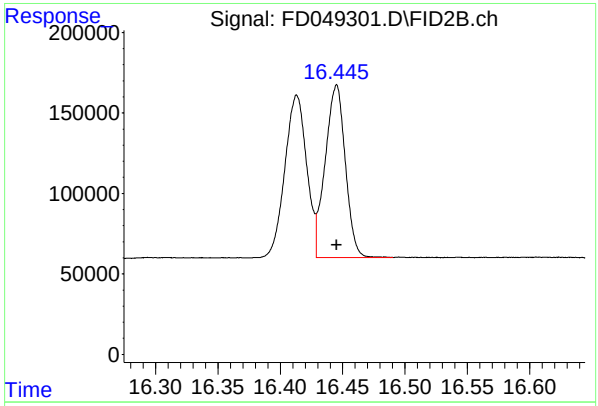
#15 Chrysene (C27.41)

R.T.: 14.905 min
Delta R.T.: 0.000 min
Response: 1139733
Conc: 9.50 ug/ml



#16 benzo[b]fluoranthene (C30.41)

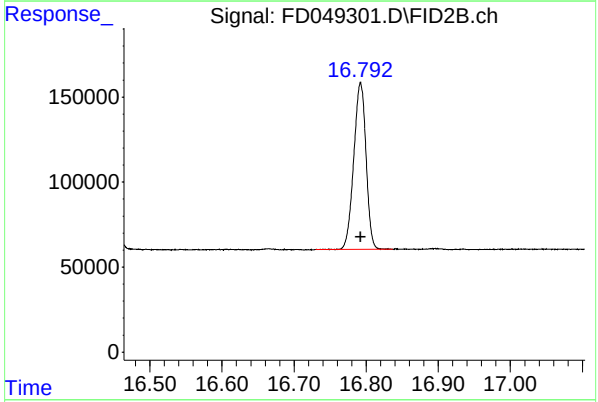
R.T.: 16.413 min
Delta R.T.: 0.000 min
Response: 1225399
Conc: 9.91 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

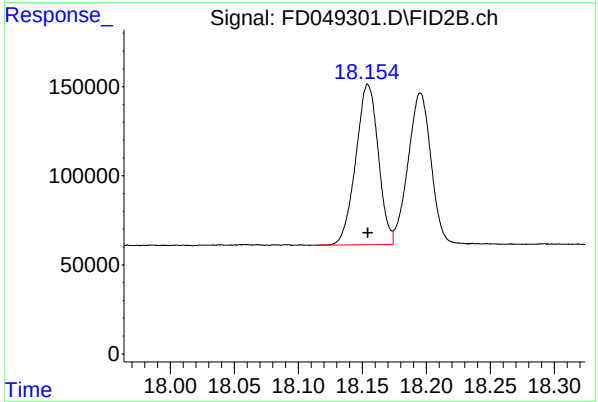
R.T.: 16.445 min
Delta R.T.: 0.000 min
Response: 1207329
Conc: 9.95 ug/ml

Instrument :
FID_D
ClientSampleId :
10 PPM AROMATIC HC STD4



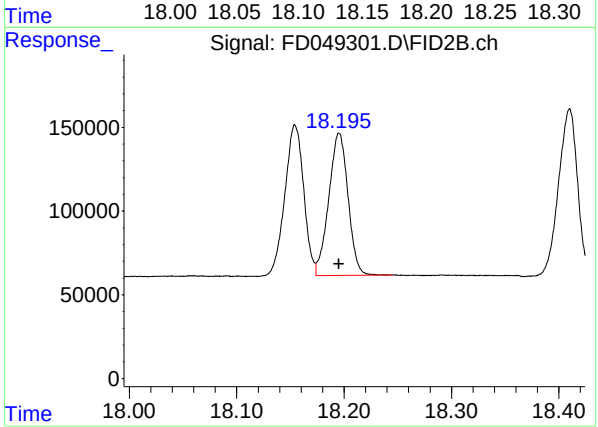
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.792 min
Delta R.T.: 0.000 min
Response: 1162010
Conc: 9.94 ug/ml



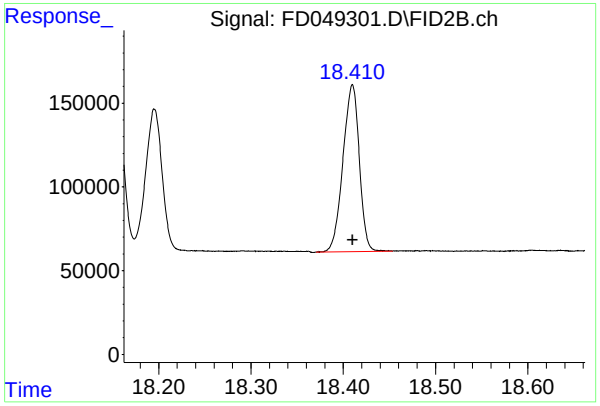
#19 Indeno[1,2,3-cd]pyrene (C35.01)

R.T.: 18.154 min
Delta R.T.: 0.000 min
Response: 1102181
Conc: 9.83 ug/ml



#20 Dibenz[a,h]anthracene (C30.36)

R.T.: 18.195 min
Delta R.T.: 0.000 min
Response: 1061168
Conc: 9.82 ug/ml



#21 Benzo[g,h,i]perylene (C34.01)

R.T.: 18.410 min
Delta R.T.: 0.000 mi
Response: 1225409
Conc: 10.10 ug/m

Instrument :
FID_D
ClientSampleId :
10 PPM AROMATIC HC STD4

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049301.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 12:18
Sample : 10 PPM AROMATIC HC STD4
Misc :
ALS Vial : 64 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.532	4.489	4.572	BB	148006	1264609	89.02%	4.913%
2	6.076	6.040	6.119	BB	145312	1312485	92.39%	5.098%
3	7.129	7.075	7.165	BB	137993	1291726	90.93%	5.018%
4	7.740	7.690	7.785	BB	124801	1190668	83.82%	4.625%
5	8.408	8.352	8.450	BB	147393	1420542	100.00%	5.518%
6	8.605	8.555	8.652	BB	79228	783470	55.15%	3.043%
7	8.703	8.654	8.744	BB	142889	1376727	96.92%	5.348%
8	9.484	9.439	9.519	BB	137942	1356227	95.47%	5.268%
9	10.882	10.779	10.922	BB	128446	1340476	94.36%	5.207%
10	10.956	10.924	11.002	BB	111747	1146629	80.72%	4.454%
11	11.648	11.594	11.690	BB	129924	1382865	97.35%	5.372%
12	12.695	12.652	12.729	BB	124643	1317635	92.76%	5.118%
13	12.993	12.940	13.029	BV	123564	1327591	93.46%	5.157%
14	14.864	14.804	14.884	BV	97388	1107794	77.98%	4.303%
15	14.905	14.884	14.949	VB	101953	1139733	80.23%	4.427%
16	16.413	16.349	16.429	BV	100802	1225399	86.26%	4.760%
17	16.445	16.429	16.490	VB	107604	1207329	84.99%	4.690%
18	16.792	16.730	16.837	BB	98097	1162010	81.80%	4.514%
19	18.154	18.114	18.174	BV	90181	1102181	77.59%	4.282%
20	18.195	18.174	18.245	VB	84975	1061168	74.70%	4.122%
21	18.410	18.370	18.454	BB	99796	1225409	86.26%	4.760%
			Sum of corrected areas:			25742674		

Aromatic EPH 050125.M Fri May 02 05:07:54 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049302.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 12:55
Operator : YP/AJ
Sample : 5 PPM AROMATIC HC STD5
Misc :
ALS Vial : 65 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
5 PPM AROMATIC HC STD5

Integration File: autoint1.e
Quant Time: May 01 13:28:56 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:28:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) S	2-Bromonaphthalene (S...	7.739	554322	4.675 ug/ml
Spiked Amount	50.000		Recovery =	9.35%
6) S	2-Flurobiphenyl (SURR)	8.604	355341	4.500 ug/ml
Spiked Amount	50.000 Range	0 - 131	Recovery =	9.00%
11) S	ortho-Terphenyl (SURR)	11.647	652174	4.725 ug/ml
Spiked Amount	50.000		Recovery =	9.45%
	Target Compounds			
1) T	1,2,3-Trimethylbenzen...	4.532	592326	4.744 ug/ml
2) T	Naphthalene (C11.7)	6.076	616885	4.666 ug/ml
3) T	2-Methylnaphthalene (...	7.129	597813	4.634 ug/ml
5) T	Acenaphthylene (C15.06)	8.407	665513	4.714 ug/ml
7) T	Acenaphthene (C15.5)	8.702	643365	4.696 ug/ml
8) T	Flouorene (C16.55)	9.483	627418	4.609 ug/ml
9) T	Phenanthrene (C19.36)	10.881	612980	4.547 ug/ml
10) T	Anthracene (C19.43)	10.955	512014	4.329 ug/ml
12) T	Fluoranthene (C21.85)	12.693	601392	4.463 ug/ml
13) T	Pyrene (C20.8)	12.991	607748	4.493 ug/ml
14) T	Benzo[a]anthracene (C...	14.861	498676	4.354 ug/ml
15) T	Chrysene (C27.41)	14.903	519076	4.447 ug/ml
16) T	benzo[b]fluoranthene ...	16.411	562724	4.636 ug/ml
17) T	Bnezo[k]fluoranthene ...	16.442	555129	4.655 ug/ml
18) T	Benzo[a]pyrene (C31.34)	16.790	536028	4.662 ug/ml
19) T	Indeno[1,2,3-cd]pyren...	18.152	501198	4.567 ug/ml
20) T	Dibenz[a,h]anthracene...	18.194	479962	4.544 ug/ml
21) T	Benzo[g,h,i]perylene ...	18.406	553069	4.641 ug/ml

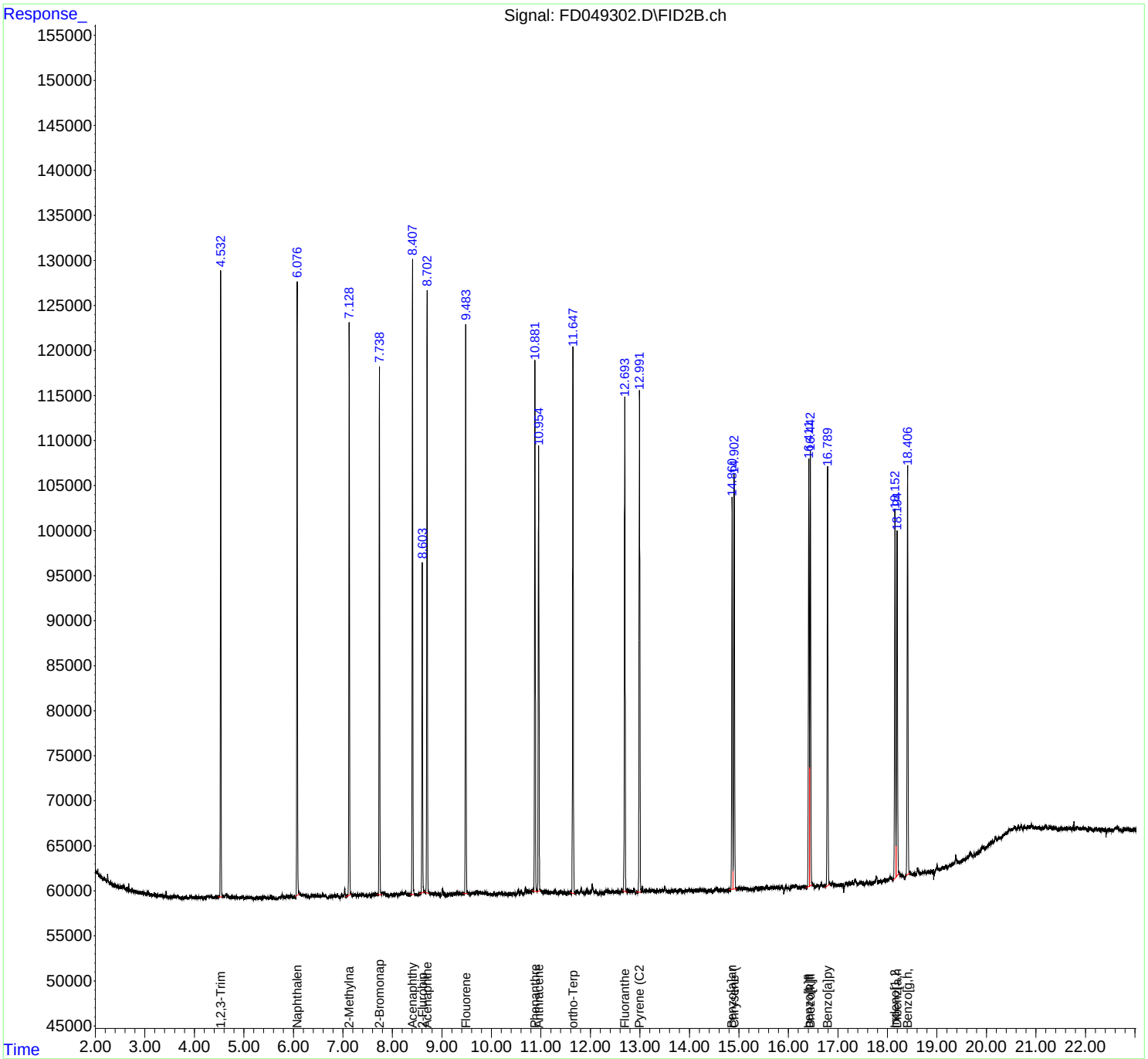
(f)=RT Delta > 1/2 Window (m)=manual int.

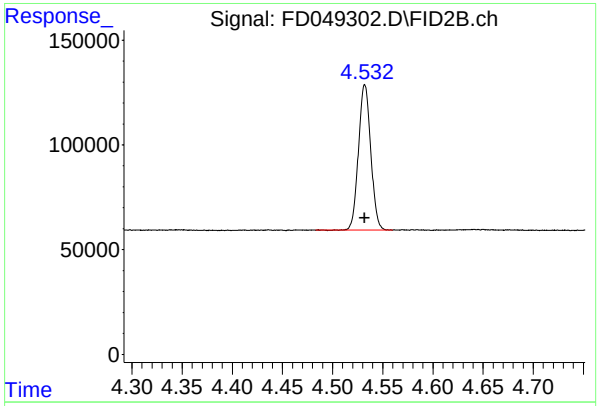
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049302.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 12:55
Operator : YP/AJ
Sample : 5 PPM AROMATIC HC STD5
Misc :
ALS Vial : 65 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
5 PPM AROMATIC HC STD5

Integration File: autoint1.e
Quant Time: May 01 13:28:56 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:28:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

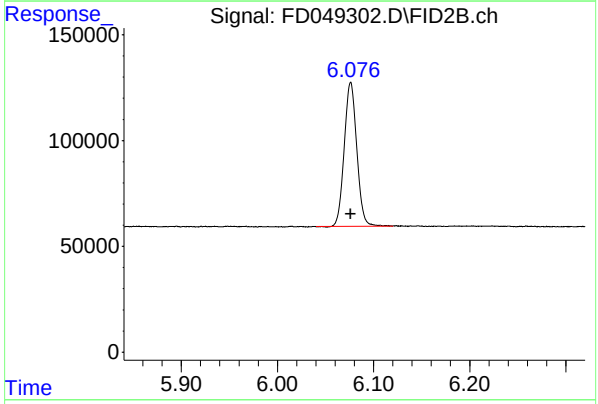




#1 1,2,3-Trimethylbenzene (C10.1)

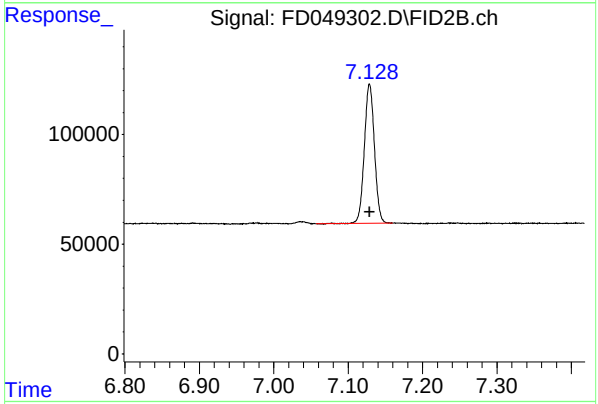
R.T.: 4.532 min
Delta R.T.: 0.000 min
Response: 592326
Conc: 4.74 ug/ml

Instrument :
FID_D
ClientSampleId :
5 PPM AROMATIC HC STD5



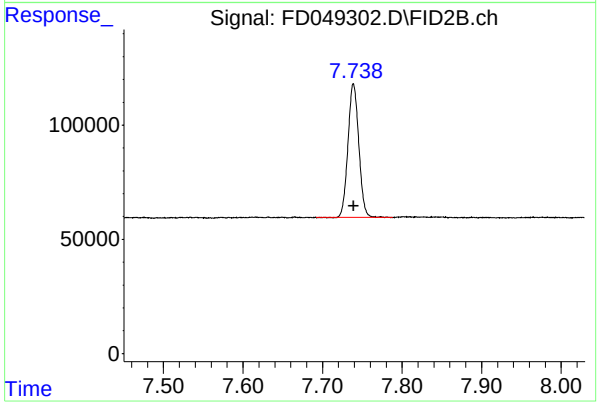
#2 Naphthalene (C11.7)

R.T.: 6.076 min
Delta R.T.: 0.000 min
Response: 616885
Conc: 4.67 ug/ml



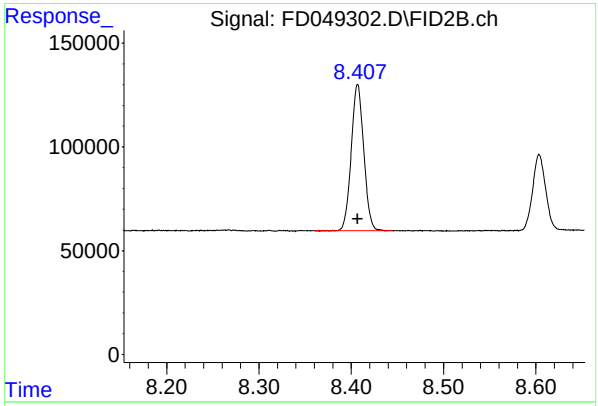
#3 2-Methylnaphthalene (C12.89)

R.T.: 7.129 min
Delta R.T.: 0.000 min
Response: 597813
Conc: 4.63 ug/ml



#4 2-Bromonaphthalene (SURR)

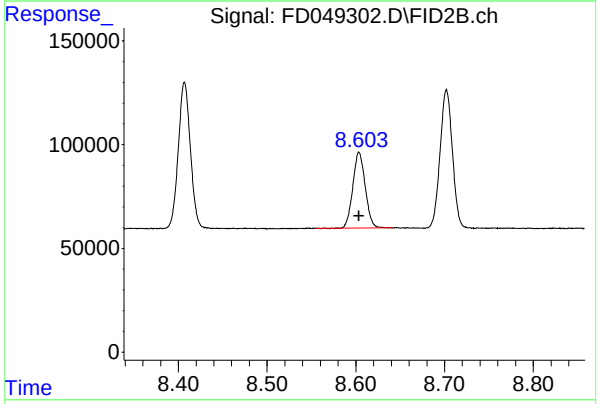
R.T.: 7.739 min
Delta R.T.: 0.000 min
Response: 554322
Conc: 4.68 ug/ml



#5 Acenaphthylene (C15.06)

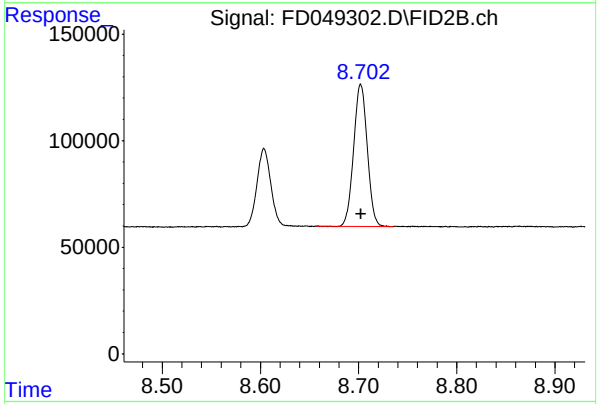
R.T.: 8.407 min
Delta R.T.: 0.000 min
Response: 665513
Conc: 4.71 ug/ml

Instrument :
FID_D
ClientSampleId :
5 PPM AROMATIC HC STD5



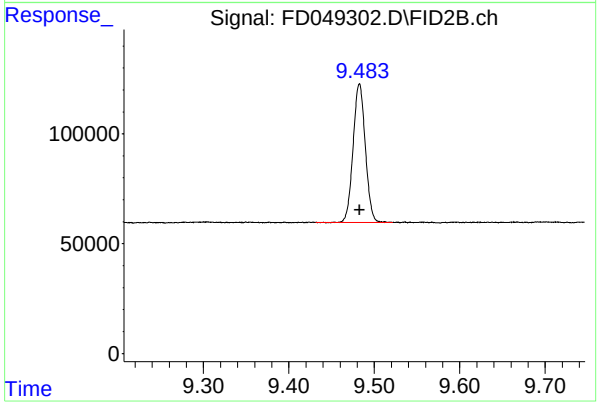
#6 2-Flurobiphenyl (SURR)

R.T.: 8.604 min
Delta R.T.: 0.000 min
Response: 355341
Conc: 4.50 ug/ml



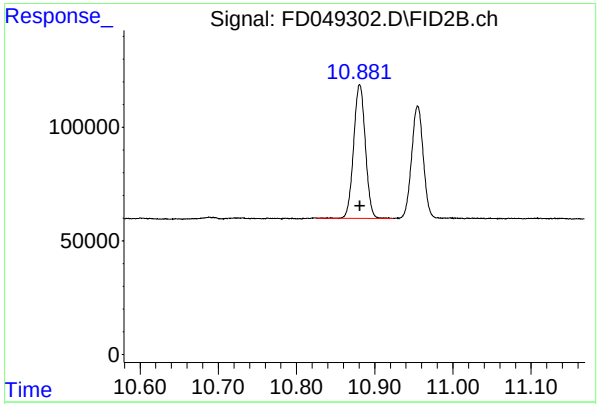
#7 Acenaphthene (C15.5)

R.T.: 8.702 min
Delta R.T.: 0.000 min
Response: 643365
Conc: 4.70 ug/ml



#8 Flouorene (C16.55)

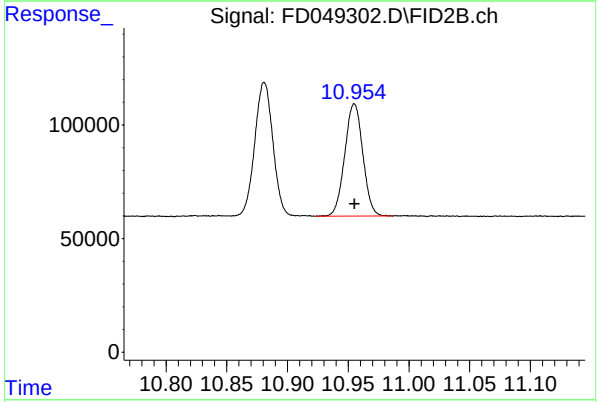
R.T.: 9.483 min
Delta R.T.: 0.000 min
Response: 627418
Conc: 4.61 ug/ml



#9 Phenanthrene (C19.36)

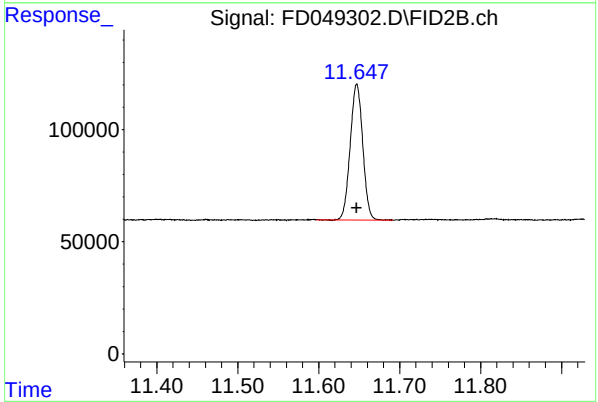
R.T.: 10.881 min
Delta R.T.: 0.000 min
Response: 612980
Conc: 4.55 ug/ml

Instrument :
FID_D
ClientSampleId :
5 PPM AROMATIC HC STD5



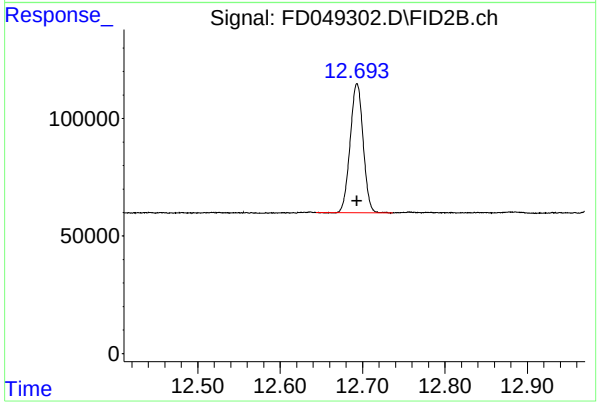
#10 Anthracene (C19.43)

R.T.: 10.955 min
Delta R.T.: 0.000 min
Response: 512014
Conc: 4.33 ug/ml



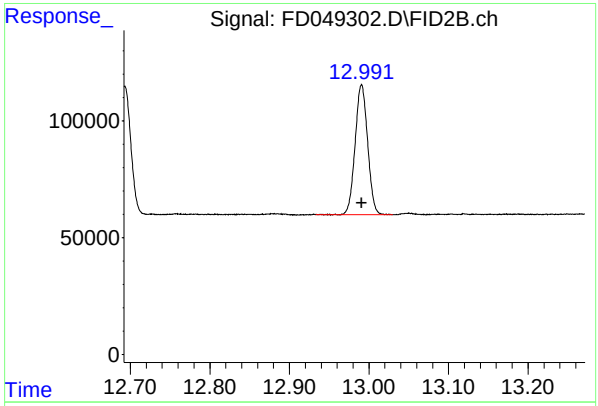
#11 ortho-Terphenyl (SURR)

R.T.: 11.647 min
Delta R.T.: 0.000 min
Response: 652174
Conc: 4.73 ug/ml



#12 Fluoranthene (C21.85)

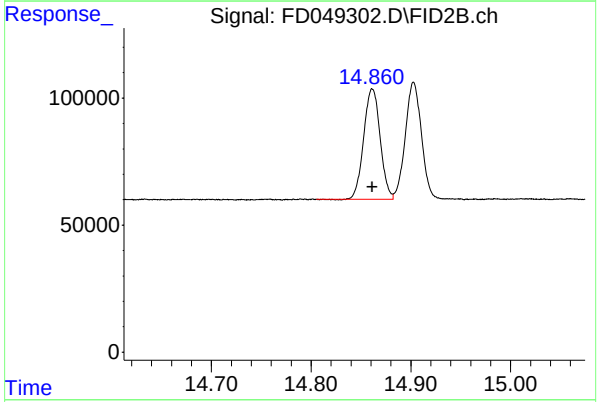
R.T.: 12.693 min
Delta R.T.: 0.000 min
Response: 601392
Conc: 4.46 ug/ml



#13 Pyrene (C20.8)

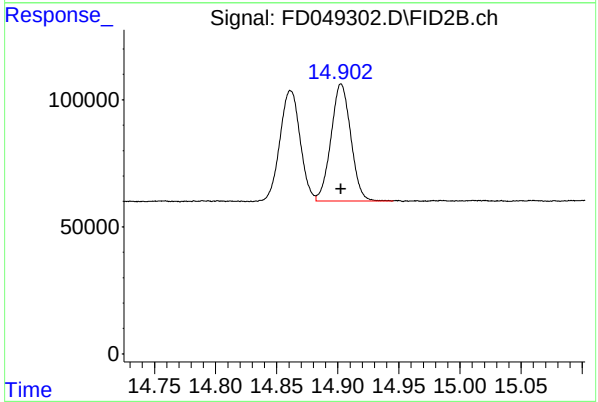
R.T.: 12.991 min
Delta R.T.: 0.000 min
Response: 607748
Conc: 4.49 ug/ml

Instrument :
FID_D
ClientSampleId :
5 PPM AROMATIC HC STD5



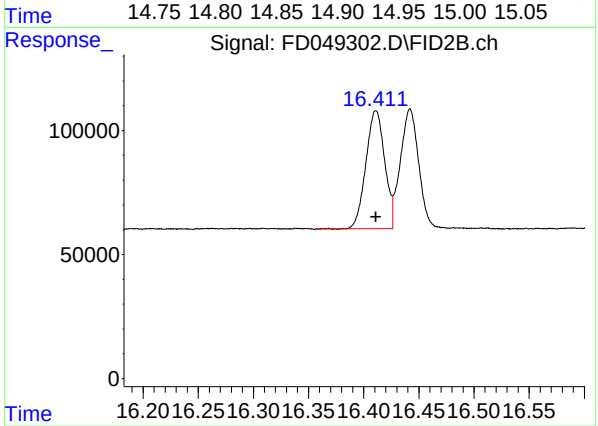
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.861 min
Delta R.T.: 0.000 min
Response: 498676
Conc: 4.35 ug/ml



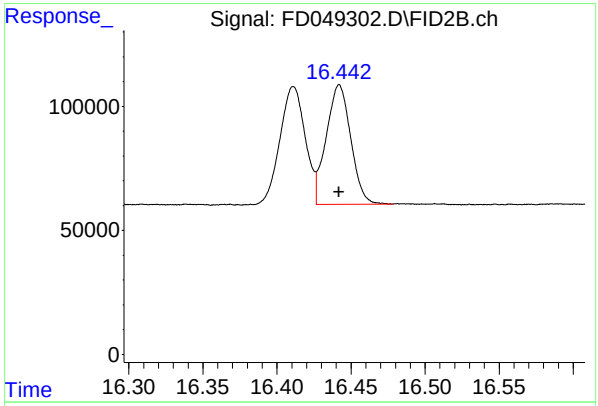
#15 Chrysene (C27.41)

R.T.: 14.903 min
Delta R.T.: 0.000 min
Response: 519076
Conc: 4.45 ug/ml



#16 benzo[b]fluoranthene (C30.41)

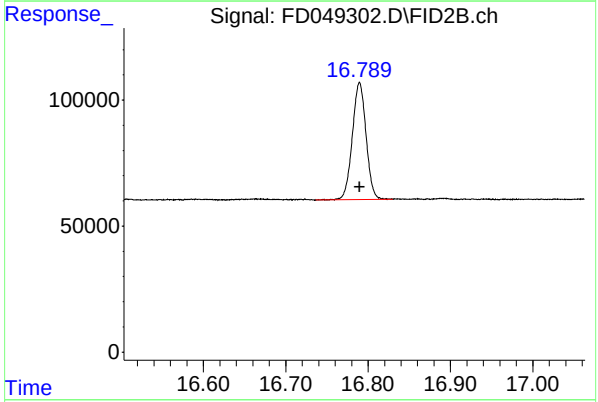
R.T.: 16.411 min
Delta R.T.: 0.000 min
Response: 562724
Conc: 4.64 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

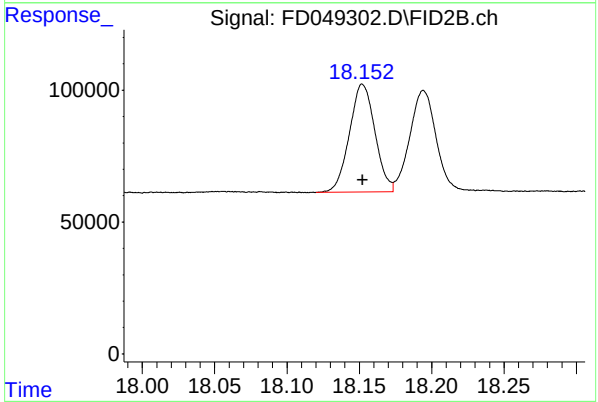
R.T.: 16.442 min
Delta R.T.: 0.000 min
Response: 555129
Conc: 4.65 ug/ml

Instrument :
FID_D
ClientSampleId :
5 PPM AROMATIC HC STD5



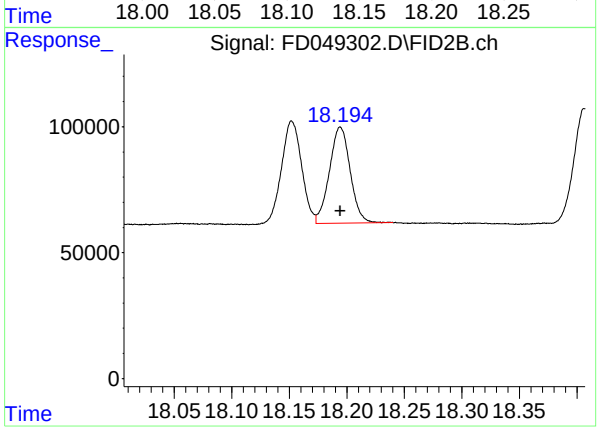
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.790 min
Delta R.T.: 0.000 min
Response: 536028
Conc: 4.66 ug/ml



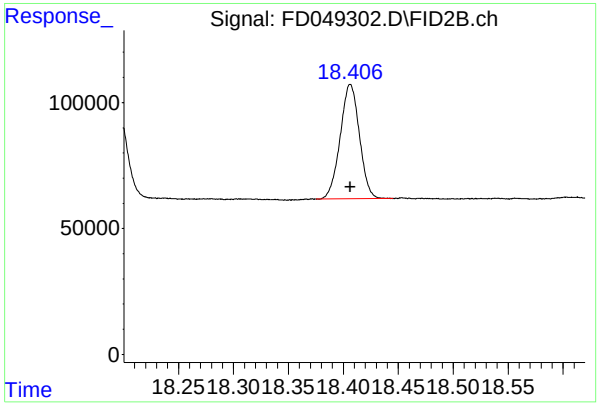
#19 Indeno[1,2,3-cd]pyrene (C35.01)

R.T.: 18.152 min
Delta R.T.: 0.000 min
Response: 501198
Conc: 4.57 ug/ml



#20 Dibenz[a,h]anthracene (C30.36)

R.T.: 18.194 min
Delta R.T.: 0.000 min
Response: 479962
Conc: 4.54 ug/ml



#21 Benzo[g,h,i]perylene (C34.01)

R.T.: 18.406 min
Delta R.T.: 0.000 mi
Response: 553069
Conc: 4.64 ug/m

Instrument :
FID_D
ClientSampleId :
5 PPM AROMATIC HC STD5

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049302.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 12:55
Sample : 5 PPM AROMATIC HC STD5
Misc :
ALS Vial : 65 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.532	4.483	4.560	BB	69528	592326	89.00%	5.001%
2	6.076	6.040	6.120	BB	68248	616885	92.69%	5.208%
3	7.129	7.057	7.160	BB	63653	597813	89.83%	5.047%
4	7.739	7.692	7.788	BB	58612	554322	83.29%	4.680%
5	8.407	8.362	8.445	BB	70619	665513	100.00%	5.618%
6	8.604	8.555	8.642	BB	36581	355341	53.39%	3.000%
7	8.702	8.657	8.735	BB	66705	643365	96.67%	5.431%
8	9.483	9.432	9.522	BB	63316	627418	94.28%	5.297%
9	10.881	10.825	10.923	BB	58840	612980	92.11%	5.175%
10	10.955	10.923	10.987	BB	49484	512014	76.94%	4.323%
11	11.647	11.597	11.692	BB	60590	652174	98.00%	5.506%
12	12.693	12.643	12.737	BB	54927	601392	90.37%	5.077%
13	12.991	12.933	13.030	BB	55558	607748	91.32%	5.131%
14	14.861	14.805	14.882	BV	43433	498676	74.93%	4.210%
15	14.903	14.882	14.945	VB	46057	519076	78.00%	4.382%
16	16.411	16.357	16.426	BV	47547	562724	84.56%	4.751%
17	16.442	16.426	16.478	VB	48220	555129	83.41%	4.687%
18	16.790	16.737	16.830	BB	46561	536028	80.54%	4.525%
19	18.152	18.120	18.173	BV	40953	501198	75.31%	4.231%
20	18.194	18.173	18.240	VB	38179	479962	72.12%	4.052%
21	18.406	18.375	18.445	BB	45437	553069	83.10%	4.669%

Sum of corrected areas: 11845153

Aromatic EPH 050125.M Fri May 02 05:08:21 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049303.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 13:31
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD ICV
Misc :
ALS Vial : 66 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD ICV

Integration File: autoint1.e
Quant Time: May 01 14:31:13 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) S	2-Bromonaphthalene (S...	7.739	2463844	20.780 ug/ml
Spiked Amount	50.000		Recovery =	41.56%
6) S	2-Flurobiphenyl (SURR)	8.605	1634987	20.703 ug/ml
Spiked Amount	50.000 Range	0 - 131	Recovery =	41.41%
11) S	ortho-Terphenyl (SURR)	11.649	2843246	20.600 ug/ml
Spiked Amount	50.000		Recovery =	41.20%
	Target Compounds			
1) T	1,2,3-Trimethylbenzen...	4.531	2586379	20.715 ug/ml
2) T	Naphthalene (C11.7)	6.075	2718291	20.561 ug/ml
3) T	2-Methylnaphthalene (...	7.129	2677906	20.758 ug/ml
5) T	Acenaphthylene (C15.06)	8.408	2925539	20.724 ug/ml
7) T	Acenaphthene (C15.5)	8.703	2839578	20.725 ug/ml
8) T	Flouorene (C16.55)	9.485	2821446	20.728 ug/ml
9) T	Phenanthrene (C19.36)	10.883	2757134	20.450 ug/ml
10) T	Anthracene (C19.43)	10.957	2430615	20.552 ug/ml
12) T	Fluoranthene (C21.85)	12.697	2761084	20.488 ug/ml
13) T	Pyrene (C20.8)	12.995	2761336	20.413 ug/ml
14) T	Benzo[a]anthracene (C...	14.866	2319946	20.254 ug/ml
15) T	Chrysene (C27.41)	14.908	2361362	20.232 ug/ml
16) T	benzo[b]fluoranthene ...	16.416	2465786	20.314 ug/ml
17) T	Bnezo[k]fluoranthene ...	16.448	2425894	20.341 ug/ml
18) T	Benzo[a]pyrene (C31.34)	16.795	2350703	20.444 ug/ml
19) T	Indeno[1,2,3-cd]pyren...	18.158	2223472	20.261 ug/ml
20) T	Dibenz[a,h]anthracene...	18.199	2176851	20.611 ug/ml
21) T	Benzo[g,h,i]perylene ...	18.415	2437299	20.452 ug/ml

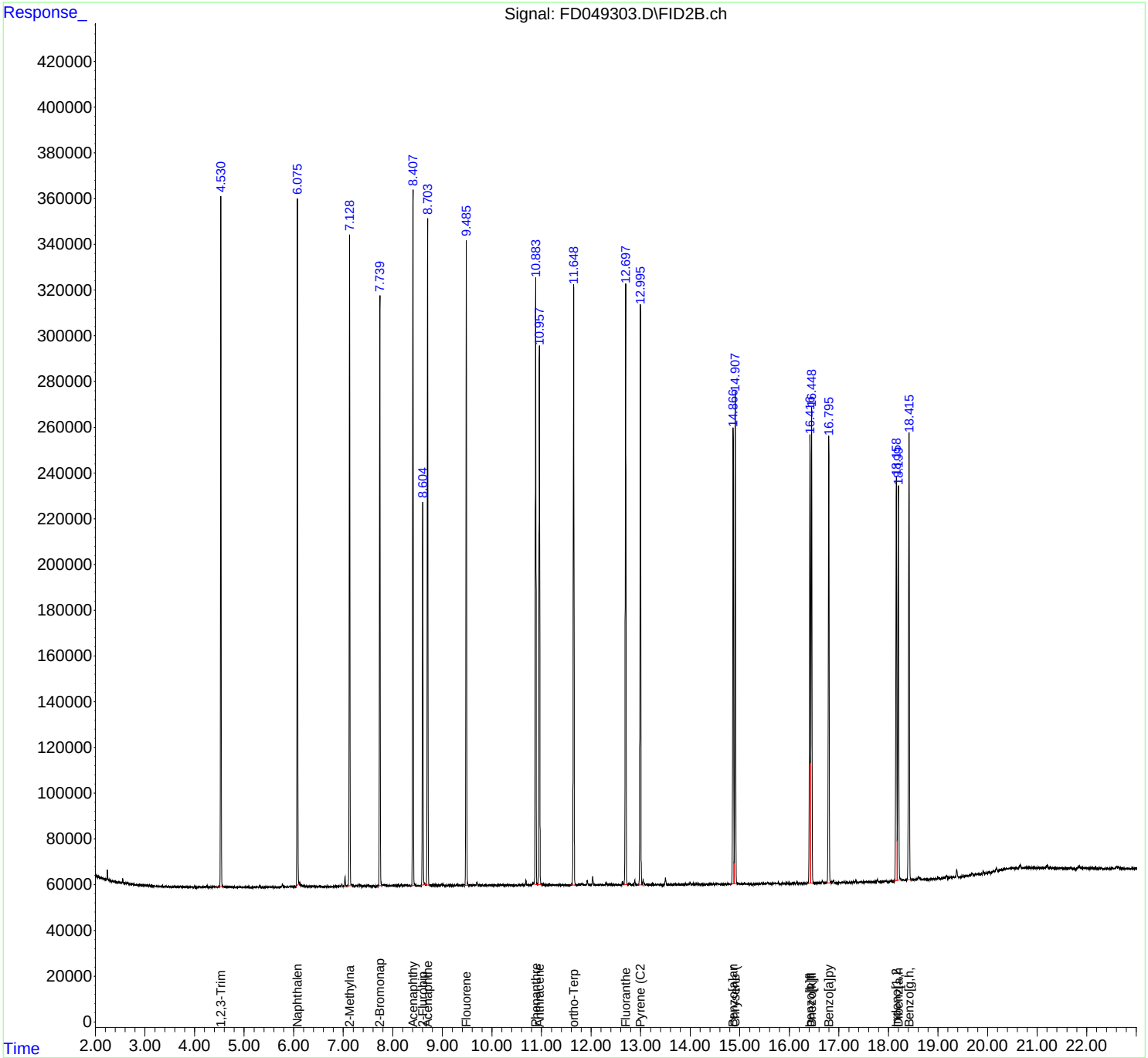
(f)=RT Delta > 1/2 Window (m)=manual int.

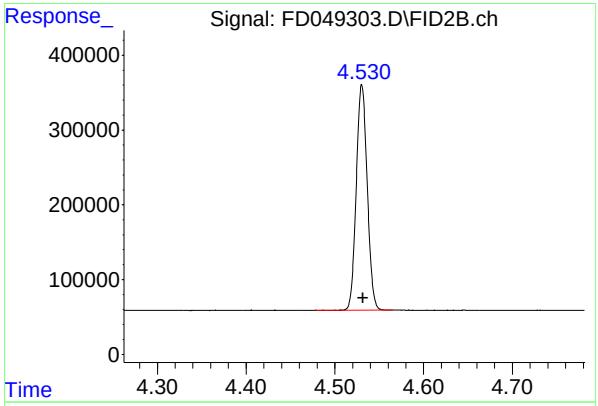
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049303.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 13:31
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD ICV
Misc :
ALS Vial : 66 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD ICV

Integration File: autoint1.e
Quant Time: May 01 14:31:13 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

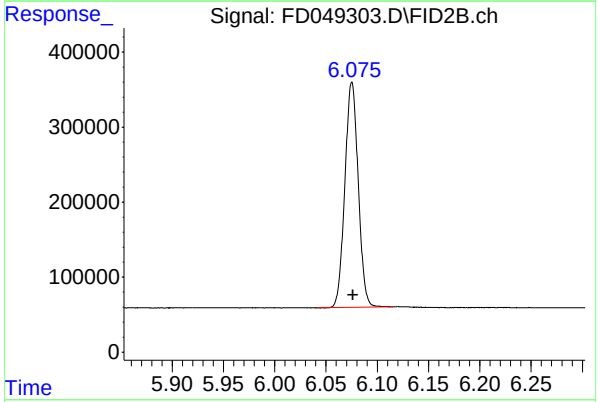




#1 1,2,3-Trimethylbenzene (C10.1)

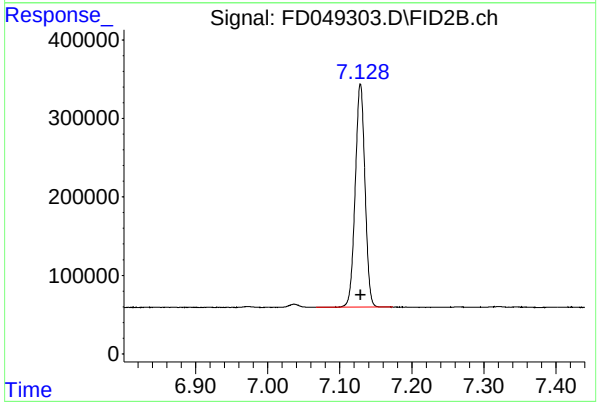
R.T.: 4.531 min
Delta R.T.: -0.002 min
Response: 2586379
Conc: 20.71 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD ICV



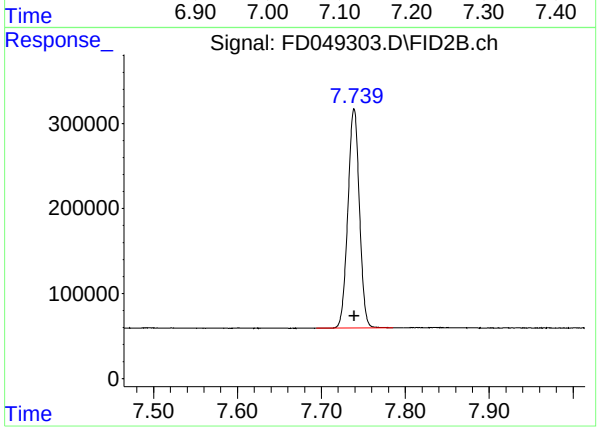
#2 Naphthalene (C11.7)

R.T.: 6.075 min
Delta R.T.: -0.001 min
Response: 2718291
Conc: 20.56 ug/ml



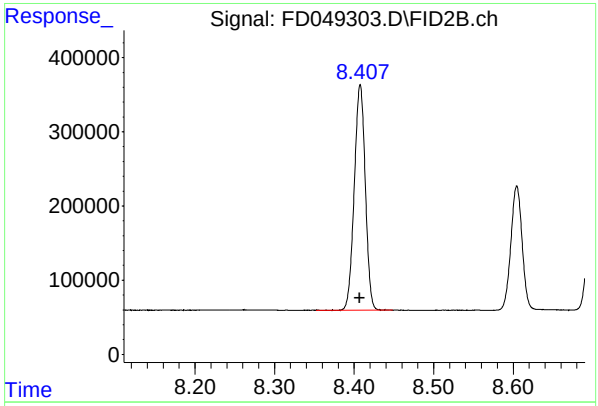
#3 2-Methylnaphthalene (C12.89)

R.T.: 7.129 min
Delta R.T.: 0.000 min
Response: 2677906
Conc: 20.76 ug/ml



#4 2-Bromonaphthalene (SURR)

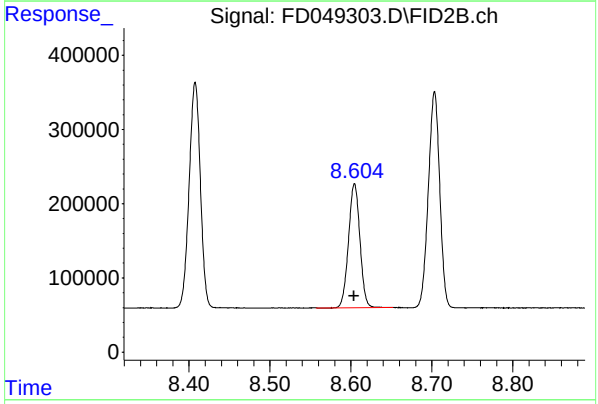
R.T.: 7.739 min
Delta R.T.: 0.000 min
Response: 2463844
Conc: 20.78 ug/ml



#5 Acenaphthylene (C15.06)

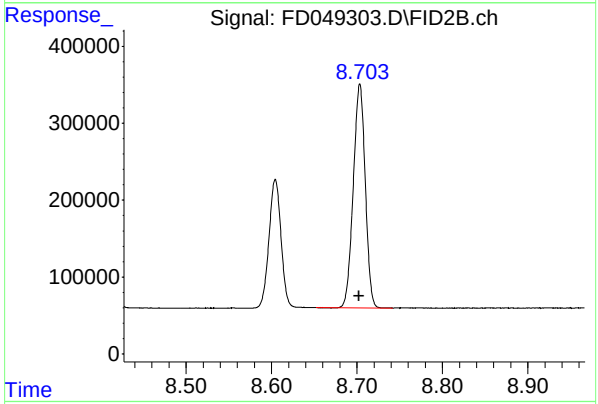
R.T.: 8.408 min
Delta R.T.: 0.000 min
Response: 2925539
Conc: 20.72 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD ICV



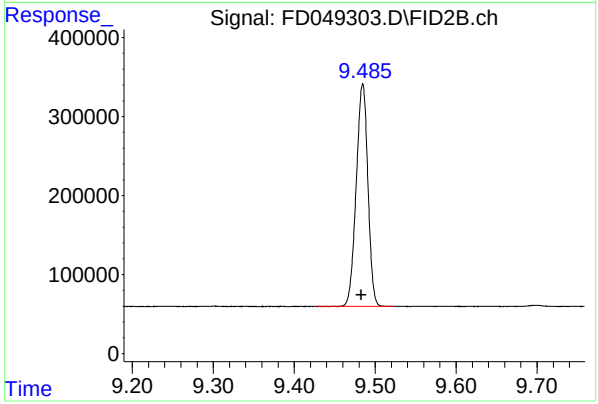
#6 2-Flurobiphenyl (SURR)

R.T.: 8.605 min
Delta R.T.: 0.000 min
Response: 1634987
Conc: 20.70 ug/ml



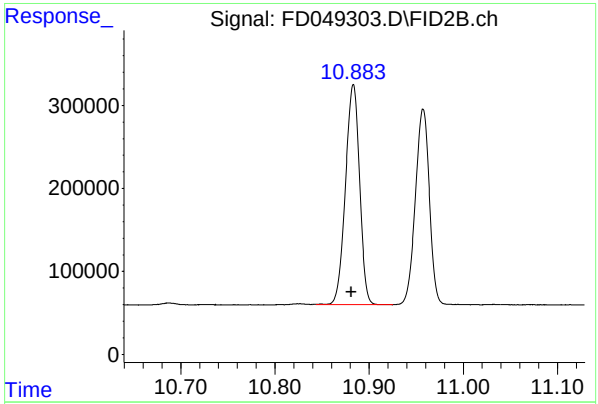
#7 Acenaphthene (C15.5)

R.T.: 8.703 min
Delta R.T.: 0.001 min
Response: 2839578
Conc: 20.72 ug/ml



#8 Flouorene (C16.55)

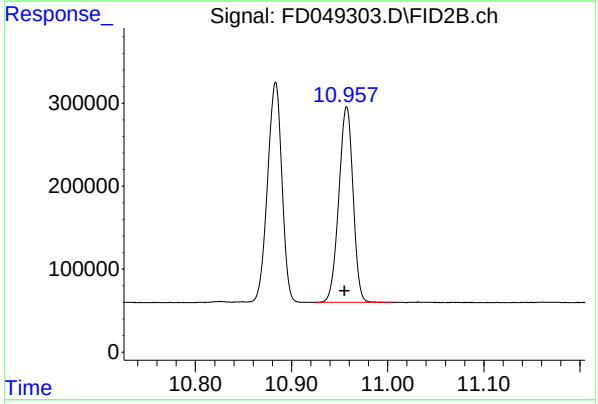
R.T.: 9.485 min
Delta R.T.: 0.002 min
Response: 2821446
Conc: 20.73 ug/ml



#9 Phenanthrene (C19.36)

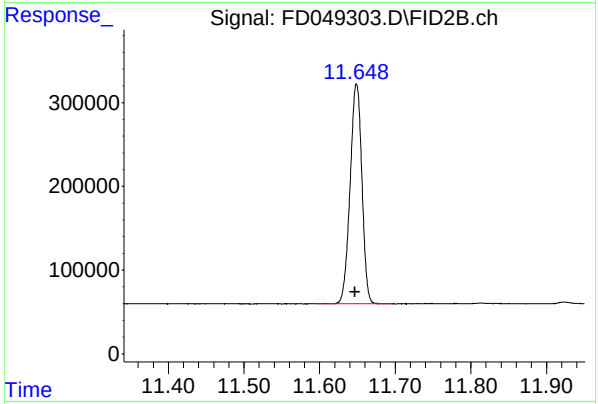
R.T.: 10.883 min
Delta R.T.: 0.002 min
Response: 2757134
Conc: 20.45 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD ICV



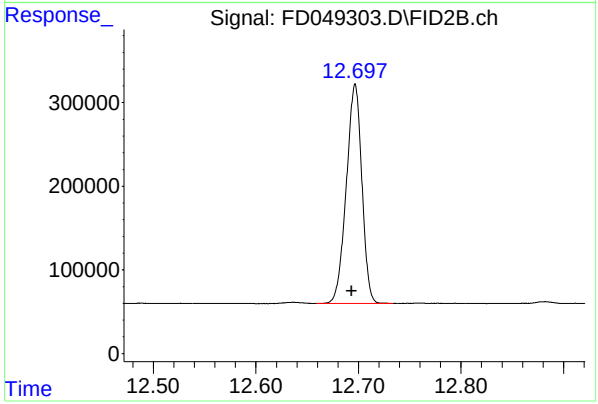
#10 Anthracene (C19.43)

R.T.: 10.957 min
Delta R.T.: 0.002 min
Response: 2430615
Conc: 20.55 ug/ml



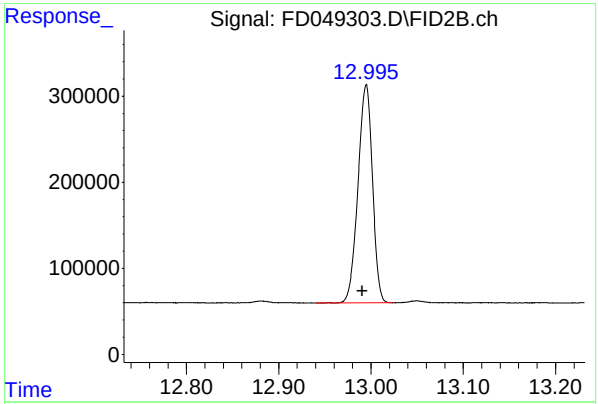
#11 ortho-Terphenyl (SURR)

R.T.: 11.649 min
Delta R.T.: 0.002 min
Response: 2843246
Conc: 20.60 ug/ml



#12 Fluoranthene (C21.85)

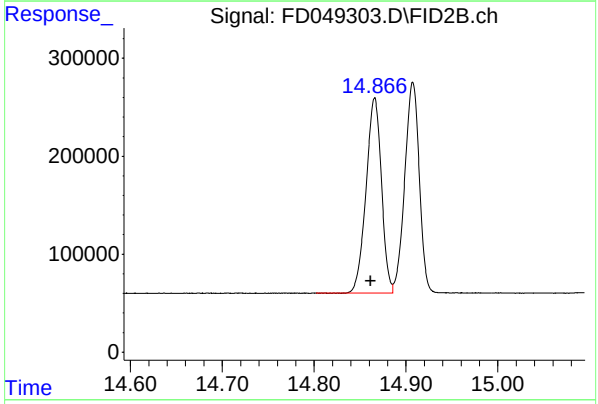
R.T.: 12.697 min
Delta R.T.: 0.004 min
Response: 2761084
Conc: 20.49 ug/ml



#13 Pyrene (C20.8)

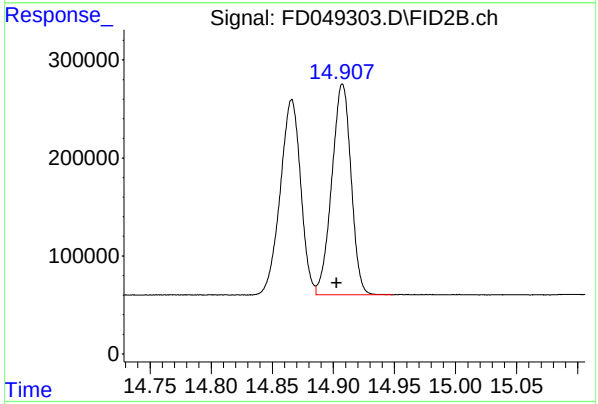
R.T.: 12.995 min
Delta R.T.: 0.004 min
Response: 2761336
Conc: 20.41 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD ICV



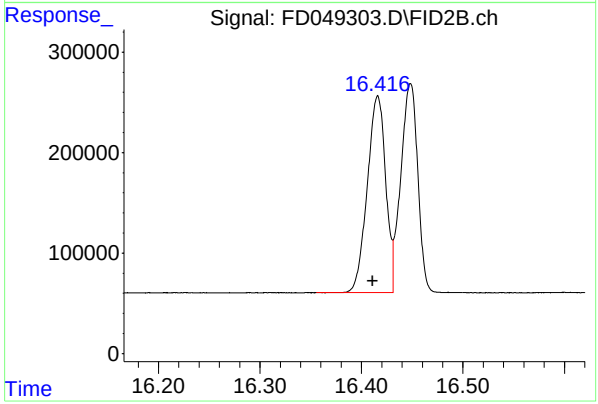
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.866 min
Delta R.T.: 0.005 min
Response: 2319946
Conc: 20.25 ug/ml



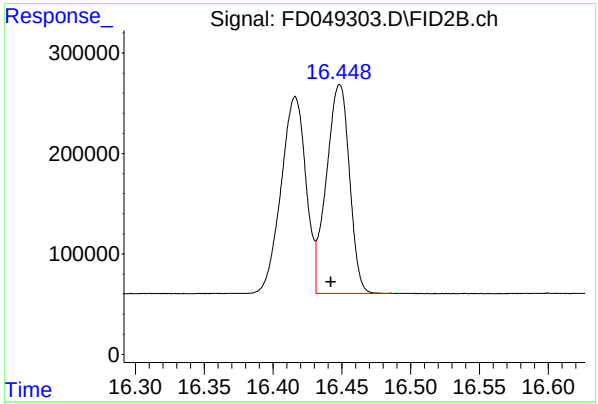
#15 Chrysene (C27.41)

R.T.: 14.908 min
Delta R.T.: 0.005 min
Response: 2361362
Conc: 20.23 ug/ml



#16 benzo[b]fluoranthene (C30.41)

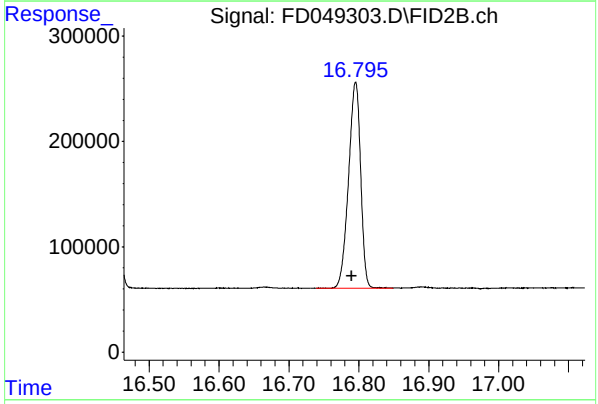
R.T.: 16.416 min
Delta R.T.: 0.005 min
Response: 2465786
Conc: 20.31 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

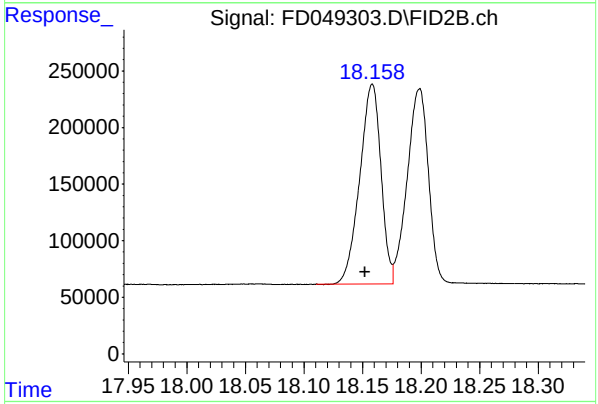
R.T.: 16.448 min
Delta R.T.: 0.006 min
Response: 2425894
Conc: 20.34 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD ICV



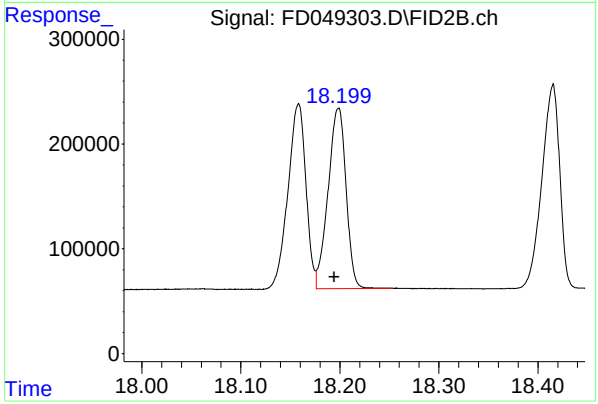
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.795 min
Delta R.T.: 0.006 min
Response: 2350703
Conc: 20.44 ug/ml



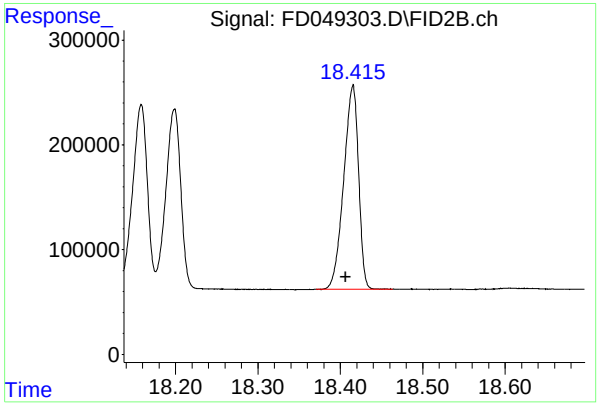
#19 Indeno[1,2,3-cd]pyrene (C35.01)

R.T.: 18.158 min
Delta R.T.: 0.006 min
Response: 2223472
Conc: 20.26 ug/ml



#20 Dibenz[a,h]anthracene (C30.36)

R.T.: 18.199 min
Delta R.T.: 0.004 min
Response: 2176851
Conc: 20.61 ug/ml



#21 Benzo[g,h,i]perylene (C34.01)

R.T.: 18.415 min
Delta R.T.: 0.009 mi
Response: 2437299
Conc: 20.45 ug/m

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD ICV

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049303.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 13:31
Sample : 20 PPM AROMATIC HC STD ICV
Misc :
ALS Vial : 66 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.531	4.479	4.565	BB	301505	2586379	88.41%	4.882%
2	6.075	6.040	6.115	BB	299909	2718291	92.92%	5.131%
3	7.129	7.067	7.174	BB	284894	2677906	91.54%	5.054%
4	7.739	7.694	7.785	BB	258044	2463844	84.22%	4.650%
5	8.408	8.352	8.449	BB	304186	2925539	100.00%	5.522%
6	8.605	8.557	8.652	BB	166860	1634987	55.89%	3.086%
7	8.703	8.652	8.742	BB	291659	2839578	97.06%	5.359%
8	9.485	9.427	9.522	BB	282412	2821446	96.44%	5.325%
9	10.883	10.844	10.925	BV	265642	2757134	94.24%	5.204%
10	10.957	10.925	11.005	PB	236123	2430615	83.08%	4.588%
11	11.649	11.595	11.697	BB	262612	2843246	97.19%	5.366%
12	12.697	12.659	12.734	BB	262813	2761084	94.38%	5.211%
13	12.995	12.940	13.024	BV	254172	2761336	94.39%	5.212%
14	14.866	14.802	14.886	BV	199244	2319946	79.30%	4.379%
15	14.908	14.886	14.949	VB	215436	2361362	80.72%	4.457%
16	16.416	16.355	16.431	BV	195745	2465786	84.28%	4.654%
17	16.448	16.431	16.487	VB	208217	2425894	82.92%	4.579%
18	16.795	16.739	16.849	BB	195634	2350703	80.35%	4.437%
19	18.158	18.110	18.176	BV	176897	2223472	76.00%	4.197%
20	18.199	18.176	18.254	VB	172235	2176851	74.41%	4.109%
21	18.415	18.370	18.464	BB	194794	2437299	83.31%	4.600%
			Sum of corrected areas:			52982696		

Aromatic EPH 050125.M Fri May 02 05:08:40 2025

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

Continuing Calibration Report for SequenceID : FC050225AL

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
File ID :	**FC068742.D**						
Aliphatic C9-C12	6488349.000	60.000	3.343	6.645	108139.150	105282.003	-2.714
Aliphatic C12-C16	4261833.000	40.000	6.646	10.046	106545.825	102322.575	-4.127
Aliphatic C16-C21	6185679.000	60.000	10.047	13.415	103094.650	98816.539	-4.329
Aliphatic C21-C28	7845338.000	80.000	13.416	17.079	98066.725	94185.337	-4.121
Aliphatic C28-C40	12251595.000	120.000	17.080	22.085	102096.625	89882.835	-13.589
Aliphatic EPH	37032794.000	360.000	3.343	22.085	102868.872	96276.618	-6.847

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

Lab Sample ID:	20 PPM ALIPHATIC HC S	Acq On:	02 May 2025 10:53
Client Sample ID:		Operator:	YP/AJ
Data file:	FC068742.D	Misc:	
Instrument:	FID_C	ALS Vial:	2
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aliphatic C9-C12	3.343	6.645	6488349.000	60.000	ug/ml
Aliphatic C12-C16	6.646	10.046	4261833.000	40.000	ug/ml
Aliphatic C16-C21	10.047	13.415	6185679.000	60.000	ug/ml
Aliphatic C21-C28	13.416	17.079	7845338.000	80.000	ug/ml
Aliphatic C28-C40	17.080	22.085	12251595.000	120.000	ug/ml
Aliphatic EPH	3.343	22.085	37032794.000	360.000	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050225AL\
Data File : FC068742.D
Signal(s) : FID1A.ch
Acq On : 02 May 2025 10:53
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD

Integration File: sample.E
Quant Time: May 03 00:39:38 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 17:31:27 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	ortho-Terphenyl (SURR)	11.715	2595922	20.386 ug/ml
Spiked Amount	50.000		Recovery =	40.77%
12) S	1-chlorooctadecane (S...	13.148	1892024	20.368 ug/ml
Spiked Amount	50.000		Recovery =	40.74%
	Target Compounds			
1) T	n-Nonane (C9)	3.443	2147084	20.386 ug/ml
2) T	n-Decane (C10)	4.519	2170960	20.605 ug/ml
3) T	A~Naphthalene (C11.7)	6.117	2370654	20.356 ug/ml
4) T	n-Dodecane (C12)	6.545	2170305	20.638 ug/ml
5) T	A~2-methylnaphthalene...	7.175	2332952	20.199 ug/ml
6) T	n-Tetradecane (C14)	8.343	2131982	20.738 ug/ml
7) T	n-Hexadecane (C16)	9.946	2129851	20.913 ug/ml
8) T	n-Octadecane (C18)	11.390	2110467	20.972 ug/ml
10) T	n-Eicosane (C20)	12.702	2051786	20.860 ug/ml
11) T	n-Heneicosane (C21)	13.315	2023426	20.762 ug/ml
13) T	n-Docosane (C22)	13.902	2004959	20.756 ug/ml
14) T	n-Tetracosane (C24)	15.006	1965938	20.654 ug/ml
15) T	n-Hexacosane (C26)	16.028	1929102	20.653 ug/ml
16) T	n-Octacosane (C28)	16.979	1945339	21.247 ug/ml
17) T	n-Tricontane (C30)	17.869	2058365	22.390 ug/ml
18) T	n-Dotriacontane (C32)	18.701	2114137	23.048 ug/ml
19) T	n-Tetratriacontane (C34)	19.488	2051460	22.963 ug/ml
20) T	n-Hexatriacontane (C36)	20.230	2049221	22.876 ug/ml
21) T	n-Octatriacontane (C38)	21.006	2009794	22.732 ug/ml
22) T	n-Tetracontane (C40)	21.985	1968618	22.293 ug/ml

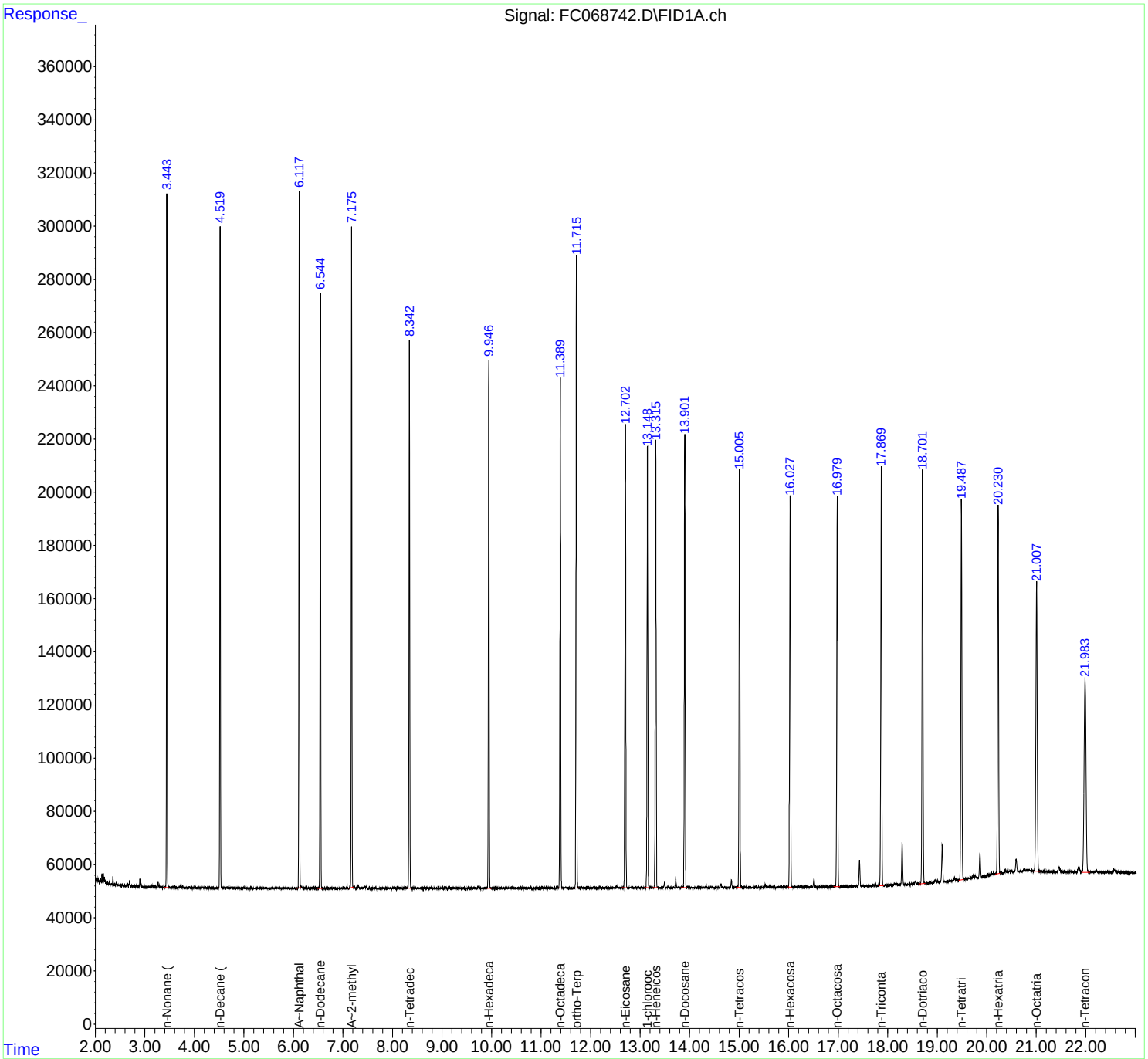
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050225AL\
Data File : FC068742.D
Signal(s) : FID1A.ch
Acq On : 02 May 2025 10:53
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD

Integration File: sample.E
Quant Time: May 03 00:39:38 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 17:31:27 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050225AL\
Data File : FC068742.D
Signal(s) : FID1A.ch
Acq On : 02 May 2025 10:53
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.443	3.379	3.482	BB	260856	2147084	82.71%	4.645%
2	4.519	4.465	4.557	BB	248221	2170960	83.63%	4.697%
3	6.117	6.062	6.152	BB	261604	2370654	91.32%	5.129%
4	6.545	6.489	6.587	BB	223813	2170305	83.60%	4.695%
5	7.175	7.109	7.202	BB	248669	2332952	89.87%	5.047%
6	8.343	8.279	8.375	BB	205315	2131982	82.13%	4.612%
7	9.946	9.885	9.989	BB	199475	2129851	82.05%	4.608%
8	11.390	11.350	11.435	BB	191615	2110467	81.30%	4.566%
9	11.715	11.654	11.755	BB	238626	2595922	100.00%	5.616%
10	12.702	12.634	12.755	BB	173885	2051786	79.04%	4.439%
11	13.148	13.089	13.184	BB	165651	1892024	72.88%	4.093%
12	13.315	13.255	13.354	BB	168689	2023426	77.95%	4.377%
13	13.902	13.819	13.947	BB	170138	2004959	77.23%	4.337%
14	15.006	14.939	15.042	BB	156056	1965938	75.73%	4.253%
15	16.028	15.990	16.065	BB	145193	1929102	74.31%	4.173%
16	16.979	16.912	17.034	BB	146410	1945339	74.94%	4.208%
17	17.869	17.824	17.920	BB	157583	2058365	79.29%	4.453%
18	18.701	18.630	18.752	BB	156020	2114137	81.44%	4.574%
19	19.488	19.440	19.529	BB	141393	2051460	79.03%	4.438%
20	20.230	20.180	20.269	BB	138435	2049221	78.94%	4.433%
21	21.006	20.927	21.079	BB	108953	2009794	77.42%	4.348%
22	21.985	21.912	22.080	BB	72784	1968618	75.84%	4.259%

Sum of corrected areas: 46224345

Aliphatic EPH 040925.M Sat May 03 03:25:26 2025

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

Continuing Calibration Report for SequenceID : FC050225AL

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
File ID :	**FC068748.D**						
Aliphatic C9-C12	5997337.000	60.000	3.343	6.645	99955.617	105282.003	5.059
Aliphatic C12-C16	3867344.000	40.000	6.646	10.046	96683.600	102322.575	5.511
Aliphatic C16-C21	5592959.000	60.000	10.047	13.415	93215.983	98816.539	5.668
Aliphatic C21-C28	7186492.000	80.000	13.416	17.079	89831.150	94185.337	4.623
Aliphatic C28-C40	11519078.000	120.000	17.080	22.085	95992.317	89882.835	-6.797
Aliphatic EPH	34163210.000	360.000	3.343	22.085	94897.806	96276.618	1.432

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

Lab Sample ID:	20 PPM ALIPHATIC HC S	Acq On:	02 May 2025 15:56
Client Sample ID:		Operator:	YP/AJ
Data file:	FC068748.D	Misc:	
Instrument:	FID_C	ALS Vial:	2
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aliphatic C9-C12	3.343	6.645	5997337.000	60.000	ug/ml
Aliphatic C12-C16	6.646	10.046	3867344.000	40.000	ug/ml
Aliphatic C16-C21	10.047	13.415	5592959.000	60.000	ug/ml
Aliphatic C21-C28	13.416	17.079	7186492.000	80.000	ug/ml
Aliphatic C28-C40	17.080	22.085	11519078.000	120.000	ug/ml
Aliphatic EPH	3.343	22.085	34163210.000	360.000	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050225AL\
Data File : FC068748.D
Signal(s) : FID1A.ch
Acq On : 02 May 2025 15:56
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 05/05/2025
Supervised By :mohammad ahmed 05/06/2025

Integration File: sample.E
Quant Time: May 03 00:41:39 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 17:31:27 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	ortho-Terphenyl (SURR)	11.714	2369412	18.607 ug/ml
Spiked Amount	50.000		Recovery =	37.21%
12) S	1-chlorooctadecane (S...	13.148	1723421	18.553 ug/ml
Spiked Amount	50.000		Recovery =	37.11%
	Target Compounds			
1) T	n-Nonane (C9)	3.443	1994255	18.935 ug/ml
2) T	n-Decane (C10)	4.519	2010147	19.079 ug/ml
3) T	A~Naphthalene (C11.7)	6.117	2191764	18.820 ug/ml
4) T	n-Dodecane (C12)	6.545	1992935	18.951 ug/ml
5) T	A~2-methylnaphthalene...	7.175	2170103	18.789 ug/ml
6) T	n-Tetradecane (C14)	8.343	1942804	18.898 ug/ml
7) T	n-Hexadecane (C16)	9.946	1924540	18.897 ug/ml
8) T	n-Octadecane (C18)	11.390	1903499	18.915 ug/ml
10) T	n-Eicosane (C20)	12.700	1854397	18.853 ug/ml
11) T	n-Heneicosane (C21)	13.314	1835063	18.829 ug/ml
13) T	n-Docosane (C22)	13.901	1823135	18.874 ug/ml
14) T	n-Tetracosane (C24)	15.005	1795062	18.859 ug/ml
15) T	n-Hexacosane (C26)	16.028	1771024	18.961 ug/ml
16) T	n-Octacosane (C28)	16.979	1797271	19.630 ug/ml
17) T	n-Tricontane (C30)	17.869	1924385	20.933 ug/ml
18) T	n-Dotriacontane (C32)	18.703	1987564	21.668 ug/ml
19) T	n-Tetratriacontane (C34)	19.487	1927750	21.578 ug/ml
20) T	n-Hexatriacontane (C36)	20.228	1923073	21.468 ug/ml
21) T	n-Octatriacontane (C38)	21.001	1894929	21.433 ug/mlm
22) T	n-Tetracontane (C40)	21.982	1861377	21.079 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050225AL\
Data File : FC068748.D
Signal(s) : FID1A.ch
Acq On : 02 May 2025 15:56
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

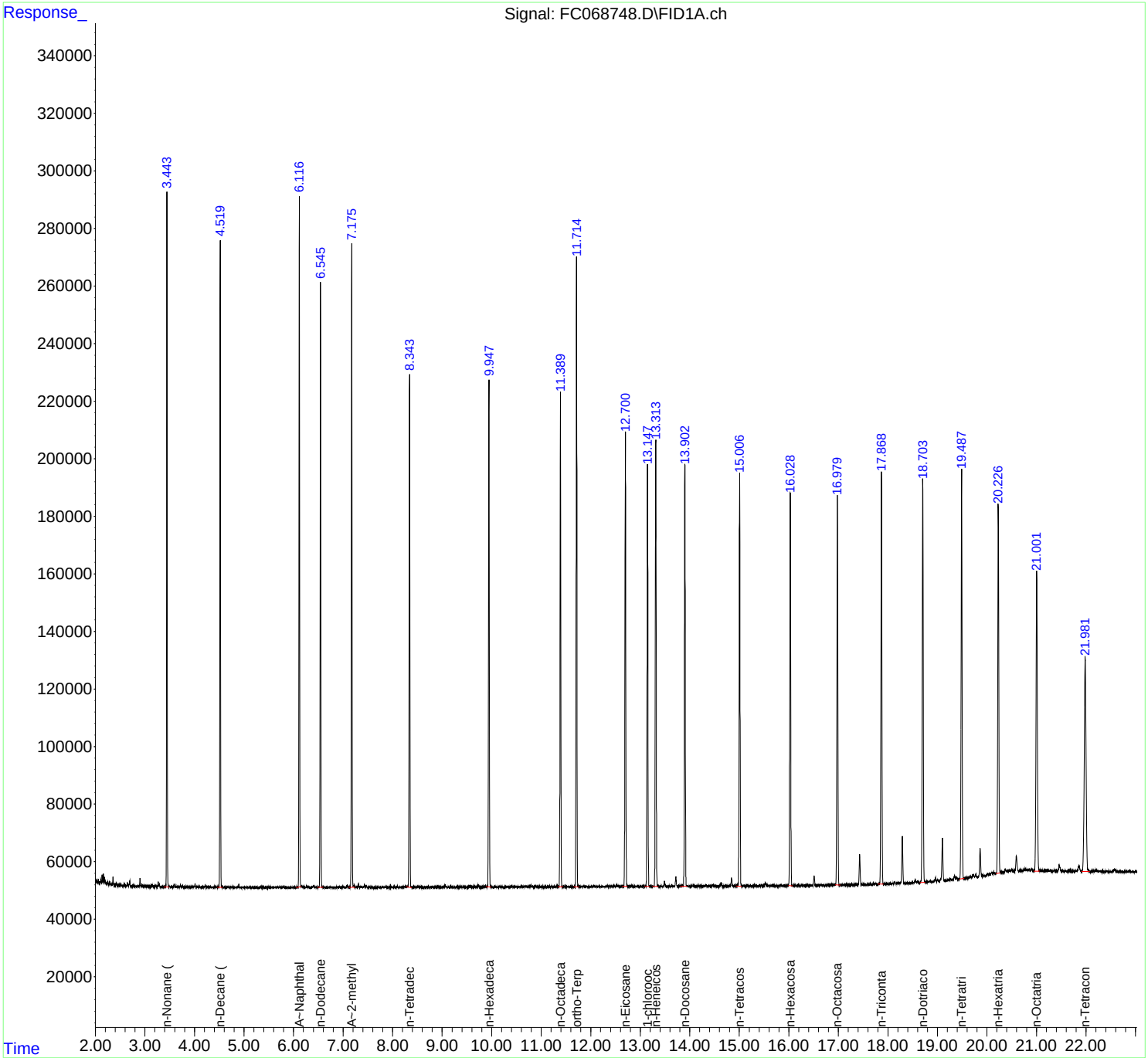
Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 05/05/2025
Supervised By :mohammad ahmed 05/06/2025

Integration File: sample.E
Quant Time: May 03 00:41:39 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 17:31:27 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um



Instrument :
FID_C
LabSampleId :
20 PPM ALIPHATIC HC STD

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/05/2025
Supervised By :mohammad ahmed 05/06/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC05022
Data File : FC068748.D
Signal(s) : FID1A.ch
Acq On : 02 May 2025 15:56
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.443	3.377	3.484	BV	241296	1994255	84.17%	4.681%
2	4.519	4.462	4.564	BB	223742	2010147	84.84%	4.718%
3	6.117	6.059	6.160	BB	240167	2191764	92.50%	5.144%
4	6.545	6.489	6.590	BB	209885	1992935	84.11%	4.678%
5	7.175	7.110	7.245	BB	223991	2170103	91.59%	5.093%
6	8.343	8.279	8.380	BB	177569	1942804	82.00%	4.560%
7	9.946	9.884	9.989	BB	176223	1924540	81.22%	4.517%
8	11.390	11.342	11.440	BB	171659	1903499	80.34%	4.468%
9	11.714	11.654	11.762	BB	219174	2369412	100.00%	5.561%
10	12.700	12.640	12.742	BB	157644	1854397	78.26%	4.352%
11	13.148	13.087	13.180	BB	147351	1723421	72.74%	4.045%
12	13.314	13.252	13.365	BB	154700	1835063	77.45%	4.307%
13	13.901	13.805	13.950	BB	146167	1823135	76.94%	4.279%
14	15.005	14.935	15.040	BB	142682	1795062	75.76%	4.213%
15	16.028	15.990	16.072	BB	137032	1771024	74.75%	4.157%
16	16.979	16.935	17.032	BB	135333	1797271	75.85%	4.218%
17	17.869	17.804	17.914	BB	143208	1924385	81.22%	4.517%
18	18.703	18.642	18.754	BB	140211	1987564	83.88%	4.665%
19	19.487	19.440	19.535	BB	141718	1927750	81.36%	4.525%
20	20.228	20.180	20.267	BB	126387	1923073	81.16%	4.514%
21	21.004	20.860	21.074	BB	102910	1882794	79.46%	4.419%
22	21.982	21.914	22.074	BB	74654	1861377	78.56%	4.369%
			Sum of corrected areas:			42605774		

Aliphatic EPH 040925.M Sat May 03 03:30:09 2025

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

Continuing Calibration Report for SequenceID : FC050825AL

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
File ID :	**FC068791.D**						
Aliphatic C9-C12	5774515.000	60.000	3.342	6.642	96241.917	99133.167	2.917
Aliphatic C12-C16	3617334.000	40.000	6.643	10.042	90433.350	90984.404	0.606
Aliphatic C16-C21	5106859.000	60.000	10.043	13.408	85114.317	85760.459	0.753
Aliphatic C21-C28	6727060.000	80.000	13.409	17.072	84088.250	83091.075	-1.200
Aliphatic C28-C40	10872761.000	120.000	17.073	22.071	90606.342	84622.692	-7.071
Aliphatic EPH	32098529.000	360.000	3.342	22.071	89162.581	87597.230	-1.787

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

Lab Sample ID:	20 PPM ALIPHATIC HC S	Acq On:	08 May 2025 10:08
Client Sample ID:		Operator:	YP/AJ
Data file:	FC068791.D	Misc:	
Instrument:	FID_C	ALS Vial:	2
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aliphatic C9-C12	3.342	6.642	5774515.000	60.000	ug/ml
Aliphatic C12-C16	6.643	10.042	3617334.000	40.000	ug/ml
Aliphatic C16-C21	10.043	13.408	5106859.000	60.000	ug/ml
Aliphatic C21-C28	13.409	17.072	6727060.000	80.000	ug/ml
Aliphatic C28-C40	17.073	22.071	10872761.000	120.000	ug/ml
Aliphatic EPH	3.342	22.071	32098529.000	360.000	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068791.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 10:08
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD

Integration File: autoint1.e
Quant Time: May 09 09:07:43 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	ortho-Terphenyl (SURR)	11.709	2219595	19.446 ug/ml
Spiked Amount	50.000		Recovery =	38.89%
12) S	1-chlorooctadecane (S...	13.142	1565834	19.518 ug/ml
Spiked Amount	50.000		Recovery =	39.04%
	Target Compounds			
1) T	n-Nonane (C9)	3.442	1922576	19.115 ug/ml
2) T	n-Decane (C10)	4.517	1942678	19.497 ug/ml
3) T	A~Naphthalene (C11.7)	6.114	2098038	19.028 ug/ml
4) T	n-Dodecane (C12)	6.542	1909261	19.647 ug/ml
5) T	A~2-methylnaphthalene...	7.172	2062288	19.214 ug/ml
6) T	n-Tetradecane (C14)	8.340	1832286	19.825 ug/ml
7) T	n-Hexadecane (C16)	9.942	1785048	19.935 ug/ml
8) T	n-Octadecane (C18)	11.386	1742525	19.865 ug/ml
10) T	n-Eicosane (C20)	12.696	1691786	19.852 ug/ml
11) T	n-Heneicosane (C21)	13.308	1672548	19.830 ug/ml
13) T	n-Docosane (C22)	13.895	1674343	20.014 ug/ml
14) T	n-Tetracosane (C24)	14.999	1666372	20.027 ug/ml
15) T	n-Hexacosane (C26)	16.021	1659557	20.030 ug/ml
16) T	n-Octacosane (C28)	16.972	1726788	20.894 ug/ml
17) T	n-Tricontane (C30)	17.860	1894773	22.394 ug/ml
18) T	n-Dotriacontane (C32)	18.695	1964672	22.809 ug/ml
19) T	n-Tetratriacontane (C34)	19.480	1855099	21.773 ug/ml
20) T	n-Hexatriacontane (C36)	20.219	1801911	20.965 ug/ml
21) T	n-Octatriacontane (C38)	20.995	1724546	20.559 ug/ml
22) T	n-Tetracontane (C40)	21.971	1631760	19.910 ug/ml

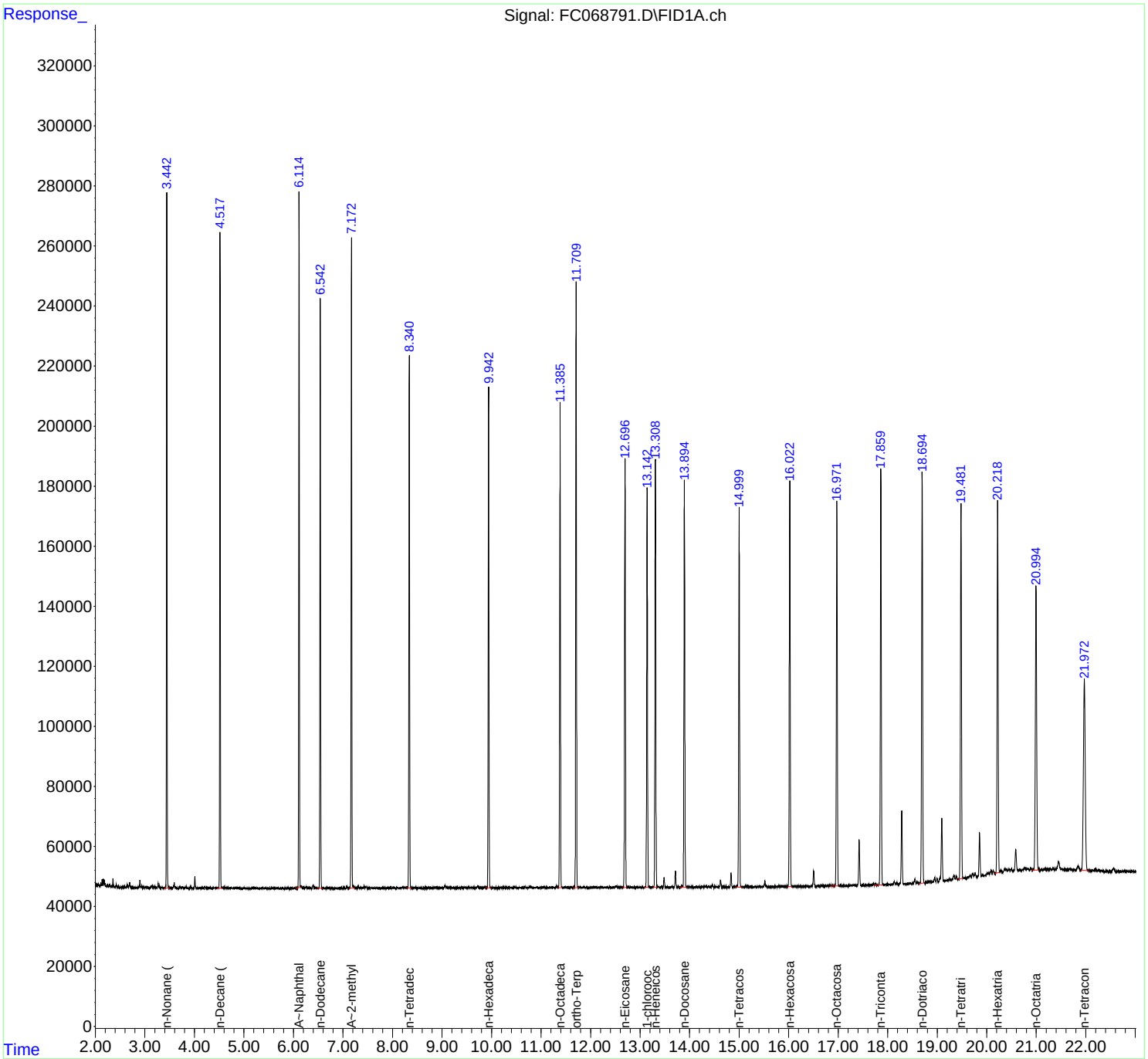
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068791.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 10:08
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD

Integration File: autoint1.e
Quant Time: May 09 09:07:43 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068791.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 10:08
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.442	3.394	3.505	BB	231204	1922576	86.62%	4.801%
2	4.517	4.460	4.564	BB	218318	1942678	87.52%	4.851%
3	6.114	6.057	6.152	BB	231525	2098038	94.52%	5.239%
4	6.542	6.479	6.587	BB	196335	1909261	86.02%	4.768%
5	7.172	7.130	7.237	BB	216414	2062288	92.91%	5.150%
6	8.340	8.287	8.387	BB	177834	1832286	82.55%	4.576%
7	9.942	9.879	9.987	BB	166919	1785048	80.42%	4.458%
8	11.386	11.340	11.425	BB	161844	1742525	78.51%	4.351%
9	11.709	11.655	11.757	BB	201112	2219595	100.00%	5.543%
10	12.696	12.654	12.732	BB	142868	1691786	76.22%	4.225%
11	13.142	13.085	13.175	BB	133355	1565834	70.55%	3.910%
12	13.308	13.269	13.342	BB	142595	1672548	75.35%	4.177%
13	13.895	13.804	13.940	BB	135410	1674343	75.43%	4.181%
14	14.999	14.934	15.055	BB	126135	1666372	75.08%	4.161%
15	16.021	15.984	16.069	BB	136232	1659557	74.77%	4.144%
16	16.972	16.830	17.009	BB	127558	1726788	77.80%	4.312%
17	17.860	17.729	17.899	BB	137899	1894773	85.37%	4.732%
18	18.695	18.642	18.749	BB	135692	1964672	88.51%	4.906%
19	19.480	19.415	19.517	BB	124384	1855099	83.58%	4.633%
20	20.219	20.150	20.259	BV	124116	1801911	81.18%	4.500%
21	20.995	20.920	21.057	BB	94517	1724546	77.70%	4.307%
22	21.971	21.897	22.067	BB	63565	1631760	73.52%	4.075%
			Sum of corrected areas:			40044284		

Aliphatic EPH 050625.M Fri May 09 09:31:27 2025

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

Continuing Calibration Report for SequenceID : FC050825AL

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
File ID :	**FC068799.D**						
Aliphatic C9-C12	5278125.000	60.000	3.342	6.642	87968.750	99133.167	11.262
Aliphatic C12-C16	3477308.000	40.000	6.643	10.042	86932.700	90984.404	4.453
Aliphatic C16-C21	5056855.000	60.000	10.043	13.408	84280.917	85760.459	1.725
Aliphatic C21-C28	6614239.000	80.000	13.409	17.072	82677.988	83091.075	0.497
Aliphatic C28-C40	10921137.000	120.000	17.073	22.071	91009.475	84622.692	-7.547
Aliphatic EPH	31347664.000	360.000	3.342	22.071	87076.844	87597.230	0.594

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

Lab Sample ID:	20 PPM ALIPHATIC HC S	Acq On:	08 May 2025 17:14
Client Sample ID:		Operator:	YP/AJ
Data file:	FC068799.D	Misc:	
Instrument:	FID_C	ALS Vial:	2
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aliphatic C9-C12	3.342	6.642	5278125.000	60.000	ug/ml
Aliphatic C12-C16	6.643	10.042	3477308.000	40.000	ug/ml
Aliphatic C16-C21	10.043	13.408	5056855.000	60.000	ug/ml
Aliphatic C21-C28	13.409	17.072	6614239.000	80.000	ug/ml
Aliphatic C28-C40	17.073	22.071	10921137.000	120.000	ug/ml
Aliphatic EPH	3.342	22.071	31347664.000	360.000	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068799.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 17:14
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD

Integration File: autoint1.e
Quant Time: May 09 09:08:40 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	ortho-Terphenyl (SURR)	11.710	2110292	18.489 ug/ml
Spiked Amount	50.000		Recovery =	36.98%
12) S	1-chlorooctadecane (S...	13.142	1542692	19.229 ug/ml
Spiked Amount	50.000		Recovery =	38.46%
	Target Compounds			
1) T	n-Nonane (C9)	3.442	1737195	17.272 ug/ml
2) T	n-Decane (C10)	4.517	1768912	17.753 ug/ml
3) T	A~Naphthalene (C11.7)	6.114	1924285	17.452 ug/ml
4) T	n-Dodecane (C12)	6.543	1772018	18.235 ug/ml
5) T	A~2-methylnaphthalene...	7.172	1886216	17.574 ug/ml
6) T	n-Tetradecane (C14)	8.339	1740497	18.832 ug/ml
7) T	n-Hexadecane (C16)	9.942	1736811	19.396 ug/ml
8) T	n-Octadecane (C18)	11.385	1719553	19.603 ug/ml
10) T	n-Eicosane (C20)	12.696	1678654	19.698 ug/ml
11) T	n-Heneicosane (C21)	13.309	1658648	19.665 ug/ml
13) T	n-Docosane (C22)	13.895	1647975	19.699 ug/ml
14) T	n-Tetracosane (C24)	14.999	1641703	19.730 ug/ml
15) T	n-Hexacosane (C26)	16.021	1629568	19.668 ug/ml
16) T	n-Octacosane (C28)	16.973	1694993	20.509 ug/ml
17) T	n-Tricontane (C30)	17.861	1876545	22.178 ug/ml
18) T	n-Dotriacontane (C32)	18.695	1965282	22.816 ug/ml
19) T	n-Tetratriacontane (C34)	19.478	1865114	21.891 ug/ml
20) T	n-Hexatriacontane (C36)	20.220	1813286	21.097 ug/ml
21) T	n-Octatriacontane (C38)	20.994	1733890	20.670 ug/ml
22) T	n-Tetracontane (C40)	21.972	1667020	20.340 ug/ml

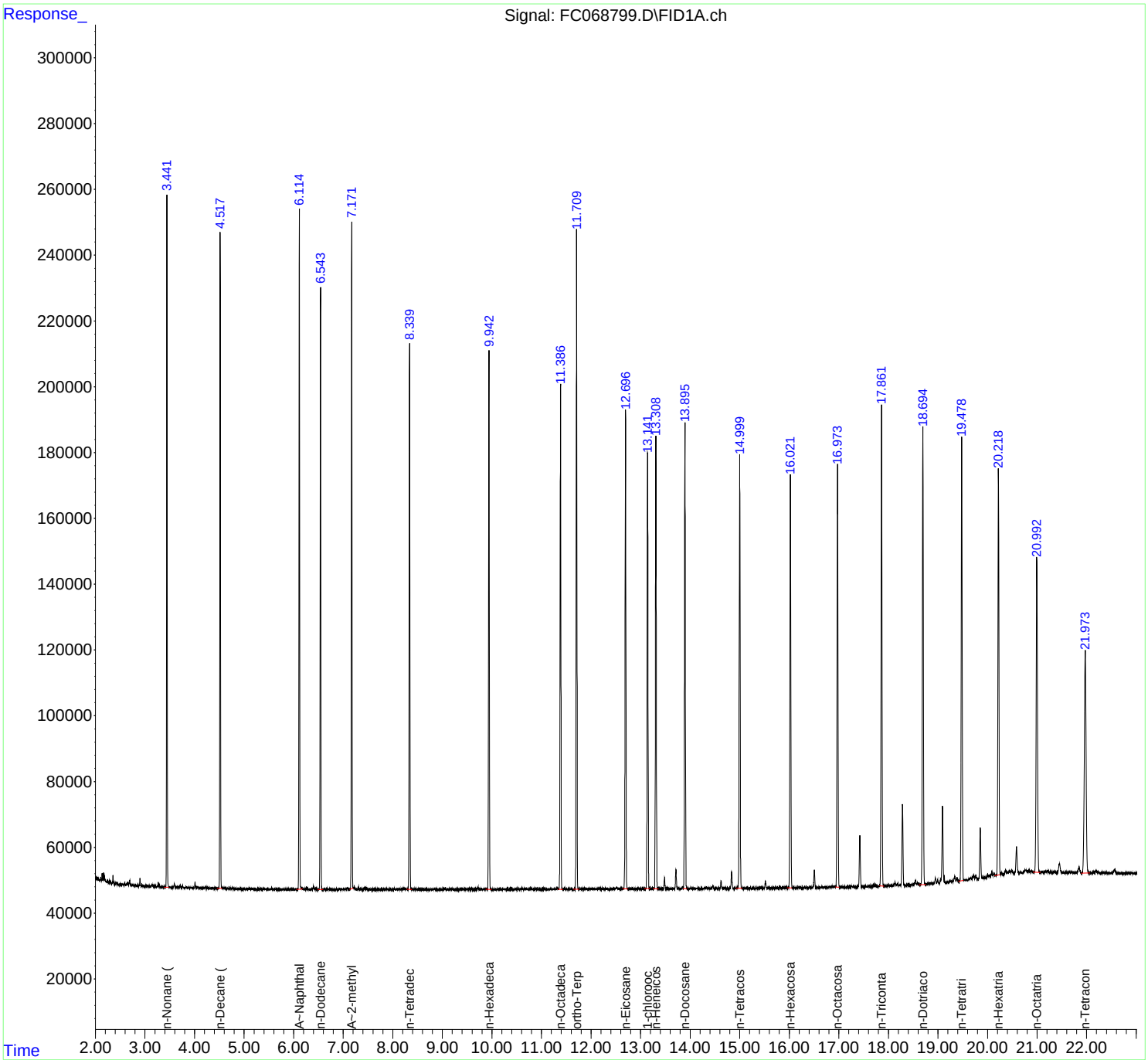
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068799.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 17:14
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD

Integration File: autoint1.e
Quant Time: May 09 09:08:40 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068799.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 17:14
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.442	3.392	3.482	BB	210147	1737195	82.32%	4.476%
2	4.517	4.459	4.559	BB	199137	1768912	83.82%	4.558%
3	6.114	6.057	6.174	BB	206982	1924285	91.19%	4.958%
4	6.543	6.490	6.587	BB	183337	1772018	83.97%	4.566%
5	7.172	7.130	7.202	BB	202503	1886216	89.38%	4.860%
6	8.339	8.285	8.380	BB	165933	1740497	82.48%	4.485%
7	9.942	9.880	9.985	BB	163852	1736811	82.30%	4.475%
8	11.385	11.340	11.434	BB	153243	1719553	81.48%	4.431%
9	11.710	11.649	11.759	BB	198098	2110292	100.00%	5.437%
10	12.696	12.634	12.747	BB	146045	1678654	79.55%	4.325%
11	13.142	13.080	13.194	BB	132125	1542692	73.10%	3.975%
12	13.309	13.247	13.364	BB	137749	1658648	78.60%	4.274%
13	13.895	13.864	13.935	VB	141515	1647975	78.09%	4.246%
14	14.999	14.922	15.052	BB	131641	1641703	77.80%	4.230%
15	16.021	15.962	16.059	BB	125581	1629568	77.22%	4.199%
16	16.973	16.929	17.012	BB	129075	1694993	80.32%	4.367%
17	17.861	17.820	17.910	BB	146639	1876545	88.92%	4.835%
18	18.695	18.619	18.759	BB	138225	1965282	93.13%	5.064%
19	19.478	19.417	19.515	BB	134066	1865114	88.38%	4.806%
20	20.220	20.150	20.259	BV	121398	1813286	85.93%	4.672%
21	20.994	20.915	21.069	BB	95655	1733890	82.16%	4.468%
22	21.972	21.895	22.067	BB	67255	1667020	78.99%	4.295%
			Sum of corrected areas:			38811149		

Aliphatic EPH 050625.M Fri May 09 09:32:32 2025

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

Continuing Calibration Report for SequenceID : FC050825AL

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
File ID :	**FC068808.D**						
Aliphatic C9-C12	5298914.000	60.000	3.342	6.642	88315.233	99133.167	10.913
Aliphatic C12-C16	3471710.000	40.000	6.643	10.042	86792.750	90984.404	4.607
Aliphatic C16-C21	5061619.000	60.000	10.043	13.408	84360.317	85760.459	1.633
Aliphatic C21-C28	6674646.000	80.000	13.409	17.072	83433.075	83091.075	-0.412
Aliphatic C28-C40	11150242.000	120.000	17.073	22.071	92918.683	84622.692	-9.804
Aliphatic EPH	31657131.000	360.000	3.342	22.071	87936.475	87597.230	-0.387

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

Lab Sample ID:	20 PPM ALIPHATIC HC S	Acq On:	08 May 2025 23:34
Client Sample ID:		Operator:	YP/AJ
Data file:	FC068808.D	Misc:	
Instrument:	FID_C	ALS Vial:	2
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aliphatic C9-C12	3.342	6.642	5298914.000	60.000	ug/ml
Aliphatic C12-C16	6.643	10.042	3471710.000	40.000	ug/ml
Aliphatic C16-C21	10.043	13.408	5061619.000	60.000	ug/ml
Aliphatic C21-C28	13.409	17.072	6674646.000	80.000	ug/ml
Aliphatic C28-C40	17.073	22.071	11150242.000	120.000	ug/ml
Aliphatic EPH	3.342	22.071	31657131.000	360.000	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068808.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 23:34
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025

Integration File: autoint1.e
Quant Time: May 09 09:10:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	ortho-Terphenyl (SURR)	11.709	2124752	18.615 ug/ml
Spiked Amount	50.000		Recovery =	37.23%
12) S	1-chlorooctadecane (S...	13.141	1552221	19.348 ug/ml
Spiked Amount	50.000		Recovery =	38.70%
	Target Compounds			
1) T	n-Nonane (C9)	3.442	1749315	17.392 ug/ml
2) T	n-Decane (C10)	4.517	1778847	17.852 ug/ml
3) T	A~Naphthalene (C11.7)	6.113	1939444	17.589 ug/ml
4) T	n-Dodecane (C12)	6.542	1770752	18.222 ug/ml
5) T	A~2-methylnaphthalene...	7.172	1915478	17.846 ug/ml
6) T	n-Tetradecane (C14)	8.338	1737987	18.804 ug/ml
7) T	n-Hexadecane (C16)	9.942	1733723	19.362 ug/ml
8) T	n-Octadecane (C18)	11.385	1717922	19.585 ug/ml
10) T	n-Eicosane (C20)	12.695	1680489	19.720 ug/ml
11) T	n-Heneicosane (C21)	13.308	1663208	19.719 ug/ml
13) T	n-Docosane (C22)	13.894	1657060	19.808 ug/ml
14) T	n-Tetracosane (C24)	14.998	1653318	19.870 ug/ml
15) T	n-Hexacosane (C26)	16.020	1646159	19.868 ug/ml
16) T	n-Octacosane (C28)	16.971	1718109	20.789 ug/ml
17) T	n-Tricontane (C30)	17.860	1913841	22.619 ug/ml
18) T	n-Dotriacontane (C32)	18.695	2001506	23.237 ug/ml
19) T	n-Tetratriacontane (C34)	19.478	1900896	22.311 ug/ml
20) T	n-Hexatriacontane (C36)	20.219	1848438	21.506 ug/ml
21) T	n-Octatriacontane (C38)	20.992	1770740	21.109 ug/mlm
22) T	n-Tetracontane (C40)	21.970	1714821	20.924 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068808.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 23:34
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

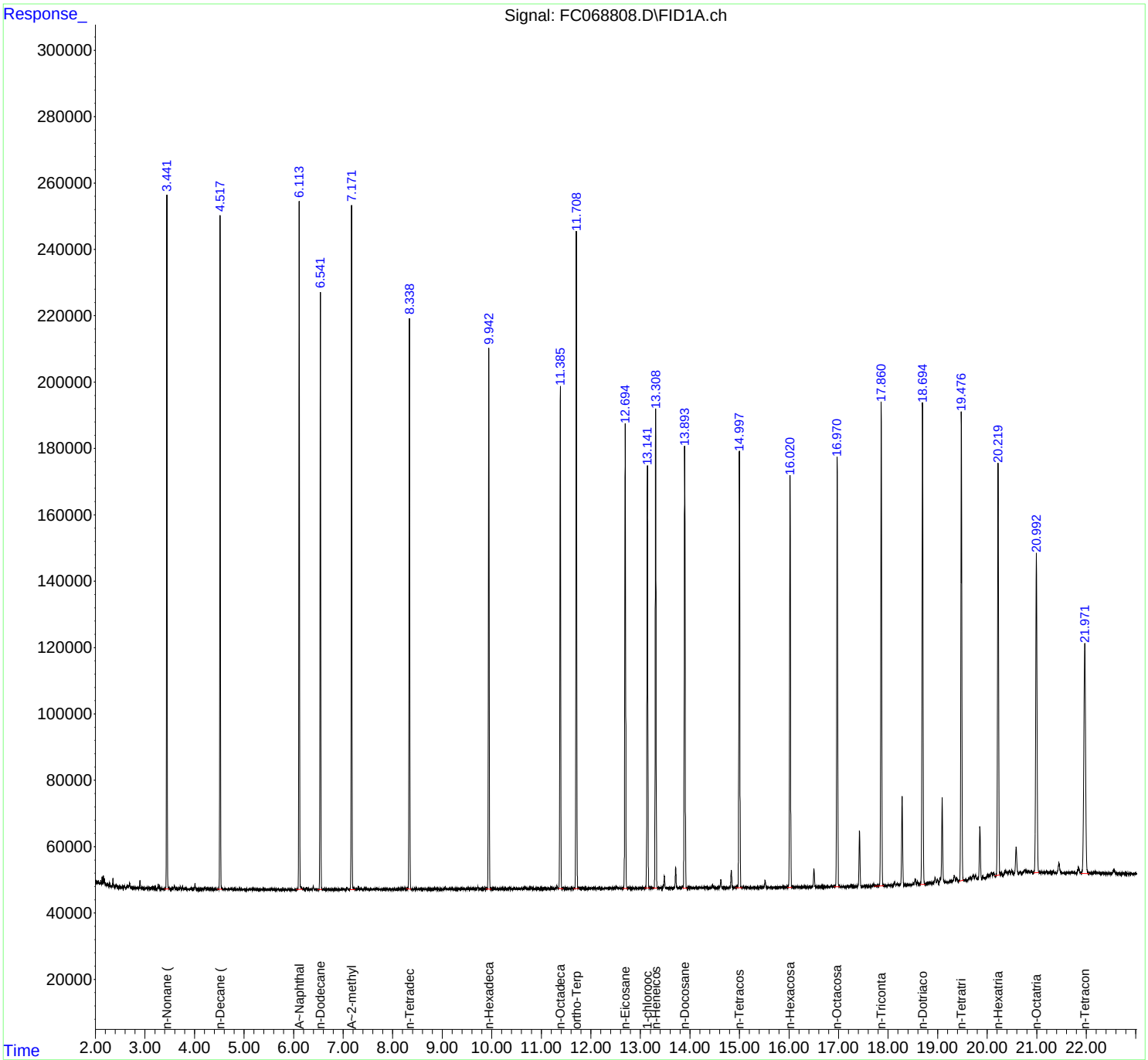
Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025

Integration File: autoint1.e
Quant Time: May 09 09:10:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um



Instrument :
FID_C
LabSampleId :
20 PPM ALIPHATIC HC STD

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC05082
Data File : FC068808.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 23:34
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.442	3.389	3.485	BB	208939	1749315	82.33%	4.463%
2	4.517	4.460	4.562	BB	202745	1778847	83.72%	4.539%
3	6.113	6.057	6.179	BB	207488	1939444	91.28%	4.949%
4	6.542	6.490	6.574	BB	180180	1770752	83.34%	4.518%
5	7.172	7.130	7.240	BB	206862	1915478	90.15%	4.887%
6	8.338	8.275	8.372	BB	171858	1737987	81.80%	4.435%
7	9.942	9.879	9.984	BB	162890	1733723	81.60%	4.424%
8	11.385	11.340	11.434	BB	151577	1717922	80.85%	4.383%
9	11.709	11.649	11.759	BB	198593	2124752	100.00%	5.421%
10	12.695	12.639	12.739	BB	138874	1680489	79.09%	4.288%
11	13.141	13.084	13.189	BB	126960	1552221	73.05%	3.961%
12	13.308	13.245	13.344	BB	144480	1663208	78.28%	4.244%
13	13.894	13.864	13.947	VB	133130	1657060	77.99%	4.228%
14	14.998	14.920	15.054	BB	131029	1653318	77.81%	4.218%
15	16.020	15.960	16.057	BB	124271	1646159	77.48%	4.200%
16	16.971	16.907	17.020	BB	127940	1718109	80.86%	4.384%
17	17.860	17.729	17.910	BB	145891	1913841	90.07%	4.883%
18	18.695	18.642	18.750	BB	145535	2001506	94.20%	5.107%
19	19.478	19.429	19.522	BB	141085	1900896	89.46%	4.850%
20	20.219	20.150	20.259	BV	123992	1848438	87.00%	4.716%
21	20.992	20.854	21.052	BB	96244	1774007	83.49%	4.526%
22	21.970	21.895	22.059	BB	69224	1714821	80.71%	4.375%
			Sum of corrected areas:			39192291		

Aliphatic EPH 050625.M Fri May 09 09:42:55 2025

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

Continuing Calibration Report for SequenceID : FD050225AR

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
File ID :	**FD049309.D**						
Aromatic C10-C12	5512093.000	40.000	4.431	6.176	137802.325	128531.556	-7.213
Aromatic C12-C16	8771780.000	60.000	6.177	8.805	146196.333	135727.245	-7.713
Aromatic C16-C21	11059605.000	80.000	8.806	13.095	138245.063	131120.372	-5.434
Aromatic C21-C36	21342567.000	180.000	13.096	18.516	118569.817	117353.852	-1.036
Aromatic EPH	46686045.000	360.000	4.431	18.516	129683.458	124717.278	-3.982

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

Lab Sample ID:	20 PPM AROMATIC HC S	Acq On:	02 May 2025 10:53
Client Sample ID:		Operator:	YP/AJ
Data file:	FD049309.D	Misc:	
Instrument:	FID_D	ALS Vial:	52
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aromatic C10-C12	4.431	6.176	5512093.000	40.000	ug/ml
Aromatic C12-C16	6.177	8.805	8771780.000	60.000	ug/ml
Aromatic C16-C21	8.806	13.095	11059605.000	80.000	ug/ml
Aromatic C21-C36	13.096	18.516	21342567.000	180.000	ug/ml
Aromatic EPH	4.431	18.516	46686045.000	360.000	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050225AR\
Data File : FD049309.D
Signal(s) : FID2B.ch
Acq On : 02 May 2025 10:53
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD

Integration File: autoint1.e
Quant Time: May 03 00:33:22 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) S	2-Bromonaphthalene (S...	7.739	2546583	21.477 ug/ml
Spiked Amount	50.000		Recovery =	42.95%
6) S	2-Flurobiphenyl (SURR)	8.605	1692769	21.435 ug/ml
Spiked Amount	50.000 Range	0 - 131	Recovery =	42.87%
11) S	ortho-Terphenyl (SURR)	11.649	2949342	21.369 ug/ml
Spiked Amount	50.000		Recovery =	42.74%
	Target Compounds			
1) T	1,2,3-Trimethylbenzen...	4.531	2675756	21.430 ug/ml
2) T	Naphthalene (C11.7)	6.076	2836337	21.454 ug/ml
3) T	2-Methylnaphthalene (...	7.130	2766136	21.442 ug/ml
5) T	Acenaphthylene (C15.06)	8.409	3046359	21.580 ug/ml
7) T	Acenaphthene (C15.5)	8.705	2959285	21.599 ug/ml
8) T	Flouorene (C16.55)	9.485	2921554	21.464 ug/ml
9) T	Phenanthrene (C19.36)	10.884	2843263	21.089 ug/ml
10) T	Anthracene (C19.43)	10.958	2463638	20.831 ug/ml
12) T	Fluoranthene (C21.85)	12.697	2829949	20.999 ug/ml
13) T	Pyrene (C20.8)	12.995	2831150	20.929 ug/ml
14) T	Benzo[a]anthracene (C...	14.866	2286153	19.959 ug/ml
15) T	Chrysene (C27.41)	14.908	2340986	20.058 ug/ml
16) T	benzo[b]fluoranthene ...	16.417	2492654	20.535 ug/ml
17) T	Bnezo[k]fluoranthene ...	16.449	2436790	20.432 ug/ml
18) T	Benzo[a]pyrene (C31.34)	16.797	2355602	20.486 ug/ml
19) T	Indeno[1,2,3-cd]pyren...	18.160	2171835	19.790 ug/ml
20) T	Dibenz[a,h]anthracene...	18.199	1995405	18.893 ug/ml
21) T	Benzo[g,h,i]perylene ...	18.416	2433193	20.418 ug/ml

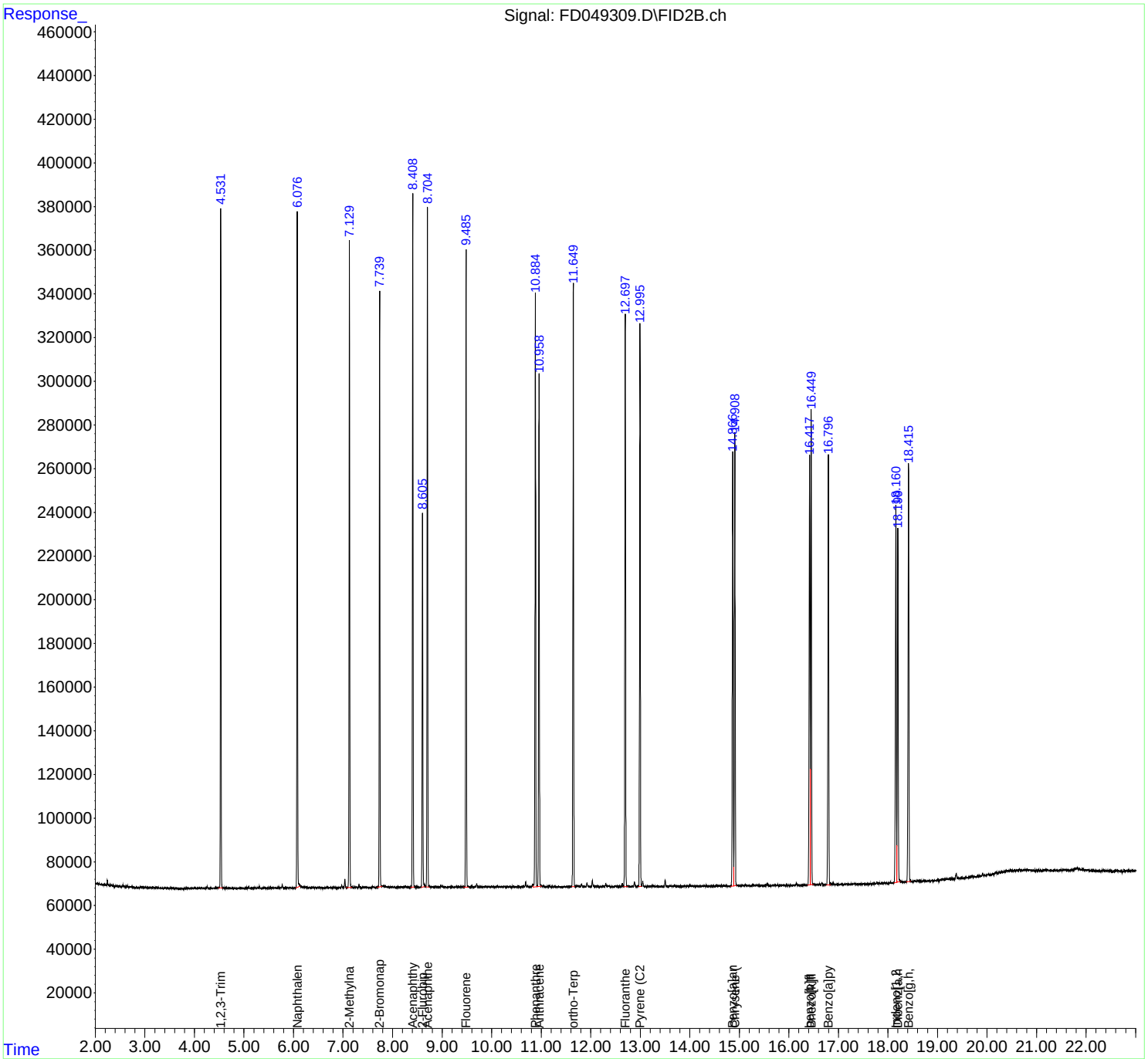
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050225AR\
Data File : FD049309.D
Signal(s) : FID2B.ch
Acq On : 02 May 2025 10:53
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD

Integration File: autoint1.e
Quant Time: May 03 00:33:22 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm



Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050225AR\
Data File : FD049309.D
Signal(s) : FID2B.ch
Acq On : 02 May 2025 10:53
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.531	4.480	4.574	BB	310975	2675756	87.83%	4.967%
2	6.076	6.040	6.137	BB	310374	2836337	93.11%	5.265%
3	7.130	7.067	7.179	BB	295943	2766136	90.80%	5.134%
4	7.739	7.685	7.787	BB	271162	2546583	83.59%	4.727%
5	8.409	8.360	8.445	BB	317898	3046359	100.00%	5.655%
6	8.605	8.575	8.655	BB	171449	1692769	55.57%	3.142%
7	8.705	8.674	8.742	BB	310249	2959285	97.14%	5.493%
8	9.485	9.432	9.530	BB	291808	2921554	95.90%	5.423%
9	10.884	10.840	10.920	VV	272283	2843263	93.33%	5.278%
10	10.958	10.920	11.007	VB	235205	2463638	80.87%	4.573%
11	11.649	11.615	11.680	BB	275762	2949342	96.82%	5.474%
12	12.697	12.662	12.740	BB	261222	2829949	92.90%	5.253%
13	12.995	12.962	13.027	BV	258073	2831150	92.94%	5.255%
14	14.866	14.825	14.886	BV	198606	2286153	75.05%	4.243%
15	14.908	14.886	14.947	VB	207664	2340986	76.85%	4.345%
16	16.417	16.374	16.432	BV	196817	2492654	81.82%	4.627%
17	16.449	16.432	16.495	VB	217239	2436790	79.99%	4.523%
18	16.797	16.760	16.849	BB	197190	2355602	77.33%	4.372%
19	18.160	18.115	18.178	BV	172813	2171835	71.29%	4.031%
20	18.199	18.178	18.252	VB	161997	1995405	65.50%	3.704%
21	18.416	18.370	18.467	BB	191629	2433193	79.87%	4.516%

Sum of corrected areas: 53874738

Aromatic EPH 050125.M Sat May 03 02:45:59 2025

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

Continuing Calibration Report for SequenceID : FD050225AR

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
File ID :	**FD049315.D**						
Aromatic C10-C12	5180419.000	40.000	4.431	6.176	129510.475	128531.556	-0.762
Aromatic C12-C16	8441515.000	60.000	6.177	8.805	140691.917	135727.245	-3.658
Aromatic C16-C21	10922703.000	80.000	8.806	13.095	136533.788	131120.372	-4.129
Aromatic C21-C36	21099522.000	180.000	13.096	18.516	117219.567	117353.852	0.114
Aromatic EPH	45644159.000	360.000	4.431	18.516	126789.331	124717.278	-1.661

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

Lab Sample ID:	20 PPM AROMATIC HC S	Acq On:	02 May 2025 15:56
Client Sample ID:		Operator:	YP/AJ
Data file:	FD049315.D	Misc:	
Instrument:	FID_D	ALS Vial:	52
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aromatic C10-C12	4.431	6.176	5180419.000	40.000	ug/ml
Aromatic C12-C16	6.177	8.805	8441515.000	60.000	ug/ml
Aromatic C16-C21	8.806	13.095	10922703.000	80.000	ug/ml
Aromatic C21-C36	13.096	18.516	21099522.000	180.000	ug/ml
Aromatic EPH	4.431	18.516	45644159.000	360.000	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050225AR\
Data File : FD049315.D
Signal(s) : FID2B.ch
Acq On : 02 May 2025 15:56
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD

Integration File: autoint1.e
Quant Time: May 03 00:35:26 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) S	2-Bromonaphthalene (S...	7.740	2450470	20.667 ug/ml
Spiked Amount	50.000		Recovery =	41.33%
6) S	2-Flurobiphenyl (SURR)	8.605	1674009	21.197 ug/ml
Spiked Amount	50.000 Range	0 - 131	Recovery =	42.39%
11) S	ortho-Terphenyl (SURR)	11.650	2836884	20.554 ug/ml
Spiked Amount	50.000		Recovery =	41.11%
	Target Compounds			
1) T	1,2,3-Trimethylbenzen...	4.531	2490343	19.945 ug/ml
2) T	Naphthalene (C11.7)	6.076	2690076	20.348 ug/ml
3) T	2-Methylnaphthalene (...	7.130	2674786	20.734 ug/ml
5) T	Acenaphthylene (C15.06)	8.409	2927981	20.741 ug/ml
7) T	Acenaphthene (C15.5)	8.705	2838748	20.719 ug/ml
8) T	Flouorene (C16.55)	9.485	2866966	21.063 ug/ml
9) T	Phenanthrene (C19.36)	10.884	2794824	20.730 ug/ml
10) T	Anthracene (C19.43)	10.958	2533001	21.417 ug/ml
12) T	Fluoranthene (C21.85)	12.698	2741123	20.340 ug/ml
13) T	Pyrene (C20.8)	12.997	2727912	20.166 ug/ml
14) T	Benzo[a]anthracene (C...	14.868	2317415	20.232 ug/ml
15) T	Chrysene (C27.41)	14.910	2339684	20.046 ug/ml
16) T	benzo[b]fluoranthene ...	16.418	2376826	19.581 ug/ml
17) T	Bnezo[k]fluoranthene ...	16.450	2351169	19.714 ug/ml
18) T	Benzo[a]pyrene (C31.34)	16.797	2275467	19.789 ug/ml
19) T	Indeno[1,2,3-cd]pyren...	18.161	2159637	19.679 ug/ml
20) T	Dibenz[a,h]anthracene...	18.201	2190100	20.737 ug/ml
21) T	Benzo[g,h,i]perylene ...	18.417	2348101	19.704 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

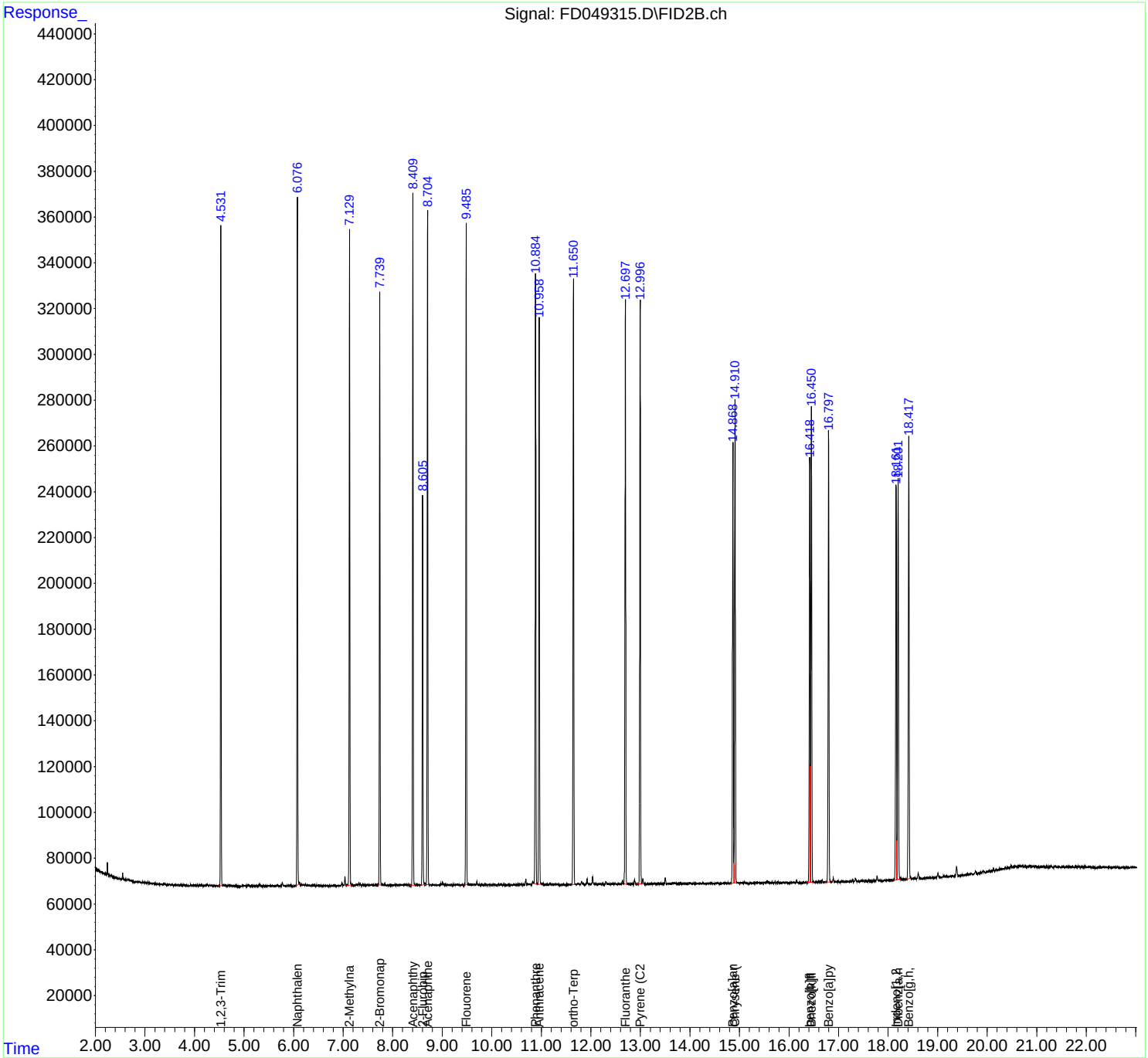
Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050225AR\
Data File : FD049315.D
Signal(s) : FID2B.ch
Acq On : 02 May 2025 15:56
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD

Integration File: autoint1.e
Quant Time: May 03 00:35:26 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050225AR\
Data File : FD049315.D
Signal(s) : FID2B.ch
Acq On : 02 May 2025 15:56
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.531	4.480	4.570	BB	288145	2490343	85.05%	4.734%
2	6.076	6.040	6.125	BB	300614	2690076	91.87%	5.114%
3	7.130	7.065	7.175	BB	286403	2674786	91.35%	5.085%
4	7.740	7.687	7.777	BB	258589	2450470	83.69%	4.658%
5	8.409	8.354	8.459	BB	301944	2927981	100.00%	5.566%
6	8.605	8.552	8.659	BB	170090	1674009	57.17%	3.182%
7	8.705	8.659	8.735	BB	293685	2838748	96.95%	5.396%
8	9.485	9.425	9.515	BB	288393	2866966	97.92%	5.450%
9	10.884	10.845	10.924	BB	266230	2794824	95.45%	5.313%
10	10.958	10.929	11.004	BB	247547	2533001	86.51%	4.815%
11	11.650	11.599	11.687	BB	264048	2836884	96.89%	5.393%
12	12.698	12.662	12.740	BB	254310	2741123	93.62%	5.211%
13	12.997	12.935	13.029	BV	255243	2727912	93.17%	5.186%
14	14.868	14.814	14.888	BV	191970	2317415	79.15%	4.405%
15	14.910	14.888	14.952	VB	211080	2339684	79.91%	4.448%
16	16.418	16.355	16.434	BV	185656	2376826	81.18%	4.518%
17	16.450	16.434	16.492	VB	207619	2351169	80.30%	4.469%
18	16.797	16.737	16.840	BB	196683	2275467	77.71%	4.326%
19	18.161	18.110	18.179	BV	171692	2159637	73.76%	4.105%
20	18.201	18.179	18.250	VB	174594	2190100	74.80%	4.163%
21	18.417	18.370	18.462	BB	193361	2348101	80.20%	4.464%

Sum of corrected areas: 52605521

Aromatic EPH 050125.M Sat May 03 02:49:43 2025

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

Continuing Calibration Report for SequenceID : FD050825AR

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
File ID :	**FD049318.D**						
Aromatic C10-C12	5420453.000	40.000	4.431	6.176	135511.325	128531.556	-5.430
Aromatic C12-C16	8502870.000	60.000	6.177	8.805	141714.500	135727.245	-4.411
Aromatic C16-C21	10349187.000	80.000	8.806	13.095	129364.838	131120.372	1.339
Aromatic C21-C36	20561899.000	180.000	13.0956	18.515	114232.772	117353.852	2.660
Aromatic EPH	44834409.000	360.000	4.431	18.515	124540.025	124717.278	0.142

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

Lab Sample ID:	20 PPM AROMATIC HC S	Acq On:	08 May 2025 10:08
Client Sample ID:		Operator:	YP/AJ
Data file:	FD049318.D	Misc:	
Instrument:	FID_D	ALS Vial:	52
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aromatic C10-C12	4.431	6.176	5420453.000	40.000	ug/ml
Aromatic C12-C16	6.177	8.805	8502870.000	60.000	ug/ml
Aromatic C16-C21	8.806	13.095	10349187.000	80.000	ug/ml
Aromatic C21-C36	13.0956	18.515	20561899.000	180.000	ug/ml
Aromatic EPH	4.431	18.515	44834409.000	360.000	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049318.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 10:08
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD

Integration File: autoint1.e
Quant Time: May 09 09:18:01 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) S	2-Bromonaphthalene (S...	7.739	2464192	20.783 ug/ml
Spiked Amount	50.000		Recovery =	41.57%
6) S	2-Flurobiphenyl (SURR)	8.605	1609848	20.385 ug/ml
Spiked Amount	50.000 Range	0 - 131	Recovery =	40.77%
11) S	ortho-Terphenyl (SURR)	11.649	2854662	20.683 ug/ml
Spiked Amount	50.000		Recovery =	41.37%
	Target Compounds			
1) T	1,2,3-Trimethylbenzen...	4.531	2643716	21.174 ug/ml
2) T	Naphthalene (C11.7)	6.076	2776737	21.003 ug/ml
3) T	2-Methylnaphthalene (...	7.130	2682807	20.796 ug/ml
5) T	Acenaphthylene (C15.06)	8.408	2951174	20.906 ug/ml
7) T	Acenaphthene (C15.5)	8.705	2868889	20.939 ug/ml
8) T	Flouorene (C16.55)	9.485	2784802	20.459 ug/ml
9) T	Phenanthrene (C19.36)	10.883	2676530	19.852 ug/ml
10) T	Anthracene (C19.43)	10.957	2159310	18.258 ug/ml
12) T	Fluoranthene (C21.85)	12.697	2720148	20.184 ug/ml
13) T	Pyrene (C20.8)	12.995	2728545	20.170 ug/ml
14) T	Benzo[a]anthracene (C...	14.865	2147253	18.746 ug/ml
15) T	Chrysene (C27.41)	14.907	2232929	19.132 ug/ml
16) T	benzo[b]fluoranthene ...	16.416	2446582	20.155 ug/ml
17) T	Bnezo[k]fluoranthene ...	16.448	2361467	19.800 ug/ml
18) T	Benzo[a]pyrene (C31.34)	16.795	2264243	19.692 ug/ml
19) T	Indeno[1,2,3-cd]pyren...	18.158	2121956	19.336 ug/ml
20) T	Dibenz[a,h]anthracene...	18.198	1892215	17.916 ug/ml
21) T	Benzo[g,h,i]perylene ...	18.415	2375106	19.930 ug/ml

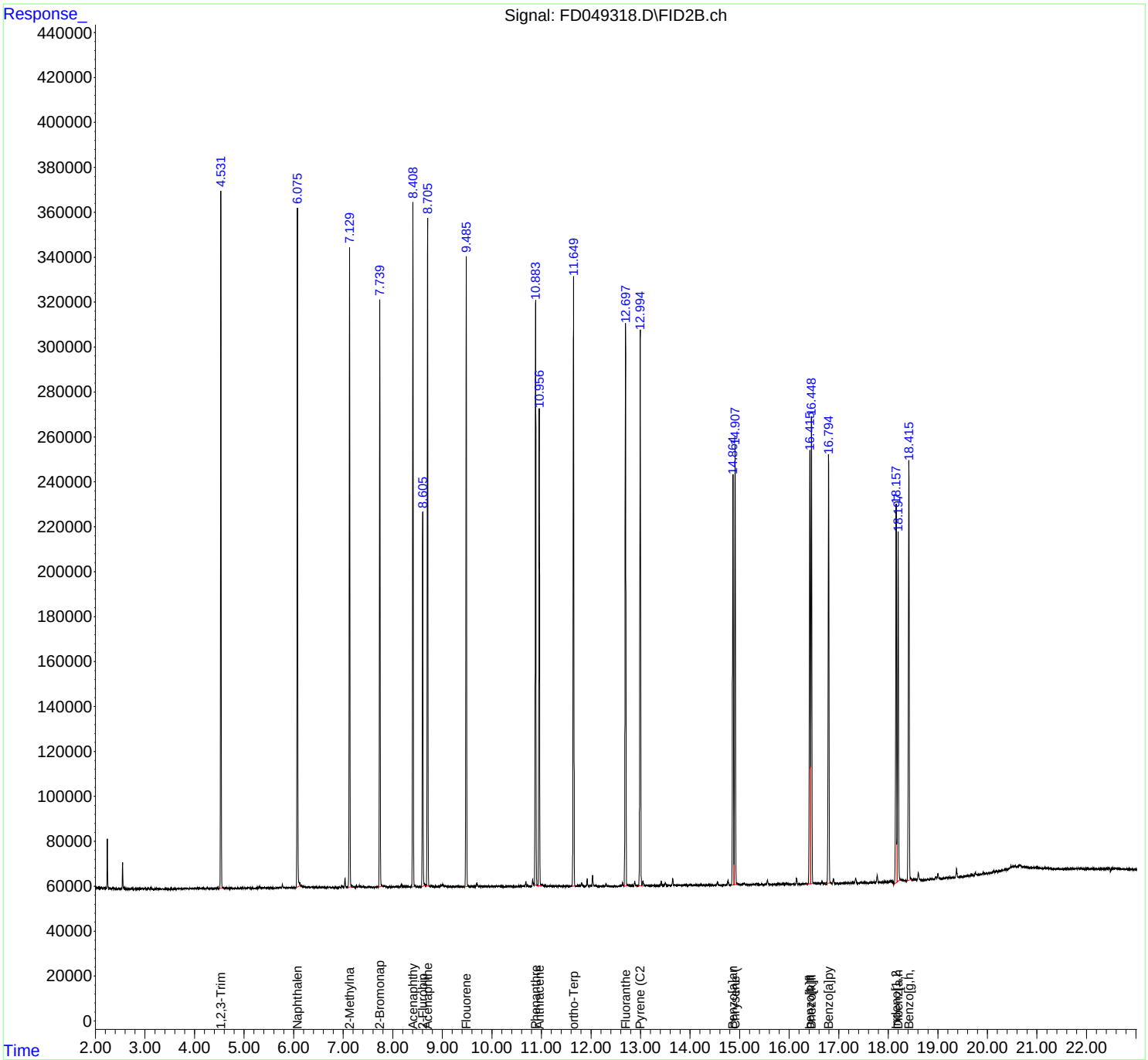
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049318.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 10:08
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD

Integration File: autoint1.e
Quant Time: May 09 09:18:01 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049318.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 10:08
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.531	4.505	4.572	BB	309828	2643716	89.58%	5.107%
2	6.076	6.049	6.139	BB	302178	2776737	94.09%	5.364%
3	7.130	7.092	7.187	BB	286191	2682807	90.91%	5.183%
4	7.739	7.710	7.790	BB	260823	2464192	83.50%	4.761%
5	8.408	8.380	8.450	BB	304543	2951174	100.00%	5.701%
6	8.605	8.574	8.655	BB	166488	1609848	54.55%	3.110%
7	8.705	8.675	8.739	BB	297956	2868889	97.21%	5.542%
8	9.485	9.440	9.520	BB	280271	2784802	94.36%	5.380%
9	10.883	10.855	10.925	BB	260690	2676530	90.69%	5.171%
10	10.957	10.927	11.012	BB	212378	2159310	73.17%	4.172%
11	11.649	11.615	11.685	BB	271579	2854662	96.73%	5.515%
12	12.697	12.664	12.729	BB	250483	2720148	92.17%	5.255%
13	12.995	12.957	13.027	BV	248260	2728545	92.46%	5.271%
14	14.865	14.824	14.885	BV	182451	2147253	72.76%	4.148%
15	14.907	14.885	14.950	VB	195507	2232929	75.66%	4.314%
16	16.416	16.360	16.432	BV	192939	2446582	82.90%	4.726%
17	16.448	16.432	16.484	VB	207602	2361467	80.02%	4.562%
18	16.795	16.730	16.842	BB	189782	2264243	76.72%	4.374%
19	18.158	18.110	18.176	BV	167980	2121956	71.90%	4.099%
20	18.198	18.176	18.245	VB	155379	1892215	64.12%	3.656%
21	18.415	18.370	18.464	BB	186760	2375106	80.48%	4.588%
			Sum of corrected areas:			51763108		

Aromatic EPH 050125.M Fri May 09 09:45:24 2025

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

Continuing Calibration Report for SequenceID : FD050825AR

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
File ID :	**FD049325.D**						
Aromatic C10-C12	5652522.000	40.000	4.431	6.176	141313.050	128531.556	-9.944
Aromatic C12-C16	8979975.000	60.000	6.177	8.805	149666.250	135727.245	-10.270
Aromatic C16-C21	11477164.000	80.000	8.806	13.095	143464.550	131120.372	-9.414
Aromatic C21-C36	22885019.000	180.000	13.0956	18.515	127138.994	117353.852	-8.338
Aromatic EPH	48994680.000	360.000	4.431	18.515	136096.333	124717.278	-9.124

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

Lab Sample ID:	20 PPM AROMATIC HC S	Acq On:	08 May 2025 16:36
Client Sample ID:		Operator:	YP/AJ
Data file:	FD049325.D	Misc:	
Instrument:	FID_D	ALS Vial:	52
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aromatic C10-C12	4.431	6.176	5652522.000	40.000	ug/ml
Aromatic C12-C16	6.177	8.805	8979975.000	60.000	ug/ml
Aromatic C16-C21	8.806	13.095	11477164.000	80.000	ug/ml
Aromatic C21-C36	13.0956	18.515	22885019.000	180.000	ug/ml
Aromatic EPH	4.431	18.515	48994680.000	360.000	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049325.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 16:36
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD

Integration File: autoint1.e
Quant Time: May 09 09:19:24 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) S	2-Bromonaphthalene (S...	7.740	2631858	22.197 ug/ml
Spiked Amount	50.000		Recovery =	44.39%
6) S	2-Flurobiphenyl (SURR)	8.605	1781796	22.562 ug/ml
Spiked Amount	50.000 Range	0 - 131	Recovery =	45.12%
11) S	ortho-Terphenyl (SURR)	11.649	2991190	21.672 ug/ml
Spiked Amount	50.000		Recovery =	43.34%
	Target Compounds			
1) T	1,2,3-Trimethylbenzen...	4.532	2736622	21.918 ug/ml
2) T	Naphthalene (C11.7)	6.076	2915900	22.056 ug/ml
3) T	2-Methylnaphthalene (...	7.130	2886249	22.374 ug/ml
5) T	Acenaphthylene (C15.06)	8.409	3089330	21.884 ug/ml
7) T	Acenaphthene (C15.5)	8.705	3004396	21.928 ug/ml
8) T	Flouorene (C16.55)	9.485	3040118	22.335 ug/ml
9) T	Phenanthrene (C19.36)	10.884	2946241	21.853 ug/ml
10) T	Anthracene (C19.43)	10.958	2568745	21.719 ug/ml
12) T	Fluoranthene (C21.85)	12.697	2927413	21.722 ug/ml
13) T	Pyrene (C20.8)	12.996	2922060	21.601 ug/ml
14) T	Benzo[a]anthracene (C...	14.866	2524839	22.042 ug/ml
15) T	Chrysene (C27.41)	14.909	2561785	21.949 ug/ml
16) T	benzo[b]fluoranthene ...	16.417	2591722	21.351 ug/ml
17) T	Bnezo[k]fluoranthene ...	16.450	2547870	21.363 ug/ml
18) T	Benzo[a]pyrene (C31.34)	16.796	2433659	21.165 ug/ml
19) T	Indeno[1,2,3-cd]pyren...	18.160	2330374	21.235 ug/ml
20) T	Dibenz[a,h]anthracene...	18.201	2446121	23.161 ug/ml
21) T	Benzo[g,h,i]perylene ...	18.417	2521236	21.157 ug/ml

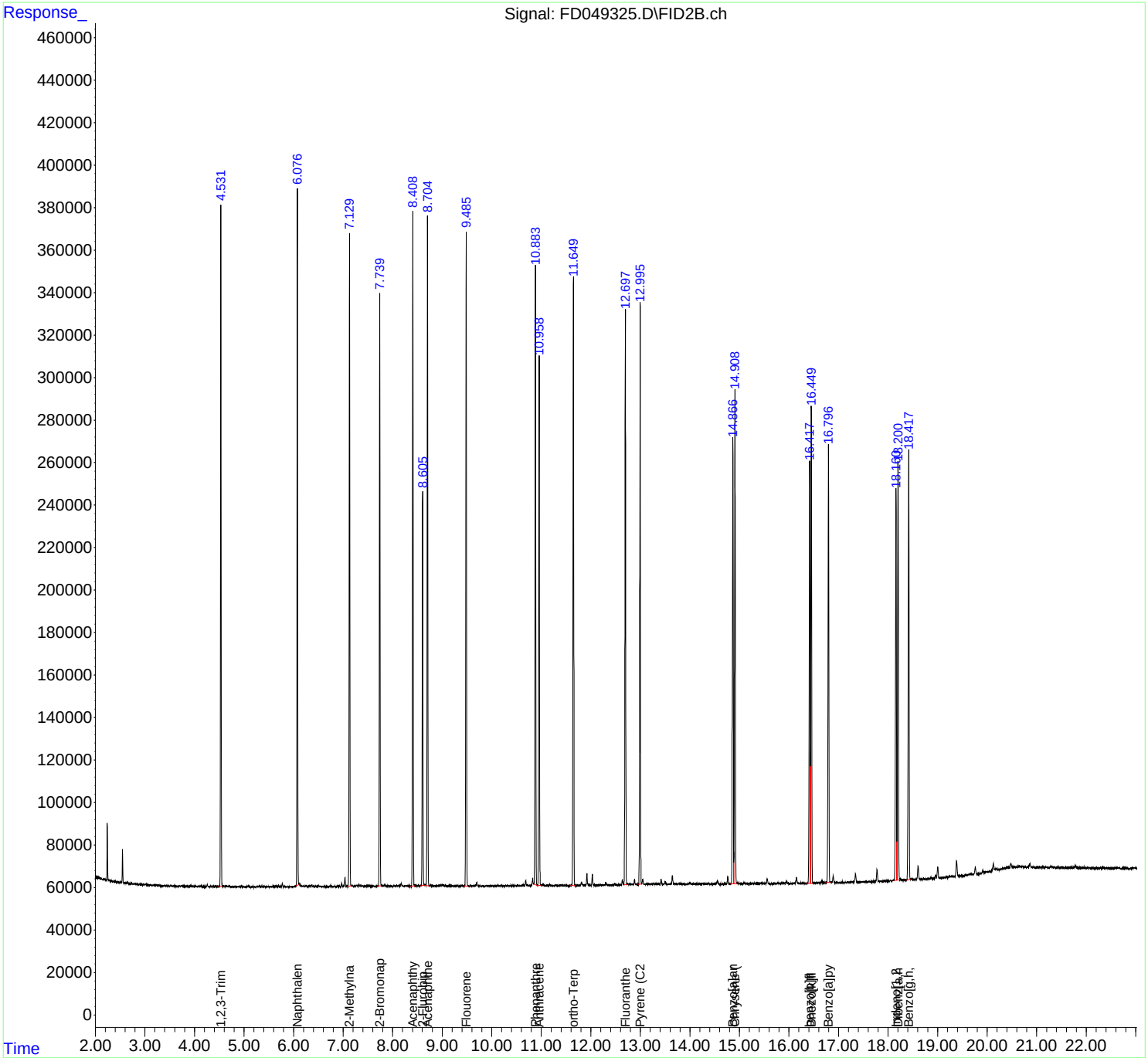
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049325.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 16:36
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD

Integration File: autoint1.e
Quant Time: May 09 09:19:24 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049325.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 16:36
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.532	4.484	4.567	BB	320436	2736622	88.58%	4.852%
2	6.076	6.040	6.110	BB	327436	2915900	94.39%	5.170%
3	7.130	7.075	7.174	BB	307298	2886249	93.43%	5.118%
4	7.740	7.680	7.770	BB	279277	2631858	85.19%	4.666%
5	8.409	8.355	8.455	BB	317633	3089330	100.00%	5.478%
6	8.605	8.549	8.640	BB	184828	1781796	57.68%	3.159%
7	8.705	8.649	8.747	BB	315496	3004396	97.25%	5.327%
8	9.485	9.424	9.532	BB	307505	3040118	98.41%	5.390%
9	10.884	10.855	10.927	BV	291486	2946241	95.37%	5.224%
10	10.958	10.927	11.000	PB	249115	2568745	83.15%	4.555%
11	11.649	11.592	11.697	BB	286032	2991190	96.82%	5.304%
12	12.697	12.665	12.737	VB	270139	2927413	94.76%	5.190%
13	12.996	12.944	13.027	BV	274200	2922060	94.59%	5.181%
14	14.866	14.812	14.886	BV	209851	2524839	81.73%	4.477%
15	14.909	14.886	14.954	VB	232927	2561785	82.92%	4.542%
16	16.417	16.359	16.433	BV	198778	2591722	83.89%	4.595%
17	16.450	16.433	16.485	VB	225061	2547870	82.47%	4.518%
18	16.796	16.734	16.832	BB	206574	2433659	78.78%	4.315%
19	18.160	18.119	18.177	BV	184507	2330374	75.43%	4.132%
20	18.201	18.177	18.240	VB	196628	2446121	79.18%	4.337%
21	18.417	18.370	18.450	BB	202685	2521236	81.61%	4.470%
			Sum of corrected areas:			56399525		

Aromatic EPH 050125.M Fri May 09 09:45:59 2025

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

Continuing Calibration Report for SequenceID : FD050825AR

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
File ID :	**FD049334.D**						
Aromatic C10-C12	5734262.000	40.000	4.431	6.176	143356.550	128531.556	-11.534
Aromatic C12-C16	9081487.000	60.000	6.177	8.805	151358.117	135727.245	-11.516
Aromatic C16-C21	11630703.000	80.000	8.806	13.095	145383.788	131120.372	-10.878
Aromatic C21-C36	23316285.000	180.000	13.0956	18.515	129534.917	117353.852	-10.380
Aromatic EPH	49762737.000	360.000	4.431	18.515	138229.825	124717.278	-10.835

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

Lab Sample ID:	20 PPM AROMATIC HC S	Acq On:	08 May 2025 23:34
Client Sample ID:		Operator:	YP/AJ
Data file:	FD049334.D	Misc:	
Instrument:	FID_D	ALS Vial:	52
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aromatic C10-C12	4.431	6.176	5734262.000	40.000	ug/ml
Aromatic C12-C16	6.177	8.805	9081487.000	60.000	ug/ml
Aromatic C16-C21	8.806	13.095	11630703.000	80.000	ug/ml
Aromatic C21-C36	13.0956	18.515	23316285.000	180.000	ug/ml
Aromatic EPH	4.431	18.515	49762737.000	360.000	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049334.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 23:34
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD

Integration File: autoint1.e
Quant Time: May 09 09:22:21 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) S	2-Bromonaphthalene (S...	7.739	2673302	22.546 ug/ml
Spiked Amount	50.000		Recovery =	45.09%
6) S	2-Flurobiphenyl (SURR)	8.605	1823565	23.091 ug/ml
Spiked Amount	50.000 Range	0 - 131	Recovery =	46.18%
11) S	ortho-Terphenyl (SURR)	11.650	3015562	21.849 ug/ml
Spiked Amount	50.000		Recovery =	43.70%
	Target Compounds			
1) T	1,2,3-Trimethylbenzen...	4.531	2776200	22.235 ug/ml
2) T	Naphthalene (C11.7)	6.076	2958062	22.375 ug/ml
3) T	2-Methylnaphthalene (...	7.129	2932279	22.730 ug/ml
5) T	Acenaphthylene (C15.06)	8.408	3113784	22.058 ug/ml
7) T	Acenaphthene (C15.5)	8.704	3035424	22.154 ug/ml
8) T	Flouorene (C16.55)	9.485	3077228	22.608 ug/ml
9) T	Phenanthrene (C19.36)	10.883	2986762	22.153 ug/ml
10) T	Anthracene (C19.43)	10.958	2631094	22.247 ug/ml
12) T	Fluoranthene (C21.85)	12.697	2950830	21.896 ug/ml
13) T	Pyrene (C20.8)	12.995	2935619	21.701 ug/ml
14) T	Benzo[a]anthracene (C...	14.866	2583491	22.554 ug/ml
15) T	Chrysene (C27.41)	14.908	2608839	22.353 ug/ml
16) T	benzo[b]fluoranthene ...	16.417	2618964	21.575 ug/ml
17) T	Bnezo[k]fluoranthene ...	16.450	2586305	21.686 ug/ml
18) T	Benzo[a]pyrene (C31.34)	16.795	2476322	21.536 ug/ml
19) T	Indeno[1,2,3-cd]pyren...	18.159	2384838	21.731 ug/ml
20) T	Dibenz[a,h]anthracene...	18.200	2554962	24.191 ug/ml
21) T	Benzo[g,h,i]perylene ...	18.416	2551734	21.413 ug/ml

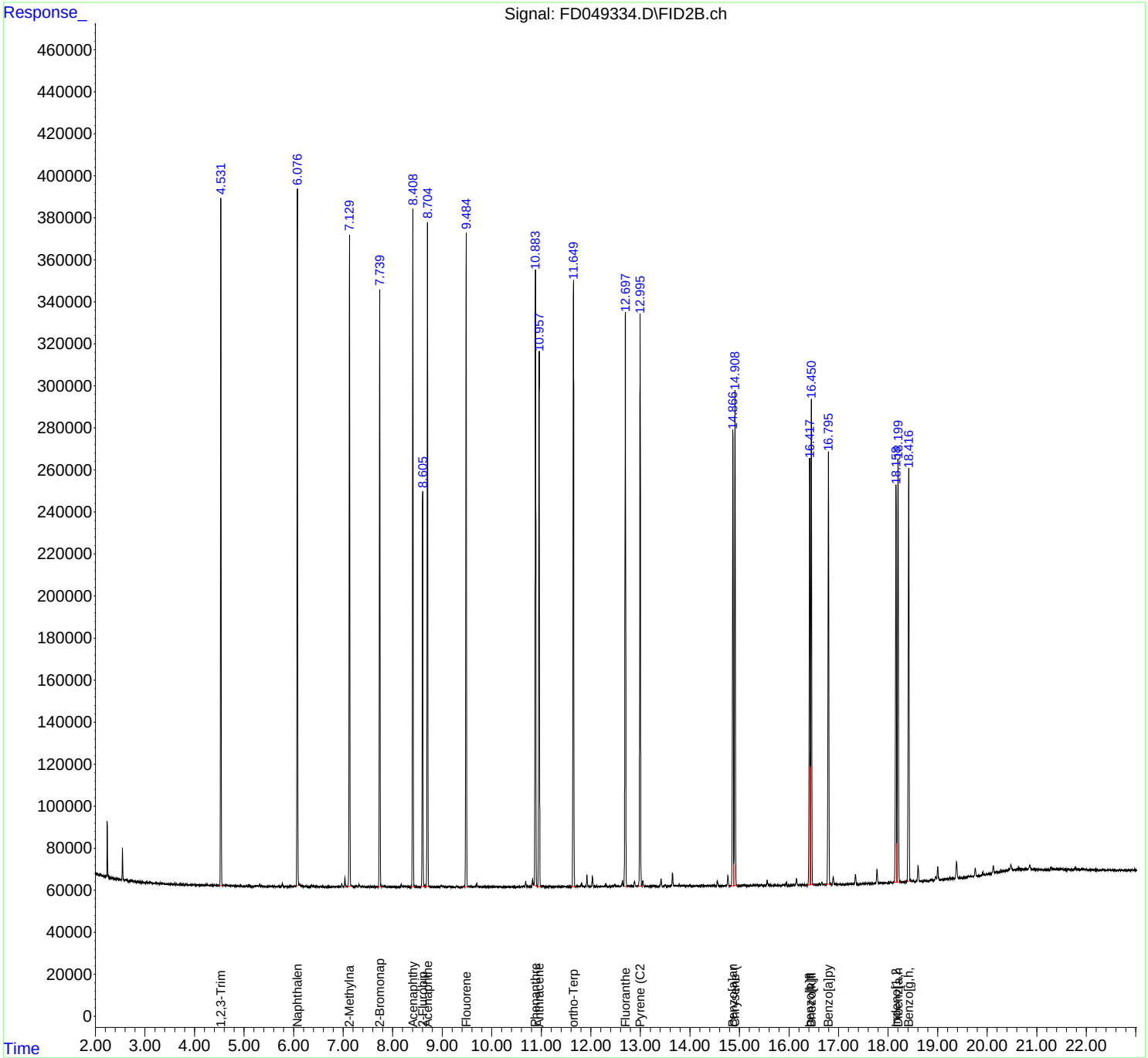
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049334.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 23:34
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD

Integration File: autoint1.e
Quant Time: May 09 09:22:21 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049334.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 23:34
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.531	4.485	4.574	BB	327117	2776200	89.16%	4.847%
2	6.076	6.040	6.112	BB	331478	2958062	95.00%	5.165%
3	7.129	7.067	7.179	BB	310319	2932279	94.17%	5.120%
4	7.739	7.689	7.785	BB	283718	2673302	85.85%	4.667%
5	8.408	8.359	8.450	BB	323054	3113784	100.00%	5.437%
6	8.605	8.559	8.647	BB	187933	1823565	58.56%	3.184%
7	8.704	8.647	8.735	BB	316183	3035424	97.48%	5.300%
8	9.485	9.434	9.527	BB	310208	3077228	98.83%	5.373%
9	10.883	10.849	10.924	BV	293525	2986762	95.92%	5.215%
10	10.958	10.924	10.995	PB	255215	2631094	84.50%	4.594%
11	11.650	11.595	11.695	BB	289253	3015562	96.85%	5.265%
12	12.697	12.662	12.737	VB	272731	2950830	94.77%	5.152%
13	12.995	12.940	13.027	BV	272272	2935619	94.28%	5.125%
14	14.866	14.804	14.886	BV	217603	2583491	82.97%	4.511%
15	14.908	14.886	14.944	VB	235861	2608839	83.78%	4.555%
16	16.417	16.359	16.432	BV	203450	2618964	84.11%	4.573%
17	16.450	16.432	16.490	VB	231965	2586305	83.06%	4.516%
18	16.795	16.732	16.835	BB	205901	2476322	79.53%	4.324%
19	18.159	18.110	18.177	BV	189360	2384838	76.59%	4.164%
20	18.200	18.177	18.247	VB	201270	2554962	82.05%	4.461%
21	18.416	18.370	18.444	BB	195930	2551734	81.95%	4.455%

Sum of corrected areas: 57275164

Aromatic EPH 050125.M Fri May 09 09:46:40 2025

QC SAMPLE DATA

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	PB167840BL	SDG No.:	Q1901
Lab Sample ID:	PB167840BL	Matrix:	Water
Analytical Method:	NJEPH	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :	SW3510		

Prep Date :	Date Analyzed :	Prep Batch ID
05/01/25 09:40	05/02/25 11:36	PB167840

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units	Datafile
TARGETS								
Aliphatic C9-C12	Aliphatic C9-C12	8.28	U	1	8.28	30.0	ug/l	FC068743.D
Aliphatic C12-C16	Aliphatic C12-C16	13.5	U	1	13.5	20.0	ug/l	FC068743.D
Aliphatic C16-C21	Aliphatic C16-C21	8.34	U	1	8.34	30.0	ug/l	FC068743.D
Aliphatic C21-C28	Aliphatic C21-C28	12.5	U	1	12.5	40.0	ug/l	FC068743.D
Aliphatic C28-C40	Aliphatic C28-C40	23.8	U	1	23.8	60.0	ug/l	FC068743.D
Aromatic C10-C12	Aromatic C10-C12	2.07	U	1	2.07	20.0	ug/l	FD049310.D
Aromatic C12-C16	Aromatic C12-C16	4.26	U	1	4.26	30.0	ug/l	FD049310.D
Aromatic C16-C21	Aromatic C16-C21	8.27	U	1	8.27	50.0	ug/l	FD049310.D
Aromatic C21-C36	Aromatic C21-C36	23.8	U	1	23.8	80.0	ug/l	FD049310.D
Total AliphaticEPH	Total AliphaticEPH	66.4	U		66.4	180	ug/l	
Total AromaticEPH	Total AromaticEPH	38.4	U		38.4	180	ug/l	
Total EPH	Total EPH	105	U		105	360	ug/l	

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

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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

Report of Analysis

Client:	Portal Partners Tri-Venture		Date Collected:		
Project:	Amtrak Sawtooth Bridges 2025		Date Received:		
Client Sample ID:	PB167840BL		SDG No.:	Q1901	
Lab Sample ID:	PB167840BL		Matrix:	Water	
Analytical Method:	NJEPH		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	2000	uL
Soil Aliquot Vol:		uL	Test:	EPH	
Prep Method :	SW3510				

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC068743.D	1	05/01/25	05/02/25	PB167840

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	8.28	U	8.28	30.0	ug/l
Aliphatic C12-C16	Aliphatic C12-C16	13.5	U	13.5	20.0	ug/l
Aliphatic C16-C21	Aliphatic C16-C21	8.34	U	8.34	30.0	ug/l
Aliphatic C21-C28	Aliphatic C21-C28	12.5	U	12.5	40.0	ug/l
Aliphatic C28-C40	Aliphatic C28-C40	23.8	U	23.8	60.0	ug/l
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	39.1		40 - 140	78%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	0.00		40 - 140	0%	SPK: 50

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

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	PB167840BL	Acq On:	02 May 2025 11:36
Client Sample ID:	PB167840BL	Operator:	YP/AJ
Data file:	FC068743.D	Misc:	
Instrument:	FID_C	ALS Vial:	11
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.343	6.645	0	0	300	ug/ml
Aliphatic C12-C16	6.646	10.046	0	0	200	ug/ml
Aliphatic C16-C21	10.047	13.415	0	0	300	ug/ml
Aliphatic C21-C28	13.416	17.079	0	0	400	ug/ml
Aliphatic C28-C40	17.080	22.085	0	0	600	ug/ml
Aliphatic EPH	3.343	22.085	0	0		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	13.150	13.150	3635026	39.13		ug/ml
Aliphatic C9-C28	3.343	17.079	0	0	1200	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050225AL\
Data File : FC068743.D
Signal(s) : FID1A.ch
Acq On : 02 May 2025 11:36
Operator : YP/AJ
Sample : PB167840BL
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
PB167840BL

Integration File: sample.E
Quant Time: May 03 00:40:01 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 17:31:27 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
12) S 1-chlorooctadecane (S...	13.150	3635026	39.131 ug/ml
Spiked Amount 50.000		Recovery = 78.26%	
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

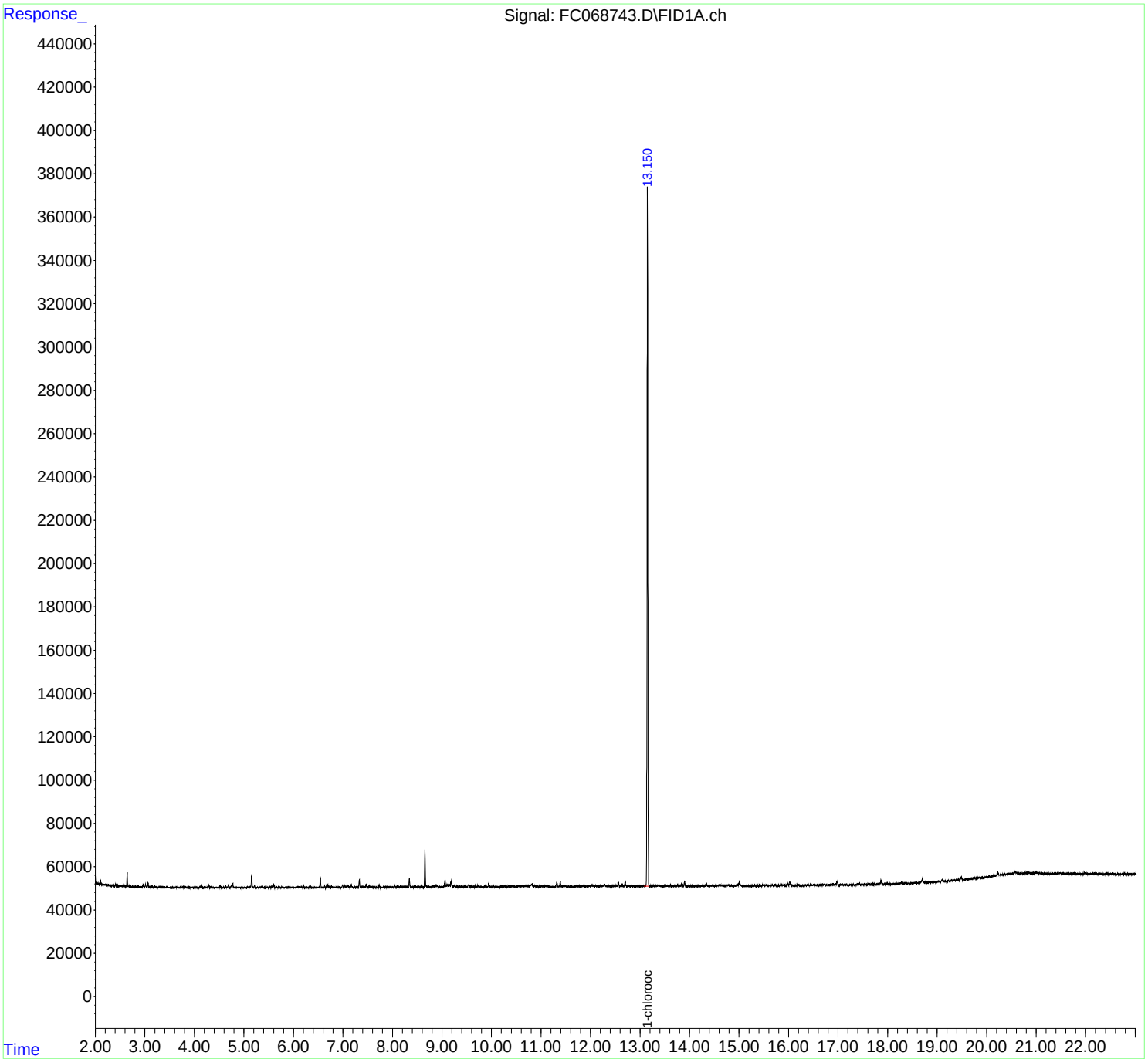
Quantitation Report (QT Reviewed)

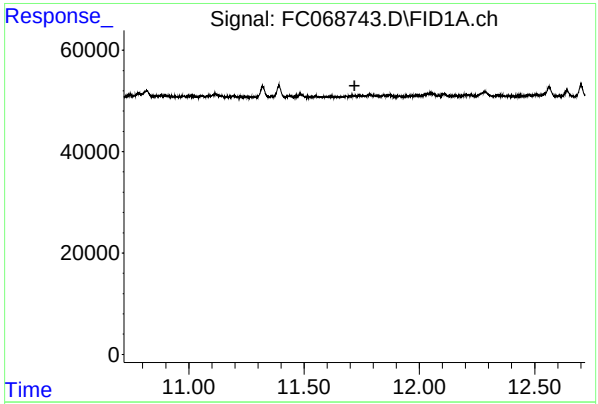
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050225AL\
Data File : FC068743.D
Signal(s) : FID1A.ch
Acq On : 02 May 2025 11:36
Operator : YP/AJ
Sample : PB167840BL
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
PB167840BL

Integration File: sample.E
Quant Time: May 03 00:40:01 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 17:31:27 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

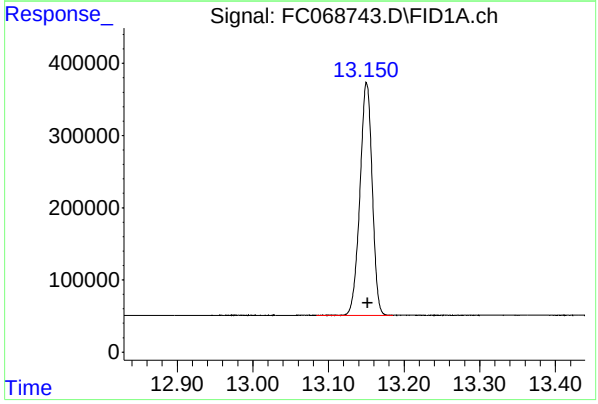




#9 ortho-Terphenyl (SURR)

R.T.: 0.000 min
Exp R.T. : 11.719 min
Response: 0
Conc: N.D.

Instrument :
FID_C
ClientSampleId :
PB167840BL



#12 1-chlorooctadecane (SURR)

R.T.: 13.150 min
Delta R.T.: -0.001 min
Response: 3635026
Conc: 39.13 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050225AL\
Data File : FC068743.D
Signal(s) : FID1A.ch
Acq On : 02 May 2025 11:36
Sample : PB167840BL
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	13.150	13.084	13.185	BB	322352	3635026	100.00%	100.000%

Sum of corrected areas: 3635026

Aliphatic EPH 040925.M Sat May 03 03:25:53 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture		Date Collected:		
Project:	Amtrak Sawtooth Bridges 2025		Date Received:		
Client Sample ID:	PB167840BL		SDG No.:	Q1901	
Lab Sample ID:	PB167840BL		Matrix:	Water	
Analytical Method:	NJEPH		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	2000	uL
Soil Aliquot Vol:		uL	Test:	EPH	
Prep Method :	SW3510				

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD049310.D	1	05/01/25	05/02/25	PB167840

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aromatic C10-C12	Aromatic C10-C12	2.07	U	2.07	20.0	ug/l
Aromatic C12-C16	Aromatic C12-C16	4.26	U	4.26	30.0	ug/l
Aromatic C16-C21	Aromatic C16-C21	8.27	U	8.27	50.0	ug/l
Aromatic C21-C36	Aromatic C21-C36	23.8	U	23.8	80.0	ug/l
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	53.0		40 - 140	106%	SPK: 50
321-60-8	2-Flurobiphenyl (SURR)	51.0		40 - 140	102%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	54.0		40 - 140	108%	SPK: 50

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

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	PB167840BL	Acq On:	02 May 2025 11:36
Client Sample ID:	PB167840BL	Operator:	YP/AJ
Data file:	FD049310.D	Misc:	
Instrument:	FID_D	ALS Vial:	61
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.431	6.176	0	0	200	ug/ml
Aromatic C12-C16	6.177	8.805	0	0	300	ug/ml
Aromatic C16-C21	8.806	13.095	0	0	500	ug/ml
Aromatic C21-C36	13.096	18.516	0	0	800	ug/ml
Aromatic EPH	4.431	18.516	0	0		ug/ml
ortho-Terphenyl (SURR)	11.653	11.653	7454174	54.01		ug/ml
2-Bromonaphthalene (SURR)	7.740	7.740	6287428	53.03		ug/ml
2-Flurobiphenyl (SURR)	8.606	8.606	4025356	50.97		ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050225AR\
Data File : FD049310.D
Signal(s) : FID2B.ch
Acq On : 02 May 2025 11:36
Operator : YP/AJ
Sample : PB167840BL
Misc :
ALS Vial : 61 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
PB167840BL

Integration File: autoint1.e
Quant Time: May 03 00:33:49 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.740	6287428	53.027 ug/ml
Spiked Amount 50.000		Recovery = 106.05%	
6) S 2-Flurobiphenyl (SURR)	8.606	4025356	50.972 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery = 101.94%	
11) S ortho-Terphenyl (SURR)	11.653	7454174	54.008 ug/ml
Spiked Amount 50.000		Recovery = 108.02%	
Target Compounds			

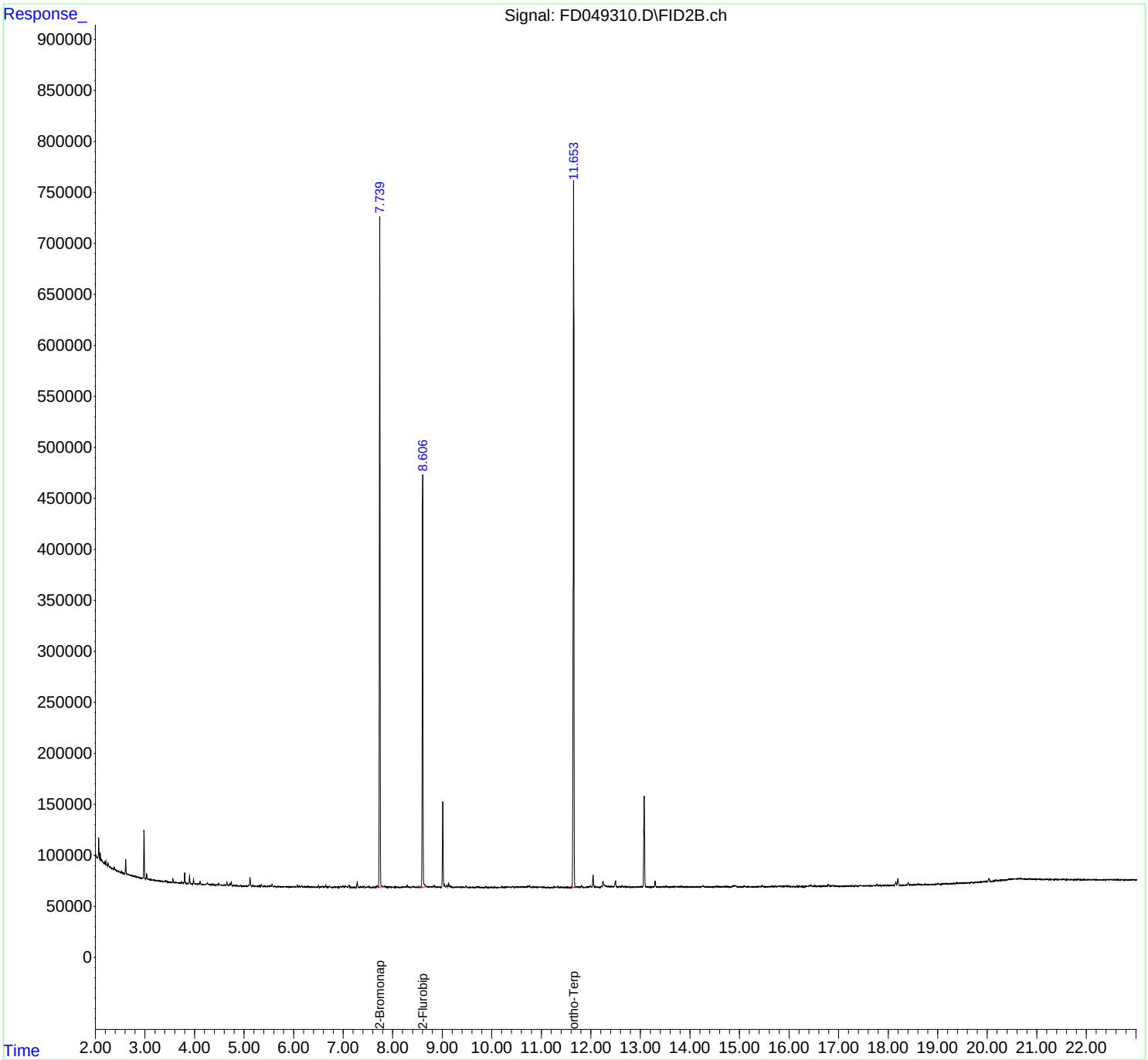
(f)=RT Delta > 1/2 Window (m)=manual int.

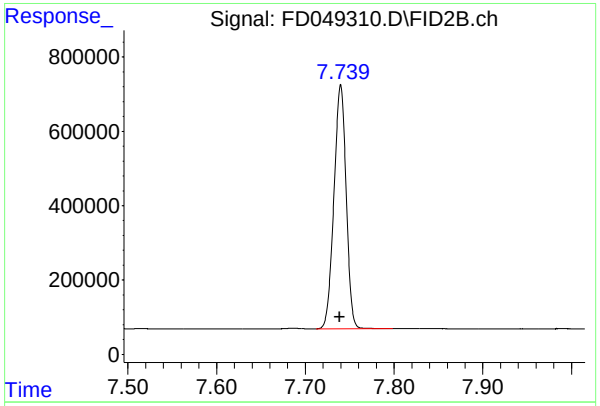
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050225AR\
Data File : FD049310.D
Signal(s) : FID2B.ch
Acq On : 02 May 2025 11:36
Operator : YP/AJ
Sample : PB167840BL
Misc :
ALS Vial : 61 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
PB167840BL

Integration File: autoint1.e
Quant Time: May 03 00:33:49 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

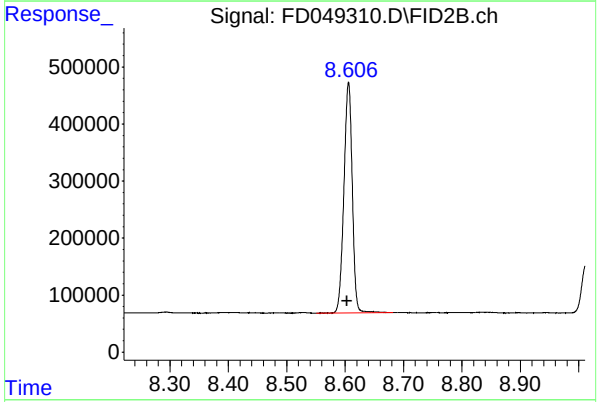




#4 2-Bromonaphthalene (SURR)

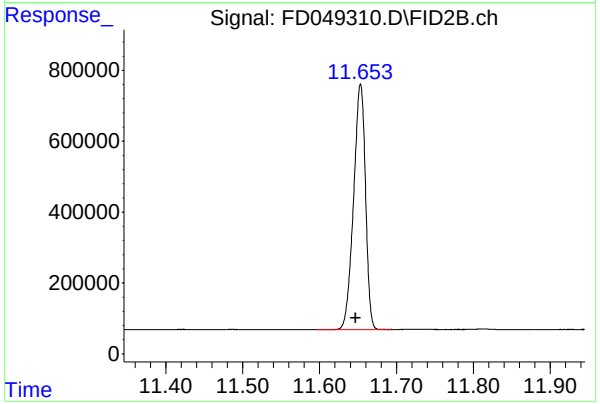
R.T.: 7.740 min
Delta R.T.: 0.001 min
Response: 6287428
Conc: 53.03 ug/ml

Instrument :
FID_D
ClientSampleId :
PB167840BL



#6 2-Flurobiphenyl (SURR)

R.T.: 8.606 min
Delta R.T.: 0.002 min
Response: 4025356
Conc: 50.97 ug/ml



#11 ortho-Terphenyl (SURR)

R.T.: 11.653 min
Delta R.T.: 0.006 min
Response: 7454174
Conc: 54.01 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050225AR\
Data File : FD049310.D
Signal(s) : FID2B.ch
Acq On : 02 May 2025 11:36
Sample : PB167840BL
Misc :
ALS Vial : 61 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	7.740	7.712	7.799	BB	657441	6287428	84.35%	35.388%
2	8.606	8.550	8.682	BB	404222	4025356	54.00%	22.656%
3	11.653	11.595	11.695	BB	693572	7454174	100.00%	41.955%

Sum of corrected areas: 17766958

Aromatic EPH 050125.M Sat May 03 02:46:35 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	PB167903BL	SDG No.:	Q1901
Lab Sample ID:	PB167903BL	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
05/07/25 13:37	05/08/25 12:24	PB167903

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	Datafile
TARGETS								
Aliphatic C9-C12	Aliphatic C9-C12	0.14	U	1	0.14	1.00	mg/kg	FC068792.D
Aliphatic C12-C16	Aliphatic C12-C16	0.11	U	1	0.11	0.67	mg/kg	FC068792.D
Aliphatic C16-C21	Aliphatic C16-C21	0.13	U	1	0.13	1.00	mg/kg	FC068792.D
Aliphatic C21-C28	Aliphatic C21-C28	0.53	U	1	0.53	1.33	mg/kg	FC068792.D
Aliphatic C28-C40	Aliphatic C28-C40	1.18	U	1	1.18	2.00	mg/kg	FC068792.D
Aromatic C10-C12	Aromatic C10-C12	0.12	U	1	0.12	0.67	mg/kg	FD049319.D
Aromatic C12-C16	Aromatic C12-C16	0.23	U	1	0.23	1.00	mg/kg	FD049319.D
Aromatic C16-C21	Aromatic C16-C21	0.40	U	1	0.40	1.67	mg/kg	FD049319.D
Aromatic C21-C36	Aromatic C21-C36	1.19	U	1	1.19	2.67	mg/kg	FD049319.D
Total AliphaticEPH	Total AliphaticEPH	2.09	U		2.09	6.00	mg/kg	
Total AromaticEPH	Total AromaticEPH	1.94	U		1.94	6.01	mg/kg	
Total EPH	Total EPH	4.03	U		4.03	12.0	mg/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

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	PB167903BL	SDG No.:	Q1901
Lab Sample ID:	PB167903BL	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC068792.D	1	05/07/25	05/08/25	PB167903

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	0.14	U	0.14	1.00	mg/kg
Aliphatic C12-C16	Aliphatic C12-C16	0.11	U	0.11	0.67	mg/kg
Aliphatic C16-C21	Aliphatic C16-C21	0.13	U	0.13	1.00	mg/kg
Aliphatic C21-C28	Aliphatic C21-C28	0.53	U	0.53	1.33	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	1.18	U	1.18	2.00	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	45.1		40 - 140	90%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	0.00		40 - 140	0%	SPK: 50

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

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	PB167903BL	Acq On:	08 May 2025 12:24
Client Sample ID:	PB167903BL	Operator:	YP/AJ
Data file:	FC068792.D	Misc:	
Instrument:	FID_C	ALS Vial:	11
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.342	6.642	0	0	300	ug/ml
Aliphatic C12-C16	6.643	10.042	0	0	200	ug/ml
Aliphatic C16-C21	10.043	13.408	0	0	300	ug/ml
Aliphatic C21-C28	13.409	17.072	0	0	400	ug/ml
Aliphatic C28-C40	17.073	22.071	0	0	600	ug/ml
Aliphatic EPH	3.342	22.071	0	0		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	13.143	13.143	3618503	45.1		ug/ml
Aliphatic C9-C28	3.342	17.072	0	0	1200	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068792.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 12:24
Operator : YP/AJ
Sample : PB167903BL
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
PB167903BL

Integration File: autoint1.e
Quant Time: May 09 09:53:22 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
12) S 1-chlorooctadecane (S...	13.143	3618503	45.104 ug/ml
Spiked Amount 50.000		Recovery = 90.21%	
Target Compounds			

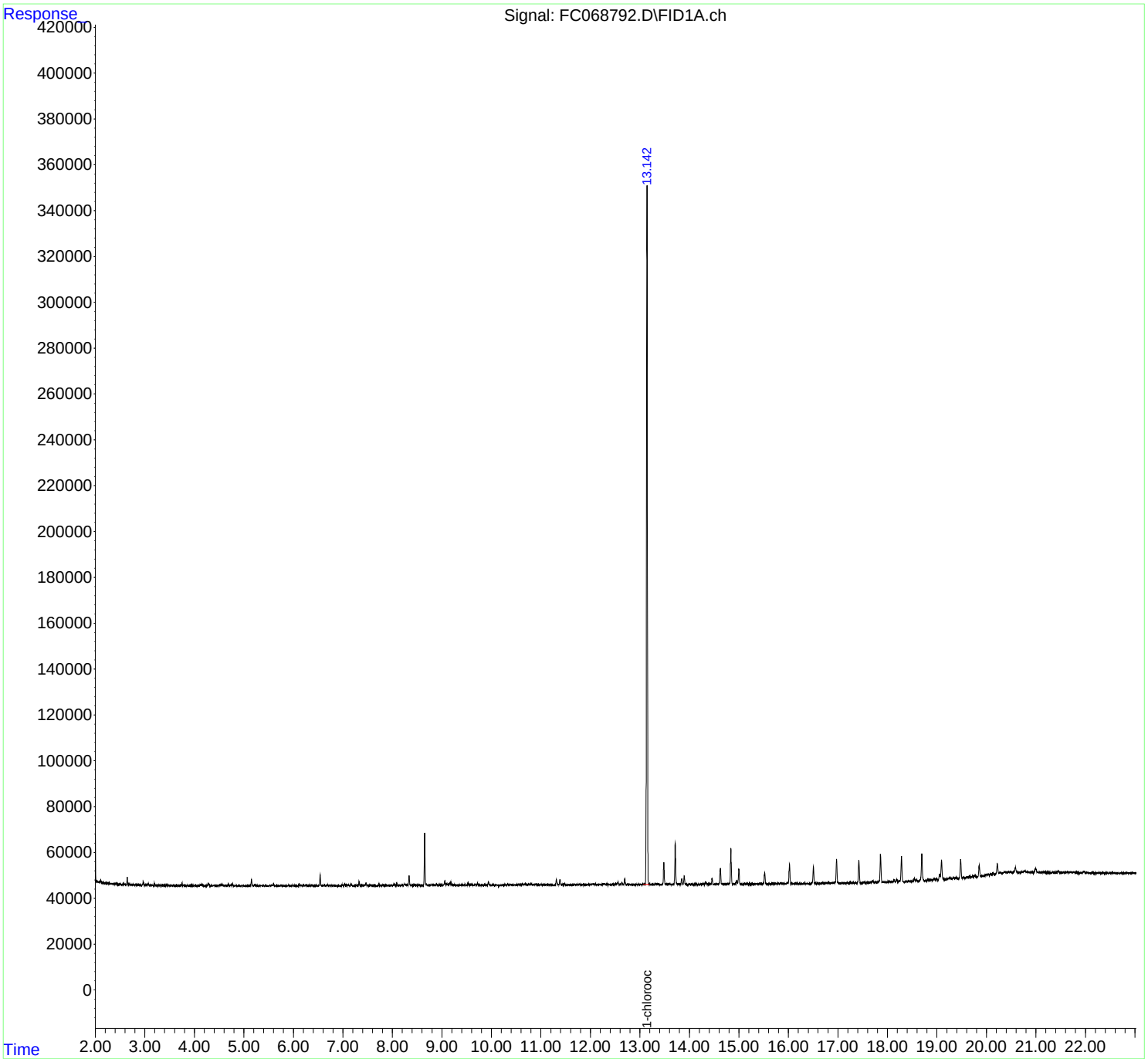
(f)=RT Delta > 1/2 Window (m)=manual int.

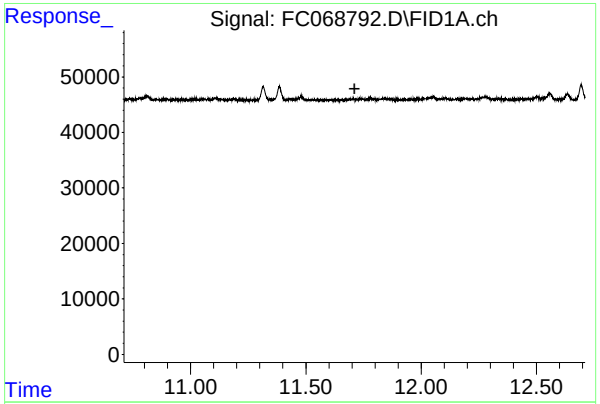
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068792.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 12:24
Operator : YP/AJ
Sample : PB167903BL
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
PB167903BL

Integration File: autoint1.e
Quant Time: May 09 09:53:22 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

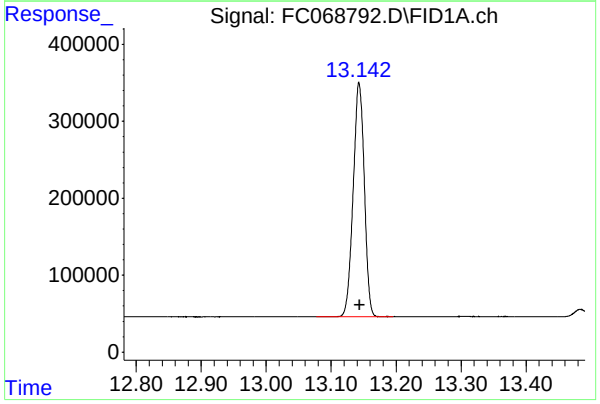




#9 ortho-Terphenyl (SURR)

R.T.: 0.000 min
Exp R.T. : 11.711 min
Response: 0
Conc: N.D.

Instrument :
FID_C
ClientSampleId :
PB167903BL



#12 1-chlorooctadecane (SURR)

R.T.: 13.143 min
Delta R.T.: 0.000 min
Response: 3618503
Conc: 45.10 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068792.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 12:24
Sample : PB167903BL
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	13.143	13.077	13.195	BB	303150	3618503	100.00%	100.000%
			Sum of corrected areas:			3618503		

Aliphatic EPH 050625.M Fri May 09 09:56:40 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	PB167903BL	SDG No.:	Q1901
Lab Sample ID:	PB167903BL	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD049319.D	1	05/07/25	05/08/25	PB167903

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aromatic C10-C12	Aromatic C10-C12	0.12	U	0.12	0.67	mg/kg
Aromatic C12-C16	Aromatic C12-C16	0.23	U	0.23	1.00	mg/kg
Aromatic C16-C21	Aromatic C16-C21	0.40	U	0.40	1.67	mg/kg
Aromatic C21-C36	Aromatic C21-C36	1.19	U	1.19	2.67	mg/kg
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	61.1		40 - 140	122%	SPK: 50
321-60-8	2-Flurobiphenyl (SURR)	57.7		40 - 140	115%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	50.9		40 - 140	102%	SPK: 50

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

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	PB167903BL	Acq On:	08 May 2025 12:24
Client Sample ID:	PB167903BL	Operator:	YP/AJ
Data file:	FD049319.D	Misc:	
Instrument:	FID_D	ALS Vial:	61
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.431	6.176	0	0	200	ug/ml
Aromatic C12-C16	6.177	8.805	0	0	300	ug/ml
Aromatic C16-C21	8.806	13.095	0	0	500	ug/ml
Aromatic C21-C36	13.0956	18.515	0	0	800	ug/ml
Aromatic EPH	4.431	18.515	0	0		ug/ml
2-Bromonaphthalene (SURR)	7.742	7.742	7241114	61.07		ug/ml
2-Flurobiphenyl (SURR)	8.607	8.607	4558275	57.72		ug/ml
ortho-Terphenyl (SURR)	11.653	11.653	7029721	50.93		ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049319.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 12:24
Operator : YP/AJ
Sample : PB167903BL
Misc :
ALS Vial : 61 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
PB167903BL

Integration File: autoint1.e
Quant Time: May 09 10:00:21 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.742	7241114	61.070 ug/ml
Spiked Amount 50.000		Recovery = 122.14%	
6) S 2-Flurobiphenyl (SURR)	8.607	4558275	57.720 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery = 115.44%	
11) S ortho-Terphenyl (SURR)	11.653	7029721	50.932 ug/ml
Spiked Amount 50.000		Recovery = 101.86%	
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

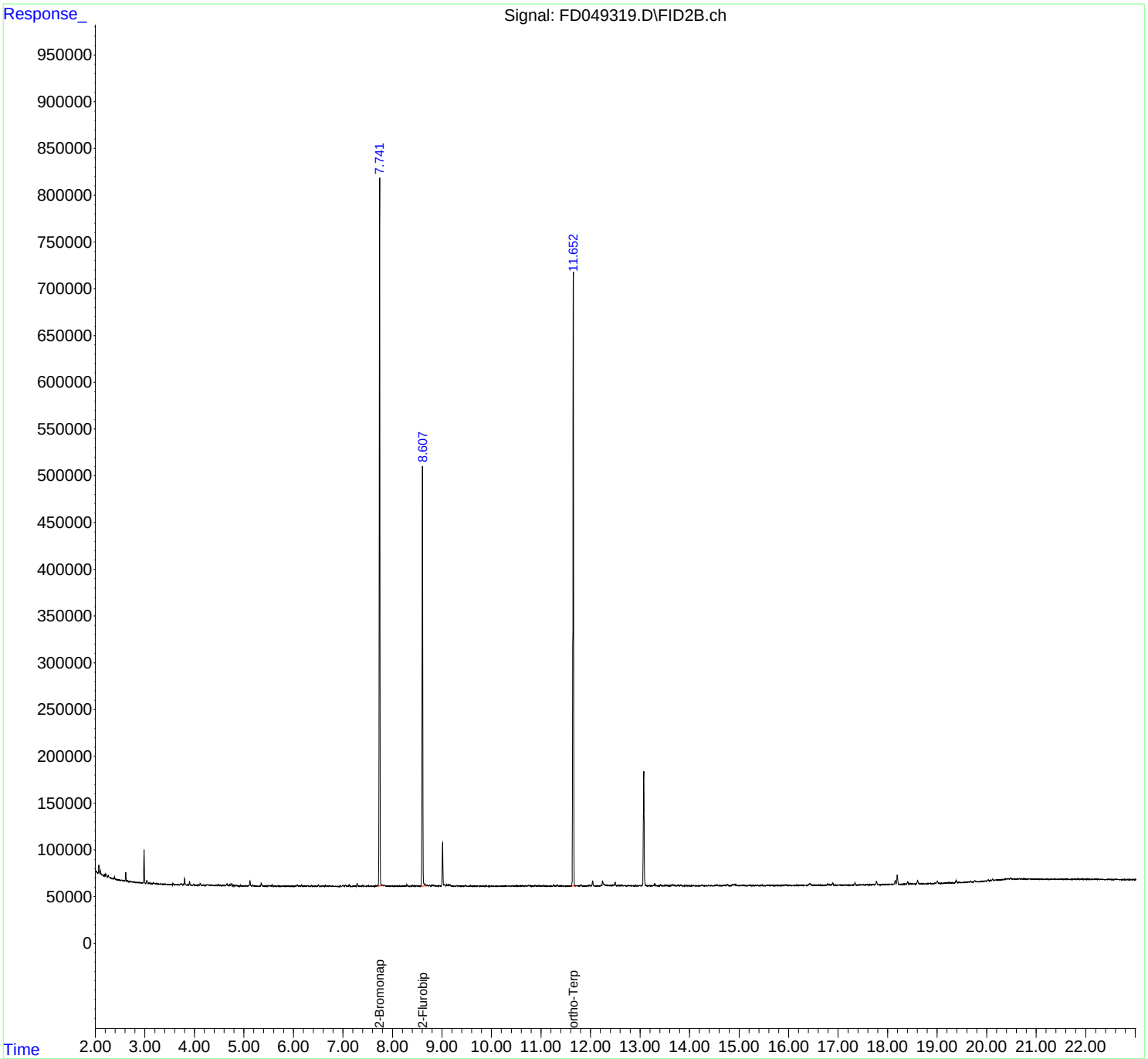
Quantitation Report (QT Reviewed)

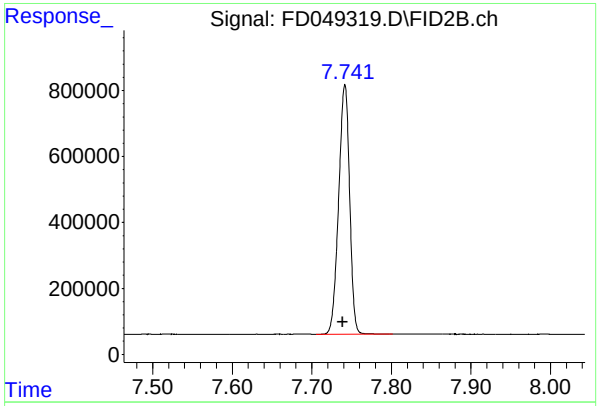
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049319.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 12:24
Operator : YP/AJ
Sample : PB167903BL
Misc :
ALS Vial : 61 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
PB167903BL

Integration File: autoint1.e
Quant Time: May 09 10:00:21 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

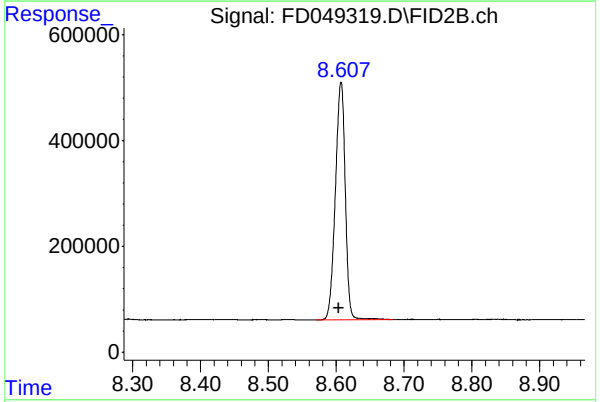




#4 2-Bromonaphthalene (SURR)

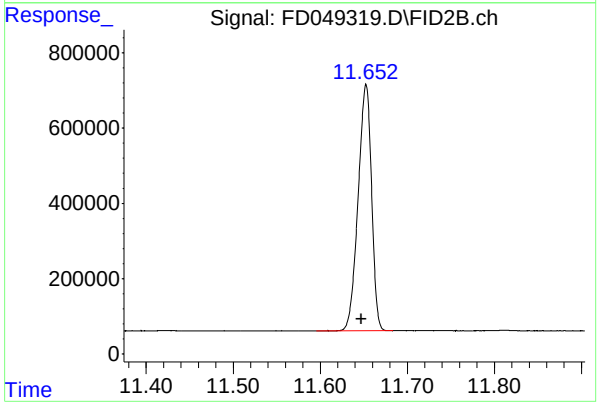
R.T.: 7.742 min
Delta R.T.: 0.003 min
Response: 7241114
Conc: 61.07 ug/ml

Instrument :
FID_D
ClientSampleId :
PB167903BL



#6 2-Flurobiphenyl (SURR)

R.T.: 8.607 min
Delta R.T.: 0.004 min
Response: 4558275
Conc: 57.72 ug/ml



#11 ortho-Terphenyl (SURR)

R.T.: 11.653 min
Delta R.T.: 0.006 min
Response: 7029721
Conc: 50.93 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049319.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 12:24
Sample : PB167903BL
Misc :
ALS Vial : 61 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	7.742	7.705	7.802	BB	757481	7241114	100.00%	38.457%
2	8.607	8.570	8.684	BB	449432	4558275	62.95%	24.209%
3	11.653	11.595	11.684	BB	655670	7029721	97.08%	37.334%

Sum of corrected areas: 18829110

Aromatic EPH 050125.M Fri May 09 10:04:44 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	PB167840BS	SDG No.:	Q1901
Lab Sample ID:	PB167840BS	Matrix:	Water
Analytical Method:	NJEPH	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :	SW3510		

Prep Date :	Date Analyzed :	Prep Batch ID
05/01/25 09:40	05/02/25 13:26	PB167840

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units	Datafile
TARGETS								
Aliphatic C9-C12	Aliphatic C9-C12	185		1	8.28	30.0	ug/l	FC068744.D
Aliphatic C12-C16	Aliphatic C12-C16	178		1	13.5	20.0	ug/l	FC068744.D
Aliphatic C16-C21	Aliphatic C16-C21	318		1	8.34	30.0	ug/l	FC068744.D
Aliphatic C21-C28	Aliphatic C21-C28	426		1	12.5	40.0	ug/l	FC068744.D
Aliphatic C28-C40	Aliphatic C28-C40	637		1	23.8	60.0	ug/l	FC068744.D
Aromatic C10-C12	Aromatic C10-C12	157		1	2.07	20.0	ug/l	FD049311.D
Aromatic C12-C16	Aromatic C12-C16	279		1	4.26	30.0	ug/l	FD049311.D
Aromatic C16-C21	Aromatic C16-C21	597		1	8.27	50.0	ug/l	FD049311.D
Aromatic C21-C36	Aromatic C21-C36	986		1	23.8	80.0	ug/l	FD049311.D
Total AliphaticEPH	Total AliphaticEPH	1740			66.4	180	ug/l	
Total AromaticEPH	Total AromaticEPH	2020			38.4	180	ug/l	
Total EPH	Total EPH	3760			105	360	ug/l	

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

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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

Report of Analysis

Client:	Portal Partners Tri-Venture		Date Collected:		
Project:	Amtrak Sawtooth Bridges 2025		Date Received:		
Client Sample ID:	PB167840BS		SDG No.:	Q1901	
Lab Sample ID:	PB167840BS		Matrix:	Water	
Analytical Method:	NJEPH		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	2000	uL
Soil Aliquot Vol:		uL	Test:	EPH	
Prep Method :	SW3510				

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC068744.D	1	05/01/25	05/02/25	PB167840

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	185		8.28	30.0	ug/l
Aliphatic C12-C16	Aliphatic C12-C16	178		13.5	20.0	ug/l
Aliphatic C16-C21	Aliphatic C16-C21	318		8.34	30.0	ug/l
Aliphatic C21-C28	Aliphatic C21-C28	426		12.5	40.0	ug/l
Aliphatic C28-C40	Aliphatic C28-C40	637		23.8	60.0	ug/l
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	40.2		40 - 140	80%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	0.00		40 - 140	0%	SPK: 50

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

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	PB167840BS	Acq On:	02 May 2025 13:26
Client Sample ID:	PB167840BS	Operator:	YP/AJ
Data file:	FC068744.D	Misc:	
Instrument:	FID_C	ALS Vial:	12
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.343	6.645	9784944	92.94	300	ug/ml
Aliphatic C12-C16	6.646	10.046	9110213	89.034	200	ug/ml
Aliphatic C16-C21	10.047	13.415	15713961	159.022	300	ug/ml
Aliphatic C21-C28	13.416	17.079	20064618	213.033	400	ug/ml
Aliphatic C28-C40	17.080	22.085	28634448	318.575	600	ug/ml
Aliphatic EPH	3.343	22.085	83308184	872.605		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	13.150	13.150	3738287	40.24		ug/ml
Aliphatic C9-C28	3.343	17.079	54673736	554.029	1200	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050225AL\
Data File : FC068744.D
Signal(s) : FID1A.ch
Acq On : 02 May 2025 13:26
Operator : YP/AJ
Sample : PB167840BS
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
PB167840BS

Integration File: sample.E
Quant Time: May 03 00:40:18 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 17:31:27 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
12) S	1-chlorooctadecane (S...	13.150	3738287	40.243 ug/ml
Spiked Amount	50.000		Recovery =	80.49%
	Target Compounds			
1) T	n-Nonane (C9)	3.444	2706378	25.696 ug/ml
2) T	n-Decane (C10)	4.520	3309614	31.412 ug/ml
4) T	n-Dodecane (C12)	6.546	3768952	35.839 ug/ml
6) T	n-Tetradecane (C14)	8.344	4291565	41.745 ug/ml
7) T	n-Hexadecane (C16)	9.948	4818648	47.315 ug/ml
8) T	n-Octadecane (C18)	11.392	5159020	51.266 ug/ml
10) T	n-Eicosane (C20)	12.704	5388595	54.784 ug/ml
11) T	n-Heneicosane (C21)	13.317	5166346	53.012 ug/ml
13) T	n-Docosane (C22)	13.904	5155796	53.375 ug/ml
14) T	n-Tetracosane (C24)	15.007	5066549	53.229 ug/ml
15) T	n-Hexacosane (C26)	16.030	4935571	52.841 ug/ml
16) T	n-Octacosane (C28)	16.982	4906702	53.592 ug/ml
17) T	n-Tricontane (C30)	17.871	4975874	54.126 ug/ml
18) T	n-Dotriacontane (C32)	18.705	4957894	54.050 ug/ml
19) T	n-Tetratriacontane (C34)	19.490	4887925	54.712 ug/ml
20) T	n-Hexatriacontane (C36)	20.231	4693982	52.400 ug/ml
21) T	n-Octatriacontane (C38)	21.008	4601167	52.042 ug/ml
22) T	n-Tetracontane (C40)	21.991	4517606	51.159 ug/ml

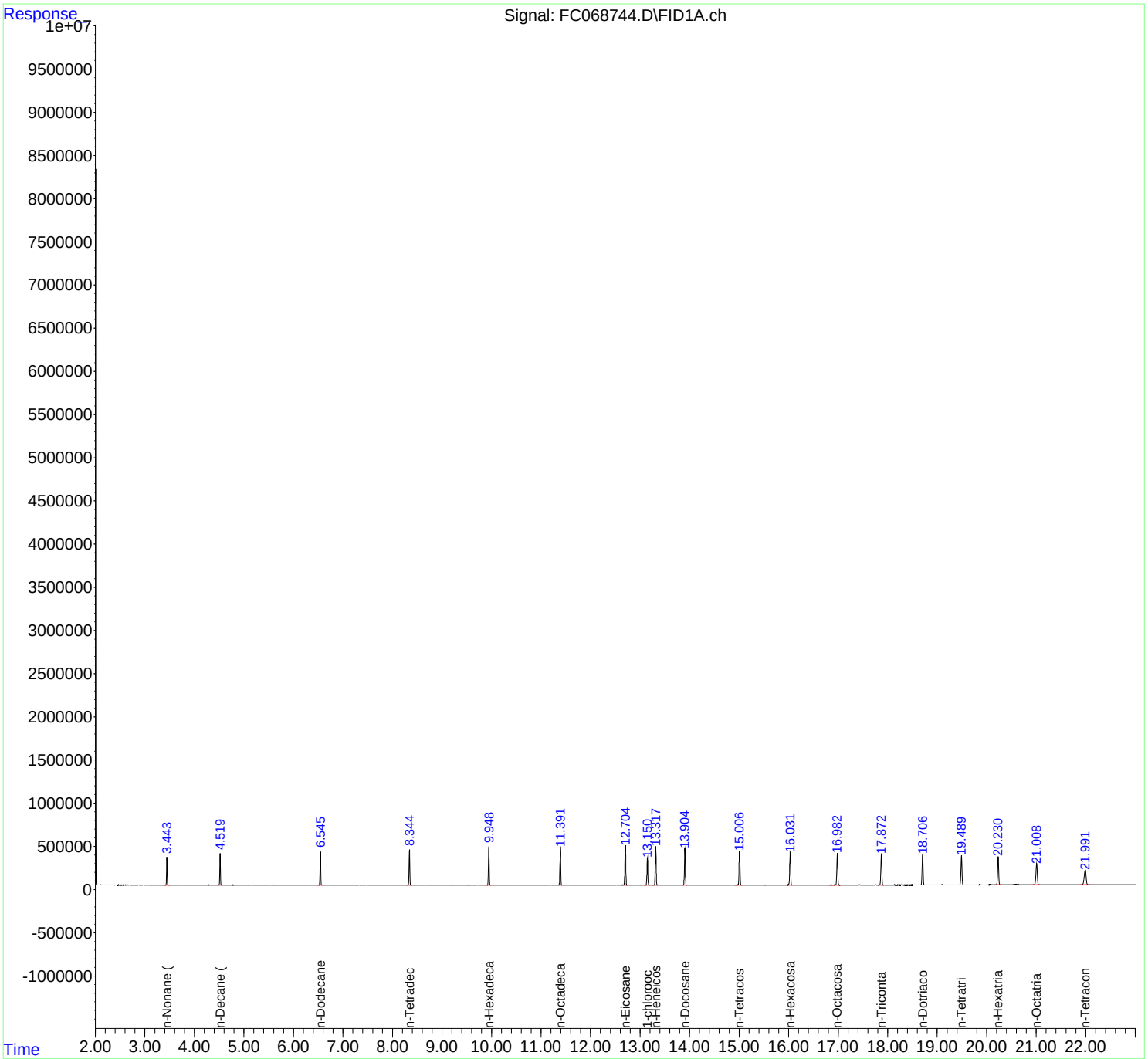
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050225AL\
Data File : FC068744.D
Signal(s) : FID1A.ch
Acq On : 02 May 2025 13:26
Operator : YP/AJ
Sample : PB167840BS
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
PB167840BS

Integration File: sample.E
Quant Time: May 03 00:40:18 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 17:31:27 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050225AL\
Data File : FC068744.D
Signal(s) : FID1A.ch
Acq On : 02 May 2025 13:26
Sample : PB167840BS
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.444	3.383	3.495	BB	325260	2706378	50.22%	3.109%
2	4.520	4.465	4.553	BV	368176	3309614	61.42%	3.802%
3	6.546	6.483	6.583	BB	387810	3768952	69.94%	4.330%
4	8.344	8.285	8.395	BB	410299	4291565	79.64%	4.930%
5	9.948	9.900	9.995	BB	450385	4818648	89.42%	5.536%
6	11.392	11.353	11.423	BB	448540	5159020	95.74%	5.927%
7	12.704	12.663	12.748	PB	461506	5388595	100.00%	6.190%
8	13.150	13.078	13.192	BB	320529	3738287	69.37%	4.295%
9	13.317	13.257	13.348	BB	448690	5166346	95.88%	5.935%
10	13.904	13.866	13.942	VB	423580	5155796	95.68%	5.923%
11	15.007	14.918	15.063	BB	400014	5066549	94.02%	5.821%
12	16.030	15.990	16.073	BB	378841	4935571	91.59%	5.670%
13	16.982	16.818	17.052	BB	368541	4906702	91.06%	5.637%
14	17.871	17.805	17.925	BB	365360	4975874	92.34%	5.716%
15	18.705	18.642	18.767	BB	355829	4957894	92.01%	5.696%
16	19.490	19.440	19.538	BB	340475	4887925	90.71%	5.615%
17	20.231	20.180	20.293	BB	328136	4693982	87.11%	5.393%
18	21.008	20.930	21.080	BB	245102	4601167	85.39%	5.286%
19	21.991	21.892	22.080	BB	171719	4517606	83.84%	5.190%
			Sum of corrected areas:			87046470		

Aliphatic EPH 040925.M Sat May 03 03:28:21 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture		Date Collected:		
Project:	Amtrak Sawtooth Bridges 2025		Date Received:		
Client Sample ID:	PB167840BS		SDG No.:	Q1901	
Lab Sample ID:	PB167840BS		Matrix:	Water	
Analytical Method:	NJEPH		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	2000	uL
Soil Aliquot Vol:		uL	Test:	EPH	
Prep Method :	SW3510				

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD049311.D	1	05/01/25	05/02/25	PB167840

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aromatic C10-C12	Aromatic C10-C12	157		2.07	20.0	ug/l
Aromatic C12-C16	Aromatic C12-C16	279		4.26	30.0	ug/l
Aromatic C16-C21	Aromatic C16-C21	597		8.27	50.0	ug/l
Aromatic C21-C36	Aromatic C21-C36	986		23.8	80.0	ug/l
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	62.6		40 - 140	125%	SPK: 50
321-60-8	2-Flurobiphenyl (SURR)	65.5		40 - 140	131%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	55.3		40 - 140	111%	SPK: 50

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

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	PB167840BS	Acq On:	02 May 2025 13:26
Client Sample ID:	PB167840BS	Operator:	YP/AJ
Data file:	FD049311.D	Misc:	
Instrument:	FID_D	ALS Vial:	62
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.431	6.176	10130616	78.818	200	ug/ml
Aromatic C12-C16	6.177	8.805	18981153	139.848	300	ug/ml
Aromatic C16-C21	8.806	13.095	39179447	298.805	500	ug/ml
Aromatic C21-C36	13.096	18.516	57855977	493.004	800	ug/ml
Aromatic EPH	4.431	18.516	126147193	1010		ug/ml
ortho-Terphenyl (SURR)	11.654	11.654	7629284	55.28		ug/ml
2-Bromonaphthalene (SURR)	7.742	7.742	7423816	62.61		ug/ml
2-Flurobiphenyl (SURR)	8.608	8.608	5176330	65.55		ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050225AR\
Data File : FD049311.D
Signal(s) : FID2B.ch
Acq On : 02 May 2025 13:26
Operator : YP/AJ
Sample : PB167840BS
Misc :
ALS Vial : 62 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
PB167840BS

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 05/06/2025
Supervised By :mohammad ahmed 05/07/2025

Integration File: autoint1.e
Quant Time: May 03 00:34:05 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) S	2-Bromonaphthalene (S...	7.742	7423816	62.611 ug/ml
Spiked Amount	50.000		Recovery =	125.22%
6) S	2-Flurobiphenyl (SURR)	8.608	5176330	65.546 ug/ml
Spiked Amount	50.000 Range	0 - 131	Recovery =	131.09%#
11) S	ortho-Terphenyl (SURR)	11.654	7629284	55.276 ug/ml
Spiked Amount	50.000		Recovery =	110.55%
	Target Compounds			
1) T	1,2,3-Trimethylbenzen...	4.532	4647787	37.225 ug/ml
2) T	Naphthalene (C11.7)	6.076	5482829	41.472 ug/ml
3) T	2-Methylnaphthalene (...	7.131	5354996	41.511 ug/ml
5) T	Acenaphthylene (C15.06)	8.411	6615897	46.866 ug/ml
7) T	Acenaphthene (C15.5)	8.708	7010260	51.165 ug/ml
8) T	Flouorene (C16.55)	9.489	7355155	54.036 ug/ml
9) T	Phenanthrene (C19.36)	10.890	7866617	58.348 ug/ml
10) T	Anthracene (C19.43)	10.965	7619007	64.421 ug/ml
12) T	Fluoranthene (C21.85)	12.706	8144987	60.438 ug/ml
13) T	Pyrene (C20.8)	13.004	8193681	60.570 ug/ml
14) T	Benzo[a]anthracene (C...	14.875	7375259	64.388 ug/ml
15) T	Chrysene (C27.41)	14.920	7905755	67.736 ug/ml
16) T	benzo[b]fluoranthene ...	16.428	7295841	60.104 ug/ml
17) T	Bnezo[k]fluoranthene ...	16.463	7313872	61.325 ug/mlm
18) T	Benzo[a]pyrene (C31.34)	16.809	6986144	60.758 ug/ml
19) T	Indeno[1,2,3-cd]pyren...	18.176	7357310	67.041 ug/ml
20) T	Dibenz[a,h]anthracene...	18.214	6769020	64.092 ug/mlm
21) T	Benzo[g,h,i]perylene ...	18.434	6976907	58.546 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050225AR\
Data File : FD049311.D
Signal(s) : FID2B.ch
Acq On : 02 May 2025 13:26
Operator : YP/AJ
Sample : PB167840BS
Misc :
ALS Vial : 62 Sample Multiplier: 1

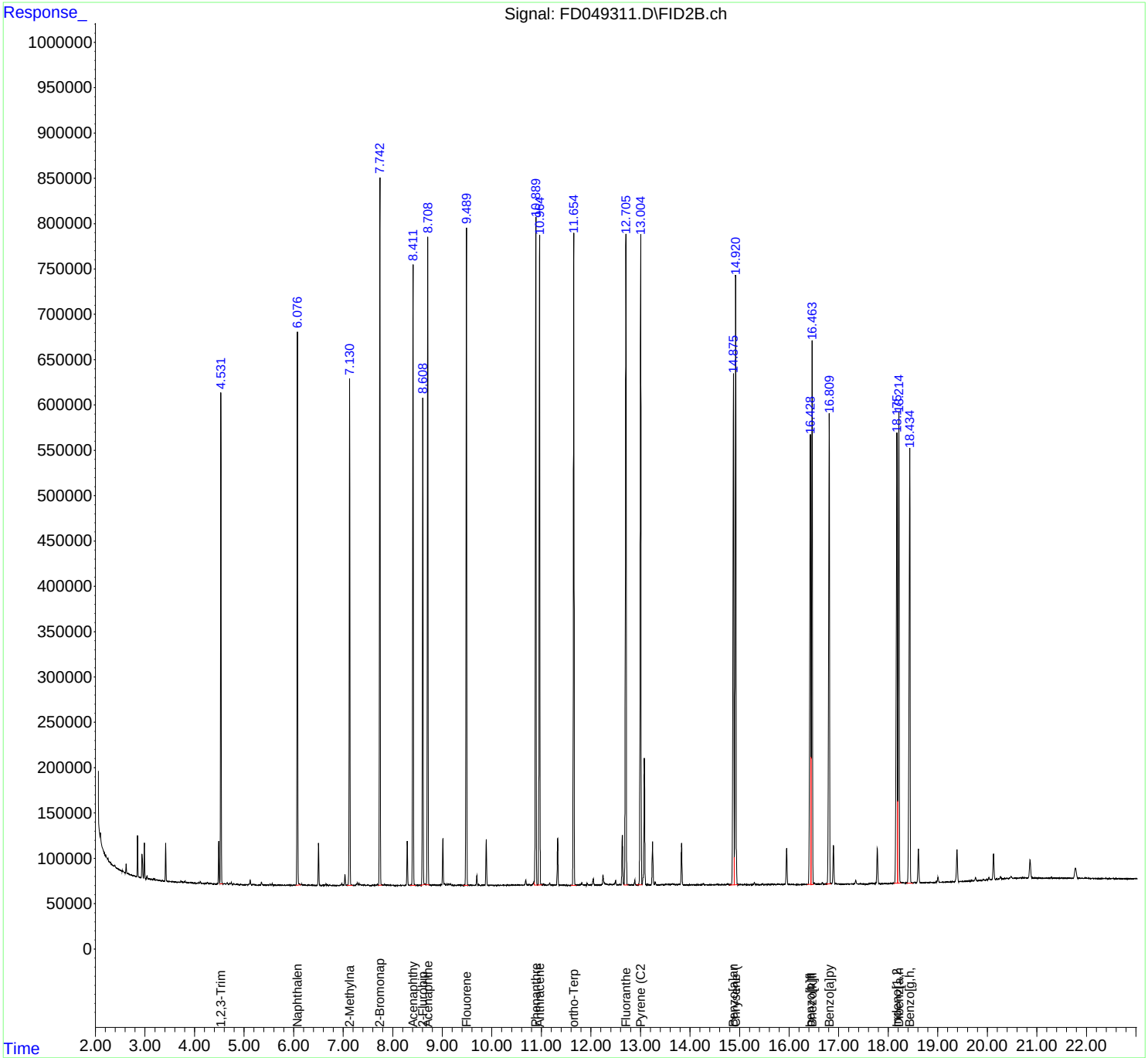
Instrument :
FID_D
ClientSampleId :
PB167840BS

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 05/06/2025
Supervised By :mohammad ahmed 05/07/2025

Integration File: autoint1.e
Quant Time: May 03 00:34:05 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm



Instrument :
FID_D
ClientSampleId :
PB167840BS

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/06/2025
Supervised By :mohammad ahmed 05/07/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD
Data File : FD049311.D
Signal(s) : FID2B.ch
Acq On : 02 May 2025 13:26
Sample : PB167840BS
Misc :
ALS Vial : 62 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.532	4.509	4.575	VB	541876	4647787	56.72%	3.175%
2	6.076	6.040	6.145	BB	610298	5482829	66.92%	3.746%
3	7.131	7.075	7.188	BB	558242	5354996	65.36%	3.658%
4	7.742	7.708	7.790	BB	779446	7423816	90.60%	5.072%
5	8.411	8.345	8.463	BB	686134	6615897	80.74%	4.520%
6	8.608	8.557	8.650	BB	537147	5176330	63.17%	3.536%
7	8.708	8.657	8.740	BB	716016	7010260	85.56%	4.789%
8	9.489	9.428	9.523	BB	725132	7355155	89.77%	5.025%
9	10.890	10.858	10.927	VV	738999	7866617	96.01%	5.374%
10	10.965	10.927	11.012	VB	717771	7619007	92.99%	5.205%
11	11.654	11.593	11.702	BB	718392	7629284	93.11%	5.212%
12	12.706	12.666	12.752	VB	714885	8144987	99.41%	5.564%
13	13.004	12.923	13.030	BV	718518	8193681	100.00%	5.598%
14	14.875	14.793	14.894	PV	562337	7375259	90.01%	5.039%
15	14.920	14.894	14.973	VB	672223	7905755	96.49%	5.401%
16	16.428	16.358	16.442	BV	496308	7295841	89.04%	4.984%
17	16.463	16.442	16.490	VV	598769	7223286	88.16%	4.935%
18	16.809	16.743	16.842	BV	519573	6986144	85.26%	4.773%
19	18.176	18.110	18.190	BV	497114	7357310	89.79%	5.026%
20	18.214	18.190	18.263	VB	519727	6735475	82.20%	4.601%
21	18.434	18.370	18.497	BB	479391	6976907	85.15%	4.766%

Sum of corrected areas: 146376621

Aromatic EPH 050125.M Sat May 03 02:47:38 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	PB167903BS	SDG No.:	Q1901
Lab Sample ID:	PB167903BS	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.03 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
05/07/25 13:37	05/08/25 13:01	PB167903

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	Datafile
TARGETS								
Aliphatic C9-C12	Aliphatic C9-C12	6.17		1	0.14	1.00	mg/kg	FC068793.D
Aliphatic C12-C16	Aliphatic C12-C16	6.23		1	0.11	0.67	mg/kg	FC068793.D
Aliphatic C16-C21	Aliphatic C16-C21	11.4		1	0.13	1.00	mg/kg	FC068793.D
Aliphatic C21-C28	Aliphatic C21-C28	15.5		1	0.53	1.33	mg/kg	FC068793.D
Aliphatic C28-C40	Aliphatic C28-C40	21.7		1	1.18	2.00	mg/kg	FC068793.D
Aromatic C10-C12	Aromatic C10-C12	5.23		1	0.12	0.67	mg/kg	FD049320.D
Aromatic C12-C16	Aromatic C12-C16	9.09		1	0.23	1.00	mg/kg	FD049320.D
Aromatic C16-C21	Aromatic C16-C21	18.9		1	0.40	1.67	mg/kg	FD049320.D
Aromatic C21-C36	Aromatic C21-C36	31.4		1	1.19	2.66	mg/kg	FD049320.D
Total AliphaticEPH	Total AliphaticEPH	61.0			2.09	5.99	mg/kg	
Total AromaticEPH	Total AromaticEPH	64.6			1.94	6.00	mg/kg	
Total EPH	Total EPH	126			4.03	12.0	mg/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

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	PB167903BS	SDG No.:	Q1901
Lab Sample ID:	PB167903BS	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.03 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC068793.D	1	05/07/25	05/08/25	PB167903

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	6.17		0.14	1.00	mg/kg
Aliphatic C12-C16	Aliphatic C12-C16	6.23		0.11	0.67	mg/kg
Aliphatic C16-C21	Aliphatic C16-C21	11.4		0.13	1.00	mg/kg
Aliphatic C21-C28	Aliphatic C21-C28	15.5		0.53	1.33	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	21.7		1.18	2.00	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	43.7		40 - 140	87%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	0.00		40 - 140	0%	SPK: 50

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

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	PB167903BS	Acq On:	08 May 2025 13:01
Client Sample ID:	PB167903BS	Operator:	YP/AJ
Data file:	FC068793.D	Misc:	
Instrument:	FID_C	ALS Vial:	12
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.342	6.642	9191306	92.717	300	ug/ml
Aliphatic C12-C16	6.643	10.042	8516253	93.601	200	ug/ml
Aliphatic C16-C21	10.043	13.408	14737629	171.846	300	ug/ml
Aliphatic C21-C28	13.409	17.072	19322244	232.543	400	ug/ml
Aliphatic C28-C40	17.073	22.071	27595131	326.096	600	ug/ml
Aliphatic EPH	3.342	22.071	79362563	916.803		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	13.145	13.145	3505588	43.7		ug/ml
Aliphatic C9-C28	3.342	17.072	51767432	590.707	1200	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068793.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 13:01
Operator : YP/AJ
Sample : PB167903BS
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
PB167903BS

Integration File: autoint1.e
Quant Time: May 09 09:53:32 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
12) S	1-chlorooctadecane (S...	13.145	3505588	43.696 ug/ml
Spiked Amount	50.000		Recovery =	87.39%
	Target Compounds			
1) T	n-Nonane (C9)	3.442	2549322	25.346 ug/ml
2) T	n-Decane (C10)	4.518	3105498	31.167 ug/ml
4) T	n-Dodecane (C12)	6.543	3536486	36.392 ug/ml
6) T	n-Tetradecane (C14)	8.341	4025244	43.552 ug/ml
7) T	n-Hexadecane (C16)	9.944	4491009	50.154 ug/ml
8) T	n-Octadecane (C18)	11.388	4808139	54.814 ug/ml
10) T	n-Eicosane (C20)	12.699	5054034	59.307 ug/ml
11) T	n-Heneicosane (C21)	13.312	4875456	57.804 ug/ml
13) T	n-Docosane (C22)	13.899	4890977	58.464 ug/ml
14) T	n-Tetracosane (C24)	15.002	4855513	58.355 ug/ml
15) T	n-Hexacosane (C26)	16.025	4796571	57.892 ug/ml
16) T	n-Octacosane (C28)	16.975	4779183	57.827 ug/ml
17) T	n-Tricontane (C30)	17.865	4861309	57.454 ug/ml
18) T	n-Dotriacontane (C32)	18.698	4843353	56.229 ug/ml
19) T	n-Tetratriacontane (C34)	19.482	4766438	55.944 ug/ml
20) T	n-Hexatriacontane (C36)	20.223	4538759	52.808 ug/ml
21) T	n-Octatriacontane (C38)	20.997	4392982	52.370 ug/ml
22) T	n-Tetracontane (C40)	21.976	4192290	51.153 ug/ml

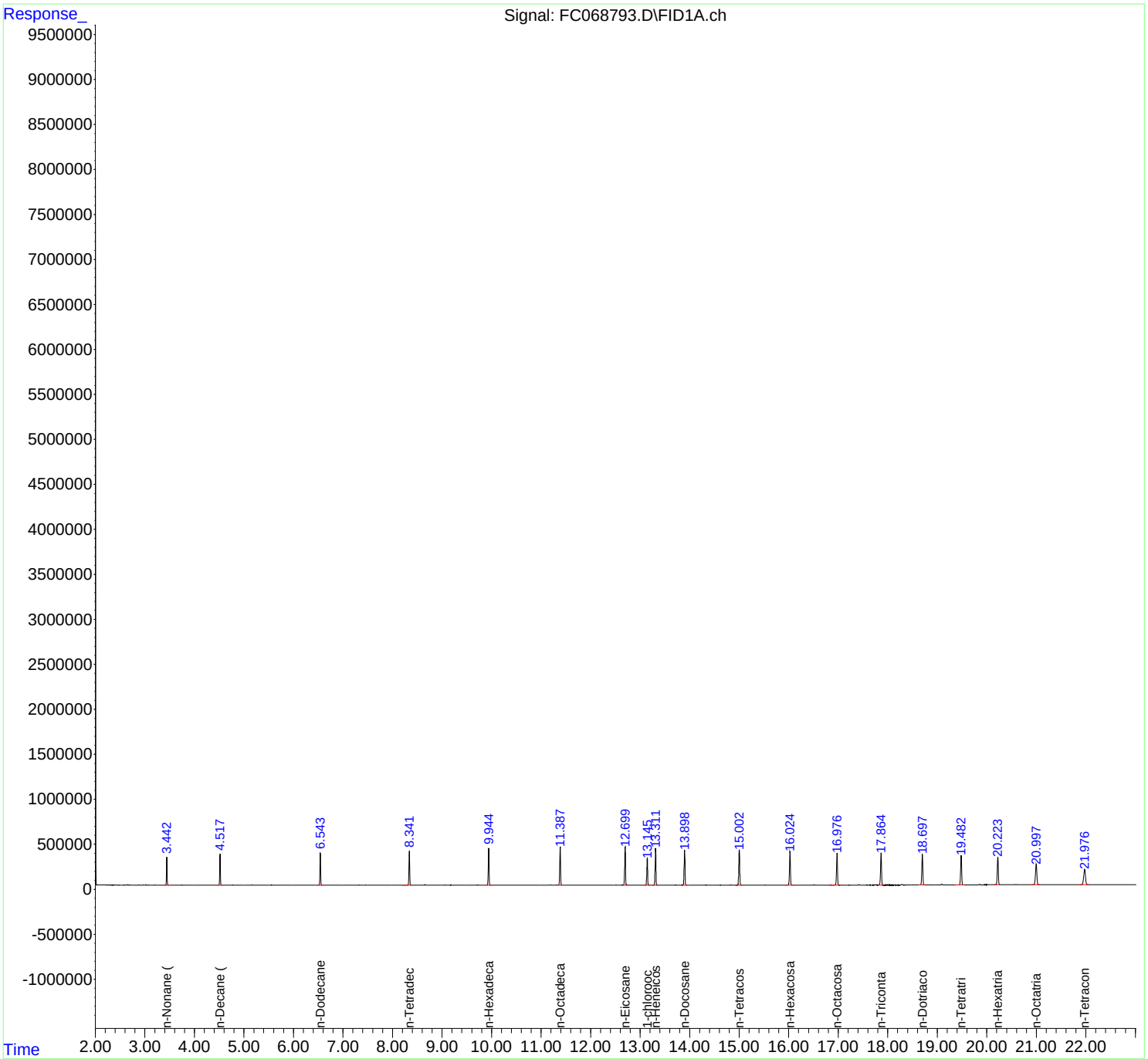
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068793.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 13:01
Operator : YP/AJ
Sample : PB167903BS
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
PB167903BS

Integration File: autoint1.e
Quant Time: May 09 09:53:32 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068793.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 13:01
Sample : PB167903BS
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.442	3.392	3.485	BB	312183	2549322	50.44%	3.076%
2	4.518	4.464	4.552	BV	345727	3105498	61.45%	3.748%
3	6.543	6.487	6.592	BB	361573	3536486	69.97%	4.268%
4	8.341	8.199	8.387	BB	382447	4025244	79.64%	4.857%
5	9.944	9.897	9.995	BB	410982	4491009	88.86%	5.419%
6	11.388	11.340	11.419	BB	425025	4808139	95.13%	5.802%
7	12.699	12.660	12.747	PB	427156	5054034	100.00%	6.099%
8	13.145	13.074	13.189	BB	298893	3505588	69.36%	4.230%
9	13.312	13.250	13.350	BB	411023	4875456	96.47%	5.883%
10	13.899	13.862	13.950	VB	390119	4890977	96.77%	5.902%
11	15.002	14.902	15.062	BB	389261	4855513	96.07%	5.859%
12	16.025	15.934	16.082	BB	375239	4796571	94.91%	5.788%
13	16.975	16.809	17.052	BB	355725	4779183	94.56%	5.767%
14	17.865	17.797	17.927	BB	359525	4861309	96.19%	5.866%
15	18.698	18.622	18.747	BB	342087	4843353	95.83%	5.845%
16	19.482	19.364	19.537	BB	326984	4766438	94.31%	5.752%
17	20.223	20.150	20.262	BB	305027	4538759	89.80%	5.477%
18	20.997	20.912	21.080	BB	226109	4392982	86.92%	5.301%
19	21.976	21.879	22.060	BB	169936	4192290	82.95%	5.059%
			Sum of corrected areas:			82868151		

Aliphatic EPH 050625.M Fri May 09 09:57:12 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	PB167903BS	SDG No.:	Q1901
Lab Sample ID:	PB167903BS	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.03 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD049320.D	1	05/07/25	05/08/25	PB167903

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aromatic C10-C12	Aromatic C10-C12	5.23		0.12	0.67	mg/kg
Aromatic C12-C16	Aromatic C12-C16	9.09		0.23	1.00	mg/kg
Aromatic C16-C21	Aromatic C16-C21	18.9		0.40	1.67	mg/kg
Aromatic C21-C36	Aromatic C21-C36	31.4		1.19	2.66	mg/kg
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	61.6		40 - 140	123%	SPK: 50
321-60-8	2-Flurobiphenyl (SURR)	63.4		40 - 140	127%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	52.6		40 - 140	105%	SPK: 50

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

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	PB167903BS	Acq On:	08 May 2025 13:01
Client Sample ID:	PB167903BS	Operator:	YP/AJ
Data file:	FD049320.D	Misc:	
Instrument:	FID_D	ALS Vial:	62
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.431	6.176	10090127	78.503	200	ug/ml
Aromatic C12-C16	6.177	8.805	18517319	136.43	300	ug/ml
Aromatic C16-C21	8.806	13.095	37124113	283.13	500	ug/ml
Aromatic C21-C36	13.0956	18.515	55376857	471.879	800	ug/ml
Aromatic EPH	4.431	18.515	121108416	969.943		ug/ml
ortho-Terphenyl (SURR)	11.652	11.652	7262675	52.62		ug/ml
2-Bromonaphthalene (SURR)	7.742	7.742	7300671	61.57		ug/ml
2-Flurobiphenyl (SURR)	8.608	8.608	5006396	63.39		ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049320.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 13:01
Operator : YP/AJ
Sample : PB167903BS
Misc :
ALS Vial : 62 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
PB167903BS

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025

Integration File: autoint1.e
Quant Time: May 09 10:00:36 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4)	S 2-Bromonaphthalene (S...	7.742	7300671	61.573 ug/ml
	Spiked Amount 50.000		Recovery = 123.15%	
6)	S 2-Flurobiphenyl (SURR)	8.608	5006396	63.394 ug/ml
	Spiked Amount 50.000 Range 0 - 131		Recovery = 126.79%	
11)	S ortho-Terphenyl (SURR)	11.652	7262675	52.620 ug/ml
	Spiked Amount 50.000		Recovery = 105.24%	
	Target Compounds			
1)	T 1,2,3-Trimethylbenzen...	4.532	4653200	37.268 ug/ml
2)	T Naphthalene (C11.7)	6.076	5436927	41.125 ug/ml
3)	T 2-Methylnaphthalene (...	7.131	5271228	40.861 ug/ml
5)	T Acenaphthylene (C15.06)	8.411	6432919	45.570 ug/ml
7)	T Acenaphthene (C15.5)	8.708	6813172	49.726 ug/ml
8)	T Flouorene (C16.55)	9.489	7029682	51.645 ug/ml
9)	T Phenanthrene (C19.36)	10.888	7432716	55.130 ug/ml
10)	T Anthracene (C19.43)	10.964	7069170	59.772 ug/ml
12)	T Fluoranthene (C21.85)	12.703	7761429	57.592 ug/ml
13)	T Pyrene (C20.8)	13.002	7831116	57.890 ug/ml
14)	T Benzo[a]anthracene (C...	14.873	7009293	61.193 ug/ml
15)	T Chrysene (C27.41)	14.919	7558306	64.760 ug/ml
16)	T benzo[b]fluoranthene ...	16.426	7083541	58.355 ug/ml
17)	T Bnezo[k]fluoranthene ...	16.462	6938447	58.177 ug/mlm
18)	T Benzo[a]pyrene (C31.34)	16.807	6738028	58.600 ug/ml
19)	T Indeno[1,2,3-cd]pyren...	18.173	7007004	63.849 ug/ml
20)	T Dibenz[a,h]anthracene...	18.212	6302568	59.675 ug/ml
21)	T Benzo[g,h,i]perylene ...	18.432	6691597	56.152 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049320.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 13:01
Operator : YP/AJ
Sample : PB167903BS
Misc :
ALS Vial : 62 Sample Multiplier: 1

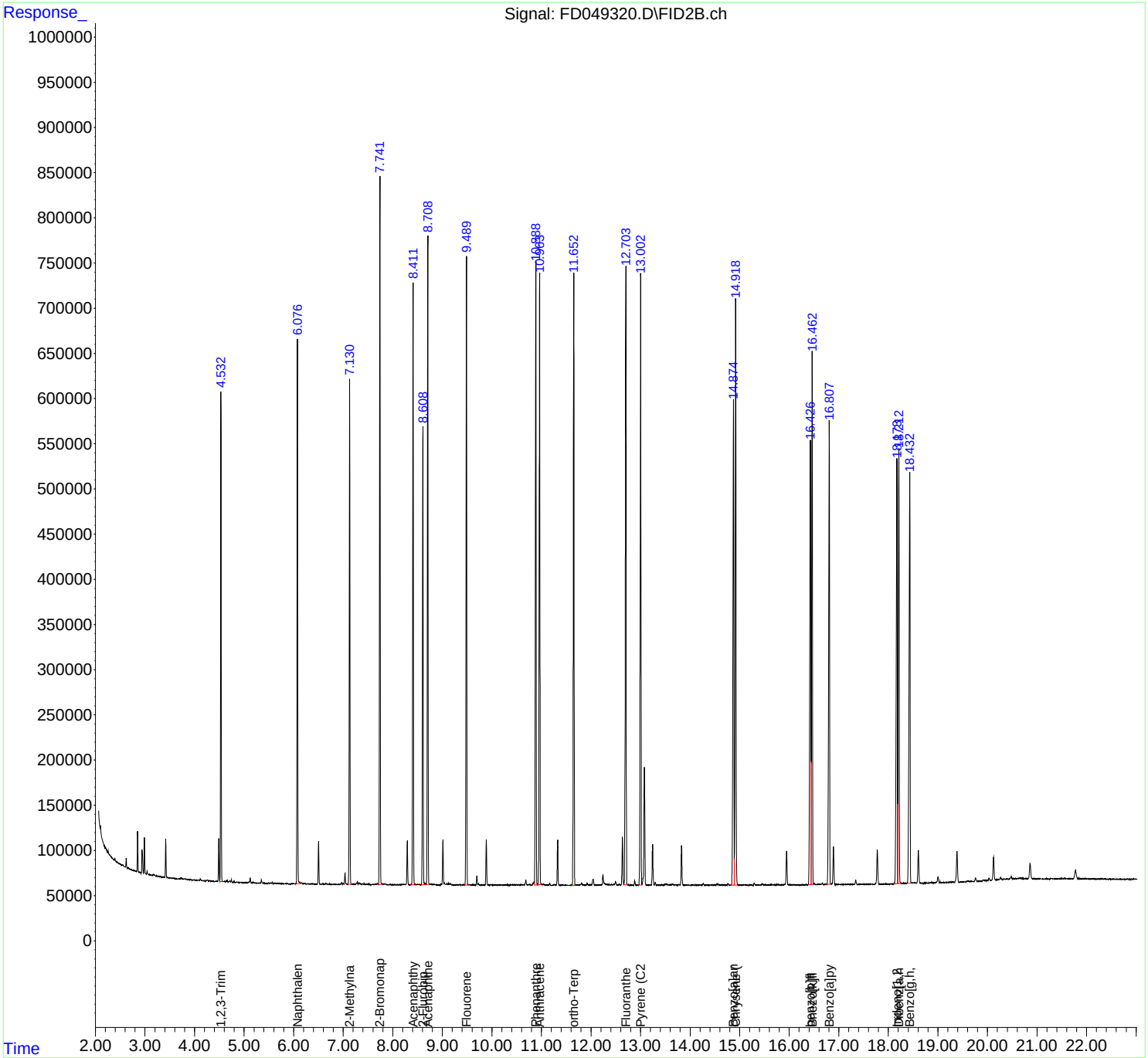
Instrument :
FID_D
ClientSampleId :
PB167903BS

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025

Integration File: autoint1.e
Quant Time: May 09 10:00:36 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm



Instrument :
FID_D
ClientSampleId :
PB167903BS

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD05082
Data File : FD049320.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 13:01
Sample : PB167903BS
Misc :
ALS Vial : 62 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.532	4.510	4.565	VB	542380	4653200	59.42%	3.308%
2	6.076	6.040	6.150	BB	602534	5436927	69.43%	3.865%
3	7.131	7.082	7.187	BB	558072	5271228	67.31%	3.747%
4	7.742	7.709	7.804	BB	784122	7300671	93.23%	5.190%
5	8.411	8.349	8.470	BB	664332	6432919	82.15%	4.573%
6	8.608	8.554	8.675	BV	508037	5006396	63.93%	3.559%
7	8.708	8.675	8.750	VB	716224	6813172	87.00%	4.843%
8	9.489	9.432	9.537	BB	694646	7029682	89.77%	4.997%
9	10.888	10.857	10.929	VV	690908	7432716	94.91%	5.283%
10	10.964	10.929	11.009	PB	677545	7069170	90.27%	5.025%
11	11.652	11.595	11.699	BB	676840	7262675	92.74%	5.163%
12	12.703	12.663	12.747	VB	685002	7761429	99.11%	5.517%
13	13.002	12.939	13.028	BV	674952	7831116	100.00%	5.567%
14	14.873	14.799	14.892	BV	537213	7009293	89.51%	4.983%
15	14.919	14.892	14.975	VB	649035	7558306	96.52%	5.373%
16	16.426	16.379	16.441	BV	486448	7083541	90.45%	5.035%
17	16.462	16.441	16.492	VV	589354	6986520	89.21%	4.966%
18	16.807	16.735	16.835	BB	513363	6738028	86.04%	4.790%
19	18.173	18.110	18.187	BV	470593	7007004	89.48%	4.981%
20	18.212	18.187	18.265	VB	479599	6302568	80.48%	4.480%
21	18.432	18.370	18.485	BB	455383	6691597	85.45%	4.757%
			Sum of corrected areas:			140678158		

Aromatic EPH 050125.M Fri May 09 10:05:50 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	PB167840BSD	SDG No.:	Q1901
Lab Sample ID:	PB167840BSD	Matrix:	Water
Analytical Method:	NJEPH	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :	SW3510		

Prep Date :	Date Analyzed :	Prep Batch ID
05/01/25 09:40	05/02/25 14:03	PB167840

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units	Datafile
TARGETS								
Aliphatic C9-C12	Aliphatic C9-C12	182		1	8.28	30.0	ug/l	FC068745.D
Aliphatic C12-C16	Aliphatic C12-C16	172		1	13.5	20.0	ug/l	FC068745.D
Aliphatic C16-C21	Aliphatic C16-C21	307		1	8.34	30.0	ug/l	FC068745.D
Aliphatic C21-C28	Aliphatic C21-C28	417		1	12.5	40.0	ug/l	FC068745.D
Aliphatic C28-C40	Aliphatic C28-C40	637		1	23.8	60.0	ug/l	FC068745.D
Aromatic C10-C12	Aromatic C10-C12	163		1	2.07	20.0	ug/l	FD049312.D
Aromatic C12-C16	Aromatic C12-C16	289		1	4.26	30.0	ug/l	FD049312.D
Aromatic C16-C21	Aromatic C16-C21	624		1	8.27	50.0	ug/l	FD049312.D
Aromatic C21-C36	Aromatic C21-C36	1040		1	23.8	80.0	ug/l	FD049312.D
Total AliphaticEPH	Total AliphaticEPH	1720			66.4	180	ug/l	
Total AromaticEPH	Total AromaticEPH	2110			38.4	180	ug/l	
Total EPH	Total EPH	3830			105	360	ug/l	

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

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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

Report of Analysis

Client:	Portal Partners Tri-Venture		Date Collected:		
Project:	Amtrak Sawtooth Bridges 2025		Date Received:		
Client Sample ID:	PB167840BSD		SDG No.:	Q1901	
Lab Sample ID:	PB167840BSD		Matrix:	Water	
Analytical Method:	NJEPH		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	2000	uL
Soil Aliquot Vol:		uL	Test:	EPH	
Prep Method :	SW3510				

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC068745.D	1	05/01/25	05/02/25	PB167840

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	182		8.28	30.0	ug/l
Aliphatic C12-C16	Aliphatic C12-C16	172		13.5	20.0	ug/l
Aliphatic C16-C21	Aliphatic C16-C21	307		8.34	30.0	ug/l
Aliphatic C21-C28	Aliphatic C21-C28	417		12.5	40.0	ug/l
Aliphatic C28-C40	Aliphatic C28-C40	637		23.8	60.0	ug/l
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	38.7		40 - 140	77%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	0.00		40 - 140	0%	SPK: 50

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

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	PB167840BSD	Acq On:	02 May 2025 14:03
Client Sample ID:	PB167840BSD	Operator:	YP/AJ
Data file:	FC068745.D	Misc:	
Instrument:	FID_C	ALS Vial:	13
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.343	6.645	9614812	91.324	300	ug/ml
Aliphatic C12-C16	6.646	10.046	8842093	86.414	200	ug/ml
Aliphatic C16-C21	10.047	13.415	15215512	153.977	300	ug/ml
Aliphatic C21-C28	13.416	17.079	19680169	208.952	400	ug/ml
Aliphatic C28-C40	17.080	22.085	28642646	318.666	600	ug/ml
Aliphatic EPH	3.343	22.085	81995232	859.334		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	13.150	13.150	3593465	38.68		ug/ml
Aliphatic C9-C28	3.343	17.079	53352586	540.667	1200	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050225AL\
Data File : FC068745.D
Signal(s) : FID1A.ch
Acq On : 02 May 2025 14:03
Operator : YP/AJ
Sample : PB167840BSD
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
PB167840BSD

Integration File: sample.E
Quant Time: May 03 00:40:44 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 17:31:27 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
12) S	1-chlorooctadecane (S...	13.150	3593465	38.684 ug/ml
Spiked Amount	50.000		Recovery =	77.37%
	Target Compounds			
1) T	n-Nonane (C9)	3.444	2664664	25.300 ug/ml
2) T	n-Decane (C10)	4.520	3256140	30.905 ug/ml
4) T	n-Dodecane (C12)	6.546	3694008	35.126 ug/ml
6) T	n-Tetradecane (C14)	8.344	4176380	40.625 ug/ml
7) T	n-Hexadecane (C16)	9.948	4665713	45.814 ug/ml
8) T	n-Octadecane (C18)	11.391	4987279	49.559 ug/ml
10) T	n-Eicosane (C20)	12.704	5216792	53.038 ug/ml
11) T	n-Heneicosane (C21)	13.317	5011441	51.422 ug/ml
13) T	n-Docosane (C22)	13.903	5009971	51.866 ug/ml
14) T	n-Tetracosane (C24)	15.009	4949042	51.994 ug/ml
15) T	n-Hexacosane (C26)	16.030	4854519	51.973 ug/ml
16) T	n-Octacosane (C28)	16.981	4866637	53.154 ug/ml
17) T	n-Tricontane (C30)	17.871	4965921	54.017 ug/ml
18) T	n-Dotriacontane (C32)	18.705	4965135	54.129 ug/ml
19) T	n-Tetratriacontane (C34)	19.490	4904730	54.900 ug/ml
20) T	n-Hexatriacontane (C36)	20.232	4698493	52.451 ug/ml
21) T	n-Octatriacontane (C38)	21.007	4599951	52.028 ug/ml
22) T	n-Tetracontane (C40)	21.986	4508416	51.054 ug/ml

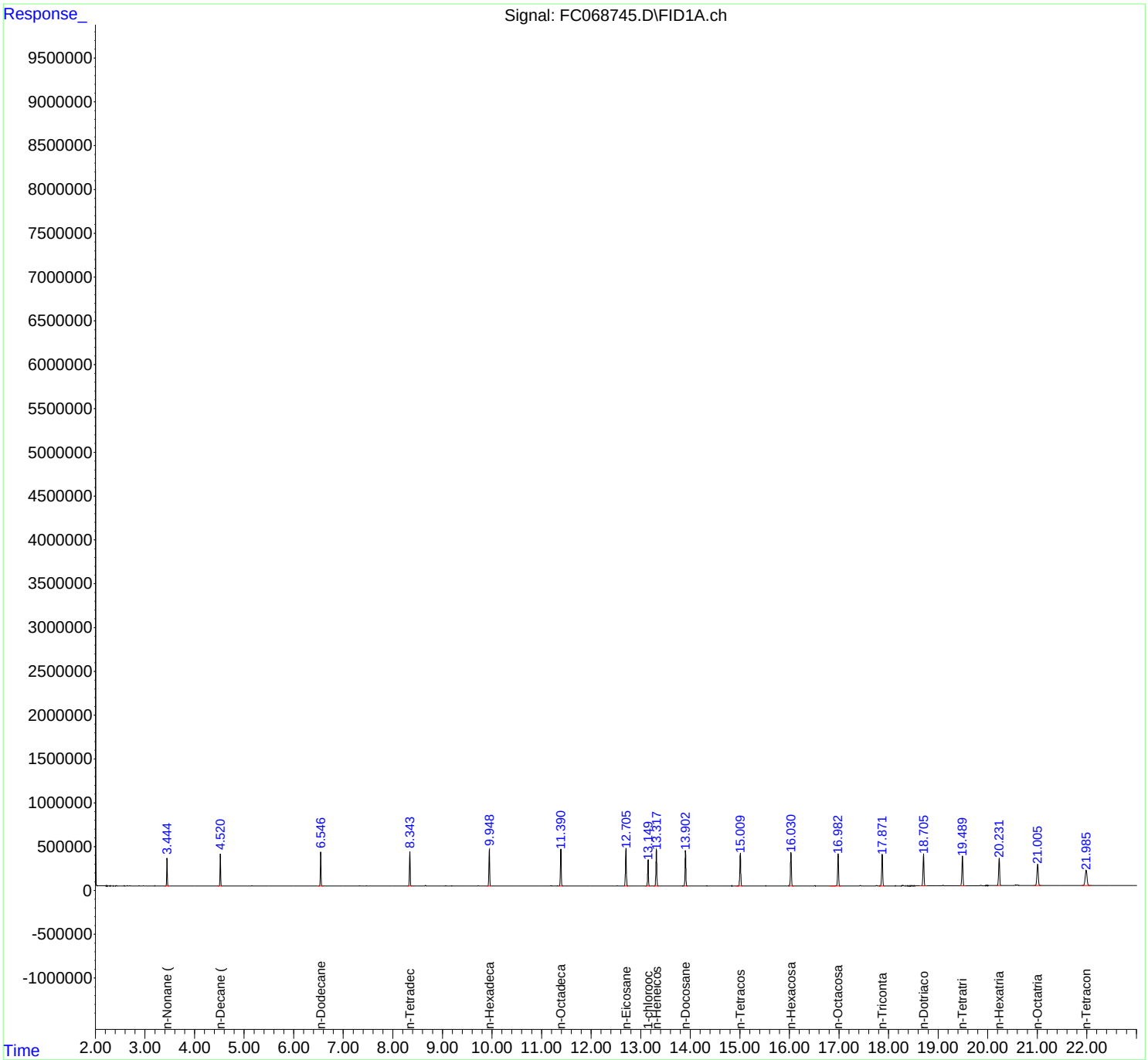
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050225AL\
Data File : FC068745.D
Signal(s) : FID1A.ch
Acq On : 02 May 2025 14:03
Operator : YP/AJ
Sample : PB167840BSD
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
PB167840BSD

Integration File: sample.E
Quant Time: May 03 00:40:44 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Quant Title : GC Extractables
QLast Update : Tue Apr 08 17:31:27 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050225AL\
Data File : FC068745.D
Signal(s) : FID1A.ch
Acq On : 02 May 2025 14:03
Sample : PB167840BSD
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 040925.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.444	3.395	3.483	BB	317770	2664664	51.08%	3.113%
2	4.520	4.465	4.555	BV	366710	3256140	62.42%	3.804%
3	6.546	6.492	6.592	BB	386734	3694008	70.81%	4.316%
4	8.344	8.287	8.383	BB	392991	4176380	80.06%	4.880%
5	9.948	9.900	9.985	BB	419293	4665713	89.44%	5.451%
6	11.391	11.355	11.427	BB	422322	4987279	95.60%	5.827%
7	12.704	12.663	12.748	PB	423030	5216792	100.00%	6.095%
8	13.150	13.092	13.183	BB	300740	3593465	68.88%	4.199%
9	13.317	13.255	13.362	BB	413720	5011441	96.06%	5.855%
10	13.903	13.867	13.940	VB	405025	5009971	96.04%	5.854%
11	15.009	14.917	15.050	BB	376627	4949042	94.87%	5.782%
12	16.030	15.990	16.092	BB	379894	4854519	93.06%	5.672%
13	16.981	16.818	17.045	BB	369300	4866637	93.29%	5.686%
14	17.871	17.805	17.922	BB	359482	4965921	95.19%	5.802%
15	18.705	18.628	18.768	BB	367944	4965135	95.18%	5.801%
16	19.490	19.440	19.547	BB	338410	4904730	94.02%	5.731%
17	20.232	20.180	20.270	BB	313714	4698493	90.06%	5.490%
18	21.007	20.925	21.087	BB	240227	4599951	88.18%	5.374%
19	21.986	21.893	22.087	BB	175457	4508416	86.42%	5.268%
			Sum of corrected areas:			85588696		

Aliphatic EPH 040925.M Sat May 03 03:29:04 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture		Date Collected:		
Project:	Amtrak Sawtooth Bridges 2025		Date Received:		
Client Sample ID:	PB167840BSD		SDG No.:	Q1901	
Lab Sample ID:	PB167840BSD		Matrix:	Water	
Analytical Method:	NJEPH		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	2000	uL
Soil Aliquot Vol:		uL	Test:	EPH	
Prep Method :	SW3510				

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD049312.D	1	05/01/25	05/02/25	PB167840

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aromatic C10-C12	Aromatic C10-C12	163		2.07	20.0	ug/l
Aromatic C12-C16	Aromatic C12-C16	289		4.26	30.0	ug/l
Aromatic C16-C21	Aromatic C16-C21	624		8.27	50.0	ug/l
Aromatic C21-C36	Aromatic C21-C36	1040		23.8	80.0	ug/l
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	64.8		40 - 140	130%	SPK: 50
321-60-8	2-Flurobiphenyl (SURR)	68.0		40 - 140	136%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	57.3		40 - 140	115%	SPK: 50

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

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	PB167840BSD	Acq On:	02 May 2025 14:03
Client Sample ID:	PB167840BSD	Operator:	YP/AJ
Data file:	FD049312.D	Misc:	
Instrument:	FID_D	ALS Vial:	63
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.431	6.176	10502601	81.712	200	ug/ml
Aromatic C12-C16	6.177	8.805	19635568	144.669	300	ug/ml
Aromatic C16-C21	8.806	13.095	40948752	312.299	500	ug/ml
Aromatic C21-C36	13.096	18.516	60838111	518.416	800	ug/ml
Aromatic EPH	4.431	18.516	131925032	1060		ug/ml
ortho-Terphenyl (SURR)	11.653	11.653	7914730	57.34		ug/ml
2-Bromonaphthalene (SURR)	7.742	7.742	7685443	64.82		ug/ml
2-Flurobiphenyl (SURR)	8.608	8.608	5373602	68.04		ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050225AR\
Data File : FD049312.D
Signal(s) : FID2B.ch
Acq On : 02 May 2025 14:03
Operator : YP/AJ
Sample : PB167840BSD
Misc :
ALS Vial : 63 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
PB167840BSD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 05/06/2025
Supervised By :mohammad ahmed 05/07/2025

Integration File: autoint1.e
Quant Time: May 03 00:34:29 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) S	2-Bromonaphthalene (S...	7.742	7685443	64.818 ug/ml
Spiked Amount	50.000		Recovery =	129.64%
6) S	2-Flurobiphenyl (SURR)	8.608	5373602	68.044 ug/ml
Spiked Amount	50.000 Range	0 - 131	Recovery =	136.09%#
11) S	ortho-Terphenyl (SURR)	11.653	7914730	57.345 ug/ml
Spiked Amount	50.000		Recovery =	114.69%
	Target Compounds			
1) T	1,2,3-Trimethylbenzen...	4.532	4816213	38.574 ug/ml
2) T	Naphthalene (C11.7)	6.076	5686388	43.012 ug/ml
3) T	2-Methylnaphthalene (...	7.131	5542370	42.963 ug/ml
5) T	Acenaphthylene (C15.06)	8.411	6847445	48.507 ug/ml
7) T	Acenaphthene (C15.5)	8.708	7245753	52.884 ug/ml
8) T	Flouorene (C16.55)	9.489	7626291	56.028 ug/ml
9) T	Phenanthrene (C19.36)	10.889	8205734	60.863 ug/ml
10) T	Anthracene (C19.43)	10.965	8007053	67.702 ug/ml
12) T	Fluoranthene (C21.85)	12.705	8528804	63.286 ug/ml
13) T	Pyrene (C20.8)	13.005	8580870	63.433 ug/ml
14) T	Benzo[a]anthracene (C...	14.876	7790539	68.013 ug/ml
15) T	Chrysene (C27.41)	14.922	8344622	71.497 ug/ml
16) T	benzo[b]fluoranthene ...	16.429	7669576	63.183 ug/ml
17) T	Bnezo[k]fluoranthene ...	16.465	7644071	64.094 ug/mlm
18) T	Benzo[a]pyrene (C31.34)	16.809	7349729	63.920 ug/ml
19) T	Indeno[1,2,3-cd]pyren...	18.177	7708525	70.241 ug/ml
20) T	Dibenz[a,h]anthracene...	18.215	7102723	67.251 ug/mlm
21) T	Benzo[g,h,i]perylene ...	18.435	7302115	61.275 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050225AR\
Data File : FD049312.D
Signal(s) : FID2B.ch
Acq On : 02 May 2025 14:03
Operator : YP/AJ
Sample : PB167840BSD
Misc :
ALS Vial : 63 Sample Multiplier: 1

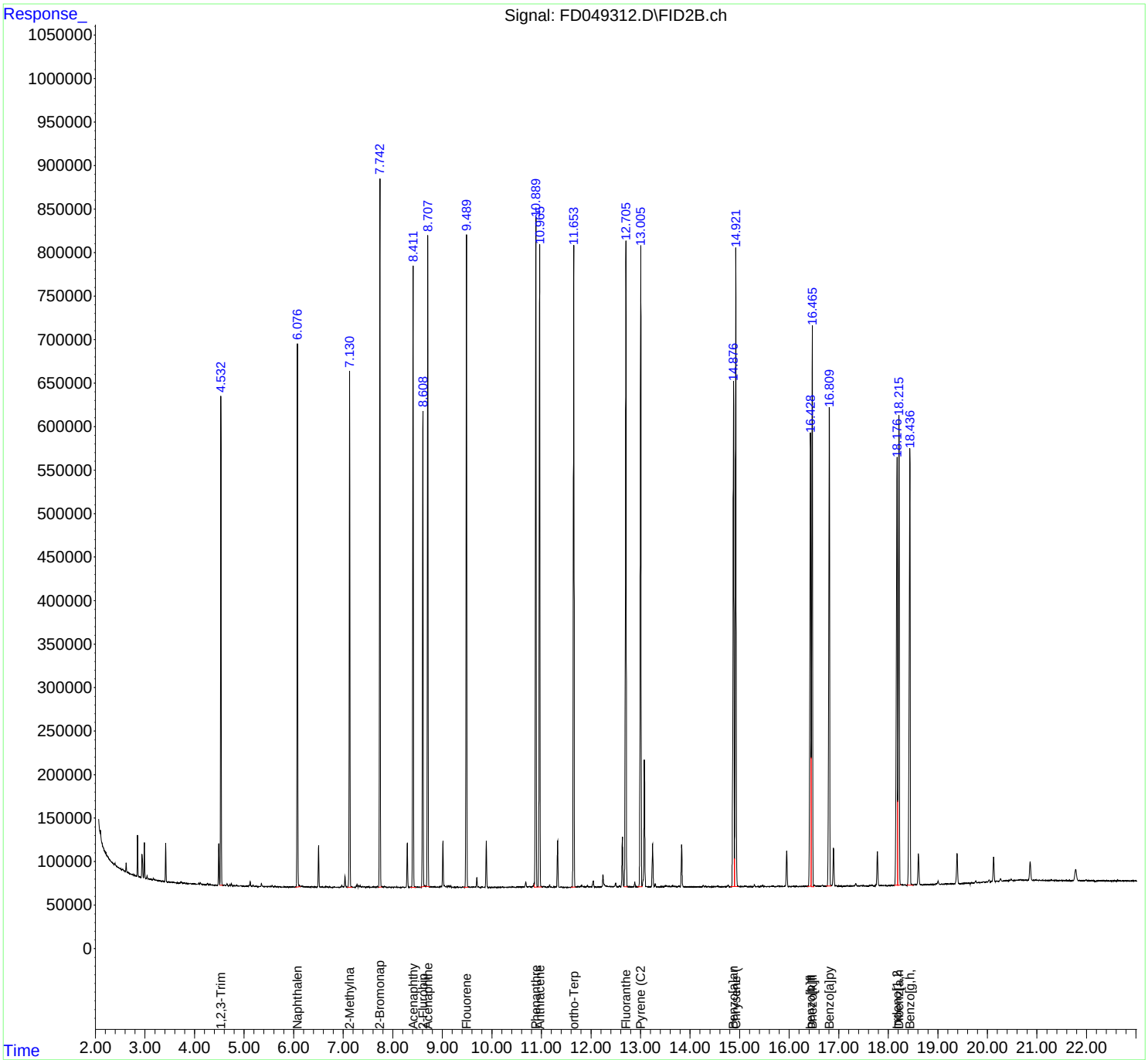
Instrument :
FID_D
ClientSampleId :
PB167840BSD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 05/06/2025
Supervised By :mohammad ahmed 05/07/2025

Integration File: autoint1.e
Quant Time: May 03 00:34:29 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm



Instrument :
FID_D
ClientSampleId :
PB167840BSD

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/06/2025
Supervised By :mohammad ahmed 05/07/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD
Data File : FD049312.D
Signal(s) : FID2B.ch
Acq On : 02 May 2025 14:03
Sample : PB167840BSD
Misc :
ALS Vial : 63 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.532	4.509	4.572	VB	562011	4816213	56.13%	3.150%
2	6.076	6.040	6.142	BB	623673	5686388	66.27%	3.719%
3	7.131	7.077	7.183	BB	590776	5542370	64.59%	3.625%
4	7.742	7.710	7.783	BB	812593	7685443	89.56%	5.026%
5	8.411	8.350	8.467	BB	714716	6847445	79.80%	4.478%
6	8.608	8.552	8.657	BB	546538	5373602	62.62%	3.514%
7	8.708	8.658	8.747	BB	749215	7245753	84.44%	4.739%
8	9.489	9.428	9.522	BB	749265	7626291	88.88%	4.988%
9	10.889	10.857	10.923	VV	772310	8205734	95.63%	5.367%
10	10.965	10.923	11.012	VB	738683	8007053	93.31%	5.237%
11	11.653	11.592	11.695	BB	738593	7914730	92.24%	5.176%
12	12.705	12.663	12.740	VB	741721	8528804	99.39%	5.578%
13	13.005	12.937	13.028	BV	737054	8580870	100.00%	5.612%
14	14.876	14.805	14.895	BV	581118	7790539	90.79%	5.095%
15	14.922	14.895	14.970	VB	734845	8344622	97.25%	5.458%
16	16.429	16.363	16.444	BV	520928	7669576	89.38%	5.016%
17	16.465	16.444	16.488	VV	645108	7597319	88.54%	4.969%
18	16.809	16.740	16.840	BV	551558	7349729	85.65%	4.807%
19	18.177	18.110	18.191	BV	492069	7708525	89.83%	5.042%
20	18.215	18.191	18.277	VB	539032	7075686	82.46%	4.628%
21	18.435	18.370	18.497	BV	502369	7302115	85.10%	4.776%

Sum of corrected areas: 152898808

Aromatic EPH 050125.M Sat May 03 02:48:56 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	PB167903BSD	SDG No.:	Q1901
Lab Sample ID:	PB167903BSD	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
05/07/25 13:37	05/08/25 13:38	PB167903

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	Datafile
TARGETS								
Aliphatic C9-C12	Aliphatic C9-C12	6.44		1	0.14	1.00	mg/kg	FC068794.D
Aliphatic C12-C16	Aliphatic C12-C16	6.51		1	0.11	0.67	mg/kg	FC068794.D
Aliphatic C16-C21	Aliphatic C16-C21	11.9		1	0.13	1.00	mg/kg	FC068794.D
Aliphatic C21-C28	Aliphatic C21-C28	15.9		1	0.53	1.33	mg/kg	FC068794.D
Aliphatic C28-C40	Aliphatic C28-C40	22.3		1	1.18	2.00	mg/kg	FC068794.D
Aromatic C10-C12	Aromatic C10-C12	5.47		1	0.12	0.67	mg/kg	FD049321.D
Aromatic C12-C16	Aromatic C12-C16	9.48		1	0.23	1.00	mg/kg	FD049321.D
Aromatic C16-C21	Aromatic C16-C21	19.6		1	0.40	1.67	mg/kg	FD049321.D
Aromatic C21-C36	Aromatic C21-C36	32.8		1	1.19	2.66	mg/kg	FD049321.D
Total AliphaticEPH	Total AliphaticEPH	63.0			2.09	5.99	mg/kg	
Total AromaticEPH	Total AromaticEPH	67.3			1.94	6.00	mg/kg	
Total EPH	Total EPH	130			4.03	12.0	mg/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

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	PB167903BSD	SDG No.:	Q1901
Lab Sample ID:	PB167903BSD	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC068794.D	1	05/07/25	05/08/25	PB167903

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	6.44		0.14	1.00	mg/kg
Aliphatic C12-C16	Aliphatic C12-C16	6.51		0.11	0.67	mg/kg
Aliphatic C16-C21	Aliphatic C16-C21	11.9		0.13	1.00	mg/kg
Aliphatic C21-C28	Aliphatic C21-C28	15.9		0.53	1.33	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	22.3		1.18	2.00	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	44.8		40 - 140	90%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	0.00		40 - 140	0%	SPK: 50

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

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	PB167903BSD	Acq On:	08 May 2025 13:38
Client Sample ID:	PB167903BSD	Operator:	YP/AJ
Data file:	FC068794.D	Misc:	
Instrument:	FID_C	ALS Vial:	13
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.342	6.642	9576547	96.603	300	ug/ml
Aliphatic C12-C16	6.643	10.042	8887845	97.685	200	ug/ml
Aliphatic C16-C21	10.043	13.408	15333929	178.8	300	ug/ml
Aliphatic C21-C28	13.409	17.072	19856053	238.967	400	ug/ml
Aliphatic C28-C40	17.073	22.071	28336429	334.856	600	ug/ml
Aliphatic EPH	3.342	22.071	81990803	946.911		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	13.145	13.145	3590079	44.75		ug/ml
Aliphatic C9-C28	3.342	17.072	53654374	612.055	1200	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068794.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 13:38
Operator : YP/AJ
Sample : PB167903BSD
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
PB167903BSD

Integration File: autoint1.e
Quant Time: May 09 09:53:42 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
12) S	1-chlorooctadecane (S...	13.145	3590079	44.750 ug/ml
Spiked Amount	50.000		Recovery =	89.50%
	Target Compounds			
1) T	n-Nonane (C9)	3.443	2647696	26.324 ug/ml
2) T	n-Decane (C10)	4.518	3237196	32.488 ug/ml
4) T	n-Dodecane (C12)	6.543	3691655	37.989 ug/ml
6) T	n-Tetradecane (C14)	8.341	4194991	45.388 ug/ml
7) T	n-Hexadecane (C16)	9.945	4692854	52.408 ug/ml
8) T	n-Octadecane (C18)	11.388	5017128	57.196 ug/ml
10) T	n-Eicosane (C20)	12.699	5259189	61.714 ug/ml
11) T	n-Heneicosane (C21)	13.311	5057612	59.963 ug/ml
13) T	n-Docosane (C22)	13.898	5061922	60.507 ug/ml
14) T	n-Tetracosane (C24)	15.002	4996084	60.044 ug/ml
15) T	n-Hexacosane (C26)	16.024	4919234	59.373 ug/ml
16) T	n-Octacosane (C28)	16.976	4878813	59.033 ug/ml
17) T	n-Tricontane (C30)	17.863	4961087	58.633 ug/ml
18) T	n-Dotriacontane (C32)	18.697	4939966	57.351 ug/ml
19) T	n-Tetratriacontane (C34)	19.482	4864425	57.094 ug/ml
20) T	n-Hexatriacontane (C36)	20.224	4652516	54.131 ug/ml
21) T	n-Octatriacontane (C38)	20.998	4530376	54.008 ug/ml
22) T	n-Tetracontane (C40)	21.977	4388059	53.542 ug/ml

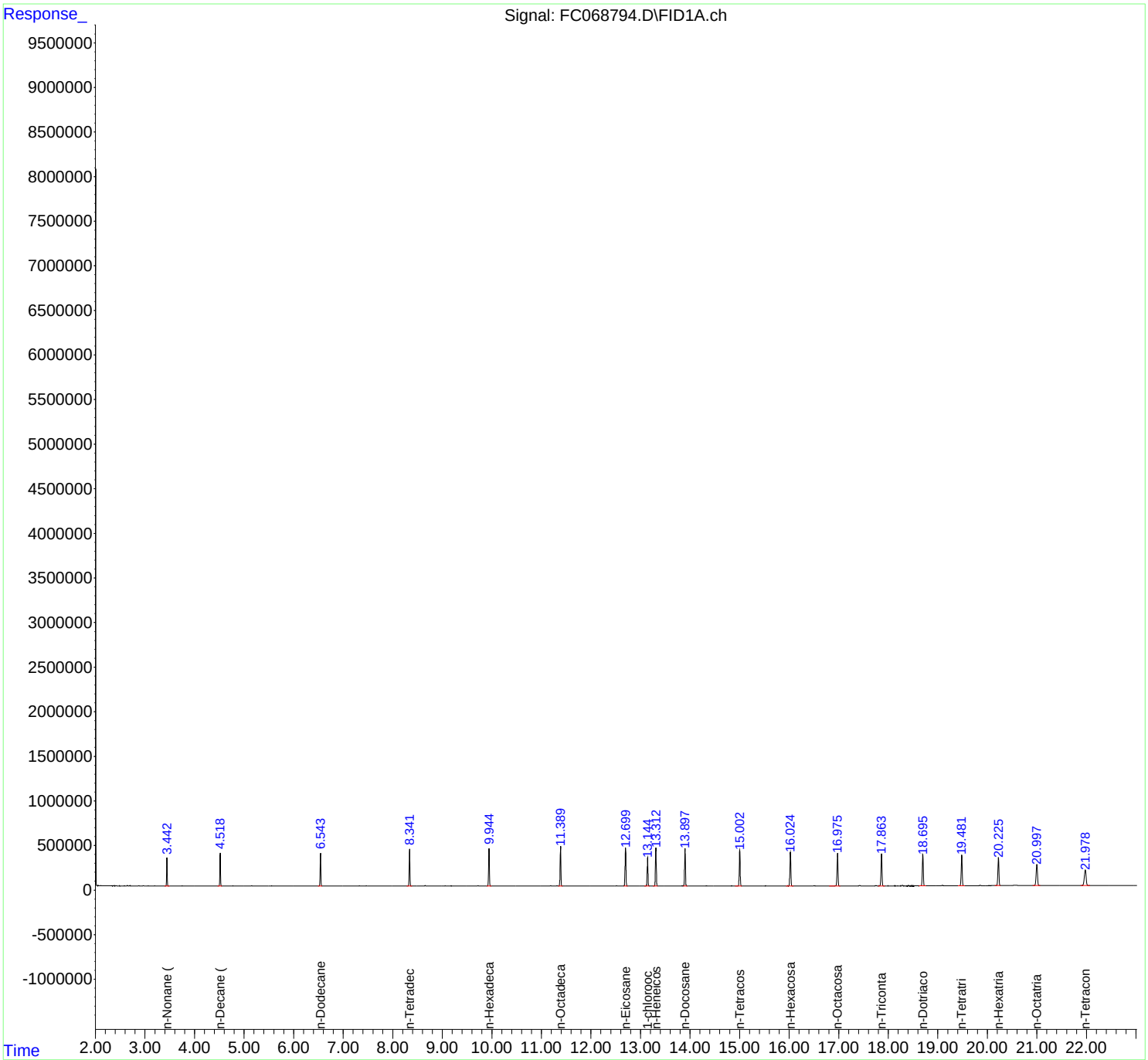
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068794.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 13:38
Operator : YP/AJ
Sample : PB167903BSD
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
PB167903BSD

Integration File: autoint1.e
Quant Time: May 09 09:53:42 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068794.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 13:38
Sample : PB167903BSD
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.443	3.392	3.498	BB	318073	2647696	50.34%	3.094%
2	4.518	4.463	4.553	BV	370990	3237196	61.55%	3.783%
3	6.543	6.488	6.577	BB	370695	3691655	70.19%	4.314%
4	8.341	8.282	8.392	BB	412976	4194991	79.76%	4.902%
5	9.945	9.897	9.993	BB	419549	4692854	89.23%	5.484%
6	11.388	11.340	11.428	BB	444647	5017128	95.40%	5.862%
7	12.699	12.662	12.743	PB	428781	5259189	100.00%	6.145%
8	13.145	13.073	13.182	BB	319605	3590079	68.26%	4.195%
9	13.311	13.252	13.347	BB	430450	5057612	96.17%	5.910%
10	13.898	13.860	13.943	VB	420424	5061922	96.25%	5.915%
11	15.002	14.908	15.045	BB	401676	4996084	95.00%	5.838%
12	16.024	15.933	16.087	BB	376136	4919234	93.54%	5.748%
13	16.976	16.807	17.033	BB	365410	4878813	92.77%	5.701%
14	17.863	17.797	17.930	BB	360231	4961087	94.33%	5.797%
15	18.697	18.617	18.760	BB	350476	4939966	93.93%	5.772%
16	19.482	19.405	19.542	BB	343392	4864425	92.49%	5.684%
17	20.224	20.150	20.267	BB	312716	4652516	88.46%	5.436%
18	20.998	20.913	21.067	BB	236854	4530376	86.14%	5.294%
19	21.977	21.882	22.072	BB	173441	4388059	83.44%	5.127%

Sum of corrected areas: 85580880

Aliphatic EPH 050625.M Fri May 09 09:57:44 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	PB167903BSD	SDG No.:	Q1901
Lab Sample ID:	PB167903BSD	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD049321.D	1	05/07/25	05/08/25	PB167903

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aromatic C10-C12	Aromatic C10-C12	5.47		0.12	0.67	mg/kg
Aromatic C12-C16	Aromatic C12-C16	9.48		0.23	1.00	mg/kg
Aromatic C16-C21	Aromatic C16-C21	19.6		0.40	1.67	mg/kg
Aromatic C21-C36	Aromatic C21-C36	32.8		1.19	2.66	mg/kg
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	64.4		40 - 140	129%	SPK: 50
321-60-8	2-Flurobiphenyl (SURR)	66.0		40 - 140	132%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	54.5		40 - 140	109%	SPK: 50

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

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	PB167903BSD	Acq On:	08 May 2025 13:38
Client Sample ID:	PB167903BSD	Operator:	YP/AJ
Data file:	FD049321.D	Misc:	
Instrument:	FID_D	ALS Vial:	63
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.431	6.176	10552866	82.103	200	ug/ml
Aromatic C12-C16	6.177	8.805	19315706	142.313	300	ug/ml
Aromatic C16-C21	8.806	13.095	38598525	294.375	500	ug/ml
Aromatic C21-C36	13.0956	18.515	57846531	492.924	800	ug/ml
Aromatic EPH	4.431	18.515	126313628	1010		ug/ml
ortho-Terphenyl (SURR)	11.653	11.653	7520284	54.49		ug/ml
2-Bromonaphthalene (SURR)	7.742	7.742	7630584	64.36		ug/ml
2-Flurobiphenyl (SURR)	8.609	8.609	5211926	66		ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049321.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 13:38
Operator : YP/AJ
Sample : PB167903BSD
Misc :
ALS Vial : 63 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
PB167903BSD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025

Integration File: autoint1.e
Quant Time: May 09 10:00:57 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) S	2-Bromonaphthalene (S...	7.742	7630584	64.355 ug/ml
Spiked Amount	50.000		Recovery =	128.71%
6) S	2-Flurobiphenyl (SURR)	8.609	5211926	65.997 ug/ml
Spiked Amount	50.000 Range	0 - 131	Recovery =	131.99%#
11) S	ortho-Terphenyl (SURR)	11.653	7520284	54.487 ug/ml
Spiked Amount	50.000		Recovery =	108.97%
	Target Compounds			
1) T	1,2,3-Trimethylbenzen...	4.532	4868583	38.993 ug/ml
2) T	Naphthalene (C11.7)	6.076	5684283	42.996 ug/ml
3) T	2-Methylnaphthalene (...	7.131	5511990	42.728 ug/ml
5) T	Acenaphthylene (C15.06)	8.411	6708573	47.523 ug/ml
7) T	Acenaphthene (C15.5)	8.709	7095143	51.784 ug/ml
8) T	Flouorene (C16.55)	9.489	7350269	54.000 ug/ml
9) T	Phenanthrene (C19.36)	10.889	7743726	57.437 ug/ml
10) T	Anthracene (C19.43)	10.964	7447842	62.974 ug/ml
12) T	Fluoranthene (C21.85)	12.704	7999797	59.361 ug/ml
13) T	Pyrene (C20.8)	13.003	8056891	59.559 ug/ml
14) T	Benzo[a]anthracene (C...	14.874	7291465	63.656 ug/ml
15) T	Chrysene (C27.41)	14.920	7835154	67.132 ug/ml
16) T	benzo[b]fluoranthene ...	16.427	7351712	60.565 ug/ml
17) T	Bnezo[k]fluoranthene ...	16.462	7266682	60.930 ug/mlm
18) T	Benzo[a]pyrene (C31.34)	16.808	7006479	60.934 ug/ml
19) T	Indeno[1,2,3-cd]pyren...	18.175	7393154	67.368 ug/ml
20) T	Dibenz[a,h]anthracene...	18.214	6726835	63.692 ug/ml
21) T	Benzo[g,h,i]perylene ...	18.433	6994367	58.692 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049321.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 13:38
Operator : YP/AJ
Sample : PB167903BSD
Misc :
ALS Vial : 63 Sample Multiplier: 1

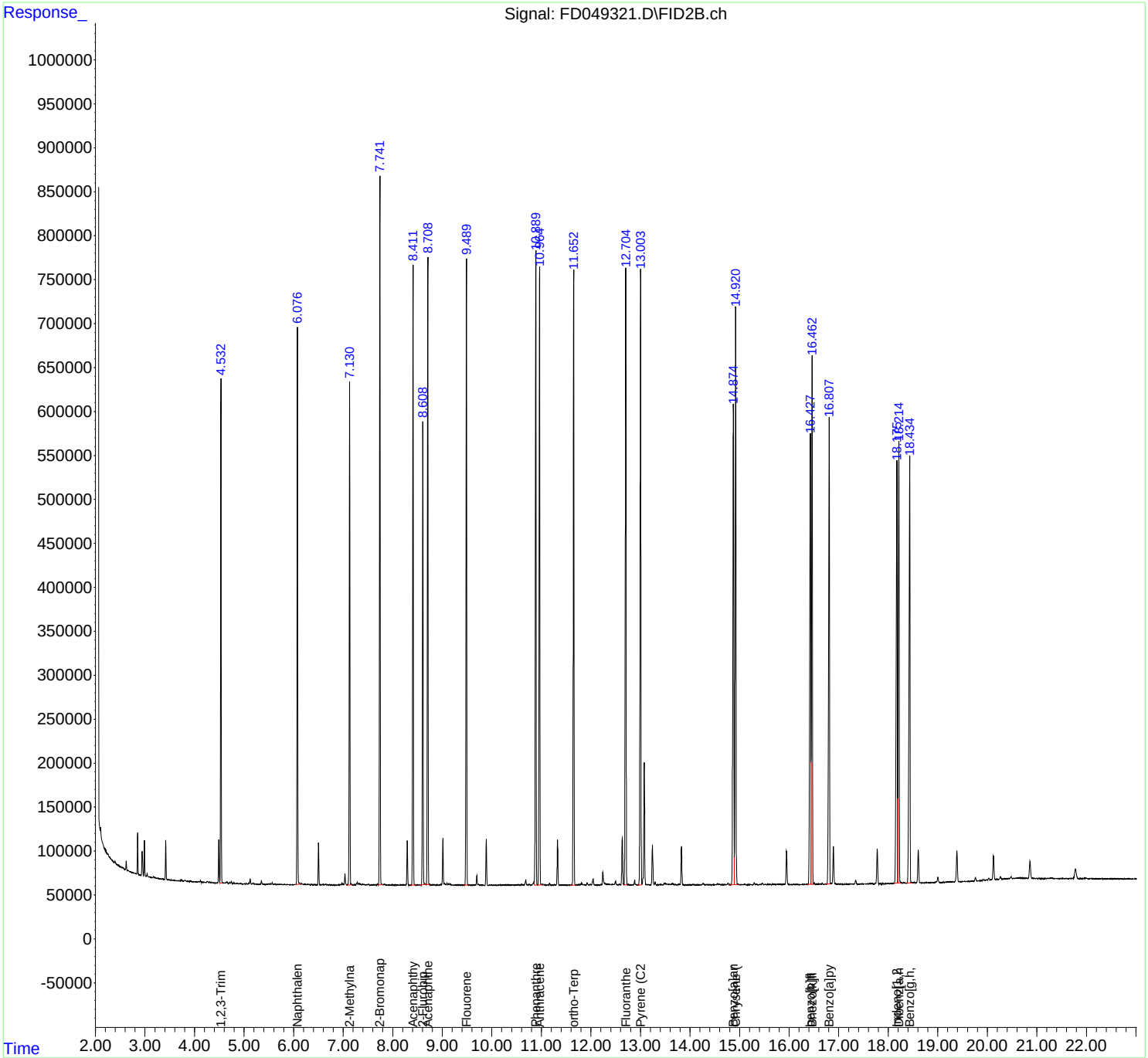
Instrument :
FID_D
ClientSampleId :
PB167903BSD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025

Integration File: autoint1.e
Quant Time: May 09 10:00:57 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm



Instrument :
FID_D
ClientSampleId :
PB167903BSD

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD05082
Data File : FD049321.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 13:38
Sample : PB167903BSD
Misc :
ALS Vial : 63 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.532	4.510	4.572	VB	573296	4868583	60.43%	3.319%
2	6.076	6.040	6.147	BB	633731	5684283	70.55%	3.875%
3	7.131	7.082	7.178	BB	573249	5511990	68.41%	3.758%
4	7.742	7.708	7.795	BB	807128	7630584	94.71%	5.202%
5	8.411	8.345	8.468	BB	707501	6708573	83.27%	4.574%
6	8.609	8.552	8.662	BB	526862	5211926	64.69%	3.553%
7	8.709	8.662	8.747	BB	713781	7095143	88.06%	4.837%
8	9.489	9.432	9.535	BB	708712	7350269	91.23%	5.011%
9	10.889	10.857	10.925	VV	719886	7743726	96.11%	5.279%
10	10.964	10.925	11.013	PB	703035	7447842	92.44%	5.078%
11	11.653	11.583	11.697	BB	699428	7520284	93.34%	5.127%
12	12.704	12.660	12.733	VV	697832	7999797	99.29%	5.454%
13	13.003	12.938	13.028	BV	703865	8056891	100.00%	5.493%
14	14.874	14.808	14.893	BV	546529	7291465	90.50%	4.971%
15	14.920	14.893	14.970	VB	656987	7835154	97.25%	5.342%
16	16.427	16.357	16.442	BV	512325	7351712	91.25%	5.012%
17	16.463	16.442	16.490	VV	601548	7247365	89.95%	4.941%
18	16.808	16.735	16.834	BB	529859	7006479	86.96%	4.777%
19	18.175	18.110	18.189	BV	481844	7393154	91.76%	5.040%
20	18.214	18.189	18.265	VB	499331	6726835	83.49%	4.586%
21	18.433	18.370	18.488	BB	486053	6994367	86.81%	4.769%
			Sum of corrected areas:			146676421		

Aromatic EPH 050125.M Fri May 09 10:07:10 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	B-167-SB02MS	SDG No.:	Q1901
Lab Sample ID:	Q1901-04MS	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	53.2
Sample Wt/Vol:	30.09 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
05/07/25 13:37	05/08/25 21:04	PB167903

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	Datafile
TARGETS								
Aliphatic C9-C12	Aliphatic C9-C12	9.53		1	0.26	1.87	mg/kg	FC068804.D
Aliphatic C12-C16	Aliphatic C12-C16	9.38		1	0.21	1.25	mg/kg	FC068804.D
Aliphatic C16-C21	Aliphatic C16-C21	14.8		1	0.24	1.87	mg/kg	FC068804.D
Aliphatic C21-C28	Aliphatic C21-C28	19.3		1	0.99	2.50	mg/kg	FC068804.D
Aliphatic C28-C40	Aliphatic C28-C40	26.3		1	2.21	3.75	mg/kg	FC068804.D
Aromatic C10-C12	Aromatic C10-C12	9.38		1	0.23	1.25	mg/kg	FD049330.D
Aromatic C12-C16	Aromatic C12-C16	16.8		1	0.43	1.87	mg/kg	FD049330.D
Aromatic C16-C21	Aromatic C16-C21	35.0		1	0.75	3.12	mg/kg	FD049330.D
Aromatic C21-C36	Aromatic C21-C36	51.3		1	2.23	5.00	mg/kg	FD049330.D
Total AliphaticEPH	Total AliphaticEPH	79.3			3.92	11.2	mg/kg	
Total AromaticEPH	Total AromaticEPH	112			3.64	11.2	mg/kg	
Total EPH	Total EPH	192			7.55	22.5	mg/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

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	B-167-SB02MS	SDG No.:	Q1901
Lab Sample ID:	Q1901-04MS	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	53.2
Sample Wt/Vol:	30.09 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC068804.D	1	05/07/25	05/08/25	PB167903

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	9.53		0.26	1.87	mg/kg
Aliphatic C12-C16	Aliphatic C12-C16	9.38		0.21	1.25	mg/kg
Aliphatic C16-C21	Aliphatic C16-C21	14.8		0.24	1.87	mg/kg
Aliphatic C21-C28	Aliphatic C21-C28	19.3		0.99	2.50	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	26.3		2.21	3.75	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	34.6		40 - 140	69%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	0.00		40 - 140	0%	SPK: 50

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

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	Q1901-04MS	Acq On:	08 May 2025 21:04
Client Sample ID:	B-167-SB02MS	Operator:	YP/AJ
Data file:	FC068804.D	Misc:	
Instrument:	FID_C	ALS Vial:	21
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.342	6.642	7560396	76.265	300	ug/ml
Aliphatic C12-C16	6.643	10.042	6832672	75.097	200	ug/ml
Aliphatic C16-C21	10.043	13.408	10145566	118.301	300	ug/ml
Aliphatic C21-C28	13.409	17.072	12845217	154.592	400	ug/ml
Aliphatic C28-C40	17.073	22.071	17796909	210.309	600	ug/ml
Aliphatic EPH	3.342	22.071	55180760	634.564		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	13.143	13.143	2776379	34.61		ug/ml
Aliphatic C9-C28	3.342	17.072	37383851	424.255	1200	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068804.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 21:04
Operator : YP/AJ
Sample : Q1901-04MS
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
B-167-SB02MS

Integration File: autoint1.e
Quant Time: May 09 09:09:33 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
12) S	1-chlorooctadecane (S...	13.143	2776379	34.607 ug/ml
Spiked Amount	50.000		Recovery =	69.21%
	Target Compounds			
1) T	n-Nonane (C9)	3.442	1999885	19.883 ug/ml
2) T	n-Decane (C10)	4.517	2502691	25.117 ug/ml
4) T	n-Dodecane (C12)	6.543	2907225	29.917 ug/ml
6) T	n-Tetradecane (C14)	8.340	3201915	34.643 ug/ml
7) T	n-Hexadecane (C16)	9.943	3341592	37.318 ug/ml
8) T	n-Octadecane (C18)	11.386	3386639	38.608 ug/ml
10) T	n-Eicosane (C20)	12.697	3458165	40.580 ug/ml
11) T	n-Heneicosane (C21)	13.310	3300762	39.134 ug/ml
13) T	n-Docosane (C22)	13.896	3287092	39.292 ug/ml
14) T	n-Tetracosane (C24)	15.000	3238083	38.916 ug/ml
15) T	n-Hexacosane (C26)	16.022	3181156	38.395 ug/ml
16) T	n-Octacosane (C28)	16.972	3138886	37.980 ug/ml
17) T	n-Tricontane (C30)	17.862	3171460	37.482 ug/ml
18) T	n-Dotriacontane (C32)	18.696	3133769	36.382 ug/ml
19) T	n-Tetratriacontane (C34)	19.479	3070454	36.038 ug/ml
20) T	n-Hexatriacontane (C36)	20.219	2910154	33.859 ug/ml
21) T	n-Octatriacontane (C38)	20.993	2794773	33.317 ug/ml
22) T	n-Tetracontane (C40)	21.968	2662824	32.491 ug/ml

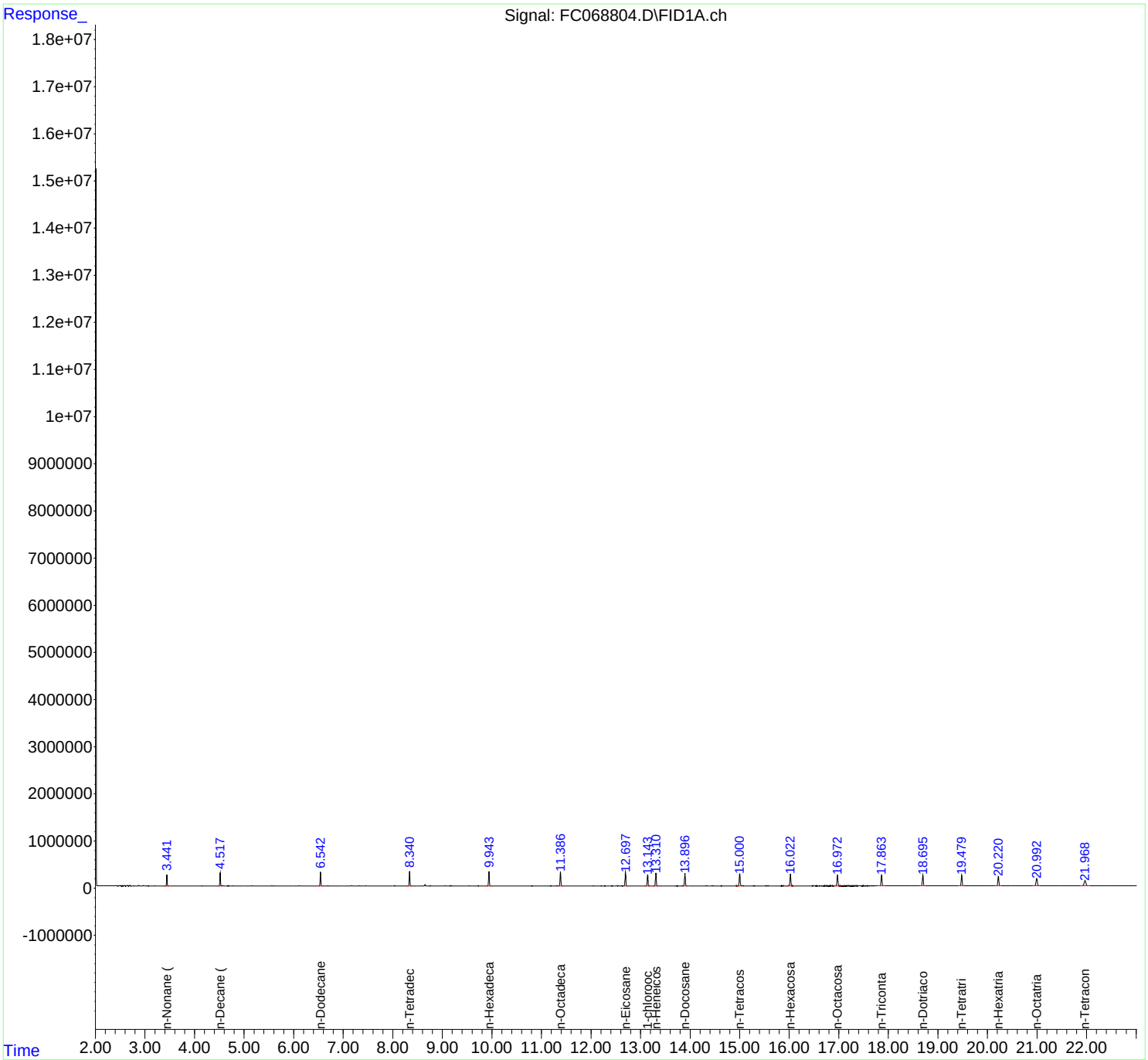
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068804.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 21:04
Operator : YP/AJ
Sample : Q1901-04MS
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
B-167-SB02MS

Integration File: autoint1.e
Quant Time: May 09 09:09:33 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068804.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 21:04
Sample : Q1901-04MS
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.442	3.388	3.483	BB	240793	1999885	57.83%	3.451%
2	4.517	4.463	4.544	BV	283795	2502691	72.37%	4.318%
3	4.563	4.544	4.583	VB	11447	97302	2.81%	0.168%
4	6.115	6.067	6.138	BB	5717	53293	1.54%	0.092%
5	6.543	6.490	6.580	BB	295351	2907225	84.07%	5.016%
6	8.340	8.278	8.385	BB	312956	3201915	92.59%	5.525%
7	8.653	8.515	8.702	BB	28819	289165	8.36%	0.499%
8	9.943	9.885	9.982	BB	309101	3341592	96.63%	5.766%
9	11.386	11.340	11.422	BB	301037	3386639	97.93%	5.843%
10	12.697	12.663	12.740	BB	296462	3458165	100.00%	5.967%
11	13.143	13.083	13.175	BB	235951	2776379	80.28%	4.790%
12	13.310	13.248	13.350	BB	277244	3300762	95.45%	5.695%
13	13.896	13.860	13.938	PB	264720	3287092	95.05%	5.672%
14	15.000	14.912	15.035	BV	254430	3238083	93.64%	5.587%
15	16.022	15.932	16.075	BB	254057	3181156	91.99%	5.489%
16	16.972	16.888	17.038	BB	236460	3138886	90.77%	5.416%
17	17.422	17.372	17.467	BB	4066	53475	1.55%	0.092%
18	17.862	17.790	17.923	BB	235777	3171460	91.71%	5.472%
19	18.696	18.630	18.752	BB	230557	3133769	90.62%	5.407%
20	19.479	19.408	19.528	BB	227164	3070454	88.79%	5.298%
21	20.219	20.150	20.280	BB	201193	2910154	84.15%	5.021%
22	20.993	20.910	21.055	BB	148380	2794773	80.82%	4.822%
23	21.968	21.872	22.063	BB	106891	2662824	77.00%	4.594%
			Sum of corrected areas:			57957138		

Aliphatic EPH 050625.M Fri May 09 09:38:10 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	B-167-SB02MS	SDG No.:	Q1901
Lab Sample ID:	Q1901-04MS	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	53.2
Sample Wt/Vol:	30.09 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD049330.D	1	05/07/25	05/08/25	PB167903

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aromatic C10-C12	Aromatic C10-C12	9.38		0.23	1.25	mg/kg
Aromatic C12-C16	Aromatic C12-C16	16.8		0.43	1.87	mg/kg
Aromatic C16-C21	Aromatic C16-C21	35.0		0.75	3.12	mg/kg
Aromatic C21-C36	Aromatic C21-C36	51.3		2.23	5.00	mg/kg
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	59.9		40 - 140	120%	SPK: 50
321-60-8	2-Flurobiphenyl (SURR)	57.7		40 - 140	115%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	38.5		40 - 140	77%	SPK: 50

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

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	Q1901-04MS	Acq On:	08 May 2025 20:25
Client Sample ID:	B-167-SB02MS	Operator:	YP/AJ
Data file:	FD049330.D	Misc:	
Instrument:	FID_D	ALS Vial:	70
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.431	6.176	9654364	75.113	200	ug/ml
Aromatic C12-C16	6.177	8.805	18284777	134.717	300	ug/ml
Aromatic C16-C21	8.806	13.095	36751891	280.291	500	ug/ml
Aromatic C21-C36	13.0956	18.515	48155177	410.342	800	ug/ml
Aromatic EPH	4.431	18.515	112846209	900.463		ug/ml
2-Bromonaphthalene (SURR)	7.741	7.741	7098283	59.87		ug/ml
2-Flurobiphenyl (SURR)	8.607	8.607	4554552	57.67		ug/ml
ortho-Terphenyl (SURR)	11.651	11.651	5318512	38.53		ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049330.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 20:25
Operator : YP/AJ
Sample : Q1901-04MS
Misc :
ALS Vial : 70 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
B-167-SB02MS

Integration File: autoint1.e
Quant Time: May 09 09:21:03 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) S	2-Bromonaphthalene (S...	7.741	7098283	59.866 ug/ml
Spiked Amount	50.000		Recovery =	119.73%
6) S	2-Flurobiphenyl (SURR)	8.607	4554552	57.673 ug/ml
Spiked Amount	50.000 Range	0 - 131	Recovery =	115.35%
11) S	ortho-Terphenyl (SURR)	11.651	5318512	38.534 ug/ml
Spiked Amount	50.000		Recovery =	77.07%
	Target Compounds			
1) T	1,2,3-Trimethylbenzen...	4.531	3923162	31.421 ug/ml
2) T	Naphthalene (C11.7)	6.076	4775935	36.125 ug/ml
3) T	2-Methylnaphthalene (...	7.130	4775309	37.017 ug/ml
5) T	Acenaphthylene (C15.06)	8.410	5798065	41.073 ug/ml
7) T	Acenaphthene (C15.5)	8.707	5874209	42.873 ug/ml
8) T	Flouorene (C16.55)	9.488	6193540	45.502 ug/ml
9) T	Phenanthrene (C19.36)	10.887	6216675	46.110 ug/ml
10) T	Anthracene (C19.43)	10.961	6051842	51.170 ug/ml
12) T	Fluoranthene (C21.85)	12.702	6246701	46.353 ug/ml
13) T	Pyrene (C20.8)	13.000	6082375	44.963 ug/ml
14) T	Benzo[a]anthracene (C...	14.871	5537474	48.343 ug/ml
15) T	Chrysene (C27.41)	14.916	5818279	49.851 ug/ml
16) T	benzo[b]fluoranthene ...	16.423	5484249	45.180 ug/ml
17) T	Bnezo[k]fluoranthene ...	16.457	5331675	44.705 ug/ml
18) T	Benzo[a]pyrene (C31.34)	16.802	5167669	44.943 ug/ml
19) T	Indeno[1,2,3-cd]pyren...	18.169	5564063	50.701 ug/ml
20) T	Dibenz[a,h]anthracene...	18.207	4910368	46.493 ug/ml
21) T	Benzo[g,h,i]perylene ...	18.427	5200377	43.638 ug/ml

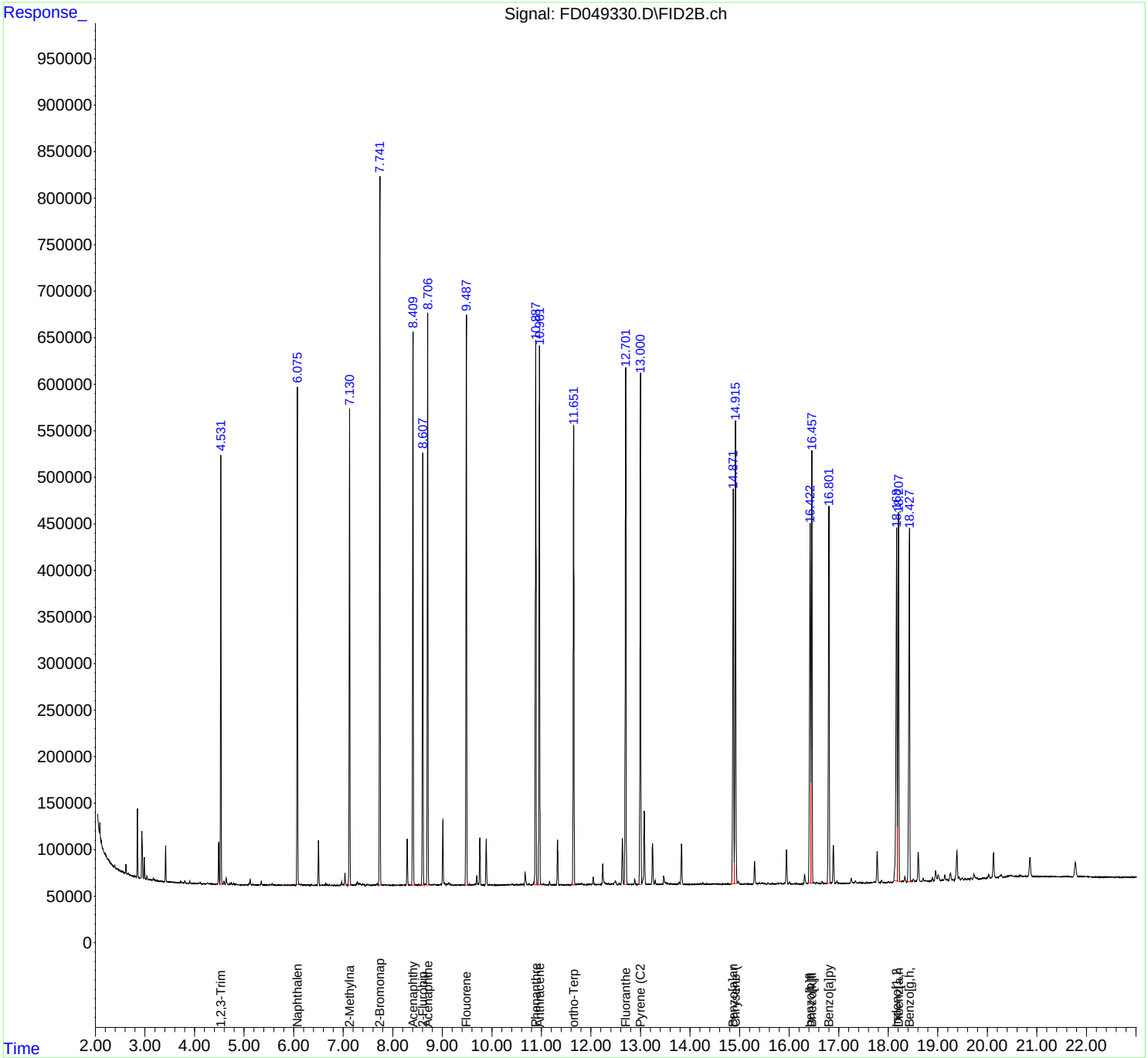
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049330.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 20:25
Operator : YP/AJ
Sample : Q1901-04MS
Misc :
ALS Vial : 70 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
B-167-SB02MS

Integration File: autoint1.e
Quant Time: May 09 09:21:03 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm



Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049330.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 20:25
Sample : Q1901-04MS
Misc :
ALS Vial : 70 Sample Multiplier: 1

Integration File: sample.E

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.266	4.252	4.289	BV	730	5895	0.08%	0.005%
2	4.306	4.289	4.325	PV	598	7343	0.10%	0.006%
3	4.330	4.325	4.356	VV	376	4189	0.06%	0.003%
4	4.361	4.356	4.370	VV	259	1108	0.02%	0.001%
5	4.384	4.370	4.409	PV	269	3287	0.05%	0.003%
6	4.414	4.409	4.430	VV	217	1846	0.03%	0.001%
7	4.445	4.430	4.464	VV	444	5523	0.08%	0.004%
8	4.488	4.464	4.509	VV	45759	407008	5.71%	0.312%
9	4.531	4.509	4.557	VV	461843	3920109	55.01%	3.001%
10	4.564	4.557	4.577	VV	1306	13116	0.18%	0.010%
11	4.595	4.577	4.624	VV	3795	43141	0.61%	0.033%
12	4.640	4.624	4.679	VV	6869	81717	1.15%	0.063%
13	4.691	4.679	4.698	VV	375	3135	0.04%	0.002%
14	4.712	4.698	4.726	VV	1530	14641	0.21%	0.011%
15	4.743	4.726	4.770	VV	2611	25358	0.36%	0.019%
16	4.795	4.770	4.810	VV	1239	12765	0.18%	0.010%
17	4.832	4.810	4.850	VV	952	10748	0.15%	0.008%
18	4.855	4.850	4.896	VV	430	5825	0.08%	0.004%
19	4.901	4.896	4.912	VV	227	1065	0.01%	0.001%
20	4.935	4.912	4.964	PV	471	6586	0.09%	0.005%
21	4.983	4.974	4.992	VV	307	1806	0.03%	0.001%
22	5.014	5.008	5.028	PV	168	1216	0.02%	0.001%
23	5.040	5.028	5.049	PV	424	2889	0.04%	0.002%
24	5.052	5.049	5.056	VV	394	1320	0.02%	0.001%
25	5.059	5.056	5.080	VV	415	2532	0.04%	0.002%
26	5.098	5.080	5.107	VV	1201	10025	0.14%	0.008%
27	5.123	5.107	5.162	VV	6212	66734	0.94%	0.051%
28	5.180	5.162	5.205	VV	1368	15764	0.22%	0.012%
29	5.213	5.205	5.219	VV	336	1873	0.03%	0.001%
30	5.236	5.219	5.280	VV	532	9723	0.14%	0.007%
31	5.290	5.280	5.295	PV	254	1188	0.02%	0.001%
32	5.315	5.295	5.328	VV	548	7036	0.10%	0.005%
33	5.347	5.328	5.390	VV	3980	45148	0.63%	0.035%
34	5.400	5.390	5.418	VV	261	2789	0.04%	0.002%
35	5.423	5.418	5.477	VV	254	5274	0.07%	0.004%
36	5.487	5.477	5.502	VV	462	5001	0.07%	0.004%

rteres

37	5.525	5.502	5.549	VV	919	10857	0.15%	0.008%
38	5.566	5.549	5.594	VV	1997	20402	0.29%	0.016%
39	5.622	5.594	5.637	VV	693	8437	0.12%	0.006%
40	5.643	5.637	5.664	VV	214	2447	0.03%	0.002%
41	5.685	5.673	5.698	VV	323	3740	0.05%	0.003%
42	5.706	5.698	5.714	VV	352	2156	0.03%	0.002%
43	5.717	5.714	5.739	VV	280	1733	0.02%	0.001%
44	5.771	5.749	5.784	VV	276	3576	0.05%	0.003%
45	5.817	5.802	5.842	VV	284	2541	0.04%	0.002%
46	5.874	5.859	5.880	VV	266	2341	0.03%	0.002%
47	5.901	5.880	5.924	VV	354	5557	0.08%	0.004%
48	5.928	5.924	5.950	VV	204	2422	0.03%	0.002%
49	5.956	5.950	5.967	VV	244	1624	0.02%	0.001%
50	5.986	5.967	6.003	VV	513	5640	0.08%	0.004%
51	6.017	6.003	6.035	VV	350	4054	0.06%	0.003%
52	6.076	6.035	6.111	VV	535249	4804872	67.43%	3.678%
53	6.118	6.111	6.143	VV	1497	20153	0.28%	0.015%
54	6.162	6.143	6.192	VV	1485	20757	0.29%	0.016%
55	6.222	6.192	6.245	VV	1006	16454	0.23%	0.013%
56	6.249	6.245	6.265	VV	345	4188	0.06%	0.003%
57	6.269	6.265	6.275	VV	332	1764	0.02%	0.001%
58	6.295	6.275	6.323	VV	616	10137	0.14%	0.008%
59	6.359	6.323	6.410	VV	900	15550	0.22%	0.012%
60	6.438	6.410	6.444	PV	301	3889	0.05%	0.003%
61	6.449	6.444	6.460	VV	380	2455	0.03%	0.002%
62	6.465	6.460	6.477	VV	296	1935	0.03%	0.001%
63	6.502	6.477	6.531	VV	48425	464933	6.52%	0.356%
64	6.547	6.531	6.554	VV	388	2872	0.04%	0.002%
65	6.587	6.554	6.609	VV	931	12304	0.17%	0.009%
66	6.622	6.609	6.639	VV	756	7562	0.11%	0.006%
67	6.652	6.639	6.672	VV	1658	16805	0.24%	0.013%
68	6.686	6.672	6.708	VV	565	5809	0.08%	0.004%
69	6.725	6.708	6.749	VV	1038	11061	0.16%	0.008%
70	6.771	6.749	6.787	VV	416	3936	0.06%	0.003%
71	6.795	6.787	6.825	VV	403	5471	0.08%	0.004%
72	6.832	6.825	6.855	VV	345	3092	0.04%	0.002%
73	6.877	6.855	6.900	VV	380	5615	0.08%	0.004%
74	6.909	6.900	6.922	VV	300	2832	0.04%	0.002%
75	6.945	6.922	6.956	VV	1100	11445	0.16%	0.009%
76	6.971	6.956	6.986	VV	4087	37429	0.53%	0.029%
77	6.997	6.986	7.014	VV	1339	15820	0.22%	0.012%
78	7.036	7.014	7.093	VV	13525	148540	2.08%	0.114%
79	7.130	7.093	7.174	VV	513331	4790408	67.23%	3.667%
80	7.180	7.174	7.185	VV	403	2215	0.03%	0.002%
81	7.195	7.185	7.202	VV	478	3580	0.05%	0.003%
82	7.205	7.202	7.215	VV	513	2984	0.04%	0.002%
83	7.232	7.215	7.252	VV	694	9382	0.13%	0.007%
84	7.286	7.252	7.303	VV	4209	61252	0.86%	0.047%
85	7.319	7.303	7.334	VV	2687	33219	0.47%	0.025%
86	7.345	7.334	7.382	VV	1852	27917	0.39%	0.021%
87	7.394	7.382	7.408	VV	1640	17084	0.24%	0.013%
88	7.422	7.408	7.444	VV	1441	16429	0.23%	0.013%
89	7.464	7.444	7.469	PV	553	4505	0.06%	0.003%

rteres

90	7.473	7.469	7.476	VV	491	2101	0.03%	0.002%
91	7.490	7.476	7.505	VV	1061	13177	0.18%	0.010%
92	7.516	7.505	7.546	VV	1207	15069	0.21%	0.012%
93	7.552	7.546	7.567	VV	373	3204	0.04%	0.002%
94	7.601	7.567	7.622	VV	857	12460	0.17%	0.010%
95	7.643	7.622	7.648	VV	630	6807	0.10%	0.005%
96	7.663	7.648	7.670	VV	646	7173	0.10%	0.005%
97	7.687	7.670	7.710	VV	1788	23807	0.33%	0.018%
98	7.741	7.710	7.809	VV	762683	7125582	100.00%	5.454%
99	7.834	7.809	7.874	VV	1106	24002	0.34%	0.018%
100	7.878	7.874	7.884	VV	371	1612	0.02%	0.001%
101	7.909	7.884	7.930	VV	644	8182	0.11%	0.006%
102	7.944	7.930	7.975	VV	350	4029	0.06%	0.003%
103	7.991	7.975	8.033	PV	828	11717	0.16%	0.009%
104	8.045	8.033	8.068	VV	370	4742	0.07%	0.004%
105	8.078	8.068	8.112	VV	452	6984	0.10%	0.005%
106	8.117	8.112	8.127	VV	372	2160	0.03%	0.002%
107	8.139	8.127	8.160	VV	412	5908	0.08%	0.005%
108	8.196	8.160	8.222	VV	801	18031	0.25%	0.014%
109	8.227	8.222	8.255	VV	496	8037	0.11%	0.006%
110	8.261	8.255	8.267	VV	442	2536	0.04%	0.002%
111	8.293	8.267	8.321	VV	50057	513005	7.20%	0.393%
112	8.329	8.321	8.341	VV	545	4444	0.06%	0.003%
113	8.357	8.341	8.364	VV	466	4567	0.06%	0.003%
114	8.410	8.364	8.471	VV	594927	5815252	81.61%	4.451%
115	8.484	8.471	8.499	VV	773	8993	0.13%	0.007%
116	8.502	8.499	8.516	VV	517	4526	0.06%	0.003%
117	8.529	8.516	8.563	VV	981	14787	0.21%	0.011%
118	8.569	8.563	8.573	VV	298	1508	0.02%	0.001%
119	8.607	8.573	8.637	VV	464409	4567118	64.09%	3.496%
120	8.657	8.637	8.675	VV	1622	27365	0.38%	0.021%
121	8.707	8.675	8.740	VV	613904	5894128	82.72%	4.512%
122	8.750	8.740	8.769	VV	1078	13182	0.18%	0.010%
123	8.785	8.769	8.795	VV	894	11538	0.16%	0.009%
124	8.803	8.795	8.815	VV	916	8871	0.12%	0.007%
125	8.833	8.815	8.840	VV	1067	12565	0.18%	0.010%
126	8.851	8.840	8.868	VV	1251	14910	0.21%	0.011%
127	8.874	8.868	8.881	VV	488	3238	0.05%	0.002%
128	8.897	8.881	8.912	VV	831	9969	0.14%	0.008%
129	8.914	8.912	8.930	VV	597	4582	0.06%	0.004%
130	8.946	8.930	8.961	VV	789	10618	0.15%	0.008%
131	8.976	8.961	8.988	VV	1205	14318	0.20%	0.011%
132	9.013	8.988	9.034	VV	70023	695386	9.76%	0.532%
133	9.043	9.034	9.082	VV	2903	45797	0.64%	0.035%
134	9.097	9.082	9.115	VV	2007	26277	0.37%	0.020%
135	9.133	9.115	9.153	VV	2965	41394	0.58%	0.032%
136	9.165	9.153	9.182	VV	1721	21038	0.30%	0.016%
137	9.201	9.182	9.217	VV	843	11759	0.17%	0.009%
138	9.222	9.217	9.231	VV	327	1480	0.02%	0.001%
139	9.253	9.231	9.270	PV	539	7782	0.11%	0.006%
140	9.304	9.270	9.320	VV	712	12038	0.17%	0.009%
141	9.335	9.320	9.349	VV	702	7948	0.11%	0.006%

rteres

142	9.358	9.349	9.381	VV	476	5750	0.08%	0.004%
143	9.399	9.381	9.405	VV	679	7087	0.10%	0.005%
144	9.418	9.405	9.431	VV	801	8945	0.13%	0.007%
145	9.435	9.431	9.441	VV	334	1860	0.03%	0.001%
146	9.447	9.441	9.453	VV	451	2819	0.04%	0.002%
147	9.488	9.453	9.522	VV	609091	6208718	87.13%	4.752%
148	9.532	9.522	9.538	VV	566	4261	0.06%	0.003%
149	9.556	9.538	9.570	VV	973	10455	0.15%	0.008%
150	9.581	9.570	9.593	VV	485	4659	0.07%	0.004%
151	9.619	9.593	9.641	VV	667	13877	0.19%	0.011%
152	9.662	9.641	9.677	VV	1088	16814	0.24%	0.013%
153	9.697	9.677	9.717	VV	9906	105816	1.49%	0.081%
154	9.731	9.717	9.738	VV	1800	16226	0.23%	0.012%
155	9.759	9.738	9.789	VV	51403	505262	7.09%	0.387%
156	9.829	9.789	9.852	VV	652	15817	0.22%	0.012%
157	9.888	9.852	9.922	VV	50124	537472	7.54%	0.411%
158	9.965	9.922	9.974	VV	793	12761	0.18%	0.010%
159	9.976	9.974	10.012	VV	691	9318	0.13%	0.007%
160	10.040	10.012	10.055	VV	437	6991	0.10%	0.005%
161	10.061	10.055	10.076	VV	410	3045	0.04%	0.002%
162	10.082	10.076	10.119	VV	261	4318	0.06%	0.003%
163	10.127	10.119	10.133	VV	207	1243	0.02%	0.001%
164	10.139	10.133	10.148	VV	172	1107	0.02%	0.001%
165	10.166	10.148	10.172	PV	357	2936	0.04%	0.002%
166	10.175	10.172	10.185	VV	384	1731	0.02%	0.001%
167	10.206	10.185	10.240	VV	590	13962	0.20%	0.011%
168	10.254	10.240	10.268	VV	489	6722	0.09%	0.005%
169	10.282	10.268	10.296	VV	682	8776	0.12%	0.007%
170	10.325	10.296	10.340	VV	730	14169	0.20%	0.011%
171	10.354	10.340	10.384	VV	597	12496	0.18%	0.010%
172	10.413	10.384	10.435	VV	1297	22149	0.31%	0.017%
173	10.440	10.435	10.457	VV	515	5301	0.07%	0.004%
174	10.494	10.457	10.499	VV	758	12562	0.18%	0.010%
175	10.514	10.499	10.524	VV	851	10887	0.15%	0.008%
176	10.527	10.524	10.546	VV	724	6930	0.10%	0.005%
177	10.556	10.546	10.563	VV	635	5308	0.07%	0.004%
178	10.577	10.563	10.595	VV	807	12087	0.17%	0.009%
179	10.619	10.595	10.651	VV	1365	28653	0.40%	0.022%
180	10.674	10.651	10.708	VV	13099	184535	2.59%	0.141%
181	10.720	10.708	10.730	VV	857	9058	0.13%	0.007%
182	10.757	10.730	10.790	VV	1646	31903	0.45%	0.024%
183	10.821	10.790	10.832	VV	808	12247	0.17%	0.009%
184	10.849	10.832	10.857	VV	3643	36493	0.51%	0.028%
185	10.887	10.857	10.926	VV	585810	6229891	87.43%	4.769%
186	10.962	10.926	11.013	VV	580653	6069298	85.18%	4.646%
187	11.039	11.013	11.090	VV	1337	35135	0.49%	0.027%
188	11.093	11.090	11.113	VV	435	4342	0.06%	0.003%
189	11.126	11.113	11.145	VV	529	6571	0.09%	0.005%
190	11.164	11.145	11.186	VV	3964	42493	0.60%	0.033%
191	11.193	11.186	11.215	VV	377	3862	0.05%	0.003%
192	11.227	11.215	11.237	PV	201	1683	0.02%	0.001%
193	11.256	11.237	11.282	VV	610	9611	0.13%	0.007%
194	11.327	11.282	11.360	VV	47939	545860	7.66%	0.418%

195	11.376	11.360	11.389	VV	456	4939	0.07%	0.004%
196	11.405	11.389	11.414	VV	596	5815	0.08%	0.004%
197	11.419	11.414	11.450	VV	394	5212	0.07%	0.004%
198	11.455	11.450	11.463	VV	229	1258	0.02%	0.001%
199	11.481	11.463	11.494	VV	307	3567	0.05%	0.003%
200	11.497	11.494	11.504	VV	268	1259	0.02%	0.001%
201	11.514	11.504	11.539	VV	536	5014	0.07%	0.004%
202	11.567	11.550	11.592	VV	222	2747	0.04%	0.002%
203	11.600	11.592	11.605	VV	398	1683	0.02%	0.001%
204	11.651	11.605	11.705	VV	494300	5334578	74.87%	4.083%
205	11.726	11.705	11.731	VV	988	12315	0.17%	0.009%
206	11.743	11.731	11.761	VV	1550	19769	0.28%	0.015%
207	11.778	11.761	11.791	VV	1165	15322	0.22%	0.012%
208	11.812	11.791	11.840	VV	2155	34232	0.48%	0.026%
209	11.856	11.840	11.887	VV	721	13339	0.19%	0.010%
210	11.903	11.887	11.909	VV	418	4604	0.06%	0.004%
211	11.926	11.909	11.941	VV	786	11181	0.16%	0.009%
212	11.986	11.941	12.017	VV	1151	32605	0.46%	0.025%
213	12.046	12.017	12.071	VV	8322	103575	1.45%	0.079%
214	12.084	12.071	12.111	VV	849	11215	0.16%	0.009%
215	12.136	12.111	12.145	VV	581	8113	0.11%	0.006%
216	12.152	12.145	12.177	VV	659	9310	0.13%	0.007%
217	12.237	12.177	12.315	VV	22110	332066	4.66%	0.254%
218	12.320	12.315	12.336	VV	1300	13573	0.19%	0.010%
219	12.354	12.336	12.388	VV	1394	33007	0.46%	0.025%
220	12.405	12.388	12.446	VV	1098	31356	0.44%	0.024%
221	12.475	12.446	12.482	VV	3082	39790	0.56%	0.030%
222	12.496	12.482	12.549	VV	4162	65521	0.92%	0.050%
223	12.573	12.549	12.603	VV	1705	29649	0.42%	0.023%
224	12.633	12.603	12.663	VV	49645	596425	8.37%	0.457%
225	12.702	12.663	12.754	VV	556707	6269959	87.99%	4.799%
226	12.763	12.754	12.779	VV	624	7665	0.11%	0.006%
227	12.786	12.779	12.807	VV	427	5953	0.08%	0.005%
228	12.826	12.807	12.847	VV	449	8236	0.12%	0.006%
229	12.853	12.847	12.860	VV	404	2248	0.03%	0.002%
230	12.881	12.860	12.934	VV	6564	82249	1.15%	0.063%
231	13.000	12.934	13.027	VV	551870	6101299	85.63%	4.670%
232	13.076	13.027	13.114	VV	79574	992450	13.93%	0.760%
233	13.121	13.114	13.149	VV	821	13528	0.19%	0.010%
234	13.154	13.149	13.164	VV	633	4657	0.07%	0.004%
235	13.169	13.164	13.186	VV	492	5020	0.07%	0.004%
236	13.202	13.186	13.210	VV	501	6188	0.09%	0.005%
237	13.242	13.210	13.274	VV	44473	532703	7.48%	0.408%
238	13.295	13.274	13.334	VV	4397	62018	0.87%	0.047%
239	13.336	13.334	13.347	VV	430	2954	0.04%	0.002%
240	13.361	13.347	13.367	VV	576	5308	0.07%	0.004%
241	13.372	13.367	13.389	VV	536	5902	0.08%	0.005%
242	13.396	13.389	13.401	VV	582	2941	0.04%	0.002%
243	13.408	13.401	13.410	VV	455	2563	0.04%	0.002%
244	13.419	13.410	13.424	VV	615	4294	0.06%	0.003%
245	13.428	13.424	13.440	VV	651	6024	0.08%	0.005%
246	13.469	13.440	13.566	VV	9027	189267	2.66%	0.145%

rteres

247	13.583	13.566	13.590	VV	990	13268	0.19%	0.010%
248	13.591	13.590	13.606	VV	905	7414	0.10%	0.006%
249	13.614	13.606	13.625	VV	888	9357	0.13%	0.007%
250	13.630	13.625	13.640	VV	871	7372	0.10%	0.006%
251	13.645	13.640	13.680	VV	883	17155	0.24%	0.013%
252	13.688	13.680	13.693	VV	886	6273	0.09%	0.005%
253	13.699	13.693	13.719	VV	953	11948	0.17%	0.009%
254	13.734	13.719	13.747	VV	661	9034	0.13%	0.007%
255	13.778	13.747	13.798	VV	3009	46547	0.65%	0.036%
256	13.827	13.798	13.871	VV	43640	539084	7.57%	0.413%
257	13.877	13.871	13.882	VV	420	2390	0.03%	0.002%
258	13.887	13.882	13.903	VV	504	4350	0.06%	0.003%
259	13.921	13.903	13.930	VV	496	4975	0.07%	0.004%
260	13.936	13.930	13.949	VV	392	3078	0.04%	0.002%
261	13.955	13.949	13.960	VV	297	1548	0.02%	0.001%
262	13.967	13.960	13.980	VV	308	2427	0.03%	0.002%
263	13.987	13.980	13.999	PV	389	2523	0.04%	0.002%
264	14.003	13.999	14.034	VV	363	4218	0.06%	0.003%
265	14.040	14.034	14.059	VV	283	3528	0.05%	0.003%
266	14.062	14.059	14.067	VV	278	1126	0.02%	0.001%
267	14.074	14.067	14.080	VV	215	1401	0.02%	0.001%
268	14.090	14.080	14.114	VV	414	5602	0.08%	0.004%
269	14.119	14.114	14.136	VV	471	4002	0.06%	0.003%
270	14.143	14.136	14.150	VV	289	2296	0.03%	0.002%
271	14.155	14.150	14.183	VV	372	6044	0.08%	0.005%
272	14.188	14.183	14.194	VV	320	1481	0.02%	0.001%
273	14.216	14.194	14.238	VV	1111	17570	0.25%	0.013%
274	14.259	14.238	14.285	VV	1544	24769	0.35%	0.019%
275	14.290	14.285	14.319	VV	509	8379	0.12%	0.006%
276	14.335	14.319	14.369	VV	617	11591	0.16%	0.009%
277	14.390	14.369	14.408	VV	719	12215	0.17%	0.009%
278	14.414	14.408	14.439	VV	396	6663	0.09%	0.005%
279	14.467	14.439	14.474	VV	670	10231	0.14%	0.008%
280	14.475	14.474	14.479	VV	642	1830	0.03%	0.001%
281	14.483	14.479	14.487	VV	557	2477	0.03%	0.002%
282	14.495	14.487	14.524	VV	747	13120	0.18%	0.010%
283	14.552	14.524	14.580	VV	889	18588	0.26%	0.014%
284	14.597	14.580	14.627	VV	429	7940	0.11%	0.006%
285	14.651	14.627	14.662	VV	468	6189	0.09%	0.005%
286	14.667	14.662	14.674	VV	377	2547	0.04%	0.002%
287	14.680	14.674	14.694	VV	432	4355	0.06%	0.003%
288	14.737	14.694	14.752	VV	621	18176	0.26%	0.014%
289	14.766	14.752	14.817	VV	865	17199	0.24%	0.013%
290	14.871	14.817	14.891	VV	423924	5562723	78.07%	4.258%
291	14.916	14.891	14.952	VV	498609	5853854	82.15%	4.481%
292	14.972	14.952	15.014	VV	3470	62327	0.87%	0.048%
293	15.020	15.014	15.045	VV	463	6418	0.09%	0.005%
294	15.057	15.045	15.084	VV	410	7605	0.11%	0.006%
295	15.101	15.084	15.125	VV	711	12620	0.18%	0.010%
296	15.130	15.125	15.144	VV	468	3620	0.05%	0.003%
297	15.150	15.144	15.185	VV	718	9712	0.14%	0.007%
298	15.211	15.185	15.259	VV	583	13420	0.19%	0.010%
299	15.301	15.259	15.345	VV	24919	327347	4.59%	0.251%

300	15.348	15.345	15.380	VV	1060	15006	0.21%	0.011%
301	15.400	15.380	15.427	VV	1756	28441	0.40%	0.022%
302	15.464	15.427	15.485	VV	1679	35620	0.50%	0.027%
303	15.502	15.485	15.515	VV	760	11150	0.16%	0.009%
304	15.519	15.515	15.547	VV	639	7880	0.11%	0.006%
305	15.578	15.547	15.602	VV	1576	23710	0.33%	0.018%
306	15.608	15.602	15.635	VV	531	7753	0.11%	0.006%
307	15.637	15.635	15.641	VV	406	1123	0.02%	0.001%
308	15.660	15.641	15.694	VV	806	14147	0.20%	0.011%
309	15.707	15.694	15.730	VV	416	6896	0.10%	0.005%
310	15.739	15.730	15.745	VV	409	3095	0.04%	0.002%
311	15.773	15.745	15.797	VV	1541	25837	0.36%	0.020%
312	15.819	15.797	15.844	VV	1335	24113	0.34%	0.018%
313	15.847	15.844	15.862	VV	580	4590	0.06%	0.004%
314	15.866	15.862	15.870	VV	560	2316	0.03%	0.002%
315	15.876	15.870	15.882	VV	481	3041	0.04%	0.002%
316	15.906	15.882	15.917	VV	1392	18917	0.27%	0.014%
317	15.945	15.917	15.985	VV	36973	480341	6.74%	0.368%
318	16.006	15.985	16.040	VV	2527	36039	0.51%	0.028%
319	16.048	16.040	16.058	VV	222	1710	0.02%	0.001%
320	16.090	16.058	16.100	VV	371	5636	0.08%	0.004%
321	16.116	16.100	16.133	VV	511	7006	0.10%	0.005%
322	16.148	16.133	16.191	VV	880	13233	0.19%	0.010%
323	16.209	16.191	16.223	PV	173	2266	0.03%	0.002%
324	16.231	16.223	16.242	VV	261	2034	0.03%	0.002%
325	16.311	16.242	16.355	VV	10398	163058	2.29%	0.125%
326	16.361	16.355	16.370	VV	731	6160	0.09%	0.005%
327	16.373	16.370	16.378	VV	721	3298	0.05%	0.003%
328	16.423	16.378	16.438	VV	387601	5508924	77.31%	4.217%
329	16.457	16.438	16.484	VV	464204	5354656	75.15%	4.099%
330	16.505	16.484	16.534	VV	1755	31280	0.44%	0.024%
331	16.558	16.534	16.594	VV	1915	33156	0.47%	0.025%
332	16.602	16.594	16.618	VV	574	6581	0.09%	0.005%
333	16.631	16.618	16.636	VV	389	3046	0.04%	0.002%
334	16.665	16.636	16.707	VV	2588	37992	0.53%	0.029%
335	16.726	16.707	16.732	VV	548	5770	0.08%	0.004%
336	16.736	16.732	16.757	VV	512	5789	0.08%	0.004%
337	16.802	16.757	16.831	VV	405502	5194498	72.90%	3.976%
338	16.891	16.831	16.922	VV	41309	563356	7.91%	0.431%
339	16.942	16.922	16.952	VV	1269	14185	0.20%	0.011%
340	16.967	16.952	17.002	VV	2446	35329	0.50%	0.027%
341	17.005	17.002	17.026	VV	475	4019	0.06%	0.003%
342	17.037	17.026	17.047	VV	275	2467	0.03%	0.002%
343	17.055	17.047	17.069	VV	393	2635	0.04%	0.002%
344	17.078	17.069	17.093	VV	281	2386	0.03%	0.002%
345	17.110	17.101	17.119	VV	312	1610	0.02%	0.001%
346	17.132	17.125	17.145	PV	203	1660	0.02%	0.001%
347	17.157	17.145	17.170	VV	270	2128	0.03%	0.002%
348	17.183	17.170	17.198	VV	261	2051	0.03%	0.002%
349	17.213	17.198	17.219	VV	264	1716	0.02%	0.001%
350	17.253	17.219	17.313	VV	5230	97888	1.37%	0.075%
351	17.339	17.313	17.383	VV	2611	43745	0.61%	0.033%

rteres

352	17.429	17.383	17.433	VV	821	13319	0.19%	0.010%
353	17.440	17.433	17.475	VV	1020	17867	0.25%	0.014%
354	17.480	17.475	17.529	VV	569	10090	0.14%	0.008%
355	17.565	17.529	17.591	PV	539	10859	0.15%	0.008%
356	17.595	17.591	17.608	VV	353	2622	0.04%	0.002%
357	17.618	17.608	17.623	VV	331	2147	0.03%	0.002%
358	17.632	17.623	17.647	VV	371	4301	0.06%	0.003%
359	17.668	17.647	17.684	VV	692	10947	0.15%	0.008%
360	17.701	17.684	17.705	VV	964	8052	0.11%	0.006%
361	17.717	17.705	17.729	VV	958	12276	0.17%	0.009%
362	17.776	17.729	17.809	VV	33995	471405	6.62%	0.361%
363	17.819	17.809	17.825	VV	360	2470	0.03%	0.002%
364	17.831	17.825	17.837	VV	423	2188	0.03%	0.002%
365	17.865	17.837	17.899	VV	2866	43367	0.61%	0.033%
366	17.903	17.899	17.909	VV	373	1418	0.02%	0.001%
367	17.914	17.909	17.925	VV	261	2101	0.03%	0.002%
368	17.932	17.925	17.939	VV	284	1637	0.02%	0.001%
369	17.941	17.939	17.950	VV	296	1662	0.02%	0.001%
370	17.967	17.950	17.975	VV	272	3372	0.05%	0.003%
371	18.004	17.975	18.025	VV	964	17237	0.24%	0.013%
372	18.030	18.025	18.037	VV	384	1737	0.02%	0.001%
373	18.047	18.037	18.065	VV	472	5586	0.08%	0.004%
374	18.066	18.065	18.085	VV	347	2201	0.03%	0.002%
375	18.169	18.085	18.184	PV	382069	5654482	79.35%	4.328%
376	18.207	18.184	18.253	VV	396857	4950651	69.48%	3.789%
377	18.290	18.253	18.311	VV	1127	28119	0.39%	0.022%
378	18.335	18.311	18.375	VV	5847	85752	1.20%	0.066%
379	18.427	18.375	18.479	VV	381199	5221194	73.27%	3.996%
380	18.507	18.479	18.532	VV	3255	49542	0.70%	0.038%
381	18.550	18.532	18.564	VV	908	12638	0.18%	0.010%
382	18.605	18.564	18.662	VV	31963	464595	6.52%	0.356%
383	18.703	18.662	18.734	PV	3557	59271	0.83%	0.045%
384	18.748	18.734	18.792	VV	911	21745	0.31%	0.017%
385	18.811	18.802	18.834	VV	276	3041	0.04%	0.002%
386	18.892	18.834	18.919	PV	3333	44630	0.63%	0.034%
387	18.955	18.919	18.985	PV	9286	141562	1.99%	0.108%

Sum of corrected areas: 130644635

Aromatic EPH 050125.M Fri May 09 09:51:22 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	B-167-SB02MSD	SDG No.:	Q1901
Lab Sample ID:	Q1901-04MSD	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	53.2
Sample Wt/Vol:	30.07 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
05/07/25 13:37	05/08/25 21:41	PB167903

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	Datafile
TARGETS								
Aliphatic C9-C12	Aliphatic C9-C12	9.57		1	0.26	1.88	mg/kg	FC068805.D
Aliphatic C12-C16	Aliphatic C12-C16	9.36		1	0.21	1.25	mg/kg	FC068805.D
Aliphatic C16-C21	Aliphatic C16-C21	14.6		1	0.24	1.88	mg/kg	FC068805.D
Aliphatic C21-C28	Aliphatic C21-C28	19.2		1	0.99	2.50	mg/kg	FC068805.D
Aliphatic C28-C40	Aliphatic C28-C40	26.4		1	2.21	3.75	mg/kg	FC068805.D
Aromatic C10-C12	Aromatic C10-C12	9.49		1	0.23	1.25	mg/kg	FD049331.D
Aromatic C12-C16	Aromatic C12-C16	16.9		1	0.43	1.88	mg/kg	FD049331.D
Aromatic C16-C21	Aromatic C16-C21	35.0		1	0.75	3.13	mg/kg	FD049331.D
Aromatic C21-C36	Aromatic C21-C36	53.4		1	2.23	5.00	mg/kg	FD049331.D
Total AliphaticEPH	Total AliphaticEPH	79.1			3.92	11.3	mg/kg	
Total AromaticEPH	Total AromaticEPH	115			3.64	11.3	mg/kg	
Total EPH	Total EPH	194			7.55	22.5	mg/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

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	B-167-SB02MSD	SDG No.:	Q1901
Lab Sample ID:	Q1901-04MSD	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	53.2
Sample Wt/Vol:	30.07 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC068805.D	1	05/07/25	05/08/25	PB167903

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	9.57		0.26	1.88	mg/kg
Aliphatic C12-C16	Aliphatic C12-C16	9.36		0.21	1.25	mg/kg
Aliphatic C16-C21	Aliphatic C16-C21	14.6		0.24	1.88	mg/kg
Aliphatic C21-C28	Aliphatic C21-C28	19.2		0.99	2.50	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	26.4		2.21	3.75	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	36.8		40 - 140	74%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	0.00		40 - 140	0%	SPK: 50

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

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	Q1901-04MSD	Acq On:	08 May 2025 21:41
Client Sample ID:	B-167-SB02MSD	Operator:	YP/AJ
Data file:	FC068805.D	Misc:	
Instrument:	FID_C	ALS Vial:	22
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.342	6.642	7588573	76.549	300	ug/ml
Aliphatic C12-C16	6.643	10.042	6812490	74.875	200	ug/ml
Aliphatic C16-C21	10.043	13.408	10040471	117.076	300	ug/ml
Aliphatic C21-C28	13.409	17.072	12775445	153.752	400	ug/ml
Aliphatic C28-C40	17.073	22.071	17861536	211.073	600	ug/ml
Aliphatic EPH	3.342	22.071	55078515	633.325		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	13.142	13.142	2948527	36.75		ug/ml
Aliphatic C9-C28	3.342	17.072	37216979	422.252	1200	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068805.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 21:41
Operator : YP/AJ
Sample : Q1901-04MSD
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
B-167-SB02MSD

Integration File: autoint1.e
Quant Time: May 09 09:09:46 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
12) S	1-chlorooctadecane (S...	13.142	2948527	36.753 ug/ml
Spiked Amount	50.000		Recovery =	73.51%
	Target Compounds			
1) T	n-Nonane (C9)	3.442	2011260	19.997 ug/ml
2) T	n-Decane (C10)	4.517	2514803	25.238 ug/ml
4) T	n-Dodecane (C12)	6.542	2910772	29.953 ug/ml
6) T	n-Tetradecane (C14)	8.340	3204590	34.672 ug/ml
7) T	n-Hexadecane (C16)	9.942	3326563	37.150 ug/ml
8) T	n-Octadecane (C18)	11.386	3352938	38.224 ug/ml
10) T	n-Eicosane (C20)	12.696	3421203	40.146 ug/ml
11) T	n-Heneicosane (C21)	13.309	3266330	38.726 ug/ml
13) T	n-Docosane (C22)	13.896	3256569	38.927 ug/ml
14) T	n-Tetracosane (C24)	14.999	3217704	38.671 ug/ml
15) T	n-Hexacosane (C26)	16.022	3170198	38.263 ug/ml
16) T	n-Octacosane (C28)	16.973	3130974	37.884 ug/ml
17) T	n-Tricontane (C30)	17.860	3173913	37.511 ug/ml
18) T	n-Dotriacontane (C32)	18.694	3135522	36.402 ug/ml
19) T	n-Tetratriacontane (C34)	19.480	3078209	36.129 ug/ml
20) T	n-Hexatriacontane (C36)	20.221	2916733	33.936 ug/ml
21) T	n-Octatriacontane (C38)	20.994	2812971	33.534 ug/ml
22) T	n-Tetracontane (C40)	21.969	2695372	32.888 ug/ml

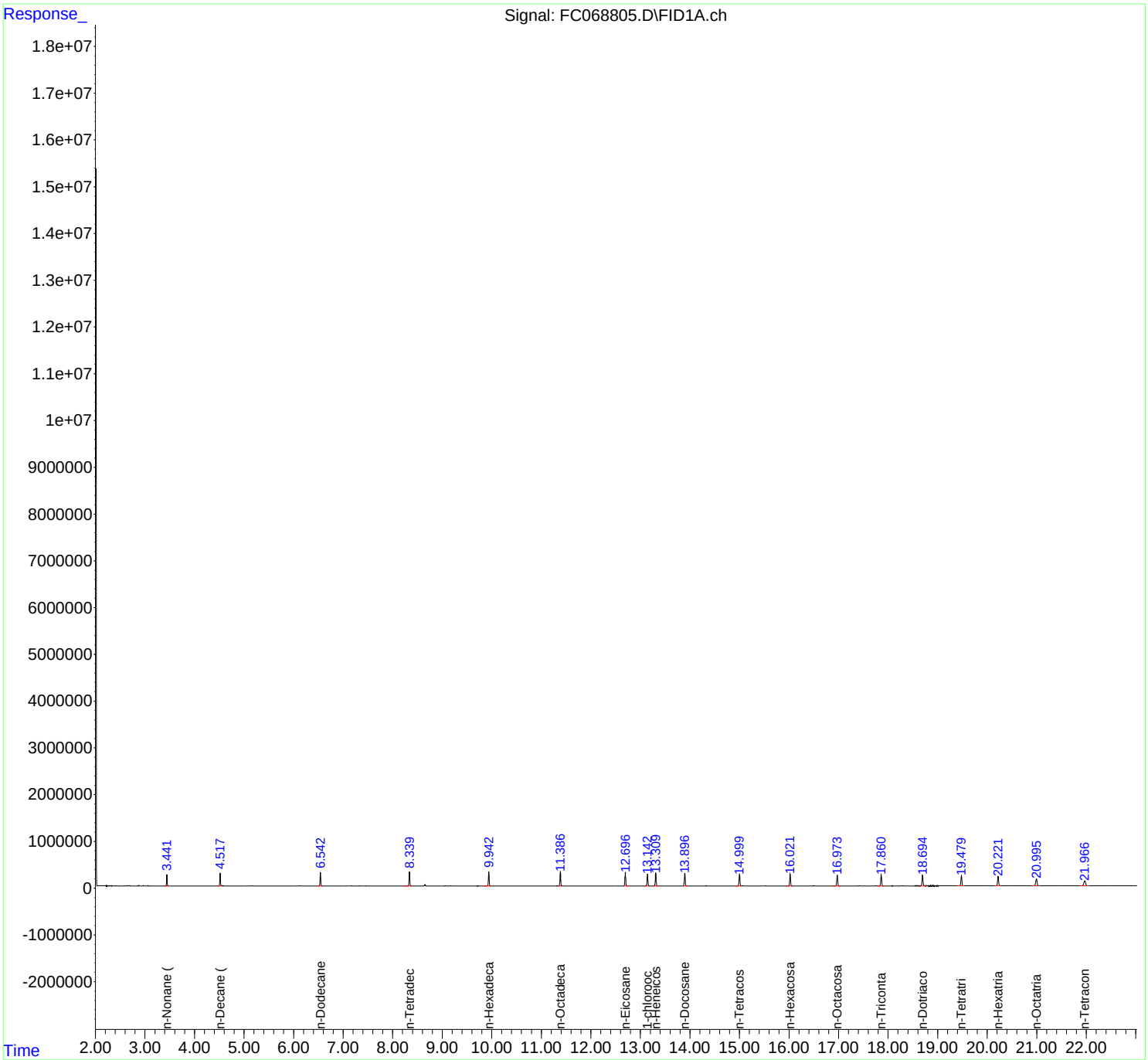
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068805.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 21:41
Operator : YP/AJ
Sample : Q1901-04MSD
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
B-167-SB02MSD

Integration File: autoint1.e
Quant Time: May 09 09:09:46 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068805.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 21:41
Sample : Q1901-04MSD
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.442	3.390	3.479	BB	245502	2011260	58.79%	3.466%
2	4.517	4.462	4.545	BV	281004	2514803	73.51%	4.334%
3	4.564	4.545	4.607	VB	11348	100140	2.93%	0.173%
4	6.115	6.065	6.142	BB	5508	51598	1.51%	0.089%
5	6.542	6.489	6.590	BB	295258	2910772	85.08%	5.016%
6	8.340	8.207	8.385	BB	303690	3204590	93.67%	5.523%
7	8.653	8.599	8.699	BB	28409	281337	8.22%	0.485%
8	9.942	9.817	9.992	BB	305664	3326563	97.23%	5.733%
9	11.386	11.340	11.417	BB	300580	3352938	98.00%	5.778%
10	12.696	12.660	12.749	BB	288002	3421203	100.00%	5.896%
11	13.142	13.085	13.179	BB	255268	2948527	86.18%	5.081%
12	13.309	13.249	13.347	BB	279037	3266330	95.47%	5.629%
13	13.896	13.862	13.949	VB	265588	3256569	95.19%	5.612%
14	14.999	14.909	15.035	BV	246140	3217704	94.05%	5.545%
15	16.022	15.930	16.074	BB	250503	3170198	92.66%	5.463%
16	16.973	16.889	17.035	BB	235257	3130974	91.52%	5.396%
17	17.421	17.369	17.447	BB	3775	48816	1.43%	0.084%
18	17.860	17.790	17.920	BB	232446	3173913	92.77%	5.470%
19	18.694	18.630	18.757	BB	230480	3135522	91.65%	5.404%
20	19.480	19.407	19.537	BB	214786	3078209	89.97%	5.305%
21	20.221	20.150	20.259	BB	202220	2916733	85.25%	5.027%
22	20.994	20.910	21.067	BB	147006	2812971	82.22%	4.848%
23	21.969	21.872	22.064	BB	105883	2695372	78.78%	4.645%
			Sum of corrected areas:			58027043		

Aliphatic EPH 050625.M Fri May 09 09:41:56 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	B-167-SB02MSD	SDG No.:	Q1901
Lab Sample ID:	Q1901-04MSD	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	53.2
Sample Wt/Vol:	30.07 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD049331.D	1	05/07/25	05/08/25	PB167903

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aromatic C10-C12	Aromatic C10-C12	9.49		0.23	1.25	mg/kg
Aromatic C12-C16	Aromatic C12-C16	16.9		0.43	1.88	mg/kg
Aromatic C16-C21	Aromatic C16-C21	35.0		0.75	3.13	mg/kg
Aromatic C21-C36	Aromatic C21-C36	53.4		2.23	5.00	mg/kg
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	60.1		40 - 140	120%	SPK: 50
321-60-8	2-Flurobiphenyl (SURR)	57.4		40 - 140	115%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	38.4		40 - 140	77%	SPK: 50

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

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	Q1901-04MSD	Acq On:	08 May 2025 21:04
Client Sample ID:	B-167-SB02MSD	Operator:	YP/AJ
Data file:	FD049331.D	Misc:	
Instrument:	FID_D	ALS Vial:	71
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.431	6.176	9751783	75.871	200	ug/ml
Aromatic C12-C16	6.177	8.805	18347653	135.18	300	ug/ml
Aromatic C16-C21	8.806	13.095	36699099	279.889	500	ug/ml
Aromatic C21-C36	13.0956	18.515	50147109	427.315	800	ug/ml
Aromatic EPH	4.431	18.515	114945644	918.255		ug/ml
2-Bromonaphthalene (SURR)	7.741	7.741	7121821	60.06		ug/ml
2-Flurobiphenyl (SURR)	8.607	8.607	4534162	57.41		ug/ml
ortho-Terphenyl (SURR)	11.651	11.651	5295430	38.37		ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049331.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 21:04
Operator : YP/AJ
Sample : Q1901-04MSD
Misc :
ALS Vial : 71 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
B-167-SB02MSD

Integration File: autoint1.e
Quant Time: May 09 09:21:26 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4)	S 2-Bromonaphthalene (S...	7.741	7121821	60.064 ug/ml
Spiked Amount	50.000		Recovery =	120.13%
6)	S 2-Flurobiphenyl (SURR)	8.607	4534162	57.415 ug/ml
Spiked Amount	50.000 Range	0 - 131	Recovery =	114.83%
11)	S ortho-Terphenyl (SURR)	11.651	5295430	38.367 ug/ml
Spiked Amount	50.000		Recovery =	76.73%
	Target Compounds			
1)	T 1,2,3-Trimethylbenzen...	4.531	3927868	31.459 ug/ml
2)	T Naphthalene (C11.7)	6.076	4827602	36.516 ug/ml
3)	T 2-Methylnaphthalene (...	7.130	4789253	37.125 ug/ml
5)	T Acenaphthylene (C15.06)	8.410	5796215	41.060 ug/ml
7)	T Acenaphthene (C15.5)	8.706	5868027	42.828 ug/ml
8)	T Flouorene (C16.55)	9.488	6177431	45.384 ug/ml
9)	T Phenanthrene (C19.36)	10.886	6214722	46.096 ug/ml
10)	T Anthracene (C19.43)	10.962	6027275	50.962 ug/ml
12)	T Fluoranthene (C21.85)	12.701	6221870	46.168 ug/ml
13)	T Pyrene (C20.8)	12.999	6051806	44.737 ug/ml
14)	T Benzo[a]anthracene (C...	14.871	5583646	48.746 ug/ml
15)	T Chrysene (C27.41)	14.915	5871355	50.306 ug/ml
16)	T benzo[b]fluoranthene ...	16.423	5562427	45.824 ug/ml
17)	T Bnezo[k]fluoranthene ...	16.458	5381787	45.125 ug/ml
18)	T Benzo[a]pyrene (C31.34)	16.803	5232066	45.503 ug/ml
19)	T Indeno[1,2,3-cd]pyren...	18.170	5649946	51.483 ug/ml
20)	T Dibenz[a,h]anthracene...	18.208	4973171	47.088 ug/ml
21)	T Benzo[g,h,i]perylene ...	18.426	5259343	44.133 ug/ml

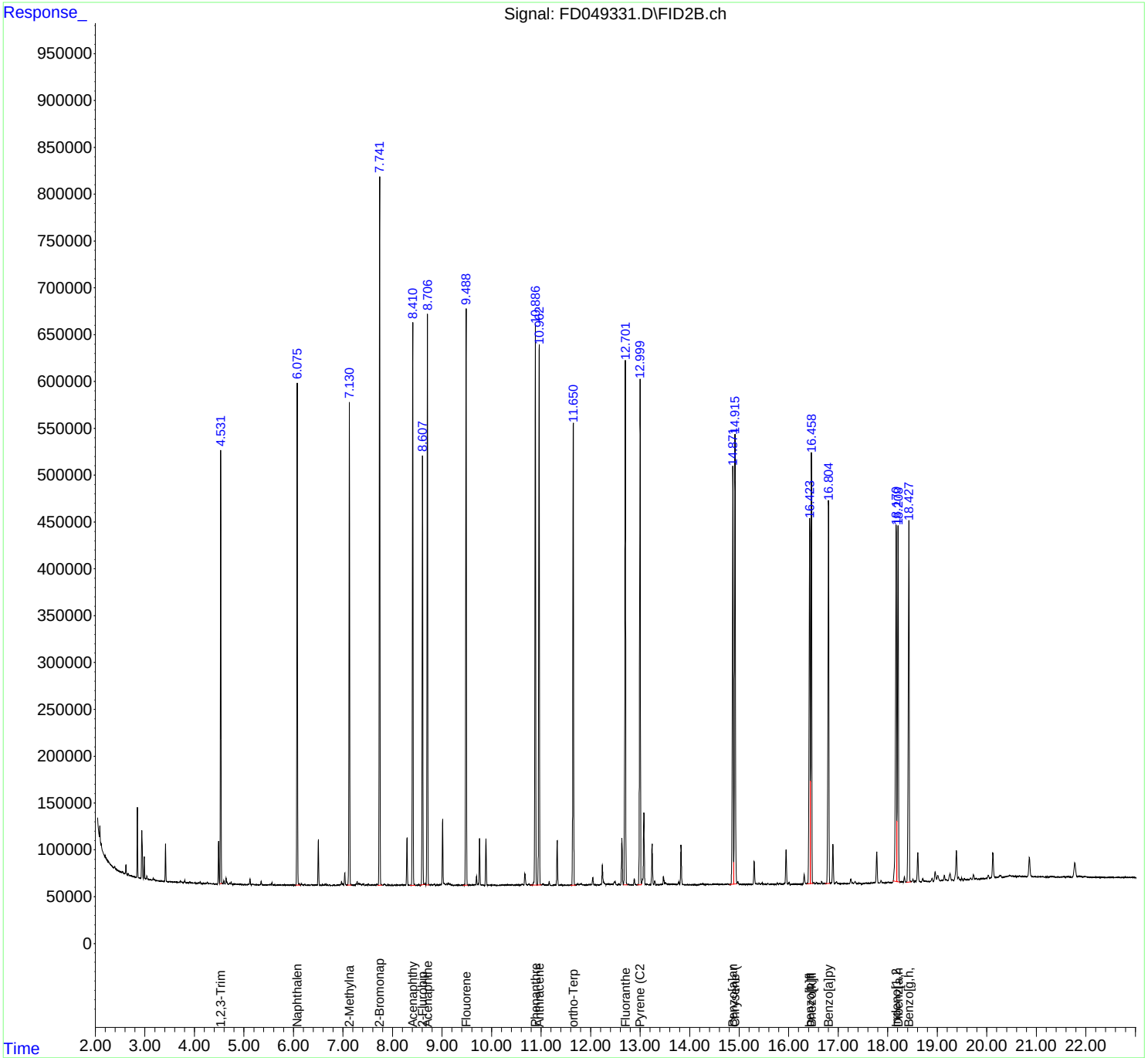
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049331.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 21:04
Operator : YP/AJ
Sample : Q1901-04MSD
Misc :
ALS Vial : 71 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
B-167-SB02MSD

Integration File: autoint1.e
Quant Time: May 09 09:21:26 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm



Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049331.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 21:04
Sample : Q1901-04MSD
Misc :
ALS Vial : 71 Sample Multiplier: 1

Integration File: sample.E

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.266	4.252	4.290	BV	713	5553	0.08%	0.004%
2	4.297	4.290	4.316	PV	355	3642	0.05%	0.003%
3	4.320	4.316	4.334	VV	163	1219	0.02%	0.001%
4	4.338	4.334	4.367	PV	284	1086	0.02%	0.001%
5	4.383	4.377	4.418	PV	324	3548	0.05%	0.003%
6	4.447	4.418	4.465	VV	335	5138	0.07%	0.004%
7	4.488	4.465	4.509	PV	46038	409666	5.74%	0.309%
8	4.531	4.509	4.556	VV	461893	3947368	55.31%	2.973%
9	4.563	4.556	4.580	VV	1259	13022	0.18%	0.010%
10	4.595	4.580	4.617	VV	3886	40725	0.57%	0.031%
11	4.640	4.617	4.683	VV	6921	88235	1.24%	0.066%
12	4.690	4.683	4.702	VV	472	4498	0.06%	0.003%
13	4.713	4.702	4.729	VV	1506	16191	0.23%	0.012%
14	4.743	4.729	4.770	VV	2815	26224	0.37%	0.020%
15	4.800	4.770	4.811	PV	1205	13587	0.19%	0.010%
16	4.831	4.811	4.852	VV	788	12086	0.17%	0.009%
17	4.859	4.852	4.898	VV	589	7764	0.11%	0.006%
18	4.906	4.898	4.908	VV	207	1278	0.02%	0.001%
19	4.916	4.908	4.922	VV	354	2064	0.03%	0.002%
20	4.933	4.922	4.951	VV	632	7187	0.10%	0.005%
21	4.959	4.951	4.972	PV	409	2980	0.04%	0.002%
22	4.980	4.972	4.992	VV	234	2167	0.03%	0.002%
23	5.001	4.992	5.010	VV	230	1727	0.02%	0.001%
24	5.014	5.010	5.031	VV	199	1955	0.03%	0.001%
25	5.045	5.031	5.052	VV	386	3000	0.04%	0.002%
26	5.058	5.052	5.067	VV	305	1878	0.03%	0.001%
27	5.097	5.067	5.106	VV	1064	12203	0.17%	0.009%
28	5.123	5.106	5.151	VV	6387	67679	0.95%	0.051%
29	5.181	5.151	5.202	VV	1269	14624	0.20%	0.011%
30	5.207	5.202	5.212	VV	255	1181	0.02%	0.001%
31	5.216	5.212	5.227	VV	177	1262	0.02%	0.001%
32	5.235	5.227	5.255	VV	429	4440	0.06%	0.003%
33	5.261	5.255	5.268	VV	325	1668	0.02%	0.001%
34	5.274	5.268	5.285	VV	193	1403	0.02%	0.001%
35	5.290	5.285	5.302	VV	205	1320	0.02%	0.001%
36	5.319	5.302	5.333	VV	461	6040	0.08%	0.005%

rteres

37	5.348	5.333	5.381	VV	4155	41847	0.59%	0.032%
38	5.386	5.381	5.395	VV	208	1302	0.02%	0.001%
39	5.399	5.395	5.409	VV	252	1613	0.02%	0.001%
40	5.431	5.409	5.444	VV	377	5224	0.07%	0.004%
41	5.450	5.444	5.475	VV	202	3062	0.04%	0.002%
42	5.495	5.475	5.507	VV	452	5576	0.08%	0.004%
43	5.525	5.507	5.544	VV	957	11016	0.15%	0.008%
44	5.567	5.544	5.586	VV	2195	22739	0.32%	0.017%
45	5.604	5.586	5.610	VV	374	3453	0.05%	0.003%
46	5.623	5.610	5.650	VV	763	8253	0.12%	0.006%
47	5.668	5.650	5.677	PV	430	3884	0.05%	0.003%
48	5.685	5.677	5.702	VV	425	3400	0.05%	0.003%
49	5.708	5.702	5.720	VV	392	2914	0.04%	0.002%
50	5.737	5.720	5.757	VV	437	6162	0.09%	0.005%
51	5.768	5.757	5.785	VV	510	5109	0.07%	0.004%
52	5.822	5.785	5.842	PV	598	7651	0.11%	0.006%
53	5.856	5.842	5.879	VV	369	5376	0.08%	0.004%
54	5.892	5.879	5.910	VV	254	3171	0.04%	0.002%
55	5.935	5.926	5.951	VV	358	2444	0.03%	0.002%
56	5.964	5.951	5.975	VV	384	2914	0.04%	0.002%
57	5.986	5.975	6.005	VV	558	6211	0.09%	0.005%
58	6.012	6.005	6.028	VV	515	4192	0.06%	0.003%
59	6.031	6.028	6.043	VV	296	2295	0.03%	0.002%
60	6.047	6.043	6.050	VV	365	1112	0.02%	0.001%
61	6.076	6.050	6.111	VV	534452	4827260	67.64%	3.636%
62	6.121	6.111	6.143	VV	1414	18795	0.26%	0.014%
63	6.164	6.143	6.198	VV	1489	24248	0.34%	0.018%
64	6.222	6.198	6.248	VV	987	16927	0.24%	0.013%
65	6.261	6.248	6.268	VV	359	3637	0.05%	0.003%
66	6.272	6.268	6.277	VV	338	1629	0.02%	0.001%
67	6.296	6.277	6.310	VV	551	7179	0.10%	0.005%
68	6.332	6.310	6.340	VV	377	4642	0.07%	0.003%
69	6.358	6.340	6.413	VV	1026	20817	0.29%	0.016%
70	6.417	6.413	6.423	VV	428	1618	0.02%	0.001%
71	6.431	6.423	6.435	VV	304	1934	0.03%	0.001%
72	6.448	6.435	6.454	VV	503	4748	0.07%	0.004%
73	6.457	6.454	6.474	VV	473	3983	0.06%	0.003%
74	6.503	6.474	6.533	VV	49116	472429	6.62%	0.356%
75	6.542	6.533	6.559	VV	361	4232	0.06%	0.003%
76	6.563	6.559	6.568	VV	399	1660	0.02%	0.001%
77	6.589	6.568	6.603	VV	928	10184	0.14%	0.008%
78	6.623	6.603	6.636	VV	770	8965	0.13%	0.007%
79	6.653	6.636	6.675	VV	1715	19175	0.27%	0.014%
80	6.690	6.675	6.706	VV	749	6471	0.09%	0.005%
81	6.727	6.706	6.744	VV	939	9584	0.13%	0.007%
82	6.760	6.744	6.765	PV	284	1881	0.03%	0.001%
83	6.770	6.765	6.776	VV	249	1371	0.02%	0.001%
84	6.781	6.776	6.788	VV	194	1216	0.02%	0.001%
85	6.792	6.788	6.797	VV	252	1007	0.01%	0.001%
86	6.803	6.797	6.813	VV	216	2188	0.03%	0.002%
87	6.833	6.813	6.857	VV	416	6543	0.09%	0.005%
88	6.878	6.857	6.900	VV	562	8328	0.12%	0.006%
89	6.906	6.900	6.923	VV	319	3496	0.05%	0.003%

90	6.945	6.923	6.955	VV	1188	13267	0.19%	0.010%
91	6.971	6.955	6.986	VV	4045	41176	0.58%	0.031%
92	6.999	6.986	7.013	VV	1444	17817	0.25%	0.013%
93	7.037	7.013	7.092	VV	13518	150236	2.11%	0.113%
94	7.130	7.092	7.161	VV	515737	4805207	67.33%	3.619%
95	7.165	7.161	7.205	VV	679	10829	0.15%	0.008%
96	7.217	7.205	7.221	VV	397	3550	0.05%	0.003%
97	7.233	7.221	7.249	VV	776	7910	0.11%	0.006%
98	7.286	7.249	7.303	VV	4163	61937	0.87%	0.047%
99	7.319	7.303	7.335	VV	2616	32737	0.46%	0.025%
100	7.346	7.335	7.380	VV	1991	28140	0.39%	0.021%
101	7.394	7.380	7.407	VV	1749	16993	0.24%	0.013%
102	7.421	7.407	7.449	VV	1375	18350	0.26%	0.014%
103	7.466	7.449	7.477	VV	670	8009	0.11%	0.006%
104	7.491	7.477	7.503	VV	1070	12079	0.17%	0.009%
105	7.517	7.503	7.536	VV	1278	14976	0.21%	0.011%
106	7.559	7.536	7.563	VV	418	4039	0.06%	0.003%
107	7.582	7.563	7.590	VV	705	7892	0.11%	0.006%
108	7.601	7.590	7.618	VV	905	10324	0.14%	0.008%
109	7.637	7.618	7.655	VV	645	10208	0.14%	0.008%
110	7.658	7.655	7.668	VV	571	3784	0.05%	0.003%
111	7.686	7.668	7.706	VV	1797	21413	0.30%	0.016%
112	7.741	7.706	7.793	VV	757521	7137015	100.00%	5.375%
113	7.834	7.793	7.871	VV	1142	30790	0.43%	0.023%
114	7.884	7.871	7.889	VV	441	3250	0.05%	0.002%
115	7.908	7.889	7.928	VV	776	9763	0.14%	0.007%
116	7.946	7.928	7.970	VV	439	6561	0.09%	0.005%
117	7.990	7.970	8.022	VV	891	12556	0.18%	0.009%
118	8.052	8.022	8.065	VV	485	7823	0.11%	0.006%
119	8.083	8.065	8.122	VV	550	10670	0.15%	0.008%
120	8.135	8.122	8.140	VV	424	3610	0.05%	0.003%
121	8.146	8.140	8.150	VV	432	2002	0.03%	0.002%
122	8.154	8.150	8.158	VV	373	1569	0.02%	0.001%
123	8.169	8.158	8.180	VV	523	5433	0.08%	0.004%
124	8.196	8.180	8.220	VV	895	15002	0.21%	0.011%
125	8.231	8.220	8.239	VV	467	4283	0.06%	0.003%
126	8.244	8.239	8.257	VV	417	4010	0.06%	0.003%
127	8.263	8.257	8.266	VV	488	2356	0.03%	0.002%
128	8.294	8.266	8.340	VV	51194	522213	7.32%	0.393%
129	8.357	8.340	8.375	VV	533	4738	0.07%	0.004%
130	8.410	8.375	8.440	VV	601160	5799931	81.27%	4.368%
131	8.443	8.440	8.480	VV	987	10704	0.15%	0.008%
132	8.488	8.480	8.510	VV	527	6030	0.08%	0.005%
133	8.528	8.510	8.560	VV	1003	12973	0.18%	0.010%
134	8.566	8.560	8.573	PV	291	1179	0.02%	0.001%
135	8.607	8.573	8.650	VV	459147	4572812	64.07%	3.444%
136	8.659	8.650	8.675	VV	1700	17915	0.25%	0.013%
137	8.706	8.675	8.742	VV	610242	5893027	82.57%	4.438%
138	8.749	8.742	8.771	VV	1026	13757	0.19%	0.010%
139	8.782	8.771	8.789	VV	942	8188	0.11%	0.006%
140	8.805	8.789	8.814	VV	849	10603	0.15%	0.008%
141	8.843	8.814	8.875	VV	1174	28758	0.40%	0.022%

rteres

142	8.896	8.875	8.907	VV	737	8100	0.11%	0.006%
143	8.911	8.907	8.930	VV	558	5174	0.07%	0.004%
144	8.945	8.930	8.960	VV	877	9062	0.13%	0.007%
145	8.976	8.960	8.987	VV	1142	11593	0.16%	0.009%
146	9.013	8.987	9.035	VV	70769	696871	9.76%	0.525%
147	9.043	9.035	9.061	VV	2681	32072	0.45%	0.024%
148	9.068	9.061	9.083	VV	1202	13831	0.19%	0.010%
149	9.098	9.083	9.116	VV	2162	28387	0.40%	0.021%
150	9.132	9.116	9.153	VV	2788	39806	0.56%	0.030%
151	9.168	9.153	9.188	VV	1838	21449	0.30%	0.016%
152	9.203	9.188	9.232	VV	736	10618	0.15%	0.008%
153	9.251	9.232	9.273	VV	496	7241	0.10%	0.005%
154	9.300	9.273	9.326	VV	669	13441	0.19%	0.010%
155	9.335	9.326	9.375	VV	716	10515	0.15%	0.008%
156	9.406	9.375	9.435	PV	658	15266	0.21%	0.011%
157	9.446	9.435	9.449	VV	449	3024	0.04%	0.002%
158	9.488	9.449	9.517	VV	616330	6193766	86.78%	4.665%
159	9.523	9.517	9.533	VV	523	4718	0.07%	0.004%
160	9.542	9.533	9.547	VV	570	3910	0.05%	0.003%
161	9.554	9.547	9.577	VV	583	7270	0.10%	0.005%
162	9.582	9.577	9.600	VV	418	3681	0.05%	0.003%
163	9.615	9.600	9.647	VV	837	13610	0.19%	0.010%
164	9.660	9.647	9.680	VV	1009	14523	0.20%	0.011%
165	9.697	9.680	9.718	VV	9801	100850	1.41%	0.076%
166	9.731	9.718	9.738	VV	1612	14320	0.20%	0.011%
167	9.759	9.738	9.790	VV	50239	501977	7.03%	0.378%
168	9.797	9.790	9.802	VV	613	3636	0.05%	0.003%
169	9.827	9.802	9.860	VV	610	14488	0.20%	0.011%
170	9.888	9.860	9.938	VV	49906	539558	7.56%	0.406%
171	9.956	9.938	10.008	VV	486	13333	0.19%	0.010%
172	10.022	10.008	10.028	VV	322	2876	0.04%	0.002%
173	10.036	10.028	10.048	VV	431	3623	0.05%	0.003%
174	10.054	10.048	10.062	VV	297	2275	0.03%	0.002%
175	10.069	10.062	10.092	VV	343	4063	0.06%	0.003%
176	10.101	10.092	10.106	VV	346	1829	0.03%	0.001%
177	10.111	10.106	10.124	VV	202	1381	0.02%	0.001%
178	10.130	10.124	10.147	VV	258	2278	0.03%	0.002%
179	10.167	10.154	10.183	VV	589	6354	0.09%	0.005%
180	10.212	10.183	10.233	VV	633	13027	0.18%	0.010%
181	10.235	10.233	10.244	VV	587	2624	0.04%	0.002%
182	10.249	10.244	10.263	VV	350	3438	0.05%	0.003%
183	10.284	10.263	10.297	VV	665	9466	0.13%	0.007%
184	10.323	10.297	10.338	VV	925	15598	0.22%	0.012%
185	10.351	10.338	10.367	VV	624	8819	0.12%	0.007%
186	10.372	10.367	10.385	VV	524	4422	0.06%	0.003%
187	10.412	10.385	10.440	VV	1212	20188	0.28%	0.015%
188	10.444	10.440	10.449	VV	279	1173	0.02%	0.001%
189	10.454	10.449	10.460	VV	276	1435	0.02%	0.001%
190	10.474	10.460	10.480	VV	472	3509	0.05%	0.003%
191	10.496	10.480	10.505	VV	877	8913	0.12%	0.007%
192	10.515	10.505	10.544	VV	793	13039	0.18%	0.010%
193	10.576	10.544	10.595	VV	732	16804	0.24%	0.013%
194	10.620	10.595	10.651	VV	1435	29882	0.42%	0.023%

195	10.674	10.651	10.707	VV	12882	184447	2.58%	0.139%
196	10.718	10.707	10.731	VV	924	10567	0.15%	0.008%
197	10.760	10.731	10.780	VV	1633	29664	0.42%	0.022%
198	10.784	10.780	10.791	VV	551	2846	0.04%	0.002%
199	10.822	10.791	10.828	VV	763	11846	0.17%	0.009%
200	10.851	10.828	10.856	VV	3577	35437	0.50%	0.027%
201	10.886	10.856	10.922	VV	600132	6200328	86.88%	4.670%
202	10.962	10.922	11.014	VV	575876	6054294	84.83%	4.560%
203	11.034	11.014	11.070	VV	1371	30890	0.43%	0.023%
204	11.082	11.070	11.099	VV	589	7838	0.11%	0.006%
205	11.105	11.099	11.112	VV	447	2667	0.04%	0.002%
206	11.122	11.112	11.142	VV	512	7189	0.10%	0.005%
207	11.164	11.142	11.193	VV	4030	45969	0.64%	0.035%
208	11.198	11.193	11.204	VV	270	1045	0.01%	0.001%
209	11.212	11.204	11.227	PV	239	2123	0.03%	0.002%
210	11.258	11.227	11.284	VV	818	12707	0.18%	0.010%
211	11.327	11.284	11.363	VV	48030	546776	7.66%	0.412%
212	11.384	11.363	11.392	VV	507	6824	0.10%	0.005%
213	11.405	11.392	11.458	VV	648	13795	0.19%	0.010%
214	11.515	11.458	11.551	VV	460	15763	0.22%	0.012%
215	11.560	11.551	11.581	VV	400	5293	0.07%	0.004%
216	11.604	11.581	11.613	VV	296	4156	0.06%	0.003%
217	11.651	11.613	11.700	VV	492692	5308920	74.39%	3.999%
218	11.743	11.700	11.762	VV	1617	34745	0.49%	0.026%
219	11.778	11.762	11.795	VV	1116	16936	0.24%	0.013%
220	11.811	11.795	11.842	VV	2068	32561	0.46%	0.025%
221	11.858	11.842	11.885	VV	793	11913	0.17%	0.009%
222	11.927	11.885	11.943	VV	771	16146	0.23%	0.012%
223	11.991	11.943	12.016	VV	1012	33333	0.47%	0.025%
224	12.046	12.016	12.071	VV	8389	105196	1.47%	0.079%
225	12.089	12.071	12.112	VV	867	14367	0.20%	0.011%
226	12.133	12.112	12.148	VV	633	11550	0.16%	0.009%
227	12.155	12.148	12.185	VV	754	10875	0.15%	0.008%
228	12.237	12.185	12.313	VV	21936	336911	4.72%	0.254%
229	12.328	12.313	12.346	VV	1390	25057	0.35%	0.019%
230	12.356	12.346	12.397	VV	1546	36787	0.52%	0.028%
231	12.403	12.397	12.415	VV	1137	11005	0.15%	0.008%
232	12.426	12.415	12.440	VV	1120	14805	0.21%	0.011%
233	12.495	12.440	12.541	VV	4573	115834	1.62%	0.087%
234	12.571	12.541	12.598	VV	1788	32541	0.46%	0.025%
235	12.632	12.598	12.662	VV	50269	600247	8.41%	0.452%
236	12.701	12.662	12.789	VV	556235	6263088	87.76%	4.717%
237	12.797	12.789	12.818	VV	533	7844	0.11%	0.006%
238	12.834	12.818	12.853	VV	665	9631	0.13%	0.007%
239	12.882	12.853	12.938	VV	6827	94205	1.32%	0.071%
240	12.999	12.938	13.026	VV	539333	6078214	85.16%	4.578%
241	13.076	13.026	13.112	VV	77416	990980	13.89%	0.746%
242	13.126	13.112	13.162	VV	871	22161	0.31%	0.017%
243	13.169	13.162	13.199	VV	735	14113	0.20%	0.011%
244	13.241	13.199	13.273	VV	44275	537543	7.53%	0.405%
245	13.295	13.273	13.327	VV	4520	63066	0.88%	0.047%
246	13.360	13.327	13.372	VV	693	13625	0.19%	0.010%

rteres

247	13.393	13.372	13.407	VV	770	11496	0.16%	0.009%
248	13.417	13.407	13.435	VV	797	12072	0.17%	0.009%
249	13.469	13.435	13.565	VV	9242	204728	2.87%	0.154%
250	13.576	13.565	13.610	VV	1276	27542	0.39%	0.021%
251	13.618	13.610	13.628	VV	980	10198	0.14%	0.008%
252	13.646	13.628	13.665	VV	1230	21800	0.31%	0.016%
253	13.695	13.665	13.722	VV	1093	30610	0.43%	0.023%
254	13.742	13.722	13.750	VV	800	12043	0.17%	0.009%
255	13.777	13.750	13.798	VV	3361	51124	0.72%	0.039%
256	13.826	13.798	13.880	VV	42985	547530	7.67%	0.412%
257	13.882	13.880	13.907	VV	735	8837	0.12%	0.007%
258	13.913	13.907	13.944	VV	617	11076	0.16%	0.008%
259	13.952	13.944	13.987	VV	649	11331	0.16%	0.009%
260	13.993	13.987	14.011	VV	464	5940	0.08%	0.004%
261	14.027	14.011	14.054	VV	520	11192	0.16%	0.008%
262	14.072	14.054	14.085	VV	510	8933	0.13%	0.007%
263	14.123	14.085	14.140	VV	585	14659	0.21%	0.011%
264	14.217	14.140	14.238	VV	1370	37762	0.53%	0.028%
265	14.261	14.238	14.291	VV	1781	33549	0.47%	0.025%
266	14.302	14.291	14.311	VV	735	7678	0.11%	0.006%
267	14.324	14.311	14.334	VV	736	8606	0.12%	0.006%
268	14.386	14.334	14.403	VV	861	27037	0.38%	0.020%
269	14.423	14.403	14.437	VV	827	12432	0.17%	0.009%
270	14.490	14.437	14.524	VV	1100	41464	0.58%	0.031%
271	14.554	14.524	14.585	VV	1157	31256	0.44%	0.024%
272	14.594	14.585	14.624	VV	784	14381	0.20%	0.011%
273	14.677	14.624	14.692	VV	677	23112	0.32%	0.017%
274	14.708	14.692	14.725	VV	854	14142	0.20%	0.011%
275	14.738	14.725	14.750	VV	856	11962	0.17%	0.009%
276	14.766	14.750	14.818	VV	1360	32469	0.45%	0.024%
277	14.871	14.818	14.890	VV	446411	5623662	78.80%	4.236%
278	14.915	14.890	14.955	VV	481318	5915506	82.88%	4.455%
279	14.971	14.955	15.040	VV	3752	75377	1.06%	0.057%
280	15.059	15.040	15.074	VV	758	12314	0.17%	0.009%
281	15.097	15.074	15.135	VV	916	24669	0.35%	0.019%
282	15.155	15.135	15.176	VV	935	17516	0.25%	0.013%
283	15.214	15.176	15.258	VV	893	31154	0.44%	0.023%
284	15.301	15.258	15.378	VV	25158	363928	5.10%	0.274%
285	15.401	15.378	15.427	VV	2212	37301	0.52%	0.028%
286	15.462	15.427	15.486	VV	2173	46515	0.65%	0.035%
287	15.499	15.486	15.552	VV	930	31124	0.44%	0.023%
288	15.577	15.552	15.625	VV	1764	40131	0.56%	0.030%
289	15.662	15.625	15.701	VV	1087	34796	0.49%	0.026%
290	15.723	15.701	15.742	VV	857	18185	0.25%	0.014%
291	15.773	15.742	15.797	VV	1831	36943	0.52%	0.028%
292	15.820	15.797	15.855	VV	1741	41884	0.59%	0.032%
293	15.866	15.855	15.875	VV	887	9442	0.13%	0.007%
294	15.907	15.875	15.917	VV	1477	26554	0.37%	0.020%
295	15.946	15.917	15.980	VV	37777	497690	6.97%	0.375%
296	16.006	15.980	16.036	VV	2919	48660	0.68%	0.037%
297	16.112	16.036	16.129	VV	1054	33984	0.48%	0.026%
298	16.149	16.129	16.187	VV	1178	29741	0.42%	0.022%
299	16.203	16.187	16.228	VV	842	16629	0.23%	0.013%

rteres

300	16.236	16.228	16.265	VV	673	13041	0.18%	0.010%
301	16.311	16.265	16.362	VV	10995	186303	2.61%	0.140%
302	16.423	16.362	16.438	VV	387799	5614793	78.67%	4.229%
303	16.458	16.438	16.487	VV	458007	5422995	75.98%	4.084%
304	16.507	16.487	16.532	VV	2590	49679	0.70%	0.037%
305	16.558	16.532	16.587	VV	2637	56225	0.79%	0.042%
306	16.599	16.587	16.617	VV	1331	21377	0.30%	0.016%
307	16.622	16.617	16.634	VV	1192	11731	0.16%	0.009%
308	16.666	16.634	16.696	VV	3354	67269	0.94%	0.051%
309	16.732	16.696	16.753	VV	1444	43439	0.61%	0.033%
310	16.803	16.753	16.835	VV	410859	5306290	74.35%	3.997%
311	16.891	16.835	16.927	VV	43151	619081	8.67%	0.466%
312	16.966	16.927	16.999	VV	3351	90055	1.26%	0.068%
313	17.009	16.999	17.023	VV	1267	17636	0.25%	0.013%
314	17.034	17.023	17.066	VV	1441	30473	0.43%	0.023%
315	17.080	17.066	17.090	VV	1163	16039	0.22%	0.012%
316	17.096	17.090	17.107	VV	1073	11187	0.16%	0.008%
317	17.126	17.107	17.143	VV	1459	26952	0.38%	0.020%
318	17.148	17.143	17.163	VV	1272	14341	0.20%	0.011%
319	17.170	17.163	17.219	VV	1241	38760	0.54%	0.029%
320	17.252	17.219	17.313	VV	6221	155744	2.18%	0.117%
321	17.339	17.313	17.391	VV	3581	100367	1.41%	0.076%
322	17.423	17.391	17.472	VV	1803	71790	1.01%	0.054%
323	17.525	17.472	17.535	PV	1363	44955	0.63%	0.034%
324	17.556	17.535	17.609	VV	1547	61312	0.86%	0.046%
325	17.671	17.609	17.685	VV	1709	60025	0.84%	0.045%
326	17.710	17.685	17.726	VV	1640	37273	0.52%	0.028%
327	17.777	17.726	17.813	VV	34386	514710	7.21%	0.388%
328	17.822	17.813	17.831	VV	1180	10989	0.15%	0.008%
329	17.865	17.831	17.893	VV	3733	71997	1.01%	0.054%
330	17.916	17.893	17.935	VV	1115	24717	0.35%	0.019%
331	17.960	17.935	17.972	VV	1009	19866	0.28%	0.015%
332	18.002	17.972	18.027	VV	1542	37453	0.52%	0.028%
333	18.043	18.027	18.085	VV	1140	30602	0.43%	0.023%
334	18.170	18.085	18.185	VV	383496	5767377	80.81%	4.344%
335	18.208	18.185	18.248	VV	381698	5024835	70.41%	3.785%
336	18.260	18.248	18.271	VV	1255	15067	0.21%	0.011%
337	18.291	18.271	18.310	VV	1518	28604	0.40%	0.022%
338	18.335	18.310	18.371	VV	6452	92103	1.29%	0.069%
339	18.426	18.371	18.482	VV	387562	5301345	74.28%	3.993%
340	18.507	18.482	18.533	VV	3246	57138	0.80%	0.043%
341	18.550	18.533	18.568	VV	1074	19629	0.28%	0.015%
342	18.606	18.568	18.675	VV	31640	477711	6.69%	0.360%
343	18.704	18.675	18.735	VV	3735	60728	0.85%	0.046%
344	18.747	18.735	18.814	VV	1021	30001	0.42%	0.023%
345	18.820	18.814	18.842	VV	437	3306	0.05%	0.002%
346	18.894	18.842	18.921	PV	3395	54337	0.76%	0.041%
347	18.956	18.921	18.986	PV	9124	146901	2.06%	0.111%

Sum of corrected areas: 132772043

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

Manual Integration Report

Sequence:	FC040925AL	Instrument	FID_c

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason

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

Manual Integration Report

Sequence:	FC050225AL	Instrument	FID_c

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
20 PPM ALIPHATIC HC	FC068748.D	n-Octatriacontane (C38)	yogesh	5/5/2025 11:56:48 AM	mohammad	5/6/2025 4:46:17	Peak Integrated by Software

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

Manual Integration Report

Sequence:	FC050625AL	Instrument	FID_c

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason

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

Manual Integration Report

Sequence:	FC050825AL	Instrument	FID_c

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
20 PPM ALIPHATIC HC	FC068808.D	n-Octatriacontane (C38)	yogesh	5/9/2025 10:13:29 AM	mohammad	5/12/2025 1:56:48	Peak Integrated by Software

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

Manual Integration Report

Sequence:	FD050125AR	Instrument	FID_d

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason

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

Manual Integration Report

Sequence:	FD050225AR	Instrument	FID_d

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
PB167840BS	FD049311.D	Bnezo[k]fluoranthene (C30.14)	yogesh	5/6/2025 2:52:59 PM	mohammad	5/7/2025 6:08:18	Peak Integrated by Software
PB167840BS	FD049311.D	Dibenz[a,h]anthracene (C30.36)	yogesh	5/6/2025 2:52:59 PM	mohammad	5/7/2025 6:08:18	Peak Integrated by Software
PB167840BSD	FD049312.D	Bnezo[k]fluoranthene (C30.14)	yogesh	5/6/2025 2:52:56 PM	mohammad	5/7/2025 6:08:18	Peak Integrated by Software
PB167840BSD	FD049312.D	Dibenz[a,h]anthracene (C30.36)	yogesh	5/6/2025 2:52:56 PM	mohammad	5/7/2025 6:08:18	Peak Integrated by Software

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

Manual Integration Report

Sequence:	FD050825AR	Instrument	FID_d

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
PB167903BS	FD049320.D	Bnezo[k]fluoranthene (C30.14)	yogesh	5/9/2025 10:42:13 AM	mohammad	5/12/2025 1:56:54	Peak Integrated by Software
PB167903BSD	FD049321.D	Bnezo[k]fluoranthene (C30.14)	yogesh	5/9/2025 10:42:15 AM	mohammad	5/12/2025 1:56:54	Peak Integrated by Software

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

Instrument ID: FID_C

Daily Analysis Runlog For Sequence/QCBatch ID # FC040925AL

Review By	yogesh	Review On	4/8/2025 3:04:36 PM		
Supervise By	mohammad	Supervise On	4/10/2025 5:31:03 AM		
SubDirectory	FC040925AL	HP Acquire Method		HP Processing Method	FC040925AL

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP24170,PP24175,PP24176,PP24177,PP24178
CCC	PP24176
Internal Standard/PEM	
ICV/I.BLK	PP24174,PP24179
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FC068513.D	08 Apr 2025 13:05	YP/AJ	Ok
2	I.BLK	FC068514.D	08 Apr 2025 13:42	YP/AJ	Ok
3	100 PPM ALIPHATIC HC STD1	FC068515.D	08 Apr 2025 14:19	YP/AJ	Ok
4	50 PPM ALIPHATIC HC STD2	FC068516.D	08 Apr 2025 14:56	YP/AJ	Ok
5	20 PPM ALIPHATIC HC STD3	FC068517.D	08 Apr 2025 15:34	YP/AJ	Ok
6	10 PPM ALIPHATIC HC STD4	FC068518.D	08 Apr 2025 16:12	YP/AJ	Ok
7	5 PPM ALIPHATIC HC STD5	FC068519.D	08 Apr 2025 16:48	YP/AJ	Ok
8	20 PPM ALIPHATIC HC STD ICV	FC068520.D	08 Apr 2025 17:26	YP/AJ	Ok
9	I.BLK	FC068521.D	08 Apr 2025 18:41	YP/AJ	Ok
10	20 PPM ALIPHATIC HC STD	FC068522.D	08 Apr 2025 19:18	YP/AJ	Ok

M : Manual Integration

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

Instrument ID: FID_C

Daily Analysis Runlog For Sequence/QCBatch ID # FC050225AL

Review By	yogesh	Review On	5/2/2025 10:00:15 AM		
Supervise By	mohammad	Supervise On	5/6/2025 4:46:28 AM		
SubDirectory	FC050225AL	HP Acquire Method		HP Processing Method	FC040925AL

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP24170,PP24175,PP24176,PP24177,PP24178
CCC	PP24176
Internal Standard/PEM	
ICV/I.BLK	PP24174,PP24179
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FC068740.D	02 May 2025 09:42	YP/AJ	Ok
2	I.BLK	FC068741.D	02 May 2025 10:17	YP/AJ	Ok
3	20 PPM ALIPHATIC HC STD	FC068742.D	02 May 2025 10:53	YP/AJ	Ok
4	PB167840BL	FC068743.D	02 May 2025 11:36	YP/AJ	Ok
5	PB167840BS	FC068744.D	02 May 2025 13:26	YP/AJ	Ok
6	PB167840BSD	FC068745.D	02 May 2025 14:03	YP/AJ	Ok
7	Q1901-06	FC068746.D	02 May 2025 14:40	YP/AJ	Ok
8	I.BLK	FC068747.D	02 May 2025 15:18	YP/AJ	Ok
9	20 PPM ALIPHATIC HC STD	FC068748.D	02 May 2025 15:56	YP/AJ	Ok,M
10	PB167833BL	FC068749.D	02 May 2025 16:33	YP/AJ	Ok
11	PB167833BS	FC068750.D	02 May 2025 17:11	YP/AJ	Ok
12	PB167833BSD	FC068751.D	02 May 2025 17:49	YP/AJ	Ok
13	Q1928-01	FC068752.D	02 May 2025 18:27	YP/AJ	Ok
14	Q1928-01D	FC068753.D	02 May 2025 19:05	YP/AJ	Ok
15	Q1928-01MS	FC068754.D	02 May 2025 19:42	YP/AJ	Ok
16	Q1928-01MSD	FC068755.D	02 May 2025 20:19	YP/AJ	Ok
17	Q1928-02	FC068756.D	02 May 2025 20:57	YP/AJ	ReRun
18	I.BLK	FC068757.D	02 May 2025 22:11	YP/AJ	Ok
19	20 PPM ALIPHATIC HC STD	FC068758.D	02 May 2025 22:47	YP/AJ	Ok

M : Manual Integration

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

Instrument ID: FID_C

Daily Analysis Runlog For Sequence/QCBatch ID # FC050625AL

Review By	yogesh	Review On	5/6/2025 2:50:27 PM		
Supervise By	mohammad	Supervise On	5/8/2025 2:15:32 AM		
SubDirectory	FC050625AL	HP Acquire Method		HP Processing Method	FC050625AL

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP24170,PP24175,PP24176,PP24177,PP24178
CCC	PP24176
Internal Standard/PEM	
ICV/I.BLK	PP24174,PP24179
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FC068779.D	06 May 2025 14:18	YP/AJ	Ok
2	I.BLK	FC068780.D	06 May 2025 14:55	YP/AJ	Ok
3	100 PPM ALIPHATIC HC STD1	FC068781.D	06 May 2025 15:33	YP/AJ	Ok
4	50 PPM ALIPHATIC HC STD2	FC068782.D	06 May 2025 16:11	YP/AJ	Ok
5	20 PPM ALIPHATIC HC STD3	FC068783.D	06 May 2025 16:48	YP/AJ	Ok
6	10 PPM ALIPHATIC HC STD4	FC068784.D	06 May 2025 17:26	YP/AJ	Ok
7	5 PPM ALIPHATIC HC STD5	FC068785.D	06 May 2025 18:03	YP/AJ	Ok
8	20 PPM ALIPHATIC HC STD ICV	FC068786.D	06 May 2025 18:40	YP/AJ	Ok
9	I.BLK	FC068787.D	06 May 2025 19:55	YP/AJ	Ok
10	20 PPM ALIPHATIC HC STD	FC068788.D	06 May 2025 20:33	YP/AJ	Ok

M : Manual Integration

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

Instrument ID: FID_C

Daily Analysis Runlog For Sequence/QCBatch ID # FC050825AL

Review By	yogesh	Review On	5/8/2025 12:22:05 PM		
Supervise By	mohammad	Supervise On	5/12/2025 1:56:48 AM		
SubDirectory	FC050825AL	HP Acquire Method		HP Processing Method	FC050625AL

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP24170,PP24175,PP24176,PP24177,PP24178
CCC	PP24176
Internal Standard/PEM	
ICV/I.BLK	PP24174,PP24179
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FC068789.D	08 May 2025 08:53	YP/AJ	Ok
2	I.BLK	FC068790.D	08 May 2025 09:30	YP/AJ	Ok
3	20 PPM ALIPHATIC HC STD	FC068791.D	08 May 2025 10:08	YP/AJ	Ok
4	PB167903BL	FC068792.D	08 May 2025 12:24	YP/AJ	Ok
5	PB167903BS	FC068793.D	08 May 2025 13:01	YP/AJ	Ok
6	PB167903BSD	FC068794.D	08 May 2025 13:38	YP/AJ	Ok
7	Q1872-16	FC068795.D	08 May 2025 14:20	YP/AJ	Dilution
8	Q1872-16DL	FC068796.D	08 May 2025 15:19	YP/AJ	Dilution
9	Q1872-16DL2	FC068797.D	08 May 2025 15:57	YP/AJ	Ok
10	I.BLK	FC068798.D	08 May 2025 16:36	YP/AJ	Ok
11	20 PPM ALIPHATIC HC STD	FC068799.D	08 May 2025 17:14	YP/AJ	Ok
12	Q1901-02	FC068800.D	08 May 2025 18:31	YP/AJ	Ok
13	Q1901-03	FC068801.D	08 May 2025 19:09	YP/AJ	Ok
14	Q1901-04	FC068802.D	08 May 2025 19:47	YP/AJ	Ok
15	Q1901-04D	FC068803.D	08 May 2025 20:25	YP/AJ	Ok
16	Q1901-04MS	FC068804.D	08 May 2025 21:04	YP/AJ	Ok
17	Q1901-04MSD	FC068805.D	08 May 2025 21:41	YP/AJ	Ok
18	Q1901-05	FC068806.D	08 May 2025 22:19	YP/AJ	Ok
19	I.BLK	FC068807.D	08 May 2025 22:56	YP/AJ	Ok
20	20 PPM ALIPHATIC HC STD	FC068808.D	08 May 2025 23:34	YP/AJ	Ok,M

M : Manual Integration

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

Instrument ID: FID_D

Daily Analysis Runlog For Sequence/QCBatch ID # FD050125AR

Review By	yogesh	Review On	5/1/2025 11:47:04 AM		
Supervise By	mohammad	Supervise On	5/5/2025 4:36:32 AM		
SubDirectory	FD050125AR	HP Acquire Method		HP Processing Method	FD050125AR

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP24500,PP24502,PP24503,PP24504,PP24505
CCC	
Internal Standard/PEM	
ICV/I.BLK	PP24501,PP24506
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FD049296.D	01 May 2025 09:18	YP/AJ	Ok
2	I.BLK	FD049297.D	01 May 2025 09:54	YP/AJ	Ok
3	100 PPM AROMATIC HC STD1	FD049298.D	01 May 2025 10:30	YP/AJ	Ok
4	50 PPM AROMATIC HC STD2	FD049299.D	01 May 2025 11:07	YP/AJ	Ok
5	20 PPM AROMATIC HC STD3	FD049300.D	01 May 2025 11:42	YP/AJ	Ok
6	10 PPM AROMATIC HC STD4	FD049301.D	01 May 2025 12:18	YP/AJ	Ok
7	5 PPM AROMATIC HC STD5	FD049302.D	01 May 2025 12:55	YP/AJ	Ok
8	20 PPM AROMATIC HC STD ICV	FD049303.D	01 May 2025 13:31	YP/AJ	Ok
9	I.BLK	FD049304.D	01 May 2025 14:07	YP/AJ	Ok
10	20 PPM AROMATIC HC STD	FD049305.D	01 May 2025 14:44	YP/AJ	Ok
11	PP24499	FD049306.D	01 May 2025 15:20	YP/AJ	Ok

M : Manual Integration

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

Instrument ID: FID_D

Daily Analysis Runlog For Sequence/QCBatch ID # FD050225AR

Review By	yogesh	Review On	5/2/2025 10:02:01 AM		
Supervise By	mohammad	Supervise On	5/7/2025 6:08:18 AM		
SubDirectory	FD050225AR	HP Acquire Method		HP Processing Method	FD050125AR

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP24500,PP24502,PP24503,PP24504,PP24505
CCC	PP24503
Internal Standard/PEM	
ICV/I.BLK	PP24501,PP24506
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FD049307.D	02 May 2025 09:42	YP/AJ	Ok
2	I.BLK	FD049308.D	02 May 2025 10:17	YP/AJ	Ok
3	20 PPM AROMATIC HC STD	FD049309.D	02 May 2025 10:53	YP/AJ	Ok
4	PB167840BL	FD049310.D	02 May 2025 11:36	YP/AJ	Ok
5	PB167840BS	FD049311.D	02 May 2025 13:26	YP/AJ	Ok,M
6	PB167840BSD	FD049312.D	02 May 2025 14:03	YP/AJ	Ok,M
7	Q1901-06	FD049313.D	02 May 2025 14:40	YP/AJ	Ok
8	I.BLK	FD049314.D	02 May 2025 15:18	YP/AJ	Ok
9	20 PPM AROMATIC HC STD	FD049315.D	02 May 2025 15:56	YP/AJ	Ok

M : Manual Integration

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

Instrument ID: FID_D

Daily Analysis Runlog For Sequence/QCBatch ID # FD050825AR

Review By	yogesh	Review On	5/8/2025 12:23:41 PM		
Supervise By	mohammad	Supervise On	5/12/2025 1:56:54 AM		
SubDirectory	FD050825AR	HP Acquire Method		HP Processing Method	FD050125AR

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP24500,PP24502,PP24503,PP24504,PP24505
CCC	PP24503
Internal Standard/PEM	
ICV/I.BLK	PP24501,PP24506
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FD049316.D	08 May 2025 08:53	YP/AJ	Ok
2	I.BLK	FD049317.D	08 May 2025 09:30	YP/AJ	Ok
3	20 PPM AROMATIC HC STD	FD049318.D	08 May 2025 10:08	YP/AJ	Ok
4	PB167903BL	FD049319.D	08 May 2025 12:24	YP/AJ	Ok
5	PB167903BS	FD049320.D	08 May 2025 13:01	YP/AJ	Ok,M
6	PB167903BSD	FD049321.D	08 May 2025 13:38	YP/AJ	Ok,M
7	Q1872-16	FD049322.D	08 May 2025 14:20	YP/AJ	Ok
8	Q1872-16DL	FD049323.D	08 May 2025 15:19	YP/AJ	Not Ok
9	I.BLK	FD049324.D	08 May 2025 15:57	YP/AJ	Ok
10	20 PPM AROMATIC HC STD	FD049325.D	08 May 2025 16:36	YP/AJ	Ok
11	Q1901-02	FD049326.D	08 May 2025 17:53	YP/AJ	Ok
12	Q1901-03	FD049327.D	08 May 2025 18:31	YP/AJ	Ok
13	Q1901-04	FD049328.D	08 May 2025 19:09	YP/AJ	Ok
14	Q1901-04D	FD049329.D	08 May 2025 19:47	YP/AJ	Ok
15	Q1901-04MS	FD049330.D	08 May 2025 20:25	YP/AJ	Ok
16	Q1901-04MSD	FD049331.D	08 May 2025 21:04	YP/AJ	Ok
17	Q1901-05	FD049332.D	08 May 2025 21:41	YP/AJ	Ok
18	I.BLK	FD049333.D	08 May 2025 22:56	YP/AJ	Ok
19	20 PPM AROMATIC HC STD	FD049334.D	08 May 2025 23:34	YP/AJ	Ok

M : Manual Integration

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

Instrument ID: FID_C

Daily Analysis Runlog For Sequence/QCBatch ID # FC040925AL

Review By	yogesh	Review On	4/8/2025 3:04:36 PM		
Supervise By	mohammad	Supervise On	4/10/2025 5:31:03 AM		
SubDirectory	FC040925AL	HP Acquire Method		HP Processing Method	FC040925AL

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP24170,PP24175,PP24176,PP24177,PP24178
CCC	PP24176
Internal Standard/PEM	
ICV/I.BLK	PP24174,PP24179
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2	MECL2	FC068513.D	08 Apr 2025 13:05		YP/AJ	Ok
2	I.BLK	I.BLK	FC068514.D	08 Apr 2025 13:42		YP/AJ	Ok
3	100 PPM ALIPHATIC H	100 PPM ALIPHATIC H	FC068515.D	08 Apr 2025 14:19		YP/AJ	Ok
4	50 PPM ALIPHATIC HC	50 PPM ALIPHATIC HC	FC068516.D	08 Apr 2025 14:56		YP/AJ	Ok
5	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FC068517.D	08 Apr 2025 15:34		YP/AJ	Ok
6	10 PPM ALIPHATIC HC	10 PPM ALIPHATIC HC	FC068518.D	08 Apr 2025 16:12		YP/AJ	Ok
7	5 PPM ALIPHATIC HC	5 PPM ALIPHATIC HC	FC068519.D	08 Apr 2025 16:48		YP/AJ	Ok
8	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FC068520.D	08 Apr 2025 17:26		YP/AJ	Ok
9	I.BLK	I.BLK	FC068521.D	08 Apr 2025 18:41		YP/AJ	Ok
10	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FC068522.D	08 Apr 2025 19:18		YP/AJ	Ok

M : Manual Integration

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

Instrument ID: FID_C

Daily Analysis Runlog For Sequence/QCBatch ID # FC050225AL

Review By	yogesh	Review On	5/2/2025 10:00:15 AM		
Supervise By	mohammad	Supervise On	5/6/2025 4:46:28 AM		
SubDirectory	FC050225AL	HP Acquire Method		HP Processing Method	FC040925AL

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP24170,PP24175,PP24176,PP24177,PP24178
CCC	PP24176
Internal Standard/PEM	
ICV/I.BLK	PP24174,PP24179
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2	MECL2	FC068740.D	02 May 2025 09:42		YP/AJ	Ok
2	I.BLK	I.BLK	FC068741.D	02 May 2025 10:17		YP/AJ	Ok
3	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FC068742.D	02 May 2025 10:53		YP/AJ	Ok
4	PB167840BL	PB167840BL	FC068743.D	02 May 2025 11:36		YP/AJ	Ok
5	PB167840BS	PB167840BS	FC068744.D	02 May 2025 13:26	naphthalene break down - 0.194, 2-methylnephthalene break down - 0.352	YP/AJ	Ok
6	PB167840BSD	PB167840BSD	FC068745.D	02 May 2025 14:03	naphthalene break down - 0.194, 2-methylnephthalene break down - 0.331	YP/AJ	Ok
7	Q1901-06	FB04262025	FC068746.D	02 May 2025 14:40		YP/AJ	Ok
8	I.BLK	I.BLK	FC068747.D	02 May 2025 15:18		YP/AJ	Ok
9	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FC068748.D	02 May 2025 15:56		YP/AJ	Ok,M
10	PB167833BL	PB167833BL	FC068749.D	02 May 2025 16:33		YP/AJ	Ok
11	PB167833BS	PB167833BS	FC068750.D	02 May 2025 17:11		YP/AJ	Ok
12	PB167833BSD	PB167833BSD	FC068751.D	02 May 2025 17:49		YP/AJ	Ok
13	Q1928-01	MH-Q	FC068752.D	02 May 2025 18:27		YP/AJ	Ok
14	Q1928-01D	Q1928-01D	FC068753.D	02 May 2025 19:05		YP/AJ	Ok
15	Q1928-01MS	MH-QMS	FC068754.D	02 May 2025 19:42	FC068752.D	YP/AJ	Ok
16	Q1928-01MSD	MH-QMSD	FC068755.D	02 May 2025 20:19	FC068752.D!FC068754.D	YP/AJ	Ok

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

Instrument ID: FID_C

Daily Analysis Runlog For Sequence/QCBatch ID # FC050225AL

Review By	yogesh	Review On	5/2/2025 10:00:15 AM		
Supervise By	mohammad	Supervise On	5/6/2025 4:46:28 AM		
SubDirectory	FC050225AL	HP Acquire Method		HP Processing Method	FC040925AL

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP24170,PP24175,PP24176,PP24177,PP24178
CCC	PP24176
Internal Standard/PEM	
ICV/I.BLK	PP24174,PP24179
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

17	Q1928-02	MH-Q-EPH	FC068756.D	02 May 2025 20:57	Surrogate Fail	YP/AJ	ReRun
18	I.BLK	I.BLK	FC068757.D	02 May 2025 22:11		YP/AJ	Ok
19	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FC068758.D	02 May 2025 22:47		YP/AJ	Ok

M : Manual Integration

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

Instrument ID: FID_C

Daily Analysis Runlog For Sequence/QCBatch ID # FC050625AL

Review By	yogesh	Review On	5/6/2025 2:50:27 PM		
Supervise By	mohammad	Supervise On	5/8/2025 2:15:32 AM		
SubDirectory	FC050625AL	HP Acquire Method		HP Processing Method	FC050625AL

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP24170,PP24175,PP24176,PP24177,PP24178
CCC	PP24176
Internal Standard/PEM	
ICV/I.BLK	PP24174,PP24179
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2	MECL2	FC068779.D	06 May 2025 14:18		YP/AJ	Ok
2	I.BLK	I.BLK	FC068780.D	06 May 2025 14:55		YP/AJ	Ok
3	100 PPM ALIPHATIC H	100 PPM ALIPHATIC H	FC068781.D	06 May 2025 15:33		YP/AJ	Ok
4	50 PPM ALIPHATIC HC	50 PPM ALIPHATIC HC	FC068782.D	06 May 2025 16:11		YP/AJ	Ok
5	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FC068783.D	06 May 2025 16:48		YP/AJ	Ok
6	10 PPM ALIPHATIC HC	10 PPM ALIPHATIC HC	FC068784.D	06 May 2025 17:26		YP/AJ	Ok
7	5 PPM ALIPHATIC HC	5 PPM ALIPHATIC HC	FC068785.D	06 May 2025 18:03		YP/AJ	Ok
8	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FC068786.D	06 May 2025 18:40		YP/AJ	Ok
9	I.BLK	I.BLK	FC068787.D	06 May 2025 19:55		YP/AJ	Ok
10	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FC068788.D	06 May 2025 20:33		YP/AJ	Ok

M : Manual Integration

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

Instrument ID: FID_C

Daily Analysis Runlog For Sequence/QCBatch ID # FC050825AL

Review By	yogesh	Review On	5/8/2025 12:22:05 PM		
Supervise By	mohammad	Supervise On	5/12/2025 1:56:48 AM		
SubDirectory	FC050825AL	HP Acquire Method		HP Processing Method	FC050625AL

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP24170,PP24175,PP24176,PP24177,PP24178
CCC	PP24176
Internal Standard/PEM	
ICV/I.BLK	PP24174,PP24179
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2	MECL2	FC068789.D	08 May 2025 08:53		YP/AJ	Ok
2	I.BLK	I.BLK	FC068790.D	08 May 2025 09:30		YP/AJ	Ok
3	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FC068791.D	08 May 2025 10:08		YP/AJ	Ok
4	PB167903BL	PB167903BL	FC068792.D	08 May 2025 12:24		YP/AJ	Ok
5	PB167903BS	PB167903BS	FC068793.D	08 May 2025 13:01	naphthalene break down - 0.247, 2-methylnephthalene break down - 0.300	YP/AJ	Ok
6	PB167903BSD	PB167903BSD	FC068794.D	08 May 2025 13:38	naphthalene break down - 0.195, 2-methylnephthalene break down - 0.321	YP/AJ	Ok
7	Q1872-16	HW0425-PT-NJEPH-SC	FC068795.D	08 May 2025 14:20	Need 5X,10X	YP/AJ	Dilution
8	Q1872-16DL	HW0425-PT-NJEPH-SC	FC068796.D	08 May 2025 15:19	need further dilution	YP/AJ	Dilution
9	Q1872-16DL2	HW0425-PT-NJEPH-SC	FC068797.D	08 May 2025 15:57		YP/AJ	Ok
10	I.BLK	I.BLK	FC068798.D	08 May 2025 16:36		YP/AJ	Ok
11	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FC068799.D	08 May 2025 17:14		YP/AJ	Ok
12	Q1901-02	B-167-SB01	FC068800.D	08 May 2025 18:31		YP/AJ	Ok
13	Q1901-03	B-170-SB01	FC068801.D	08 May 2025 19:09		YP/AJ	Ok
14	Q1901-04	B-167-SB02	FC068802.D	08 May 2025 19:47		YP/AJ	Ok
15	Q1901-04D	Q1901-04D	FC068803.D	08 May 2025 20:25		YP/AJ	Ok
16	Q1901-04MS	B-167-SB02MS	FC068804.D	08 May 2025 21:04	FC068802.D	YP/AJ	Ok

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

Instrument ID: FID_C

Daily Analysis Runlog For Sequence/QCBatch ID # FC050825AL

Review By	yogesh	Review On	5/8/2025 12:22:05 PM		
Supervise By	mohammad	Supervise On	5/12/2025 1:56:48 AM		
SubDirectory	FC050825AL	HP Acquire Method		HP Processing Method	FC050625AL

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP24170,PP24175,PP24176,PP24177,PP24178
CCC	PP24176
Internal Standard/PEM	
ICV/I.BLK	PP24174,PP24179
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

17	Q1901-04MSD	B-167-SB02MSD	FC068805.D	08 May 2025 21:41	FC068802.D!FC068804.D	YP/AJ	Ok
18	Q1901-05	B-170-SB02	FC068806.D	08 May 2025 22:19		YP/AJ	Ok
19	I.BLK	I.BLK	FC068807.D	08 May 2025 22:56		YP/AJ	Ok
20	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FC068808.D	08 May 2025 23:34		YP/AJ	Ok,M

M : Manual Integration

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

Instrument ID: FID_D

Daily Analysis Runlog For Sequence/QCBatch ID # FD050125AR

Review By	yogesh	Review On	5/1/2025 11:47:04 AM		
Supervise By	mohammad	Supervise On	5/5/2025 4:36:32 AM		
SubDirectory	FD050125AR	HP Acquire Method		HP Processing Method	FD050125AR

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP24500,PP24502,PP24503,PP24504,PP24505
CCC	
Internal Standard/PEM	
ICV/I.BLK	PP24501,PP24506
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2	MECL2	FD049296.D	01 May 2025 09:18		YP/AJ	Ok
2	I.BLK	I.BLK	FD049297.D	01 May 2025 09:54		YP/AJ	Ok
3	100 PPM AROMATIC H	100 PPM AROMATIC H	FD049298.D	01 May 2025 10:30		YP/AJ	Ok
4	50 PPM AROMATIC HC	50 PPM AROMATIC HC	FD049299.D	01 May 2025 11:07		YP/AJ	Ok
5	20 PPM AROMATIC HC	20 PPM AROMATIC HC	FD049300.D	01 May 2025 11:42		YP/AJ	Ok
6	10 PPM AROMATIC HC	10 PPM AROMATIC HC	FD049301.D	01 May 2025 12:18		YP/AJ	Ok
7	5 PPM AROMATIC HC	5 PPM AROMATIC HC	FD049302.D	01 May 2025 12:55		YP/AJ	Ok
8	20 PPM AROMATIC HC	20 PPM AROMATIC HC	FD049303.D	01 May 2025 13:31		YP/AJ	Ok
9	I.BLK	I.BLK	FD049304.D	01 May 2025 14:07		YP/AJ	Ok
10	20 PPM AROMATIC HC	20 PPM AROMATIC HC	FD049305.D	01 May 2025 14:44		YP/AJ	Ok
11	PP24499	PP24499	FD049306.D	01 May 2025 15:20		YP/AJ	Ok

M : Manual Integration

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

Instrument ID: FID_D

Daily Analysis Runlog For Sequence/QCBatch ID # FD050225AR

Review By	yogesh	Review On	5/2/2025 10:02:01 AM		
Supervise By	mohammad	Supervise On	5/7/2025 6:08:18 AM		
SubDirectory	FD050225AR	HP Acquire Method		HP Processing Method	FD050125AR

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP24500,PP24502,PP24503,PP24504,PP24505
CCC	PP24503
Internal Standard/PEM	
ICV/I.BLK	PP24501,PP24506
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2	MECL2	FD049307.D	02 May 2025 09:42		YP/AJ	Ok
2	I.BLK	I.BLK	FD049308.D	02 May 2025 10:17		YP/AJ	Ok
3	20 PPM AROMATIC HC	20 PPM AROMATIC HC	FD049309.D	02 May 2025 10:53		YP/AJ	Ok
4	PB167840BL	PB167840BL	FD049310.D	02 May 2025 11:36		YP/AJ	Ok
5	PB167840BS	PB167840BS	FD049311.D	02 May 2025 13:26	naphthalene break down - 0.194, 2-methylnephthalene break down - 0.352	YP/AJ	Ok,M
6	PB167840BSD	PB167840BSD	FD049312.D	02 May 2025 14:03	naphthalene break down - 0.194, 2-methylnephthalene break down - 0.331	YP/AJ	Ok,M
7	Q1901-06	FB04262025	FD049313.D	02 May 2025 14:40		YP/AJ	Ok
8	I.BLK	I.BLK	FD049314.D	02 May 2025 15:18		YP/AJ	Ok
9	20 PPM AROMATIC HC	20 PPM AROMATIC HC	FD049315.D	02 May 2025 15:56		YP/AJ	Ok

M : Manual Integration

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

Instrument ID: FID_D

Daily Analysis Runlog For Sequence/QCBatch ID # FD050825AR

Review By	yogesh	Review On	5/8/2025 12:23:41 PM		
Supervise By	mohammad	Supervise On	5/12/2025 1:56:54 AM		
SubDirectory	FD050825AR	HP Acquire Method		HP Processing Method	FD050125AR

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP24500,PP24502,PP24503,PP24504,PP24505
CCC	PP24503
Internal Standard/PEM	
ICV/I.BLK	PP24501,PP24506
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2	MECL2	FD049316.D	08 May 2025 08:53		YP/AJ	Ok
2	I.BLK	I.BLK	FD049317.D	08 May 2025 09:30		YP/AJ	Ok
3	20 PPM AROMATIC HC	20 PPM AROMATIC HC	FD049318.D	08 May 2025 10:08		YP/AJ	Ok
4	PB167903BL	PB167903BL	FD049319.D	08 May 2025 12:24		YP/AJ	Ok
5	PB167903BS	PB167903BS	FD049320.D	08 May 2025 13:01	naphthalene break down - 0.247, 2-methylnephthalene break down - 0.300	YP/AJ	Ok,M
6	PB167903BSD	PB167903BSD	FD049321.D	08 May 2025 13:38	naphthalene break down - 0.195, 2-methylnephthalene break down - 0.321	YP/AJ	Ok,M
7	Q1872-16	HW0425-PT-NJEPH-SC	FD049322.D	08 May 2025 14:20		YP/AJ	Ok
8	Q1872-16DL	HW0425-PT-NJEPH-SC	FD049323.D	08 May 2025 15:19	not required	YP/AJ	Not Ok
9	I.BLK	I.BLK	FD049324.D	08 May 2025 15:57		YP/AJ	Ok
10	20 PPM AROMATIC HC	20 PPM AROMATIC HC	FD049325.D	08 May 2025 16:36		YP/AJ	Ok
11	Q1901-02	B-167-SB01	FD049326.D	08 May 2025 17:53		YP/AJ	Ok
12	Q1901-03	B-170-SB01	FD049327.D	08 May 2025 18:31		YP/AJ	Ok
13	Q1901-04	B-167-SB02	FD049328.D	08 May 2025 19:09		YP/AJ	Ok
14	Q1901-04D	Q1901-04D	FD049329.D	08 May 2025 19:47		YP/AJ	Ok
15	Q1901-04MS	B-167-SB02MS	FD049330.D	08 May 2025 20:25	FD049328.D	YP/AJ	Ok
16	Q1901-04MSD	B-167-SB02MSD	FD049331.D	08 May 2025 21:04	FD049328.D!FD049330.D	YP/AJ	Ok

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

Instrument ID: FID_D

Daily Analysis Runlog For Sequence/QCBatch ID # FD050825AR

Review By	yogesh	Review On	5/8/2025 12:23:41 PM		
Supervise By	mohammad	Supervise On	5/12/2025 1:56:54 AM		
SubDirectory	FD050825AR	HP Acquire Method		HP Processing Method	FD050125AR

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP24500,PP24502,PP24503,PP24504,PP24505
CCC	PP24503
Internal Standard/PEM	
ICV/I.BLK	PP24501,PP24506
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

17	Q1901-05	B-170-SB02	FD049332.D	08 May 2025 21:41		YP/AJ	Ok
18	I.BLK	I.BLK	FD049333.D	08 May 2025 22:56		YP/AJ	Ok
19	20 PPM AROMATIC HC	20 PPM AROMATIC HC	FD049334.D	08 May 2025 23:34		YP/AJ	Ok

M : Manual Integration

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 4/29/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:25
In Date: 04/28/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:37
Out Date: 04/29/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB135575

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
Q1872-24	HW0425-PT-SOL-SOIL	8	0.92	10.30	11.22	8.82	76.7	
Q1901-01	B-170-SB00	1	1.14	5.55	6.69	6.28	92.6	
Q1901-02	B-167-SB01	2	1.14	10.22	11.36	9.58	82.6	
Q1901-03	B-170-SB01	3	1.19	10.31	11.5	9.75	83.0	
Q1901-04	B-167-SB02	4	1.15	9.78	10.93	6.35	53.2	
Q1901-05	B-170-SB02	5	1.14	10.16	11.3	8.77	75.1	
Q1902-01	343	6	1.19	10.23	11.42	10.7	93.0	
Q1902-02	343	7	1.13	10.19	11.32	10.33	90.3	
Q1903-01	COMP-4	9	1.18	11.14	12.32	10.46	83.3	
Q1903-02	COMP-5	10	1.16	10.50	11.66	9.44	78.9	
Q1903-03	COMP-6	11	1.17	10.60	11.77	10.06	83.9	
Q1904-01	VNJ-210	12	1.19	10.39	11.58	10.6	90.6	
Q1905-01	MH-G	13	1.15	10.35	11.5	10.38	89.2	
Q1905-02	MH-G-EPH	14	1.16	9.65	10.81	9.71	88.6	
Q1905-03	MH-G-VOC	15	1.16	10.33	11.49	10.36	89.1	
Q1905-05	MH-H	16	1.12	10.03	11.15	10.5	93.5	
Q1905-06	MH-H-EPH	17	1.13	10.30	11.43	10.5	91.0	
Q1905-07	MH-H-VOC	18	1.12	10.03	11.15	10.01	88.6	
Q1906-01	WC-4	19	1.15	9.85	11.00	10.14	91.3	
Q1906-02	WC-4-EPH	20	1.16	9.97	11.13	10.17	90.4	
Q1906-03	WC-4-VOC	21	1.18	9.99	11.17	9.91	87.4	
Q1906-05	WC-5	22	1.16	10.82	11.98	10.19	83.5	
Q1906-06	WC-5-EPH	23	1.13	10.41	11.54	9.94	84.6	
Q1906-07	WC-5-VOC	24	1.18	10.47	11.65	11.63	99.8	
Q1906-09	WC-6	25	1.14	10.04	11.18	10.4	92.2	
Q1906-10	WC-6-EPH	26	1.15	10.77	11.92	10.23	84.3	
Q1906-11	WC-6-VOC	27	1.14	10.47	11.61	10.86	92.8	
Q1906-13	WC-7	28	1.14	10.85	11.99	10.31	84.5	

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 4/29/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:25
In Date: 04/28/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:37
Out Date: 04/29/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB135575

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
Q1906-14	WC-7-EPH	29	1.12	9.86	10.98	9.7	87.0	
Q1906-15	WC-7-VOC	30	1.13	10.27	11.4	10.23	88.6	
Q1907-01	CO-8R-WC	31	1.13	10.26	11.39	9.81	84.6	

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

WORKLIST(Hardcopy Internal Chain)

VB B5575

WorkList Name : %1-042825 **WorkList ID :** 189159 **Department :** Wet-Chemistry **Date :** 04-28-2025 07:59:12

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1872-24	HW0425-PT-SOL-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1903-01	COMP-4	Solid	Percent Solids	Cool 4 deg C	POWE02	L51	04/25/2025	Chemtech -SO
Q1903-02	COMP-5	Solid	Percent Solids	Cool 4 deg C	POWE02	L51	04/25/2025	Chemtech -SO
Q1903-03	COMP-6	Solid	Percent Solids	Cool 4 deg C	POWE02	L51	04/25/2025	Chemtech -SO
Q1901-01	B-170-SB00	Solid	Percent Solids	Cool 4 deg C	PORT06	L51	04/26/2025	Chemtech -SO
Q1901-02	B-167-SB01	Solid	Percent Solids	Cool 4 deg C	PORT06	L51	04/26/2025	Chemtech -SO
Q1901-03	B-170-SB01	Solid	Percent Solids	Cool 4 deg C	PORT06	L51	04/26/2025	Chemtech -SO
Q1901-04	B-167-SB02	Solid	Percent Solids	Cool 4 deg C	PORT06	L51	04/26/2025	Chemtech -SO
Q1901-05	B-170-SB02	Solid	Percent Solids	Cool 4 deg C	PORT06	L51	04/26/2025	Chemtech -SO
Q1902-01	343	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/28/2025	Chemtech -SO
Q1902-02	343	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/28/2025	Chemtech -SO
Q1904-01	VNJ-210	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/28/2025	Chemtech -SO
Q1905-01	MH-G	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	04/28/2025	Chemtech -SO
Q1905-02	MH-G-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	04/28/2025	Chemtech -SO
Q1905-03	MH-G-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	04/28/2025	Chemtech -SO
Q1906-13	WC-7	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/28/2025	Chemtech -SO
Q1906-14	WC-7-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/28/2025	Chemtech -SO
Q1906-15	WC-7-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/28/2025	Chemtech -SO
Q1906-05	WC-5	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/28/2025	Chemtech -SO
Q1906-06	WC-5-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/28/2025	Chemtech -SO
Q1906-07	WC-5-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/28/2025	Chemtech -SO

Date/Time 04/28/25 16:15

Raw Sample Received by: TO (4deg C)

Raw Sample Relinquished by:

Date/Time 04/28/25 17:30

Raw Sample Received by:

Raw Sample Relinquished by: TO (4deg C)

WORKLIST(Hardcopy Internal Chain)

WB 135575

WorkList Name : %1-042825 **WorkList ID :** 189159 **Department :** Wet-Chemistry **Date :** 04-28-2025 07:59:12

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1906-09	WC-6	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/28/2025	Chemtech -SO
Q1906-10	WC-6-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/28/2025	Chemtech -SO
Q1906-11	WC-6-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/28/2025	Chemtech -SO
Q1905-05	MH-H	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	04/28/2025	Chemtech -SO
Q1905-06	MH-H-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	04/28/2025	Chemtech -SO
Q1905-07	MH-H-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	04/28/2025	Chemtech -SO
Q1906-01	WC-4	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/28/2025	Chemtech -SO
Q1906-02	WC-4-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/28/2025	Chemtech -SO
Q1906-03	WC-4-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/28/2025	Chemtech -SO
Q1907-01	CO-8R-WC	Solid	Percent Solids	Cool 4 deg C	WALS01	L51	04/28/2025	Chemtech -SO

Date/Time 04/28/25 16:15
Raw Sample Received by: JD WOC
Raw Sample Relinquished by:

Date/Time 04/28/25 17:30
Raw Sample Received by:
Raw Sample Relinquished by: JD WOC

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PB167840

SOP ID:	MNJDEP-EPH-7				
Clean Up SOP #:	N/A			**Extraction Start Date :**	05/01/2025
Matrix :	Water			**Extraction Start Time :**	09:40
Weigh By:	N/A	**Extraction By:**	RS	**Extraction End Date :**	05/01/2025
Balance check:	N/A	**Filter By:**	RS	**Extraction End Time :**	16:10
Balance ID:	N/A	**pH Meter ID:**	N/A	**Concentration By:**	EH
pH Strip Lot#:	E3880	**Hood ID:**	4,6,7	**Supervisor By :**	RUPESH

Extraction Method: ☑ Seperatory Funnel ☐ Continious Liquid/Liquid ☐ Sonication ☐ Waste Dilution ☐ Soxhlet

Standared Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Spike Sol 1	1.0ML	100 PPM	PP24462
Surrogate	1.0ML	100 PPM	PP24491
Fractionation Surrogate	1.0ML	100 PPM	PP24465
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Methylene Chloride	N/A	E3926
Baked Na2SO4	N/A	EP2607
Hexane	N/A	E3928
6N HCL	N/A	EP2569
EPH Cartridge	N/A	E3757
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:

1.5ML Vial Lot # 2210443.

KD Bath ID:	WATER BATH-1	**Envap ID:**	NE VAP-02
KD Bath Temperature:	60 °C	**Envap Temperature:**	40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
5/1/25	RS (Ext-Lab)	4-P-Pest-1
16:15	**Preparation Group**	**Analysis Group**

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PrepBatch ID : PB167840

Analytical Method: MNJDEP-EPH-7

Concentration Date: 05/01/2025

Sample ID	Client Sample ID	Test	g /(mL)	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB167840BL	PB167840BL	EPH	1000	<2	RUPESH	Evelyn	2			SEP-1
PB167840BS	PB167840BS	EPH	1000	<2	RUPESH	Evelyn	2			2
PB167840BSD	PB167840BSD	EPH	1000	<2	RUPESH	Evelyn	2			3
Q1901-06	FB04262025	EPH	940	<2	RUPESH	Evelyn	2	J		4

* **Extracts relinquished on the same date as received.**

167838
9-1-25

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q1901EPH **WorkList ID :** 189286 **Department :** Extraction **Date :** 05-01-2025 09:33:07

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1901-06	FB04262025	Water	EPH	1:1 HCl to pH < 2	PORT06	L51	04/26/2025	NJEPH

Date/Time 5/1/25 9:35
Raw Sample Received by: RS (ESC Lab)
Raw Sample Relinquished by: [signature]

Date/Time 5/1/25 9:55
Raw Sample Received by: [signature]
Raw Sample Relinquished by: RS (ESC Lab)

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PB167903

SOP ID:	MNJDEP-EPH-7				
Clean Up SOP #:	N/A			**Extraction Start Date :**	05/07/2025
Matrix :	Solid			**Extraction Start Time :**	13:37
Weigh By:	EH	**Extraction By:**	RJ	**Extraction End Date :**	05/08/2025
Balance check:	RJ	**Filter By:**	RJ	**Extraction End Time :**	11:40
Balance ID:	EX-SC-2	**pH Meter ID:**	N/A	**Concentration By:**	EH
pH Strip Lot#:	N/A	**Hood ID:**	3,7	**Supervisor By :**	RUPESH

Extraction Method: [_] Seperatory Funnel [_] Continious Liquid/Liquid [_] Sonication [_] Waste Dilution [√] Soxhlet

Standared Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Spike Sol 1	1.0ML	100 PPM	PP24462
Surrogate	1.0ML	100 PPM	PP24491
Fractionation Surrogate	1.0ML	100 PPM	PP24499
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	EP2600
Baked Na2SO4	N/A	EP2607
Sand	N/A	E2865
Hexane	N/A	E3933
Methylene Chloride	N/A	E3930
EPH Cartridge	N/A	E3757
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:

1.5ML Vial Lot # 2210643.

KD Bath ID:	N/A	**Envap ID:**	NEVAP-02
KD Bath Temperature:	N/A	**Envap Temperature:**	40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
5/8/25	RS (Ext lab)	T-P. Pest 1 #3.
11:45	**Preparation Group**	**Analysis Group**

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PrepBatch ID : PB167903

Analytical Method: MNJDEP-EPH-7

Concentration Date: 05/08/2025

Sample ID	Client Sample ID	Test	g/mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB167903BL	PB167903BL	EPH	30.01	N/A	ritesh	Evelyn	2			U1-1
PB167903BS	PB167903BS	EPH	30.03	N/A	ritesh	Evelyn	2			2
PB167903BSD	PB167903BSD	EPH	30.02	N/A	ritesh	Evelyn	2			3
Q1872-16	HW0425-PT-NJEPH-SOIL	EPH	20.02	N/A	ritesh	Evelyn	2			4
Q1901-02	B-167-SB01	EPH	30.08	N/A	ritesh	Evelyn	2	F		5
Q1901-03	B-170-SB01	EPH	30.05	N/A	ritesh	Evelyn	2	E		6
Q1901-04	B-167-SB02	EPH	30.02	N/A	ritesh	Evelyn	2	E		U2-1
Q1901-04DUP	B-167-SB02DUP	EPH	30.04	N/A	ritesh	Evelyn	2	E		2
Q1901-04MS	B-167-SB02MS	EPH	30.09	N/A	ritesh	Evelyn	2	E		3
Q1901-04MSD	B-167-SB02MSD	EPH	30.07	N/A	ritesh	Evelyn	2	E		4
Q1901-05	B-170-SB02	EPH	30.04	N/A	ritesh	Evelyn	2	E		5

RS
5/8

* **Extracts relinquished on the same date as received.**

167903
13:37

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q1901 **WorkList ID :** 189385 **Department :** Extraction **Date :** 05-07-2025 13:31:07

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1872-16	HW0425-PT-NJEPH-SOIL	Solid	EPH	Cool 4 deg C	ALLI03	QA Of	04/21/2025	NJEPH
Q1901-02	B-167-SB01	Solid	EPH	Cool 4 deg C	PORT06	L51	04/26/2025	NJEPH
Q1901-03	B-170-SB01	Solid	EPH	Cool 4 deg C	PORT06	L51	04/26/2025	NJEPH
Q1901-04	B-167-SB02	Solid	EPH	Cool 4 deg C	PORT06	L51	04/26/2025	NJEPH
Q1901-05	B-170-SB02	Solid	EPH	Cool 4 deg C	PORT06	L51	04/26/2025	NJEPH

Date/Time 5/7/25 13:32
Raw Sample Received by: RJ (EXT lab)
Raw Sample Relinquished by:

Date/Time 5/7/25 14:00
Raw Sample Received by:
Raw Sample Relinquished by: RJ (EXT lab)

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

Prep Standard - Chemical Standard Summary

Order ID : Q1901

Test : EPH

Prepbatch ID : PB167840,PB167903,

Sequence ID/Qc Batch ID: FC050225AL,FC050825AL,FD050225AR,FD050825AR,

Standard ID :

EP2569,EP2600,EP2607,PP24170,PP24174,PP24175,PP24176,PP24177,PP24178,PP24179,PP24462,PP24465,PP24491,PP24499,PP24500,PP24501,PP24502,PP24503,PP24504,PP24505,PP24506,

Chemical ID :

E2865,E3551,E3757,E3904,E3916,E3917,E3926,E3928,E3929,E3930,E3933,M6121,P10758,P 11140,P12363,P12981,P12983,P12989,P12990,P13050,P13279,P13596,P13650,P13660,P13662,P13664,P13667,P13671,P13673,P13674,P13709,P13762,P13764,P13865,P13896,P13897,P13898,P13899,P13900,P13901,P13903,P13905,P13906,P13912,P13919,P13920,P13921,P13923,P13926,P13927,P13928,P13931,P13947,P13948,P13950,P13951,P13952,P13953,P13954,P13955,W3112,W3177,

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

Extractions STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3319	6N HCL	EP2569	12/02/2024	05/13/2025	Rajesh Parikh	None	None	RUPESHKUMAR SHAH 12/02/2024

FROM 219.00000ml of M6121 + 781.00000ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2017	1:1 ACETONE/METHYLENE CHLORIDE	EP2600	04/07/2025	10/03/2025	Rajesh Parikh	None	None	Riteshkumar Patel 04/07/2025

FROM 8000.00000ml of E3904 + 8000.00000ml of E3917 = Final Quantity: 16000.000 ml

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

Extractions STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3923	Baked Sodium Sulfate	EP2607	04/25/2025	07/01/2025	RUPESHKUMAR SHAH	Extraction_SCALE_2 (EX-SC-2)	None	Riteshkumar Patel 04/25/2025

FROM 4000.00000gram of E3551 = Final Quantity: 4000.000 gram

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
781	100 PPM Aliphatic HC Working STD (Restek)	PP24170	02/03/2025	08/03/2025	Yogesh Patel	None	None	Ankita Jodhani 02/03/2025

FROM 0.25000ml of P12981 + 0.25000ml of P13671 + 1.25000ml of P12363 + 23.25000ml of W3177 = Final Quantity: 25.000 ml

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

Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2900	100 PPM Aliphatic HC STD (Absolute)	PP24174	02/03/2025	08/03/2025	Yogesh Patel	None	None	Ankita Jodhani 02/03/2025

FROM 0.25000ml of P12983 + 0.25000ml of P13650 + 2.50000ml of P13279 + 22.00000ml of W3177 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
783	50 PPM Aliphatic HC STD	PP24175	02/03/2025	08/03/2025	Yogesh Patel	None	None	Ankita Jodhani 02/03/2025

FROM 0.50000ml of W3177 + 0.50000ml of PP24170 = Final Quantity: 1.000 ml

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

Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
784	20 PPM Aliphatic HC STD	PP24176	02/03/2025	08/03/2025	Yogesh Patel	None	None	Ankita Jodhani 02/03/2025

FROM 0.80000ml of W3177 + 0.20000ml of PP24170 = Final Quantity: 1.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
785	10 PPM Aliphatic HC STD	PP24177	02/03/2025	08/03/2025	Yogesh Patel	None	None	Ankita Jodhani 02/03/2025

FROM 0.90000ml of W3177 + 0.10000ml of PP24170 = Final Quantity: 1.000 ml

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

Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
786	5 PPM Aliphatic HC STD	PP24178	02/03/2025	08/03/2025	Yogesh Patel	None	None	Ankita Jodhani 02/03/2025

FROM 0.90000ml of W3177 + 0.10000ml of PP24175 = Final Quantity: 1.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2901	20 PPM Aliphaitic HC STD ICV (Absolute)	PP24179	02/03/2025	08/03/2025	Yogesh Patel	None	None	Ankita Jodhani 02/03/2025

FROM 0.80000ml of W3177 + 0.20000ml of PP24174 = Final Quantity: 1.000 ml

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

Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1330	100 PPM NJEPH Spike Solution	PP24462	04/15/2025	10/15/2025	Yogesh Patel	None	None	Abdul Mirza 04/21/2025

FROM 5.00000ml of P13709 + 5.00000ml of P13865 + 5.00000ml of P13896 + 5.00000ml of P13897 + 5.00000ml of P13898 + 5.00000ml of P13899 + 5.00000ml of P13900 + 5.00000ml of P13901 + 5.00000ml of P13903 + 5.00000ml of P13905 + 5.00000ml of P13906 + 5.00000ml of P13912 + 5.00000ml of P13919 + 5.00000ml of P13920 + 5.00000ml of P13921 + 5.00000ml of P13923 + 5.00000ml of P13926 + 5.00000ml of P13927 + 5.00000ml of P13928 + 5.00000ml of P13931 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1331	100 PPM NJEPH Fractionating Surrogate	PP24465	04/18/2025	10/03/2025	Abdul Mirza	None	None	Yogesh Patel 05/03/2025

FROM 1.25000ml of P13762 + 1.25000ml of P13764 + 1.25000ml of P13947 + 1.25000ml of P13948 + 195.00000ml of E3916 = Final Quantity: 200.000 ml

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

Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1339	100 PPM NJEPH Surrogate Spike	PP24491	04/25/2025	10/25/2025	Abdul Mirza	None	None	Yogesh Patel 05/03/2025

FROM 1.25000ml of P12989 + 1.25000ml of P12990 + 1.25000ml of P13050 + 1.25000ml of P13596 + 1.25000ml of P13660 + 1.25000ml of P13662 + 1.25000ml of P13664 + 1.25000ml of P13667 + 490.00000ml of E3929 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1331	100 PPM NJEPH Fractionating Surrogate	PP24499	05/01/2025	10/22/2025	Abdul Mirza	None	None	Yogesh Patel 05/03/2025

FROM 1.25000ml of P13950 + 1.25000ml of P13951 + 1.25000ml of P13952 + 1.25000ml of P13953 + 195.00000ml of E3928 = Final Quantity: 200.000 ml

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

Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
782	100 PPM Aromatic HC Working STD	PP24500	05/01/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza 05/08/2025

FROM 0.25000ml of P13673 + 0.62500ml of P13954 + 1.25000ml of P10758 + 22.87500ml of E3926 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2945	100 PPM Aromatic HC Working STD (Absolute)	PP24501	05/01/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza 05/08/2025

FROM 0.25000ml of P13674 + 0.62500ml of P13955 + 1.25000ml of P11140 + 22.87500ml of E3926 = Final Quantity: 25.000 ml

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

Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
787	50 PPM Aromatic HC STD	PP24502	05/01/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza 05/08/2025

FROM 0.50000ml of E3926 + 0.50000ml of PP24500 = Final Quantity: 1.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
788	20 PPM Aromatic HC STD	PP24503	05/01/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza 05/08/2025

FROM 0.80000ml of E3926 + 0.20000ml of PP24500 = Final Quantity: 1.000 ml

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

Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
789	10 PPM Aromatic HC STD	PP24504	05/01/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza 05/08/2025

FROM 0.90000ml of E3926 + 0.10000ml of PP24500 = Final Quantity: 1.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
790	5 PPM Aromatic HC STD	PP24505	05/01/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza 05/08/2025

FROM 0.90000ml of E3926 + 0.10000ml of PP24502 = Final Quantity: 1.000 ml

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

Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2946	20 PPM Aromatic HC STD ICV (Absolute)	PP24506	05/01/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza 05/08/2025

FROM 0.80000ml of E3926 + 0.20000ml of PP24501 = Final Quantity: 1.000 ml

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

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	06/30/2025	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	07/01/2025	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 #
phenomenex	SI500025-30 / Cleanert SPE Silica, 5000 mg/25 ml	Z0513CK1	09/04/2025	09/04/2024 / Rajesh	04/03/2024 / Rajesh	E3757

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)	24K1762005	01/07/2026	03/13/2025 /	12/27/2024 / RUPESH	E3904

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	243570	10/03/2025	04/03/2025 / Rajesh	03/31/2025 / Rajesh	E3916

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)	24H2762008	10/03/2025	04/03/2025 / Rajesh	03/31/2025 / Rajesh	E3917

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

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)	25A0262002	10/08/2025	04/08/2025 / Rajesh	02/07/2025 / Rajesh	E3926

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	25C0362005	10/22/2025	04/18/2025 / RUPESH	04/16/2025 / RUPESH	E3928

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)	24H2762008	04/18/2027	04/18/2025 / RUPESH	04/16/2025 / RUPESH	E3929

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)	25A0262002	02/20/2026	05/02/2025 / RUPESH	03/09/2025 / RUPESH	E3930

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	25C0362005	11/05/2025	05/05/2025 / RUPESH	04/23/2025 / RUPESH	E3933

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	0000275677	05/13/2025	11/13/2024 / Eman	10/13/2024 / Eman	M6121

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30541 / Custom NJEPH Aromatics Calibration Standard	A0172403	11/01/2025	05/01/2025 / yogesh	06/17/2021 / dhaval	P10758

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95709 / NJ EPH Aromatic Hydrocarbons, 2000 PPM	060420	11/01/2025	05/01/2025 / yogesh	10/29/2021 / Abdul	P11140

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30540 / Custom NJEPH Aliphatics Calibration Standard	A0190424	08/03/2025	02/03/2025 / yogesh	03/16/2023 / Yogesh	P12363

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31098 / 1-Chlorooctadecane Standard	A0204989	08/03/2025	02/03/2025 / yogesh	12/20/2023 / Yogesh	P12981

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31098 / 1-Chlorooctadecane Standard	A0204989	08/03/2025	02/03/2025 / yogesh	12/20/2023 / Yogesh	P12983

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31098 / 1-Chlorooctadecane Standard	A0204989	10/25/2025	04/25/2025 / Abdul	12/20/2023 / Yogesh	P12989

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31098 / 1-Chlorooctadecane Standard	A0204989	10/25/2025	04/25/2025 / Abdul	12/20/2023 / Yogesh	P12990

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31098 / 1-Chlorooctadecane Standard	A0200707	10/25/2025	04/25/2025 / Abdul	12/26/2023 / Yogesh	P13050

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95899 / NJ EPH Aliphatic n-Hydrocarbons-Revised, 1000 PPM	040524	08/03/2025	02/03/2025 / yogesh	04/11/2024 / yogesh	P13279

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31098 / 1-Chlorooctadecane Standard	A0213283	10/25/2025	04/25/2025 / Abdul	10/16/2024 / yogesh	P13596

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0216631	08/03/2025	02/03/2025 / yogesh	10/16/2024 / yogesh	P13650

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0216631	10/25/2025	04/25/2025 / Abdul	10/16/2024 / yogesh	P13660

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0216631	10/25/2025	04/25/2025 / Abdul	10/16/2024 / yogesh	P13662

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0216631	10/25/2025	04/25/2025 / Abdul	10/16/2024 / yogesh	P13664

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0216631	10/25/2025	04/25/2025 / Abdul	10/16/2024 / yogesh	P13667

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0216631	08/03/2025	02/03/2025 / yogesh	10/16/2024 / yogesh	P13671

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0216631	11/01/2025	05/01/2025 / yogesh	10/16/2024 / yogesh	P13673

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0216631	11/01/2025	05/01/2025 / yogesh	10/16/2024 / yogesh	P13674

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0211254	10/15/2025	04/15/2025 / yogesh	10/24/2024 / yogesh	P13709

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31480 / MA Fractionation Surrogate Spike Mix	A0214879	10/18/2025	04/18/2025 / Abdul	11/01/2024 / yogesh	P13762

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31480 / MA Fractionation Surrogate Spike Mix	A0214879	10/18/2025	04/18/2025 / Abdul	11/01/2024 / yogesh	P13764

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0220580	10/15/2025	04/15/2025 / yogesh	01/08/2025 / yogesh	P13865

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0217408	10/15/2025	04/15/2025 / yogesh	03/06/2025 / yogesh	P13896

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0217408	10/15/2025	04/15/2025 / yogesh	03/06/2025 / yogesh	P13897

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0217408	10/15/2025	04/15/2025 / yogesh	03/06/2025 / yogesh	P13898

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0217408	10/15/2025	04/15/2025 / yogesh	03/06/2025 / yogesh	P13899

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0217408	10/15/2025	04/15/2025 / yogesh	03/06/2025 / yogesh	P13900

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0217408	10/15/2025	04/15/2025 / yogesh	03/06/2025 / yogesh	P13901

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0217408	10/15/2025	04/15/2025 / yogesh	03/06/2025 / yogesh	P13903

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0217408	10/15/2025	04/15/2025 / yogesh	03/06/2025 / yogesh	P13905

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0217408	10/15/2025	04/15/2025 / yogesh	03/06/2025 / yogesh	P13906

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0220449	10/15/2025	04/15/2025 / yogesh	03/06/2025 / yogesh	P13912

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A022580	10/15/2025	04/15/2025 / yogesh	03/06/2025 / yogesh	P13919

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A022580	10/15/2025	04/15/2025 / yogesh	03/06/2025 / yogesh	P13920

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A022580	10/15/2025	04/15/2025 / yogesh	03/06/2025 / yogesh	P13921

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A022580	10/15/2025	04/15/2025 / yogesh	03/06/2025 / yogesh	P13923

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A022580	10/15/2025	04/15/2025 / yogesh	03/06/2025 / yogesh	P13926

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A022580	10/15/2025	04/15/2025 / yogesh	03/06/2025 / yogesh	P13927

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A022580	10/15/2025	04/15/2025 / yogesh	03/06/2025 / yogesh	P13928

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A022580	10/15/2025	04/15/2025 / yogesh	03/06/2025 / yogesh	P13931

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31480 / MA Fractionation Surrogate Spike Mix	A0219106	10/31/2030	04/18/2025 / Abdul	03/10/2025 / yogesh	P13947

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31480 / MA Fractionation Surrogate Spike Mix	A0219106	10/18/2025	04/18/2025 / Abdul	03/10/2025 / yogesh	P13948

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31480 / MA Fractionation Surrogate Spike Mix	A0219106	11/01/2025	05/01/2025 / Abdul	03/10/2025 / yogesh	P13950

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31480 / MA Fractionation Surrogate Spike Mix	A0219106	11/01/2025	05/01/2025 / Abdul	03/10/2025 / yogesh	P13951

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31480 / MA Fractionation Surrogate Spike Mix	A0219106	11/01/2025	05/01/2025 / Abdul	03/10/2025 / yogesh	P13952

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31480 / MA Fractionation Surrogate Spike Mix	A0219106	11/01/2025	05/01/2025 / Abdul	03/10/2025 / yogesh	P13953

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31480 / MA Fractionation Surrogate Spike Mix	A0219106	11/01/2025	05/01/2025 / yogesh	03/10/2025 / yogesh	P13954

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31480 / MA Fractionation Surrogate Spike Mix	A0221895	11/01/2025	05/01/2025 / yogesh	03/10/2025 / yogesh	P13955

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	24G1962003	08/22/2025	02/03/2025 / jignesh	01/31/2025 / jignesh	W3177

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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.

DD
06/17/2021

Catalog No. : 30541 **Lot No.:** A0172403

Description : NJEPH Aromatics Calibration Standard

NJEPH Aromatics Calibration Standard 2,000µg/mL, Methylene Chloride, 1mL/ampul

P10758 to P10762 -(5)

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

Expiration Date : April 30, 2027 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2,3-Trimethylbenzene **CAS #** 526-73-8 (Lot 8776.10-36) **Purity** 98%	2,010.0 µg/mL	+/- 11.7957 µg/mL +/- 90.5449 µg/mL +/- 100.4678 µg/mL	Gravimetric Unstressed Stressed
2	Naphthalene **CAS #** 91-20-3 (Lot MKBZ8680V) **Purity** 99%	2,006.0 µg/mL	+/- 11.7723 µg/mL +/- 90.3656 µg/mL +/- 100.2689 µg/mL	Gravimetric Unstressed Stressed
3	2-Methylnaphthalene **CAS #** 91-57-6 (Lot STBG8884) **Purity** 99%	2,008.0 µg/mL	+/- 11.7841 µg/mL +/- 90.4557 µg/mL +/- 100.3688 µg/mL	Gravimetric Unstressed Stressed
4	Acenaphthylene **CAS #** 208-96-8 (Lot N19U) **Purity** 95%	2,002.6 µg/mL	+/- 11.7524 µg/mL +/- 90.2125 µg/mL +/- 100.0989 µg/mL	Gravimetric Unstressed Stressed
5	Acenaphthene **CAS #** 83-32-9 (Lot MKCN0610) **Purity** 99%	2,000.0 µg/mL	+/- 11.7371 µg/mL +/- 90.0953 µg/mL +/- 99.9689 µg/mL	Gravimetric Unstressed Stressed
6	Fluorene **CAS #** 86-73-7 (Lot 10217947) **Purity** 99%	2,016.0 µg/mL	+/- 11.8310 µg/mL +/- 90.8161 µg/mL +/- 100.7687 µg/mL	Gravimetric Unstressed Stressed
7	Phenanthrene **CAS #** 85-01-8 (Lot MKCL7390) **Purity** 99%	2,012.0 µg/mL	+/- 11.8075 µg/mL +/- 90.6359 µg/mL +/- 100.5688 µg/mL	Gravimetric Unstressed Stressed

8	Anthracene		2,002.0	µg/mL	+/-	11.7489	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKCM0015)			+/-	90.1854	µg/mL	Unstressed
	Purity 99%				+/-	100.0689	µg/mL	Stressed
9	Fluoranthene		2,003.0	µg/mL	+/-	11.7547	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKCF7378)			+/-	90.2305	µg/mL	Unstressed
	Purity 99%				+/-	100.1189	µg/mL	Stressed
10	Pyrene		2,011.0	µg/mL	+/-	11.8017	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCCB9880)			+/-	90.5909	µg/mL	Unstressed
	Purity 99%				+/-	100.5188	µg/mL	Stressed
11	Benz(a)anthracene		2,011.0	µg/mL	+/-	11.8014	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot P0022018-0505)			+/-	90.5890	µg/mL	Unstressed
	Purity 98%				+/-	100.5168	µg/mL	Stressed
12	Chrysene		2,000.0	µg/mL	+/-	11.7371	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot STBJ8094)			+/-	90.0953	µg/mL	Unstressed
	Purity 99%				+/-	99.9689	µg/mL	Stressed
13	Benzo(b)fluoranthene		2,006.0	µg/mL	+/-	11.7721	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot 012012B)			+/-	90.3638	µg/mL	Unstressed
	Purity 97%				+/-	100.2669	µg/mL	Stressed
14	Benzo(k)fluoranthene		2,010.0	µg/mL	+/-	11.7958	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012019K)			+/-	90.5458	µg/mL	Unstressed
	Purity 99%				+/-	100.4688	µg/mL	Stressed
15	Benzo(a)pyrene		2,004.0	µg/mL	+/-	11.7606	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot RP210113)			+/-	90.2755	µg/mL	Unstressed
	Purity 99%				+/-	100.1689	µg/mL	Stressed
16	Indeno(1,2,3-cd)pyrene		2,010.0	µg/mL	+/-	11.7958	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot 1-RAK-33-4)			+/-	90.5458	µg/mL	Unstressed
	Purity 99%				+/-	100.4688	µg/mL	Stressed
17	Dibenz(a,h)anthracene		2,017.0	µg/mL	+/-	11.8369	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	90.8611	µg/mL	Unstressed
	Purity 99%				+/-	100.8187	µg/mL	Stressed
18	Benzo(g,h,i)perylene		2,003.0	µg/mL	+/-	11.7547	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot 8GFYJ)			+/-	90.2305	µg/mL	Unstressed
	Purity 99%				+/-	100.1189	µg/mL	Stressed

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

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

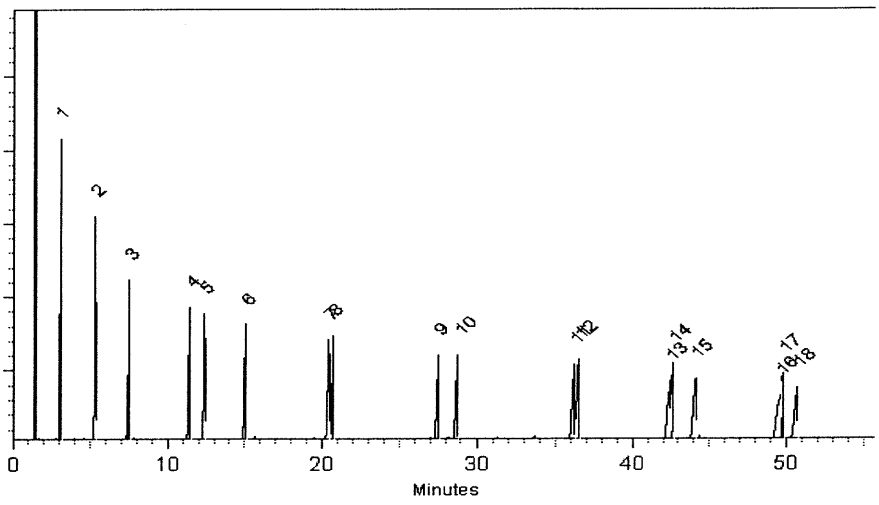
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 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.

Lane Kibe - Mix Technician **Date Mixed:** 14-May-2021 **Balance:** B345965662

Alexis Shelow - Operations Tech I **Date Passed:** 18-May-2021

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Sand
Purified
Washed and Ignited

avantor™ | J.T.Baker®

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

Certificate of Analysis

Test	Specification	Result
Substances Soluble in HCl	<= 0.16 %	0.01

For Laboratory, Research or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs

Country of Origin: US
Packaging Site: Paris Mfg Ctr & DC

E 2865

James T Ethier

Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

PRODUCTOS QUIMICOS MONTERREY, S.A. DE C.V.

MIRADOR 201, COL. MIRADOR
MONTERREY, N.L. MEXICO
CP 64070
TEL +52 81 13 52 57 57
www.pqm.com.mx

CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS		
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na_2SO_4
SPECIFICATION NUMBER :	6399	RELEASE DATE:	ABR/21/2023
LOT NUMBER :	313201		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na_2SO_4)	Min. 99.0%	99.7 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.1
Insoluble matter	Max. 0.01%	0.005 %
Loss on ignition	Max. 0.5%	0.1 %
Chloride (Cl)	Max. 0.001%	<0.001 %
Nitrogen compounds (as N)	Max. 5 ppm	<5 ppm
Phosphate (PO_4)	Max. 0.001%	<0.001 %
Heavy metals (as Pb)	Max. 5 ppm	<5 ppm
Iron (Fe)	Max. 0.001%	<0.001 %
Calcium (Ca)	Max. 0.01%	0.002 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.003 %
Extraction-concentration suitability	Passes test	Passes test
Appearance	Passes test	Passes test
Identification	Passes test	Passes test
Solubility and foreing matter	Passes test	Passes test
Retained on US Standard No. 10 sieve	Max. 1%	0.1 %
Retained on US Standard No. 60 sieve	Min. 94%	97.3 %
Through US Standard No. 60 sieve	Max. 5%	2.5 %
Through US Standard No. 100 sieve	Max. 10%	0.1 %

COMMENTS

QC: PhC Irma Belmares

If you need further details, please call our factory or contact our local distributor.

RG-02-01, Ed. 3

Recd. by RB on 7/24/23 E3551


Cleanert EPH
5g/25ml 15/pkg
固相萃取产品
LOT#:Z0513CK1
MFG#:F04005
Made in China
CAT# SI500025-30
Agela Technologies
E3757

Certificate of Analysis

ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	H303	Quality Test / Release Date	11/07/2024
Lot Number	243570		
Description	HEXANES - OPTIMA		
Country of Origin	United States	Suggested Retest Date	Nov/2029
Chemical Origin	Organic - non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, colorless liquid
ASSAY (N-HEXANE)	%	>= 60	69
ASSAY (SUM C6 HYDROCARBONS)	%	>= 99.9	>99.9
COLOR	APHA	<= 5	<5
DENSITY AT 25 DEGREES C	GM/ML	Inclusive Between 0.653 - 0.673	0.669
EVAPORATION RESIDUE	ppm	<= 1	<1
FLUORESCENCE BACKGROUND	ppb	<= 1	<1
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
OPTICAL ABS AT 195 NM	ABS. UNITS	<= 1	0.74
OPTICAL ABS AT 210 NM	ABS. UNITS	<= 0.25	0.17
OPTICAL ABS AT 220 NM	ABS. UNITS	<= 0.07	0.05
OPTICAL ABS AT 254 NM	ABS. UNITS	<= 0.005	0.001
PESTICIDE RESIDUE ANALYSIS	NG/L	<= 10	<10
REFRACTIVE INDEX @ 25 DEG C		Inclusive Between 1.375 - 1.385	1.379
SUITABILITY FOR GC/MS		= PASS TEST	PASS TEST
SULFUR COMPOUNDS	%	<= 0.005	<0.005
THIOPHENE	PASS/FAIL	= PASS TEST	PASS TEST
WATER (H2O)	%	<= 0.01	<0.01
WATER-SOLUBLE TITRABLE ACID	MEQ/G	<= 0.0003	0.0001

Harout Sahagian - Quality Control Manager - Fair Lawn

Rec'd by RP on 3/31/25

E3916

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™ | J.T.Baker

Material No.: 9254-03
Batch No.: 24H2762008
Manufactured Date: 2024-04-18
Expiration Date:2027-04-18
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ($(CH_3)_2CO$) (by GC, corrected forwater)	>= 99.4 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.0 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titrable Acid (µeq/g)	<= 0.3	0.2
Titrable Base (µeq/g)	<= 0.6	<0.1
Water (H_2O)	<= 0.5 %	<0.1 %
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

Recd. by RP on 03/31/25

E3917

JCroak
Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials LLC

PO: PO2-1308 PRODUCT CODE: SHIP DATE: 2/7/25

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

avantor | J.T.Baker

Material No.: 9266-A4
Batch No.: 25A0262002
Manufactured Date: 2024-11-21
Expiration Date:2026-02-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	4
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	>= 99.8 %	99.9 %
Color (APHA)	<= 10	10
Residue after Evaporation	<= 1.0 ppm	0.8 ppm
Titrable Acid (µeq/g)	<= 0.3	<0.1
Chloride (Cl)	<= 10 ppm	<5 ppm
Water (by KF, coulometric)	<= 0.02 %	<0.01 %

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E 3926

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

n-Hexane 95%
ULTRA RESI-ANALYZED
For Organic Residue Analysis

avantor™ | J.T.Baker

Material No.: 9262-03
Batch No.: 25C0362005
Manufactured Date: 2025-01-29
Expiration Date:2026-04-30
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	6
ECD-Sensitive Impurities (as EthyleneDibromide) - Single Impurity Peak (ng/mL)	<= 5	5
Assay (Total Saturated C_6 Isomers) (byGC, corrected for water)	>= 99.5 %	100.0 %
Assay (as n-Hexane) (by GC, correctedfor water)	>= 95 %	100 %
Color (APHA)	<= 10	10
Residue after Evaporation	<= 1.0 ppm	0.1 ppm
Substances Darkened by H_2SO_4	Passes Test	Passes Test
Water (by KF, coulometric)	<= 0.05 %	<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

E3928

JCroak
Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials LLC

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™ | J.T.Baker

Material No.: 9254-03
Batch No.: 24H2762008
Manufactured Date: 2024-04-18
Expiration Date:2027-04-18
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ($(CH_3)_2CO$) (by GC, corrected forwater)	>= 99.4 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.0 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titrable Acid (µeq/g)	<= 0.3	0.2
Titrable Base (µeq/g)	<= 0.6	<0.1
Water (H_2O)	<= 0.5 %	<0.1 %
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E 3929

JCroak
Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

PO: PO2-1178.2 PRODUCT CODE: SHIP DATE: 1/20/2025

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

avantor | J.T.Baker

Material No.: 9266-A4
Batch No.: 25A0262002
Manufactured Date: 2024-11-21
Expiration Date:2026-02-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	4
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	>= 99.8 %	99.9 %
Color (APHA)	<= 10	10
Residue after Evaporation	<= 1.0 ppm	0.8 ppm
Titrable Acid (µeq/g)	<= 0.3	<0.1
Chloride (Cl)	<= 10 ppm	<5 ppm
Water (by KF, coulometric)	<= 0.02 %	<0.01 %

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E3930

JCroak
Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials,LLC
100 Matsonford Rd, Suite 200,Radnor,PA,19087.U.S.A.Phone 610.386.1700

n-Hexane 95%
ULTRA RESI-ANALYZED
For Organic Residue Analysis

avantor™ | J.T.Baker

Material No.: 9262-03
Batch No.: 25C0362005
Manufactured Date: 2025-01-29
Expiration Date:2026-04-30
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	6
ECD-Sensitive Impurities (as EthyleneDibromide) - Single Impurity Peak (ng/mL)	<= 5	5
Assay (Total Saturated C_6 Isomers) (byGC, corrected for water)	>= 99.5 %	100.0 %
Assay (as n-Hexane) (by GC, correctedfor water)	>= 95 %	100 %
Color (APHA)	<= 10	10
Residue after Evaporation	<= 1.0 ppm	0.1 ppm
Substances Darkened by H_2SO_4	Passes Test	Passes Test
Water (by KF, coulometric)	<= 0.05 %	<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

E3933

JCroak

Jamie Croak
Director Quality Operations, Bioscience Production

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

R → 10/13/24
Met dig

M 6/21

Material No.: 9530-33
Batch No.: 0000275677
Manufactured Date: 2020/12/16
Retest Date: 2025/12/15
Revision No: 1

Certificate of Analysis

Test	Specification	Result
ACS - Assay (as HCl) (by acid-base titrn)	36.5 - 38.0 %	37.6
ACS - Color (APHA)	<= 10	5
ACS - Residue after Ignition	<= 3 ppm	1
ACS - Specific Gravity at 60°/60°F	1.185 - 1.192	1.190
ACS - Bromide (Br)	<= 0.005 %	< 0.005
ACS - Extractable Organic Substances	<= 5 ppm	1
ACS - Free Chlorine (as Cl_2)	<= 0.5 ppm	< 0.5
Phosphate (PO_4)	<= 0.05 ppm	< 0.03
Sulfate (SO_4)	<= 0.5 ppm	< 0.3
Sulfite (SO_3)	<= 0.8 ppm	0.3
Ammonium (NH_4)	<= 3 ppm	< 1
Trace Impurities - Arsenic (As)	<= 0.010 ppm	< 0.003
Trace Impurities - Aluminum (Al)	<= 10.0 ppb	< 0.2
Arsenic and Antimony (as As)	<= 5 ppb	< 3
Trace Impurities - Barium (Ba)	<= 1.0 ppb	< 0.2
Trace Impurities - Beryllium (Be)	<= 1.0 ppb	< 0.2
Trace Impurities - Bismuth (Bi)	<= 10.0 ppb	< 1.0
Trace Impurities - Boron (B)	<= 20.0 ppb	< 5.0
Trace Impurities - Cadmium (Cd)	<= 1.0 ppb	< 0.3
Trace Impurities - Calcium (Ca)	<= 50.0 ppb	29.7
Trace Impurities - Chromium (Cr)	<= 1.0 ppb	< 0.4
Trace Impurities - Cobalt (Co)	<= 1.0 ppb	< 0.3
Trace Impurities - Copper (Cu)	<= 1.0 ppb	< 0.1
Trace Impurities - Gallium (Ga)	<= 1.0 ppb	< 0.2

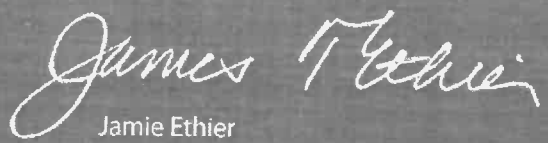
For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Material No.: 9530-33
Batch No.: 0000275677

Test	Specification	Result
Trace Impurities - Germanium (Ge)	<= 3.0 ppb	< 2.0
Trace Impurities - Gold (Au)	<= 4.0 ppb	< 0.2
Heavy Metals (as Pb)	<= 100 ppb	< 50
Trace Impurities - Iron (Fe)	<= 15.0 ppb	<1
Trace Impurities - Lead (Pb)	<= 1.0 ppb	< 0.5
Trace Impurities - Lithium (Li)	<= 1.0 ppb	0.2
Trace Impurities - Magnesium (Mg)	<= 10.0 ppb	0.4
Trace Impurities - Manganese (Mn)	<= 1.0 ppb	< 0.4
Trace Impurities - Mercury (Hg)	<= 0.5 ppb	0.1
Trace Impurities - Molybdenum (Mo)	<= 10.0 ppb	< 5.0
Trace Impurities - Nickel (Ni)	<= 4.0 ppb	< 0.3
Trace Impurities - Niobium (Nb)	<= 1.0 ppb	< 0.2
Trace Impurities - Potassium (K)	<= 9.0 ppb	< 2.0
Trace Impurities - Selenium (Se), For Information Only	ppb	1.0
Trace Impurities - Silicon (Si)	<= 100.0 ppb	< 10.0
Trace Impurities - Silver (Ag)	<= 1.0 ppb	< 0.3
Trace Impurities - Sodium (Na)	<= 100.0 ppb	< 5.0
Trace Impurities - Strontium (Sr)	<= 1.0 ppb	< 0.2
Trace Impurities - Tantalum (Ta)	<= 1.0 ppb	< 0.9
Trace Impurities - Thallium (Tl)	<= 5.0 ppb	< 2.0
Trace Impurities - Tin (Sn)	<= 5.0 ppb	< 0.8
Trace Impurities - Titanium (Ti)	<= 1.0 ppb	0.2
Trace Impurities - Vanadium (V)	<= 1.0 ppb	< 0.2
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	0.3
Trace Impurities - Zirconium (Zr)	<= 1.0 ppb	< 0.1

For Laboratory, Research or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC



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

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95709
Lot Number: 060420
Description: NJ EPH Aromatic Hydrocarbons
18 components
Expiration Date: 060425
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 23060

Solvent(s):	Lot#
Methylene chloride	104929

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 500.0 0.058 Flask Uncertainty

Formulated By: Benson Chan	060420 DATE
Reviewed By: Pedro L. Rentas	060420 DATE

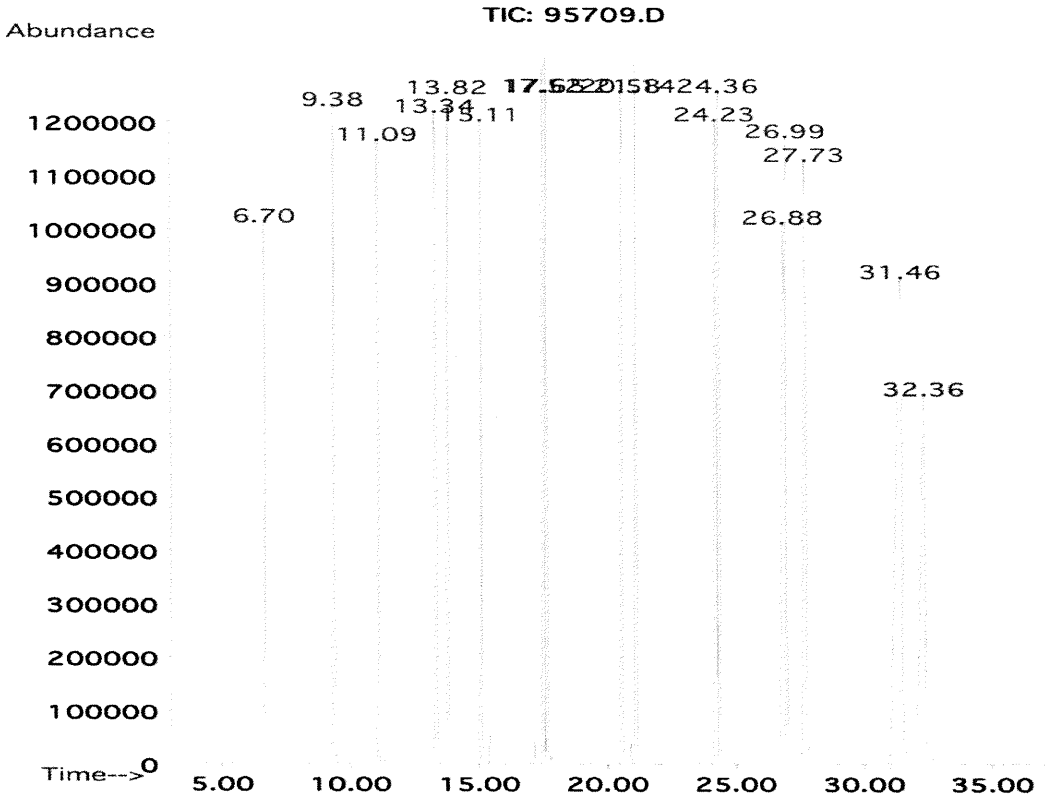
	Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acenaphthene	1	MKBJ4871V	2000	99	0.2	1.01003	1.01010	2000.1	8.1	83-32-9	N/A	ipr-rat 600mg/kg
2.	Acenaphthylene	3	012014	2000	98	0.2	1.02033	1.02053	2000.4	8.2	208-96-8	N/A	N/A
3.	Anthracene	13	A0210580	2000	99	0.2	1.01003	1.01009	2000.1	8.1	120-12-7	0.2mg/m3 (8H)	ipr-mus 430mg/kg
4.	Benzo(a)anthracene	28	JY2TD-JT	2000	98	0.2	1.02033	1.02051	2000.3	8.2	56-55-3	N/A	N/A
5.	Benzo(a)pyrene	30	012012	2000	99.5	0.2	1.00495	1.00511	2000.3	8.1	50-32-8	0.2mg/m3 (8H)	scu-rat 50mg/kg
6.	Benzo(b)fluoranthene	31	012012b	2000	99	0.2	1.01003	1.01012	2000.2	8.1	205-99-2	N/A	N/A
7.	Benzo(k)fluoranthene	33	012012k	2000	99	0.2	1.01003	1.01018	2000.3	8.1	207-08-9	N/A	N/A
8.	Benzo(g,h,i)perylene	32	012018	2000	99	0.2	1.01003	1.01019	2000.3	8.1	191-24-2	N/A	N/A
9.	Chrysene	91	012015	2000	98	0.2	1.02033	1.02040	2000.1	8.2	218-01-9	0.2mg/m3	N/A
10.	Dibenzo(a,h)anthracene	112	012011	2000	98	0.2	1.02033	1.02050	2000.3	8.2	53-70-3	0.2mg/m3	N/A
11.	Fluoranthene	183	04221PV	2000	98	0.2	1.02033	1.02050	2000.3	8.2	206-44-0	N/A	orl-rat 2000mg/kg
12.	Fluorene	184	07211MV	2000	98	0.2	1.02033	1.02047	2000.3	8.2	86-73-7	N/A	ipr-mus 2 g/kg
13.	Indeno(1,2,3-cd)pyrene	202	012014	2000	99.9	0.2	1.00093	1.00119	2000.5	8.0	193-39-5	N/A	N/A
14.	2-Methylnaphthalene	214	MKBF3783V	2000	97	0.2	1.03085	1.03090	2000.1	8.3	91-57-6	N/A	orl-rat 1630mg/kg
15.	Naphthalene	222	MKBZ8680V	2000	100	0.2	0.99993	0.99999	2000.1	8.0	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
16.	Phenanthrene	248	03410PV	2000	99	0.2	1.01003	1.01030	2000.5	8.1	85-01-8	0.2mg/m3/8H	orl-mus 700mg/kg
17.	Pyrene	259	010197	2000	98	0.2	1.02033	1.02042	2000.2	8.2	129-00-0	0.2mg/m3/8H	orl-rat 2700mg/kg
18.	1,2,3-Trimethylbenzene	944	031097	2000	99	0.2	1.01003	1.01025	2000.4	8.1	526-73-8	N/A	N/A

P11137
&
P11141

AR 11/02/21

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Method GC8MSD-2.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (14min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Melissa Stonier.



Peak No.	Name	MSD RT (min.)
1	1,2,3-Trimethylbenzene	6.70
2	Naphthalene	9.38
3	2-Methylnaphthalene	11.09
4	Acenaphthylene	13.34
5	Acenaphthene	13.82
6	Fluorene	15.11
7	Phenanthrene	17.52
8	Anthracene	17.65
9	Fluoranthene	20.58
10	Pyrene	21.14
11	Chrysene	24.23
12	Benzo(a)anthracene	24.36
13	Benzo(b)fluoranthene/Benzo(k)fluoranthene	26.98
14	Benzo(a)pyrene	27.73
15	Indeno(1,2,3-cd)pyrene/Dibenzo(a,h)anthracene	31.46
16	Benzo(g,h,i)perylene	32.36

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

P12361 ↓ P12370 } Y.P. 03/16/23

Catalog No. : 30540 **Lot No.:** A0190424

Description : NJEPH Aliphatics Calibration Standard

Aliphatics Calibration Standard 2000µg/mL, Hexane/Carbon Disulfide (80:20), 1mL/ampul

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

Expiration Date : November 30, 2029 **Storage:** 25°C nominal

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	n-Nonane (C9) **CAS #** 111-84-2 (Lot SHBN5361) **Purity** 99%	2,014.0 µg/mL	+/- 11.8193 µg/mL +/- 50.0027 µg/mL +/- 59.9491 µg/mL	Gravimetric Unstressed Stressed
2	n-Decane (C10) **CAS #** 124-18-5 (Lot SHBN8619) **Purity** 99%	2,014.7 µg/mL	+/- 11.8232 µg/mL +/- 50.0193 µg/mL +/- 59.9689 µg/mL	Gravimetric Unstressed Stressed
3	Naphthalene **CAS #** 91-20-3 (Lot MKCH0219) **Purity** 99%	2,015.3 µg/mL	+/- 11.8271 µg/mL +/- 50.0358 µg/mL +/- 59.9888 µg/mL	Gravimetric Unstressed Stressed
4	n-Dodecane (C12) **CAS #** 112-40-3 (Lot SHBN7174) **Purity** 99%	2,008.0 µg/mL	+/- 11.7841 µg/mL +/- 49.8538 µg/mL +/- 59.7705 µg/mL	Gravimetric Unstressed Stressed
5	2-Methylnaphthalene **CAS #** 91-57-6 (Lot STBK0259) **Purity** 96%	2,007.0 µg/mL	+/- 11.7784 µg/mL +/- 49.8299 µg/mL +/- 59.7419 µg/mL	Gravimetric Unstressed Stressed
6	n-Tetradecane (C14) **CAS #** 629-59-4 (Lot STBK2282) **Purity** 99%	2,016.7 µg/mL	+/- 11.8349 µg/mL +/- 50.0689 µg/mL +/- 60.0284 µg/mL	Gravimetric Unstressed Stressed
7	n-Hexadecane (C16) **CAS #** 544-76-3 (Lot SHBM4146) **Purity** 98%	2,014.9 µg/mL	+/- 11.8244 µg/mL +/- 50.0246 µg/mL +/- 59.9753 µg/mL	Gravimetric Unstressed Stressed

8	n-Octadecane (C18) **CAS #** 593-45-3 **Purity** 97%	(Lot VZKOJ)	2,004.7	µg/mL	+/- 11.7645 +/- 49.7710 +/- 59.6712	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	n-Eicosane (C20) **CAS #** 112-95-8 **Purity** 99%	(Lot MKCF7888)	2,018.0	µg/mL	+/- 11.8428 +/- 50.1020 +/- 60.0681	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	n-Heneicosane (C21) **CAS #** 629-94-7 **Purity** 99%	(Lot MKCL3226)	2,000.7	µg/mL	+/- 11.7410 +/- 49.6717 +/- 59.5522	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Docosane (C22) **CAS #** 629-97-0 **Purity** 99%	(Lot MKCL8918)	2,005.3	µg/mL	+/- 11.7684 +/- 49.7876 +/- 59.6911	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	n-Tetracosane (C24) **CAS #** 646-31-1 **Purity** 99%	(Lot MKCN2863)	2,018.0	µg/mL	+/- 11.8428 +/- 50.1020 +/- 60.0681	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Hexacosane (C26) **CAS #** 630-01-3 **Purity** 99%	(Lot MKCD4540)	2,014.0	µg/mL	+/- 11.8193 +/- 50.0027 +/- 59.9491	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	n-Octacosane (C28) **CAS #** 630-02-4 **Purity** 99%	(Lot BCCG0084)	2,002.0	µg/mL	+/- 11.7489 +/- 49.7048 +/- 59.5919	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	n-Triacontane (C30) **CAS #** 638-68-6 **Purity** 97%	(Lot MKCQ9436)	2,011.1	µg/mL	+/- 11.8025 +/- 49.9316 +/- 59.8637	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	n-Dotriacontane (C32) **CAS #** 544-85-4 **Purity** 99%	(Lot BCBW0661)	2,012.0	µg/mL	+/- 11.8075 +/- 49.9531 +/- 59.8895	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	n-Tetratriacontane (C34) **CAS #** 14167-59-0 **Purity** 99%	(Lot OML4N)	2,006.7	µg/mL	+/- 11.7762 +/- 49.8207 +/- 59.7308	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	n-Hexatriacontane (C36) **CAS #** 630-06-8 **Purity** 99%	(Lot Z27H018)	2,017.3	µg/mL	+/- 11.8388 +/- 50.0855 +/- 60.0483	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	n-Octatriacontane (C38) **CAS #** 7194-85-6 **Purity** 96%	(Lot 0000145137)	2,017.3	µg/mL	+/- 11.8385 +/- 50.0842 +/- 60.0467	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	n-Tetracontane (C40) **CAS #** 4181-95-7 **Purity** 99%	(Lot BSBME)	2,008.7	µg/mL	+/- 11.7880 +/- 49.8703 +/- 59.7903	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Hexane/Carbon disulfide (80:20)
CAS # 110-54-3/75-15-0
Purity 99%

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

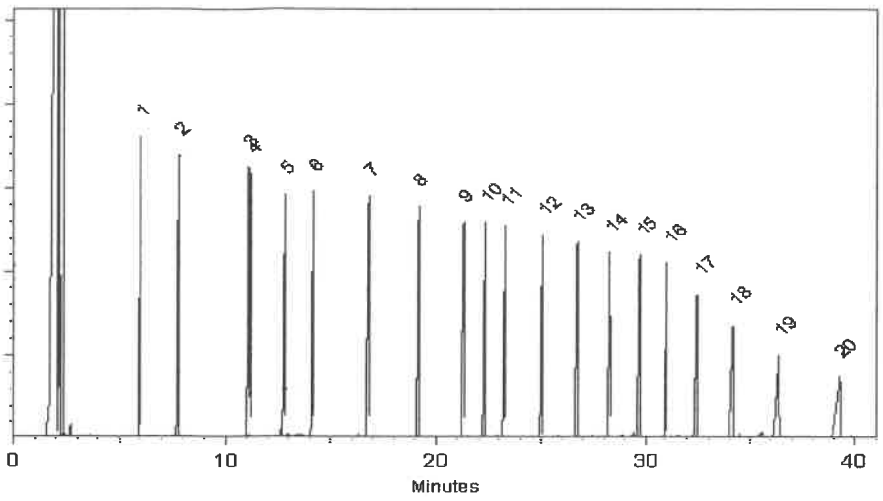
Carrier Gas:
hydrogen-constant pressure 10 psi.

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: 10-Oct-2022 **Balance:** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 20-Oct-2022

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

P12960 & P12991 Y.P. 12/21/2023

Catalog No. : 31098 **Lot No.:** A0204989

Description : 1-Chlorooctadecane Standard

1-Chlorooctadecane Standard 10,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : January 31, 2031 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Chlorooctadecane	3386-33-2	14738400	99%	10,097.3 µg/mL	+/- 567.2675

* 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.)

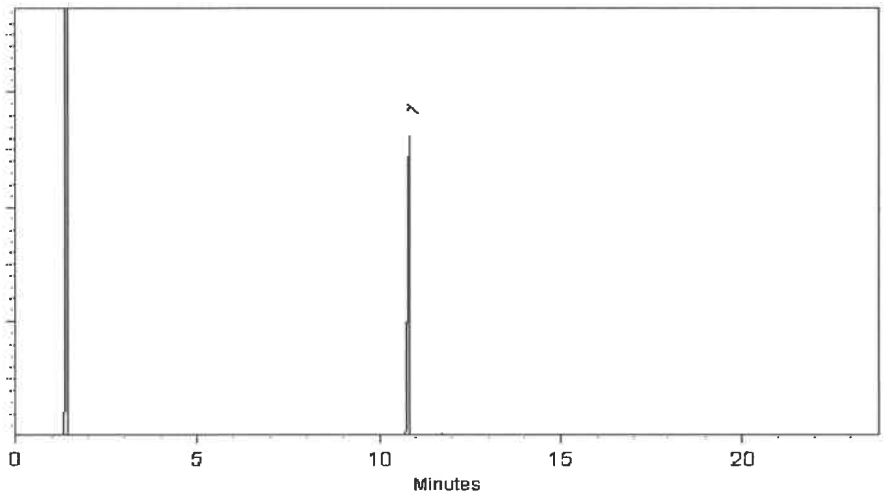
Inj. Temp:
250°C

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: 02-Dec-2023 **Balance Serial #** B345965662

Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 08-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

P12960 & P12991 Y.P. 12/21/2023

Catalog No. : 31098 **Lot No.:** A0204989

Description : 1-Chlorooctadecane Standard

1-Chlorooctadecane Standard 10,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : January 31, 2031 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Chlorooctadecane	3386-33-2	14738400	99%	10,097.3 µg/mL	+/- 567.2675

* 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.)

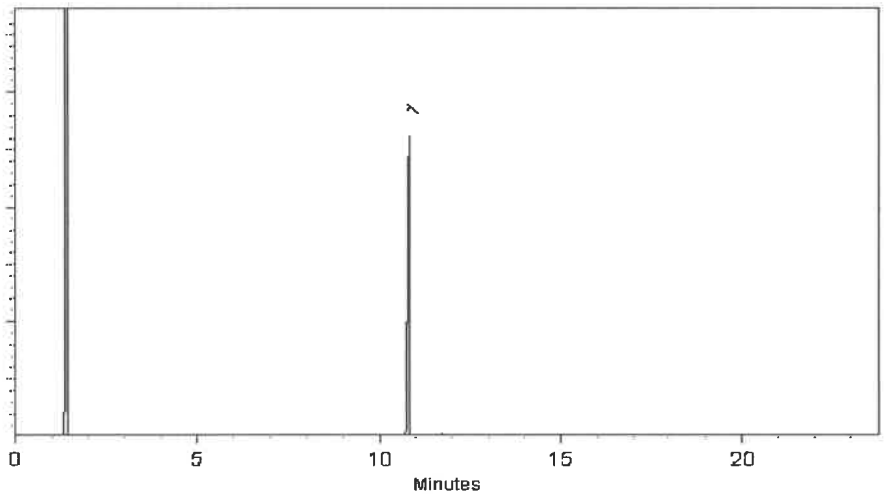
Inj. Temp:
250°C

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: 02-Dec-2023 **Balance Serial #** B345965662

Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 08-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

P12960 & P12991 Y.P. 12/21/2023

Catalog No. : 31098 **Lot No.:** A0204989

Description : 1-Chlorooctadecane Standard

1-Chlorooctadecane Standard 10,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : January 31, 2031 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Chlorooctadecane	3386-33-2	14738400	99%	10,097.3 µg/mL	+/- 567.2675

* 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.)

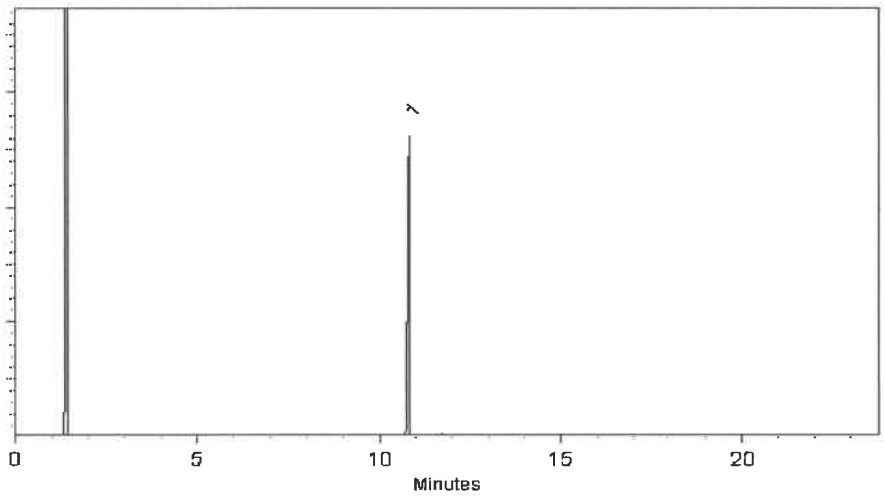
Inj. Temp:
250°C

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: 02-Dec-2023 **Balance Serial #** B345965662

Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 08-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

P12960 & P12991 Y.P. 12/21/2023

Catalog No. : 31098 **Lot No.:** A0204989

Description : 1-Chlorooctadecane Standard

1-Chlorooctadecane Standard 10,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : January 31, 2031 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Chlorooctadecane	3386-33-2	14738400	99%	10,097.3 µg/mL	+/- 567.2675

* 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.)

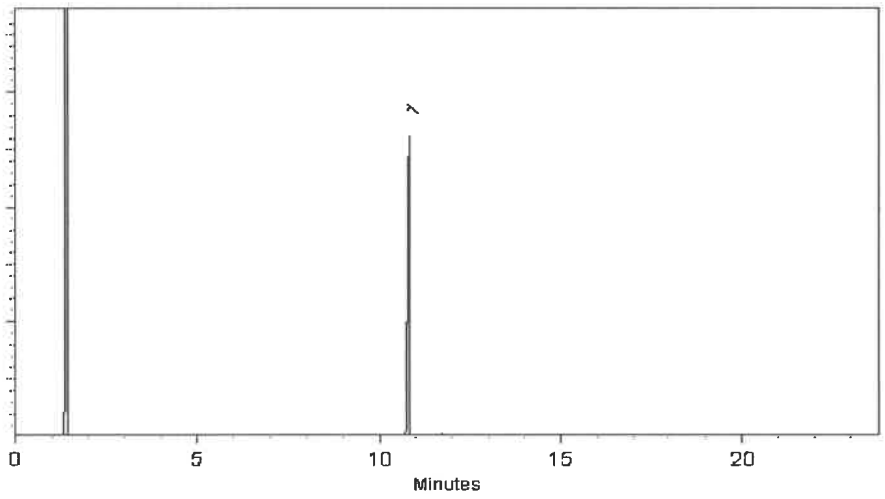
Inj. Temp:
250°C

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: 02-Dec-2023 **Balance Serial #** B345965662

Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 08-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31098 **Lot No.:** A0200707

P13044 & P13051 Y.P. 12/26/23

Description : 1-Chlorooctadecane Standard

1-Chlorooctadecane Standard 10,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : September 30, 2030 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Chlorooctadecane	3386-33-2	E230426RSRB	99%	10,018.0 µg/mL	+/- 562.8106

* 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.)

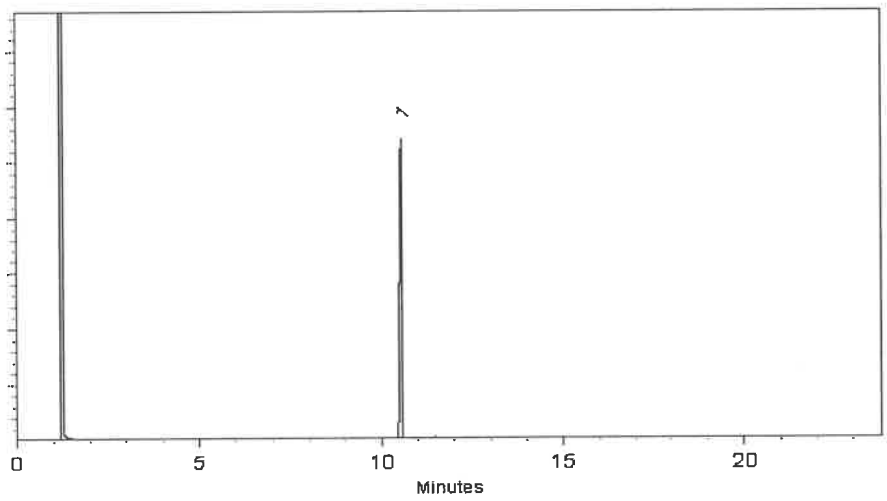
Inj. Temp:
250°C

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.

Ashley Frantz - Quoting Technician

Date Mixed: 07-Aug-2023 **Balance Serial #** 1128360905

Dillan Murphy - Operations Technician I

Date Passed: 10-Aug-2023

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

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95899
Lot Number: 040524
Description: NJ EPH Aliphatic n-Hydrocarbons - Revised
20 components
Expiration Date: 040534
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UTB

Solvent(s):	Lot#
Cyclohexane	28930

P13278 & P13287 } Y.P. 04111124

Formulated By:	Anthony Mahoney	040524 DATE
Reviewed By:	Pedro L. Rentas	040524 DATE

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 25.0 0.001 Flask Uncertainty
CAUTION: Sonicate Before Use

	Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	2-Methylnaphthalene	(0214)	MKBF3783V	NA	NA	NA	1000	97	0.2	NA	0.02579	0.02594	1005.7	5.7	91-57-6	N/A	orl-rat 1630mg/kg
2.	Naphthalene	(0222)	MKBZ8680V	NA	NA	NA	1000	100	0.2	NA	0.02502	0.02511	1003.7	5.7	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
3.	n-Nonane	95708	120222	1.00	25.00	1000.7	1000	NA	NA	0.013	NA	NA	1000.0	4.2	111-84-2	200 ppm (1050mg/m3/8H)	ivn-mus 218mg/kg
4.	n-Decane	95708	**120222**	1.00	25.00	1000.9	1000	NA	NA	0.013	NA	NA	1000.2	4.2	124-18-5	N/A	N/A
5.	n-Dodecane	95708	120222	1.00	25.00	1000.7	1000	NA	NA	0.013	NA	NA	1000.0	4.2	112-40-3	N/A	ivn-mus 3494mg/kg
6.	n-Tetradecane	95708	120222	1.00	25.00	1002.1	1000	NA	NA	0.013	NA	NA	1001.3	4.2	629-59-4	N/A	N/A
7.	n-Hexadecane	95708	120222	1.00	25.00	1000.5	1000	NA	NA	0.013	NA	NA	999.7	4.2	544-76-3	N/A	N/A
8.	n-Octadecane	95708	120222	1.00	25.00	1001.0	1000	NA	NA	0.013	NA	NA	1000.3	4.1	593-45-3	N/A	N/A
9.	n-Eicosane	95708	120222	1.00	25.00	1001.0	1000	NA	NA	0.013	NA	NA	1000.3	4.2	112-95-8	N/A	N/A
10.	n-Heneicosane	95708	120222	1.00	25.00	1002.4	1000	NA	NA	0.013	NA	NA	1001.6	4.2	629-94-7	N/A	N/A
11.	n-Docosane	95708	120222	1.00	25.00	1001.9	1000	NA	NA	0.013	NA	NA	1001.2	4.2	629-97-0	N/A	N/A
12.	n-Tetracosane	95708	120222	1.00	25.00	1000.8	1000	NA	NA	0.013	NA	NA	1000.1	4.2	646-31-1	N/A	N/A
13.	n-Hexacosane	95708	120222	1.00	25.00	1001.2	1000	NA	NA	0.013	NA	NA	1000.4	4.2	630-01-3	N/A	N/A
14.	n-Octacosane	95708	120222	1.00	25.00	1000.5	1000	NA	NA	0.013	NA	NA	999.8	4.2	630-02-4	N/A	N/A
15.	n-Triacontane	95708	120222	1.00	25.00	1000.5	1000	NA	NA	0.013	NA	NA	999.8	4.2	638-68-6	N/A	N/A
16.	n-Dotriacontane	95708	120222	1.00	25.00	1000.5	1000	NA	NA	0.013	NA	NA	999.8	4.3	544-85-4	N/A	ivn-mus 100mg/kg
17.	n-Tetratriacontane	95708	120222	1.00	25.00	1000.4	1000	NA	NA	0.013	NA	NA	999.7	4.2	14167-59-0	N/A	N/A
18.	n-Hexatriacontane	95708	120222	1.00	25.00	1001.5	1000	NA	NA	0.013	NA	NA	1000.8	4.2	630-06-8	N/A	N/A
19.	n-Octatriacontane	95708	120222	1.00	25.00	1000.3	1000	NA	NA	0.013	NA	NA	999.6	4.3	7194-85-6	N/A	N/A
20.	n-Tetracontane	95708	120222	1.00	25.00	1000.6	1000	NA	NA	0.013	NA	NA	999.9	4.3	4181-95-7	N/A	N/A

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31098 **Lot No.:** A0213283

Description : 1-Chlorooctadecane Standard

1-Chlorooctadecane Standard 10,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 2031 **Storage:** 10°C or colder

Ship: Ambient

P13595
↓
P13624
Y.P.
10/16/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Chlorooctadecane	3386-33-2	15018900	99%	10,058.0 µg/mL	+/- 565.0578

* 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.)

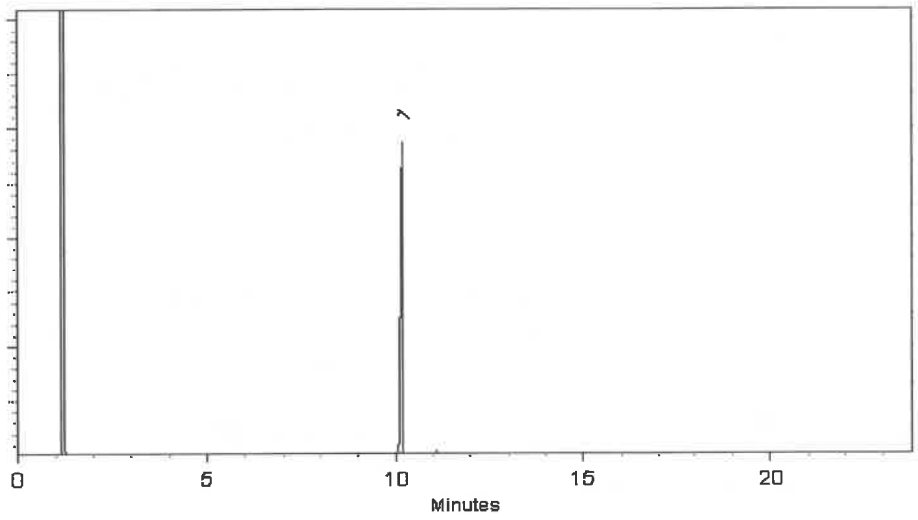
Inj. Temp:
250°C

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.

Stacey Wanner - Operations Technician I

Date Mixed: 28-Jun-2024 **Balance Serial #** B345965662

Dillan Murphy - Operations Technician I

Date Passed: 01-Jul-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31097 **Lot No.:** A0216631

Description : o-Terphenyl Standard

o-Terphenyl Standard 10,000 µg/mL, Methylene Chloride, 1mL/ampul

P13645 ↓ P13694 } Y.P. 10/16/24

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

Expiration Date : April 30, 2028 **Storage:** 10°C or colder

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

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o-Terphenyl	84-15-1	GKSSA	99%	10,065.0 µg/mL	+/- 453.3336

* 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.)

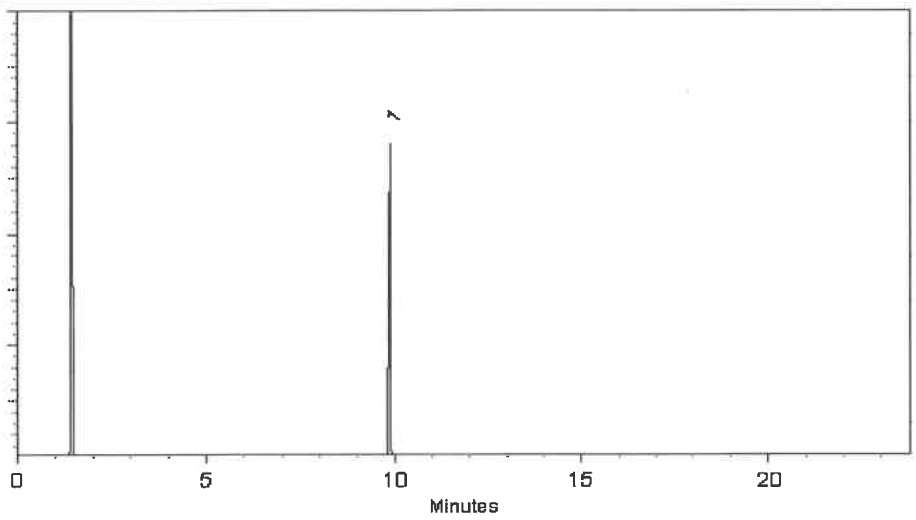
Inj. Temp:
250°C

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.

Ven Kelley - Operations Tech I

Date Mixed: 17-Sep-2024 **Balance Serial #** 1128353505

Dillan Murphy - Operations Technician I

Date Passed: 23-Sep-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31097 **Lot No.:** A0216631

Description : o-Terphenyl Standard

o-Terphenyl Standard 10,000 µg/mL, Methylene Chloride, 1mL/ampul

P13645 ↓ P13694 } Y.P. 10/16/24

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

Expiration Date : April 30, 2028 **Storage:** 10°C or colder

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

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o-Terphenyl	84-15-1	GKSSA	99%	10,065.0 µg/mL	+/- 453.3336

* 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.)

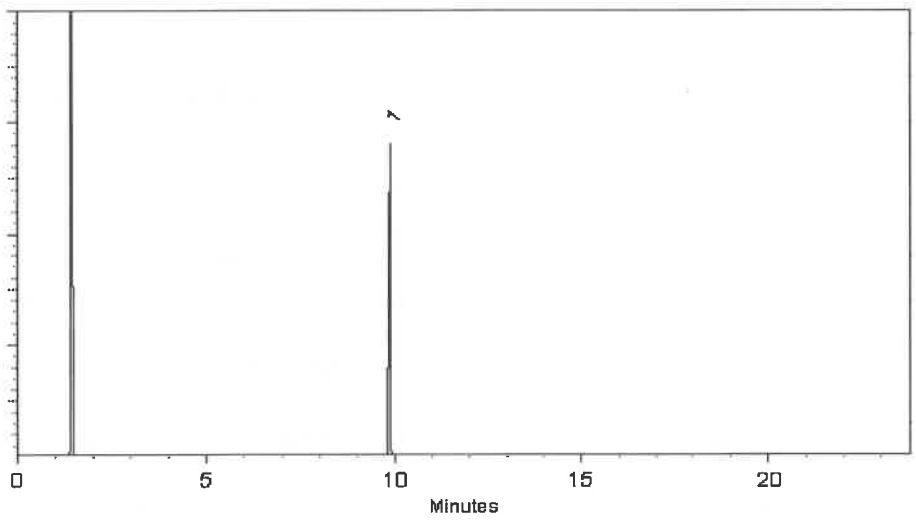
Inj. Temp:
250°C

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.

Ven Kelley - Operations Tech I

Date Mixed: 17-Sep-2024 **Balance Serial #** 1128353505

Dillan Murphy - Operations Technician I

Date Passed: 23-Sep-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31097 **Lot No.:** A0216631

Description : o-Terphenyl Standard

o-Terphenyl Standard 10,000 µg/mL, Methylene Chloride, 1mL/ampul

P13645 ↓ P13694 } Y.P. 10/16/24

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

Expiration Date : April 30, 2028 **Storage:** 10°C or colder

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

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o-Terphenyl	84-15-1	GKSSA	99%	10,065.0 µg/mL	+/- 453.3336

* 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.)

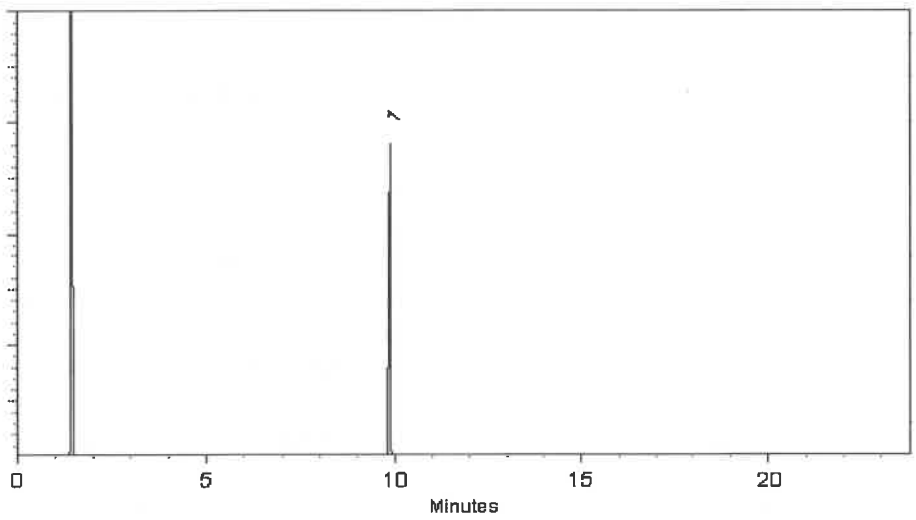
Inj. Temp:
250°C

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.

Ven Kelley - Operations Tech I

Date Mixed: 17-Sep-2024 **Balance Serial #** 1128353505

Dillan Murphy - Operations Technician I

Date Passed: 23-Sep-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31097 **Lot No.:** A0216631

Description : o-Terphenyl Standard

o-Terphenyl Standard 10,000 µg/mL, Methylene Chloride, 1mL/ampul

P13645 ↓ P13694 } Y.P. 10/16/24

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

Expiration Date : April 30, 2028 **Storage:** 10°C or colder

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

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o-Terphenyl	84-15-1	GKSSA	99%	10,065.0 µg/mL	+/- 453.3336

* 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.)

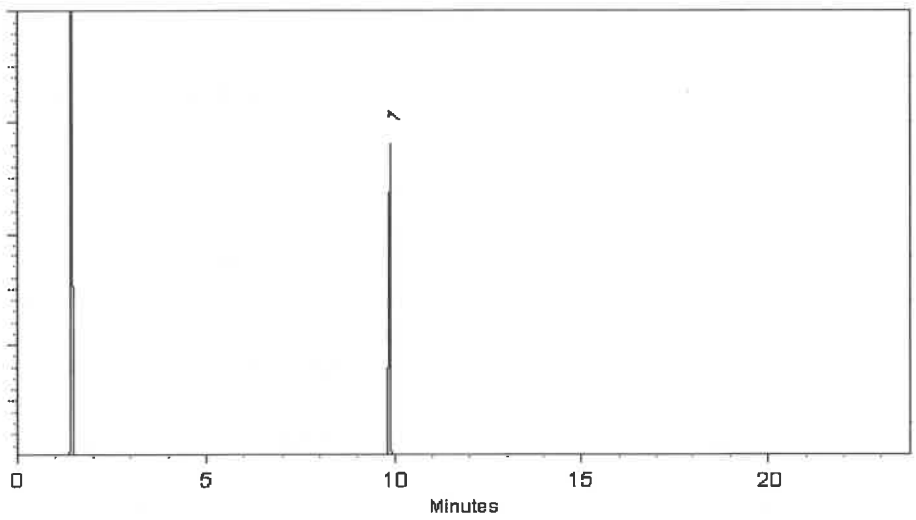
Inj. Temp:
250°C

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.

Ven Kelley - Operations Tech I

Date Mixed: 17-Sep-2024 **Balance Serial #** 1128353505

Dillan Murphy - Operations Technician I

Date Passed: 23-Sep-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31097 **Lot No.:** A0216631

Description : o-Terphenyl Standard

o-Terphenyl Standard 10,000 µg/mL, Methylene Chloride, 1mL/ampul

P13645 ↓ P13694 } Y.P. 10/16/24

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

Expiration Date : April 30, 2028 **Storage:** 10°C or colder

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

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o-Terphenyl	84-15-1	GKSSA	99%	10,065.0 µg/mL	+/- 453.3336

* 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.)

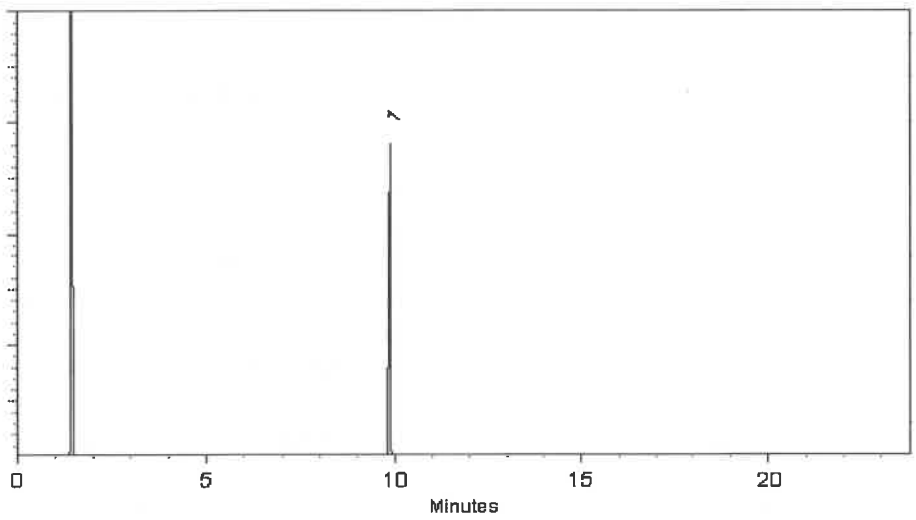
Inj. Temp:
250°C

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.

Ven Kelley - Operations Tech I

Date Mixed: 17-Sep-2024 **Balance Serial #** 1128353505

Dillan Murphy - Operations Technician I

Date Passed: 23-Sep-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31097 **Lot No.:** A0216631

Description : o-Terphenyl Standard

o-Terphenyl Standard 10,000 µg/mL, Methylene Chloride, 1mL/ampul

P13645 ↓ P13694 } Y.P. 10/16/24

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

Expiration Date : April 30, 2028 **Storage:** 10°C or colder

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

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o-Terphenyl	84-15-1	GKSSA	99%	10,065.0 µg/mL	+/- 453.3336

* 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.)

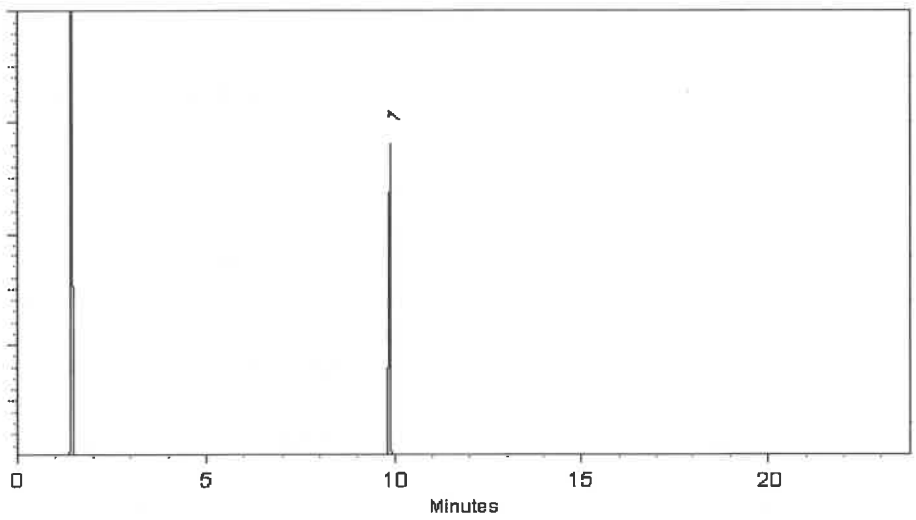
Inj. Temp:
250°C

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.

Ven Kelley - Operations Tech I

Date Mixed: 17-Sep-2024 **Balance Serial #** 1128353505

Dillan Murphy - Operations Technician I

Date Passed: 23-Sep-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31097 **Lot No.:** A0216631

Description : o-Terphenyl Standard

o-Terphenyl Standard 10,000 µg/mL, Methylene Chloride, 1mL/ampul

P13645 ↓ P13694 } Y.P. 10/16/24

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

Expiration Date : April 30, 2028 **Storage:** 10°C or colder

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

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o-Terphenyl	84-15-1	GKSSA	99%	10,065.0 µg/mL	+/- 453.3336

* 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.)

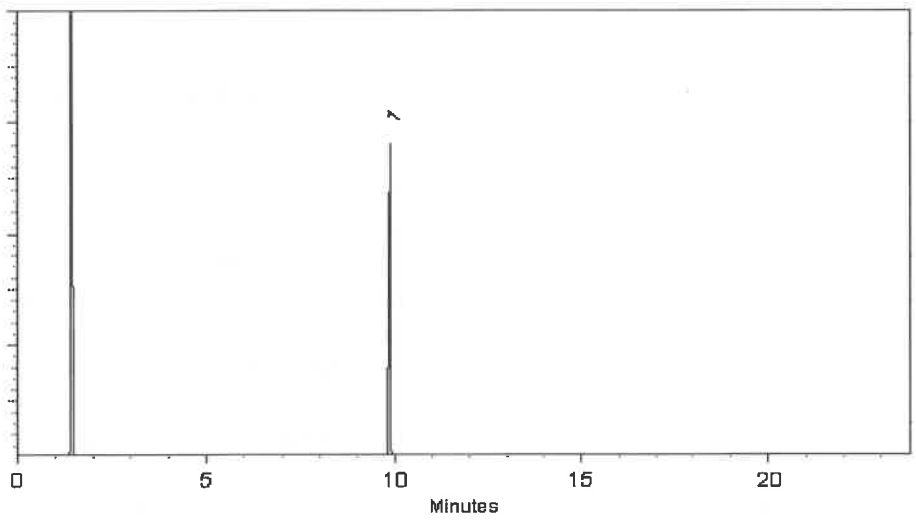
Inj. Temp:
250°C

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.

Ven Kelley - Operations Tech I

Date Mixed: 17-Sep-2024 **Balance Serial #** 1128353505

Dillan Murphy - Operations Technician I

Date Passed: 23-Sep-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30543 **Lot No.:** A0211254

Description : NJEPH Aromatics Matrix Spike Mix

NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

P13708
↓
P137-16
Y.P. 10/24/24

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : April 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,3-Trimethylbenzene	526-73-8	8776.10-38	99%	200.0 µg/mL	+/- 9.0114
2	Naphthalene	91-20-3	STBL1057	99%	200.8 µg/mL	+/- 9.0474
3	2-Methylnaphthalene	91-57-6	STBK0259	96%	200.4 µg/mL	+/- 9.0316
4	Acenaphthylene	208-96-8	214935L31M	98%	200.3 µg/mL	+/- 9.0255
5	Acenaphthene	83-32-9	MKCR7169	99%	202.0 µg/mL	+/- 9.1015
6	Fluorene	86-73-7	10241100	99%	201.2 µg/mL	+/- 9.0655
7	Phenanthrene	85-01-8	MKCS5188	99%	200.4 µg/mL	+/- 9.0294
8	Anthracene	120-12-7	MKCR0570	99%	200.4 µg/mL	+/- 9.0294
9	Fluoranthene	206-44-0	MKCQ4728	99%	200.8 µg/mL	+/- 9.0474
10	Pyrene	129-00-0	BCCK2592	99%	201.2 µg/mL	+/- 9.0655
11	Benz(a)anthracene	56-55-3	I30012022BAA	99%	200.8 µg/mL	+/- 9.0474
12	Chrysene	218-01-9	RP231206RSR	99%	200.4 µg/mL	+/- 9.0294
13	Benzo(b)fluoranthene	205-99-2	012013B	99%	200.4 µg/mL	+/- 9.0294
14	Benzo(k)fluoranthene	207-08-9	012022K	99%	200.0 µg/mL	+/- 9.0114
15	Benzo(a)pyrene	50-32-8	O45GL	98%	200.7 µg/mL	+/- 9.0431
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	199.8 µg/mL	+/- 9.0033

17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	200.0	µg/mL	+/- 9.0114
18	Benzo(g,h,i)perylene	191-24-2	RP240105ECS	99%	200.8	µg/mL	+/- 9.0474

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
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:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)

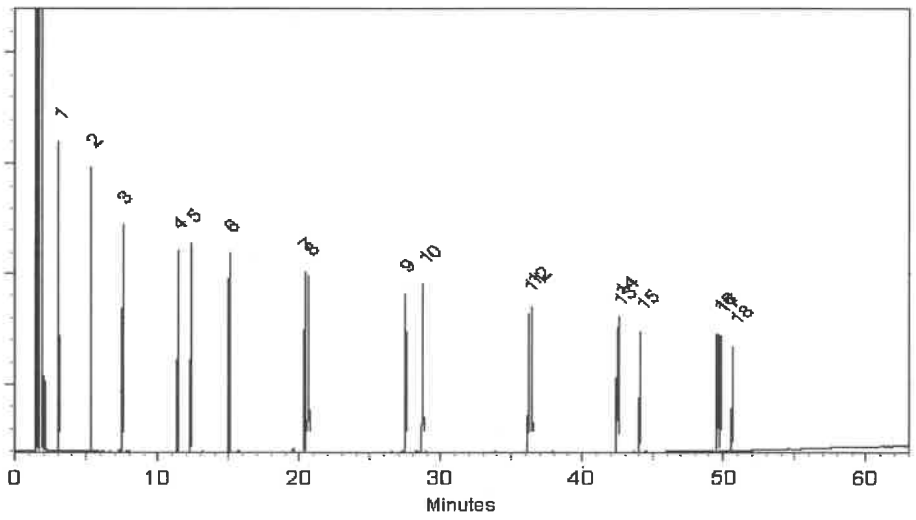
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 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.

Michael Maye - Operations Tech I **Date Mixed:** 09-May-2024 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 13-May-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31480 **Lot No.:** A0214879

Description : MA Fractionation Surrogate Spike Mix

MA Fractionation Surrogate Spike Mix 4000µg/mL, Hexane, 1mL/ampul

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

Expiration Date : July 31, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

P13743 ↓ P13772 } Y.P. 11/01/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorobiphenyl	321-60-8	00021384	99%	4,009.0 µg/mL	+/- 180.5961
2	2-Bromonaphthalene	580-13-2	STBC5362V	99%	4,008.5 µg/mL	+/- 180.5736

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Hexane
CAS # 110-54-3
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.)

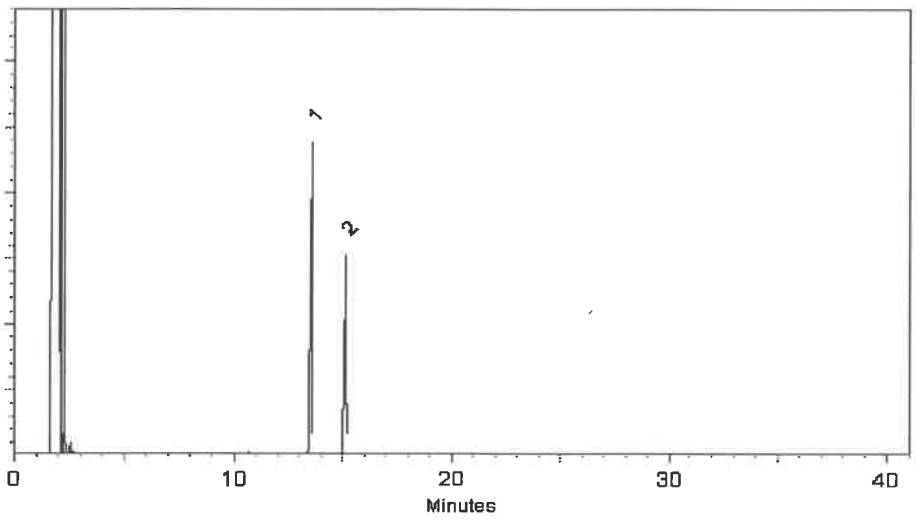
Inj. Temp:
250°C

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.

Scott McNeil - Operations Tech I

Date Mixed: 06-Aug-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Aug-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31480 **Lot No.:** A0214879

Description : MA Fractionation Surrogate Spike Mix

MA Fractionation Surrogate Spike Mix 4000µg/mL, Hexane, 1mL/ampul

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

Expiration Date : July 31, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

P13743 ↓ P13772 } Y.P. 11/01/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorobiphenyl	321-60-8	00021384	99%	4,009.0 µg/mL	+/- 180.5961
2	2-Bromonaphthalene	580-13-2	STBC5362V	99%	4,008.5 µg/mL	+/- 180.5736

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Hexane
CAS # 110-54-3
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.)

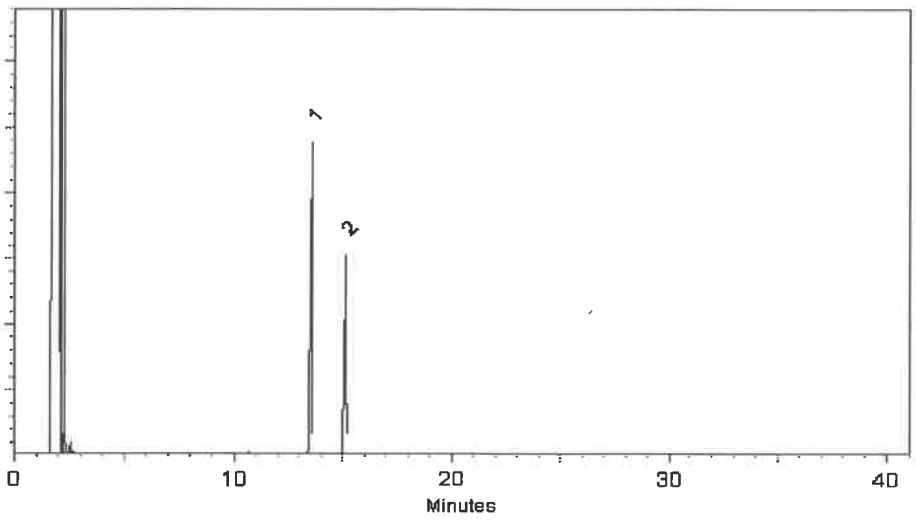
Inj. Temp:
250°C

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.

Scott McNeil - Operations Tech I

Date Mixed: 06-Aug-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Aug-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30543 **Lot No.:** A0220580

Description : NJEPH Aromatics Matrix Spike Mix

NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

P13863 ↓ P13866 } Y.P. 01/08/25

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,3-Trimethylbenzene	526-73-8	8776.10-39	98%	201.9 µg/mL	+/- 9.0961
2	Naphthalene	91-20-3	STBL1057	99%	200.8 µg/mL	+/- 9.0474
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	RP241029RSR	98%	201.9 µg/mL	+/- 9.0961
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.9 µg/mL	+/- 9.0961
7	Phenanthrene	85-01-8	MKCT3391	99%	200.8 µg/mL	+/- 9.0474
8	Anthracene	120-12-7	MKCW9141	99%	200.4 µg/mL	+/- 9.0294
9	Fluoranthene	206-44-0	MKCQ4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCL8032	99%	201.6 µg/mL	+/- 9.0835
11	Benz(a)anthracene	56-55-3	I220012022BAA	99%	202.0 µg/mL	+/- 9.1015
12	Chrysene	218-01-9	RP240719RSR	99%	202.0 µg/mL	+/- 9.1015
13	Benzo(b)fluoranthene	205-99-2	SBS-BBF-FINAL-2	99%	202.0 µg/mL	+/- 9.1015
14	Benzo(k)fluoranthene	207-08-9	012022K	98%	201.5 µg/mL	+/- 9.0784
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	200.7 µg/mL	+/- 9.0431
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	200.6 µg/mL	+/- 9.0383

17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	201.2	µg/mL	+/- 9.0655
18	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	200.3	µg/mL	+/- 9.0255

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
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:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)

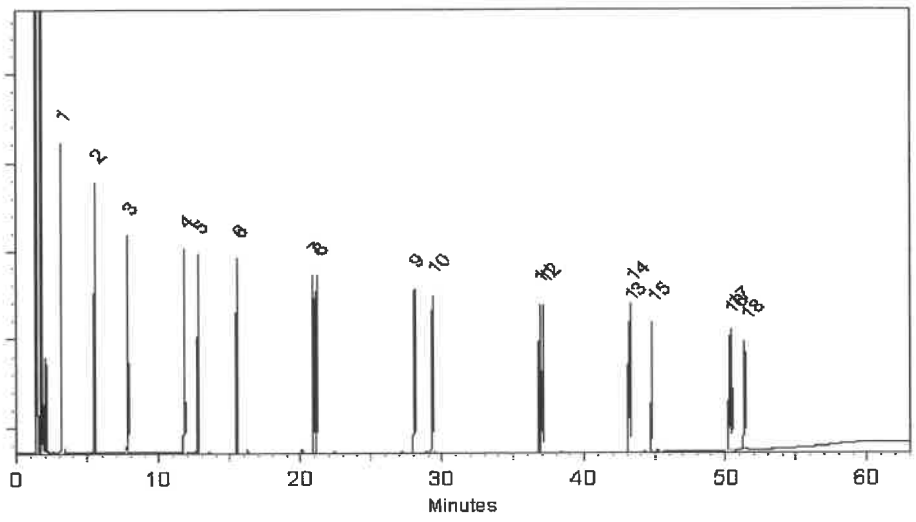
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 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.

Ven Kelley - Operations Tech I

Date Mixed: 30-Dec-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 03-Jan-2025

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30542 **Lot No.:** A0217408

Description : NJEPH Aliphatics Matrix Spike Mix

NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

P13896 & P13906 } Y.P. 03/06/25

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2031 **Storage:** 10°C or colder

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

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	200.7 µg/mL	+/- 5.1839
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	201.0 µg/mL	+/- 5.1917
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.5 µg/mL	+/- 5.1805
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	200.5 µg/mL	+/- 5.1805
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.7 µg/mL	+/- 5.1857
6	n-Octadecane (C18)	593-45-3	UE5NG	99%	200.7 µg/mL	+/- 5.1857
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.9 µg/mL	+/- 5.1888
8	n-Heneicosane (C21)	629-94-7	MKCP1960	99%	200.5 µg/mL	+/- 5.1805
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.5 µg/mL	+/- 5.1788
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.6 µg/mL	+/- 5.1822
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCJ4566	99%	200.6 µg/mL	+/- 5.1822
13	n-Triacontane (C30)	638-68-6	MKCV7007	98%	201.1 µg/mL	+/- 5.1942
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.9 µg/mL	+/- 5.1891
15	n-Tetratriacontane (C34)	14167-59-0	6JNHB	99%	200.8 µg/mL	+/- 5.1865
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000207852	96%	199.3 µg/mL	+/- 5.1477

18	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	201.0 µg/mL	+/- 5.1917

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

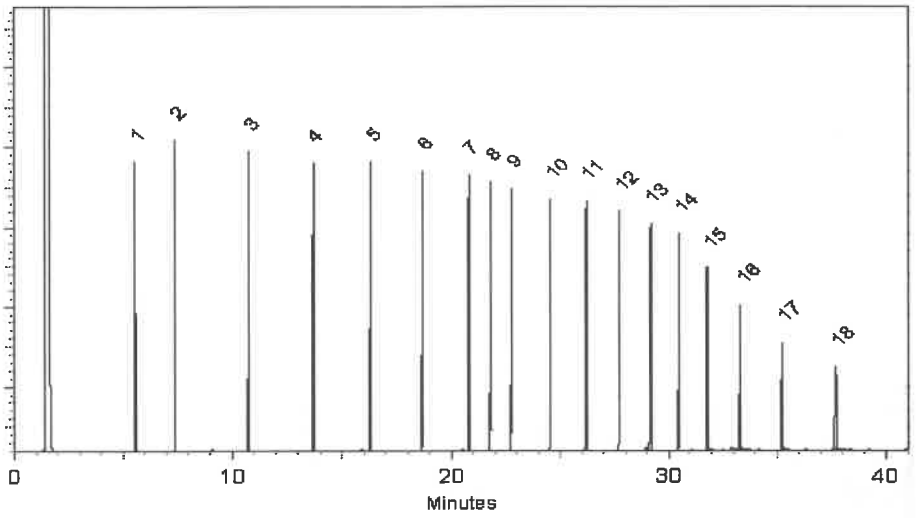
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 03-Oct-2024 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 07-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30542 **Lot No.:** A0217408

Description : NJEPH Aliphatics Matrix Spike Mix

NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

P13896 & P13906 } Y.P. 03/06/25

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2031 **Storage:** 10°C or colder

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

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	200.7 µg/mL	+/- 5.1839
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	201.0 µg/mL	+/- 5.1917
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.5 µg/mL	+/- 5.1805
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	200.5 µg/mL	+/- 5.1805
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.7 µg/mL	+/- 5.1857
6	n-Octadecane (C18)	593-45-3	UE5NG	99%	200.7 µg/mL	+/- 5.1857
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.9 µg/mL	+/- 5.1888
8	n-Heneicosane (C21)	629-94-7	MKCP1960	99%	200.5 µg/mL	+/- 5.1805
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.5 µg/mL	+/- 5.1788
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.6 µg/mL	+/- 5.1822
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCJ4566	99%	200.6 µg/mL	+/- 5.1822
13	n-Triacontane (C30)	638-68-6	MKCV7007	98%	201.1 µg/mL	+/- 5.1942
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.9 µg/mL	+/- 5.1891
15	n-Tetratriacontane (C34)	14167-59-0	6JNHB	99%	200.8 µg/mL	+/- 5.1865
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000207852	96%	199.3 µg/mL	+/- 5.1477

18	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	201.0 µg/mL	+/- 5.1917

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

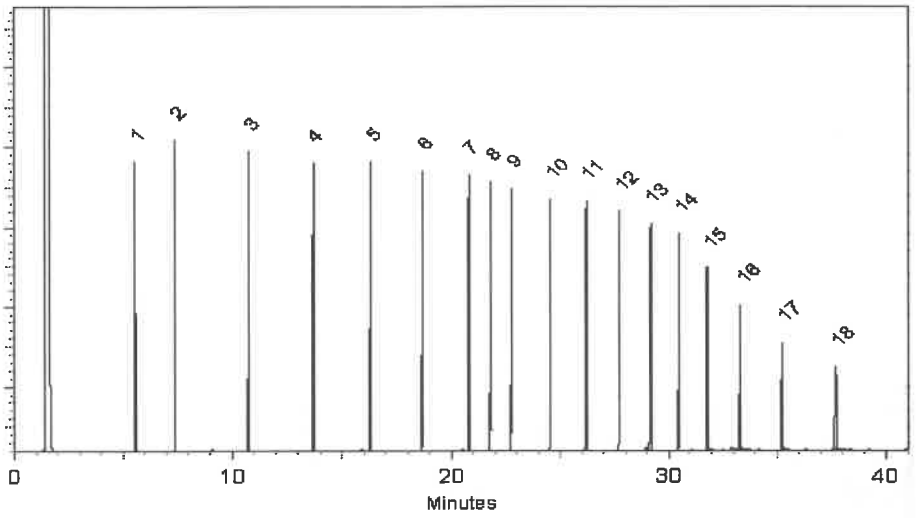
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 03-Oct-2024 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 07-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30542 **Lot No.:** A0217408

Description : NJEPH Aliphatics Matrix Spike Mix

NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

P13896 & P13906 } Y.P. 03/06/25

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2031 **Storage:** 10°C or colder

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

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	200.7 µg/mL	+/- 5.1839
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	201.0 µg/mL	+/- 5.1917
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.5 µg/mL	+/- 5.1805
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	200.5 µg/mL	+/- 5.1805
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.7 µg/mL	+/- 5.1857
6	n-Octadecane (C18)	593-45-3	UE5NG	99%	200.7 µg/mL	+/- 5.1857
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.9 µg/mL	+/- 5.1888
8	n-Heneicosane (C21)	629-94-7	MKCP1960	99%	200.5 µg/mL	+/- 5.1805
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.5 µg/mL	+/- 5.1788
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.6 µg/mL	+/- 5.1822
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCJ4566	99%	200.6 µg/mL	+/- 5.1822
13	n-Triacontane (C30)	638-68-6	MKCV7007	98%	201.1 µg/mL	+/- 5.1942
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.9 µg/mL	+/- 5.1891
15	n-Tetratriacontane (C34)	14167-59-0	6JNHB	99%	200.8 µg/mL	+/- 5.1865
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000207852	96%	199.3 µg/mL	+/- 5.1477

18	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	201.0 µg/mL	+/- 5.1917

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

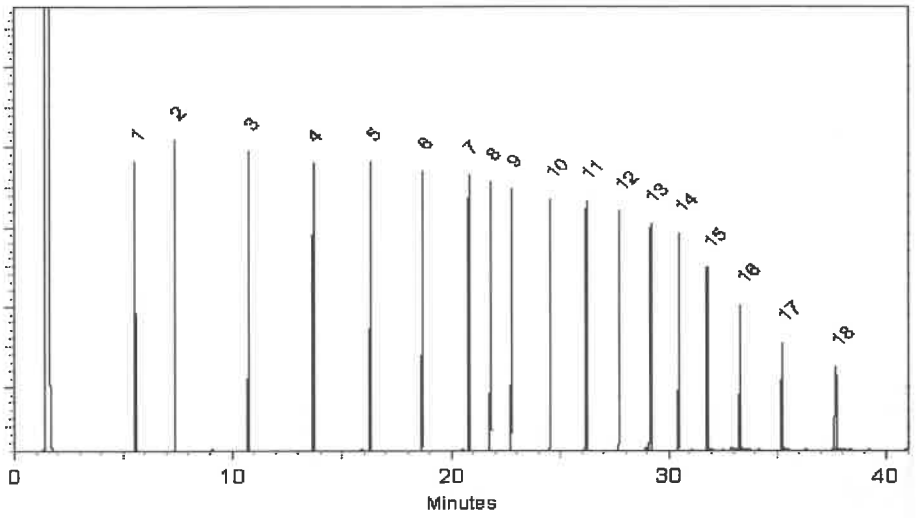
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 03-Oct-2024 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 07-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30542 **Lot No.:** A0217408

Description : NJEPH Aliphatics Matrix Spike Mix

NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

P13896 & P13906 } Y.P. 03/06/25

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2031 **Storage:** 10°C or colder

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

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	200.7 µg/mL	+/- 5.1839
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	201.0 µg/mL	+/- 5.1917
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.5 µg/mL	+/- 5.1805
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	200.5 µg/mL	+/- 5.1805
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.7 µg/mL	+/- 5.1857
6	n-Octadecane (C18)	593-45-3	UE5NG	99%	200.7 µg/mL	+/- 5.1857
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.9 µg/mL	+/- 5.1888
8	n-Heneicosane (C21)	629-94-7	MKCP1960	99%	200.5 µg/mL	+/- 5.1805
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.5 µg/mL	+/- 5.1788
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.6 µg/mL	+/- 5.1822
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCJ4566	99%	200.6 µg/mL	+/- 5.1822
13	n-Triacontane (C30)	638-68-6	MKCV7007	98%	201.1 µg/mL	+/- 5.1942
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.9 µg/mL	+/- 5.1891
15	n-Tetratriacontane (C34)	14167-59-0	6JNHB	99%	200.8 µg/mL	+/- 5.1865
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000207852	96%	199.3 µg/mL	+/- 5.1477

18	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	201.0 µg/mL	+/- 5.1917

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

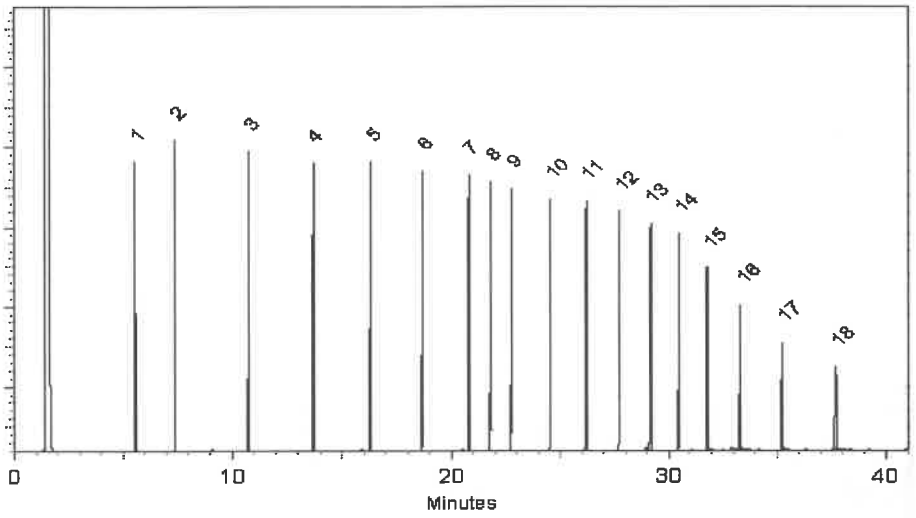
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 03-Oct-2024 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 07-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30542 **Lot No.:** A0217408

Description : NJEPH Aliphatics Matrix Spike Mix

NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

P13896 & P13906 } Y.P. 03/06/25

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2031 **Storage:** 10°C or colder

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

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	200.7 µg/mL	+/- 5.1839
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	201.0 µg/mL	+/- 5.1917
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.5 µg/mL	+/- 5.1805
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	200.5 µg/mL	+/- 5.1805
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.7 µg/mL	+/- 5.1857
6	n-Octadecane (C18)	593-45-3	UE5NG	99%	200.7 µg/mL	+/- 5.1857
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.9 µg/mL	+/- 5.1888
8	n-Heneicosane (C21)	629-94-7	MKCP1960	99%	200.5 µg/mL	+/- 5.1805
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.5 µg/mL	+/- 5.1788
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.6 µg/mL	+/- 5.1822
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCJ4566	99%	200.6 µg/mL	+/- 5.1822
13	n-Triacontane (C30)	638-68-6	MKCV7007	98%	201.1 µg/mL	+/- 5.1942
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.9 µg/mL	+/- 5.1891
15	n-Tetratriacontane (C34)	14167-59-0	6JNHB	99%	200.8 µg/mL	+/- 5.1865
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000207852	96%	199.3 µg/mL	+/- 5.1477

18	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	201.0 µg/mL	+/- 5.1917

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

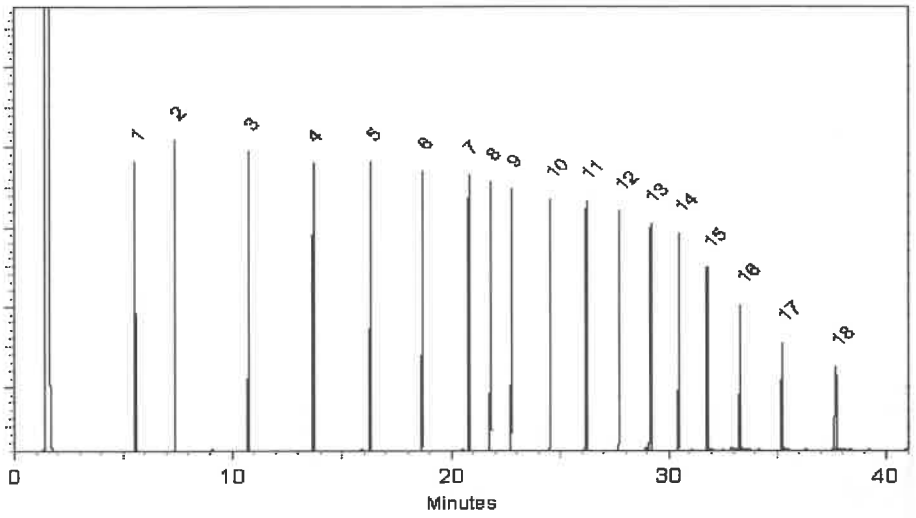
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 03-Oct-2024 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 07-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30542 **Lot No.:** A0217408

Description : NJEPH Aliphatics Matrix Spike Mix

NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

P13896 & P13906 } Y.P. 03/06/25

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2031 **Storage:** 10°C or colder

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

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	200.7 µg/mL	+/- 5.1839
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	201.0 µg/mL	+/- 5.1917
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.5 µg/mL	+/- 5.1805
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	200.5 µg/mL	+/- 5.1805
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.7 µg/mL	+/- 5.1857
6	n-Octadecane (C18)	593-45-3	UE5NG	99%	200.7 µg/mL	+/- 5.1857
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.9 µg/mL	+/- 5.1888
8	n-Heneicosane (C21)	629-94-7	MKCP1960	99%	200.5 µg/mL	+/- 5.1805
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.5 µg/mL	+/- 5.1788
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.6 µg/mL	+/- 5.1822
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCJ4566	99%	200.6 µg/mL	+/- 5.1822
13	n-Triacontane (C30)	638-68-6	MKCV7007	98%	201.1 µg/mL	+/- 5.1942
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.9 µg/mL	+/- 5.1891
15	n-Tetratriacontane (C34)	14167-59-0	6JNHB	99%	200.8 µg/mL	+/- 5.1865
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000207852	96%	199.3 µg/mL	+/- 5.1477

18	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	201.0 µg/mL	+/- 5.1917

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

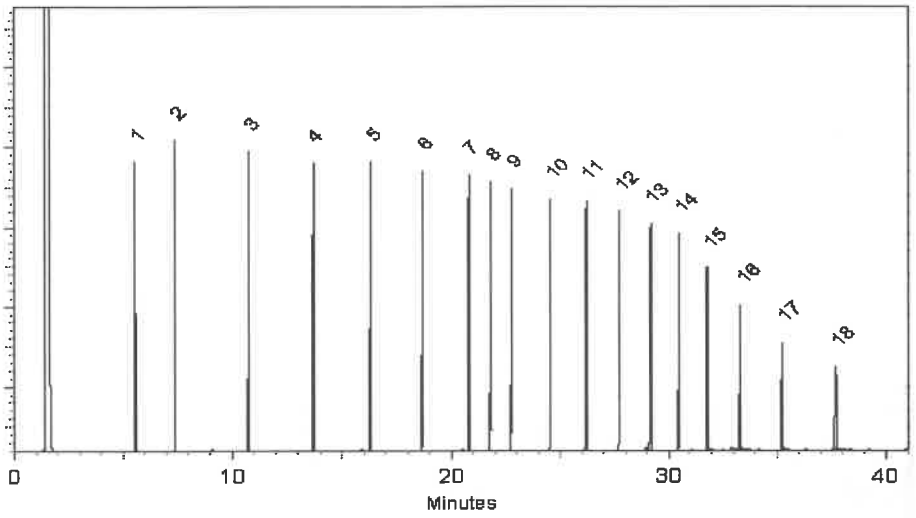
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 03-Oct-2024 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 07-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30542 **Lot No.:** A0217408

Description : NJEPH Aliphatics Matrix Spike Mix

NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

P13896 & P13906 } Y.P. 03/06/25

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2031 **Storage:** 10°C or colder

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

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	200.7 µg/mL	+/- 5.1839
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	201.0 µg/mL	+/- 5.1917
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.5 µg/mL	+/- 5.1805
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	200.5 µg/mL	+/- 5.1805
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.7 µg/mL	+/- 5.1857
6	n-Octadecane (C18)	593-45-3	UE5NG	99%	200.7 µg/mL	+/- 5.1857
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.9 µg/mL	+/- 5.1888
8	n-Heneicosane (C21)	629-94-7	MKCP1960	99%	200.5 µg/mL	+/- 5.1805
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.5 µg/mL	+/- 5.1788
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.6 µg/mL	+/- 5.1822
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCJ4566	99%	200.6 µg/mL	+/- 5.1822
13	n-Triacontane (C30)	638-68-6	MKCV7007	98%	201.1 µg/mL	+/- 5.1942
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.9 µg/mL	+/- 5.1891
15	n-Tetratriacontane (C34)	14167-59-0	6JNHB	99%	200.8 µg/mL	+/- 5.1865
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000207852	96%	199.3 µg/mL	+/- 5.1477

18	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	201.0 µg/mL	+/- 5.1917

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

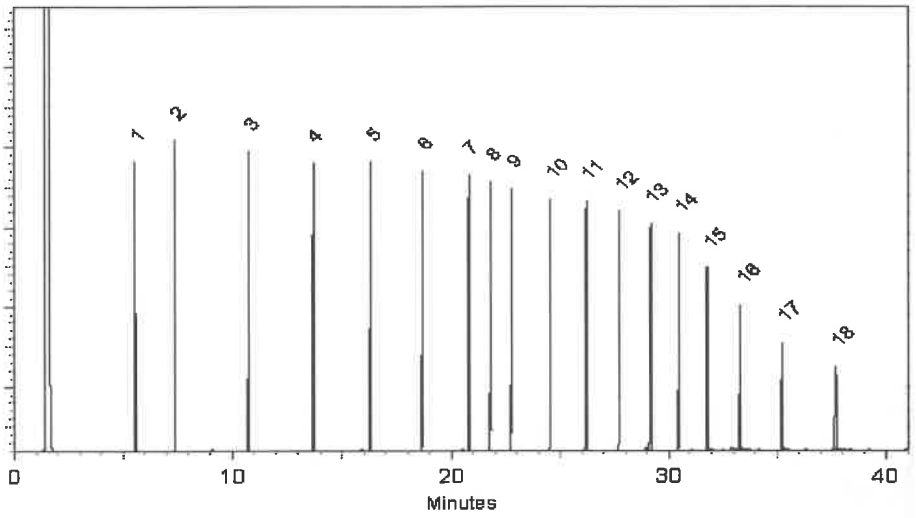
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 03-Oct-2024 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 07-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30542 **Lot No.:** A0217408

Description : NJEPH Aliphatics Matrix Spike Mix

NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

P13896 & P13906 } Y.P. 03/06/25

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2031 **Storage:** 10°C or colder

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

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	200.7 µg/mL	+/- 5.1839
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	201.0 µg/mL	+/- 5.1917
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.5 µg/mL	+/- 5.1805
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	200.5 µg/mL	+/- 5.1805
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.7 µg/mL	+/- 5.1857
6	n-Octadecane (C18)	593-45-3	UE5NG	99%	200.7 µg/mL	+/- 5.1857
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.9 µg/mL	+/- 5.1888
8	n-Heneicosane (C21)	629-94-7	MKCP1960	99%	200.5 µg/mL	+/- 5.1805
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.5 µg/mL	+/- 5.1788
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.6 µg/mL	+/- 5.1822
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCJ4566	99%	200.6 µg/mL	+/- 5.1822
13	n-Triacontane (C30)	638-68-6	MKCV7007	98%	201.1 µg/mL	+/- 5.1942
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.9 µg/mL	+/- 5.1891
15	n-Tetratriacontane (C34)	14167-59-0	6JNHB	99%	200.8 µg/mL	+/- 5.1865
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000207852	96%	199.3 µg/mL	+/- 5.1477

18	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	201.0 µg/mL	+/- 5.1917

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

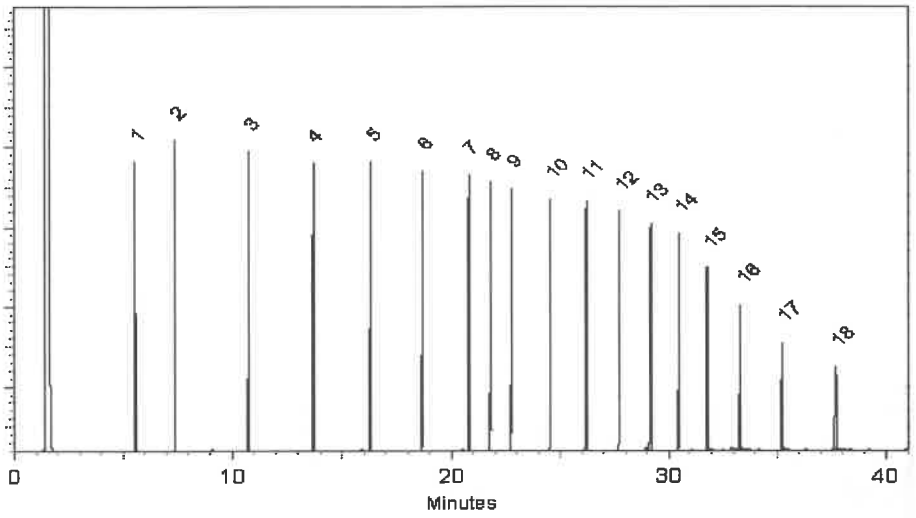
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 03-Oct-2024 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 07-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30542 **Lot No.:** A0217408

Description : NJEPH Aliphatics Matrix Spike Mix

NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

P13896 & P13906 } Y.P. 03/06/25

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2031 **Storage:** 10°C or colder

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

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	200.7 µg/mL	+/- 5.1839
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	201.0 µg/mL	+/- 5.1917
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.5 µg/mL	+/- 5.1805
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	200.5 µg/mL	+/- 5.1805
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.7 µg/mL	+/- 5.1857
6	n-Octadecane (C18)	593-45-3	UE5NG	99%	200.7 µg/mL	+/- 5.1857
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.9 µg/mL	+/- 5.1888
8	n-Heneicosane (C21)	629-94-7	MKCP1960	99%	200.5 µg/mL	+/- 5.1805
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.5 µg/mL	+/- 5.1788
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.6 µg/mL	+/- 5.1822
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCJ4566	99%	200.6 µg/mL	+/- 5.1822
13	n-Triacontane (C30)	638-68-6	MKCV7007	98%	201.1 µg/mL	+/- 5.1942
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.9 µg/mL	+/- 5.1891
15	n-Tetratriacontane (C34)	14167-59-0	6JNHB	99%	200.8 µg/mL	+/- 5.1865
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000207852	96%	199.3 µg/mL	+/- 5.1477

18	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	201.0 µg/mL	+/- 5.1917

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

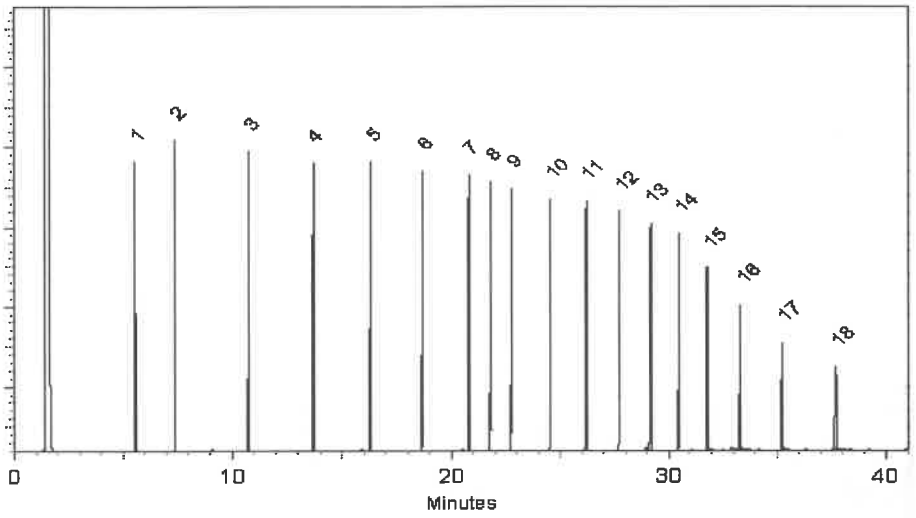
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 03-Oct-2024 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 07-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

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.

P13907
↓
P1394S
Y.P.
03/06/25

Catalog No. : 30542 **Lot No.:** A0220449

Description : NJEPH Aliphatics Matrix Spike Mix

NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2032 **Storage:** 10°C or colder

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

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	201.3 µg/mL	+/- 5.2012
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	201.7 µg/mL	+/- 5.2098
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	201.3 µg/mL	+/- 5.2012
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	200.7 µg/mL	+/- 5.1839
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.3 µg/mL	+/- 5.1753
6	n-Octadecane (C18)	593-45-3	UE5NG	99%	200.7 µg/mL	+/- 5.1839
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.1 µg/mL	+/- 5.1704
8	n-Heneicosane (C21)	629-94-7	MKCP1960	99%	200.7 µg/mL	+/- 5.1839
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.3 µg/mL	+/- 5.1753
10	n-Tetracosane (C24)	646-31-1	UH5GN	99%	201.3 µg/mL	+/- 5.2012
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	201.0 µg/mL	+/- 5.1926
12	n-Octacosane (C28)	630-02-4	BCCJ4566	99%	200.3 µg/mL	+/- 5.1753
13	n-Triacontane (C30)	638-68-6	MKCV7007	98%	201.2 µg/mL	+/- 5.1984
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	201.7 µg/mL	+/- 5.2098
15	n-Tetratriacontane (C34)	14167-59-0	6JNHB	99%	201.3 µg/mL	+/- 5.2012
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	201.7 µg/mL	+/- 5.2098
17	n-Octatriacontane (C38)	7194-85-6	0000207852	96%	201.6 µg/mL	+/- 5.2081

18	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	201.3 µg/mL	+/- 5.2012

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: n-Pentane
CAS # 109-66-0
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.)

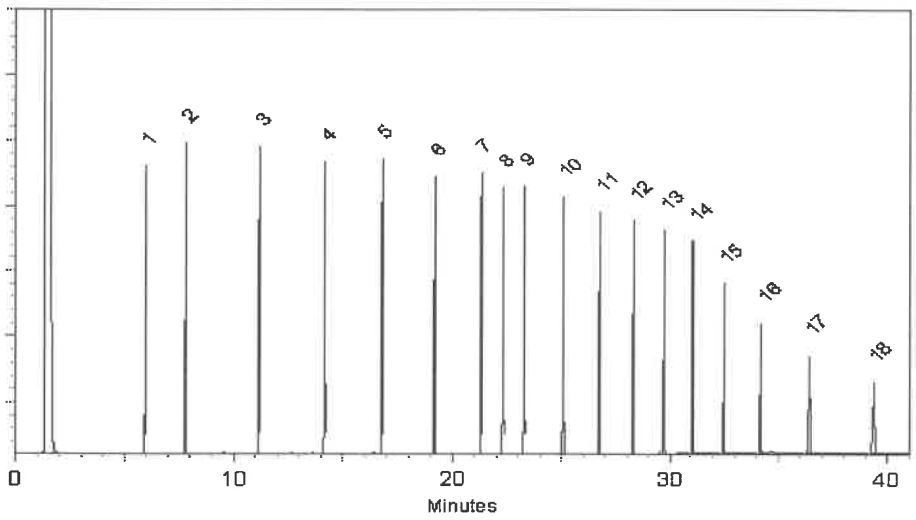
Inj. Temp:
250°C

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.

Brandon Reish - Operations Technician III

Date Mixed: 23-Dec-2024 **Balance Serial #** C322230531

Dillan Murphy - Operations Technician I

Date Passed: 27-Dec-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30543 **Lot No.:** A0220580

P13916 + P13935 } Y.P. 03/06/25

Description : NJEPH Aromatics Matrix Spike Mix

NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,3-Trimethylbenzene	526-73-8	8776.10-39	98%	201.9 µg/mL	+/- 9.0961
2	Naphthalene	91-20-3	STBL1057	99%	200.8 µg/mL	+/- 9.0474
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	RP241029RSR	98%	201.9 µg/mL	+/- 9.0961
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.9 µg/mL	+/- 9.0961
7	Phenanthrene	85-01-8	MKCT3391	99%	200.8 µg/mL	+/- 9.0474
8	Anthracene	120-12-7	MKCW9141	99%	200.4 µg/mL	+/- 9.0294
9	Fluoranthene	206-44-0	MKCQ4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCL8032	99%	201.6 µg/mL	+/- 9.0835
11	Benz(a)anthracene	56-55-3	I220012022BAA	99%	202.0 µg/mL	+/- 9.1015
12	Chrysene	218-01-9	RP240719RSR	99%	202.0 µg/mL	+/- 9.1015
13	Benzo(b)fluoranthene	205-99-2	SBS-BBF-FINAL-2	99%	202.0 µg/mL	+/- 9.1015
14	Benzo(k)fluoranthene	207-08-9	012022K	98%	201.5 µg/mL	+/- 9.0784
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	200.7 µg/mL	+/- 9.0431
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	200.6 µg/mL	+/- 9.0383

17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	201.2	µg/mL	+/- 9.0655
18	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	200.3	µg/mL	+/- 9.0255

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
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:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)

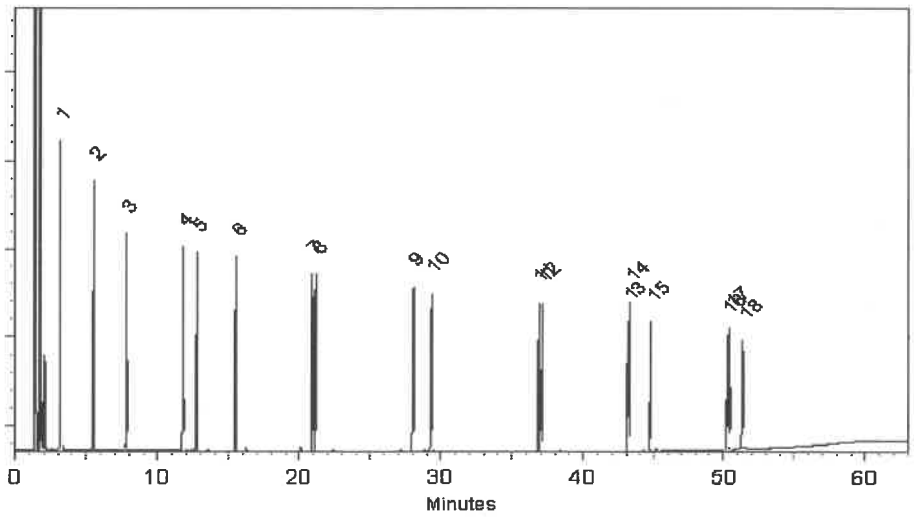
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 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.

Ven Kelley - Operations Tech I

Date Mixed: 30-Dec-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 03-Jan-2025

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30543 **Lot No.:** A0220580

P13916 + P13935 } Y.P. 03/06/25

Description : NJEPH Aromatics Matrix Spike Mix

NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,3-Trimethylbenzene	526-73-8	8776.10-39	98%	201.9 µg/mL	+/- 9.0961
2	Naphthalene	91-20-3	STBL1057	99%	200.8 µg/mL	+/- 9.0474
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	RP241029RSR	98%	201.9 µg/mL	+/- 9.0961
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.9 µg/mL	+/- 9.0961
7	Phenanthrene	85-01-8	MKCT3391	99%	200.8 µg/mL	+/- 9.0474
8	Anthracene	120-12-7	MKCW9141	99%	200.4 µg/mL	+/- 9.0294
9	Fluoranthene	206-44-0	MKCQ4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCL8032	99%	201.6 µg/mL	+/- 9.0835
11	Benz(a)anthracene	56-55-3	I220012022BAA	99%	202.0 µg/mL	+/- 9.1015
12	Chrysene	218-01-9	RP240719RSR	99%	202.0 µg/mL	+/- 9.1015
13	Benzo(b)fluoranthene	205-99-2	SBS-BBF-FINAL-2	99%	202.0 µg/mL	+/- 9.1015
14	Benzo(k)fluoranthene	207-08-9	012022K	98%	201.5 µg/mL	+/- 9.0784
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	200.7 µg/mL	+/- 9.0431
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	200.6 µg/mL	+/- 9.0383

17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	201.2	µg/mL	+/- 9.0655
18	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	200.3	µg/mL	+/- 9.0255

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
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:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)

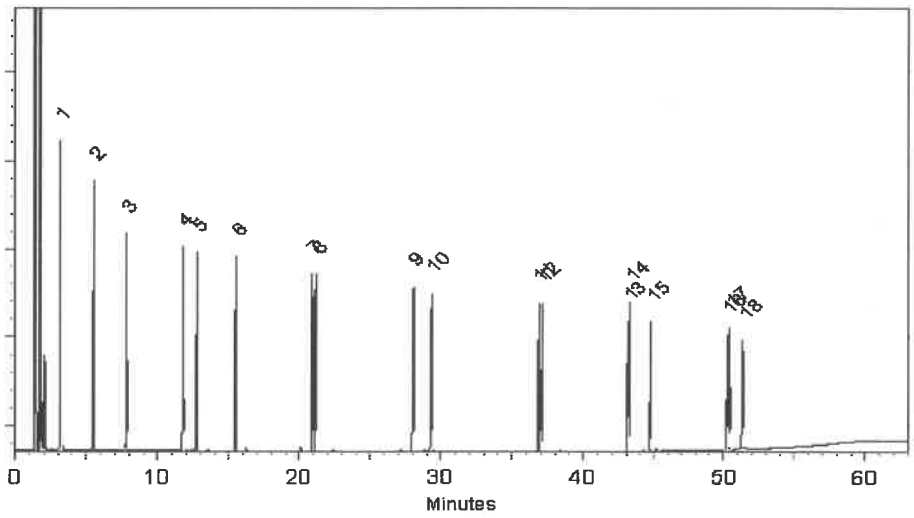
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 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.

Ven Kelley - Operations Tech I

Date Mixed: 30-Dec-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 03-Jan-2025

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30543 **Lot No.:** A0220580

P13916 + P13935 } Y.P. 03/06/25

Description : NJEPH Aromatics Matrix Spike Mix

NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,3-Trimethylbenzene	526-73-8	8776.10-39	98%	201.9 µg/mL	+/- 9.0961
2	Naphthalene	91-20-3	STBL1057	99%	200.8 µg/mL	+/- 9.0474
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	RP241029RSR	98%	201.9 µg/mL	+/- 9.0961
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.9 µg/mL	+/- 9.0961
7	Phenanthrene	85-01-8	MKCT3391	99%	200.8 µg/mL	+/- 9.0474
8	Anthracene	120-12-7	MKCW9141	99%	200.4 µg/mL	+/- 9.0294
9	Fluoranthene	206-44-0	MKCQ4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCL8032	99%	201.6 µg/mL	+/- 9.0835
11	Benz(a)anthracene	56-55-3	I220012022BAA	99%	202.0 µg/mL	+/- 9.1015
12	Chrysene	218-01-9	RP240719RSR	99%	202.0 µg/mL	+/- 9.1015
13	Benzo(b)fluoranthene	205-99-2	SBS-BBF-FINAL-2	99%	202.0 µg/mL	+/- 9.1015
14	Benzo(k)fluoranthene	207-08-9	012022K	98%	201.5 µg/mL	+/- 9.0784
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	200.7 µg/mL	+/- 9.0431
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	200.6 µg/mL	+/- 9.0383

17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	201.2	µg/mL	+/- 9.0655
18	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	200.3	µg/mL	+/- 9.0255

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
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:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)

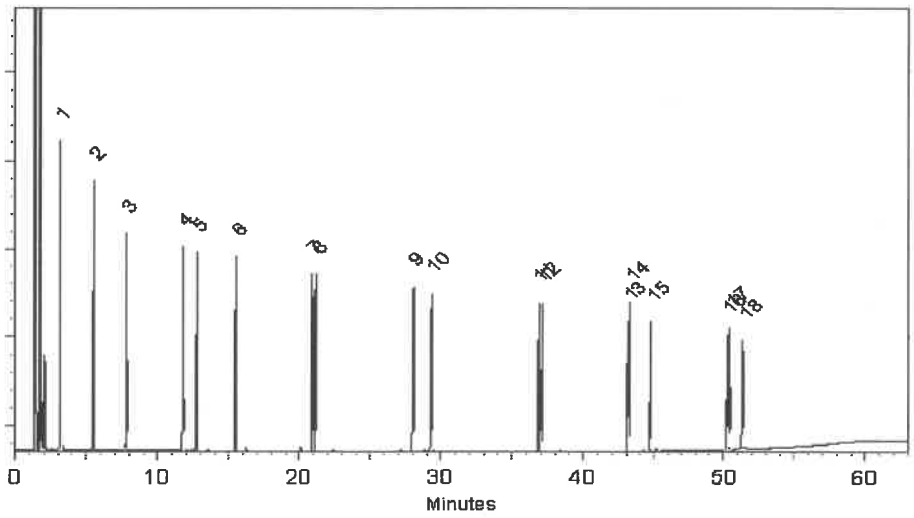
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 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.

Ven Kelley - Operations Tech I

Date Mixed: 30-Dec-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 03-Jan-2025

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30543 **Lot No.:** A0220580

P13916 + P13935 } Y.P. 03/06/25

Description : NJEPH Aromatics Matrix Spike Mix

NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,3-Trimethylbenzene	526-73-8	8776.10-39	98%	201.9 µg/mL	+/- 9.0961
2	Naphthalene	91-20-3	STBL1057	99%	200.8 µg/mL	+/- 9.0474
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	RP241029RSR	98%	201.9 µg/mL	+/- 9.0961
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.9 µg/mL	+/- 9.0961
7	Phenanthrene	85-01-8	MKCT3391	99%	200.8 µg/mL	+/- 9.0474
8	Anthracene	120-12-7	MKCW9141	99%	200.4 µg/mL	+/- 9.0294
9	Fluoranthene	206-44-0	MKCQ4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCL8032	99%	201.6 µg/mL	+/- 9.0835
11	Benz(a)anthracene	56-55-3	I220012022BAA	99%	202.0 µg/mL	+/- 9.1015
12	Chrysene	218-01-9	RP240719RSR	99%	202.0 µg/mL	+/- 9.1015
13	Benzo(b)fluoranthene	205-99-2	SBS-BBF-FINAL-2	99%	202.0 µg/mL	+/- 9.1015
14	Benzo(k)fluoranthene	207-08-9	012022K	98%	201.5 µg/mL	+/- 9.0784
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	200.7 µg/mL	+/- 9.0431
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	200.6 µg/mL	+/- 9.0383

17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	201.2	µg/mL	+/- 9.0655
18	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	200.3	µg/mL	+/- 9.0255

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
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:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)

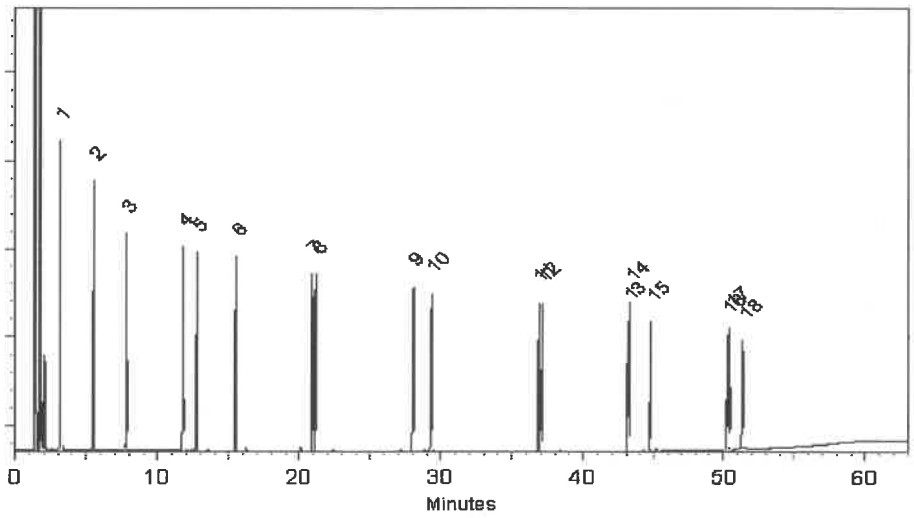
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 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.

Ven Kelley - Operations Tech I

Date Mixed: 30-Dec-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 03-Jan-2025

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30543 **Lot No.:** A0220580

P13916 + P13935 } Y.P. 03/06/25

Description : NJEPH Aromatics Matrix Spike Mix

NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,3-Trimethylbenzene	526-73-8	8776.10-39	98%	201.9 µg/mL	+/- 9.0961
2	Naphthalene	91-20-3	STBL1057	99%	200.8 µg/mL	+/- 9.0474
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	RP241029RSR	98%	201.9 µg/mL	+/- 9.0961
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.9 µg/mL	+/- 9.0961
7	Phenanthrene	85-01-8	MKCT3391	99%	200.8 µg/mL	+/- 9.0474
8	Anthracene	120-12-7	MKCW9141	99%	200.4 µg/mL	+/- 9.0294
9	Fluoranthene	206-44-0	MKCQ4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCL8032	99%	201.6 µg/mL	+/- 9.0835
11	Benz(a)anthracene	56-55-3	I220012022BAA	99%	202.0 µg/mL	+/- 9.1015
12	Chrysene	218-01-9	RP240719RSR	99%	202.0 µg/mL	+/- 9.1015
13	Benzo(b)fluoranthene	205-99-2	SBS-BBF-FINAL-2	99%	202.0 µg/mL	+/- 9.1015
14	Benzo(k)fluoranthene	207-08-9	012022K	98%	201.5 µg/mL	+/- 9.0784
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	200.7 µg/mL	+/- 9.0431
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	200.6 µg/mL	+/- 9.0383

17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	201.2	µg/mL	+/- 9.0655
18	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	200.3	µg/mL	+/- 9.0255

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
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:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)

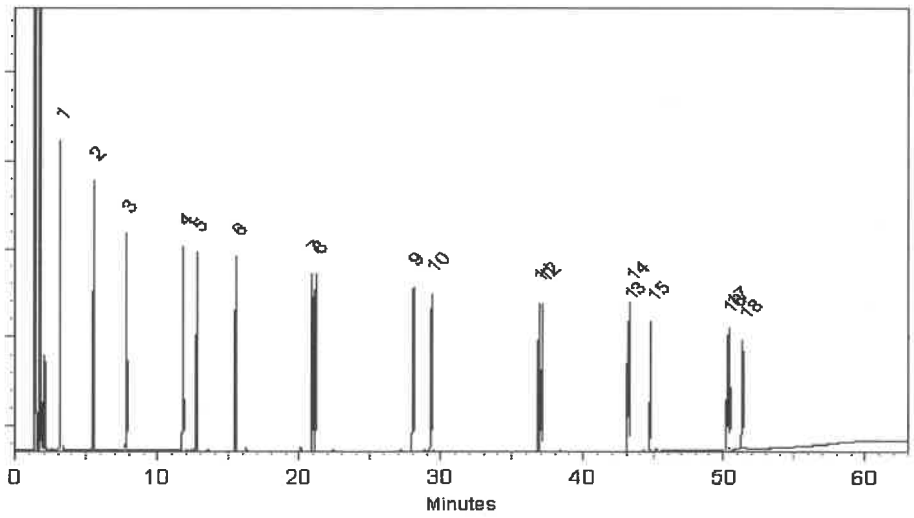
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 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.

Ven Kelley - Operations Tech I

Date Mixed: 30-Dec-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 03-Jan-2025

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30543 **Lot No.:** A0220580

P13916 + P13935 } Y.P. 03/06/25

Description : NJEPH Aromatics Matrix Spike Mix

NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,3-Trimethylbenzene	526-73-8	8776.10-39	98%	201.9 µg/mL	+/- 9.0961
2	Naphthalene	91-20-3	STBL1057	99%	200.8 µg/mL	+/- 9.0474
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	RP241029RSR	98%	201.9 µg/mL	+/- 9.0961
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.9 µg/mL	+/- 9.0961
7	Phenanthrene	85-01-8	MKCT3391	99%	200.8 µg/mL	+/- 9.0474
8	Anthracene	120-12-7	MKCW9141	99%	200.4 µg/mL	+/- 9.0294
9	Fluoranthene	206-44-0	MKCQ4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCL8032	99%	201.6 µg/mL	+/- 9.0835
11	Benz(a)anthracene	56-55-3	I220012022BAA	99%	202.0 µg/mL	+/- 9.1015
12	Chrysene	218-01-9	RP240719RSR	99%	202.0 µg/mL	+/- 9.1015
13	Benzo(b)fluoranthene	205-99-2	SBS-BBF-FINAL-2	99%	202.0 µg/mL	+/- 9.1015
14	Benzo(k)fluoranthene	207-08-9	012022K	98%	201.5 µg/mL	+/- 9.0784
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	200.7 µg/mL	+/- 9.0431
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	200.6 µg/mL	+/- 9.0383

17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	201.2	µg/mL	+/- 9.0655
18	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	200.3	µg/mL	+/- 9.0255

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
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:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)

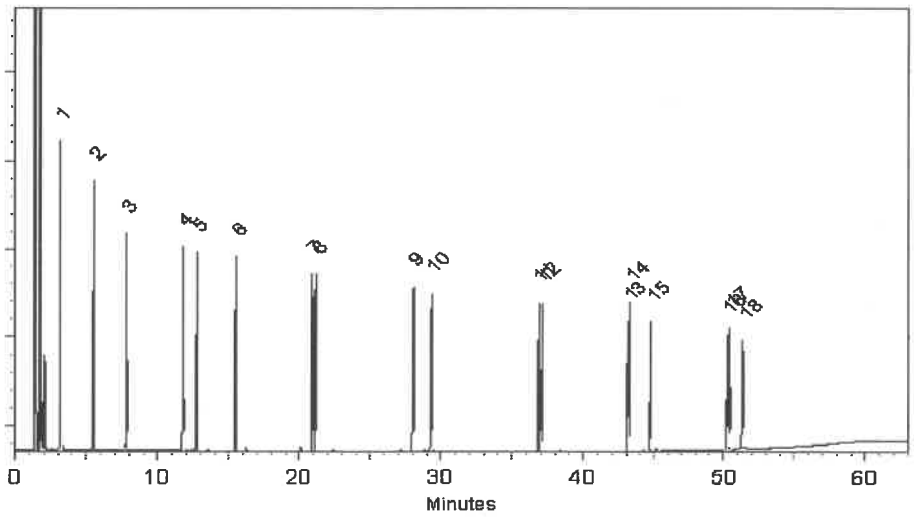
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 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.

Ven Kelley - Operations Tech I

Date Mixed: 30-Dec-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 03-Jan-2025

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30543 **Lot No.:** A0220580

P13916 + P13935 } Y.P. 03/06/25

Description : NJEPH Aromatics Matrix Spike Mix

NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,3-Trimethylbenzene	526-73-8	8776.10-39	98%	201.9 µg/mL	+/- 9.0961
2	Naphthalene	91-20-3	STBL1057	99%	200.8 µg/mL	+/- 9.0474
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	RP241029RSR	98%	201.9 µg/mL	+/- 9.0961
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.9 µg/mL	+/- 9.0961
7	Phenanthrene	85-01-8	MKCT3391	99%	200.8 µg/mL	+/- 9.0474
8	Anthracene	120-12-7	MKCW9141	99%	200.4 µg/mL	+/- 9.0294
9	Fluoranthene	206-44-0	MKCQ4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCL8032	99%	201.6 µg/mL	+/- 9.0835
11	Benz(a)anthracene	56-55-3	I220012022BAA	99%	202.0 µg/mL	+/- 9.1015
12	Chrysene	218-01-9	RP240719RSR	99%	202.0 µg/mL	+/- 9.1015
13	Benzo(b)fluoranthene	205-99-2	SBS-BBF-FINAL-2	99%	202.0 µg/mL	+/- 9.1015
14	Benzo(k)fluoranthene	207-08-9	012022K	98%	201.5 µg/mL	+/- 9.0784
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	200.7 µg/mL	+/- 9.0431
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	200.6 µg/mL	+/- 9.0383

17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	201.2	µg/mL	+/- 9.0655
18	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	200.3	µg/mL	+/- 9.0255

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
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:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)

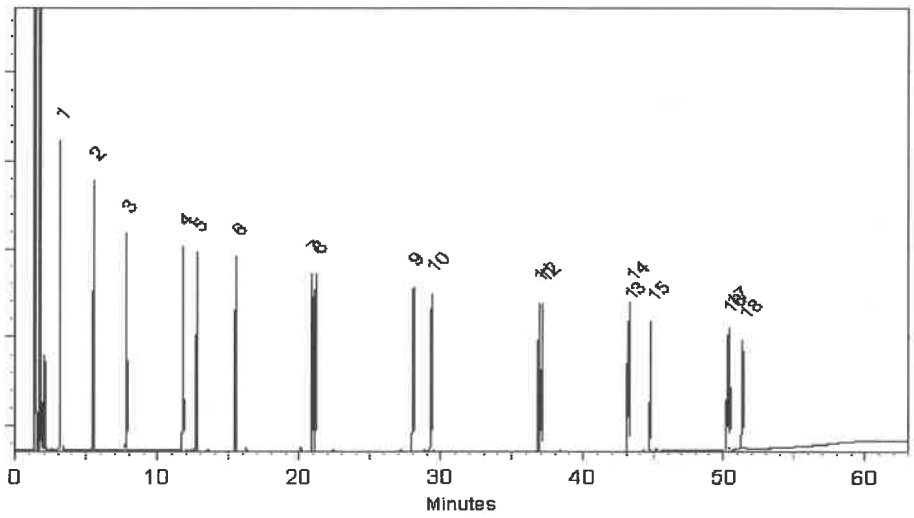
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 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.

Ven Kelley - Operations Tech I

Date Mixed: 30-Dec-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 03-Jan-2025

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30543 **Lot No.:** A0220580

P13916 + P13935 } Y.P. 03/06/25

Description : NJEPH Aromatics Matrix Spike Mix

NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,3-Trimethylbenzene	526-73-8	8776.10-39	98%	201.9 µg/mL	+/- 9.0961
2	Naphthalene	91-20-3	STBL1057	99%	200.8 µg/mL	+/- 9.0474
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	RP241029RSR	98%	201.9 µg/mL	+/- 9.0961
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.9 µg/mL	+/- 9.0961
7	Phenanthrene	85-01-8	MKCT3391	99%	200.8 µg/mL	+/- 9.0474
8	Anthracene	120-12-7	MKCW9141	99%	200.4 µg/mL	+/- 9.0294
9	Fluoranthene	206-44-0	MKCQ4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCL8032	99%	201.6 µg/mL	+/- 9.0835
11	Benz(a)anthracene	56-55-3	I220012022BAA	99%	202.0 µg/mL	+/- 9.1015
12	Chrysene	218-01-9	RP240719RSR	99%	202.0 µg/mL	+/- 9.1015
13	Benzo(b)fluoranthene	205-99-2	SBS-BBF-FINAL-2	99%	202.0 µg/mL	+/- 9.1015
14	Benzo(k)fluoranthene	207-08-9	012022K	98%	201.5 µg/mL	+/- 9.0784
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	200.7 µg/mL	+/- 9.0431
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	200.6 µg/mL	+/- 9.0383

17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	201.2	µg/mL	+/- 9.0655
18	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	200.3	µg/mL	+/- 9.0255

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
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:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)

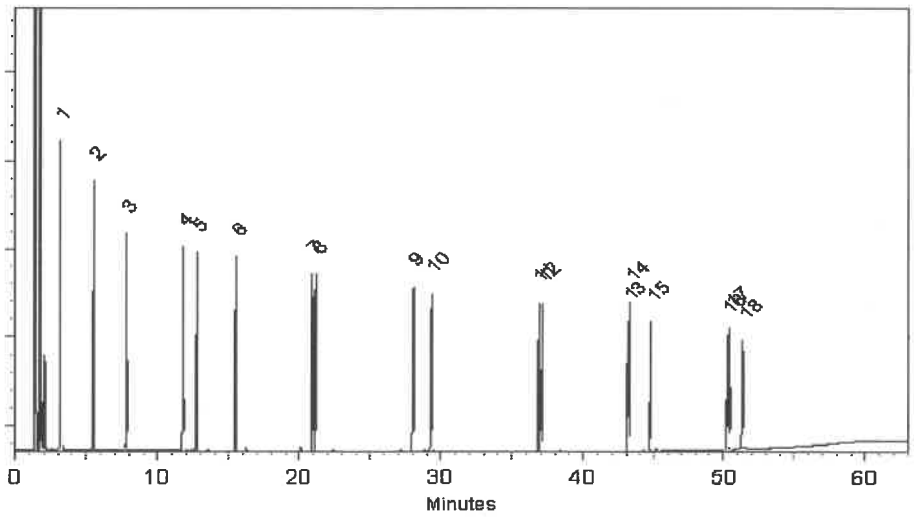
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 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.

Ven Kelley - Operations Tech I

Date Mixed: 30-Dec-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 03-Jan-2025

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

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. : 31480 **Lot No.:** A0219106

P13947
L

Description : MA Fractionation Surrogate Spike Mix

MA Fractionation Surrogate Spike Mix 4000µg/mL, Hexane, 1mL/ampul

P13954

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

Expiration Date : October 31, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorobiphenyl	321-60-8	00021384	99%	4,013.5 µg/mL	+/- 180.7988
2	2-Bromonaphthalene	580-13-2	STBC5362V	99%	4,011.0 µg/mL	+/- 180.6862

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Hexane
CAS # 110-54-3
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.)

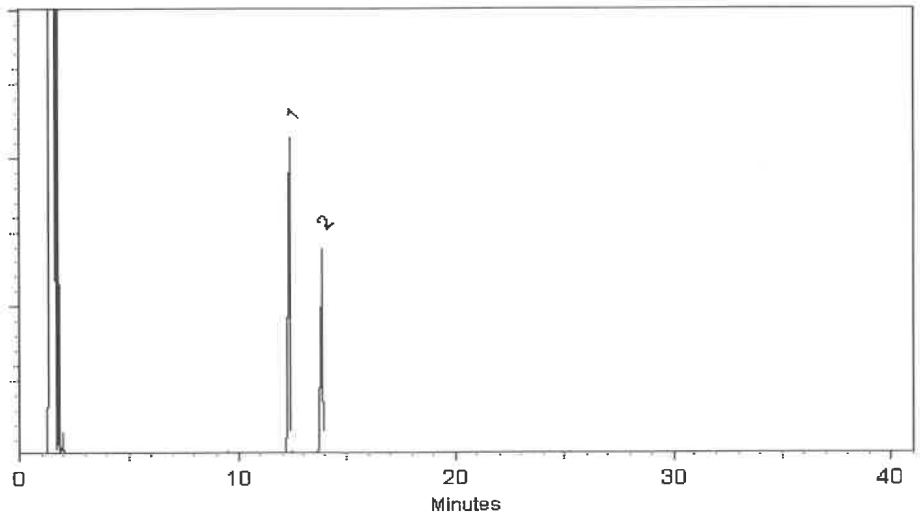
Inj. Temp:
250°C

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.

Wilner Torres - Operation Tech I

Date Mixed: 14-Nov-2024 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 20-Nov-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

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. : 31480 **Lot No.:** A0219106

P13947
L

Description : MA Fractionation Surrogate Spike Mix

MA Fractionation Surrogate Spike Mix 4000µg/mL, Hexane, 1mL/ampul

P13954

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

Expiration Date : October 31, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorobiphenyl	321-60-8	00021384	99%	4,013.5 µg/mL	+/- 180.7988
2	2-Bromonaphthalene	580-13-2	STBC5362V	99%	4,011.0 µg/mL	+/- 180.6862

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Hexane
CAS # 110-54-3
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.)

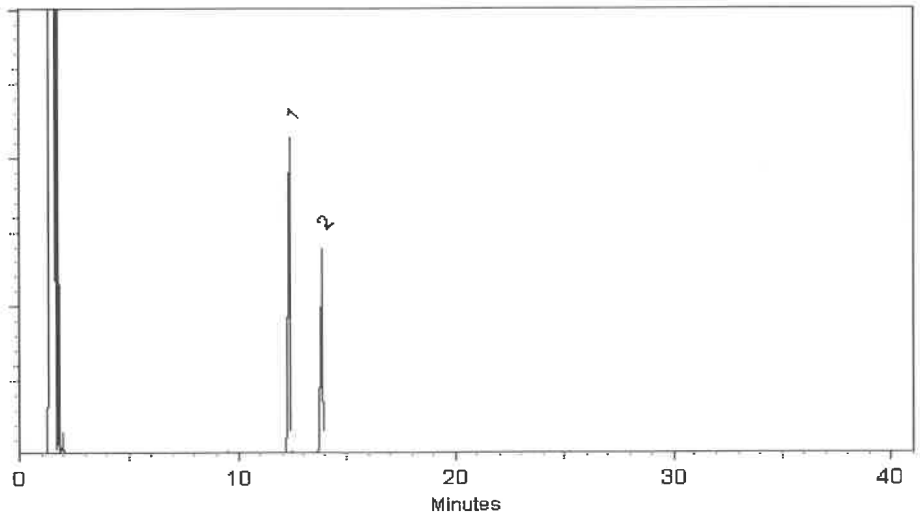
Inj. Temp:
250°C

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.

Wilner Torres - Operation Tech I

Date Mixed: 14-Nov-2024 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 20-Nov-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

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. : 31480 **Lot No.:** A0219106

P13947
L

Description : MA Fractionation Surrogate Spike Mix

MA Fractionation Surrogate Spike Mix 4000µg/mL, Hexane, 1mL/ampul

P13954

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

Expiration Date : October 31, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorobiphenyl	321-60-8	00021384	99%	4,013.5 µg/mL	+/- 180.7988
2	2-Bromonaphthalene	580-13-2	STBC5362V	99%	4,011.0 µg/mL	+/- 180.6862

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Hexane
CAS # 110-54-3
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.)

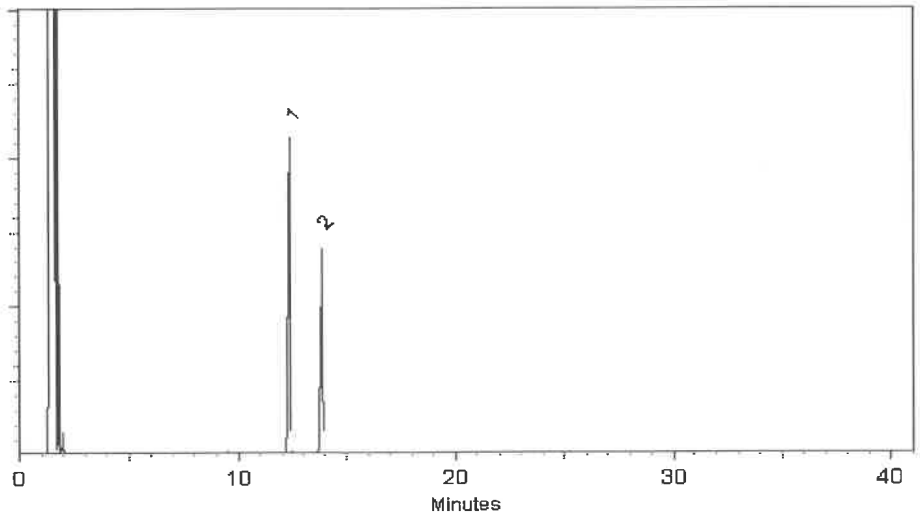
Inj. Temp:
250°C

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.

Wilner Torres - Operation Tech I

Date Mixed: 14-Nov-2024 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 20-Nov-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

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. : 31480 **Lot No.:** A0219106

P13947
L

Description : MA Fractionation Surrogate Spike Mix

MA Fractionation Surrogate Spike Mix 4000µg/mL, Hexane, 1mL/ampul

P13954

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

Expiration Date : October 31, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorobiphenyl	321-60-8	00021384	99%	4,013.5 µg/mL	+/- 180.7988
2	2-Bromonaphthalene	580-13-2	STBC5362V	99%	4,011.0 µg/mL	+/- 180.6862

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Hexane
CAS # 110-54-3
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.)

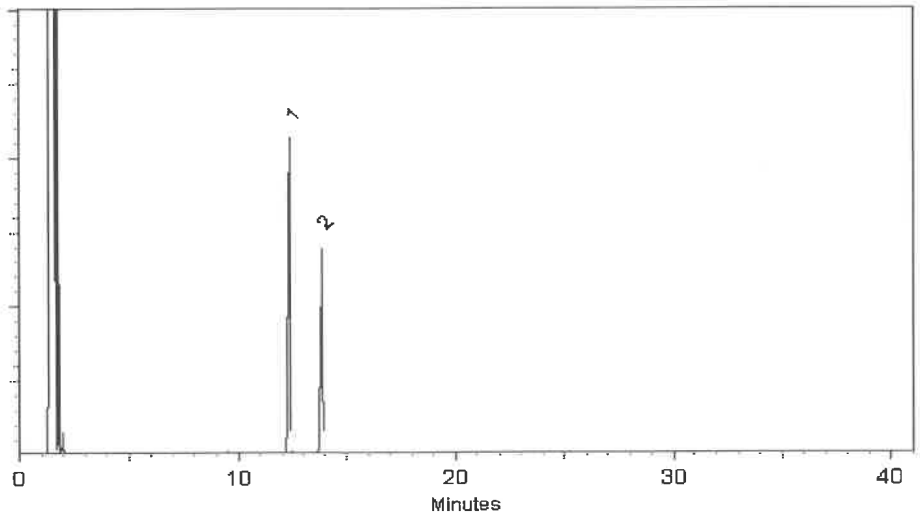
Inj. Temp:
250°C

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.

Wilner Torres - Operation Tech I

Date Mixed: 14-Nov-2024 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 20-Nov-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

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. : 31480 **Lot No.:** A0219106

P13947
L

Description : MA Fractionation Surrogate Spike Mix

MA Fractionation Surrogate Spike Mix 4000µg/mL, Hexane, 1mL/ampul

P13954

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

Expiration Date : October 31, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorobiphenyl	321-60-8	00021384	99%	4,013.5 µg/mL	+/- 180.7988
2	2-Bromonaphthalene	580-13-2	STBC5362V	99%	4,011.0 µg/mL	+/- 180.6862

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Hexane
CAS # 110-54-3
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.)

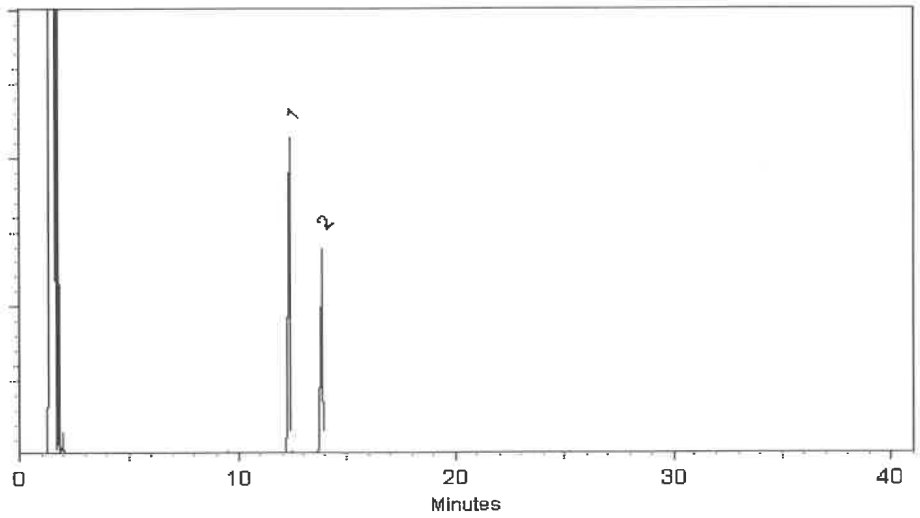
Inj. Temp:
250°C

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.

Wilner Torres - Operation Tech I

Date Mixed: 14-Nov-2024 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 20-Nov-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

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. : 31480 **Lot No.:** A0219106

P13947
L

Description : MA Fractionation Surrogate Spike Mix

MA Fractionation Surrogate Spike Mix 4000µg/mL, Hexane, 1mL/ampul

P13954

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

Expiration Date : October 31, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorobiphenyl	321-60-8	00021384	99%	4,013.5 µg/mL	+/- 180.7988
2	2-Bromonaphthalene	580-13-2	STBC5362V	99%	4,011.0 µg/mL	+/- 180.6862

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Hexane
CAS # 110-54-3
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.)

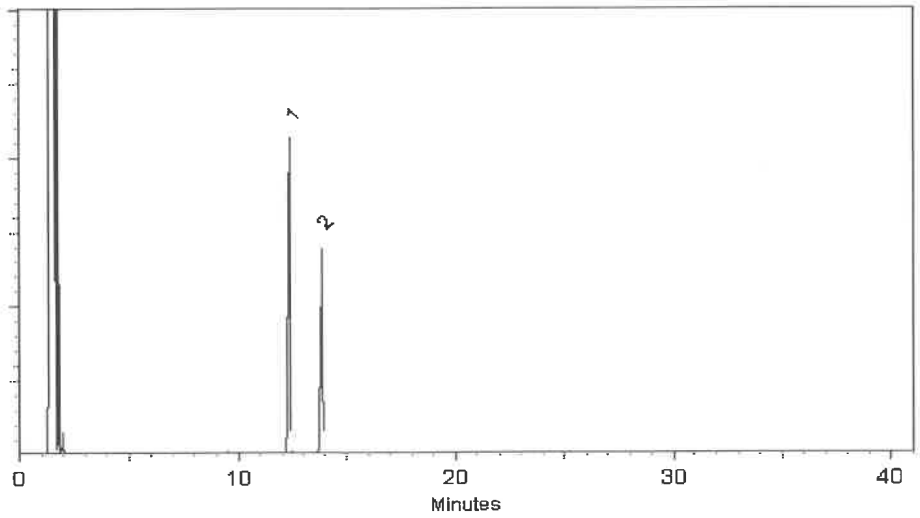
Inj. Temp:
250°C

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.

Wilner Torres - Operation Tech I

Date Mixed: 14-Nov-2024 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 20-Nov-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

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. : 31480 **Lot No.:** A0219106

P13947
L

Description : MA Fractionation Surrogate Spike Mix

MA Fractionation Surrogate Spike Mix 4000µg/mL, Hexane, 1mL/ampul

P13954

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

Expiration Date : October 31, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorobiphenyl	321-60-8	00021384	99%	4,013.5 µg/mL	+/- 180.7988
2	2-Bromonaphthalene	580-13-2	STBC5362V	99%	4,011.0 µg/mL	+/- 180.6862

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Hexane
CAS # 110-54-3
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.)

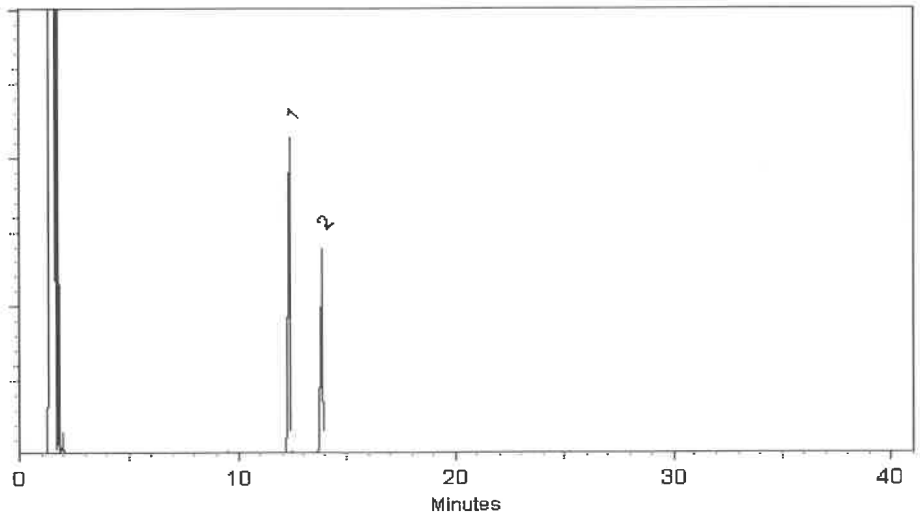
Inj. Temp:
250°C

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.

Wilner Torres - Operation Tech I

Date Mixed: 14-Nov-2024 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 20-Nov-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31480 **Lot No.:** A0221895

Description : MA Fractionation Surrogate Spike Mix

MA Fractionation Surrogate Spike Mix 4000µg/mL, Hexane, 1mL/ampul

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

Expiration Date : January 31, 2031 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

P13955
↓
P13966.

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorobiphenyl	321-60-8	00021384	99%	4,032.5 µg/mL	+/- 181.6547
2	2-Bromonaphthalene	580-13-2	STBC5362V	99%	4,033.0 µg/mL	+/- 181.6772

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Hexane
CAS # 110-54-3
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.)

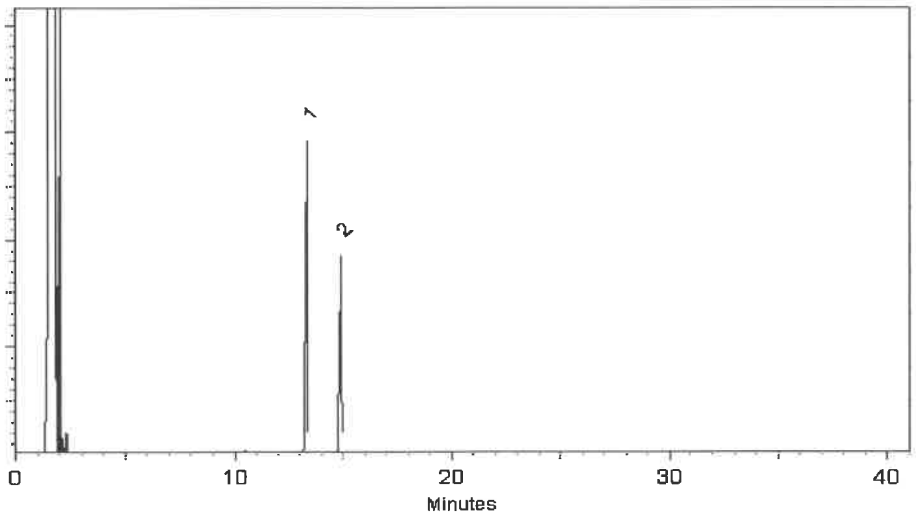
Inj. Temp:
250°C

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.

Ven Kelley - Operations Tech I

Date Mixed: 04-Feb-2025 **Balance Serial #** 1128360905

Dillan Murphy - Operations Technician I

Date Passed: 12-Feb-2025

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

n-Hexane 95%
ULTRA RESI-ANALYZED
For Organic Residue Analysis

avantor™ | J.T.Baker®

W3147

W3147 update. 02/03/2025 JP

Material No.: 9262-03
Batch No.: 24G1962003
Manufactured Date: 2024-05-23
Expiration Date: 2025-08-22
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	1
ECD-Sensitive Impurities (as Ethylene Dibromide) - Single Impurity Peak (ng/mL)	≤ 5	1
Assay (Total Saturated C_6 Isomers) (by GC, corrected for water)	≥ 99.5 %	99.7 %
Assay (as n-Hexane) (by GC, corrected for water)	≥ 95 %	98 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.1 ppm
Substances Darkened by H_2SO_4	Passes Test	Passes Test
Water (by KF, coulometric)	≤ 0.05 %	< 0.01 %

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

JCroak

Jamie Croak
Director Quality Operations, Bioscience Production



SHIPPING DOCUMENTS

Alliance TECHNICAL GROUP

25-27
30-32

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 · Fax (908) 789-8922
www.chemtech.net

ALLIANCE PROJECT NO.
QUOTE NO. Q1901
COC Number 2046751

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Gannett Fleming
ADDRESS: 1010 Adams Ave
CITY Audubon STATE: PA ZIP: 19403
ATTENTION: Joe Krupsky
PHONE: 610-301-8342 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Amtrak replacement of SB
PROJECT NO.: 95000878 LOCATION: Kearny NJ
PROJECT MANAGER: Joe Krupsky
e-mail: JaQuC@RamSys.com
PHONE: 610-310-8342 FAX:

CLIENT BILLING INFORMATION

BILL TO: Alliance PO#:
ADDRESS: 284 Sheffield
CITY Mountainside STATE: NJ ZIP: 07092
ATTENTION: Samantha Beasley PHONE: 908-728-3488

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): 10 DAYS*
EDD: 10 DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

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 + Raw Data) ☐ NYS ASP A ☐ NYS ASP B ☐ Other
☐ EDD FORMAT Bem EDD

ANALYSIS

1: TCL-VOLATILES
2: PLABS
3: CrVI (soil)
4: TCL-SVOCs BNA
5: TAL Metals
6: EPH
7: TCLP (Liq)
8: RCRA (Liq)
9:

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1.	B-170-SB00	S		X	4/26/25	900	4	X									
2.	B-167-SB01	S		X		1000	7	X	X	X	X		X	X	X	X	
3.	B-170-SB01	S		X		1015	7	X	X	X	X		X	X	X	X	
4.	B-167-SB02	S		X		1030	8	X	X	X	X		X	X	X	X	
5.	B-170-SB02	S		X		1145	7	X	X	X	X		X	X	X	X	
6.	FB042625	DI W				1215	11	X	X	X	X	X	X	X	X	X	pH 1-3
7.	TB042625	DIW				NA	2	X									
8.																	
9.																	
10.																	

PRESERVATIVES: ← Specify Preservatives — A-HCl D-NaOH B-HN03 E-ICE C-H2SO4 F-OTHER

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

	DATE/TIME	RECEIVED BY:
1. RELINQUISHED BY SAMPLER:	4/26/25 1315	1. 4-28-25 0700
2. RELINQUISHED BY SAMPLER:	DATE/TIME:	2. RECEIVED BY:
3. RELINQUISHED BY SAMPLER:	DATE/TIME:	3. RECEIVED BY:

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 3.0 °C
Comments: Trip Blank # ("Adjust Factor + 1"

Page _____ of

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete ☐ YES ☐ NO

Copyright © 2024

WHITE - ALLIANCE COPY FOR RETURN TO CLIENT YELLOW - ALLIANCE COPY PINK - SAMPLER COPY

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

QA Control Code: A2070148

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1901 PORT06
Client Name : Portal Partners Tri-Venture
Client Contact : Joseph Krupansky
Invoice Name : Portal Partners Tri-Venture
Invoice Contact : Joseph Krupansky

Order Date : 4/28/2025 10:24:00 AM
Project Name : Amtrak Sawtooth Bridges 2
Receive DateTime : 4/28/2025 7:00:00 AM
Purchase Order :

Project Mgr :
Report Type : NJ Reduced
EDD Type : EXCEL NJCLEANUP
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1901-01	B-170-SB00	Solid	04/26/2025	09:00					
					VOC-TCLVOA-10		8260D		10 Bus. Days
Q1901-02	B-167-SB01	Solid	04/26/2025	10:00					
					VOC-TCLVOA-10		8260D		10 Bus. Days
Q1901-03	B-170-SB01	Solid	04/26/2025	10:15					
					VOC-TCLVOA-10		8260D		10 Bus. Days
Q1901-04	B-167-SB02	Solid	04/26/2025	10:30					
					VOC-TCLVOA-10		8260D		10 Bus. Days
Q1901-05	B-170-SB02	Solid	04/26/2025	11:45					
					VOC-TCLVOA-10		8260D		10 Bus. Days
Q1901-06	FB04262025	Water	04/26/2025	12:15					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q1901-07	TB04262025	Water	04/26/2025	00:00					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1901 PORT06
Client Name : Portal Partners Tri-Venture
Client Contact : Joseph Krupansky
Invoice Name : Portal Partners Tri-Venture
Invoice Contact : Joseph Krupansky

Order Date : 4/28/2025 10:24:00 AM
Project Name : Amtrak Sawtooth Bridges 2
Receive DateTime : 4/28/2025 7:00:00 AM
Purchase Order :

Project Mgr :
Report Type : NJ Reduced
EDD Type : EXCEL NJCLEANUP
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES

Relinguished By : CP
Date / Time : 4/28/25 11:45

Received By : JC
Date / Time : 4/28/25 1145

Storage Area : VOA Refridgerator Room